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Boston Children's Hospital
2022 Community Health Needs Assessment Report

Submitted to:

Boston Children's Hospital

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Health Resources in Action

Advancing Public Health and Medical Research

Boston Children's Hospital
2022 Community Health Needs Assessment

Table of Contents

EXECUTIVE SUMMARY

BACKGROUND

Boston Children's Hospital's community mission is to improve the health and well-being of children and families in the local community. In 2022, Boston Children's conducted its triennial community health needs assessment (CHNA) to identify health-related needs, strengths, and resources among Boston residents—including among children and families in its priority communities of Dorchester, Fenway, Jamaica Plain, Mattapan, Mission Hill, and Roxbury—as well as those living in communities served by its satellite clinics located in Brookline, Lexington, North Dartmouth, Peabody, Waltham, and Weymouth.

Boston Children's 2022 assessment coincides with and uses data from the 2022 Boston Community Health Needs Assessment (Boston CHNA). The Boston CHNA was led by the Boston CHNA-CHIP Collaborative, a group of Boston health centers, community-based organizations, community residents, hospitals, and the Boston Public Health Commission. Boston Children's Hospital was part of the planning and development of the Boston CHNA-CHIP Collaborative in 2017-2018, and has co-chaired the Communications Committee (2019-2020) and the Access Priority Area workgroup (2021-22). This 2022 Boston Children's CHNA report presents findings from data collection conducted for the Boston Children's CHNA and also integrates the key results of the larger citywide Boston CHNA process to provide a deeper perspective on the needs of Boston's children and their families.

APPROACH AND METHODS

This report focuses on the social determinants of health and is guided by a health equity lens[1]. It should be noted that this 2022 CHNA report was conducted during an unprecedented time, including the COVID-19 pandemic and a reckoning with systemic racism. To identify priority community health issues as well as strengths and suggestions for future services and initiatives, the CHNA process drew on multiple data sources and engaged the Boston Children's Community Advisory Board to provide input.

Existing secondary data were reviewed from national, state, and city sources, including datasets such as the American Community Survey, the Boston Behavioral Risk Factor Surveillance System (BBRFSS), the BBRFSS COVID-19 Health Equity Survey, the Youth Risk Behavior Survey, and vital statistics (birth/death records), among other sources. Boston Children's patient encounter data were also reviewed.

For **new primary data collection**, as part of the Boston CHNA process, key informant interviews were conducted with 62 leaders across sectors (including 8 interviews conducted by Boston Children's) and 29 focus groups were facilitated with residents including 6 focus groups with families and parents and 8 focus groups with youth. To understand experiences and needs of those served by Boston Children's satellite clinics outside Boston, 9 interviews were conducted with community representatives from public health, health care, housing and homelessness, government, and social services sectors in Brookline, Lexington, North Dartmouth / New Bedford, and Peabody. Boston Children's also conducted a Community Health Survey, completed by 157 respondents and aligned with a similar Mass General Brigham survey, to inform the prioritization of needs.

A **related Boston Children's report**, the 2022 Boston Children's Hospital Route 128 Determination of Need (DoN) Community Health Needs Assessment (CHNA), was also referenced to include learnings from the Satellite and surrounding communities of Brockton, Framingham, Needham, Quincy, Randolph,

[1] World Health Organization, Commission on the Social Determinants of Health, Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health, 2005.

Waltham, and Weymouth. This DoN CHNA utilized a robust community engagement process including: 20 key informant interviews, 6 Advisory Committee meetings, 2 community meetings, 8 focus groups, and a youth forum.

The following summary provides a brief overview of key findings that emerged from the 2022 Boston Children's CHNA process.

COMMUNITY ASSETS AND STRENGTHS

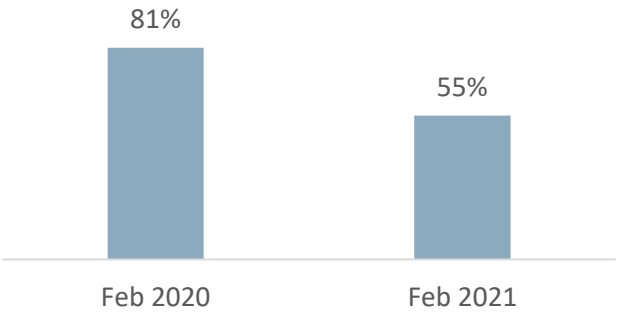
- Residents described their communities as deeply connected, resilient, and supportive, and specifically highlighted the strengths of young people.
- Boston-based focus group participants and key informants discussed a breadth of community-based institutions and services, including those focused on early childhood, youth, young men of color, food security, housing, mental health, health care, and the LGBTQIA+ population.
- Assessment participants from satellite communities echoed a strong sense of community and described the existence of social services and organizations that support families and children (such as health facilities, churches, and museums) as community strengths. Education, in particular strong schools, was also cited as an asset in some communities.

> *"The young people themselves are the strengths, who every day are trying the best they can to make it through difficult situations… Resilient, talented young people"*
> - Interviewee

COMMUNITY SOCIAL, ECONOMIC, AND PHYSICAL CONTEXT

- **Population Overview:** Boston's population is incredibly diverse in terms of race and ethnicity, country of birth, and language use. According to Census estimates, approximately 3 in 5 (60.0%) Boston residents identify as people of color. Key informants and focus group participants noted many languages spoken among residents, including Cantonese, Mandarin, Russian, Spanish, Haitian Creole, Cape Verdean Creole, and indigenous languages. About 1 in 5 Boston residents are 19 years old or younger. Charlestown (8.8%), Jamaica Plain (7.3%), and Mattapan (6.9%) have the highest proportion of children under 5 years old. The proportion of school-aged children (between the ages of 5 and 17) in Boston has declined over time.
- **Education:** Education is an important issue to Boston families and a critical factor affecting health. Assessment participants discussed how many children struggle in school, especially during the pandemic. In a survey during the pandemic, nearly 15% of Boston adults with children reported that they had unmet educational needs for children or teens during the COVID-19 pandemic.
- **Early Childhood Services:** In focus groups and interviews, early childhood and childcare services emerged as a growing need exacerbated by the pandemic. Between December 2017 and March 2021, there was an 11.3% decrease in the number of available childcare seats for children 0-5 years old across Boston. Between February 2020 and February 2021, the percent of eligible children referred to Early Intervention Services who

Percent Eligible Children Accessing Early Intervention Services, 2020-2021

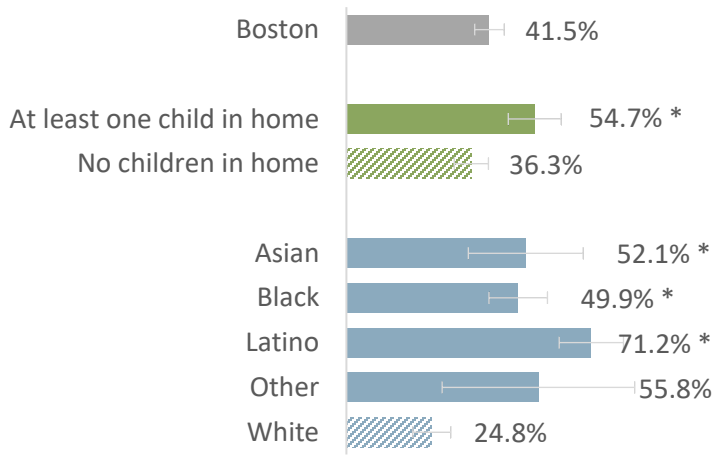


DATA SOURCE: Boston Opportunity Agenda Analysis, 2021

actually received services decreased from 81% to 55%.

- **Employment and Workforce:** Jobs that pay well make it easier for families to afford childcare, high quality education, health care, and healthy food. However, interview and focus group participants described significant job loss linked with the pandemic and noted that finding and securing stable jobs is more difficult for residents of color, immigrants, people with disabilities, and residents with a criminal record. According to the Bureau of Labor Statistics, the Boston metro area's unemployment rate was 16.0% during the early stages of the pandemic in April 2020 and dropped to 3.7% nearly two years later in February 2022.
- **Income and Financial Security:** Community leaders and residents described financial stability as critical for health and shared that low-wage work and minimum wage is insufficient for many families to survive in Boston. Participants noted that the pandemic has worsened poverty for low-income residents across Boston. While 12.8% of families in Boston live below the poverty level, there are stark differences by race and ethnicity; for example, 3.2% of white families compared to 24.6% of Hispanic or Latino families are living below the poverty level.
- **Housing and Homelessness:** Interview and focus group participants cited housing affordability as a dominant concern that has been exacerbated by the pandemic and that directly impacts children. In the COVID-19 Health Equity Survey, 41.5% of adults overall and 54.7% of adults with at least one child in the home reported having trouble paying their rent or mortgage during the pandemic. Boston Children's Hospital Emergency Department Social Work records show a substantial increase in the annual number of families needing social work assistance with housing or homelessness from 51 families in 2014 to 411 families in 2021. Community leaders and residents described housing assistance as insufficient to meet the needs of low-income residents and families. Additionally, housing quality and in particular exposure to lead and asthma triggers were highlighted by a few interviewees as specific concerns for children and families.

Percent Adults Reporting Having Trouble Paying Their Rent or Mortgage During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



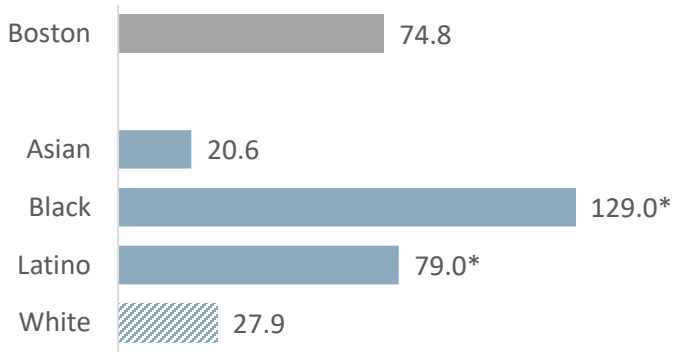
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021

- **Transportation:** Boston-based participants discussed transportation in the context of accessing services. Reports of transportation difficulties in the past year were highest among residents of Dorchester (02121 and 02125 zip codes; 20.4%), Mattapan (17.2%), and South Boston (16.2%). Many participants from satellite communities noted that public transportation options are often unreliable and cumbersome, and that transportation poses a challenge for coordinating school, childcare, and medical care for children.

COMMUNITY HEALTH ISSUES

- **Obesity and Related Risk Factors Including Food Security:** Concerns related to obesity and diabetes were frequently raised during interviews and focus group discussions. While the percentage of high school students who are considered obese or overweight has stayed relatively stable, inequities remain. For example, in 2019, about 1 in 5 (19.1%) Boston Public High School students were overweight; this rate was higher among Black (17.2%) and Hispanic/Latinx (24.3%) students. Barriers to accessing healthy, affordable food emerged as a priority issue for families, which worsened during the pandemic and by the rising cost of food. According to the COVID-19 Health Equity Survey, food insecurity is greatest among residents of color and adults with children at home (36.5% of respondents with at least one child at home reported during the pandemic that the food they purchased did not last and they did not have money to get more).
- **Asthma:** In 2020, among Boston children under 18, the rate of asthma hospital patient encounters per 10,000 residents was significantly higher among Black (129.0) and Latino (79.0) patients compared to White patients (27.9). Several interviewees shared concerns related to pediatric asthma prevention and control, particularly given the high cost of medications and refills, and the need for education around asthma management.

Asthma Hospital Patient Encounters (Children Under 18 Years), by Boston and Selected Indicators, Age-Adjusted Rate per 10,000 Residents, 2020



DATA SOURCE: Massachusetts Center for Health Information and Analysis, Acute Hospital Case Mix Databases, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Hospital patient encounters (HPEs) include both emergency department visits and hospitalizations

- **Mental and Behavioral Health:** Mental health was a key issue pre-pandemic and the impact of the pandemic only heightened that concern, particularly for children, youth, and caregivers. Many interviewees stated that they have witnessed an increase in mental health issues among children and families due to the COVID-19 pandemic; impacts of the pandemic on children and youth described by participants included the disruption of their routines and trauma, despair, adverse childhood experiences, overcrowded housing, and addiction. Initial results from the 2021 Boston High School and Boston Middle School Youth Risk Behavior Survey (YRBS) indicate that the percentage of students reporting persistent sadness has increased from 27.0% (2019) to 35.6% (2021) among Boston middle school students and from 35.0% (2019) to 43.9% (2021) among Boston high school students. Notably, 29.2% of LGBTQIA+ Boston YRBS high school student respondents reported having had suicidal thoughts in 2015-2019, compared to 13.9% of students overall. Participants discussed several barriers to accessing mental health care, including a limited number of mental health providers in community and school settings, financial barriers, a lack of culturally appropriate and linguistically congruent care, and stigma surrounding mental health care. Substance use was less commonly

> *"Everything is so interwoven. [There are] a lot of young people with significant depression and anxiety, but [we're] also talking about a lot of PTSD, implications related to trauma, poverty, and neglect."*
> - Key informant

discussed in recent focus groups and interviews; concerns that did emerge included misuse of drugs, overusing prescriptions and over-the-counter medicines, and smoking nicotine and marijuana, particularly among LGBTQIA+ residents and youth.

- **Violence and Trauma:** The mental health of caregivers is one of many potential sources of childhood trauma. About 18.0% of Boston residents report having lived with a caregiver with mental illness as a child. Neighborhood safety concerns were also a discussion topic among focus group and interview participants, and the impact of community violence on youth was noted. Data from the 2019 Boston High School Youth Risk Behavior Survey indicate that approximately one in ten Boston high school students (11.2%) reported being bullied on school property in the past year.

> *"…young people are absolutely impacted by community violence. A lot of it is cyclical – hurt people hurt others."*
> - Key informant

- **Birth Outcomes:** In 2019, low birth weight and preterm births were significantly higher among Black (12.9% and 12.8%, respectively) and Latino (9.4% and 10.2%, respectively) mothers in Boston compared to White mothers (6.4% and 7.8%, respectively). Combined 2017-2019 data show that in Boston the infant mortality rate is significantly higher among Black and Latino births compared to White births.
- **Sexual Health:** According to 2019 YRBS results, 37.6% of Boston Public High School students reported ever having sex. About half (51.8%) of students who identified as LGBTQ had ever had sex, which was significantly higher than students who identified as heterosexual/non-transgender (36.0%). According to an analysis from the BPS Office of Health and Wellness, sexual risk behaviors among high school students have decreased over time.
- **Overall Mortality and COVID-19:** COVID-19 was the leading cause of death for Black, Latino, and Asian residents in Boston in 2020. Between January 2020 to November 2021, more than 2,097 children under 18 in Massachusetts lost a parent or in-home caregiver to COVID-19; these children and families may be experiencing grief and trauma.

ACCESS TO CARE AND SOCIAL SERVICES

- **Accessing Health Care Services:** Access to health care services remains a concern for families, particularly those with limited resources. Barriers to accessing health care include: income, health insurance, language barriers, and limited culturally relevant care. Persistent barriers to accessing pediatric healthcare services, including high costs of care and long wait times, were a cross-cutting theme in conversations with organizational stakeholders and providers from satellite communities.
- **Accessing Youth-centered Programming and Other Social Services:** Boston Children's interviewees shared the perception that extracurricular and afterschool programming for youth is limited and, for some families, unaffordable. Participants noted that the pandemic has increased isolation and made it harder to engage youth, and also noted a lack of funding for the youth development workforce. Relative to other social services, residents and community leaders discussed rising and acute social and economic needs among a growing segment of low-income residents and significant barriers to accessing services, such as: transportation, difficulty navigating application processes, limited Internet, and lack of eligibility due to immigration status. Several participants also discussed systemic racism, racial injustice, and discrimination.

> *"…you have to pay for whatever sport or extracurricular your child is getting into, people can't afford it because it's expensive."*
> - Key informant

COMMUNITY'S VISION AND COMMUNITY SUGGESTIONS FOR THE FUTURE

Participants in interview and focus group discussions for the Boston CHNA were asked for their suggestions to address identified needs. These included:

- Promote Child and Youth Development
- Improve Access to and Quality of Behavioral Health Care
- Strengthen Health Care Policies and Improve Health Care Access and Quality
- Create Opportunities that Foster Economic Stability and Mobility
- Improve Housing Affordability
- Create a Healthier Environment
- Focus on Dismantling Systemic Racism
- Deepen Partnerships with Local Communities and Collaborate to Promote Health Equity

Additionally, participants in the Boston Children's Route 128 DoN CHNA provided suggestions for future strategies to address needs related to four child health priorities: Early Childhood Education and Care; Mental Health and Wellbeing; Housing and Transportation; and Food Access and Obesity.

KEY THEMES

Several overarching themes and conclusions emerged from this synthesis:

- **Boston is a diverse city with many community strengths and a breadth of community-based institutions and services.** Boston's population is incredibly diverse in terms of race and ethnicity, country of birth, and language use. About 1 in 5 Boston residents are younger than 19 years old.
- **Boston families are grappling with a high cost of living; the COVID-19 pandemic has worsened income inequalities and the level and severity of poverty for low-income residents across Boston.** Over 4 in 10 Boston adults (43.7%) and almost 3 in 5 residents (57.1%) with at least one child in the home reported that they had experienced a loss of income during the COVID-19 pandemic. During interviews and focus groups, residents described the cost of living as high and rising. Several residents also noted the difficulty of finding secure and stable jobs, particularly for residents of color and immigrants.
- **A need for more affordable, high-quality, and stable housing for families remains and has increased due to the pandemic.** Housing instability, the stress of unaffordable housing costs, and poor housing quality increase the risk of adverse health outcomes for children and families. More than 4 in 10 (41.5%) residents and over half (54.7%) of residents with at least one child in the home reported that they have had trouble paying their rent or mortgage during the COVID-19 pandemic.
- **Access to early childhood services is a problematic barrier for families to achieve health and economic stability.** Affordable, quality childcare was difficult to find before the pandemic, but assessment participants noted that finding care for young children was even more challenging during the pandemic. Between December 2017 and March 2021, there was an 11.3% decrease in the number of available childcare seats for children 0-5 years old across Boston.
- **Mental and behavioral health needs, including for youth, remain high and have been exacerbated by the pandemic.** Pre-pandemic (in 2019), 35.0% of high school students in Boston reported feeling sad or hopeless almost every day for more than two weeks in a row; initial results from the 2021 Youth Risk Behavior Survey indicate that the percentage has risen to 43.9%. Assessment participants described a need for culturally appropriate and linguistically congruent mental health care and additional mental health providers in school and community settings.

- **Chronic disease, including asthma and obesity, remain a concern for children and families; food insecurity has increased due to the pandemic.** While the percentage of high school students who are considered obese or overweight has stayed relatively stable, inequities by race and ethnicity remain, and assessment participants continued to describe childhood obesity concerns. Food insecurity, namely barriers to accessing healthy, affordable food, emerged as a key priority issue across many interviews and focus groups. Several interviewees also shared concerns related to asthma prevention and control; quantitative data show that asthma inequities remain.
- **While birth outcomes have stayed relatively stable since Boston Children's 2019 CHNA, inequities remain.** In 2019, low birth weight and preterm births were significantly higher among Black and Latino mothers compared to White mothers in Boston. Additionally, combined 2017-2019 data show that the infant mortality rate is significantly higher among Black and Latino births compared to White births.
- **Boston has many health care and social service assets, but gaps and inequities remain; gaps in youth extracurricular activities, afterschool programs, and workforce development programs were noted in particular by participants**. A number of participants across conversations also discussed systemic racism, racial injustice, and discrimination as interwoven into U.S. social, economic, educational, and health care systems.
- **Concerns related to housing, mental health, and childcare were also prominent in satellite communities (Brookline, Lexington, North Dartmouth, Peabody, Waltham, Weymouth).** While there is variation in the sociodemographic profiles across Boston Children's satellite communities, many key informants across these communities described concerns related to affordable housing, increased mental health needs for children and families, and staffing shortages related to mental health care and childcare.

PRIORITY HEALTH NEEDS

Community Health Survey: To gather input from residents specifically around prioritization of health needs, Boston Children's fielded a 2022 Community Health Survey using a convenience sample (n = 157). Community respondents were asked to select the top five areas that the hospital should focus on to help make their community healthier and identified the following:

- Mental health services
- Affordable childcare
- Healthy child development
- Housing stability and homeownership
- Healthy food access

It should also be noted, this Boston Children's 2022 Community Health Survey aligned with a similar survey fielded in early 2022 by Mass General Brigham (n = 494); "*Mental health services"* was also the top area selected by respondents in this Mass General Brigham survey.

Community Advisory Board Presentation and Prioritization: On May 10, 2022, Boston Children's presented preliminary findings from the CHNA and the Community Health Survey results to the Boston Children's Hospital Community Advisory Board (CAB). The CAB offered specific reflections on findings including the need to look at youth development staff salaries, the impact of social media on youth mental health, the pediatric boarding crisis, and the continued engagement of youth in this process. Through a facilitated conversation with the CAB, the following eight areas of need were identified for prioritization: Mental health prevention and services; Affordable housing; Early childhood education;

Youth supports; Asthma care; Food access; Healthy weight; and Youth development workforce and salaries.

At this meeting, 8 members of the CAB then participated in a voting process to select their top five areas for prioritization, based on specified Selection Criteria and ranking among the eight areas of need listed above. Boston Children's staff also met with 3 additional CAB members who were not in attendance on May 10th to discuss and select priority areas. The Top Five areas for focus were as follows:

- Mental health prevention and services (11 votes)
- Affordable housing (9 votes)
- Food access (9 votes)
- Youth supports and youth development workforce salaries (8 votes)
- Early childhood (7 votes)

Additionally, the CAB affirmed "asthma" and "healthy weight" as areas of continued need.

Parallel and Related Efforts: Boston Children's also reviewed the priority areas and needs identified through the Boston Children's Route 128 Determination of Need Community Health Needs Assessment (child health priorities: 1. Mental health and well-being; 2. Access to early education and care; 3. Housing and transportation; 4. Food security and obesity) and the 2022 Boston CHNA-CHIP (priority areas: 1. Housing; 2. Financial Security and Mobility; 3. Behavioral Health; and 4. Accessing Services).

Based on the aforementioned activities and after further definition and refinement, Boston Children's identified the following priority areas for its 2022-2025 community health implementation strategy (CHIP):

2022-25 Community Health Implementation Plan Priorities:

1. **Promote mental health and emotional wellness**
2. **Support affordable and stable housing for children and families**
3. **Promote healthy youth development**
4. **Increase access to affordable and nutritious food**
5. **Improve early childhood education, health, and developmental supports**
6. **Improve the health of children and families managing asthma and obesity**

These priorities remain consistent from the previous CHNA-CHIP processes, and Boston Children's will continue to address these areas of need.

BACKGROUND

Overview of Boston Children's Hospital

Boston Children's Hospital is dedicated to improving and advancing the health and well-being of children around the world through its life-changing work in clinical care, biomedical research, medical education and community engagement. Boston Children's has a long-standing commitment to community health, and its community mission is to improve the health and well-being of children and families in the local community. The Boston Children's Office of Community Health brings together hospital and community resources to address health disparities, improve health outcomes, and promote health equity by partnering with communities to offer services that benefit children and families across the Commonwealth, specifically those which are the most affected by the social determinants of health.

Summary of Previous CHNA

Boston Children's conducted its previous Community Health Needs Assessment (CHNA) in 2019. That assessment utilized a participatory, collaborative approach and examined health in its broadest context. This 2019 assessment coincided with and leveraged data from the 2019 Boston Collaborative Community Health Needs Assessment (Boston CHNA), which aligned and coordinated resources between multi-sector stakeholders including community organizations, community development corporations, health centers, hospitals, and the Boston Public Health Commission. Boston Children's was strongly engaged in the city-wide assessment, having representation on both the Steering Committee and work groups. The 2019 Boston Children's assessment integrated findings from this collaborative CHNA, along with the specific issues affecting children and families. The assessment process included synthesizing existing data on social, economic, and health indicators in Boston. In addition, a community-wide survey was conducted for the Boston CHNA that engaged over 2,400 residents including 548 parents/caregivers of children 18 or younger and 201 youth under 18. Seven of the 13 focus groups conducted for the Boston CHNA emphasized parent and family experiences, and there was one youth specific focus group. Forty-five key informant interviews were conducted for the Boston CHNA, 18 of which focused on issues related to parents, families, or children in Boston. To understand experiences and needs of those served by Boston Children's satellite locations outside Boston, 11 key informant interviews were conducted with clinic staff such as nurses, social workers, and administrators, as well as staff of community-based partner organizations.

As part of the CHNA, Boston Children's sought input on priorities from its Community Advisory Board members and through a Community Meeting. The 2019 assessment identified the following priority child health issues: Family housing stability and affordability; Mental/behavioral health and trauma; Youth engagement, workforce development, and promoting healthy living; Chronic disease: asthma and obesity/food security; Early childhood/Child development. The 2019 assessment report is available at: https://www.childrenshospital.org/community-health/needs.

Review of Initiatives

Based on the results of its 2019 CHNA process, Boston Children's developed a Strategic Implementation Plan (SIP) plan to address the identified health needs through clinical care, programs and services, and in collaboration with community-based organizations, health centers, advocacy groups, and city agencies. The 2019 SIP is available at https://www.childrenshospital.org/sites/default/files/2022-04/community-health-strategic-information-plan.pdf. Boston Children's has observed in CHNA processes that many of the community health needs are consistent over time, in part due to systemic and structural inequities. The needs identified in the 2019 CHNA align with those identified in the 2022 CHNA. We have steadily

invested in clinical and community-based programs and partnerships that increase services and supports to address obesity (physical activity and nutrition); early childhood/child development; asthma; access to medical and prevention services; mental and behavioral health; and violence and trauma. Additionally, we have supported programs and partnerships to address the social determinants of health including affordable housing and youth workforce development. A Review of Initiatives shows the work Boston Children's has done since the 2019 CHNA to address the identified key needs (see Appendix C – Review of Initiatives). In addition, it is important to highlight that many of the programs and services listed in this Review of Initiatives have been in place for over a decade and will continue through 2025 and beyond. These programs and services also address the aligned priorities in our 2016 and 2019 strategic implementation plans and are foundational to achieving our future proposed strategies. In 2022 Boston Children's will provide a Community Health Implementation Plan (CHIP) which will be formatted to be more relatable for community residents and will function in the same way as the Strategic Implementation Plan (SIP).

Purpose and Context of the 2022 Boston Children's Community Health Needs Assessment

In 2022, Boston Children's engaged Health Resources in Action (HRiA), a non-profit public health organization in Boston, to conduct its 2022 CHNA. This report describes the process and findings of this effort. In addition to fulfilling the requirement by the IRS Section H/Form 990 mandate, the Boston Children's CHNA process was conducted to achieve the following overarching goals:

- To update the 2019 assessment and provide a comprehensive portrait of current child and family health needs and strengths with a focus on Boston Children's priority neighborhoods (Dorchester, Fenway, Jamaica Plain, Mattapan, Mission Hill, and Roxbury)
- To analyze and present data about community characteristics and health needs of residents served by Boston Children's six satellite clinics (Brookline, Lexington, North Dartmouth, Peabody, Waltham, and Weymouth)
- To describe both overall trends and unique issues by sub-populations, using a social determinants of health framework
- To delve deeper into current Boston Children's priority areas to advance and elevate existing initiatives.

Ultimately, through the CHNA, Boston Children's aimed to identify existing needs, and strategic opportunities for the future.

This 2022 CHNA was conducted during an unprecedented time, including the COVID-19 pandemic, which exacerbated many social and economic inequalities that have been present for generations. The pandemic contributed to a staggering number of COVID-19 cases, deaths, and ongoing health challenges which disproportionately affected historically oppressed groups. During this same period, there has been a growing national movement calling for racial equity to address racial injustices in the U.S. The growth of this movement has been sparked by the killings of several Black Americans including George Floyd and Ahmaud Arbery. This context shaped the assessment approach and content, in that this report also explores how the pandemic and racial injustices have affected community health needs.

Definition of Community Served

Boston Children's undertook its 2022 CHNA to ensure that it is addressing the most pressing health concerns of children and families across Boston and its six priority communities within the city—Dorchester, Fenway, Jamaica Plain, Mattapan, Mission Hill, and Roxbury—as well as in the communities served by its satellite clinics, Brookline, Lexington, North Dartmouth, Peabody, Waltham, and

Weymouth. Neighborhoods can be identified in several ways. In this report, consistent with the Boston Public Health Commission's *Health of Boston 2016-2017* report, zip codes are used to identify neighborhood boundaries since this information is collected with health data and it allows us to standardize data to rates using population estimates which can change over time.

Intersection with Parallel and Related Efforts

2022 Boston Collaborative Community Health Needs Assessment

The 2022 Boston Children's CHNA is related to a larger CHNA effort conducted across Boston by the Boston CHNA-CHIP Collaborative. As described above, in 2019, the Collaborative conducted the first large-scale joint citywide CHNA, which then guided the city's community health improvement plan (CHIP), a blueprint describing how the collaborative would focus on collectively addressing the key priorities. The 2022 Boston CHNA builds on those efforts by taking a deep dive into the key priority areas identified in the previous CHIP: financial stability and mobility, housing, behavioral health, and accessing services. Boston Children's has been an active member of the Collaborative's Steering Committee since its inception and served as the co-chair for the Communications subcommittee from 2019-2021 and is the current co-chair of the accessing services priority area Workgroup. The 2022 Boston Collaborative CHNA full report will be available at www.BostonCHNA.org in summer 2022.

This city-wide effort provides data on a number of different health issues but does not dive deeply on specific issues related to children's health. This 2022 Boston Children's CHNA report presents findings from data collection conducted for the Boston Children's CHNA and also integrates the key results of the larger citywide CHNA to provide a deeper perspective on the needs of Boston's children and their parents. In addition, this CHNA includes information about needs in six communities where Boston Children's has satellite sites: Brookline, Lexington, North Dartmouth, Peabody, Waltham, and Weymouth.

2022 Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment

Another parallel effort that should be noted is the 2022 Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment (CHNA). In line with the Massachusetts Determination of Need (DoN) law and regulation, capital projects over $19 million need to have a DoN program, with 5% of the project cost distributed to community initiatives. Boston Children's Hospital's pending capital projects in the towns of Waltham, Weymouth, and Needham will result in a DoN allocation of approximately $21.7 million dollars over the course of six years. Boston Children's launched a Community Health Initiative (CHI) to allocate and distribute funding and conducted a CHNA to collaboratively identify the priority needs of focus communities for funding: Brockton, Framingham, Needham, Quincy, Randolph, Waltham, and Weymouth. This DoN CHNA utilized a robust community engagement process including: 20 key informant interviews, 6 Advisory Committee meetings, 2 community meetings, 8 focus groups, and a youth forum. The child health priorities identified through this CHNA were: Mental health and well-being; Access to early education and care; Housing and transportation; Food security and obesity. Given the geographic proximity as well as the overlap in two communities (Waltham and Weymouth), these DoN CHNA priorities were reviewed and considered as Boston Children's identified priority health needs for this 2022 Community Health Needs Assessment.

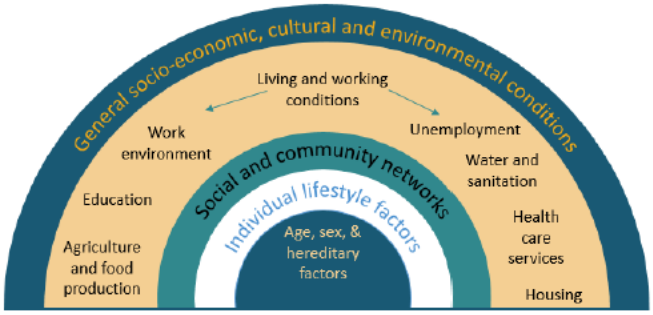
METHODS

The following section describes how data for the CHNA was compiled and analyzed, as well as the broader lens used to guide this process. Specifically, the CHNA defines health in the broadest sense and recognizes that numerous factors at multiple levels impact a community's health — from lifestyle behaviors (e.g., diet and exercise), to clinical care (e.g. access to medical services), to social and economic factors (e.g., neighborhood safety or employment opportunities).

Social Determinants of Health Framework

The CHNA focuses on the social determinants of health and is guided by a health equity lens (Figure 1). The contexts in which population groups live, learn, work, and play have a profound impact on health. There is often a deep connection between how race, ethnicity, income, and geography shape health patterns. In the U.S., social, economic, and political processes work together to assign social status based on race and ethnicity, which may affect access to opportunities, such as educational and occupational mobility and housing options, each of which are intimately linked with health. Historical oppression, institutional racism, discriminatory policies, and economic inequality are several of the root factors that shape persistent and emerging health inequities across the U.S.

Figure 1. Social Determinants of Health Framework



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

Community Advisory Board Engagement

The Boston Children's Community Advisory Board (CAB) was engaged to provide input into the CHNA process. The fourteen CAB members include community residents, stakeholders from the education, health care and public health sectors, and leaders from local Boston-based non-profits focused on youth programming and mentoring, community development, housing and human services. As described in the Priority Health Needs section below, the CAB was engaged to provide input on preliminary CHNA findings and to participate in a prioritization process. Additionally, the parallel Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment (CHNA) process described above was guided by a Community Advisory Committee that provided ongoing guidance and strategic direction and included representatives from: Brockton, Framingham, Needham, Quincy, Randolph, Waltham, and Weymouth.

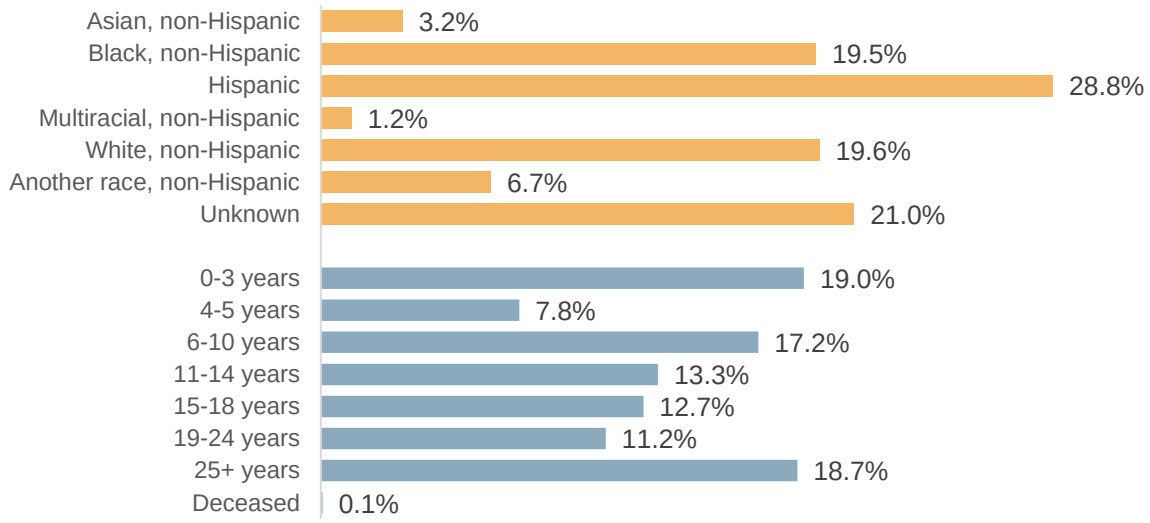
Secondary Data: Review of Existing Data

Secondary data are existing data that have already been collected for another purpose. Social, economic, and health indicators provide insights into patterns across Boston, by Boston neighborhood, and by population groups within Boston. This report includes a variety of **national, state, and city**

secondary data sources including the U.S. Census/American Community Survey (ACS), vital statistics (birth/death records), Boston Behavioral Risk Factor Surveillance Survey (BBRFSS), BBRFSS COVID-19 Health Equity Survey, and the Youth Risk Behavior Survey (YRBS), among other sources. Data from the ACS and surveillance systems, such as the BBRFSS, are presented with confidence intervals (or error bars in the figures), where possible. In this report, tests for significance are noted in the table or graph notes (where $p<0.05$), while the narrative uses the words "significant" or "significantly" to note statistically significant differences.

Hospital encounter data and data about patient characteristics were also provided by the Office of Community Health at Boston Children's Hospital. This data includes inpatient and outpatient encounters at the hospital's main campus and satellite campus locations between January 1, 2020 and December 15, 2021. Figure 2 below shows the race/ethnicity and age distribution of these patients.

Figure 2. Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Patients with Boston Home Zip Code, 2020-2021 (N= 57,263)



DATA SOURCE: Data source: Boston Children's Hospital patient encounters from January 1, 2020-December 15, 2021. Includes patients with a Boston home zip code and an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth).

Secondary data analyses are presented as frequencies (percentages) and rates throughout the report. Appendix D presents additional data tables and graphs beyond what is covered in the body of this report.

Primary Data Collection

Primary data are new data collected specifically for the purpose of the CHNA. Primary data were collected using three different methods for this CHNA: key informant interviews, focus groups, and a community health survey to inform prioritization.

Qualitative Discussions: Focus Groups and Key Informant Interviews

This report includes data collected from focus groups and key informant interviews conducted for the 2022 Boston CHNA. The Boston CHNA-CHIP Collaborative's Community Engagement Work Group led efforts to gain insight into community needs and priorities from community leaders and residents

themselves, especially among those where there has been a gap in representation in previous processes. Altogether, they facilitated 29 virtual and in-person focus group discussions with residents who have been disproportionately burdened by social, economic, and health challenges. Of these 29 focus groups, 6 focus groups were conducted specifically with families and parents and 8 focus groups were conducted specifically with youth. Across the 29 focus groups, participants included persons with disabilities, low-resourced individuals and families, youth and adolescents, LGBTQIA+ populations, racially/ethnically diverse populations (e.g., African American, Latino, Haitian, Cape Verdean, Vietnamese, Chinese), limited-English speakers, immigrant and asylee communities, and families affected by incarceration and/or violence, as well as older adults and veterans.

Collaborative partners also conducted key informant interviews with 62 individuals (including 8 interviews conducted by Boston Children's with representatives from Boston-based organizations). These represented a cross-section of sectors to identify areas of action and perspectives on the community. These interviewees included leaders and staff from public health, health care, behavioral health, the faith community, immigrant services, housing organizations, economic development, community development, racial justice organizations, social service organizations, education, community coalitions, the business community, childcare centers, elected government offices, and others.

Additionally, the Collaborative conducted four Community Listening Sessions with 122 participants. During these sessions, Collaborative members shared key themes from qualitative and secondary data analyses and discussed priorities and solutions with residents.

In order to ensure that the experiences and needs of those served by Boston Children's satellite clinics outside Boston are included, 9 key informant interviews were conducted with representatives from the communities of Brookline, Lexington, North Dartmouth / New Bedford, and Peabody. Interviewees represented a variety of organizations and sectors including public health, health care, housing and homelessness, government, social services, and organizational staff that work with specific population such as youth, teens, and immigrants. Interviews were completed using a semi-structured interview guide and were approximately 30-45 minutes in duration. Qualitative data collection with participants representing the communities of Waltham and Weymouth was also conducted in 2021-2022 as part of the Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment described above.

Qualitative analyses focused on identifying common themes across population groups as well as unique challenges and perspectives, with an emphasis on diving deep into the root causes of inequities.

Community Health Survey

To inform Boston Children's prioritization process, a Community Health Survey was developed and administered by Boston Children's. The 16-question survey focused on a range of issues related to community strengths, community concerns, and community priorities. Boston Children's collaborated with Mass General Brigham, which had recently developed and fielded a community health survey (n = 494), by aligning survey questions and responses options where feasible. The Boston Children's survey was fielded in April 2022 and was administered on-line in eight languages (English, Spanish, Portuguese, Mandarin, Cantonese, Cape Verdean Creole, Haitian Creole, and Vietnamese). The survey used a convenience sample; Boston Children's conducted outreach to a wide variety of community partners for assistance disseminating the survey to their resident networks. The survey was completed by 157 respondents who were Boston residents. The majority of respondents self-identified as White (42%),

Hispanic/Latino (31%), or Black/African American (12%); the majority of respondents (76%) self-identified as women. Additional analyses of the community survey were conducted to stratify results by parents of children under age 18 (n=79), respondents under 45 years of age (n=65), and non-English speakers (n=38). Given the alignment in survey design, Boston Children's survey results were also compared to Mass General Brigham survey results (more information on findings below) and there is potential for future combined analyses.

Data Limitations

Several limitations related to these data should be acknowledged. A number of secondary data sources were drawn upon for this report. Although all the sources used for this purpose are considered highly credible, sources may use different methods and assumptions when conducting analyses (e.g., different questions to identify race/ethnicity; different boundaries for neighborhoods given that zip codes do not align exactly with neighborhood boundaries). There is also often a time lag from the time of data collection to data availability. While intentional efforts were made to gather input from residents in Boston Children's priority communities (Dorchester, Fenway, Jamaica Plain, Mattapan, Mission Hill, and Roxbury) through primary data collection, some data are not available at more granular geographic or neighborhood levels due to small sub-sample sizes or by specific population groups. 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. For the Boston Children's hospital encounter data, it should be noted that this data represents rates of certain conditions among subsets of the Boston Children's patient population but should not be generalized to larger population.

Additionally, while focus groups and interviews provide valuable insights and important in-depth context, due to their small sample size and non-random sampling methods, results are not necessarily generalizable. It is important to note that data were collected at one point in time, so findings, while directional and descriptive, should not be interpreted as definitive. Moreover, due to the ongoing COVID-19 pandemic, many interviews and focus group discussions were conducted remotely, which may have affected participation – both in terms of who is able to participate remotely and the information elicited in remote discussions.

For the Boston Children's Community Health Survey, while broad outreach was conducted, a convenience sample was used. A convenience sample is a type of non-probability sampling; thus, there is potential selection bias in who participated or was asked to participate in the survey. Due to this, results cannot necessarily be generalized to the larger population. Survey results were used to inform Boston Children's prioritization process, along with other input and discussion as described further in the Priority Health Needs section below.

Throughout this report, comparisons are made to findings from the 2019 Boston Children's CHNA. It is important to note, however, that the methodologies related to qualitative data collection differ across these two reports. In 2019, numerous focus groups and interviews were conducted using standardized guides; for the 2022 CHNA, multiple organizations conducted focus groups and interviews and therefore while conversations focused broadly on community assets and priority health needs there was variation in the questions asked during data collection. Thus, comparisons to themes from the 2019 report are made sparingly in this report, and results should be interpreted with caution.

2022 CHNA: A Snapshot in Time during the COVID-19 Pandemic

The COVID-19 pandemic has been an important and evolving backdrop to the 2022 Boston Children's CHNA, and has affected priority areas identified in the 2019 CHNA. Following the onset of the pandemic

in 2020, many organizations, including those in the health care, community health and social service fields, pivoted their services to provide emergency support for pressing needs related to the pandemic. Despite access to vaccinations beginning in late 2020 and early 2021, there have been multiple increases in case rates linked with the onset of the Delta and Omicron variants. The COVID-19 pandemic is marked by significant changes and inequities in health, the economy, and the workforce. Given the unprecedented nature of the COVID-19 pandemic, it is critical now, more than ever, to understand the community's needs, experiences, and opportunities for the future.

We also recognize how the pandemic has shaped this process. A separate COVID-19 Health Equity Survey was conducted by the Boston Public Health Commission to better understand experiences among residents who have been historically marginalized and most impacted by the pandemic. This survey of a random sample of over 1,650 residents in multiple languages was conducted in December 2020/January 2021 and examined issues related to job loss, food insecurity, access to services, mental health, as well as COVID-19 risk perceptions, vaccination, and information sources.

Additionally, the COVID-19 pandemic affected the data collection methods as most of the focus groups and interviews occurred by telephone or video conference. Not surprisingly, the COVID-19 pandemic came up quite a bit during the discussions – but less about the disease itself, and more about how the pandemic has highlighted long-standing and existing inequities that have been pervasive in Boston and the U.S.. For these reasons, findings should be understood as capturing a snapshot in an unprecedented moment in time.

COMMUNITY ASSETS AND STRENGTHS

Understanding the strengths of community members and community resources and services helps to identify the assets that can be drawn upon to promote community health and address any existing gaps. When asked about community strengths, residents discussed a strong sense of community among residents, especially those who have lived in neighborhoods for years. They described their neighbors as supporting each other even when they themselves have limited resources. Focus group participants described their neighbors as *"resilient"* and *"resourceful"* even under difficult circumstances. Interviewees specifically highlighted the strengths of young people, describing the *"resilient, talented young people*" who often get "*overlooked*." Key informants and focus group participants talked about their communities as being vibrant, full of rich cultural traditions, having a strong history of activism and art, intelligent, innovative, and committed to volunteerism and solving problems.

Boston-based focus group participants and key informants discussed the breadth of community-based institutions and services that they knew of, especially those focused on early childhood, youth, young men of color, food security, housing, mental health, health care, caregiver support, workforce development, and the LGBTQIA+ population. Resource sharing and collaboration among a network of community-based organizations was also discussed as a strength. Residents described other community strengths, including engaged elected officials, educational opportunities and the school system, green space (e.g., parks), accessible libraries, and easy access to the transportation system.

> *"The young people themselves are the strengths, who every day are trying the best they can to make it through difficult situations… Resilient, talented young people"*
> - Key Informant

Interviewees from the satellite communities of Brookline, Lexington, North Dartmouth / New Bedford, and Peabody echoed a strong sense of community and the existence of social services and organizations that support families and children (such as health facilities and museums) as community strengths. Some interviewees also highlighted education, in particular strong schools, as an asset in their communities. Participants in the 2022 Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment (CHNA), focused on Brockton, Framingham, Needham, Quincy, Randolph, Waltham, and Weymouth, most often described their communities as having strong community-based organizations such as churches, nonprofit organizations, and local schools. These communities were described as diverse, and many were perceived as family-oriented and exhibiting strong work ethic.

COMMUNITY SOCIAL, ECONOMIC, AND PHYSICAL CONTEXT

Population Overview

Boston's population is incredibly diverse in terms of race and ethnicity, country of birth, and language use. While the racial and ethnic distribution across Boston has remained similar since the 2019 CHNA, the racial and ethnic composition is changing across neighborhoods.

Race and Ethnic Diversity

Historic disinvestment in communities of color are the root causes of racial inequities in the social determinants of health.[i] Racial and ethnic health and health care inequities are persistent and are among the leading public health challenges of our time. For example, people of color experienced a disproportionate burden of COVID-19-related income loss, cases, and deaths, whereas White residents appeared to weather the COVID-19 pandemic with fewer social, economic, and health costs.[ii,iii] Understanding the racial, ethnic, and language profiles of Boston residents provides context to data about health status and the structural, discriminatory, and social factors that contribute to health inequities.

Focus group participants and key informants discussed the racial diversity of residents across Boston as a unique strength, highlighting Black/African American, African, Latino, Cape Verdean, Haitian, Asian, and other Caribbean communities in the Boston area. According to Census estimates (Table 1), approximately 3 in 5 (60.0%) Boston residents identify as people of color. Mattapan, Hyde Park, Dorchester, and Roxbury are home to the largest proportion of Boston residents who identify as Black. East Boston, Roxbury, Hyde Park, and Dorchester's 02121 and 02125 zip codes have the largest percent of residents who identify as Latino, while Fenway and Allston/Brighton are home to the largest proportion of Asian residents.

Table 1. Racial and Ethnic Distribution, by Boston and Neighborhood, 2020

	Asian	Black	Latino	White	Two or More Races
Boston	9.7%	25.2%	19.8%	44.5%	5.3%
Allston/Brighton	19.3%	4.9%	11.1%	59.0%	4.2%
Back Bay	12.7%	3.5%	7.4%	71.9%	3.7%
Charlestown	8.6%	5.2%	10.9%	71.3%	3.5%
Dorchester (02121, 02125)	11.4%	33.5%	23.7%	17.7%	9.5%
Dorchester (02122, 02124)	8.6%	39.5%	15.5%	29.1%	5.3%
East Boston	4.5%	3.3%	50.4%	36.6%	3.6%
Fenway	24.1%	6.6%	9.0%	55.0%	3.6%
Hyde Park	2.2%	45.7%	24.7%	21.9%	4.2%
Jamaica Plain	7.6%	10.0%	20.3%	56.2%	5.0%
Mattapan	1.0%	68.3%	21.0%	2.5%	5.6%
Roslindale	3.7%	15.4%	20.4%	55.3%	4.2%
Roxbury	11.0%	35.7%	27.3%	19.4%	5.0%
South Boston	5.1%	4.2%	10.4%	76.6%	2.9%
South End	15.6%	12.6%	14.7%	52.4%	3.9%
West Roxbury	7.4%	13.3%	13.0%	62.2%	3.3%

DATA SOURCE: U.S. Census, Decennial Census of Population and Housing, 2020
NOTE: Neighborhoods as defined by Boston Public Health Commission; Back Bay includes Back Bay, Beacon Hill, Downtown, North End, and West End; South End includes South End and Chinatown; Latino includes residents who identify as Latino regardless of race, and race categories may include residents who identify as Latino; therefore, the percentages may not add up to 100%

Language and Immigrant Communities

A theme across several interviews and focus groups was that immigrant communities in the Boston area are hardworking, family- and community-oriented, willing to help others, eager to contribute socially and economically, and passionate about local issues and issues in their home countries. Several key informants and focus group participants observed that undocumented immigrants experienced additional barriers to housing, health insurance, and accessing resources and assistance programs, which they perceived were based on legal status and fear of deportation.

> *"I think [specific neighborhoods] are great for new immigrants. When you first come to the United States, you need help from others."*
> - Focus group participant

Key informants and focus group participants noted many languages spoken among residents, including Cantonese, Mandarin, Russian, Spanish, Haitian Creole, Cape Verdean Creole, and indigenous languages. Some residents described free English classes as an important resource for residents for whom English is not their first language. However, language barriers still emerged as an important issue affecting immigrant communities.

Age Distribution

Boston's population represents a range of age groups. Data from the 2016-2020 American Community Survey indicate that 47.6% of Boston households are family households (data not shown). As shown in Table 2, about 20.3% of Boston's population is 19 years old or younger and about 4.9% of Boston's population overall is under 5 years old. Fenway (31.4%), South Boston (26.7%), Hyde Park (26.1%), and Mattapan (26.1%) had the largest proportion of children and teenagers (those under 20), although it should be noted that the Fenway neighborhood has a high proportion of college-age students. Charlestown and Jamaica Plain have the highest proportion of children under 5, while South Boston, Hyde Park, and Mattapan have the highest proportion of children ages 5 to 9 years old.

Table 2. Percent Population Under 19 Years, by Boston and Neighborhood, 2016-2020

	Under 5 years	5 to 9 years	10 to 14 years	15 to 19 years	Total
Boston	4.9%	4.1%	4.2%	7.1%	20.3%
Allston/Brighton	0.8%	1.5%	1.6%	3.0%	6.9%
Back Bay	2.2%	1.5%	1.2%	18.8%	23.7%
Charlestown	8.8%	6.1%	4.2%	2.0%	21.1%
Dorchester (02121, 02125)	4.6%	5.8%	6.8%	7.1%	24.4%
Dorchester (02122, 02124)	6.4%	5.4%	5.9%	7.0%	24.7%
East Boston	5.6%	5.2%	5.6%	4.7%	21.1%
Fenway	1.2%	1.0%	0.9%	28.4%	31.4%
Hyde Park	5.9%	7.0%	7.3%	5.9%	26.1%
Jamaica Plain	7.3%	3.7%	3.4%	2.6%	17.0%
Mattapan	6.9%	6.4%	6.6%	6.2%	26.1%
Roslindale	5.5%	5.5%	5.0%	6.1%	22.1%
Roxbury	6.1%	5.2%	6.2%	5.8%	23.3%
South Boston	6.8%	7.3%	6.2%	6.4%	26.7%
South End	4.3%	3.6%	3.5%	4.0%	15.4%
West Roxbury	6.1%	4.5%	5.7%	4.1%	20.4%

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2016-2020

A 2020 analysis of Boston's child population over time showed that since 1980, the proportion of school-aged children (between the ages of 5 and 17) has declined nationwide and in Boston, with notably steeper declines in the past 20 years[iv]. Neighborhoods including South Boston, Mattapan, and Dorchester have all seen declines in school-aged children of 20% or higher between 2000-2017. During this same time period (2000-2017) and prior to the pandemic, the Black school-aged population declined by approximately 8,400 and the white school-aged population declined by approximately 4,700, while the Asian school-aged population remained relatively stable and the Latino school-aged population increased by approximately 3,700[v]. More recent data from the MA Department of Elementary and Secondary Education show that the population of school-attending children in Boston decreased from 82,333 in the 2000-2001 school year to 70,213 in the 2020-2021 school year[vi].

Education

> *"Early education and care are so vital: it's always a partnership with the family*
> - Key informant

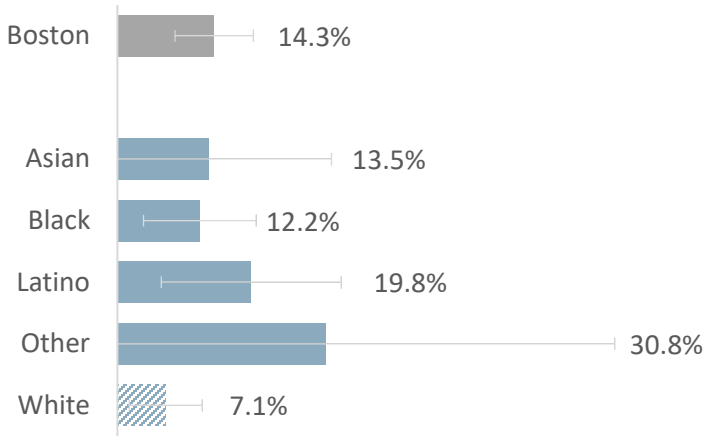
Education is an important issue to Boston residents and a critical factor affecting health. Assessment participants discussed how many children struggle in school, especially during the pandemic. In a survey during the pandemic, nearly 15% of Boston adults with children reported that they had unmet educational needs for children or teens during the COVID-19 pandemic (see Appendix D, Figure 42). Some focus group participants and key informants discussed how some students have not been adequately challenged academically or able to reach their full potential during their schooling during the COVID-19 pandemic. Focus group participants and key informants also discussed significant and growing social and emotional needs for children and teens since the onset of the pandemic, particularly low-income children and youth.

Focus group and interview participants discussed that remote learning and the COVID-19 pandemic was particularly hard for youth who already faced disproportionate challenges in school. In the 2021-2022 school year, 30% of Boston Public School students were identified as Limited English Proficient (LEP) or English Language Learners (ELL) and nearly 69% of students were considered economically disadvantaged. Interview and focus group participants discussed the need for greater investment to meet the social, emotional, and academic needs of these children and youth. In particular, participants discussed their insufficient access to early childhood education, the need for more after school programs, support for enrolling children in school with proper educational plans in place, school dropout, health and economic barriers that affect school attendance, and the need for adult English classes for residents for whom English is not their primary language.

Early Childhood Services

Early childhood, in particular birth to age three, is an important and rapid period of child development. High quality early childhood services and care provide an important foundation for healthy development and can promote growth, learning, healthy relationships and future educational achievement[vii]. Pre-pandemic, Boston residents identified economic and access barriers to affording childcare, and in recent focus groups and interviews, childcare emerged as a growing need due to the COVID-19 pandemic. While focus group participants and key informants described several community-based organizations that provide services for historically marginalized groups, they also observed rising and acute social and economic needs among a growing segment of low-income residents. Affordable, quality childcare was difficult to find before the pandemic, but with parents' unpredictable work schedules, unforeseen childcare closings, and the need for many parents to work outside the home, finding care for young children was even more challenging during the pandemic. Many parents and caregivers in Boston seek childcare services. According to the COVID-19 Health Equity Survey, about 14.3% of Boston adults reported that children in their households experienced unmet childcare needs during the pandemic (Figure 3).

Figure 3. Percent Adults with Children Reporting Having Unmet Childcare Needs During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021

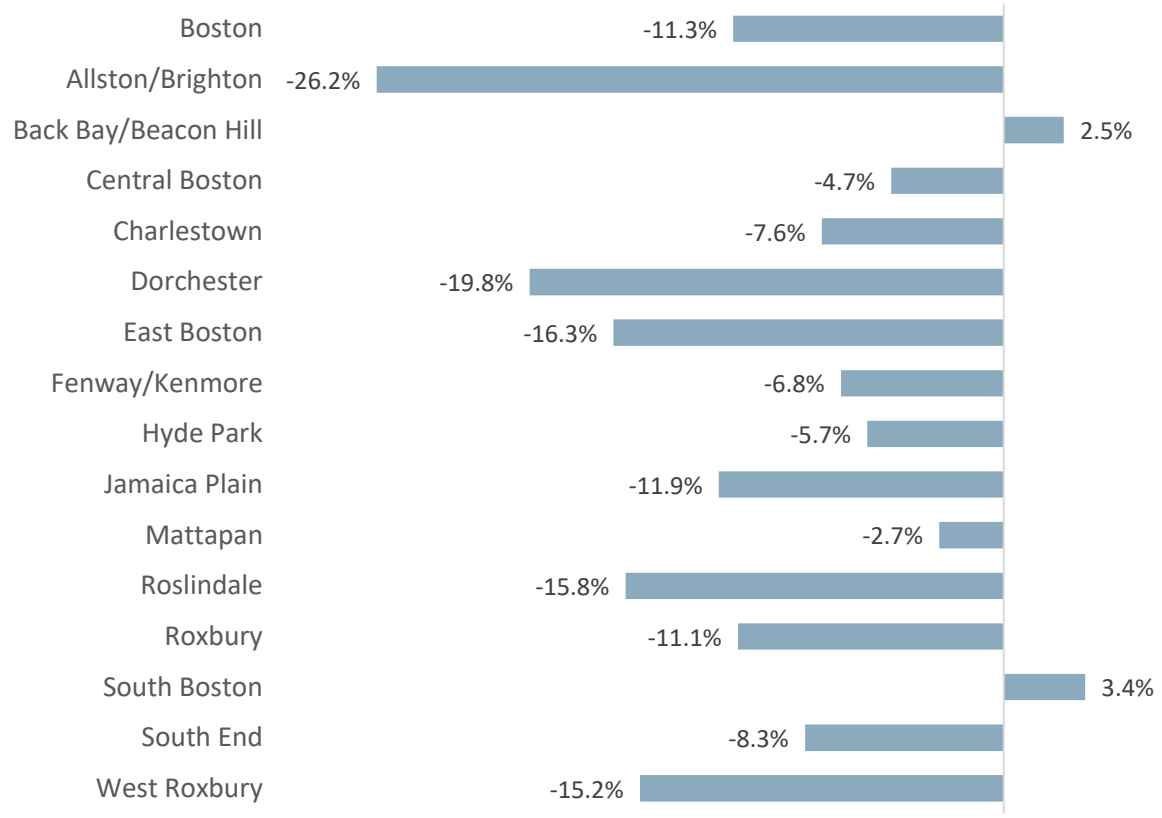


DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: NA denotes where data are not available because only respondents who indicated having at least one child present in the household were asked this question; Bars with pattern indicate reference group for its specific category; No significant differences compared to reference groups within specific categories were observed (p>0.05); Error bars show 95% confidence interval

As shown in Figure 4, between December 2017 and March 2021, there was an 11.3% decrease in the number of available childcare seats for children 0-5 years old across Boston. The decrease in available seats was largest in Allston/Brighton (26.2% decrease), Dorchester (19.8% decrease), and East Boston (16.3%). Specific barriers to early childhood education cited by residents include the costs of early childhood education, restrictions of vouchers for subsidized childcare for low-income families, limited availability of early childhood education centers, and limited understanding of the benefits of early childhood education.

> *"[The] childcare system is piecemeal, everyone is trying to do what they can but that's a tough system for families to navigate."*
> - Key informant

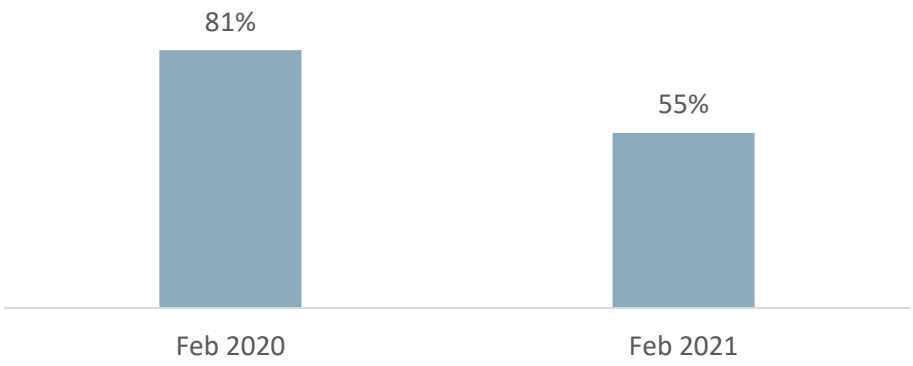
Figure 4. Pre-COVID & COVID Net Change in Number of Childcare Seats for Children 0-5 Years Old, by Boston Neighborhoods, by Dec 2017 - Mar 2021



DATA SOURCE: MA Department of Early Education and Care, December 2017 to March 2021.
DATA ANALYSIS: Boston Opportunity Agenda Analysis, 2021
NOTE: Change in number of seats between March 2017 and March 2021.

The number of eligible children being referred to Early Intervention Services decreased by 12% between February 2020 and February 2021 (Boston Opportunity Agenda Analysis, 2021, data not shown[viii]). Figure 5 shows that the percent of eligible children referred to Early Intervention Services who actually receive services also decreased from 81% in 2020 to 55% in 2021.

Figure 5. Percent Eligible Children Accessing Early Intervention Services, 2020-2021



DATA SOURCE: Boston Opportunity Agenda Analysis, 2021

Employment and Workforce

Employment provides income, benefits, and economic stability, which is important for the health of children and families. Jobs that pay well make it easier for families to afford child care, high quality education, health care, and healthy food.[ix] While pre-pandemic Boston enjoyed a low unemployment rate, unemployment was highest during that time in Roxbury, Dorchester, Fenway, and Mattapan (see Appendix D, Figure 40).

A key pattern that emerged from interviews and focus groups was significant job loss linked with the COVID-19 pandemic. Similar to the rest of the country, the greater Boston metropolitan area fluctuated dramatically in unemployment rate during the pandemic. According to the Bureau of Labor Statistics, the Boston metro area's unemployment rate was 16.0% during the early stages of the pandemic in April 2020 and dropped to 3.7% nearly two years later in February 2022. Additionally, as of December 2021, an estimated 56,900 workers in Massachusetts have left the labor force; this pattern is not reflected in current unemployment rates.[x]

> *"I see that there is work and people apply […]. I've applied [to] a lot of places and am not given jobs. It says 'apply, help wanted,' but if you don't know anyone you won't be considered."*
> - Focus group participant

Employment Challenges

A lack of stable employment can impact the wellbeing of children and families. According to focus group and interview participants, even with more opportunities available, some residents are still struggling to find jobs after losing work during the COVID-19 pandemic. According to residents, it has been more difficult for residents of color, immigrants, people with disabilities, and residents with a criminal record to find and secure stable jobs. For example, interviewees discussed the barrier of being flagged for a criminal record: *"People can have a CORI for the silliest thing, and it follows [them] for the rest of [their] life and can prevent them from being hired."* Immigrant focus group participants discussed the challenges of being undocumented, as one resident mentioned, *"If you don't have a social [security number], you can't get a job. Even at McDonald's."* Others talked about the importance of needing to know someone at the place of employment to even be considered for a job.

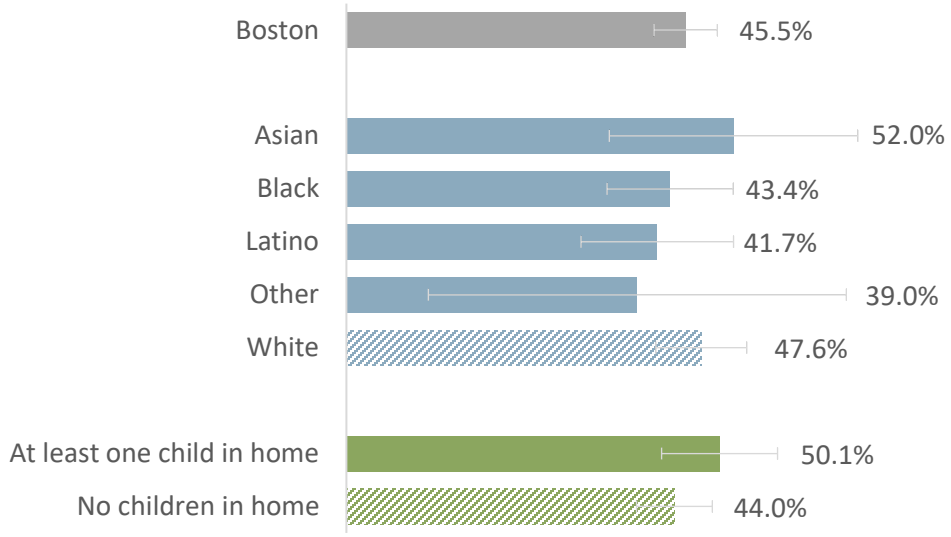
Elected officials and focus group participants cited lack of access to workforce development training as a concern. As one focus group participant commented, "*"[I]f you don't have the training, you won't be considered. There need to be more options."* Some youth focus group participants observed that college was too expensive and expressed interest in more resources to pursue career options that do not require a college degree. Some participants described experiencing discrimination in hiring, citing that Black men and those with disabilities seemed to be the least likely to be hired for some positions.

Employment and the COVID-19 Pandemic

Many parents and caregivers in Boston are employed in jobs that require them to work outside the home. According to the COVID-19 Health Equity Survey, approximately half (50.1%) of adults with at least one child in the home indicated that they worked outside of their home during the COVID-19 pandemic. On the positive side, some participants in focus groups and interviews mentioned a growth in the ability to work remotely, which they described as helpful for residents who experience

transportation barriers and persons with complex health issues. However, participants also discussed their employment challenges during the height of the pandemic. They recalled how unemployment applications were a major burden, and many working undocumented immigrants who are paid informally were not able to apply for or access payroll protection or COVID-19 relief funds. Focus group participants and key informants mentioned that low-wage workers, especially immigrants, worked in high-risk job settings with limited personal protective equipment (PPE).

Figure 6. Percent Adults Reporting Working Outside of the Home During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting they worked at least part of the time at a workplace outside of home since the COVID-19 pandemic began; Percentage does not include adults who did not work for pay at all; Bars with pattern indicate reference group for its specific category; No significant differences compared to reference groups within specific categories were observed (p>0.05); Error bars show 95% confidence interval

Income and Financial Security

Similar to the past process, focus group participants and key informants described financial stability as critically important for health. According to key informant interviewees and focus group participants, the COVID-19 pandemic has worsened income inequalities and the level and severity of poverty for low-income residents across Boston. According to the COVID-19 Health Equity Survey, income loss during the pandemic has disproportionately affected residents of color and low-income residents, described in more detail below.

Focus group participants and key informants noted that low-wage work and minimum wage is not enough for many families to survive in Boston, and that many residents are having to work multiple jobs to make ends meet. Several interviewees and focus group participants discussed that while income loss has affected many people, they were most concerned about those residents who were already struggling before the pandemic – this included low-income communities, residents of color and in

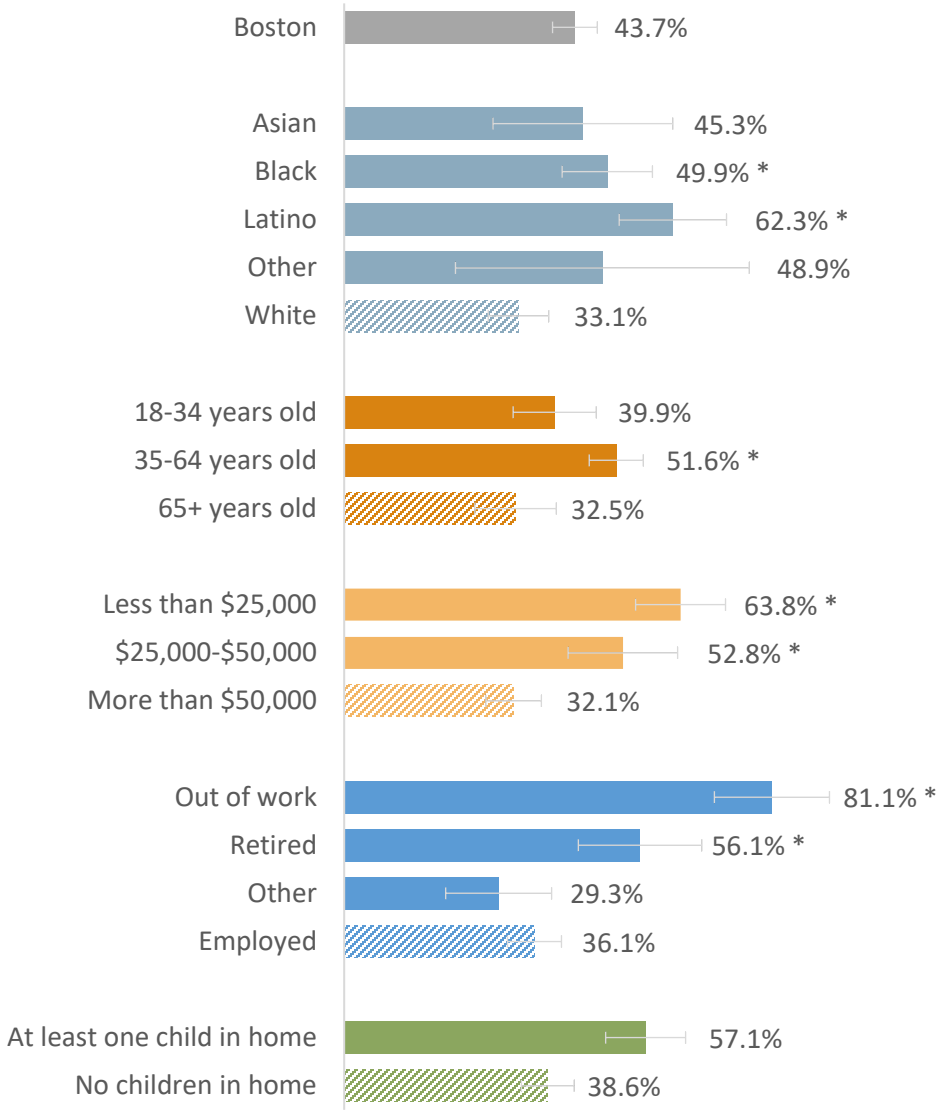
particular immigrants, people with disabilities, and residents with a criminal record. They described the cost of living as high and rising, including escalating housing and food costs while wages have not increased. As one participant noted, *"Food prices have gone up a lot while my wage has stayed the same."* Indeed, from April 2021 to April 2022, food prices increased an estimated 9.4%.[xi] Some youth also noted that intergenerational wealth inequities affect health, observing that white residents often have more wealth that enables them to be more financially stable and to weather financial emergencies.

> *"My husband has 2 jobs so we can pay the rent and food, clothing, everything. It is really difficult now, this situation that is happening."*
> - Focus group participant

According to some key informants, neighborhoods that have historically experienced disinvestment continue to fall behind in growth and development, and small businesses in low-income communities have been hit hard by the COVID-19 pandemic. Some elected officials described insufficient access to capital and financial instability as barriers to community development. This contributes to a context that some key informants described as organizations not collaborating to provide access to services or resources and in some cases competing for resources that they perceived to be limited.

As shown in Figure 7, overall over 4 in 10 Boston adults (43.7%) reported that they had experienced a loss of income during the COVID-19 pandemic. Parents and caregivers were impacted by income loss during the pandemic: more than half (57.1%) of adults with at least one child in the home reported income loss during the pandemic. Residents who identified as Black or Latino were most affected by income loss, with more than 62% of Latino respondents indicating that they had income loss during the pandemic and nearly half of Black residents reporting income loss. When looking at income loss by occupational status, a higher proportion of adults who were out of work or retired reported income loss during the pandemic, compared to employed adults.

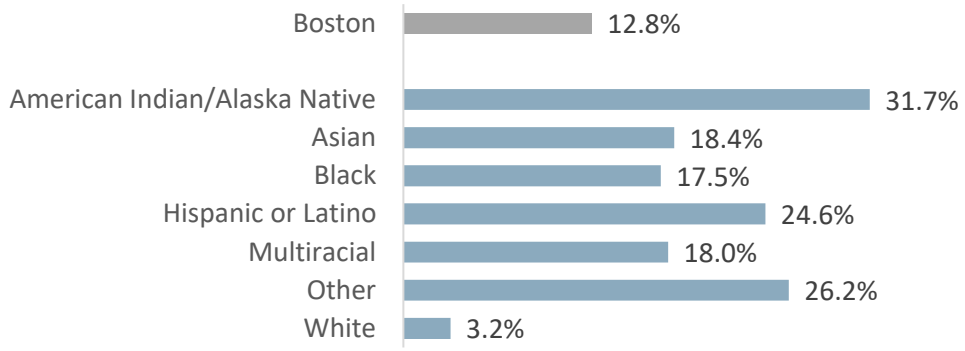
Figure 7. Percent Adults Reporting Experiencing an Income Loss During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting their household had experienced a loss of employment income since COVID-19 occurred; 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

While 12.8% of families in Boston live below the poverty level, there are stark differences by race and ethnicity (Figure 8). For example, 3.2% of white families compared to 24.6% of Hispanic or Latino families are living below the poverty level.

Figure 8. Percent Families below Poverty Level (100% FPL) by Race/Ethnicity, by Boston, 2016-2020



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2016-2020

Housing and Homelessness

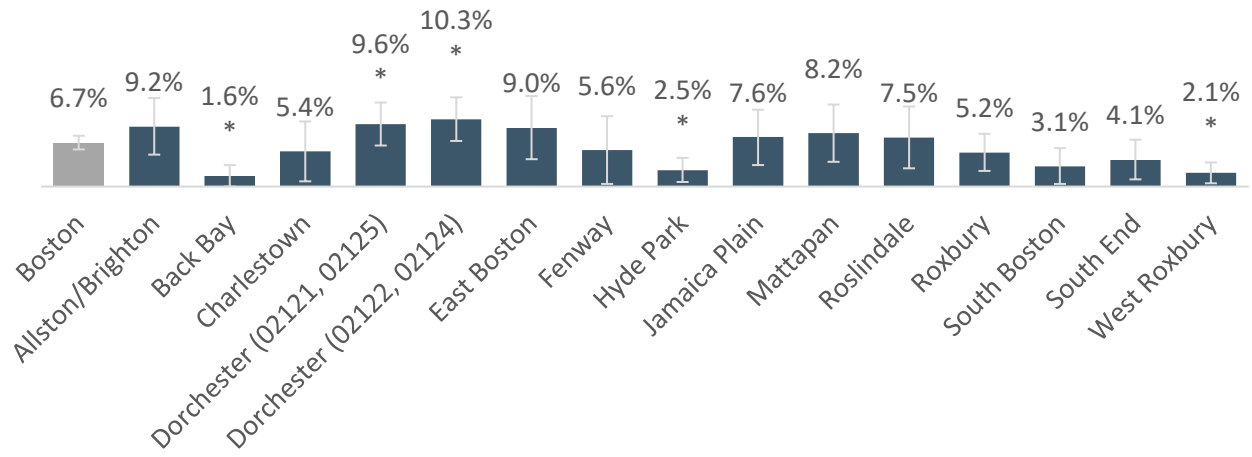
Housing is typically the largest household expense, and, for homeowners, housing can be an important source of wealth.[xii,xiii] For low-income residents and families, housing instability, the stress of unaffordable housing costs, and poor housing quality increase the risk of adverse health outcomes.[xiv] Housing concerns in the city of Boston have been pervasive for years. The sentiment has not changed, and many residents were even more concerned about being able to afford where they live during the COVID-19 pandemic.

> *"Every year they raise the rent. They stopped during the pandemic, but I was told that they are going to raise it again. I can't imagine how much they are going to raise it. I can't move to other places because it's worse there."*
> -Focus group participant

Housing Affordability and Quality

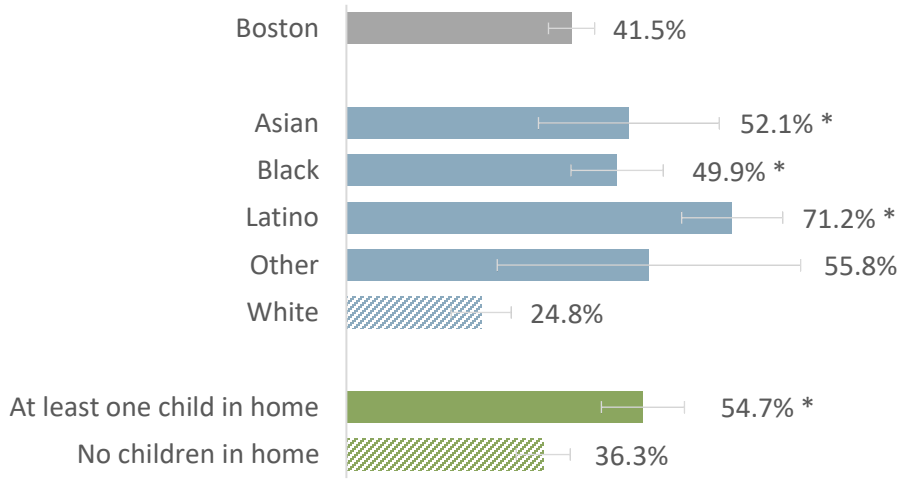
Pre-pandemic, an estimated 6.7% of Boston adults in 2015-2019 reported moving in the past three years due to housing affordability. Reports of moving due to housing costs were highest for residents in Dorchester, Allston/Brighton, and East Boston (Figure 9). In discussions, residents and leaders were even more concerned about high housing costs during the pandemic, especially given fluctuations in employment. In the COVID-19 Health Equity Survey, more than 4 in 10 respondents reported that they have had trouble paying their rent or mortgage during the COVID-19 pandemic. A significantly higher proportion of adults with children at home (54.7%) compared to those without children at home (36.3%) indicated that they have had trouble paying their rent or mortgage. Additionally, the highest proportions of residents having trouble paying rent or mortgage were reported among Latino, Asian, and Black adults (Figure 10).

Figure 9. Percent Adults Reporting Moving in Past Three Years Because They Could No Longer Afford Their Home, by Boston and Neighborhood, 2015, 2017, and 2019 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
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 ($p < 0.05$); Error bars show 95% confidence interval

Figure 10. Percent Adults Reporting Having Trouble Paying Their Rent or Mortgage During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting that it was somewhat or very difficult to pay the full amount of their rent or mortgage now; 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

According to key informants and focus group participants, high housing costs affect children and families, low-income residents, residents of color, older adults, undocumented immigrants, immigrants more broadly, and people with disabilities. When discussing a lack of affordable housing, several residents in focus groups described a backdrop of gentrification and overdevelopment as a contributor to housing displacement. Some participants also discussed racism around unfair housing prices, language barriers to accessing housing, and discrimination in acceptance of housing vouchers by landlords and among those previously incarcerated. Focus group participants discussed high and rising rent, rising costs of housing and property taxes, and prioritizing paying rent over other health-promoting factors such as food and physical activity.

Housing quality, and in particular exposure to lead and asthma triggers (including pests and mold), were also specific concerns for children and families highlighted by a few interviewees. One interviewee shared that "*we need to get lead out of all houses that children are living in,"* but noted that the Massachusetts de-leading program is structured as a loan and that funding remaining in this program is limited.

Housing Instability and Transiency

According to participants, lack of affordable housing contributes to experiences of homelessness and housing instability, overcrowded housing, and housing displacement. Some interview and focus group participants noted that people experiencing homelessness include families and residents who were evicted from their homes and observed that people experiencing homelessness were often criminalized. One participant specifically noted the impact of housing stability on the mental health of children. Boston Children's Hospital Emergency Department Social Work records reviewed from 2014 to 2022 show a substantial increase in the annual number of families needing social work assistance with housing or homelessness. In 2014, 51 families needed emergency housing assistance. In 2021 the number had increased by approximately 800% to 411 families needing emergency housing assistance. The majority of these families slept in the emergency department, despite having no medical needs, while their emergency housing needs were addressed.

> *"Housing affordability, quality, and stability is huge for affecting children…"*
> -Key informant

Participants also discussed how the intersection between housing assistance and housing instability was a tenuous one. Some focus group participants noted that many landlords did not participate in rental assistance programs offered by the government, and that they were concerned that rental assistance programs instituted during the COVID-19 pandemic are coming to an end. However, some residents also discussed the paradox of qualifying for low-income housing assistance, observing that the income threshold for affordable housing means that if residents earn higher wages, they stand to lose their housing voucher, yet they cannot afford housing at the market rate.

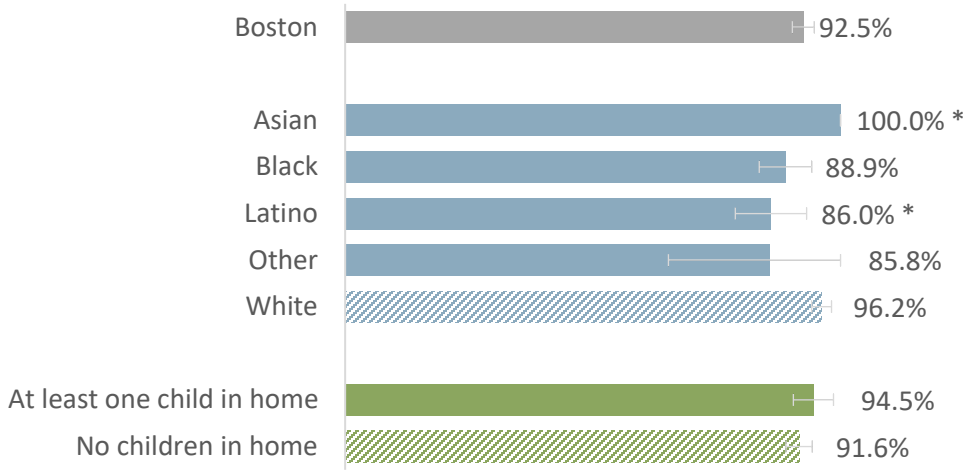
Housing Conditions, Overcrowding, and COVID-19

According to focus group and interview participants, the COVID-19 pandemic affected housing instability, homelessness, and increasingly residents moving in with others due to income loss, which contributed to overcrowded housing. Residents noted that COVID-19 cases often affected several household members, which they linked to multiple generations living in a household and people working multiple jobs outside of the home. They noted that it was difficult to isolate or quarantine from family members due to dense living conditions. Participants discussed that these conditions, especially during

COVID lockdown, also contributed to worsening mental health. As one focus group participant commented, "*When folks lost their jobs 2 years ago, they were suddenly crammed in houses, which affected physical health and mental well-being.*"

Another critical aspect to housing infrastructure, especially during the pandemic was access to Internet. As discussed in the Access to Health Care and Social Services section, Internet access became a critical household resource during the COVID-19 pandemic given the dependence on remote work, education, and health care for many populations. While about 9 in 10 Boston adults reported having Internet access at home during the COVID-19 pandemic, it is notable that a smaller percent of Latino adults reported Internet access at home compared to White adults (86.0% and 96.2%, respectively) (Figure 11).

Figure 11. Percent Adults Reporting Having Internet Access at Home During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021

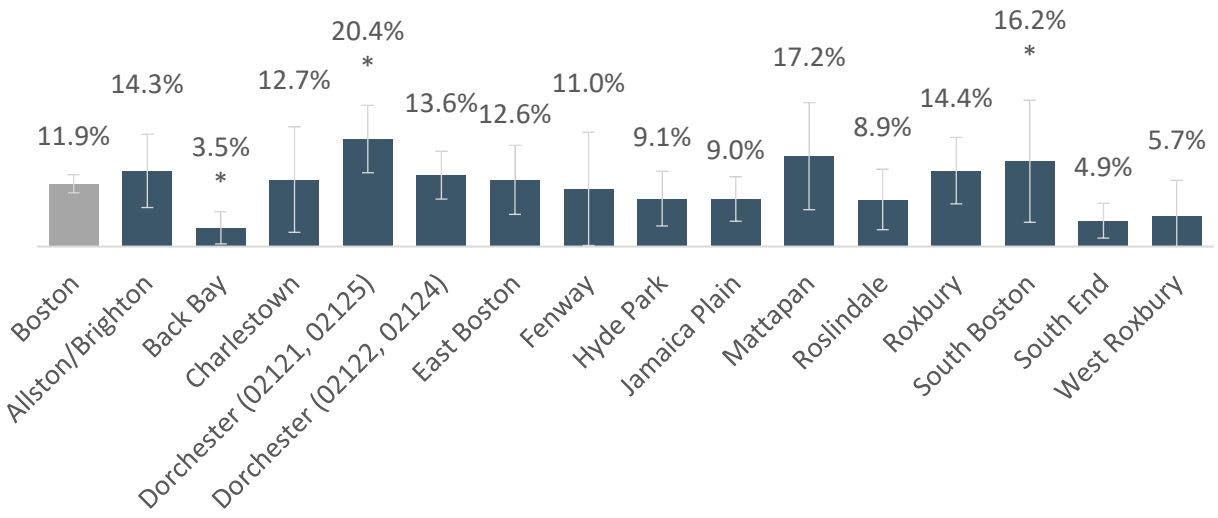


DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category ($p < 0.05$); Error bars show 95% confidence interval

Transportation

Boston-based CHNA participants discussed transportation in the context of accessing services. As shown in Figure 12 below, reports of transportation difficulties in the past year were highest among residents of Dorchester (02121 and 02125 zip codes; 20.4%), Mattapan (17.2%), and South Boston (16.2%). Participants in the 2022 Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment (CHNA), focused on Brockton, Framingham, Needham, Quincy, Randolph, Waltham, expressed varying views of the transportation infrastructure in their respective cities, but many noted that public transportation options are often unreliable and cumbersome, and that transportation poses a challenge for coordinating school, childcare, and medical care for children. Interviewees from the satellite communities of Lexington, North Dartmouth / New Bedford, and Peabody also raised concerns related to limited public transportation.

Figure 12. Percent Adults Reporting Having Transportation Difficulties in Past Year, by Boston and Neighborhood, 2015, 2017, and 2019 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting to that transportation difficulties have kept them from medical appointments, meetings, work, or from getting things needed for daily living in the past 12 months; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$); Error bars show 95% confidence interval

COMMUNITY HEALTH ISSUES

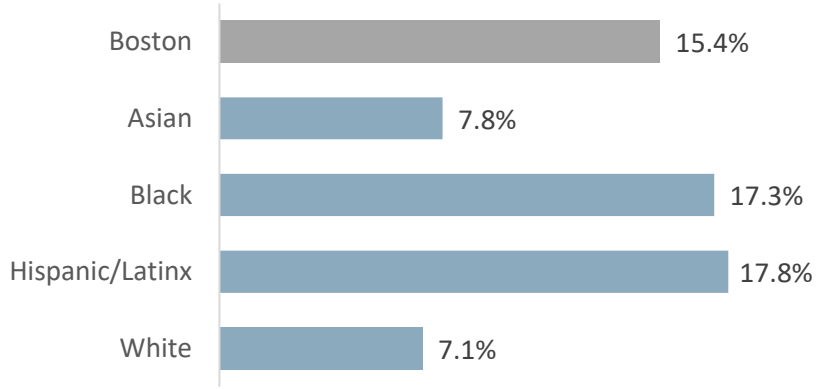
This section describes community health issues and concerns utilizing data collected through secondary sources, Boston Children's encounter data, and interviews and focus groups conducted for the Boston CHNA and by Boston Children's.

Obesity and Related Risk Factors

Obesity and Diabetes

Obesity and diabetes were among the health concerns most frequently raised during interviews and focus group discussions. Some interviewees noted that childhood obesity remains a concern, and one interviewee underscored the connection with diabetes by sharing that they see "*diabetes in a number of clients who are overweight*." Access to healthy, nutritious food, a risk factor for chronic diseases such as obesity, was a concern among some interviewees. According to 2019 Youth Risk Behavior Survey (YRBS) data, about 1 in 6 Boston Public High School students were obese; this rate was higher among Black (17.3%) and Hispanic/Latinx (17.8%) students (Figure 13). Additionally, 2019 YRBS data show that about 1 in 5 (19.1%) Boston Public High School students were overweight; this rate was higher among Black (17.2%) and Hispanic/Latinx (24.3%) students. Among encounters at Boston Children's main campus and campus locations between January 1, 2020 and December 15, 2021, the percentage of patients with a Boston home zip code who had an obesity diagnosis was highest among Black, non-Hispanic (7.3%), and Hispanic patients (9.2%) (see Appendix D, Table 9).

Figure 13. Percent Boston Public High School Youth Had Obesity, by Race/Ethnicity, by Boston, 2019



DATA SOURCE: (2019) Youth Risk Behavior Survey (YRBS)
NOTES: Based on self-report height and weight.

Interviewees noted the connection between physical activity and healthy weight and described constraints on access to physical activity opportunities for youth, including safety and affordability of programming. As one interviewee shared, "*many families don't feel safe having kids play outside on their own*." According to focus group participants, during the COVID-19 pandemic they were not able to do as much physical activity and were quite sedentary. As one participant mentioned, *"People have not been active through COVID – kids and adults have put on so much weight – some have become obese. I am worried about the kids – they don't get enough activity."* Focus group participants cited the importance of and need for green space (e.g., parks, access to walking paths) to enable residents to spend time outside safely and to be physically active in an affordable way. LGBTQIA+ focus group participants also described a need for gyms that are more welcoming to LGBTQIA+ residents. According to initial data from the 2021 Boston Youth Risk Behavior Survey (YRBS), about 1 in 5 (18.0% of middle

school students and 18.5% of high school students) students report being physically active for at least 60 minutes daily; this rate has not changed since the previous (2019) YRBS[xv].

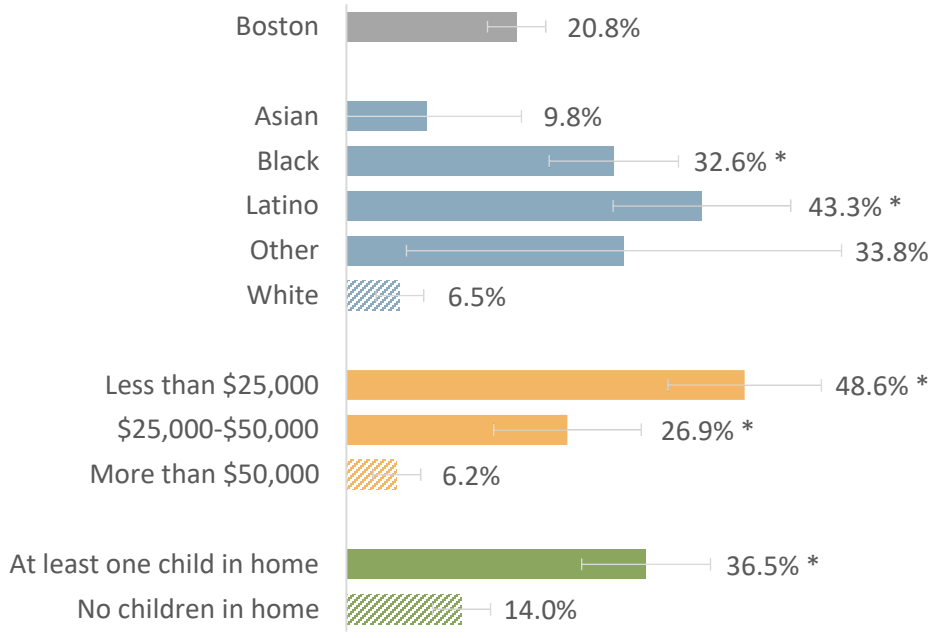
Food Security

Food insecurity, namely barriers to accessing healthy, affordable food, emerged as a key priority issue across many interviews and focus groups. Food insecurity patterns indicate that a greater proportion of residents report experiencing food insecurity since the COVID-19 pandemic.

> *"It's always stunning in this day [and] age there are so many families struggling with basic food needs."*
> -Key informant

Pre-pandemic, 2015-2019 BBRFSS data show that about 17.8% of Boston residents were identified as food insecure – in that the food they purchased could not last before they had money to buy more (see Appendix D, Figure 36). The burden of food insecurity was even greater in Mattapan, Dorchester, and East Boston compared to the rest of Boston (see Appendix D, Figure 36). Many residents and families reported being food insecure during the pandemic. According to the COVID-19 Health Equity Survey, while 20.8% of Boston residents were considered food insecure during the pandemic, 36.5% of adults with at least one child in home and 43.3% of Latino residents were food insecure, as well as 32.6% of Black residents (Figure 14).

Figure 14. Percent Adults Reporting Food Purchased Did Not Last and Did Not Have Money to Get More During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



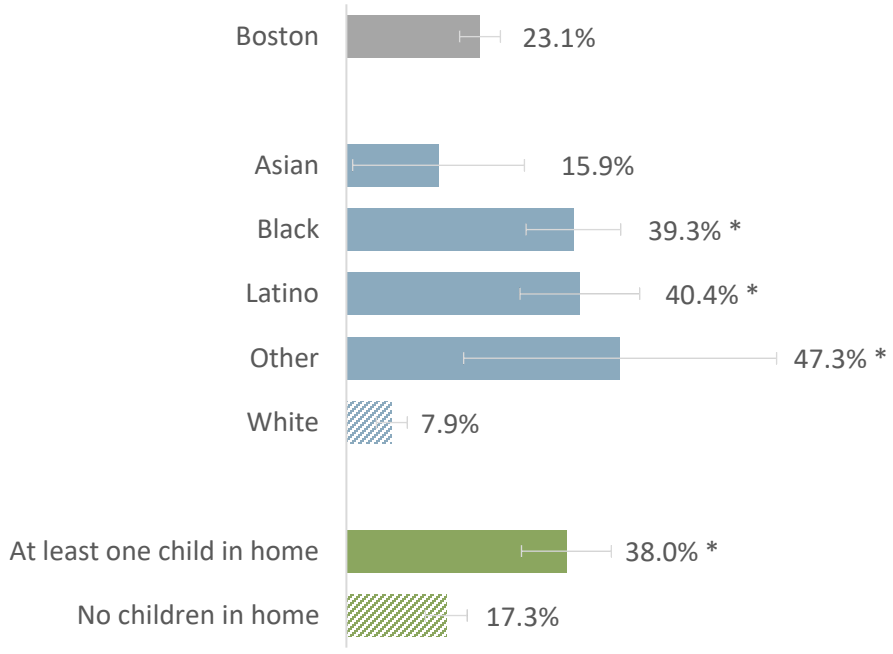
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

Community leaders and residents discussed that healthy food is available, but not always accessible to lower-income residents or families. As noted by a focus group participant, *"We live in a food desert. I have to travel out of town to find healthy food. The grocery store in [my neighborhood] doesn't carry the same healthy foods as towns that are more affluent. I feel badly for those who don't have a car and don't have access to healthier food*."

Participants also talked about how the cost of food is rising, contributing to growing levels of food insecurity as residents struggled to afford food, let alone healthy food. As one focus group participant mentioned, *"Access to healthy food is challenging because food costs are so high. When you have a big family, it gets very complicated. Healthy food is very connected to a healthy community."* According to several residents, many low-income residents were not able to eat healthy foods during the COVID-19 pandemic due to financial constraints, and some residents – such as older adults – faced barriers to safely accessing food due to concern about virus transmission.

Many residents and families are accessing food assistance. According to the COVID-19 Health Equity Survey, about 23.1% of Boston adults reported using food assistance services during the COVID-19 pandemic (Figure 15), compared to 16.1% reported pre-pandemic. A significantly higher proportion of adults with children at home (38.0%) compared to those without children at home (17.3%) reported using food assistance services. Approximately 40% of Latino (40.4%) and Black (39.3%) adults reported using food assistance services during the COVID-19 pandemic, compared to 7.9% of White adults. One interviewee shared the perception that food resources were expanded during the COVID-19 pandemic but are now "*waning"* while the need remains. Another interviewee noted that there is still a "*big disconnect"* with access to SNAP benefits.

Figure 15. Percent Adults Reporting Utilizing Food Assistance Services During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

NOTES: Food assistance services include food banks, food stamps, or other sources; 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

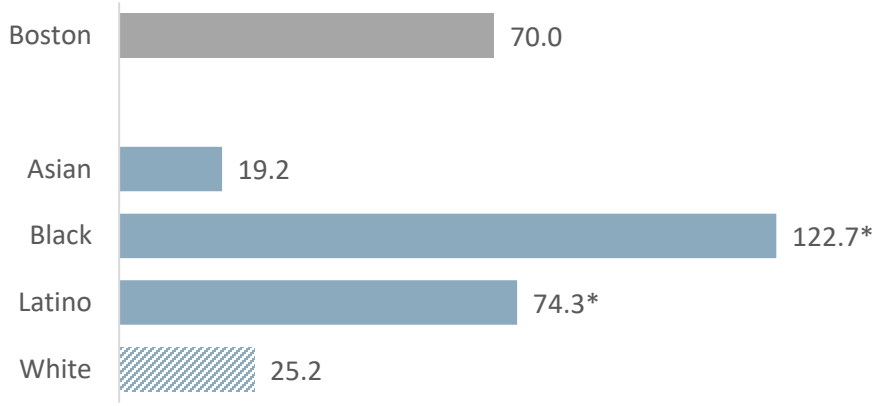
Asthma

> *"There are still families with no set of meds to send to school."*
> - Key informant

Several interviewees shared concerns related to pediatric asthma prevention and control. Interviewees expressed concern about exposure to housing triggers (pests and mold). One interviewee also noted that Boston's "*deep urban environment"* can lead to the development of asthma and to disparities in asthma rates, with "*communities like Roxbury, Dorchester, [having] higher rates of asthma and ER visits typically*." Interviewees also shared concerns related to asthma control given the high cost of medications and refills and the need for "*duplicate medications"* for different places like home and school. Additionally, interviewees stressed the need for education around asthma management. As one interviewee shared, there is a need to be "*proactive"* about reaching "*low-income residents, residents of color*" to provide "*education about asthma"* and to share information about connecting to services. Lastly, one interviewee noted that parental mental health challenges can impact their ability to support children with asthma control.

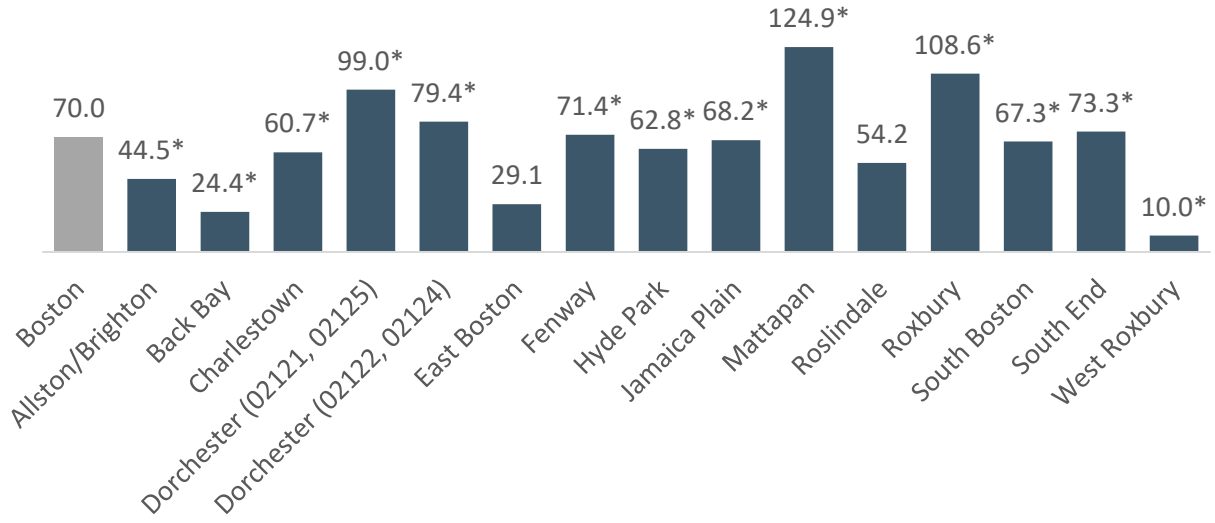
More than 1 in 4 (27.9%) Boston High School students report having asthma (see Appendix D, Figure 29). When looking at 2020 asthma emergency department visits and asthma hospital patient encounters among children under 18, inequities by race and ethnicity and geography remain. The rate of asthma emergency department visits per 10,000 Boston children (under 18) is 70.0 overall, is significantly higher among Black (122.7) and Latino (74.3) patients compared to White patients (25.2), and is highest in the neighborhoods of Mattapan (124.9), Roxbury (108.6), and Dorchester (02121, 02125; 99.0) (Figure 16 and Figure 17, respectively). Hospital patient encounters include both emergency department visits and hospitalizations; the pandemic should again be noted here as this context may have impacted residents' likelihood of seeking care. Similar to emergency department visits, the rate of asthma hospital patient encounters per 10,000 Boston children (under 18) is 74.8 overall, is significantly higher among Black (129.0) and Latino (79.0) patients compared to White patients (27.9), and is highest in the neighborhoods of Mattapan (126.8), Roxbury (118.1), and Dorchester (02121, 02125; 104.6) (see Appendix D, Figure 31 and Figure 32).

Figure 16. Asthma Emergency Department Visits (Children Under 18 Years), by Boston and Selected Indicators, Age-Adjusted Rate per 10,000 Residents, 2020



DATA SOURCE: Massachusetts Center for Health Information and Analysis, Acute Hospital Case Mix Databases, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

Figure 17. Asthma Emergency Department Visits (Children Under 18 Years), by Boston and Neighborhood, Age-Adjusted Rate per 10,000 Residents, 2020



DATA SOURCE: Massachusetts Center for Health Information and Analysis, Acute Hospital Case Mix Databases, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

Mental and Behavioral Health

According to the American Academy of Pediatrics (AAP), approximately 1 in 5 children and adolescents in the United States have a diagnosable mental health disorder[xvi]. The AAP underscores the importance of promoting social-emotional health and cultivating safe, nurturing relationships. The mental health of parents and caregivers also impacts children's mental and physical health[xvii]. Behavioral health is an overarching term for the connection between behaviors and people's mental and physical health.

Parent and Caregiver Mental Health

Mental health of children and families was a key issue pre-pandemic, and not surprisingly, the impact of the pandemic only heightened that concern. The well-being of adults who support youth emerged as a concern, including caregivers who took care of others during the COVID-19 pandemic and did not have the opportunity to also care for themselves, and teachers and school staff who respond to behavioral health issues in school settings. Interviewees directly highlighted the impact that parental mental health has on children, for example noting that "*sometimes parents need supports in order for the kids to thrive."* According to the COVID-19 Health Equity Survey, during the COVID-19 pandemic, 17.1% of Boston adults with at least one child in the home reported experiencing persistent sadness – defined as feeling down, depressed, or hopeless more than half of the days in the previous 2 weeks (see Appendix D, Figure 51). Additionally, 20.3% of Boston adults with at least one child in the home reported feeling persistent anxiety during the pandemic – having felt nervous, anxious, or on edge for more than half of the days in the past 2 weeks (see Appendix D, Figure 52).

Several focus group and interview participants discussed how the COVID-19 pandemic worsened mental health issues, including: social isolation, fear about contracting the virus, feeling overwhelmed by constant and changing information about the pandemic, and uncertainty about what the pandemic holds. As noted above, the mental health of parents and caregivers is related to mental health outcomes for children. In several discussions, participants also attributed the COVID-19 pandemic to worsening the high levels of stress that many low-income families already experience. They also noted that the resources that facilitate community connections, such as in-person meeting spaces and community centers, have been closed at times due to COVID-19 safety measures, and these closures hamper community building efforts.

Youth Mental Health

Several focus group and interview participants emphasized the impact of the COVID-19 pandemic on children and youth and discussed that they were especially concerned about mental health worsening among youth during the pandemic. Many interviewees stated that they have witnessed an increase in mental health issues in their communities and among children and families due to the COVID-19 pandemic, describing the "*[u]ncertainty and anxiety that goes with COVID – it has impacted mental well-being*." Youth focus group members cited insufficient sleep, family issues, unhealthy relationships, the stress of school, busy schedules that make it difficult to practice self-care, peer pressure, and unhealthy coping mechanisms as

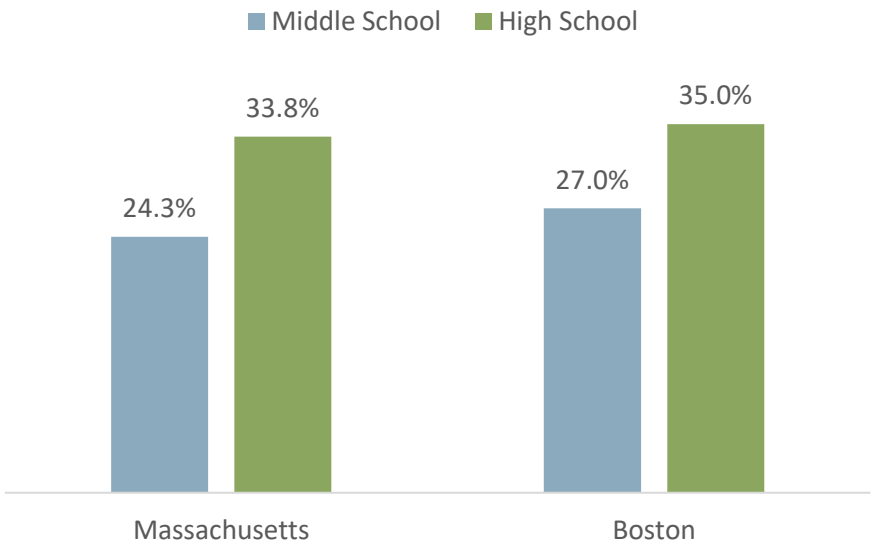
> *"Everything is so interwoven. [There are] a lot of young people with significant depression and anxiety, but [we're] also talking about a lot of PTSD, implications related to trauma, poverty, and neglect."*
> - Key informant

factors that affected their mental health. Additional impacts of the pandemic on children and youth described by participants included the disruption of their routines and trauma, despair, adverse childhood experiences, overcrowded housing, and addiction. Youth described being exposed to toxic environments at home during the stay-at-home phase of the COVID-19 pandemic.

Prior to the pandemic, mental health among youth was a concern. Pre-pandemic, 27.0% of middle school students and 35.0% of high school students in Boston reported feeling sad or hopeless almost every day for more than two weeks in a row; statewide, 24.3% of middle school students and 33.8% of high school students reported persistent sadness (Figure 18). Participants in qualitative discussions shared the perception that the pandemic has impacted youth mental health; statewide data from the MA COVID-19 community impact survey support this perception and indicate that, in 2020, 48% of Massachusetts young people ages 14-24 reported persistent sadness. Additionally, initial results from the 2021 Youth Risk Behavior Survey indicate that the percentage of students reporting persistent sadness has increased to 35.6% among Boston middle school students and 43.9% among Boston high school students[xviii].

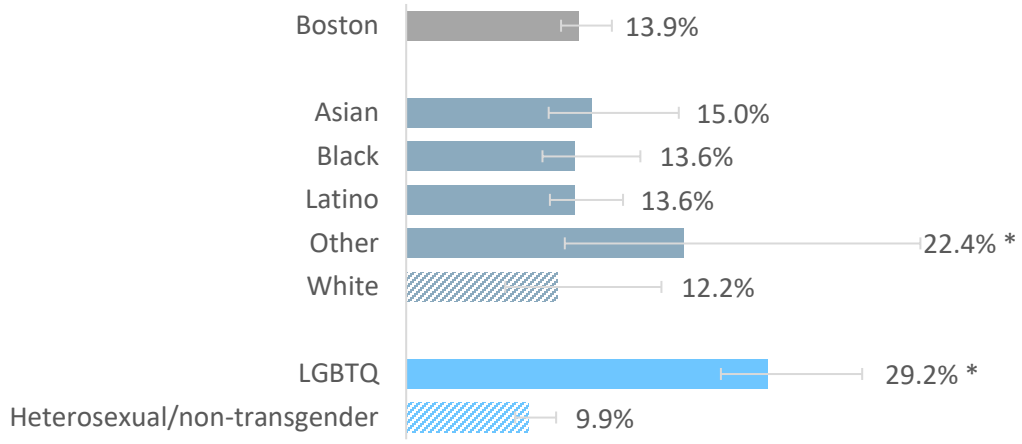
Pre-pandemic, nearly 14% of Boston high school students overall and nearly 30% of LGBTQ students reported having had suicidal thoughts (Figure 19). Initial results from the 2021 Youth Risk Behavior Survey indicate that while the percentage of Boston high school students who have seriously considered attempting suicide (15.6%) has not changed significantly since 2019, the percentage of middle school students who reported in 2021 that they have seriously considered attempting suicide (27.6%) has increased significantly since 2019[xix].

Figure 18. Percent Students Experiencing Persistent Sadness, by MA and Boston, 2019



DATA SOURCE: Massachusetts (2019) and Boston (2019) Youth Risk Behavior Survey (YRBS)
NOTE: Students were asked if they felt sad or hopeless almost every day for >=2 weeks in a row so that they stopped doing some usual activities, ever during the 12 months before the survey

Figure 19. Percent Boston Public High School Students Reporting Having Suicidal Thoughts, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



DATA SOURCE: Centers for Disease Control and Prevention and Boston Public Schools, Youth Risk Behavior Survey, 2015, 2017, and 2019 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

Among encounters at Boston Children's main campus and campus locations between January 1, 2020 and December 15, 2021, 4.2% and 2.9% of patients with a Boston home zip code had an ICD-10 anxiety and depression diagnosis, respectively (Table 3). The percentage of patients with an anxiety and/or depression diagnosis was highest among the 15-18 and 19-24 age groups.

Table 3. Boston Children's Hospital Inpatient and Outpatient Encounters with ICD-10 Anxiety and/or Depression Diagnoses, by Patients with Boston Home Zip Code, 2020-2021

	Anxiety (N=2,429)	Depression (N=1,669)
Overall	4.2%	2.9%
Age Group		
0-3 years	0.2%	*
4-5 years	1.1%	*
6-10 years	2.2%	0.5%
11-14 years	6.2%	3.6%
15-18 years	11.2%	9.9%
19-24 years	11.4%	8.5%
25+ years	1.2%	0.7%
Deceased	0.0%	*
Race/Ethnicity		
Asian, non-Hispanic	2.0%	1.9%
Black, non-Hispanic	5.0%	4.2%
Hispanic	5.9%	3.9%
Multiracial, non-Hispanic	5.3%	2.4%
White, non-Hispanic	4.6%	2.6%
Another race, non-Hispanic	3.7%	2.5%

Unknown	1.4%	0.9%

DATA SOURCE: Data source: Boston Children's Hospital Patients with a Boston home zip code identified as having an ICD-10 anxiety and/or depression diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

Mental and Behavioral Health Care Access and Barriers to Care

Many interviewees described unmet need due to a lack of therapy and youth mental health services, and in particular a need for more care that is trauma-informed, culturally competent, and staffed by "*people of color.*" Participants discussed several barriers to accessing mental health care. On the supply and demand side, participants observed a limited number of mental health providers in the community and in school settings, long wait lists, and few mental health services for children. One provider noted that behavioral health referrals were at the highest level that they could recall. Financial barriers to mental health care identified by key informants and focus group participants included bureaucratic barriers, such as needing a referral from a primary care provider, and limited mental health options for low-income communities. Several focus group participants described a lack of culturally appropriate and linguistically congruent care for low-income residents, residents of color, and LGBTQIA+ patients. Some focus group participants discussed stigma surrounding mental health care, particularly for immigrant communities, communities of color, and youth. As one resident noted, *"They think asking for help is a weakness, not a strength."*

Since October 2021, the Massachusetts Health & Hospital Association (MHA) has been tracking behavioral health boarding metrics weekly, including pediatric boarding metrics[xx]. Psychiatric boarding occurs when a patient must wait in an emergency department (ED) or medical-surgical floor until a psychiatric inpatient bed is available. The COVID-19 pandemic has exacerbated pediatric boarding, likely due to both greater need and staffing challenges, and resulted in higher numbers of behavioral health boarders. As of the most recent available report (7/11/22), the number of pediatric boarders (ages 0 – 17) in MA over the last 4 weeks ranged from 128 the week of June 21st to 54 the week of July 11th.

> *"…young people may still be waiting at home, or in ERs waiting for beds, or held in [the] Department of Youth Services or something else…"*
> - Key informant

Substance Use

While substance use emerged as a key concern among Boston residents prior to the pandemic, substance use was less commonly discussed as a health concern in recent focus groups and interviews, perhaps because residents largely discussed how the COVID-19 pandemic worsened inequities in the social determinants of health. Some focus group participants discussed substance use concerns, including misuse of drugs, overusing prescriptions and over-the-counter medicines, and smoking nicotine and marijuana. Residents discussed substance use concerns as particularly affecting LGBTQIA+ residents and youth, and described substance use as a coping mechanism for dealing with stress. According to initial results from the 2021 Boston Youth Risk Behavior Survey, between 2019 and 2021, substance use among middle and high school students decreased or stayed the same overall[xxi].

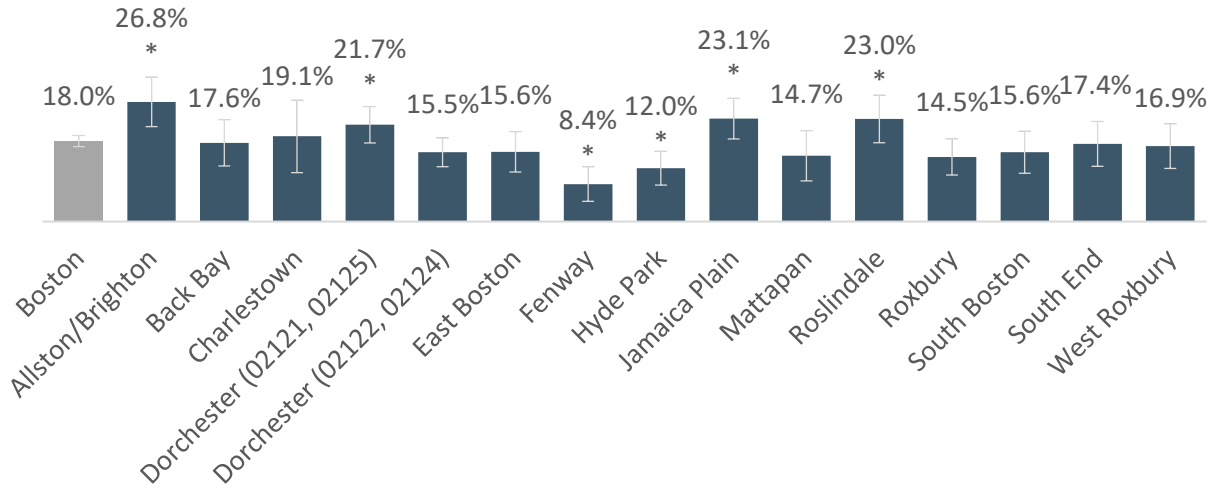
Trauma and Violence

Trauma, Discrimination, and Racism

Trauma and related issues were discussed among a number of residents and leaders in assessment conversations. Several participants discussed the characteristics of childhood trauma – such as racism, violence, poverty, home environments, housing conditions, addiction, neglect, and the loss of loved ones – and how they have affected all aspects of a person's life from behavioral to economic to health.

The mental health of caregivers is one of many potential sources of childhood trauma. About 18.0% of Boston residents reported having lived with a caregiver with mental illness as a child (Figure 20). About 1 in 4 adults in Allston/Brighton reported having lived with a caregiver with a mental illness when they were young, followed by about 1 in 5 adults in Jamaica Plain, Roslindale, and Dorchester (02121, 02125).

Figure 20. Percent Adults Reporting Having Lived with a Caregiver with Mental Illness as a Child (ACE), by Boston and Neighborhood, 2015, 2017, 2019 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting that they have ever lived with a parent or caregiver who was depressed, mentally ill, or suicidal; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$); Error bars show 95% confidence interval

Several participants described how racism and discrimination affects the mental well-being of residents of color, citing the role of intergenerational trauma, such as the history of slavery; stereotypes that devalue people of color; and "white-washing" critical histories and cultural practices for people of color. Several participants mentioned systemic racism and white supremacy as affecting multiple opportunities and facets of life, including jobs, housing, safety, and educational opportunities.

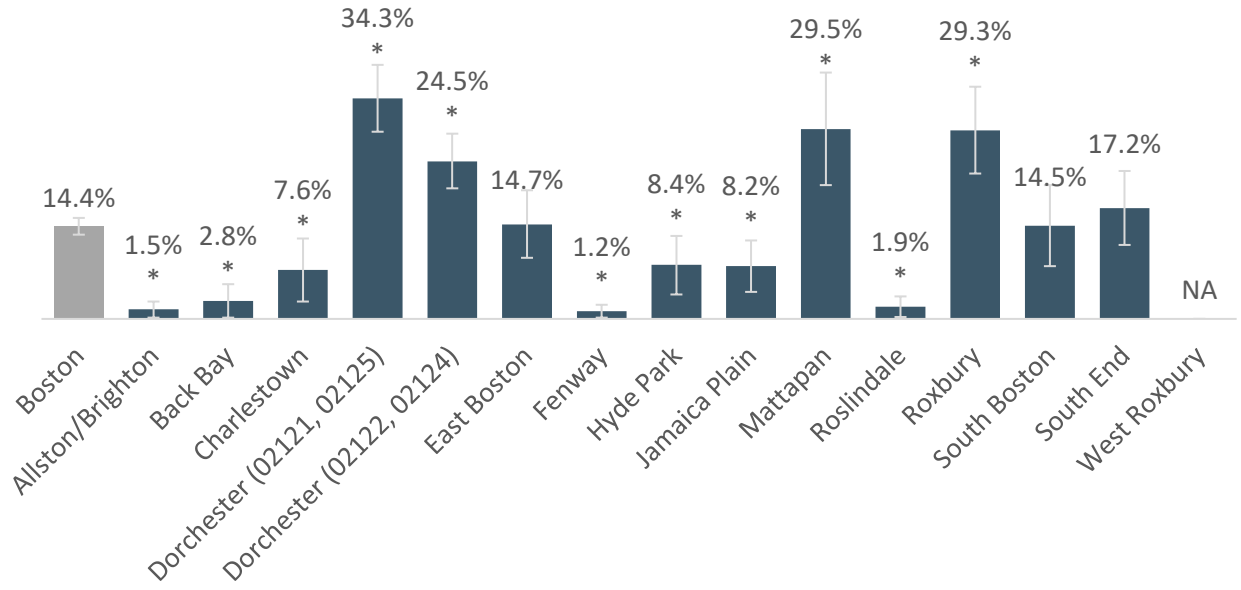
Focus group and interview participants also discussed discrimination specifically against LGBTQIA+ communities, particularly transphobia, as an important driver of mental health issues affecting LGBTQIA+ communities. Participants also noted that LGBTQIA+ residents of color experience stress related to multiple forms of discrimination.

Neighborhood Safety

Neighborhood safety concerns were a discussion topic among focus group and interview participants, and the impact of community violence on youth was noted. Interviewees noted that many mental health issues among youth stem from community violence and trauma, such as homelessness. According to 2015-2019 BRFSS data, 14.4% of Boston residents perceived their neighborhoods as unsafe, with the highest percentage of residents from Dorchester (all zip codes), Mattapan, and Roxbury indicating concerns about neighborhood safety (Figure 21). Many focus group and interview participants reiterated these sentiments and also discussed that they were concerned about an increase in neighborhood safety, particularly around gang-affiliated violence, during the pandemic.

> *"…young people are absolutely impacted by community violence. A lot of it is cyclical – hurt people hurt others."*
> - Key informant

Figure 21. Percent Adults Reporting Their Neighborhood Unsafe, by Boston and Neighborhood, 2015, 2017, and 2019 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting considering their neighborhood to be unsafe from crime; NA denotes where data are not presented due to insufficient sample size; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$); Error bars show 95% confidence interval

Interpersonal Violence and Bullying

While data on community violence and youth trauma is limited, data on bullying, fights, and dating violence are available from the Boston High School Youth Risk Behavior Survey. In the 2019 Youth Risk Behavior Survey, 19.3% of Boston public high school youth reported that they had been in a physical fight over the past 12 months (data not shown; rate has not changed since previous CHNA). In the 2019 Youth Risk Behavior Survey, approximately one in ten Boston high school students (11.2%) reported being bullied on school property in the past year (data not shown; rate has not changed since previous CHNA).

Birth Outcomes

Low birthweight (born less than 5 lbs., 8 oz.) and preterm births (born less than 37 weeks gestation) are both important risk factors for infants. In 2019, 8.7% of babies born in Boston were born low birthweight and 10.0% were considered preterm (Figure 22 and Figure 23). For both low birthweight and preterm births, rates have remained relatively stable since the previous CHNA (data not shown, see 2019 Boston Children's Hospital Community Health Needs Assessment). Low birthweight and preterm births were significantly higher among Black and Latino mothers compared to White mothers.

Figure 22. Percent Low Birthweight Births, by Boston and Race/Ethnicity, 2019

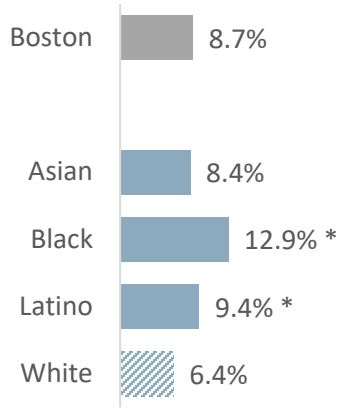
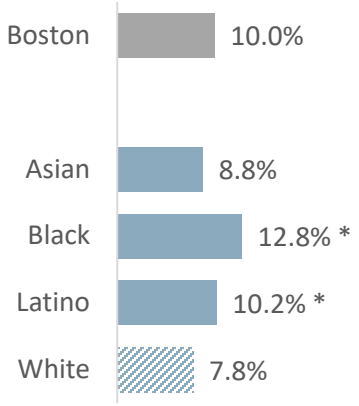


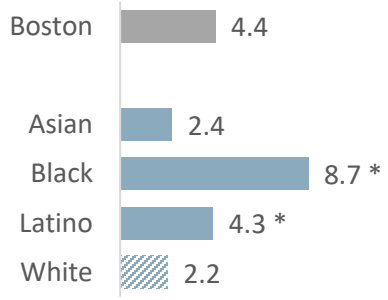
Figure 23. Percent Preterm Births, by Boston and Race/Ethnicity, 2019



DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Live Births, 2019
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Low birthweight is defined as weighing less than 5 pounds, 8 ounces; Preterm birth is defined as being born before 37 weeks of gestation; 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)

The infant mortality rate is defined as the death of an infant before 1 year of age. While the infant mortality rate has remained relatively stable over time (data not shown, see 2019 Boston Children's Hospital Community Health Needs Assessment), this rate is significantly higher among Black and Latino births (Figure 24).

Figure 24. Infant Mortality Rate, by Boston and Race/Ethnicity, Rate per 1,000 Live Births, 2017-2019 Combined

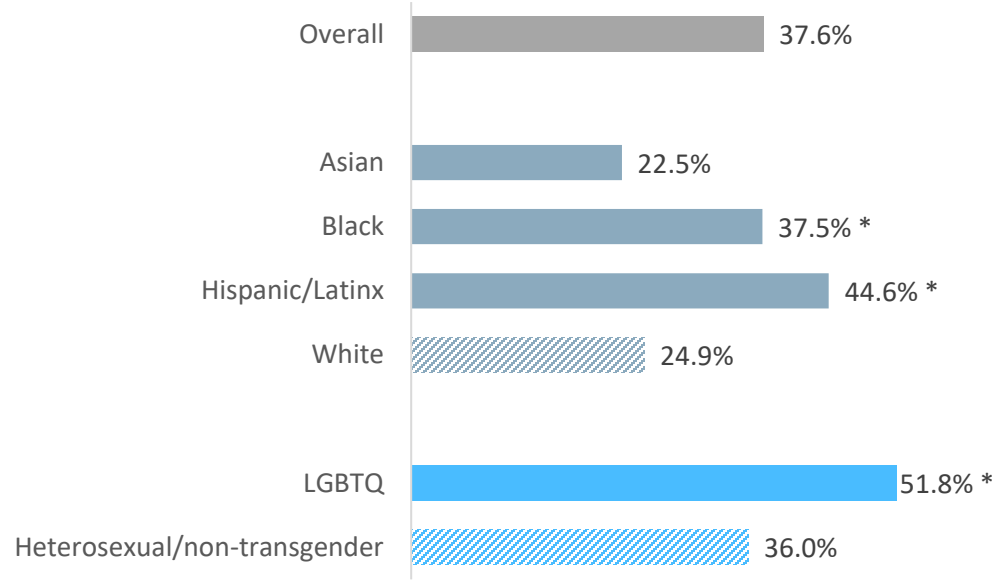


DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Live Births, 2017-2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Infant mortality is defined as the death of an infant before 1 year of age; Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05)

Sexual Health

According to 2019 Youth Risk Behavioral Survey results, 37.6% of Boston Public High School students reported ever having sex (Figure 25). The proportion of Hispanic/Latinx (44.6%) and Black students (37.5%) who reported they had ever had sex was significantly higher than White students (24.9%). About half (51.8%) of students who identified as LGBTQ had ever had sex, which was significantly higher than students who identified as heterosexual/non-transgender (36.0%). According to an analysis from the BPS Office of Health and Wellness, sexual risk behaviors among high school students have decreased over time[xxii]. In 2021, 27% of high school students ever had sexual intercourse, a decrease from 38% in 2019 and 61% in 1993. The topic of sexual health was not discussed frequently among interview and focus group participants. The pandemic should again be noted here as this context may have impacted sexual behaviors.

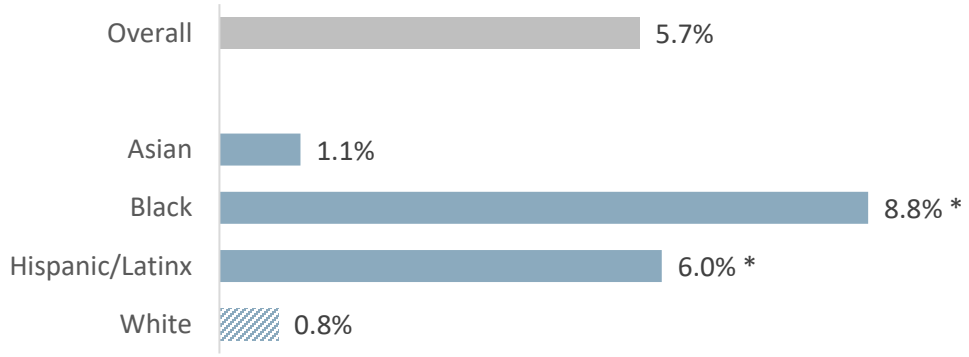
Figure 25. Ever Had Sexual Intercourse, by Boston High School Students, 2019



DATA SOURCE: 2019 Boston High School Youth Risk Behavior Survey (YRBS)

In 2019, 5.7% of Boston public high school students reported that they had ever been pregnant or gotten someone pregnant (Figure 26). The proportion of Black (8.8%) and Hispanic/Latinx students (6.0%) who reported they had ever been pregnant or gotten someone pregnant was significantly higher than White students (0.8%). According to an analysis from the BPS Office of Health and Wellness, in 2021 the prevalence of students who have been pregnant or gotten someone pregnant was reduced to one-third of what it was in 2019 (5.7% in 2019 to 1.8% in 2021)[xxiii].

Figure 26. Ever Been Pregnant or Gotten Someone Pregnant, by Boston High School Students, 2019



DATA SOURCE: 2019 Boston High School Youth Risk Behavior Survey (YRBS)

Overall Mortality and COVID-19

In 2020, COVID-19 was the leading cause of death for Black, Latino, and Asian residents in Boston, whereas cancer was the leading cause of death for White residents (Table 4). Key informants and focus group participants described a high case rate of COVID-19 for immigrant communities of color (e.g., Haitian, Cape Verdean, Latino) and for residents of color and low-wage workers who were not able to work from home**.** Between January 2020 to November 2021, more than 167,000 children under 18 nationally and 2,097 children under 18 in Massachusetts lost a parent or in-home caregiver to COVID-19[xxiv]. These children and teenagers under 18 years of age who have lost a parent or other co-residing caregiver to COVID-19 may be experiencing grief and trauma.

Table 4. Leading Causes of Mortality, by Boston and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2020

	Boston	Asian	Black	Latino	White
1	**COVID-19** 138.4	**COVID-19** 95.1	**COVID-19** 238.1	**COVID-19** 143.5	**Cancer** 117.6
2	**Cancer** 117.4	**Cancer** 92.8	**Heart Disease** 183.6	**Heart Disease** 86.1	**Heart Disease** 113.1
3	**Heart Disease** 114.9	**Heart Disease** 55.4	**Cancer** 166.7	**Cancer** 78.8	**COVID-19** 103.5
4	**Accidents** 53.7	**Cerebrovascular Diseases** 22.2 †	**Accidents** 82.7	**Accidents** 59.5	**Accidents** 53.2
5	**Cerebrovascular Diseases** 27.4	**Accidents** 17.1 †	**Cerebrovascular Diseases** 52.8	**Diabetes** 27.4	**Chronic Lower Respiratory Diseases** 24.7

DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Deaths, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Please be advised that 2020-2022 data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Massachusetts Department of Public Health strongly cautions users regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events; Dagger (†) denotes where rates are based on 20 or fewer deaths and may be unstable

ACCESS TO HEALTH CARE AND SOCIAL SERVICES

Accessing Health Care Services

Overall Barriers to Health Care

> *"Families with limited resources have more problems with access to services to better their child's health."*
> - Key informant

Access to health care services remains a concern for families, particularly those with limited resources. Assessment participants in 2022 cited some very similar barriers to accessing health care as they did in the previous community health needs assessment. According to recent focus group participants, income-related barriers to accessing care were common and included income restrictions for qualifying for MassHealth, a lack of insurance benefits linked with employment, unaffordable out-of-pocket and surprise medical expenses not covered by health insurance, the high cost of medications (particularly for people with chronic illnesses or in cases where multiple sets of medications are needed, for example to keep at school and at home for pediatric asthma control), and the challenge of finding a job that provides insurance benefits. Some interviewees shared that, in general, families are "*keeping up with screenings"* and wellness exams, but that access becomes a concern when follow-up care or wraparound, long-term services are needed. Language and lack of cultural competence were also specific barriers to care described by some interviewees, especially for immigrant families. According to participants, language barriers and limited culturally relevant care make it difficult to navigate and access health care and social services and to follow treatment plans for residents for whom English is not their first language. This was particularly salient in conversations with Cape Verdean Creole speakers.

Persistent barriers to accessing pediatric healthcare services, including high costs of care and long wait times, were a cross-cutting theme in conversations with organizational stakeholders and providers in the 2022 Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment (CHNA), focused on Brockton, Framingham, Needham, Quincy, Randolph, Waltham. New immigrant children and families faced unique challenges. Organizations serving newly arriving immigrant families spoke about how it can take three to four months for children enrolled on MassHealth to get seen by a pediatrician and how variability in cost of care is a challenge for resource-strapped families. Physical health examinations are required for school attendance, and therefore given these delays in accessing care one strategy used by families is to go to Urgent Care for their child's required examination. Some stakeholders described recommending care at practices outside the community known for less expensive care as a strategy to help these families avoid expensive medical bills.

COVID-19 Vaccination Rates

As described above, this CHNA was conducted during an unprecedented time given the ongoing COVID-19 pandemic. Assessment participants described how racial/ethnic inequities in health care access and social factors that shape health care access – such as transportation and Internet access – have been magnified by the COVID-19 pandemic.

COVID-19 vaccinations were approved for persons older than 16 years in December 2020; for children aged 12-15 years in May 2021; for children aged 5 to 11 in November 2021; and for ages 6 months to 4 years as recently as June 2022[xxv]. Vaccination data were assessed from July 2022 (the most recent data

available) to better understand the status of COVID-19 vaccination among children. Table 5 shows the percentage of children in Boston fully vaccinated against COVID as of July 20, 2022. The vaccination rate was highest among children ages 12-15 years (84.0%) and lowest among children ages 0-4 years (0.5%), perhaps not surprisingly given the very recent approval data for ages 6 months to 4 years.

Table 5. Fully Vaccinated Against COVID-19 by Age, by Boston, 7/20/22

Age Group	%	n
0-4 years	0.5%	166
5-11 years	50.6%	19,155
12-15 years	84.0%	17,467
16-19 years	52.7%	21,559

DATA SOURCE: Massachusetts Department of Public Health, Covid-19 Vaccine Report, 2022
NOTE: Data as of 07/20/22. Fully vaccinated is defined as individuals vaccinated with the number of doses required to complete the COVID-19 vaccine series. This is measured as the total number of 2nd doses of Moderna and Pfizer administered and reported plus the total number of Janssen/Johnson & Johnson doses administered and reported.

Accessing Youth-centered Programming and Other Social Services

Focus group and interview participants discussed additional challenges of accessing the range of social and other services that might be available. These barriers included limited transportation, difficulty navigating application processes, limited Internet for completing applications, and lack of eligibility due to immigration/documentation status.

Among Boston Children's interviewees in particular, one service gap that was frequently raised was access to extracurricular activities or afterschool programs. Some interviewees stated that options for afterschool programming, and youth engagement in general, are limited. Interviewees shared that afterschool programming is important because it can provide opportunities for youth to be physically active, and "*make them feel a part of the community in a positive way*." Interviewees acknowledged that COVID-19 has made it "*a lot harder to get kids engaged in afterschool programming,"* but also pointed to the increased isolation due to COVID-19 and therefore the heightened importance of these types of services. Interviewees shared the perception that more extracurricular and afterschool programming for youth is needed, with one interviewee stating that "*[we] do have the Boys & Girls Clubs and YMCAs but they always have a capacity*." Additionally, one interviewee also specified that affordability of these types of programs is a barrier for some families. In addition to extracurricular activities, a few interviewees highlighted a need for additional workforce development programs. For example, one interviewee suggested that youth employment should be prioritized year-round, sharing that "*Why do we expect kids living in poverty to just have jobs in the summertime? The funding they get through employment absolutely helps their family, helps community*."

> *"…you have to pay for whatever sport or extracurricular your child is getting into, people can't afford it because it's expensive."*
> - Key informant

COMMUNITY SUGGESTIONS FOR THE FUTURE: INITIATIVES, PROGRAMS, AND SERVICES

Overview of Suggestions Identified in Boston CHNA

Participants in interview and focus group discussions for the Boston CHNA were asked for their suggestions to address identified needs. Some suggestions focus directly on children, youth, and families; other opportunities relate to adults or communities more broadly but are relevant given the impact of adult well-being and healthy communities on child health noted throughout this report. These suggestions include:

- **Promote Child and Youth Development:** Key informants and focus group participants as well as Community Advisory Board members recommended a number of strategies to promote child and youth development. In the school context, recommendations included providing more funding for schools and creating programs where school nurses provide hygiene kits for students. Another set of recommendations pertained to creating more community-based spaces for youth, such as fully-staffed libraries and community centers, which could provide support with academics, opportunities to be active, workforce development opportunities, and connection to resources, and bring longstanding and new residents together. The importance of increased funding for the youth development workforce was also noted. Another recommendation included affirming LGBTQIA+ youth. Supporting caregivers and low-income families also emerged as a recommendation, including improving parent supports to access resources and services and navigate educational and criminal justice systems.

- **Improve Access to and Quality of Mental and Behavioral Health Care:** Recommendations by focus group and interview participants to improve access to mental health care included improving access to mental health for youth; making therapy accessible to low-income communities and in the primary language of patients; incorporating mental health care into community health centers; and increasing awareness about and addressing stigma around mental health services. In terms of improving quality of mental health care, recommendations included increasing culturally congruent care for residents of color and LGBTQIA+ communities; providing peer-to-peer and group therapy models; and incorporating art therapy to engage youth in mental health care. Other recommendations included providing a list of mental health resources that is available in residents' primary language; training community-based stakeholders to respond to mental health crises; and addressing substance use and addiction through mental health care.

- **Strengthen Health Care Policies and Improve Health Care Access and Quality:** To improve health care coverage and access, key informants and focus group participants recommended supporting enrollment in MassHealth and other programs for low-income residents such as food and cash aid benefits; lowering health insurance rates; providing access to a wider range of affordable health plans; compensating spouses as personal care assistants under MassHealth; and covering personal protective equipment through health insurance.

  Interview and focus group participants also discussed the importance of improving access to preventive and specialty care and collaborating with grassroots organizations when designing efforts to improve health care access. Residents also cited the need to make health care more accessible by providing care in patients' primary language, ensuring that health care is available at times that are feasible for residents who work multiple jobs, and addressing transportation barriers to accessing

health care. To improve provider sensitivity to patients' needs, residents recommended recruiting more bilingual providers and providers of color to more closely reflect underserved patient populations; training providers to better serve people of color, low-income residents, and people with disabilities; and ensuring providers are connected with the communities they serve.

A recommendation related to the social determinants of health and health care access included providing wrap-around services by addressing multiple health care needs (e.g., preventive care, vaccines). Relatedly, key informants and focus group participants suggested connecting residents with community-based resources in clinic or other community-based (e.g., churches, schools, YMCA) settings located in low-income communities and communities of color. Key informants and focus group participants recommended using this local, centralized setting to connect patients with community resources, leverage medical-legal partnerships to improve residents' access to legal supports, coordinate care for seniors, support the transition from pediatric to adult care, and improve care and support for people with disabilities. One key informant recommended building the capacity of community health workers or other peer-to-peer models to support residents in navigating social and health care systems and to build resident awareness of health issues.

- **Create Opportunities that Foster Economic Stability and Mobility:** Recommendations for improving employment opportunities included improving job training opportunities designed to facilitate economic mobility for youth and adults, creating opportunities for immigrant health professionals who trained and practiced in their home country to work in the local health care system, and bringing hospitals and community-based organizations together to create health careers training programs for youth. Additional recommendations included partnering with small businesses to recruit and hire local residents and pay workers a living wage, fostering work environments that are inclusive of LGBTQIA+ communities, and addressing discrimination in hiring and work environments.

  Strategies to address growing income inequities, as recommended by key informants and interview participants, included containing rising costs, taxing wealthy households and corporations, ensuring residents have life insurance, and forgiving student loans. While several key informants noted that there are several social and economic resources available to support Boston residents, key informants and focus group participants emphasized the importance of connecting residents with these resources and services. Recommendations for supporting immigrants include creating pathways for immigrants to complete any credentialing needed to enable them to work locally, supporting immigrants seeking asylum, and increasing volunteer-based programs to support immigrant communities. Improving resources and services for veterans and LGBTQIA+ communities also emerged as recommendations.

- **Improve Housing Affordability:** Community leaders' and residents' recommendations for promoting housing affordability and stability pertained to improving the availability of low-income housing, increasing access to affordable housing through programs such as rent control and rental assistance, and using vacant buildings as homeless shelters. Another set of recommendations by participants pertained to investing in homeownership models for low-income residents, including asset building programs such as rent-to-own programs for affordable housing and housing loans for low-income residents. Institutionally, one recommendation pertained to ensuring that development projects include credits that are returned to the community to improve housing access and quality.

- **Create a Healthier Environment:** Having a healthier environment – built environment, green space, and air quality—was important to focus group and interview participants, and they cited a number of suggestions for the future. While some interviewees focused on specific aspects of day-to-day life for community residents (e.g., physical activity opportunities, food access, lead remediation, housing affordability and stability, education, safety), many shared a broader vision for communities in which children thrive. As one interview summarized, "*I want all young people to thrive. To do that, they need to have their needs met*." Residents described the importance of providing families with air filters, improving air quality, cleaning up vandalism and trash, and improving transportation. Recommendations for improving access to healthy and affordable food included improving school lunches to offer healthy, fresh food; bringing healthy food to neighborhoods that lack access to healthy, affordable food; and providing nutrition education to LGBTQIA+ communities.

- **Focus on Dismantling Systemic Racism:** Interview participants' recommendations to address systemic racism included developing hospital-based reparations funds for neighborhoods such as Roxbury, in which hospital campuses are based and which also experience persistent health inequities and developing land trusts that can serve as community spaces. Another recommendation pertained to providing continual education (e.g., Equity, Diversity, and Inclusion training) for institutions and people who work with people of color and low-income communities to improve understanding of and build capacity to address systemic racism and implicit bias. One key informant recommended that schools, businesses, non-profit organizations, governmental, and health care sectors participate in this training.

- **Deepen Partnerships with Local Communities and Collaborate to Promote Health Equity:** While some interviewees described effective collaboration happening throughout the city, they discussed several barriers to collaboration. These challenges included decentralized partnerships and competition for funding among local non-profit organizations, which they noted undermines relationship building. Several interviewees called for creating and strengthening partnerships that create and implement long-term strategic plans to promote community health, and developing and deepening long-term relationships between City of Boston agencies (e.g., schools, housing, public health), hospitals, and smaller community-based organizations. To accomplish these goals, key informants recommended centering the voices of affected residents in planning and implementation processes, engaging community builders and community organizers, funding community-based initiatives to implement strategies to address health inequities, and creating centralized mechanisms to share information and resources with residents. Key informants also recommended disseminating CHNAs and CHIPs in modes that improve access to the general public and center resident voices.

Overview of Suggestions Identified in Route 128 DoN CHNA

Participants in the 2022 Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment (CHNA), focused on Brockton, Framingham, Needham, Quincy, Randolph, Waltham, also shared their vision and priorities for action related to four child health priorities. Several suggestions emerged, though most frequently discussed were suggestions related to services for school aged children, extracurricular and social opportunities, and addressing the broader social determinants of health. Many of these strategies align with areas for future programs and services also identified by the Boston CHNA participants. The following specific suggestions for future strategies to address needs related to four child health priorities emerged:

- **Early Childhood Education and Care Strategies:** To support the early education workforce and to increase access to early childhood development opportunities, participants offered strategies included: providing free or low-cost vocational training and credentialing; providing small business support to licensed programs; building skills and capacity of unlicensed caregivers; and providing parenting programs and playgroups.

- **Mental Health and Wellbeing:** Interviewees and focus group participants suggested various strategies to ensure access to counseling and support and to increase social connectedness. These strategies included coordinating access to mental and behavioral health services across delivery systems (in childcare settings, schools, etc.); providing comprehensive health education programs for youth; providing Mental Health First Aid and trauma training for staff, parents, or youth; supporting ongoing peer support and mentorship groups; and offering free child/youth extracurricular activities.

- **Housing and Transportation Strategies:** Participant suggestions to support affordable housing options, ensure housing access, support transportation access, and support active travel included: improve outreach and enrollment for existing housing assistance programs and support temporarily flexible funds to fill gaps; provide homeownership education and down payment assistance; develop service-enriched housing; provide legal support in eviction proceeding; offer debt advice for tenants with unpaid rent; support tenant rent protection policies and inclusionary zoning and housing policies; introduce or expand non-emergency medical and social services transportation; introduce or expand public transportation options; and promote walking and biking.

- **Food Access and Obesity Strategies:** Lastly, interviewees and focus group participants described strategies to increase healthy food access, promote healthy eating and physical activity, and create opportunities for active living. These suggestions included: improve SNAP outreach and enrollment; modifying the school lunch environment to increase healthy food options; support fruit and vegetable incentive programs; support healthy emergency food initiatives; support farmers markets, mobile markets, and community gardens; support school and community food education programs; offer nutrition prescriptions at health visits; provide before and after school extracurricular activities for children and adolescents to be physical active; develop active public parks and greenspace; support community fitness programs and offer open gym times at schools; and arrange active transportation when children can walk to school with adult chaperones.

KEY THEMES

Through a review of secondary data, Boston Children's encounter data, and key informant and focus group data collected by Boston Children's and as part of the larger Boston CHNA process, this assessment report describes the social and economic context of Boston Children's priority neighborhoods, key health issues and concerns, and perceptions of assets and opportunities for addressing current needs and gaps. The data indicate that Boston Children's current priority areas – mental health and emotional wellness, housing, youth-centered and engaged programming, asthma, healthy weight including access to affordable and nutritious food, and early childhood – continue to remain areas of high concern for community residents and other stakeholders.

Several overarching themes and conclusions emerged from this synthesis:

- **Boston is a diverse city with many community strengths and a breadth of community-based institutions and services.** Boston's population is incredibly diverse in terms of race and ethnicity, country of birth, and language use. According to Census estimates, approximately 3 in 5 Boston residents identify as people of color. Key informants and focus group participants noted many languages spoken among residents, including Cantonese, Mandarin, Russian, Spanish, Haitian Creole, Cape Verdean Creole, and indigenous languages. About 1 in 6 Boston residents are younger than 18 years old. Participants in interviews and focus groups identified many community strengths including the *"resilient, talented young people."*

- **Boston families are grappling with a high cost of living; the COVID-19 pandemic has worsened income inequalities and the level and severity of poverty for low-income residents across Boston.** Over 4 in 10 Boston adults (43.7%) and almost 3 in 5 residents (57.1%) with at least one child in the home reported that they had experienced a loss of income during the COVID-19 pandemic; Black (49.9%) and Latino residents (62.3%) were most impacted. During interviews and focus groups, residents described the cost of living as high and rising, including increasing housing and food costs while wages have remained the same. Several residents also noted the difficulty of finding secure and stable jobs, particularly for residents of color and immigrants.

- **A need for more affordable, high-quality, and stable housing remains and has increased due to the pandemic.** Housing instability, the stress of unaffordable housing costs, and poor housing quality increase the risk of adverse health outcomes for children and families. Housing concerns in the city of Boston have been pervasive for years and many residents were even more concerned about being able to afford where they live during the COVID-19 pandemic. More than 4 in 10 (41.5%) residents and over half (54.7%) of residents with at least one child in the home reported that they have had trouble paying their rent or mortgage during the COVID-19 pandemic.

- **Access to early childhood services is a problematic barrier for families to achieve health and economic stability.** Affordable, quality childcare was difficult to find before the pandemic, but with parents' unpredictable work schedules, unforeseen childcare closings, and the need for many parents to work outside the home, assessment participants noted that finding care for young children was even more challenging during the pandemic. Between December 2017 and March 2021, there was an 11.3% decrease in the number of available childcare seats for children 0-5 years old across Boston. Furthermore, the number of eligible children being referred to Early Intervention Services decreased by 12% between February 2020 and February 2021.

- **Behavioral and mental health needs, including for youth, remain high and have been exacerbated by the pandemic.** In the Boston Children's Community Health Survey, "*mental health services"* was the top area that the hospital should focus on selected by respondents. Pre-pandemic (in 2019), 27.0% of middle school students and 35.0% of high school students in Boston reported feeling sad or hopeless almost every day for more than two weeks in a row; initial results from the 2021 Youth Risk Behavior Survey indicate that the percentage of students reporting persistent sadness has increased to 35.6% among Boston middle school students and 43.9% among Boston high school students. Assessment participants described a need for culturally appropriate and linguistically congruent mental health care for low-income residents, residents of color, and LGBTQIA+ patients. Several assessment participants also discussed the characteristics of childhood trauma and how they have affected all aspects of a person's life, from behavioral to economic to health.

- **Chronic disease, including asthma and obesity, remain a concern for children and families; food insecurity is an increased concern due to the pandemic.** While the rate of obesity among high school students has stayed relatively stable, inequities by race and ethnicity remain and assessment participants continued to describe childhood obesity as a concern. Food insecurity, namely barriers to accessing healthy, affordable food, also emerged as a key priority issue across many interviews and focus groups. Food insecurity patterns indicate that a greater proportion of residents and families report experiencing food insecurity since the COVID-19 pandemic; 20.8% of Boston residents and 36.5% of residents with at least one child in the home were considered food insecure during the pandemic. Several interviewees also shared concerns related to asthma prevention and control, and quantitative data show that asthma inequities by race and ethnicity and geography also remain. For example, the rate of asthma hospital patient encounters per 10,000 Boston residents among children under 18 is significantly higher among Black (129.0) and Latino (79.0) patients compared to White patients (27.9).

- **While birth outcomes have stayed relatively stable since Boston Children's 2019 CHNA, inequities remain.** In 2019, low birthweight and preterm births were significantly higher among Black and Latino mothers compared to White mothers. Additionally, combined 2017-2019 data show that the infant mortality rate is significantly higher among Black and Latino births compared to White births.

- **Boston has many health care and social service assets, but gaps and inequities remain; gaps in youth extracurricular activities, afterschool programs, and workforce development programs were noted in particular by participants.** Boston Children's interviewees shared the perception that extracurricular and afterschool programming for youth is limited and, for some families, unaffordable. Participants noted that the pandemic has increased isolation and made it harder to engage youth. A number of participants across conversations also discussed systemic racism, racial injustice, and discrimination as interwoven into U.S. social, economic, educational, and health care systems.

- **Concerns related to housing, mental health, and childcare were also prominent in satellite communities (Brookline, Lexington, North Dartmouth, Peabody, Waltham, Weymouth).** While there is variation in the sociodemographic profiles across Boston Children's satellite communities, many key informants across these communities described concerns related to affordable housing, increased mental health needs for children and families, and staffing shortages related to mental health care and childcare.

PRIORITY HEALTH NEEDS

Boston Children's Office of Community Health staff cross-walked the needs identified through the Boston Children's CHNA with:

1. input from Boston Children's Community Advisory Board (CAB),
2. input from residents through a Community Health Survey, and
3. alignment with parallel and related efforts: the Boston Children's Route 128 Determination of Need Community Health Needs Assessment and the 2022 Boston CHNA-CHIP priority areas.

This section describes the process and outcomes of the BCH CHNA prioritization process.

Needs Identified Through the Boston Children's CHNA

On May 10, 2022, Boston Children's presented preliminary findings from the CHNA to the Boston Children's Hospital Community Advisory Board (CAB). Boston Children's shared updated data on community social and environmental context and on each of the current strategic goals and priorities aligned with the 2019 Strategic Implementation Plan (SIP):

- Promote **mental health and emotional wellness**
- Support affordable **housing** for children and families
- Support **youth-centered and engaged programming**
- Improve health for children with **asthma**
- Encourage **healthy weight** and increase **access to affordable and nutritious food**
- Improve **early childhood education and developmental supports** for families with children Birth to Five.

Community Health Survey

To gather input from residents specifically around prioritization of health needs, as described above in the Methods section, Boston Children's fielded a 2022 Community Health Survey (n = 157). Key findings from this prioritization survey were also presented to the CAB on May 10, 2022.

As shown in Table 6, the leading area for respondents overall as well as for respondents with children under 18 and for non-English speakers was "*mental health services."* For respondents under 45, the leading area for focus was "*affordable childcare"* followed by *"mental health services."* The top five areas selected by respondents overall that Boston Children's should focus on were: 1) *mental health services*; 2) *affordable childcare*; 3) *healthy child development*; 4) *housing stability and homeownership*; and 5) *healthy food access*. It should also be noted that Boston Children's 2022 Community Health Survey aligned with a similar survey fielded in early 2022 by Mass General Brigham (n = 494)[2]. On the Mass General Brigham survey, the top five areas that respondents indicated hospitals should focus on to make their community healthier were: *"Mental health services," "Housing stability and ownership," "Improved care for medical conditions," Substance misuse and the opioid crisis,"* and "*COVID-19 pandemic."* Thus, in both surveys, "*Mental health services"* was the top area selected by respondents.

[2] Survey fielded January – March 2022 in six languages via paper copy and online; survey used a convenience sample and was completed by 494 respondents who were Boston residents. The Mass General Brigham and Boston Children's surveys had parallel response options for this question, with some additional response options on the Boston Children's survey.

Table 6. Top 5 areas that Boston Children's Hospital should focus on to help you make your community healthier

	All Respondents (N=157)	Respondents with Children Under 18 (N=79)	Respondents Under 45 (N=78)	Non-English Speakers (N=38)
1	Mental Health Services	Mental Health Services	Affordable Childcare	Mental Health Services
2	Affordable Childcare	Affordable Childcare	Mental Health Services	Affordable Childcare
3	Healthy Child Development	Teen/Adolescent Health	Housing stability & homeownership	Healthy Child Development
4	Housing stability & homeownership	Healthy Child Development	Healthy Child Development	Teen/Adolescent Health
5	Healthy Food Access	Healthy Food Access	Healthy Food Access	Substance abuse

Data Source: Boston Children's Hospital 2022 Community Health Survey

May 10th Boston Children's Community Advisory Board (CAB) Meeting

Following the presentation on preliminary findings from the CHNA and the Boston Children's 2022 Community Health Survey results, the CAB offered specific reflections on findings including the need to look at youth development staff salaries, the impact of social media on youth mental health, the pediatric boarding crisis, and the continued engagement of youth in this process. Through a facilitated conversation with the CAB, the following eight areas of need were identified for prioritization:

- Mental health prevention and services
- Affordable housing
- Early childhood education
- Youth supports
- Asthma care
- Food access
- Healthy weight
- Youth development workforce and salaries

At this meeting, 8 members of the CAB participated in a voting process to select their top five areas for prioritization, based on specified Selection Criteria and ranking among the eight areas of need listed above. Boston Children's staff also met with 3 additional CAB members who were not in attendance on May 10th to discuss and select priority areas. The Top Five areas for focus selected by the CAB were as follows:

- Mental health prevention and services (11 votes)
- Affordable housing (9 votes)
- Food access (9 votes)
- Youth supports and youth development workforce salaries (8 votes)
- Early childhood (7 votes)

Additionally, the CAB affirmed the following areas of continued need:

- Asthma
- Healthy weight

Parallel and Related Efforts

Boston Children's also reviewed the priority areas and needs identified through the following parallel and related efforts:

- Boston Children's Route 128 Determination of Need Community Health Needs Assessment – Child Health Priorities:
  1. Mental health and well-being
  2. Access to early education and care
  3. Housing and transportation
  4. Food security and obesity

- 2022 Boston CHNA-CHIP priority areas:
  In May-June 2022, the Boston CHNA-CHIP Collaborative undertook a collaborative prioritization process to solicit community input on the key strategies for collective impact to focus their 2022 community health improvement plan. During May-June 2022, several steps were taken to confirm the larger priority areas and identify the prioritized strategies for the upcoming planning process. The results reaffirmed the CHIP's priorities of:
  1. Housing
  2. Financial Security and Mobility
  3. Behavioral Health
  4. Accessing Services

  Within these larger priority areas, community participants prioritized 38 strategies from the current CHIP (out of 70 strategies total) for deeper dive planning and future implementation. Additionally, the cross-cutting and overarching focus of the planning process will be around *Achieving Racial and Ethnic Health Equity.*

Based on the aforementioned activities and after further definition and refinement, Boston Children's identified the following priority areas for its 2022-2025 implementation strategy:

1. **Promote mental health and emotional wellness**
2. **Support affordable and stable housing for children and families**
3. **Promote healthy youth development**
4. **Increase access to affordable and nutritious food**
5. **Improve early childhood education, health, and developmental supports**
6. **Improve the health of children and families managing asthma and obesity**

These priorities remain consistent from the previous CHNA-CHIP processes, and Boston Children's will continue to address these areas of need.

APPENDIX A. LIST OF APPENDICES

Appendix B. – Satellite Profiles
Appendix C. – Boston Children's Hospital Review of Initiatives
Appendix D. – Additional Data Tables

APPENDIX B. SATELLITE PROFILES

Background

Boston Children's Hospital works with six satellite sites in Brookline, Lexington, North Dartmouth, Peabody, Waltham, and Weymouth. These satellite clinics offer a range of pediatric specialties and services for children and families who live outside of the immediate Boston area.

Methods

As part of the 2022 CHNA, existing data on social, economic, and health indicators related to satellite clinic patient populations as well as residents around satellite clinics were collected and synthesized. Patient data includes data from the electronic medical record of the Pediatric Physicians' Organization at Boston Children's Hospital (PPOC data). Patient data also includes data from the electronic medical record of Boston Children's Main Campus and Campus Locations (BCH360 data). For both of these data sources (PPOC and BCH360), it is important to note that this data represents the prevalence of certain conditions among the population of patients served by specific Boston Children's locations and does not represent the prevalence of these conditions community-wide. Secondary data sources included: the Massachusetts Department of Public Health (MDPH) COVID-19 Vaccine Report, the Youth Risk Behavior Survey, and the U.S. Census. In addition, Boston Children's sought input via stakeholder interviews.

Between December 22, 2021 and February 3, 2022, 9 interviews were conducted with representatives from the communities of Brookline, Lexington, North Dartmouth / New Bedford, and Peabody. Interviewees represented a variety of organizations and sectors including public health, health care, housing and homelessness, government, social services, and organizational staff that work with specific population such as youth, teens, and immigrants. The purpose of these interviews was to gather information about stakeholders' perceptions of child and family health needs and strengths of their community; explore how Boston Children's can address these issues; and identify gaps, challenges, and opportunities for addressing community needs. Qualitative data collection with participants representing the communities of Waltham and Weymouth was conducted in 2021-2022 as part of the Boston Children's Hospital Route 128 Determination of Need Community Health Needs Assessment and is discussed further in that report.

The following profiles present brief summaries for each satellite clinic comprised of patient, secondary, and qualitative data to provide an overview of the community's socioeconomic context and health needs.

SATELLITE CLINIC: BROOKLINE

Community Social, Economic, and Physical Context

Two interviews were conducted with Brookline stakeholders from housing and youth organizations. Interviewees shared the perception that widening economic disparities are an ongoing concern in Brookline. As one interviewee shared, "*There are multimillionaires and single parent families in Brookline, and also families living below the poverty line*." Another interviewee indicated that "*if you're not wealthy and don't have power or access, it's hard*." It was noted that "*a lot of the assets are exclusive*" in Brookline. Another interviewee noted that "*support networks*" for families in need in Brookline are "*not there, and families can be overlooked*." Racism and classism were both raised as persistent problems in Brookline. As one interviewee noted, "*There is a huge racism problem… Brookline can be liberal and supportive of diversity, but what I've heard directly from teens is that Brookline is racist, and you can't ignore class and how that plays into systematic racism*."

Community Health Issues

COVID-19 Pandemic

The effects of COVID-19 were frequently raised as concerns among interviewees in Brookline. Disparities in the risk of contracting COVID-19 in Brookline was mentioned by one interviewee, who noted that in Brookline, "*with COVID, some families did not have the luxury of not working or working from home and being able to be safer*". The importance of building trust in Black communities regarding COVID-19 vaccinations was also raised.

Mental Health

Both interviewees mentioned mental health of children, youth, and families as a significant concern in Brookline. Isolation and a lack of socialization was noted as a cause of mental health issues, specifically depression, among youth specifically. One interviewee noted that trauma from COVID-19 has contributed to mental health concerns among youth in Brookline: "*Grief is huge, the trauma of this. Young people have lost family members, friends to either COVID or suicide…. They're not getting that grief counseling and closure, and there's a lot of trauma that's being layered*." Additionally, substance use was mentioned as a concerning maladaptive coping strategy for youth.

Utilization of mental health services among youth was noted by one interviewee as a concern: "*The kids are so overwhelmed that even if we had more services, I'm not really sure that they would actually reach out*." Another interviewee noted the long waitlists for many mental health providers and services in Brookline. An interviewee shared, "*Families have a lot of difficulty accessing mental health services, and particularly services that are in different languages*." One interviewee noted the interaction of racism and police brutality with COVID-19 on the mental health of Black youth in Brookline. She recalled one teen questioning, "*Am I going to die from COVID or die from the police?*".

Access to Services

Health Care Services

Interviewees noted a gap in access to healthcare among families with special needs in Brookline. One interviewee shared that there are "*a lot of families with children with special needs that cannot be easily accommodated*" in Brookline and that families with special or medical needs "*are much more isolated*" as a result. Interviewees described access issues related to understanding local health systems and language barriers. One interviewee mentioned that "*The health system can be difficult to navigate, especially for those new to the area.*" Additionally, one interviewee noted that for "*linguistic or cultural*

minorities… it's difficult to find services in Brookline that they need, and they may not have access or quality for services in Boston." It was also noted that some families in the area may not attempt to access services because of "limited slots" or a lack of understanding of the process.

Gaps in Services

Interviewees noted a lack of "*linguistically diverse services*" within Brookline as a considerable gap. Investment in and funding for youth-focused organizations was raised as an issue. An interviewee shared, "*people think that because we're in Brookline, we're well resourced, but that isn't the case.*"

One interviewee described the need for access to affordable childcare and extracurricular activities for children and youth, noting that there are "*very few early education resources for families to engage in*" and there are "*not as many opportunities for recreation or fitness, like swim lessons, summer camps, or gardening.*" Additionally, the transition to adulthood for teens was raised as an issue, with minimal support currently from services in Brookline.

Community Assets

Community Strengths

Education and a strong sense of community were described as strengths of Brookline. As one interviewee noted, "*In Brookline, there's a lot of community interest in supporting folks without resources, coming together, and providing for the concrete needs of residents*." The town-like feel of the community was mentioned as a strength, as well as the "*great schools*" in the area.

Existing Services

While some specific gaps in services were identified (as described above), overall interviewees indicated that there are multiple services available in Brookline across several domains and areas of need. Food security services were described as a strength in the area, meeting the needs of community members. However, one interviewee shared, "*One resident said, 'well a banana doesn't buy gas' – food access is there but doesn't do everything,*" indicating a need for more comprehensive services. Additional service areas mentioned by interviewees with some availability and accessibility in the area include mental health, childcare and afterschool care assistance, financial assistance, faith-based work, and rental assistance.

Community Collaboration

Interviewees acknowledged successful partnerships among providers in Brookline. As one interviewee indicated, "*within Brookline, there's a great network of social service providers interested in working together*". However, they also indicated a need for more collaboration among service providers within Brookline and between Brookline and Boston. One interviewee noted "*Because there's no youth commissioner in Brookline, there's no north star or umbrella. The town needs that,*" and suggested leveraging work already established in Boston: "*just copy and paste.*" Another interviewee noted a "*disconnect between Brookline and Boston – there are a lot of Boston-based resources, but they don't always track across geographic lines.*"

Childcare and afterschool program service systems were raised as areas in need of better collaboration among providers. An interviewee mentioned that "*some systems are definitely more challenging*," specifically that the "*childcare system is piecemeal, everyone is trying to do what they can but that's a tough system for families to navigate*".

Vision for the Future

When asked to describe their vision for the health of children and families in Brookline, interviewees highlighted the need to improve the mental health and wellbeing of youth. One interviewee raised the importance of young children "*having enrichment opportunities at every point in their life… that all the way through from early years to adulthood they have this pathway to set them up to be successful adults*." Another interviewee mentioned the need to nurture the goals and aspirations of youth and young adults in the area: "*Teens need inspiration and hope for their future. Teens need to feel like tomorrow's possible*."

Satellite Community Profiles: Brookline

Population Under 18 Years, 2015-2019

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Age Distribution for 0-19 Year Olds, by Race and Ethnicity in Brookline, 2015-2019

	Massachusetts	Brookline
Asian	6.7%	19.9%
Black	9.4%	4.8%
Hispanic/Latino	17.8%	8.5%
White, Non-Hispanic	61.6%	57.8%

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Fully Vaccinated Against COVID-19 by Age, by Brookline, 5/19/22

	% group	n
Total	63.6%	41,180
5-11 years	60.9%	2,848
12-15 years	78.4%	2,099
16-19 years	56.3%	1,680

DATA SOURCE: Massachusetts Department of Public Health, Covid-19 Vaccine Report, 2022; NOTE: Data as of 5/19/22.

Social Determinants of Health, 2015-2019

		Brookline	MA
Income	Median household income	$117,326	$81,215
	% Children in Poverty	8.0%	11.1%
	% Children Under 18 with SNAP Benefits	21.8%	39.7%
Housing	Renter-Occupied households that are cost-burdened (30% or more of income on housing)	48.5%	49.5%
	Monthly Median Housing Costs-Owners	$3,576	$2,225
	Monthly Median Housing Costs-Renters	$2,268	$1,282
Education	Number of Students Experiencing Homelessness	35 (0.5%)	23,182 (2.4%)
	Students who Graduate with Diploma within 4 Years	94.5%	-
	Mobility Rate (Transferring in or out of school) (2021)	7.7%	-
	Percent Students with High Needs (2021)	37.7%	-

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019; MA. Dept of Elementary and Secondary Education, 2021

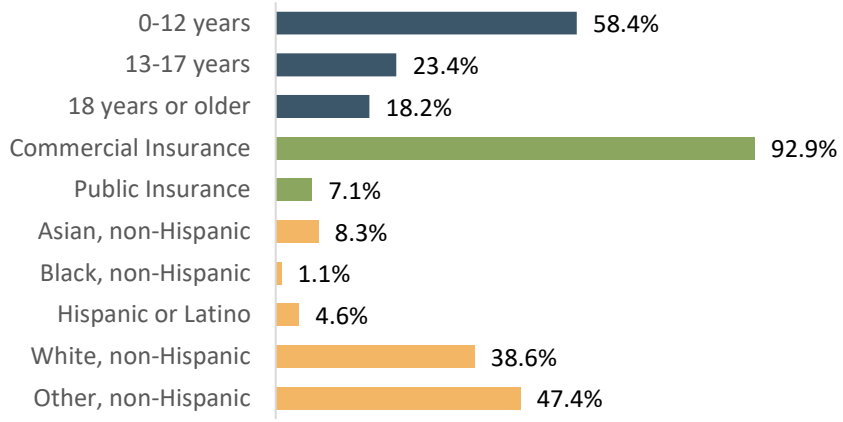
Health and Access, By Most Recent Data Available

		Brookline	MA
Health	Percent Children Insured, 2015-2019	97.6%	98.7%
	Pediatric Asthma Prevalence Per 100 K-8 Students (2017)	7.2	12.1
	Overweight or Obese Children in Grades 1, 4, 7, and 10	19.0%	-
Behavioral Health	% Middle Schoolers Seriously Considering Suicide	15.0%	24.3%
	% High Schoolers Reporting Current Electronic Vapor Use)	5.0%	32.2%
Access to Care	Ratio of Population to Primary Care Provider (by county, Plymouth)	790:1	970:1
	Ratio of Population to Mental Health Care (by county, Plymouth)	160:1	150:1

DATA SOURCE: Massachusetts (2019) and Boston (2019) Youth Risk Behavior Survey (YRBS); Massachusetts Population Health Information Tool (PHIT)

BROOKLINE

Boston Children's Hospital PPOC Patient Data, by Brookline, 2021 (N=5,112)



DATA SOURCE: Boston Children's Hospital, PPOC Data, 2021

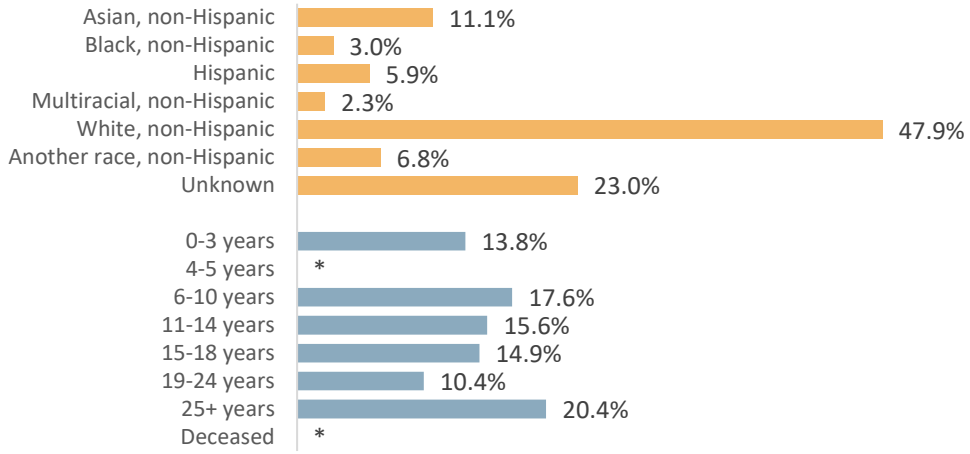
Boston Children's Hospital Patient Data, PPOC Patient Data, by Brookline, 2021

	Anxiety	Asthma	Concussion	Depression	Obesity
Overall	13.6%	9.3%	1.1%	3.8%	5.7%
Age Group					
0-12 years	5.6%	6.5%	*	0.5%	5.3%
13-17 years	22.3%	12.2%	2.7%	7.0%	6.2%
18 years or older	28.2%	14.3%	*	10.3%	6.7%
Insurance Type					
Commercial	13.6%	9.2%	*	3.7%	5.3%
Public	13.8%	10.5%	*	5.5%	11.6%
Race & Ethnicity					
Asian, non-Hispanic	9.4%	8.0%	*	2.6%	*
Black, non-Hispanic	*	*	*	*	*
Hispanic or Latino	*	*	*	*	12.0%
White, non-Hispanic	17.4%	9.8%	1.4%	4.3%	5.6%
Other, non-Hispanic	11.1%	9.0%	1.0%	3.5%	5.5%

DATA SOURCE: Boston Children's Hospital Patients identified as having diagnosis if ICD-10 code was found on at least one encounter in PPOC Epic from January 1, 2020-December 15,2021; NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

BROOKLINE

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Brookline, 2020-2021 (N=6,800)



DATA SOURCE: Boston Children's Hospital, BCH360 Data, January 1, 2020-December 15, 2021

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Brookline, 2020-2021

	Abuse Maltreatment (cannot report n)	Alcohol Abuse (cannot report n)	Anxiety (N=329)	Asthma (N=54)	Concussion (N=52)	Depression (N=177)	Marijuana Abuse (N=17)	Obesity (N=56)	Self-Harm (N=65)
Overall	*	*	4.8%	0.8%	0.8%	2.6%	0.3%	0.8%	1.0%
Age Group									
0-18 years	*	*	5.1%	*	0.8%	2.7%	*	*	*
19+ years	*	*	4.1%	*	0.6%	2.3%	*	*	*
Race & Ethnicity									
Asian, non-Hispanic	0.0%	0.0%	3.6%	*	*	2.0%	0.0%	*	*
Black, non-Hispanic	0.0%	*	9.0%	*	*	6.5%	*	6.0%	*
Hispanic	0.0%	*	6.9%	2.7%	*	4.5%	0.0%	4.2%	*
Multiracial, non-Hispanic	0.0%	0.0%	8.4%	*	*	*	0.0%	*	*
White, non-Hispanic	*	*	5.8%	0.7%	0.7%	3.0%	0.4%	0.4%	1.2%
Another race, non-Hispanic	0.0%	*	3.7%	*	*	*	*	*	*
Unknown	0.0%	*	2.3%	*	*	1.0%	*	*	*

DATA SOURCE: Data source: Boston Children's Hospital Patients with a Brookline home zip code identified as having an ICD-10 diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

SATELLITE CLINIC: LEXINGTON

Community Social, Economic, and Physical Context

One joint interview was conducted with two key informants working in social services for children and families in Lexington.

Housing

Housing affordability was raised as a key concern in Lexington and noted that affordability has been exacerbated by the COVID-19 pandemic and by a continued lack of affordable housing. One interviewee mentioned, "*Because of the pandemic, housing is the biggest thing. Affordable housing in Lexington [was] tight to begin with*." Additionally, one interviewee described an increasing trend in new construction towards "*big, expensive single-family homes*" in the area. Housing stability and quality were also concerning to interviewees.

Economic Disparities

Economic disparities among community members in Lexington was a concern among interviewees, in the context of COVID-19 and job flexibility, as well as transportation. One interviewee noted that safety concerns have prevented some lower income families from working required in-person jobs during the pandemic. Transportation concerns in Lexington were raised by both interviewees. As one interviewee noted, "*Lexington obviously doesn't have a ton of public transit, we have some, but it is limited and COVID has recently wiped its way through some of our drivers*." This interviewee added, "*Thinking about the families without cars, how they get food, how they get around town, especially in the cold and without a car is really tough*."

Education

Lexington was described as a "*very well-educated place*" and "*diverse*" by interviewees.

Community Health Issues

COVID-19 Pandemic

The concerning direct effects of COVID-19 on health were mentioned by interviewees; when asked to describe the most pressing health concerns in the community, one interviewee noted, "*COVID-19 is the obvious one*."

Mental Health

Mental health was repeatedly raised as a critical issue among children, youth, and families in Lexington. One interviewee mentioned that "*The COVID crisis has impacted all of us on every level in terms of our mental health*," specifically noting "*isolation*" and a lack of "*social opportunities… whether it's virtual or in-person*." Trauma resulting from loved ones contracting or dying from COVID-19 was described as well; it was specifically noted that "*a lot of people aren't talking about it*." Stigma around receiving mental health care among children and parents alike was raised as an issue among interviewees.

Substance Use

Interviewees described substance use as an issue in Lexington, citing an "*increase in overdose and accidental deaths that have come from the pandemic*" in the area, and that it "*happens across the lifespan.*" One interviewee noted that substance use and mental health are "*Areas that I've seen grow before the pandemic, and I can't imagine where they're at now*." Another interviewee highlighted substance use as "*one of the biggest pieces*" of concern for them.

Childcare

Interviewees noted childcare staffing shortages as a concern in the Lexington community. One interviewee shared that "*A lot more parents have issues finding a job that works for them*" in part due to childcare issues, and that "*There is a pretty significant waitlist*" for afterschool childcare.

Access to Health Care

Affordability and accessibility of mental health services were frequently mentioned by interviewees. One noted a "*Three- to four-week waitlist, to stopping the list altogether*" for a mental health referral service that is "*overutilized"* by community members. It was also noted that often "*families are looking for a specific [mental health] resource and don't have the means to pay for it*."

Language and cultural differences were identified as barriers to understanding and accessing care. Additionally, an interviewee raised the concern of immigration status and eligibility for crucial health-related benefits like SNAP and heating assistance.

Community Assets

Community Strengths

Interviewees noted the quantity of social services, diversity, and high education levels as assets to the community. One interviewee indicated "*a lot of duplication of opportunities*" in the area. The area was also described as an "*information-friendly place*."

Existing Services and Gaps

Interviewees noted services available for affordable childcare and healthy food access. Regarding healthy food access, one interviewee noted that a local "*pantry is doing a good job, but there's probably a more effective way to help folks who are home-bound, who are not eligible for SNAP but are only getting so much from the food pantry*." One interviewee raised the need for greater prevention services for substance use and mental health in Lexington, indicating that they "*work with folks in crisis*" and are "*limited*" in how they can assist.

Community Collaboration

Interviewees recognized ongoing collaborative efforts among local organizations but indicated that "*there's room for improvement*" regarding the work. One interviewee mentioned efforts among the community to engage with senior leadership in the town regarding housing; as they stated, *"we need to plan future development [to include] affordable housing*." A potential for "*intergenerational programming*" and "*cultural opportunities*" among multiple organizations in the community was also discussed.

Vision for the Future

Interviewees indicated a "*hope… for people to come together safely*" and "*co-exist collaboratively*" as a vision for the health of children and families in Lexington in the next 3-5 years. One interviewee noted that future social connectedness "*may help with mental health and stigma*."

Satellite Community Profiles: Lexington

Population Under 18 Years, 2015-2019

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Age Distribution for 0-19 Year Olds, by Race and Ethnicity in Lexington, 2015-2019

	Massachusetts	Lexington
Asian	6.7%	35.7%
Black	9.4%	1.1%
Hispanic/Latino	17.8%	2.7%
White, Non-Hispanic	61.6%	50.9%

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Fully Vaccinated Against COVID-19 by Age, by Lexington, 5/19/22

	% group	n
Total	90.9%	30,983
5-11 years	82.8%	2,627
12-15 years	>95%	2,647
16-19 years	>95%	2,206

DATA SOURCE: Massachusetts Department of Public Health, Covid-19 Vaccine Report, 2022; NOTE: Data as of 5/19/22.

Social Determinants of Health, 2015-2019

		Lexington	MA
Income	Median household income	$186,201	$81,215
	% Children in Poverty	3.0%	11.1%
	% Children Under 18 with SNAP Benefits	39.4%	39.7%
Housing	Renter-Occupied households that are cost-burdened (30% or more of income on housing)	40.4%	49.5%
	Monthly Median Housing Costs-Owners	$ 4,000	$2,225
	Monthly Median Housing Costs-Renters	$ 2,475	$1,282
Education	Number of Students Experiencing Homelessness	17 (0.2%)	23,182 (2.4%)
	Students who Graduate with Diploma within 4 Years	96.6%	-
	Mobility Rate (Transferring in or out of school) (2021)	5.1%	-
	Percent Students with High Needs (2021)	32.4%	-

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019; MA. Dept of Elementary and Secondary Education, 2021

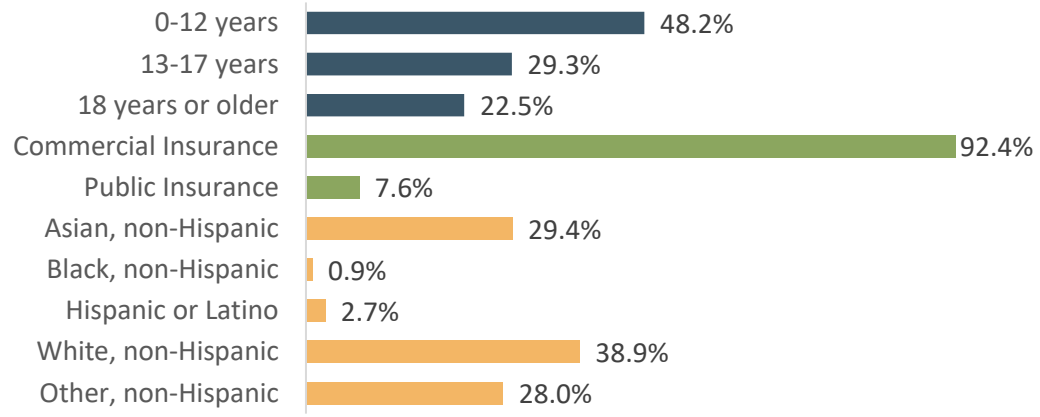
Health and Access, By Most Recent Data Available

		Lexington	MA
Health	Percent Children Insured, 2015-2019	98.7%	98.7%
	Pediatric Asthma Prevalence Per 100 K-8 Students (2017)	7.7	12.1
	Overweight or Obese Children in Grades 1, 4, 7, and 10	18.3%	-
Behavioral Health	% Middle Schoolers Seriously Considering Suicide	15.0%	24.3%
	% High Schoolers Reporting Current Electronic Vapor Use)	15.2%	32.2%
Access to Care	Ratio of Population to Primary Care Provider (by county, Plymouth)	790:1	970:1
	Ratio of Population to Mental Health Care (by county, Plymouth)	170:1	150:1

DATA SOURCE: Massachusetts (2019) and Boston (2019) Youth Risk Behavior Survey (YRBS); Massachusetts Population Health Information Tool (PHIT)

LEXINGTON

Boston Children's Hospital PPOC Patient Data, by Lexington, 2021 (N=6,733)



DATA SOURCE: Boston Children's Hospital, PPOC Data, 2021

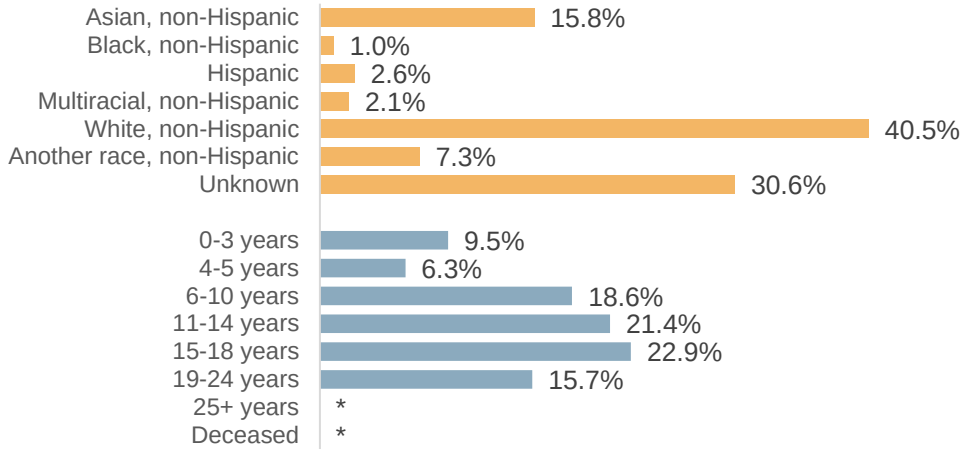
Boston Children's Hospital Patient Data, PPOC Patient Data, by Lexington, 2021

	Anxiety	Asthma	Concussion	Depression	Obesity
Overall	12.6%	9.0%	2.0%	4.0%	6.5%
Age Group					
0-12 years	5.3%	6.8%	0.9%	0.3%	6.5%
13-17 years	16.9%	11.3%	3.7%	6.1%	6.3%
18 years or older	22.7%	10.7%	2.4%	9.3%	6.9%
Insurance Type					
Commercial	12.8%	8.8%	2.0%	4.0%	5.9%
Public	11.2%	12.2%	2.2%	4.7%	14.7%
Race & Ethnicity					
Asian, non-Hispanic	7.1%	7.6%	*	3.1%	4.9%
Black, non-Hispanic	*	*	0.0%	*	12.9%
Hispanic or Latino	*	*	*	*	10.9%
White, non-Hispanic	19.1%	10.5%	2.8%	5.3%	7.3%
Other, non-Hispanic	9.4%	8.0%	2.0%	3.1%	6.6%

DATA SOURCE: Boston Children's Hospital Patients identified as having diagnosis if ICD-10 code was found on at least one encounter in PPOC Epic from January 1, 2020-December 15,2021; NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

LEXINGTON

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Lexington, 2020-2021 (N=4,327)



DATA SOURCE: Boston Children's Hospital, BCH360 Data, January 1, 2020-December 15, 2021

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Lexington, 2020-2021

	Abuse Maltreatment (N=0)	Alcohol Abuse (N=14)	Anxiety (N=239)	Asthma (N=24)	Concussion (N=22)	Depression (N=136)	Marijuana Abuse (N=27)	Obesity (N=64)	Self-Harm (N=29)
Overall	0.0%	0.3%	5.5%	0.6%	0.5%	3.1%	0.6%	1.5%	0.7%
Age Group									
0-18 years	0.0%	*	5.1%	*	*	2.9%	*	*	*
19+ years	0.0%	*	7.1%	*	*	4.0%	*	*	*
Race & Ethnicity									
Asian, non-Hispanic	0.0%	0.0%	4.1%	*	*	3.1%	*	*	*
Black, non-Hispanic	0.0%	0.0%	0.0%	*	0.0%	*	*	*	*
Hispanic	0.0%	*	*	*	0.0%	*	*	*	*
Multiracial, non-Hispanic	0.0%	0.0%	*	0.0%	0.0%	*	0.0%	*	*
White, non-Hispanic	0.0%	*	8.2%	0.6%	0.7%	4.5%	*	1.2%	1.0%
Another race, non-Hispanic	0.0%	*	6.6%	*	*	3.5%	*	*	*
Unknown	0.0%	*	2.2%	*	*	1.1%	*	1.1%	*

DATA SOURCE: Data source: Boston Children's Hospital Patients with a Lexington home zip code identified as having an ICD-10 diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

SATELLITE CLINIC: NORTH DARTMOUTH

Community Social, Economic, and Physical Context

Four key informant interviews were conducted with stakeholders representing the North Dartmouth community and the neighboring New Bedford region of MA.

Housing

Housing affordability and stability were raised as significant concerns among all interviewees. Interviewees described rising housing costs displacing community members from their own communities. As one interviewee stated, "*This has only gotten worse in the past few years,*" referencing the ongoing housing crisis. Another interviewee described gentrification: "*The cost of living is rising and New Bedford is becoming more gentrified… As the housing boom has happened with COVID, [families] are getting priced out.*" Interviewees highlighted the significance of housing on the health of children, youth, and families. One interviewee described, "*Without affordable housing, it's hard to provide healthy meals and a healthy environment.*" Another stated, "*If people don't have a stable home, then everything else is at risk.*" Interviewees cited the consolidation of property management companies contributing to increased housing prices as well as minimal development of new, affordable housing in the area. One interviewee stated, "*Properties are purchased by landlords out of the area, and property values are increasing.*" To note, another interviewee added that they are a "*true believer that conditions in people's lives are drivers of good health and good health needs."*

Employment and Workforce

Interviewees recognized the difficulty of securing stable employment for undocumented community members in neighboring New Bedford. Some interviewees noted workplace safety and quality concerns in the area. For the New Bedford area specifically, one interviewee described, "*The biggest industry are fish houses… Businesses have third parties that hire the people, so when there is advocacy or needs to improve the workplace, it's not easy to make changes.*" Another interviewee noted regarding safety, "*There's a high undocumented population. Workers are scared to say anything because they could get deported.*"

Education

Education in the area among children in the school system was highlighted as an issue by one interviewee, especially with technology barriers and the resulting complications with remote learning during COVID-19 restrictions.

Community Health Issues

COVID-19 Pandemic

Interviewees acknowledged the broader impact of COVID-19 infections on community health. One noted, "*a lot of people are living in the same households and spreading COVID more easily.*" This interviewee also noted that many employed community members saw the need to work and earn money as a greater priority than preventing or testing for COVID-19. Vaccine hesitancy was cited as a concern among community members.

Mental Health

All interviewees highlighted mental health of children and families as one of their primary issues of concern in the community. One interviewee described mental health as a keystone concern impacting other aspects of children's and family's lives: "*When you peel back all the layers of the onion, it's all*

about mental health." Specifically, trauma was raised as a concern, especially among the immigrant communities. One interviewee noted, "*a lot of these kids have gone through a lot of trauma,*" and another interviewee noted that "*many are traumatized from their journey to the U.S.,*" and have experienced "*sexual assault and abuse.*"

Some interviewees described mental and behavioral health problems that existed prior to the COVID-19 pandemic. Additionally, one interviewee mentioned that school closures due to COVID-19 have *"been a concern for a period of time,"* and, "*we don't really know what the impact on mental health is, but it's a huge concern for children and in public schools.*" The need for more mental health providers and culturally competent providers was raised as well. As one interviewee stated, "*many youth want to get mental health services, but the wait lists are incredible.*" One interviewee described incomprehensive psychiatric care in the area with a lack of coordinated care between psychiatric and primary care facilities. One interviewee highlighted the severity of the problem in their community: "*Mental health has been a huge issue. [Families] are looking for psychiatrists who speak [their] language. They're in desperate need of a therapist who speaks [their] language.*" Another interviewee noted the importance of cultural understanding between provider and patient in mental health treatment beyond language. They added, "*bringing someone to interpret loses the culture point. It's a lot easier to learn a language than understand a culture… [the] culture component is huge.*"

Substance Use and Violence

One interviewee raised domestic violence and substance abuse as issues in the community. Another interviewee cited "*limited treatment*" for substance abuse in the area.

Childcare

Access and affordability of childcare in the community was raised as a concern among interviewees. One interviewee noted staffing shortages as a barrier to access. Another interviewee highlighted the lack of resources provided on the state level for early childhood, stating, "*Early childhood is starting to elevate as a topic and as an issue of priority, but this community tends to come from a place of scarcity. They don't get as many resources in the state as Boston and Worcester, for example, but it's starting to shift.*" An interviewee highlighted ongoing organizational collaboration around childcare issues, but suggested that little progress has been made, asking rhetorically, "*Are we really moving the needle?*"

Obesity and related risk factors

One interviewee noted high obesity rates among children in the area which puts them at "*high risk for other diseases at a much younger age*."

Healthy food access

Interviewees noted affordability issues regarding healthy foods. One interviewee highlighted the importance of nutritious foods on overall health, indicating that, "*diets often contribute to chronic diseases.*" Another interviewee stated that, "*inexpensive food isn't always the healthiest option, it's easy to go to the drive through.*" The need for nutrition education in the community was also highlighted by an interviewee. Another noted that, "*childhood obesity has been an issue for families in the community, tied to the food issue,*" referencing healthy food access and availability in the area. This interviewee raised food security, affordability, and access as significant issues. For instance, this interviewee noted that the "*public transportation system isn't great – could take three buses to get to a grocery store, it takes a lot of time, and isn't easy.*" The impact of COVID-19 was noted as a major factor in recent food security issues in the community. One interviewee noted, "*more people need food, especially those who haven't had that issue before.*"

Access to Health Care

One interviewee cited that many in the community are *"not understanding [of] the culture of health and wellness*" and tend to not participate in preventative care or "*maintenance to manage chronic diseases.*"

Community Assets

Community Strengths

Interviewees highlighted the supportive culture of the community among the public, but also among services and organizations. As one interviewee explained, *"[The] community does a lot of collaborative work together. It's the greatest strength, If there's an emergency, it's an email out to the community of service providers.*" Individuals in the community "*come together and enjoy culture and foods.*" Interviewees also raised the resilience and work ethic of community members to best support their families. Two interviewees described the community as "*hard-working*." When describing the assets of the community, one interviewee noted, "*the family-centeredness [quality] is admirable, makes for a different kind of city*."

Existing Services

One interviewee highlighted the availability of nearby services, that there is a "*tremendous non-profit center in the South Coast.*" One interviewee noted a need for more funding for organizations in the area, that "*resources can get people to centralize and shift.*" Regarding food access, one interviewee acknowledged the work of food pantries and distribution in the area but indicated that "*not enough is happening on the nutritional side of food space.*" Many interviewees mentioned the abundance of "*one-time food services*" in the area but also recognized the gap in sustainable access to nutritious food for families. One interviewee mentioned the comprehensive work that has been implemented for housing security and quality in the area and addressing homelessness in youth and adults (e.g., Housing Authority and residential-based programs). Community-based organizations such as the Immigrant Assistance Center was acknowledged as a "*lifeline*" in the area for assisting with "*legal issues, immigration status, workforce skills, and using computers*", among other areas of need.

Gaps in Services

One interviewee suggested coordinated care in familiar and convenient locations for youth and families to better their physical health, such as a school-based health center.

Community Collaboration

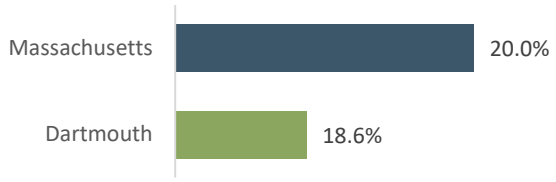
One interviewee highlighted the importance of ongoing collaborations with faith-based institutions and language-diverse media outlets as trusted sources of information and guidance in the community. Generally, interviewees agreed that organizations in the community collaborate effectively, but also, as one interviewee noted, "*could facilitate communication better.*" The importance of statewide and cross-sector collaborations was emphasized by an interviewee, but she acknowledged the work to date has been "*a mile wide and an inch deep,"* covering a broad swath of issues, but generally making little change. They noted that generally, "*everyone is in their silos."* This interviewee also highlighted examples of "*solid collaboration,*" in which, "*around the pandemic, community service providers mobilized to share information and resources… So much has come of that.*" Another interviewee suggested, in regard to improved coordination, that "*there should be a gaps analysis in some of these problem areas, to see where priorities should be for developing a plan.*" Another interviewee noted that more support is required on the town and city level to influence homelessness and housing affordability issues in the area.

Vision for the Future

Interviewees were aligned in their visions for children to be physically and mentally healthy and have abundant opportunities for success in life as they grow into adulthood. As one interviewee described, they would, "*love to see all children healthy and thriving, having access to what they need.*" Interviewees described opportunities for positive social interaction, physical activity, culturally competent and connected health care, access to nutritious food, stable housing, and access to early childhood education. One interviewee noted that she would "*love to see the disparities dissipate*" in her community and "*no kid should ever be hungry.*" Another interviewee would like to see the "*voices of immigrants get heard.*" Parent engagement in child health was also noted by interviewees as a contributor to their children's health.

Satellite Community Profiles: North Dartmouth

Population Under 18 Years, 2015-2019



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019
NOTE: Dartmouth includes both North Dartmouth and South Dartmouth.

Age Distribution for 0-19 Year Olds, by Race and Ethnicity in Dartmouth, 2015-2019

	Massachusetts	Dartmouth
Asian	6.7%	3.3%
Black	9.4%	4.2%
Hispanic/Latino	17.8%	5.0%
White, Non-Hispanic	61.6%	85.5%

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019
NOTE: Dartmouth includes both North Dartmouth and South Dartmouth.

Fully Vaccinated Against COVID-19 by Age, by Dartmouth, 5/19/22

	% group	n
Total	59.5%	22,072
5-11 years	28.6%	654
12-15 years	61.0%	834
16-19 years	33.4%	1,083

DATA SOURCE: Massachusetts Department of Public Health, Covid-19 Vaccine Report, 2022; NOTE: Data as of 5/19/22.
NOTE: Dartmouth includes both North Dartmouth and South Dartmouth.

Social Determinants of Health, 2015-2019

		Dartmouth	MA
Income	Median household income	$84,220	$81,215
	% Children in Poverty	6.0%	11.1%
	% Children Under 18 with SNAP Benefits	33.4%	39.7%
Housing	Renter-Occupied households that are cost-burdened (30% or more of income on housing)	43.3%	49.5%
	Monthly Median Housing Costs-Owners	$ 1,997	$2,225
	Monthly Median Housing Costs-Renters	$ 904	$1,282
Education	Number of Students Experiencing Homelessness	0 (0.0%)	23,182 (2.4%)
	Students who Graduate with Diploma within 4 Years	91.8%	-
	Mobility Rate (Transferring in or out of school) (2021)	7.8%	-
	Percent Students with High Needs (2021)	43.9%	-

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019; MA. Dept of Elementary and Secondary Education, 2021
NOTE: Dartmouth includes both North Dartmouth and South Dartmouth.

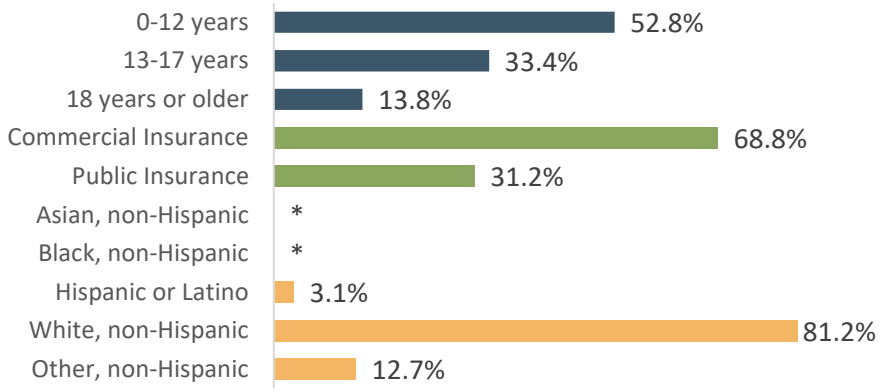
Health and Access, By Most Recent Data Available

		Dartmouth	MA
Health	Percent Children Insured, 2015-2019	98.3%	98.7%
	Pediatric Asthma Prevalence Per 100 K-8 Students (2017)	17.5	12.1
	Overweight or Obese Children in Grades 1, 4, 7, and 10	31.9%	-
Behavioral Health	% Middle Schoolers Seriously Considering Suicide	N/A	24.3%
	% High Schoolers Reporting Current Electronic Vapor Use)	N/A	32.2%
Access to Care	Ratio of Population to Primary Care Provider (by county, Plymouth)	1890:1	970:1
	Ratio of Population to Mental Health Care (by county, Plymouth)	200:1	150:1

DATA SOURCE: Massachusetts (2019) and Boston (2019) Youth Risk Behavior Survey (YRBS); Massachusetts Population Health Information Tool (PHIT)
NOTE: Dartmouth includes both North Dartmouth and South Dartmouth.

NORTH DARTMOUTH

Boston Children's Hospital PPOC Patient Data, by North Dartmouth, 2021 (N=581)



DATA SOURCE: Boston Children's Hospital, PPOC Data, 2021

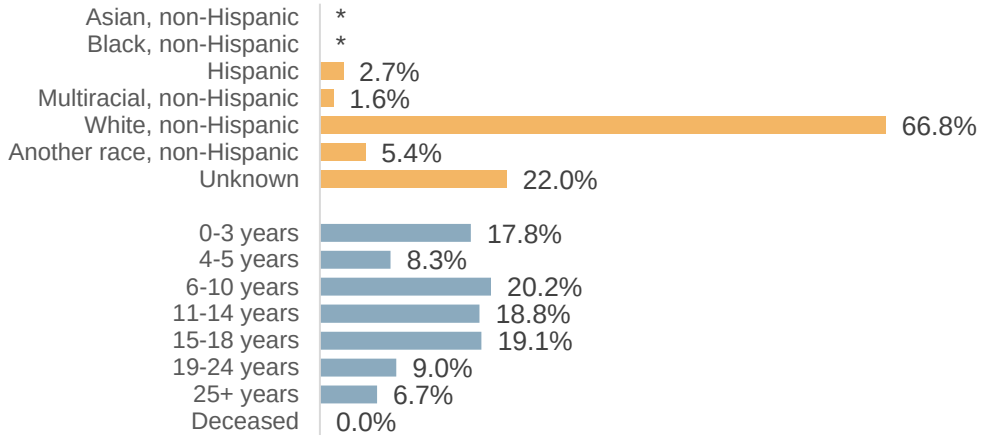
Boston Children's Hospital Patient Data, PPOC Patient Data, by North Dartmouth, 2021

	Anxiety	Asthma	Concussion	Depression	Obesity
Overall	13.1%	15.3%	1.9%	2.2%	18.9%
Age Group					
0-12 years	5.2%	*	*	0.0%	16.9%
13-17 years	20.1%	21.6%	*	*	21.1%
18 years or older	26.3%	*	*	*	21.3%
Insurance Type					
Commercial	13.5%	13.8%	*	*	17.5%
Public	12.2%	18.8%	*	*	22.1%
Race & Ethnicity					
Asian, non-Hispanic	*	*	*	*	*
Black, non-Hispanic	*	*	*	*	*
Hispanic or Latino	*	*	*	0.0%	*
White, non-Hispanic	14.2%	15.9%	*	*	19.5%
Other, non-Hispanic	*	*	0.0%	*	16.2%

DATA SOURCE: Boston Children's Hospital Patients identified as having diagnosis if ICD-10 code was found on at least one encounter in PPOC Epic from January 1, 2020-December 15,2021; NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

North Dartmouth

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by North Dartmouth, 2020-2021 (N= 876)



DATA SOURCE: Boston Children's Hospital, BCH360 Data, January 1, 2020-December 15, 2021

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by North Dartmouth, 2020-2021

	Abuse Maltreatment (N=0)	Alcohol Abuse (cannot report n)	Anxiety (N=62)	Asthma (N=25)	Concussion (cannot report n)	Depression (N=16)	Marijuana Abuse (cannot report n)	Obesity (N=18)	Self-Harm (cannot report n)
Overall	0.0%	*	7.1%	2.9%	*	1.8%	*	2.1%	*
Age Group									
0-18 years	0.0%	*	6.4%	3.4%	*	*	*	*	*
19+ years	0.0%	*	10.9%	0.0%	*	*	*	*	*
Race & Ethnicity									
Asian, non-Hispanic	0.0%	0.0%	*	0.0%	0.0%	*	0.0%	*	0.0%
Black, non-Hispanic	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hispanic	0.0%	0.0%	*	*	0.0%	*	0.0%	*	0.0%
Multiracial, non-Hispanic	0.0%	0.0%	*	*	0.0%	0.0%	0.0%	0.0%	0.0%
White, non-Hispanic	0.0%	*	7.7%	3.1%	*	2.2%	*	*	*
Another race, non-Hispanic	0.0%	0.0%	*	*	0.0%	0.0%	0.0%	*	0.0%
Unknown	0.0%	0.0%	*	*	*	*	0.0%	*	0.0%

DATA SOURCE: Data source: Boston Children's Hospital Patients with a North Dartmouth home zip code identified as having an ICD-10 diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

SATELLITE CLINIC: PEABODY

Community Social, Economic, and Physical Context

Two interviews were conducted with Peabody stakeholders.

Housing

Housing affordability, stability, and quality were raised as concerns among interviewees. One interviewee noted insufficient safety nets for housing, that "*people wait literally years for a unit to open up*" in emergency housing situations. One interviewee indicated the high price of housing in the area, and that "*people are paying a high percentage of income on housing, impacting [their ability] to meet other needs in their family.*" Another interviewee stated that "*housing is a huge issue for a lot of families*" in the area and that "*real estate prices are through the roof.*" A growing "*unhoused*" subset of the population in the community was mentioned.

Poverty

Poverty was highlighted as a concern in the area. One interviewee noted that "*a lot of kids are low income*" in the community.

Transportation

One interviewee described transportation as a barrier to accessing services. They indicated that "*public transportation is not as accessible as we would like it to be,*" and that "*transportation is an issue in the community.*"

Employment and Workforce

Both interviewees noted a high demand for health and childcare personnel in the area. One indicated "*poverty, lack of education, and [language] as a barrier*" to filling available positions.

Community Health Issues

Mental Health

Mental health issues were described in detail by both interviewees. Both indicated a gap in behavioral health services due to access issues and provider shortages. An interviewee acknowledged that these needs existed before the COVID-19 pandemic, but have been "*exacerbated*" by the pandemic. One interviewee noted that adequate sleep has become an issue for children and that "*behavioral problems*" that can emerge "*are related to exhaustion.*"

Nutrition Security

Poor nutrition was raised by both interviewees as a concern in the area. One interviewee indicated that the "*surface-level issue of how to get food to more people is being addressed pretty well.*" However, access to healthy food was raised as a concern in the area in part due to food deserts.

Smoking

One interviewee raised the ongoing issue of vaping and marijuana use among youth in the community, especially in the context of the "*expansion of recreational marijuana.*" They added that a damaging misconception is circulating that "*marijuana is healthy because it's legal*" in the community. One interviewee noted higher rates of cancer due to unhealthy lifestyle choices such as smoking that "*contribute to chronic disease*" in the community.

Access to Health Care

One interviewee raised the need for health services in multiple languages in the community. However, it was acknowledged that there is a "*helpful infrastructure*" available with "*access to high-quality medical care and dental care,*" but many community members do not have access due to language barriers.

Community Assets

Community Strengths

Interviewees indicated several assets or strengths to their community, including a "*strong sense of family*" and a strong sense of community, and plentiful organizations and opportunities for families and children such as health facilities and museums.

Existing Services

According to an interviewee, a nearby family health center and community development corporation assists with the housing and health needs of children and families in the area. The local Boys and Girls Club is active. The other interviewee highlighted promising resources to support the mental health of mothers and children in school and home settings. They noted, "*good early successes*" but services were disrupted due to the COVID-19 pandemic.

Community Collaboration

Interviewees highlighted existing collaborations in the community but acknowledged the need for additional collaborations to better help children and families. One interviewee indicated that "*there could be more collaborations*," and that "*many directors feel this way.*" Ongoing collaborations with local schools have yielded success, especially for social and recreational activities.

Gaps in Services

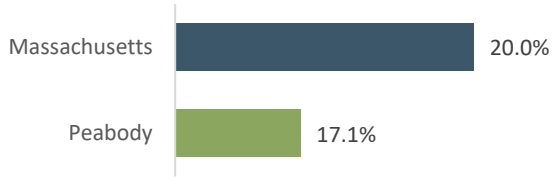
One interviewee outlined the difficulty of receiving resources on the state level specifically for vaccination and testing for COVID-19, which "*reflects a broader [issue with] access to healthcare in general*." The need for sustainable housing support and resources was raised as well. Additionally, one interviewee described a need for "*access to social workers and case managers for people with comprehensive issues*."

Vision for the Future

Interviewees raised the need for equitable access to health-related services with fewer barriers such as language, location, or hours of availability. Preventative care and proper health education were emphasized in their visions, such as the understanding of important preventative health behaviors like "*the importance of a good night's rest.*"

Satellite Community Profiles: Peabody

Population Under 18 Years, 2015-2019



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Age Distribution for 0-19 Year Olds, by Race and Ethnicity in Peabody, 2015-2019

	Massachusetts	Peabody
Asian	6.7%	0.8%
Black	9.4%	5.2%
Hispanic/Latino	17.8%	19.0%
White, Non-Hispanic	61.6%	71.2%

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Fully Vaccinated Against COVID-19 by Age, by Peabody, 5/19/22

	% group	n
Total	75.3%	42,142
5-11 years	47.8%	1,691
12-15 years	75.9%	1,698
16-19 years	77.0%	1,735

DATA SOURCE: Massachusetts Department of Public Health, Covid-19 Vaccine Report, 2022; NOTE: Data as of 5/19/22.

Social Determinants of Health, 2015-2019

		Peabody	MA
Income	Median household income	$73,217	$81,215
	% Children in Poverty	13.0%	11.1%
	% Children Under 18 with SNAP Benefits	35.8%	39.7%
Housing	Renter-Occupied households that are cost-burdened (30% or more of income on housing)	60.6%	49.5%
	Monthly Median Housing Costs-Owners	$ 2,039	$2,225
	Monthly Median Housing Costs-Renters	$ 1,366	$1,282
Education	Number of Students Experiencing Homelessness	102 (1.8%)	23,182 (2.4%)
	Students who Graduate with Diploma within 4 Years	88.0%	-
	Mobility Rate (Transferring in or out of school) (2021)	8.7%	-
	Percent Students with High Needs (2021)	58.5%	-

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019; MA. Dept of Elementary and Secondary Education, 2021

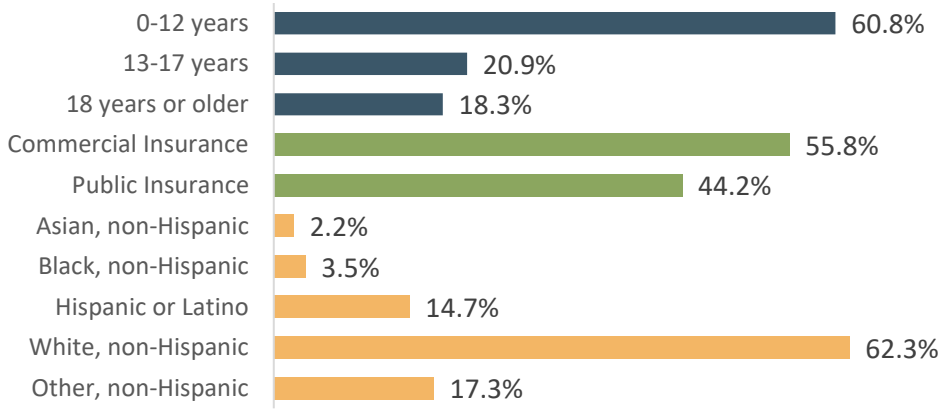
Health and Access, By Most Recent Data Available

		Peabody	MA
Health	Percent Children Insured, 2015-2019	99.4%	98.7%
	Pediatric Asthma Prevalence Per 100 K-8 Students (2017)	6.2	12.1
	Overweight or Obese Children in Grades 1, 4, 7, and 10	39.8%	-
Behavioral Health	% Middle Schoolers Seriously Considering Suicide	N/A	24.3%
	% High Schoolers Reporting Current Electronic Vapor Use)	N/A	32.2%
Access to Care	Ratio of Population to Primary Care Provider (by county, Plymouth)	1350:1	970:1
	Ratio of Population to Mental Health Care (by county, Plymouth)	170:1	150:1

DATA SOURCE: Massachusetts (2019) and Boston (2019) Youth Risk Behavior Survey (YRBS); Massachusetts Population Health Information Tool (PHIT)

PEABODY

Boston Children's Hospital PPOC Patient Data, by Peabody, 2021 (N=4,857)



DATA SOURCE: Boston Children's Hospital, PPOC Data, 2021

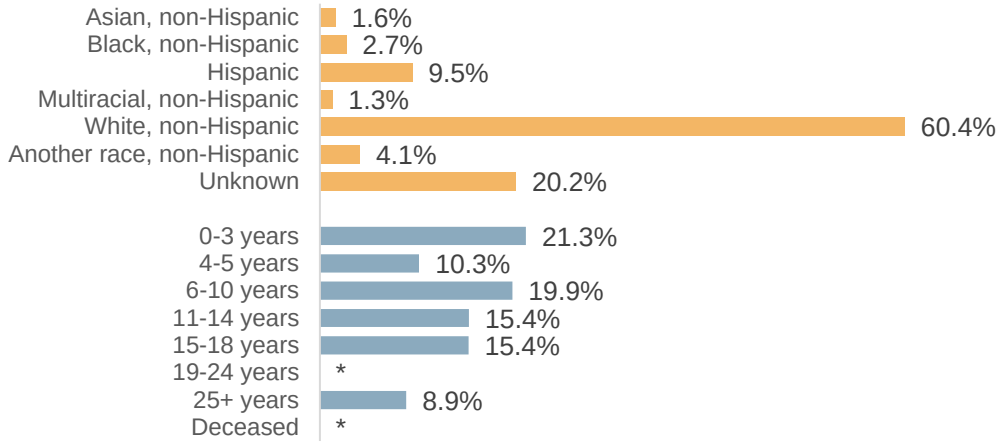
Boston Children's Hospital Patient Data, PPOC Patient Data, by Peabody, 2021

	Anxiety	Asthma	Concussion	Depression	Obesity
Overall	13.6%	11.3%	0.8%	3.9%	19.7%
Age Group					
0-12 years	7.3%	9.3%	0.4%	*	17.9%
13-17 years	20.6%	15.8%	1.5%	8.3%	24.8%
18 years or older	26.4%	12.6%	1.3%	11.0%	19.9%
Insurance Type					
Commercial	14.0%	8.9%	0.6%	3.7%	16.5%
Public	13.0%	14.3%	1.0%	4.1%	23.8%
Race & Ethnicity					
Asian, non-Hispanic	*	10.4%	0.0%	*	13.2%
Black, non-Hispanic	*	10.1%	0.0%	*	22.0%
Hispanic or Latino	7.7%	15.1%	*	3.1%	24.8%
White, non-Hispanic	9.4%	11.6%	*	3.3%	21.4%
Other, non-Hispanic	17.0%	10.4%	0.9%	4.5%	18.1%

DATA SOURCE: Boston Children's Hospital Patients identified as having diagnosis if ICD-10 code was found on at least one encounter in PPOC Epic from January 1, 2020-December 15,2021; NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

PEABODY

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Peabody, 2020-2021 (N=2,702)



DATA SOURCE: Boston Children's Hospital, BCH360 Data, January 1, 2020-December 15, 2021

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Peabody, 2020-2021

	Abuse Maltreatment (cannot report n)	Alcohol Abuse (cannot report n)	Anxiety (N=172)	Asthma (N=37)	Concussion (N=21)	Depression (N=45)	Marijuana Abuse (cannot report n)	Obesity (N=62)	Self-Harm (cannot report n)
Overall	*	*	6.4%	1.4%	0.8%	1.7%	*	2.3%	*
Age Group									
0-18 years	*	*	6.0%	*	*	*	*	*	*
19+ years	*	*	16.2%	*	*	*	*	*	*
Race & Ethnicity									
Asian, non-Hispanic	0.0%	0.0%	*	*	0.0%	0.0%	0.0%	0.0%	0.0%
Black, non-Hispanic	0.0%	0.0%	*	0.0%	*	*	0.0%	*	0.0%
Hispanic	0.0%	0.0%	*	*	*	*	0.0%	*	0.0%
Multiracial, non-Hispanic	0.0%	0.0%	*	0.0%	0.0%	*	0.0%	0.0%	0.0%
White, non-Hispanic	*	*	8.1%	1.3%	1.0%	1.8%	*	2.1%	*
Another race, non-Hispanic	0.0%	0.0%	*	*	0.0%	0.0%	0.0%	*	0.0%
Unknown	0.0%	*	3.5%	*	*	*	0.0%	*	*

DATA SOURCE: Data source: Boston Children's Hospital Patients with a Peabody home zip code identified as having an ICD-10 diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

SATELLITE CLINIC: WALTHAM

(See Boston Children's Hospital Route 128 DoN Community Health Needs Assessment for qualitative themes)

Population Under 18 Years, 2015-2019

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Age Distribution for 0-19 Year Olds, by Race and Ethnicity in Waltham, 2015-2019

	Massachusetts	Waltham
Asian	6.7%	10.4%
Black	9.4%	10.5%
Hispanic/Latino	17.8%	22.4%
White, Non-Hispanic	61.6%	54.0%

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Fully Vaccinated Against COVID-19 by Age, by Waltham, 5/19/22

	% group	n
Total	73.4%	48,767
5-11 years	66.0%	2,296
12-15 years	91.2%	1,764
16-19 years	44.7%	2,034

DATA SOURCE: Massachusetts Department of Public Health, Covid-19 Vaccine Report, 2022; NOTE: Data as of 5/19/22.

Social Determinants of Health, 2015-2019

		Waltham	MA
Income	Median household income	$95,964	$81,215
	% Children in Poverty	12.0%	11.1%
	% Children Under 18 with SNAP Benefits	34.7%	39.7%
Housing	Renter-Occupied households that are cost-burdened (30% or more of income on housing)	41.0%	49.5%
	Monthly Median Housing Costs-Owners	$ 2,507	$2,225
	Monthly Median Housing Costs-Renters	$ 1,726	$1,282
Education	Number of Students Experiencing Homelessness	183 (3.3.%)	23,182 (2.4%)
	Students who Graduate with Diploma within 4 Years	80.7%	-
	Mobility Rate (Transferring in or out of school) (2021)	11.8%	-
	Percent Students with High Needs (2021)	62.9%	-

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019; MA. Dept of Elementary and Secondary Education, 2021

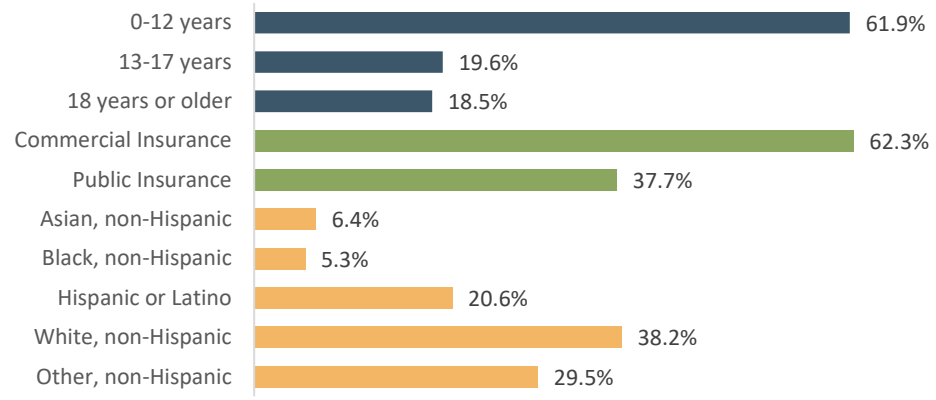
Health and Access, By Most Recent Data Available

		Waltham	MA
Health	Percent Children Insured, 2015-2019	99.6%	98.7%
	Pediatric Asthma Prevalence Per 100 K-8 Students (2017)	10.2	12.1
	Overweight or Obese Children in Grades 1, 4, 7, and 10	39.4%	-
Behavioral Health	% Middle Schoolers Seriously Considering Suicide	26.0%	24.3%
	% High Schoolers Reporting Current Electronic Vapor Use)	10.1%	32.2%
Access to Care	Ratio of Population to Primary Care Provider (by county, Plymouth)	790:1	970:1
	Ratio of Population to Mental Health Care (by county, Plymouth)	170:1	150:1

DATA SOURCE: Massachusetts (2019) and Boston (2019) Youth Risk Behavior Survey (YRBS); Massachusetts Population Health Information Tool (PHIT)

WALTHAM

Boston Children's Hospital PPOC Patient Data, by Waltham, 2021 (N=3,126)



DATA SOURCE: Boston Children's Hospital, PPOC Data, 2021

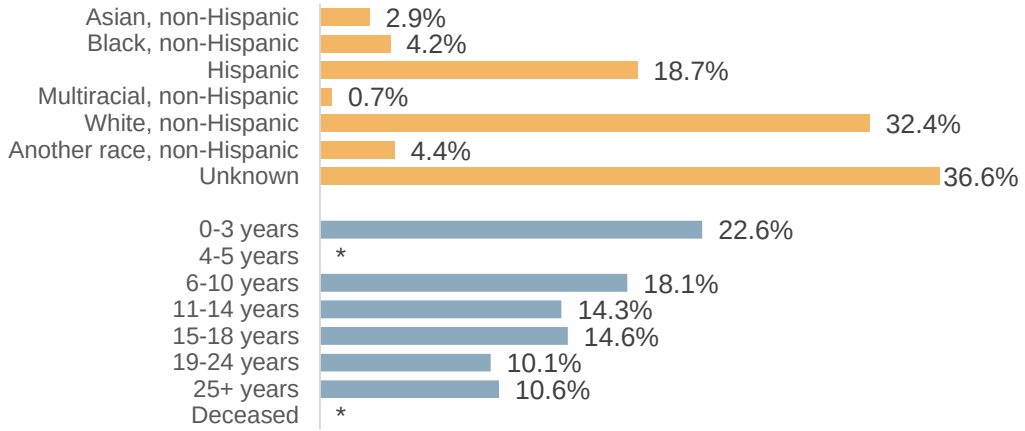
Boston Children's Hospital Patient Data, PPOC Patient Data, by Waltham, 2021

	Anxiety	Asthma	Concussion	Depression	Obesity
Overall	11.0%	9.6%	1.4%	3.8%	18.2%
Age Group					
0-12 years	4.0%	6.4%	*	*	16.5%
13-17 years	19.5%	15.5%	4.2%	*	24.9%
18 years or older	25.4%	14.4%	*	10.6%	16.8%
Insurance Type					
Commercial	11.4%	9.0%	1.3%	3.4%	13.3%
Public	10.4%	10.6%	1.4%	4.6%	26.3%
Race & Ethnicity					
Asian, non-Hispanic	*	5.5%	0.0%	*	8.0%
Black, non-Hispanic	*	13.3%	*	*	27.9%
Hispanic or Latino	9.8%	8.4%	*	4.7%	29.2%
White, non-Hispanic	14.8%	10.8%	1.8%	4.5%	15.6%
Other, non-Hispanic	9.4%	9.2%	1.4%	2.5%	14.5%

DATA SOURCE: Boston Children's Hospital Patients identified as having diagnosis if ICD-10 code was found on at least one encounter in PPOC Epic from January 1, 2020-December 15,2021; NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

WALTHAM

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Waltham, 2020-2021 (N=4,259)



DATA SOURCE: Boston Children's Hospital, BCH360 Data, January 1, 2020-December 15, 2021

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Waltham, 2020-2021

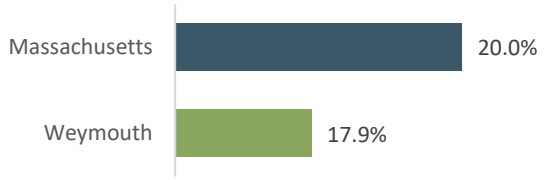
	Abuse Maltreatment (cannot report n)	Alcohol Abuse (cannot report n)	Anxiety (N=196)	Asthma (N=44)	Concussion (N=20)	Depression (N=79)	Marijuana Abuse (cannot report n)	Obesity (N=125)	Self-Harm (N=17)
Overall	*	*	4.6%	1.0%	0.5%	1.9%	*	2.9%	0.4%
Age Group									
0-18 years	*	*	5.0%	*	*	1.7%	*	*	*
19+ years	*	*	5.7%	*	*	3.3%	*	*	*
Race & Ethnicity									
Asian, non-Hispanic	0.0%	0.0%	*	*	0.0%	*	0.0%	*	0.0%
Black, non-Hispanic	0.0%	0.0%	*	*	0.0%	*	0.0%	7.9%	*
Hispanic	*	0.0%	3.4%	2.4%	*	*	0.0%	6.1%	*
Multiracial, non-Hispanic	0.0%	0.0%	*	0.0%	0.0%	*	0.0%	*	*
White, non-Hispanic	0.0%	*	8.3%	*	0.9%	3.3%	*	1.8%	*
Another race, non-Hispanic	0.0%	0.0%	*	*	0.0%	*	0.0%	*	*
Unknown	0.0%	*	2.3%	*	*	*	*	2.0%	*

DATA SOURCE: Data source: Boston Children's Hospital Patients with a Waltham home zip code identified as having an ICD-10 diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

SATELLITE CLINIC: WEYMOUTH

(See Boston Children's Hospital Route 128 DoN Community Health Needs Assessment for qualitative themes)

Population Under 18 Years, 2015-2019



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Age Distribution for 0-19 Year Olds, by Race and Ethnicity in Weymouth, 2015-2019

	Massachusetts	Weymouth
Asian	6.7%	8.6%
Black	9.4%	7.9%
Hispanic/Latino	17.8%	6.4%
White, Non-Hispanic	61.6%	72.7%

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Fully Vaccinated Against COVID-19 by Age, by Weymouth, 5/19/22

	% group	n
Total	78.6%	44,141
5-11 years	40.8%	1,601
12-15 years	67.1%	1,725
16-19 years	79.3%	1,842

DATA SOURCE: Massachusetts Department of Public Health, Covid-19 Vaccine Report, 2022; NOTE: Data as of 5/19/22.

Social Determinants of Health, 2015-2019

		Weymouth	MA
Income	Median household income	$84,942	$81,215
	% Children in Poverty	9.0%	11.1%
	% Children Under 18 with SNAP Benefits	30.5%	39.7%
Housing	Renter-Occupied households that are cost-burdened (30% or more of income on housing)	47.4%	49.5%
	Monthly Median Housing Costs-Owners	$ 2,182	$2,225
	Monthly Median Housing Costs-Renters	$ 1,464	$1,282
Education	Number of Students Experiencing Homelessness	137 (2.5%)	23,182 (2.4%)
	Students who Graduate with Diploma within 4 Years	87.9%	-
	Mobility Rate (Transferring in or out of school) (2021)	11.0%	-
	Percent Students with High Needs (2021)	55.1%	-

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019; MA. Dept of Elementary and Secondary Education, 2021

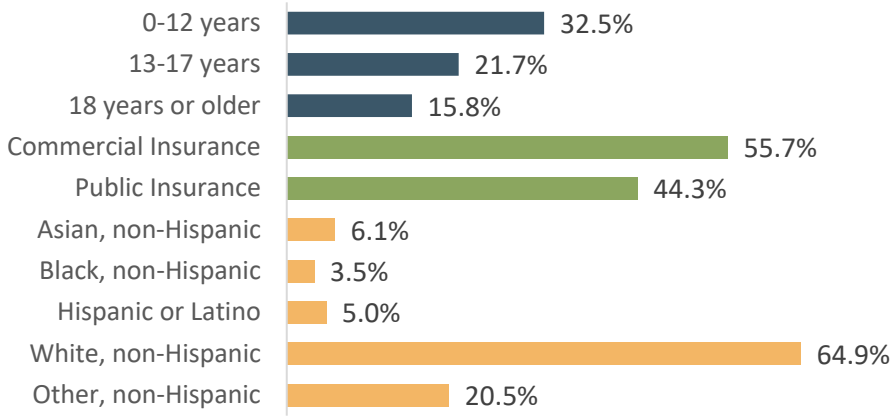
Health and Access, By Most Recent Data Available

		Weymouth	MA
Health	Percent Children Insured, 2015-2019	99.7%	98.7%
	Pediatric Asthma Prevalence Per 100 K-8 Students (2017)	11.4	12.1
	Overweight or Obese Children in Grades 1, 4, 7, and 10	35.2%	-
Behavioral Health	% Middle Schoolers Seriously Considering Suicide	N/A	24.3%
	% High Schoolers Reporting Current Electronic Vapor Use)	N/A	32.2%
Access to Care	Ratio of Population to Primary Care Provider (by county, Plymouth)	790:1	970:1
	Ratio of Population to Mental Health Care (by county, Plymouth)	160:1	150:1

DATA SOURCE: Massachusetts (2019) and Boston (2019) Youth Risk Behavior Survey (YRBS); Massachusetts Population Health Information Tool (PHIT)

WEYMOUTH

Boston Children's Hospital PPOC Patient Data, by Weymouth, 2021 (N=1,245)



DATA SOURCE: Boston Children's Hospital, PPOC Data, 2021

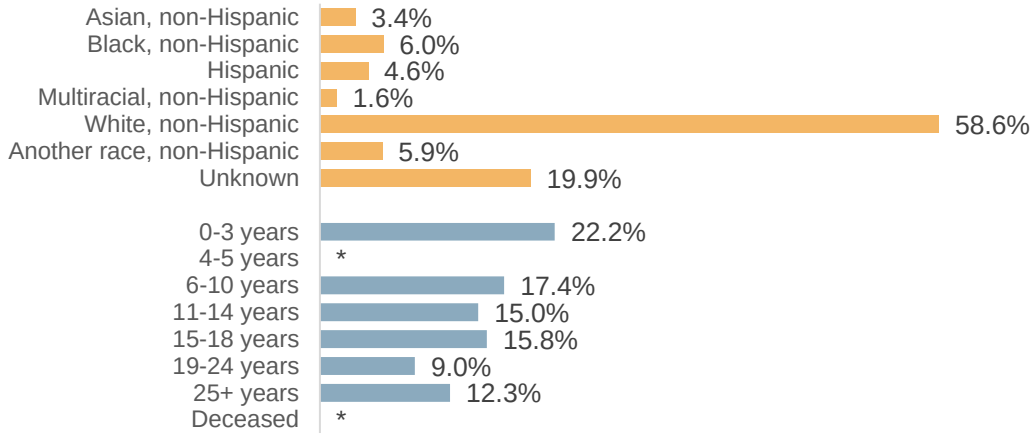
Boston Children's Hospital Patient Data, PPOC Patient Data, by Weymouth, 2021

	Anxiety	Asthma	Concussion	Depression	Obesity
Overall	14.5%	12.2%	1.4%	4.0%	16.7%
Age Group					
0-12 years	6.3%	11.3%	*	*	18.0%
13-17 years	27.0%	14.1%	*	8.9%	15.2%
18 years or older	29.4%	13.2%	*	9.1%	13.7%
Insurance Type					
Commercial	15.6%	10.8%	*	3.9%	12.7%
Public	13.1%	14.0%	*	4.2%	21.8%
Race & Ethnicity					
Asian, non-Hispanic	*	17.0%	0.0%	*	*
Black, non-Hispanic	*	25.0%	0.0%	*	*
Hispanic or Latino	19.4%	19.4%	*	*	29.0%
White, non-Hispanic	17.7%	11.9%	1.6%	4.6%	17.6%
Other, non-Hispanic	6.3%	7.8%	*	*	11.4%

DATA SOURCE: Boston Children's Hospital Patients identified as having diagnosis if ICD-10 code was found on at least one encounter in PPOC Epic from January 1, 2020-December 15,2021; NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

WEYMOUTH

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Weymouth, 2020-2021 (N=3,612)



DATA SOURCE: Boston Children's Hospital, BCH360 Data, January 1, 2020-December 15, 2021

Boston Children's Hospital Inpatient and Outpatient Encounter Data, by Weymouth, 2020-2021

	Abuse Maltreatment (cannot report n)	Alcohol Abuse (cannot report n)	Anxiety (N=192)	Asthma (N=55)	Concussion (N=22)	Depression (N=80)	Marijuana Abuse (cannot report n)	Obesity (N=94)	Self-Harm (N=16)
Overall	*	*	5.3%	1.5%	0.6%	2.2%	*	2.6%	0.4%
Age Group									
0-18 years	*	*	5.2%	*	*	2.2%	*	*	*
19+ years	*	*	7.5%	*	*	3.0%	*	*	*
Race & Ethnicity									
Asian, non-Hispanic	0.0%	0.0%	*	*	*	0.0%	0.0%	*	0.0%
Black, non-Hispanic	0.0%	0.0%	*	*	*	*	0.0%	*	*
Hispanic	0.0%	0.0%	*	*	*	*	*	7.9%	*
Multiracial, non-Hispanic	0.0%	0.0%	*	*	0.0%	*	0.0%	*	0.0%
White, non-Hispanic	0.0%	*	6.4%	1.1%	0.7%	2.8%	*	2.3%	*
Another race, non-Hispanic	0.0%	0.0%	*	*	*	*	*	6.5%	*
Unknown	*	0.0%	2.9%	*	*	*	0.0%	*	0.0%

DATA SOURCE: Data source: Boston Children's Hospital Patients with a Weymouth home zip code identified as having an ICD-10 diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

APPENDIX C. BOSTON CHILDREN'S HOSPITAL 2019-2021 REVIEW OF INITIATIVES

The majority of the programs and services listed in this review of initiatives have been in place for over a decade and will continue through 2025 and beyond. These programs and services also address the aligned priorities in our 2019 Strategic Implementation Plan and 2022 Community Health Implementation Plan and are foundational to achieving our future proposed strategies.

Community Health Programs	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, Goals Achieved etc.		
		FY 2019	FY 2020	FY 2021
Community Identified Health Need: Obesity Prevention and Treatment				
Fitness in the City (FIC)	A community-based approach to weight management and reducing health disparities at 12 Boston-based community health centers including Boston Children's at Martha Eliot Health Center. Through capacity building and financial support, FIC enables health centers to administer case-management services to children who have a body mass index (BMI) at or above the 85th percentile and their families including culturally appropriate nutritional education and physical activities.	1) 64.5% of children in program decreased and 1.5% maintained their BMI over the year. Children also reported consuming less fast food and sugar-sweetened beverages, consuming more fruits and vegetables, watching less TV, and increasing their amount of exercise after 12 weeks in the program. 2) Exceeded annual intake target, with 642 completed intakes (target >600). Follow up targets were also met: 328 completed 3-month follow-up visits, 289 completed 6-month follow-ups and 335 completed 12-month follow-ups. 3) Engaged an additional 749 children who are at-risk of obesity or identify as food insecure in nutrition education and physical activity and connected them to food insecurity resources.	1) Completed 457 intakes, 293 3-month follow-up visits, 264 12-month follow-ups. 2) 63% of children decreased and 3% maintained their BMI over the year. Children also reported consuming less fast food and sugar-sweetened beverages and consuming more fruits and vegetables, after 12 weeks in the program. 3) Engaged an additional 466 children who are at-risk for obesity or identify as food insecure and connected them with resources.	1) Completed 463 intakes, 261 3-month follow-up visits, 334 6-month follow-ups and 226 12-month follow-ups. 2) 56% of children decreased their BMI over the year. 3) Positive health behavior changes measured after involvement in program including increased exercise and fruit/vegetable intake, and decreased screen time, fast food consumption and soda/juice intake. 4) Fitness in the City engaged an additional 417 children who are at-risk of obesity or identify as food insecure in nutrition education and physical activity and connected them to food insecurity resources.
Kohl's Healthy Family Fun Program	Promotes fun and family-oriented activities and neighborhood resources that make it easier for families to be active. Boston Children's has been collaborating with Community Health Centers and the Boston Public Schools to	1) Implemented learning opportunities (cooking classes) to educate children and parents about nutrition and how to prepare healthy meals 2) Increased public awareness about positive health messages	1) 171 individuals participated in cooking class series. 2) Produced posts and ads on Facebook page with 4,934 likes. Ran ads in 3 local newspapers and 3 radio stations.	1) 547 individuals participated in cooking classes. 2) Provided food and nutrition resources to 6,268 individuals.

Community Health Programs	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, Goals Achieved etc.		
		FY 2019	FY 2020	FY 2021
	implement Healthy Family Fun events.	and role models using a paid media campaign 3) Supported children and families by providing resources and referrals	3) Provided food and nutrition resources to 5,144 individuals.	
Collaboration for Community Health Community Physical Activity, Recreation and Food Access Initiative	The initiative will provide 3 years of grant funding to organizations, coalitions, or agencies undertaking projects that (1) encourage coordination and collaboration within the community to offer low or no-cost physical, recreation, and/or healthy and nutritious food access activities; (2) address barriers to participation in low or no cost recreation or physical activity for children and families across all seasons; (3) ensure that nutrition practices and food served in settings with children and families meet guidelines for their health; (4) increase the dissemination of nutrition education broadly to build skills among children and families; (5) create systems for collaboration by engaging community recreation and physical activity stakeholders with a common goal for children and families to be physically active.	Distributed the first year of funding to 10 organizations in October 2018. In one year, the organizations altogether served 4,848 children, 341 young adults, and 164 parents/adults, served 32,000+ meals, and provided trainings for 388 staff, youth leaders, and volunteers.	Distributed the second year of funding to 10 organizations in Fall 2019. Offered support during the COVID-19 pandemic by allowing awardees to shift activities to virtual formats and support the immediate needs of families through outreach and resource distribution including food and grocery store gift cards. Nine of the ten funded partners hosted community events to engage children and families and led programs/services to provide information on healthy eating and led physical activities. In addition, 1 funded partner provided over 20,000 free meals at sites to children across the city.	Distributed the third year of funding to 10 organizations in Fall 2020. Funded partners built or maintained 125 active partnership sites to reach additional community members with nutrition and physical activity programming. Through their efforts, 202 individuals received training to lead nutrition and physical activity programming. Over 300 children, youth, and other residents participated in physical activities, including biking and walking. One funded partner working at 15 elementary schools provided 3,763 children with physical activities, including virtual recess programming during school closures. Two funded partners involved in food access facilitated the distribution of 2.9 million meals and 4,553 pounds of fresh grown produce.
Family Gym	Family Gym is a partnership between Boston Children's Hospital, Northeastern University, and Boston Centers for Youth and Families that aims to prevent childhood obesity by supporting health promoting environments where young children learn	1) Continued Head Start teacher training on healthy habits 2) Completed analysis of data from Farm to Family pilot study and disseminated to key stakeholders. 3) 382 children and caregivers participated in Family Gym.	All Family Gym activities were paused due to COVID-19 Pandemic	1) In Spring 2018, 284 children and caregivers participated in Family Gym across three sites. 65 of these families are returners. 2) In Fall 2018, 285 children and caregivers participated. 58 of these families are returners.

Community Health Programs	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, Goals Achieved etc.		
		FY 2019	FY 2020	FY 2021
	(preschool) and play (community). Born out of the Healthy Kids, Healthy Futures program, Family Gym was developed to respond to the needs of Boston's parents and early childcare providers for hands-on education and programming.			
Community Identified Health Need: Asthma Care				
Community Asthma Initiative (CAI)	Through a comprehensive asthma home visiting program, CAI provides case management and home visits, offers education to caregivers and patients, distributes asthma control supplies, connects families to resources and increases access through advocacy.	1) Provided education and training for 43 community meetings with 393 participants, 3 community events with 395 participants, 39 trainings/talks with 592 participants, and 14 insurance/policy related meetings with 241 participants. 2) CAI cared for 167 new patients with 83 completing at least one home visit (50%). Boston Children's staff completed 204 visits, with 203 by Community Health Workers and 1 by the Nurse Practitioner 3) CAI surpassed its quality goal, reducing the percent of patients with any hospitalizations by 82% and any emergency department visits by 55% after one year in the program.	1) Provided education and training for 108 community meetings with 832 participants, 5 community events with 1,837 participants, 24 trainings/talks with 356 participants, and 1 insurance/policy related meeting with 16 participants. 2) Cared for 97 new patients with 64 completing at least one home visit (66%). Boston Children's staff completed 177 visits, with 138 by Community Health Workers and 39 by the Nurse Practitioner. 3) Reduced percent of patients with any hospitalizations by 82.4% and any emergency department visits by 54.6%.	1) Provided education and training for 111 community meetings, 4 community events, 18 trainings/talks, and 4 insurance/policy meetings. 2) 96 new patients, 70 completing at least one home visit; 120 visits total. 3) Reduced percent of patients with any hospitalizations by 82% and any emergency department visits by 55%. 4) Continued to provide hybrid model of care to successfully engage patients with safe services during COVID-19. Touchless home delivery of materials and virtual visits were provided as needed.
Primary Care Asthma Program	The Children's Hospital Primary Care asthma program utilizes a chronic disease management framework to provide comprehensive, population-based asthma care. The integrated multidisciplinary team provides an innovative approach to health care delivery that supports increased patient knowledge of disease self-	The asthma team has implemented several key initiatives to care for patient families. These included: **Preventative Management:** Developed and implemented clinic-wide standardized preventative asthma visit care plan for all patients with asthma. **Enhanced Patient Identification/Tracking:** The hospital-wide asthma registry is utilized to monitor the population of asthma patients (3,000). **Care Coordination/Case Management**: Inter-visit nursing telephone calls were implemented by the team's certified nurse educator to patients with low ACT scores (<19) as identified at office visits. The model is being disseminated across the primary care asthma sites at Boston Children's Hospital. Additionally, the team has developed relationships with clinical leaders at four Boston Community Health Centers to support the		

Community Health Programs	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, Goals Achieved etc.		
		FY 2019	FY 2020	FY 2021
	management, improves patient engagement and enhances care coordination across the health system and communities in which patients live.	implementation and integration of new innovative strategies for asthma care across their clinics. The asthma program is also engaged with the Boston Public Health Commission and the Boston Public Schools leadership to support and further develop collaborative asthma initiatives and outreach across the city of Boston.		
Community Identified Health Need: Mental and Behavioral Health Care and Supports				
Boston Children's Hospital Neighborhood Partnerships Program (BCHNP)	BCHNP is the community behavioral health program in the Department of Psychiatry at Boston Children's Hospital. Established in 2002, BCHNP partners with Boston schools and CBOs to provide a comprehensive array of social, emotional and behavioral health services and supports to students, families, educators and school communities. BCHNP's Training and Access Project (TAP) has partnered with 25 BPS schools since 2015. The program utilizes a combination of high-quality professional development and consultation over the course of a two-year partnership to support the development of the systems, protocols, and procedures needed to effectively and sustainably address students' social, emotional, and behavioral health needs in schools.	1) 993 students participated in 41 BCHNP classroom interventions focused on a range of topics, including depression awareness, emotion regulation, community building, and traumatic stress. 2) Clinicians intervened in 270 crisis situations with an average wait time of 6.5 minutes, provided individual therapy to 50 students, and provided care coordination services to 199 students. 3) Provided over 1,400 hours of consultation to school staff, with teachers and administrators being the most frequent recipients of consultation. Provided 53 social, emotional and behavioral health workshops to partnering school communities.	1) Provided 1,515 hours of consultation to school staff and families. Provided 45 social, emotional and behavioral health workshops. 2) Clinicians intervened in 151 crisis-situations with a wait time of ~5 minutes and provided care coordination services to 189 students. Provided individual therapy to 44 students. 3) Provided 797 BPS students in 47 classroom interventions focused on SEL and community building. 4) Continued ongoing partnership with BPS to strengthen the Comprehensive Behavioral Health Model, adding 7 new schools (74 schools to-date). Added 5 schools to BCHNP TAP (25 schools to-date). 5) Average satisfaction ratings across all stakeholders and services were >80%.	1) Provided 1,496 hours of consultation to school staff. Provided 42 workshops with 1,650 participants focused on social, emotional, and behavioral health to partnering school communities 2) Clinicians intervened in 96 crisis situations with a wait time of ~5 minutes, and provided behavioral health services to 1,469 students. 3) Provided 1,217 BPS students in 60 classroom interventions focused on SEL and community building. 4) TAP Online released: 1) a three-part training series to support school staff in meeting the social, emotional, and behavioral health needs of their school's community upon return to school during the COVID-19 pandemic, 2) a training about the impact of trauma on learning, and 3) a documentary and resource guide specifically for families coping with anxiety. 5) Average satisfaction ratings across all stakeholders and services were >80%.
Collaboration for Community Health Mental Health and Youth Supports	This funding opportunity will provide three years of grant funding to schools, organizations, coalitions, or agencies undertaking projects that (1) increase access to	The initiative launched in 2018 with 11 funded partners implementing projects that 1) improve access to mental health assessment and treatment; 2)	Distributed the second year of funding to 11 organizations in Spring 2020. Offered support during the COVID-19 pandemic as in-person programs closed by allowing	Distributed the third year of funding to 11 organizations in Spring 2021. 1) A funded partner established or strengthened partnerships with 6 local community colleges and human

Community Health Programs	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, Goals Achieved etc.		
		FY 2019	FY 2020	FY 2021
	culturally responsive child and youth mental health assessment and treatment; (2) develop innovative models or programs to expand and diversify the child and adolescent community mental health workforce; (3) advance knowledge and disseminate information to reduce stigma around children's mental and behavioral health; (4) encourage youth employment, college readiness and/or work force development; (5) increase youth civic engagement; and (6) improve the quality of after school or out of school time programming.	develop models to expand and diversify the mental health workforce and advance knowledge in this area; and 3) increase the engagement of underserved young people in experiences that support their development as leaders. In the first six months, the organizations altogether trained 54 providers, awarded 22 scholarships for continuing education for current/future providers, and served 304 young adults.	awardees to shift activities by adopting virtual formats for programming, therapy, education, and technical assistance, and supporting the immediate needs of youth and families through outreach. One funded partner published two research briefs and presented findings to the Safe and Supportive Schools Commission, which resulted in state grants being targeted to the school districts with fewer behavioral health resources.	services organizations to train and retain a multicultural behavioral health workforce. 2) Delivered 11 presentations on recognizing complex trauma and referral processes to teachers. 3) Hosted 12 webinars for Community Health Centers to interactively learn how to integrate behavioral health care into pediatric primary care
Community Identified Health Need: Violence and Trauma Response Services and Supports				
Child Protection Program/Services	The Child Protection Program (CPP) provides clinical, advocacy, teaching and consultation services to clinicians working with families affected by interpersonal violence and/ or child maltreatment. The Foster Care Clinic offers developmental and behavioral screening, medical assessment, dental screening, psychosocial assessment and referrals to children newly entering foster care.	1) There were 102 new referrals made to AWAKE along with 218 ongoing client cases. 36 clients were referred to Legal Clinic. 2) 23 children received follow up skeletal surveys post discharge from the hospital. Triage of 35 new cases of possible sexual and/or physical abuse was provided. 3) 69 Foster Care Clinic intakes completed during this time period.	1) 232 new referrals made to AWAKE. 218 on-going client cases, 54 referred to Legal Clinic 2) 19 children received follow up skeletal surveys post discharge from the hospital. Triage of 37 new cases of possible sexual and/or physical abuse was provided in FY20. 3) 20 Foster Care Clinic intakes completed during this time period.	1) 274 new referrals made to AWAKE. 225 ongoing client cases, 71 referred to Legal Clinic 2) 30 children received follow up skeletal surveys post discharge from the hospital. Triage of 71 new cases of possible sexual and/or physical abuse was provided. 3) 15 Foster Care Clinic intakes completed during this time period. 4) Coordinated COVID-19 testing through the hospital for 291 children in DCF custody allowing children to be placed in programs that required testing.
Collaboration for Community Health Community Trauma Response Initiative	This funding opportunity will provide 3 years of grant funding to schools, community health centers, community-based organizations, coalitions, or agencies that (1)	Distributed the first year of funding to 4 organizations in May 2019. In six months, the organizations altogether served 292 children, 133 young adults, and 263	Distributed the second year of funding to 4 organizations in Spring 2020. Offered support during the COVID-19 pandemic by allowing partners to switch to virtual formats.	Distributed the third year of funding to 4 organizations in Spring 2021. All four funded partners provided training to increase organizational capacity. Three funded partners

Community Health Programs	Description of Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Impact: Number of Individuals Served, Goals Achieved etc.		
		FY 2019	FY 2020	FY 2021
	improve capacity building/training for community-based organizations and providers of trauma services including parent/family partners; and (2) strengthen, connect, and coordinate existing community-based interventions to create opportunities for community voice, empowerment, and healing.	community residents, and trained 27 providers.	Partners expanded trauma resource delivery through email, social media, and contactless drop-offs to community members after incidents of violence and supported the immediate needs of youth and families through outreach. Funded partners engaged children, youth, families, and residents reaching over 600 children/youth and over 300 residents/families. Many offer one-on-one trauma support to youth.	expanded opportunities for one-on-one discussions with youth, offering a total of 93 consults/sessions for youth. They referred 12 youth to clinical services, connected 27 individuals to counseling services, and provided coaching to 382 families. Two funded partners offered a total of 29 opportunities for youth healing in supportive community settings such as healing circles/group discussions.
Neighborhood Trauma Team (BPHC)	Support the Boston Public Health Commission to establish Neighborhood Trauma Teams in at-risk communities	Boston Children's Hospital's funding, along with funds from the City of Boston and Brigham and Women's Hospital, supports six neighborhood-based trauma teams to respond to violence in the community. Community Health Centers and Community Based Organizations provide teams of social workers, family and community advocates, and residents to respond to incidents meeting specific criteria in their catchment area (geographic neighborhood). Incidents include: homicide, suicide, domestic violence, unintentional injury and other trauma affecting large portions of the community.		

APPENDIX D. ADDITIONAL DATA TABLES

Appendix D includes additional data to complement what is presented in the body of the report.

Community Health

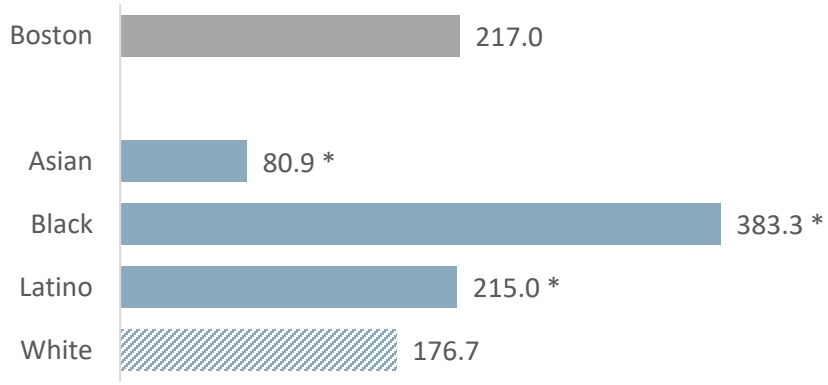
Premature Mortality

Table 7. Leading Causes of Premature Mortality, by Boston and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2020

	Boston	Asian	Black	Latino	White
1	**Accidents** 48.0	**Cancer** 28.7 †	**Accidents** 77.0	**Accidents** 56.7	**Accidents** 46.5
2	**Cancer** 31.1	**Accidents** 12.9 †	**Heart Disease** 58.9	**COVID-19** 33.3	**Cancer** 25.7
3	**Heart Disease** 28.4	**Heart Disease** 11.9 †	**Cancer** 53.7	**Cancer** 23.2	**Heart Disease** 24.2
4	**COVID-19** 17.8	**Suicide** 6.1 †	**COVID-19** 34.1	**Heart Disease** 20.9	**COVID-19** 8.9
5	**Homicide** 7.5		**Homicide** 30.6	**Homicide** 8.8 †	**Chronic Liver Disease & Cirrhosis** 8.6

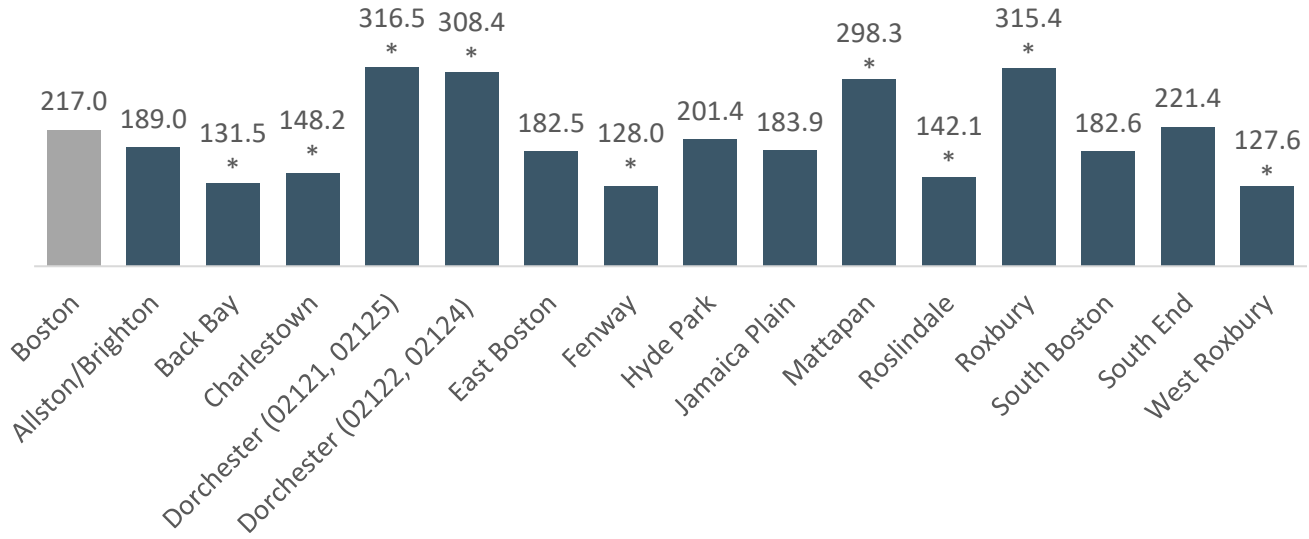
DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Deaths, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Premature deaths are defined as deaths at an age under 65 years; Insufficient number of records for analysis for Asian residents; Please be advised that 2020-2022 data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Massachusetts Department of Public Health strongly cautions users regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events; Dagger (†) denotes where rates are based on 20 or fewer deaths and may be unstable

Figure 27. Premature Mortality Rate, by Boston and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2020-2021 Combined



DATA SOURCE: Boston Public Health Commission, Boston resident deaths, 2014-2016 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Premature deaths are defined as deaths at an age under 65 years; 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)

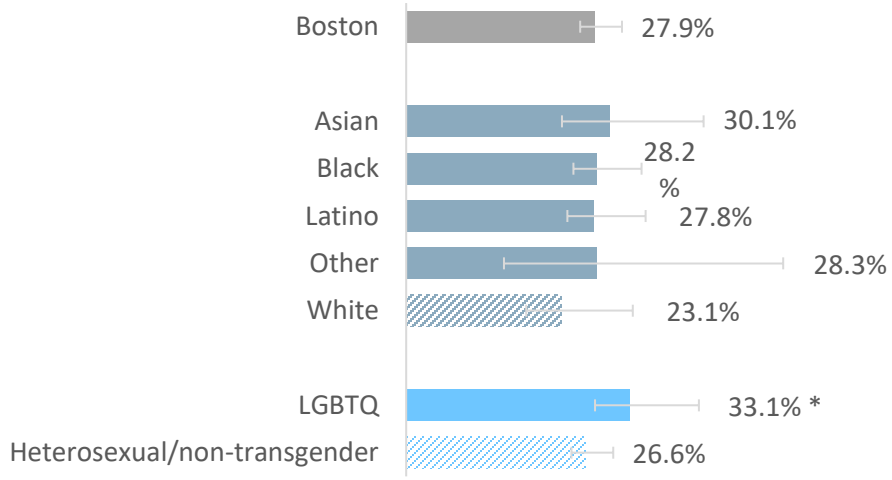
Figure 28. Premature Mortality Rate, by Boston and Neighborhood, Age-Adjusted Rate per 100,000 Residents, 2020-2021 Combined



DATA SOURCE: Boston Public Health Commission, Boston resident deaths, 2020-2021 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Premature deaths are defined as deaths at an age under 65 years; Please be advised that 2020-2022 data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate, have not been fully verified, and revisions are likely to occur following the production of these data. The Massachusetts Department of Public Health strongly cautions users regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

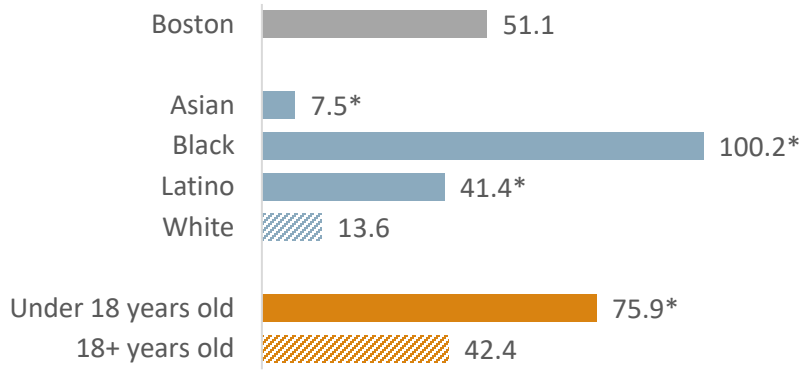
Asthma

Figure 29. Percent Boston Public High School Students Reporting Having Asthma, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



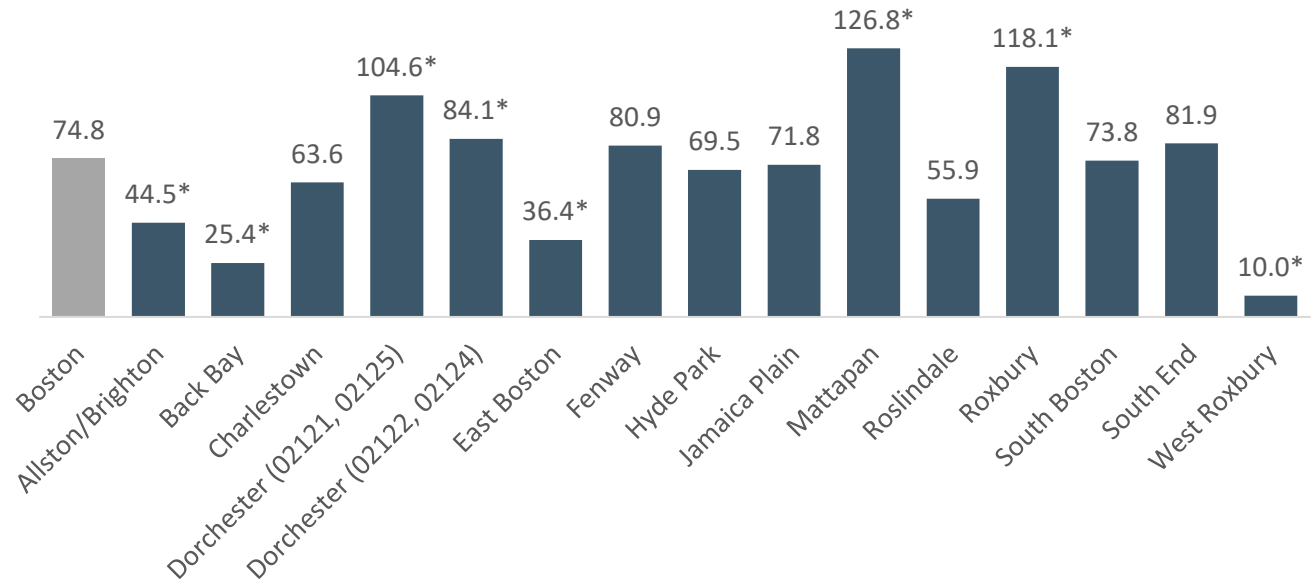
DATA SOURCE: Centers for Disease Control and Prevention and Boston Public Schools, Youth Risk Behavior Survey, 2015, 2017, and 2019 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category ($p < 0.05$); Error bars show 95% confidence interval
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

Figure 30. Asthma-Related Hospital Patient Encounter Rate, by Boston and Selected Indicators, Age-Adjusted Rate per 10,000 Residents, 2020



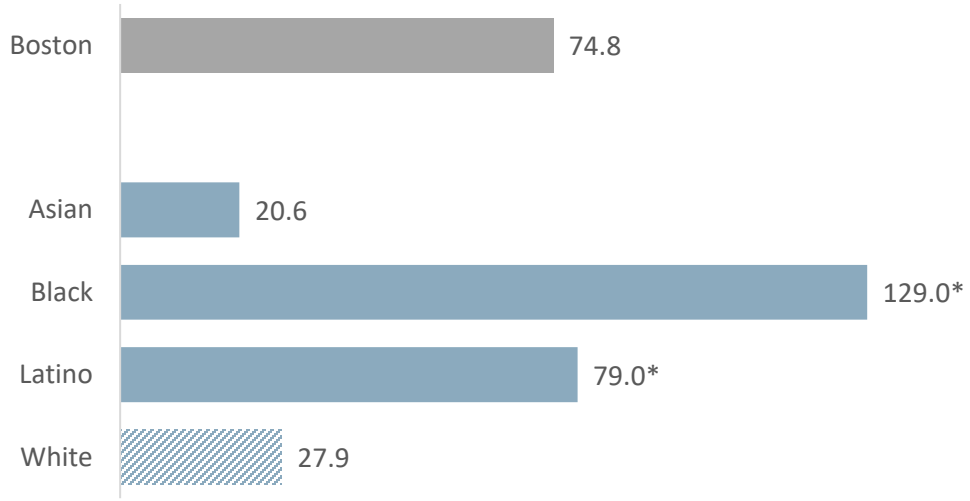
DATA SOURCE: Massachusetts Center for Health Information and Analysis, Acute Hospital Casemix Databases, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Hospital patient encounters (HPEs) include both emergency department visits and hospitalizations. Bars with 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)

Figure 31. Asthma Hospital Patient Encounters (Children Under 18 Years), by Boston and Neighborhood, Rate per 10,000 Residents, 2020



DATA SOURCE: Massachusetts Center for Health Information and Analysis, Acute Hospital Case Mix Databases, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Hospital patient encounters (HPEs) include both emergency department visits and hospitalizations; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston (p < 0.05)

Figure 32. Asthma Hospital Patient Encounters (Children Under 18 Years), by Boston and Race/Ethnicity, Rate per 10,000 Residents, 2020



DATA SOURCE: Massachusetts Center for Health Information and Analysis, Acute Hospital Case Mix Databases, 2020
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Hospital patient encounters (HPEs) include both emergency department visits and hospitalizations; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05)

Table 8. Boston Children's Hospital Inpatient and Outpatient Encounters with ICD-10 Asthma Diagnosis, by Patients with Boston Home Zip Code, 2020-2021

	Asthma (N=1,647)
Overall	2.9%
Age Group	
0-3 years	0.7%
4-5 years	3.0%
6-10 years	4.9%
11-14 years	5.3%
15-18 years	4.0%
19-24 years	3.6%
25+ years	*
Deceased	*
Race/Ethnicity	
Asian, non-Hispanic	1.0%
Black, non-Hispanic	5.2%
Hispanic	4.7%
Multiracial, non-Hispanic	3.4%
White, non-Hispanic	0.8%
Another race, non-Hispanic	3.0%
Unknown	0.4%

DATA SOURCE: Data source: Boston Children's Hospital Patients with a Boston home zip code identified as having an ICD-10 asthma diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE:

Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

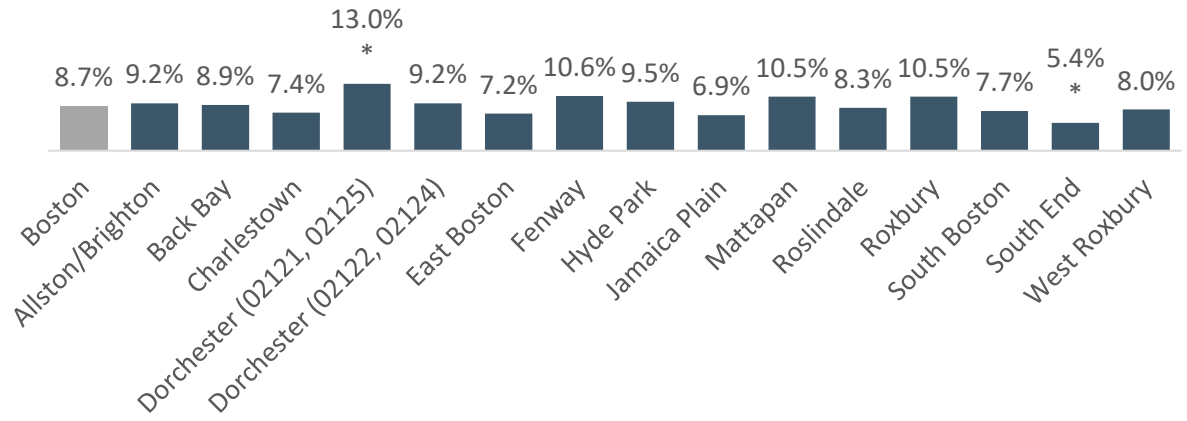
Obesity

Table 9. Boston Children's Hospital Inpatient and Outpatient Encounters with ICD-10 Obesity Diagnosis, by Patients with Boston Home Zip Code, 2020-2021

	Obesity (N=2,858)
Overall	5.0%
Age Group	
0-3 years	1.3%
4-5 years	4.8%
6-10 years	8.9%
11-14 years	11.3%
15-18 years	8.3%
19-24 years	2.6%
25+ years	0.0%
Deceased	0.0%
Race/Ethnicity	
Asian, non-Hispanic	1.5%
Black, non-Hispanic	7.3%
Hispanic	9.2%
Multiracial, non-Hispanic	4.6%
White, non-Hispanic	0.9%
Another race, non-Hispanic	5.6%
Unknown	1.3%

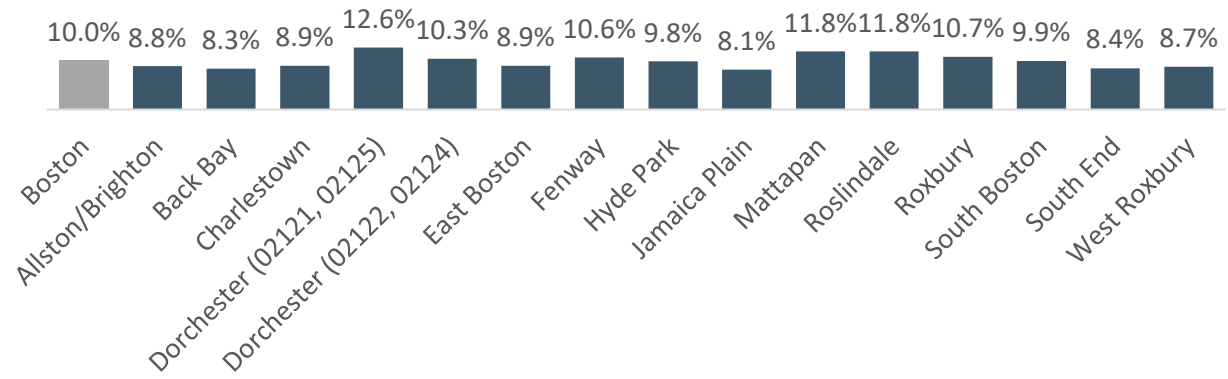
DATA SOURCE: Boston Children's Hospital Patients with a Boston home zip code identified as having an ICD-10 obesity diagnosis from January 1, 2020-December 15, 2021. Includes patients with an encounter at Boston Children's Hospital main campus and satellite locations (Brookline, Lexington, North Dartmouth, Norwood, Peabody, Waltham, Weymouth). NOTE: Asterisk (*) indicates data were suppressed to maintain confidentiality and promote overall reasonable levels of precision for population parameters. The following were suppressed: cells with < 11 patients and rates with counts associated that have already been suppressed.

Figure 33. Percent Low Birthweight Births, by Boston and Neighborhood, 2019



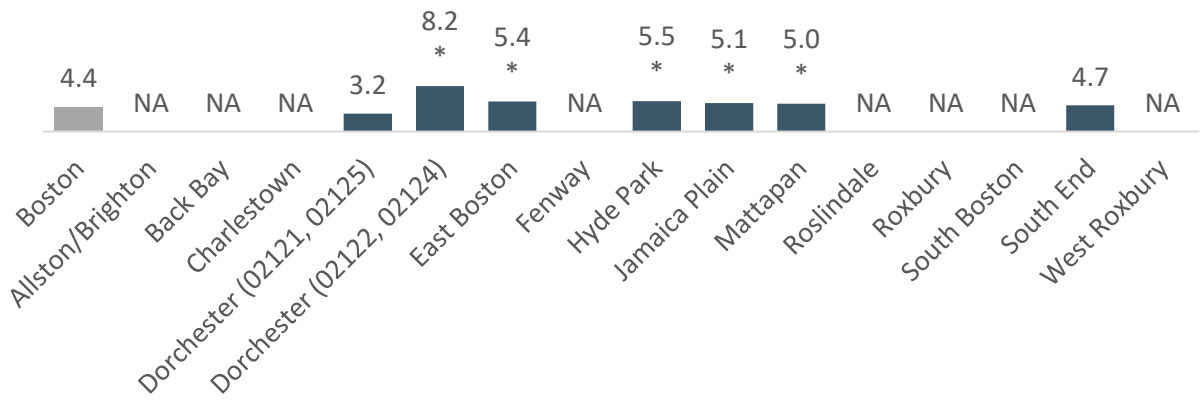
DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Live Births, 2019
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Low birthweight is defined as weighing less than 5 pounds, 8 ounces; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

Figure 34. Percent Preterm Births, by Boston and Neighborhood, 2019



DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Live Births, 2019
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Preterm birth is defined as being born before 37 weeks of gestation; No significant differences between neighborhood estimates compared to the rest of Boston were observed ($p>0.05$)

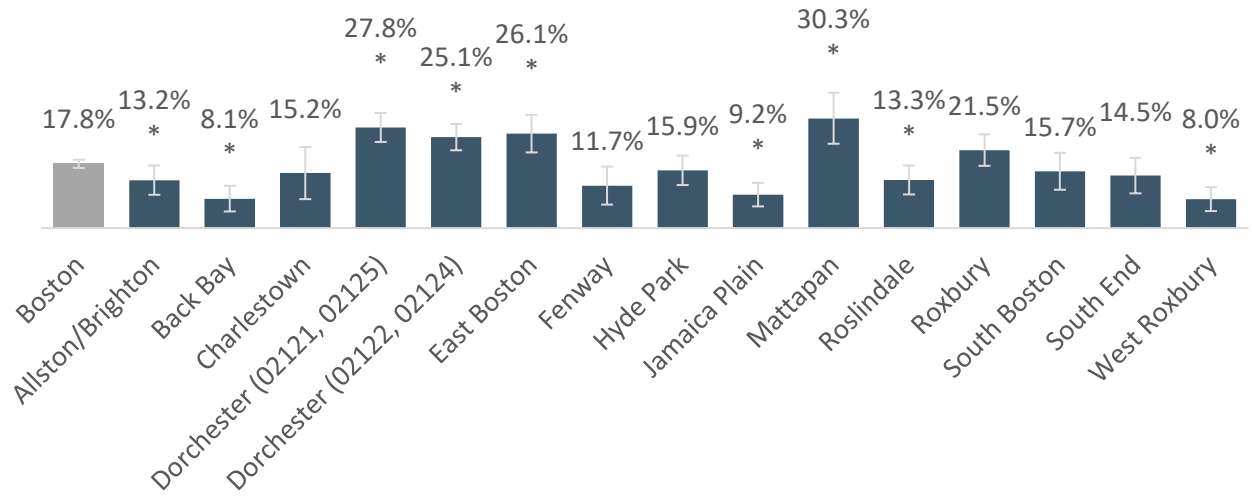
Figure 35. Infant Mortality Rate, by Boston and Neighborhood, Rate per 1,000 Live Births, 2017-2019 Combined



DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Live Births, 2017-2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Infant mortality is defined as the death of an infant before 1 year of age; NA denotes where rates are not shown due to insufficient sample size; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)

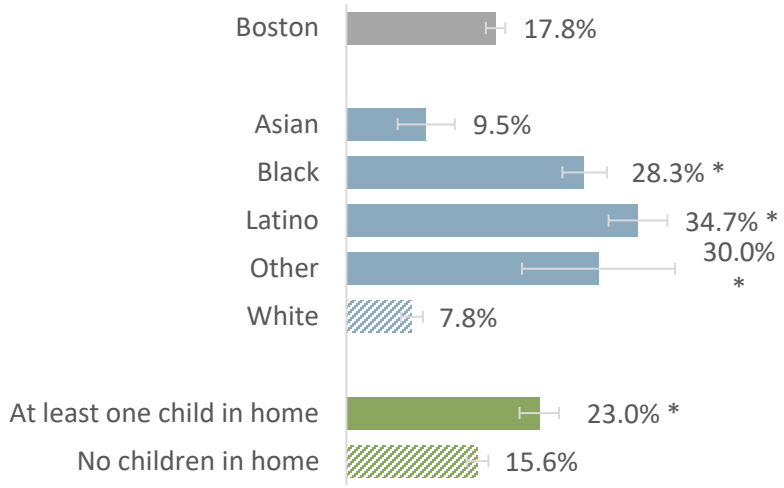
Financial Security and Mobility

Figure 36. Percent Adults Reporting Food Purchased Did Not Last and Did Not Have Money to Get More, by Boston and Neighborhood, 2015, 2017, and 2019 Combined



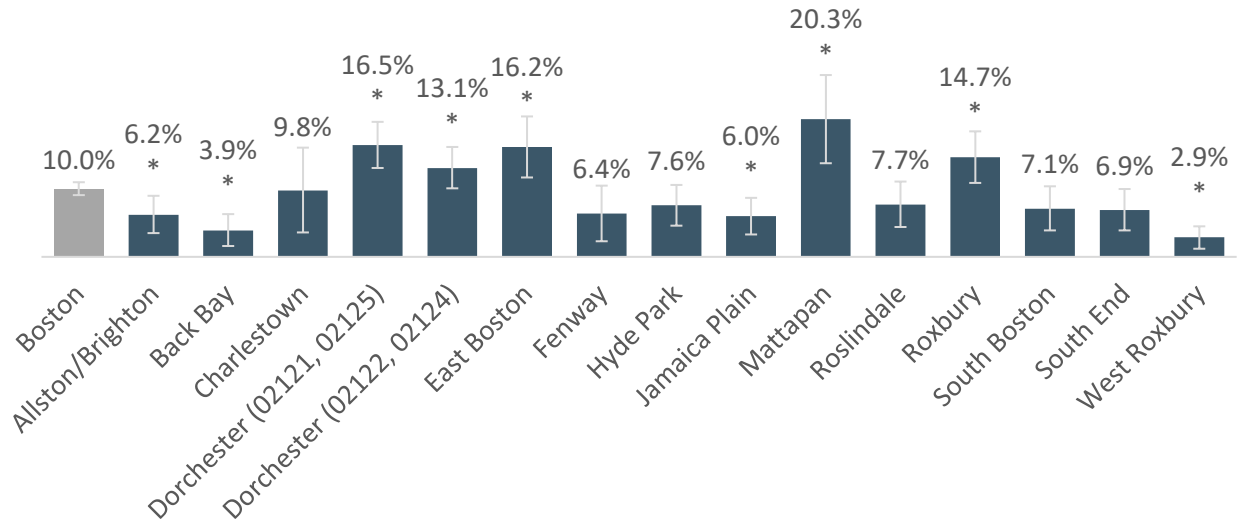
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting it was sometimes or often true that the food did not last and they did not have money to get more; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$); Error bars show 95% confidence interval

Figure 37. Percent Adults Reporting Food Purchased Did Not Last and Did Not Have Money to Get More, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



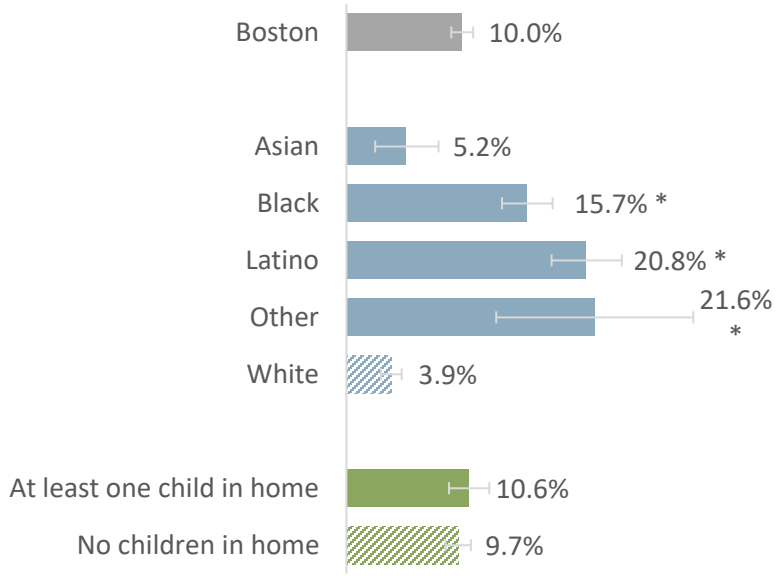
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting it was sometimes or often true that the food didn't last and they did not have money to get 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
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

Figure 38. Percent Adults Reporting Feeling Hungry But Did Not Eat Because Could Not Afford Food, by Boston and Neighborhood, 2015, 2017, and 2019 Combined



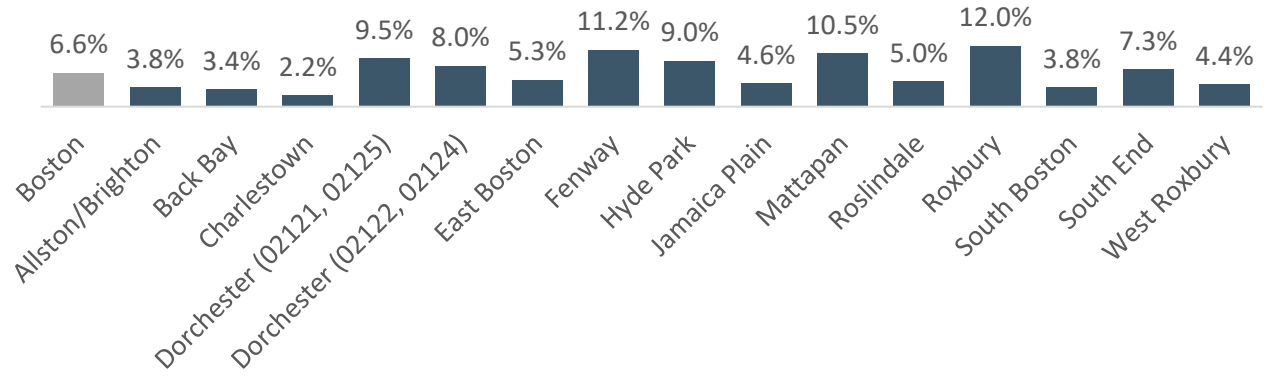
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting it was sometimes or often true in the past 12 months they remained hungry because they could not afford food; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$); Error bars show 95% confidence interval

Figure 39. Percent Adults Reporting Feeling Hungry But Did Not Eat Because Could Not Afford Food, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting it was sometimes or often true in the past 12 months they remained hungry because they could not afford food; 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
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

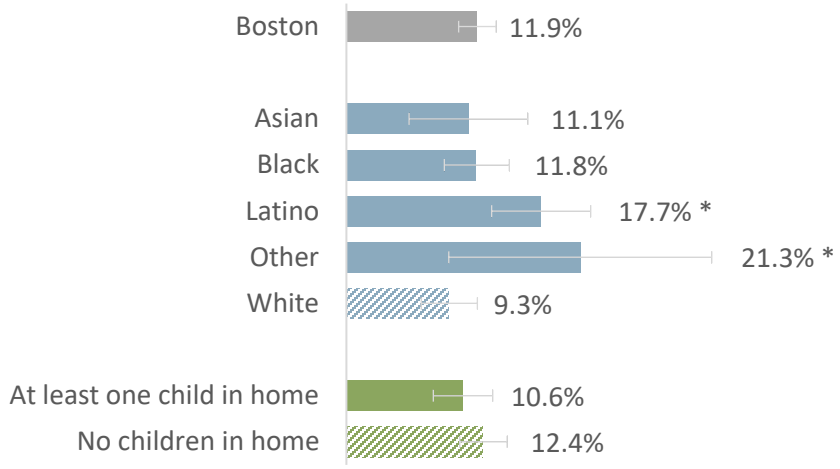
Figure 40. Percent Population 16 Years and Over Unemployed, by Boston and Neighborhood, 2015-2019



DATA SOURCE: U.S. Census, American Community Survey 5-Year Estimates, 2015-2019

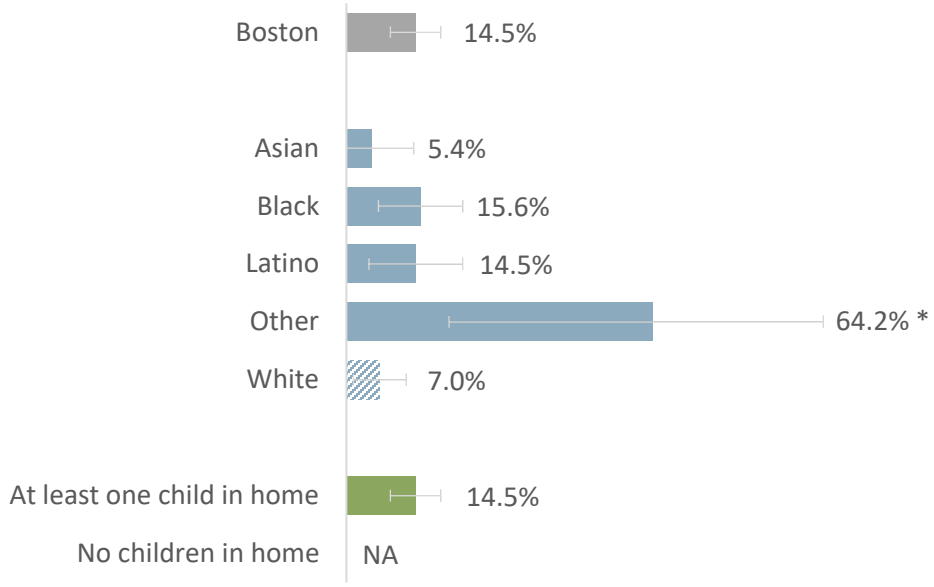
Transportation and Education

Figure 41. Percent Adults Reporting Having Transportation Difficulties in Past Year, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting to that transportation difficulties have kept them from medical appointments, meetings, work, or from getting things needed for daily living in the past 12 months; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$); Error bars show 95% confidence interval
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

Figure 42. Percent Adults with Children Reporting Having Unmet Education Needs for Children or Teens in Household During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021

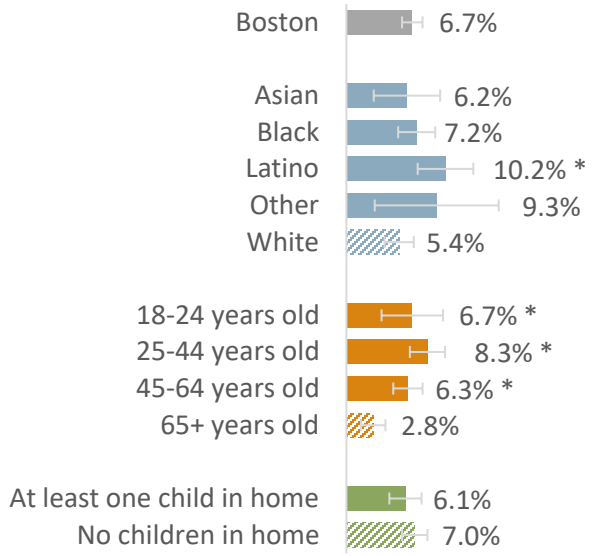


DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021

DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: NA denotes where data are not available because only respondents who indicated having at least one child present in the household were asked this question; 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

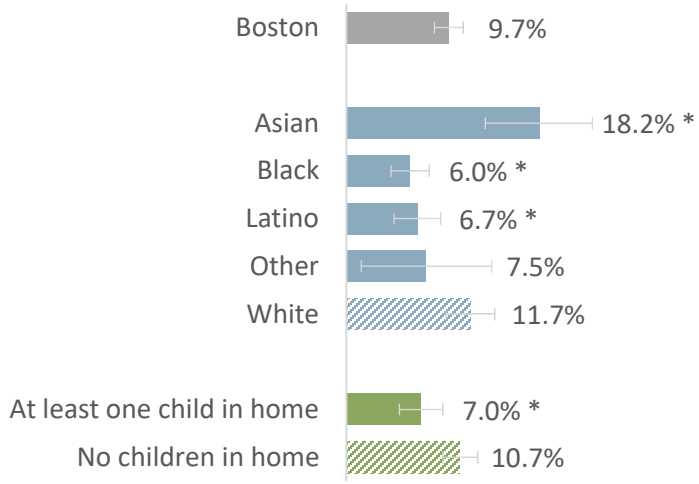
Housing

Figure 43. Percent Adults Reporting Moving in Past Three Years Because They Could No Longer Afford Their Home, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 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
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

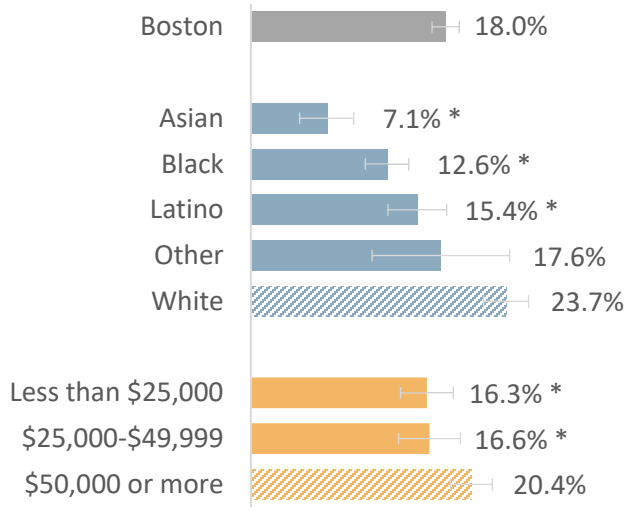
Figure 44. Percent Adults Reporting Living in Their Zip Code for Less Than One Year, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting they have lived in their zip code for less than one year in a row, excluding time as a student living on a college or university campus; 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

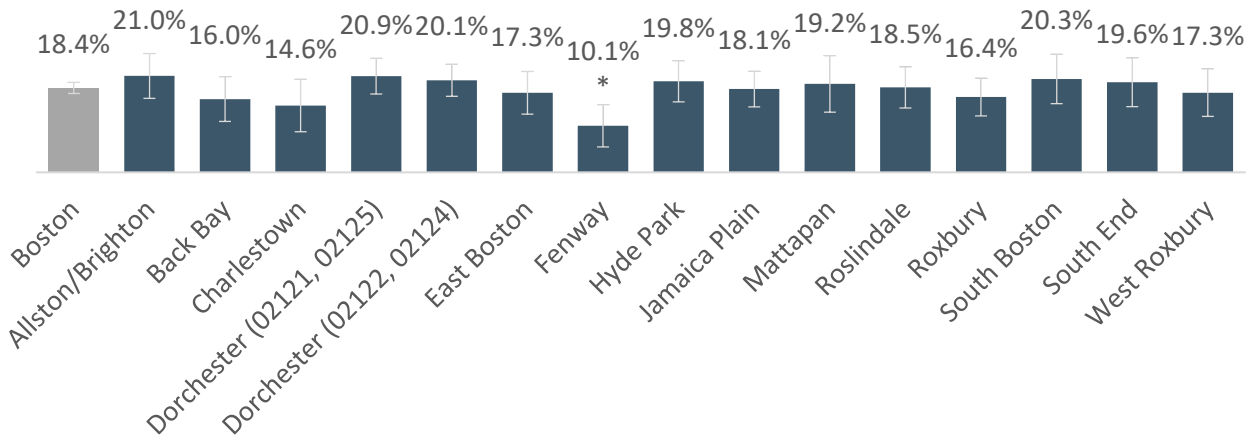
Mental and Behavioral Health

Figure 45. Percent Adults Reporting Having Lived with a Caregiver with Mental Illness as a Child (ACE), by Boston and Selected Indicators, 2015, 2017, 2019 Combined



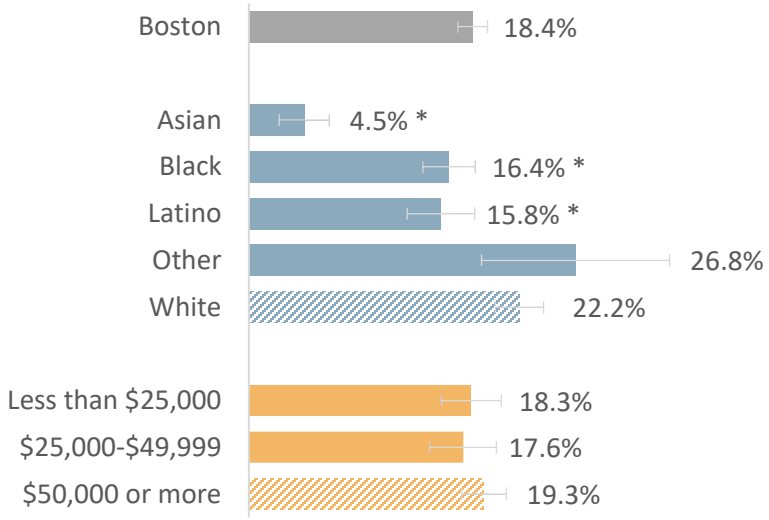
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting that they have ever lived with a parent or caregiver who was depressed, mentally ill, or suicidal; 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
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

Figure 46. Percent Adults Reporting Having Lived with a Caregiver with Substance Misuse as a Child (ACE), by Boston and Neighborhood, 2015, 2017, and 2019 Combined



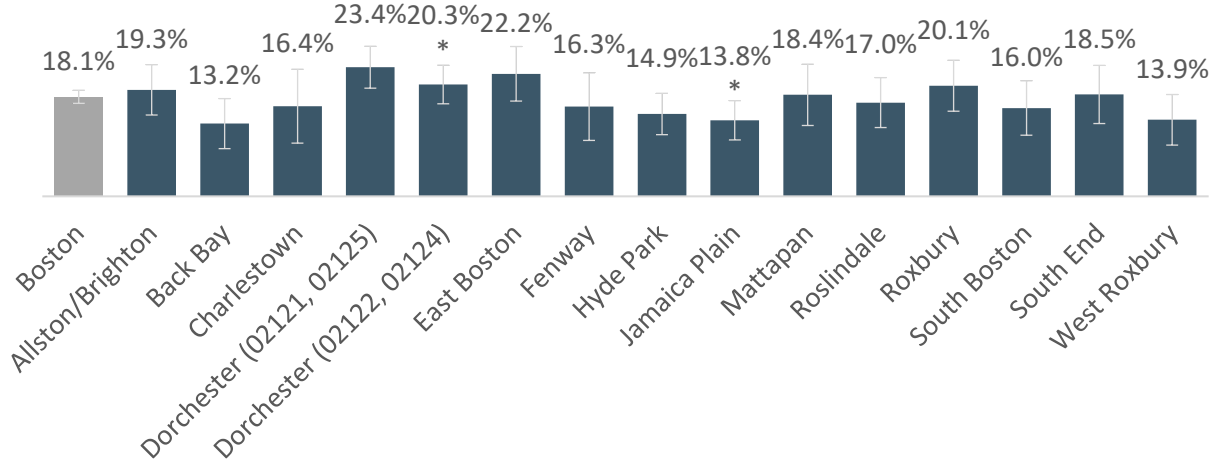
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting that they have ever lived with a parent or caregiver who was a problem drinker or alcoholic, or who used illegal street drugs or abused prescription medications; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$); Error bars show 95% confidence interval

Figure 47. Percent Adults Reporting Having Lived with a Caregiver with Substance Misuse as a Child (ACE), by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



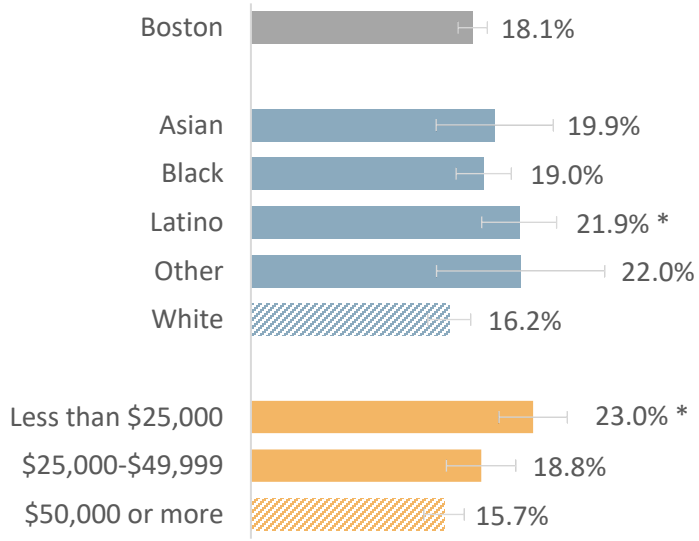
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting that they have ever lived with a parent or caregiver who was a problem drinker or alcoholic, or who used illegal street drugs or abused prescription medications; 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
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

Figure 48. Percent Adults Reporting Having Lived with Adults who Physically Abused Each Other as a Child (ACE), by Boston and Neighborhood, 2015, 2017, and 2019 Combined



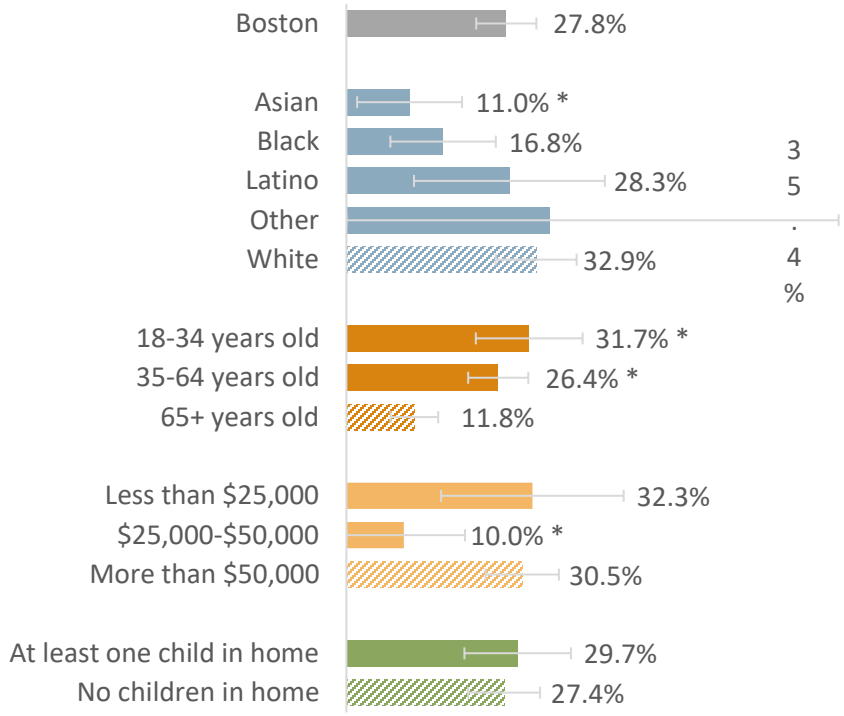
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting that their parents or the adults in their home ever slapped, hit, kicked, punched, or beat each other up; Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$); Error bars show 95% confidence interval

Figure 49. Percent Adults Reporting Having Lived with Adults who Physically Abused Each Other as a Child (ACE), by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



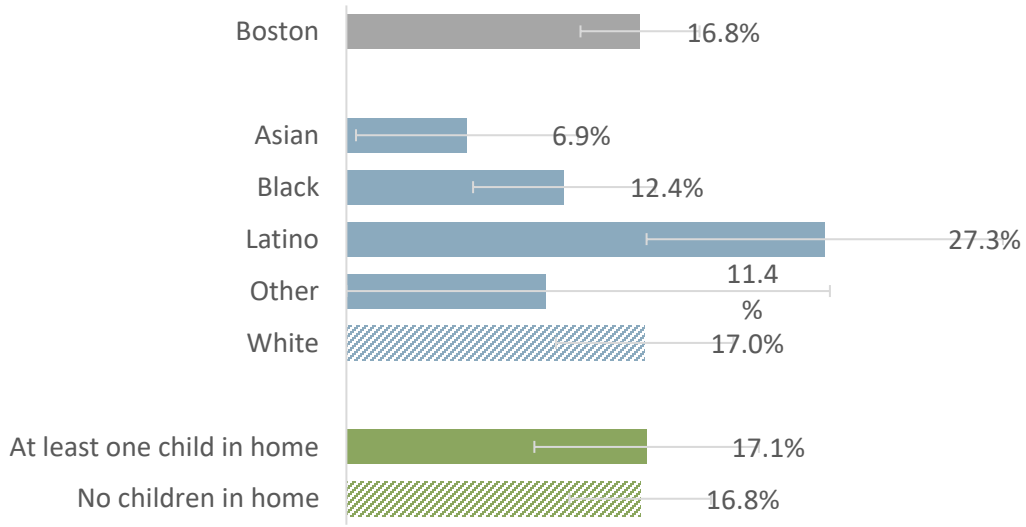
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting that their parents or the adults in their home ever slapped, hit, kicked, punched, or beat each other up; 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
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

Figure 50. Percent Adults Reporting Increased Drinking Habits During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



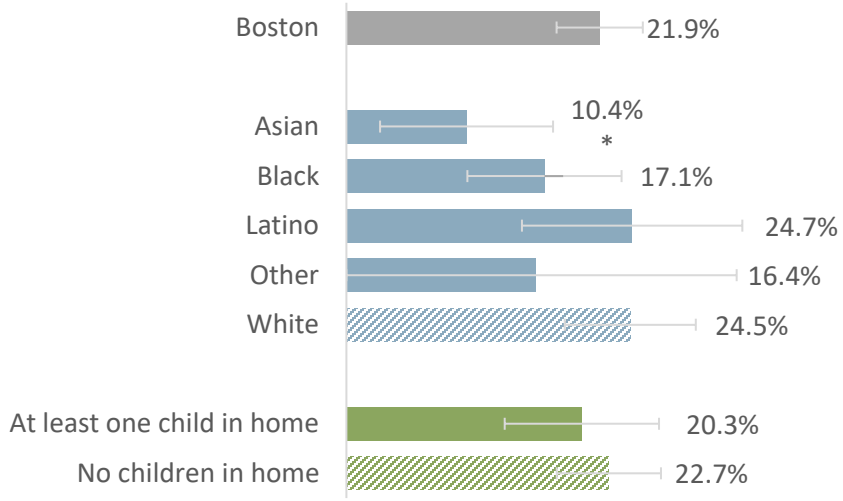
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Increased drinking habits is defined as increased weekly alcohol intake or started drinking and did not before since March 1, 2020; 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

Figure 51. Percent Adults Reporting Persistent Sadness During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



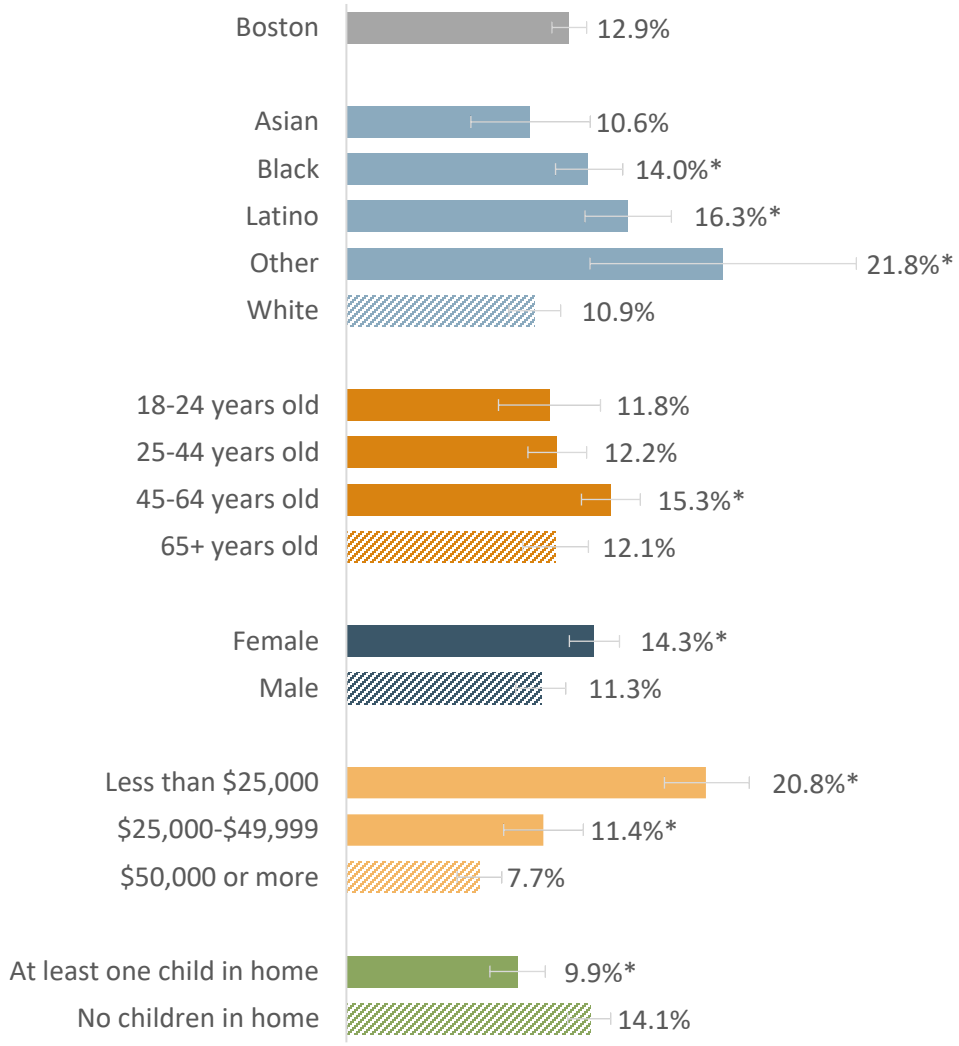
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Persistent sadness is defined as feeling down, depressed or hopeless for more than half of the days within the past 2 weeks; Bars with pattern indicate reference group for its specific category; No significant differences compared to reference groups within specific categories were observed (p>0.05); Error bars show 95% confidence interval

Figure 52. Percent Adults Reporting Persistent Anxiety During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



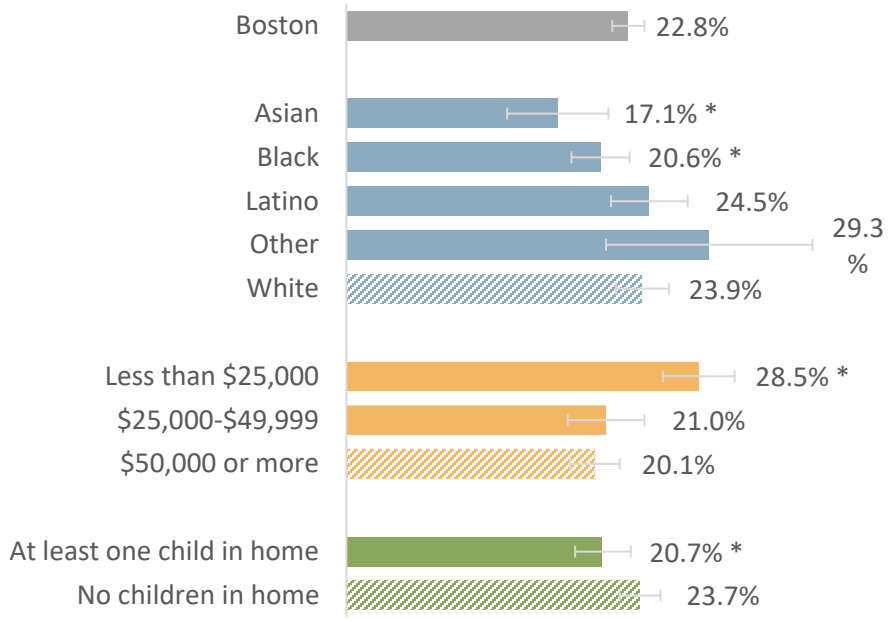
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Persistent anxiety is defined as feeling nervous, anxious or on the edge for more than half of the days within the past 2 weeks; 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

Figure 53. Percent Adults Reporting Persistent Sadness, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



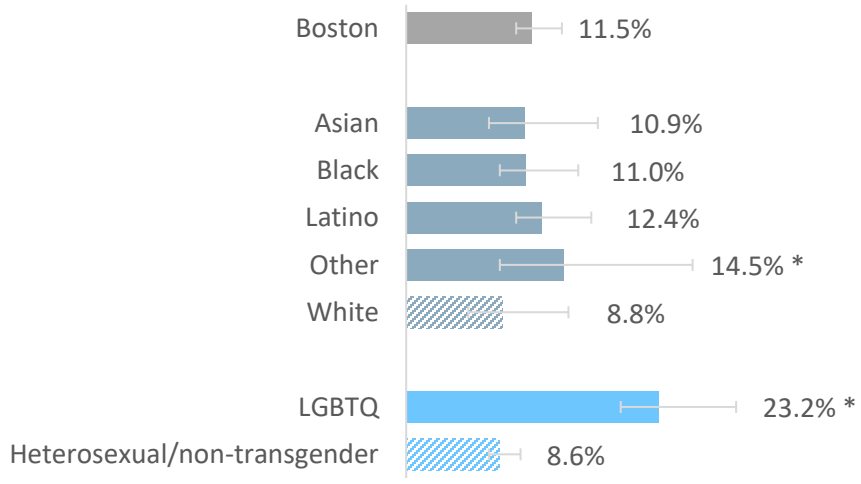
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Persistent sadness is defined as feeling sad, blue, or depressed for more than 15 days within the past 30 days; 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
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

Figure 54. Percent Adults Reporting Persistent Anxiety, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



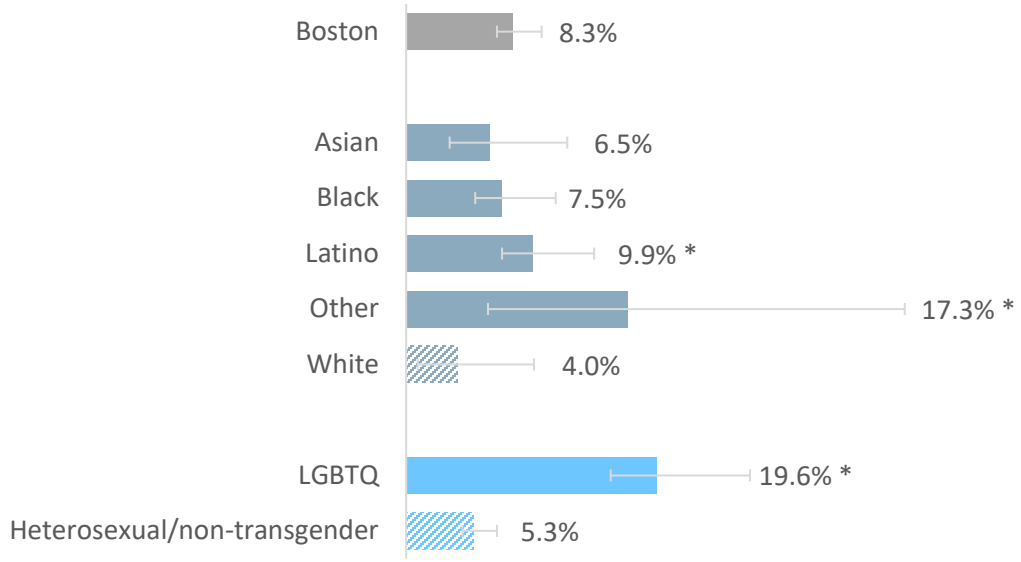
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Persistent anxiety is defined as feeling worried, tense, or anxious for more than 15 days within the past 30 days; 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
For race/ethnicity, of the 201 respondents classified as Other, non-Hispanic, 23% identified as American Indian/Alaskan Native. The remainder are either multi-race or some other race.

Figure 55. Percent Boston Public High School Students Reporting Having Had a Suicidal Plan, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



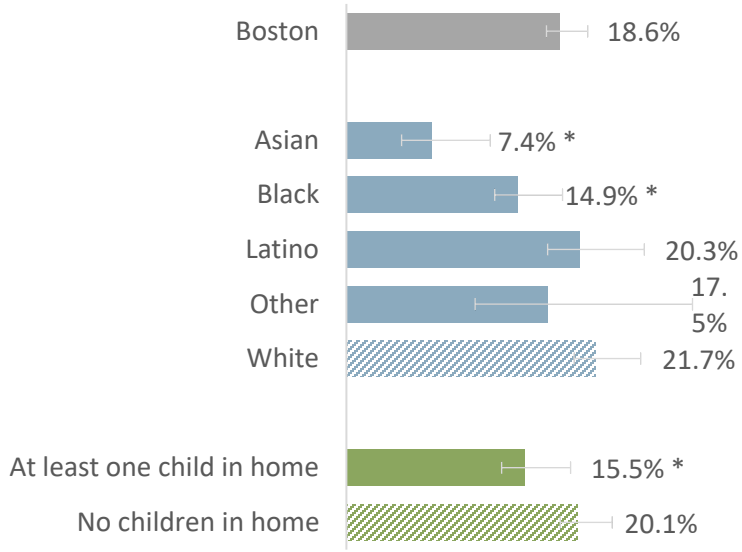
DATA SOURCE: Centers for Disease Control and Prevention and Boston Public Schools, Youth Risk Behavior Survey, 2015, 2017, and 2019 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

Figure 56. Percent Boston Public High School Students Reporting Attempting Suicide, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



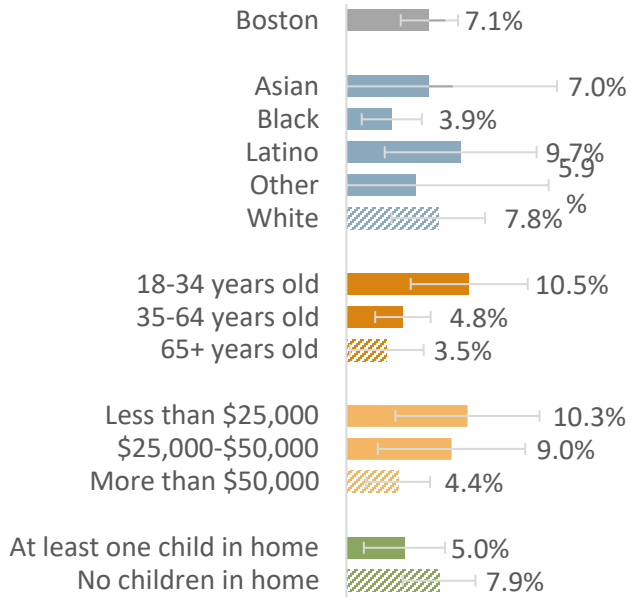
DATA SOURCE: Centers for Disease Control and Prevention and Boston Public Schools, Youth Risk Behavior Survey, 2015, 2017, and 2019 combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTE: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

Figure 57. Percent Adults Reporting Receiving Treatment for Depression in the Past Year, by Boston and Selected Indicators, 2015, 2017, and 2019 Combined



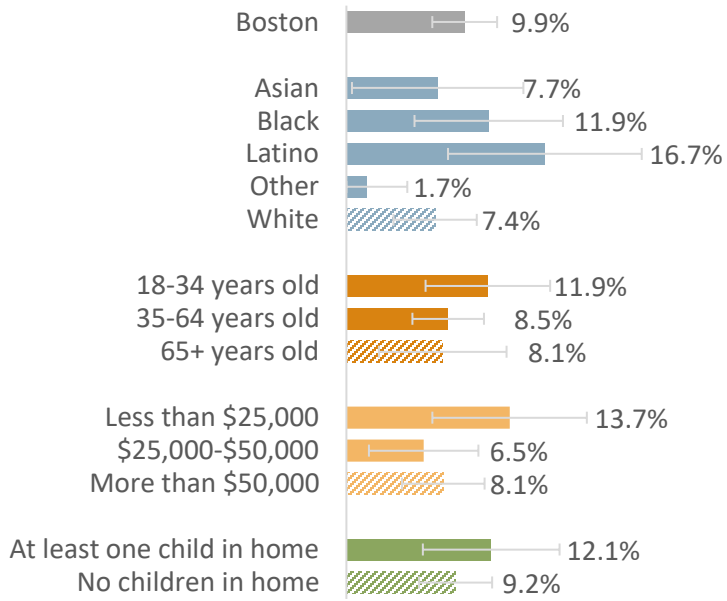
DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Bars with pattern indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category (p <0.05); Error bars show 95% confidence interval

Figure 58. Percent Adults Reporting Not Seeking Mental Health Care Due to Cost During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 – January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Data show percentage of adults reporting there was a time when they needed to see a mental health professional but could not because of cost since March 1, 2020; Bars with pattern indicate reference group for its specific category; No significant differences compared to reference groups within specific categories were observed (p>0.05); Error bars show 95% confidence interval

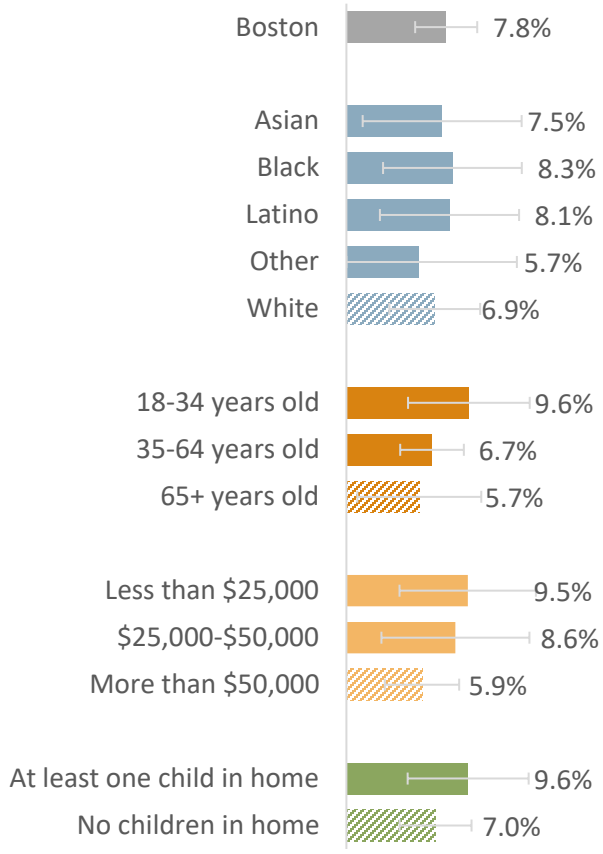
Figure 59. Percent Adults Reporting Delaying Mental Health Care Due to COVID-19 Concerns During the COVID-19 Pandemic, by Boston and Selected Indicators, December 2020-January 2021



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office

NOTES: Data show percentage of adults reporting to have avoided seeing a therapist or healthcare professional for mental health services due to concerns about COVID-19 since March 1, 2020; Percentage does not include adults reporting their appointments were canceled for them; No significant differences compared to reference groups within specific categories were observed (p>0.05); Error bars show 95% confidence interval

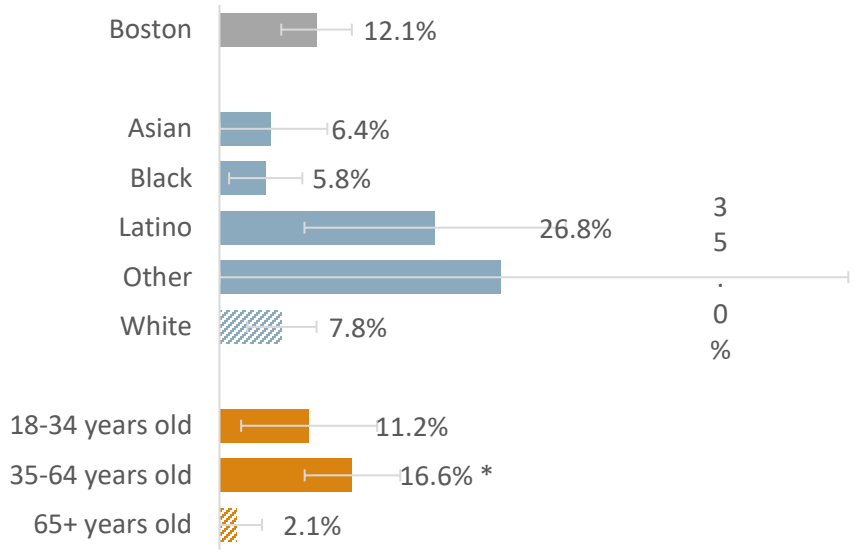
Figure 60. Percent Adults Reporting Still Delaying Mental Health Care due to COVID-19 Concerns, by Boston and Selected Indicators, December 2020-January 2021



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
DATA ANALYSIS: Boston Public Health Commission, Research and Evaluation Office
NOTES: Still delaying mental health care is defined as currently postponing or cancelling mental health services; Bars with pattern indicate reference group for its specific category; No significant differences compared to reference groups within specific categories were observed (p>0.05); Error bars show 95% confidence interval

Access to Services

Figure 61. Percent Adults Reporting Arranging Childcare as Barrier to COVID-19 Testing, by Boston and Selected Indicators, December 2020-January 2021



DATA SOURCE: Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance System, COVID-19 Health Equity Survey, December 2020 - January 2021
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

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