Brigham and Women's Hospital
Founding Member, Mass General Brigham

2022

Community Health Assets and Needs Assessment

Brigham and Women's Hospital
Center for Community Health and Health Equity

Cover Photos

BWH would like to acknowledge Mattapan Food and Fitness Coalition and Mass General Brigham for providing the cover photos.

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Top right: Jeffrey Alexis and other participants at Mattapan on Wheels event.

Bottom left: Joane Etienne and Shavel'le Olivier at Mattapan on Wheels event.

Bottom right: Cindy Diggs, Elsie Tavares, RonAsia Rouse, Geneva Gordon, Damien Leach, Deb Washington, Marie Borgella, Mass General Brigham Juneteenth Celebration in Nubian Square, Roxbury, MA.

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All are welcome to use this report to inform future practice and create healthier, equitable communities. When using, please use the following citation: Brigham and Women's Hospital, Center for Community Health and Health Equity (2022). *Community Health Assets and Needs Assessment.* Boston, MA.

Executive Summary

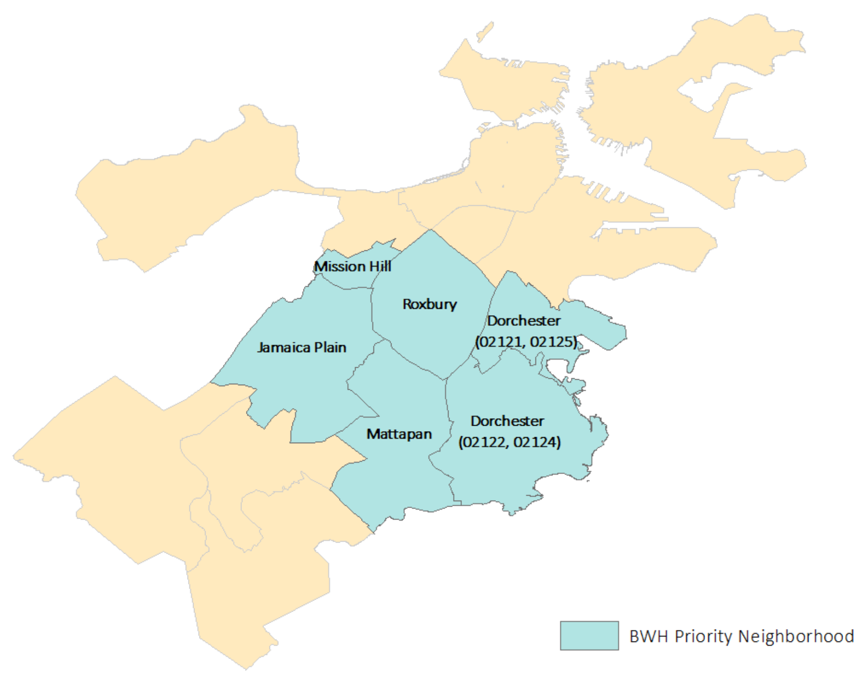
Introduction and Background

Brigham and Women's Hospital (BWH) has a long-standing commitment to promoting health equity and improving health outcomes for patients, families, employees, and community members. For more than thirty years, BWH has been partnering with community health centers, schools, community-based organizations, businesses, and government agencies to understand and address the social factors impacting the health and well-being of community members. Through program delivery, research, and community investments, BWH works at the community, family, and individual levels to maximize the conditions for increasing health equity. BWH approaches its health equity work through a strengths-based and racial equity lens, recognizing the importance of assets as well as needs and the conviction that structural racism is a root cause of many health inequities. This understanding shapes how BWH thinks about, pursues, and partners to design initiatives.

As a non-profit hospital, BWH is required by the Patient Protection and Affordable Care Act (ACA) to conduct a community health needs assessment (CHNA) every three years and to develop and implement strategies for addressing the needs identified through a community health implementation plan (CHIP). The CHNA is also a key source document for additional planning and engagement processes. Given the hospital's strengths-based approach, this report is titled a "Community Health Assets and Needs Assessment." However, for the purposes of clarity, "CHNA" is used to reference the assessment throughout the report since it is standard nomenclature.

BWH's priority communities include Dorchester, Jamaica Plain, Mattapan, Mission Hill, and Roxbury (see Map 1). These Boston neighborhoods are the focus of the CHNA-CHIP due to their proximity to the hospital, as well as the disproportionate inequities and health challenges faced by residents in these communities compared to Boston overall.

Map 1. BWH Priority Neighborhoods



Methodology of Assessment

For the 2022 CHNA-CHIP, BWH participated in the Boston CHNA-CHIP Collaborative ("the Collaborative" or "BCCC"), a joint initiative bringing multiple stakeholders together to assess the top priority community health issues in Boston and identify opportunities for joint responses. Participants include community members, community organizations, community health centers, the Boston Public Health Commission, and Conference of Boston Teaching Hospital (CoBTH) members. Together, Collaborative members conducted 62 interviews with Boston organizations and community leaders, facilitated 29 focus groups with a diversity of community members, and reviewed extensive secondary data. To complement these data, BWH facilitated 9 key informant interviews, led 8 discussion groups, and reviewed hospital specific patient data and other secondary sources. BWH also assisted with a community survey of Boston residents, which was led by Brigham and Women's Faulkner Hospital and Massachusetts General Hospital and included 494 survey respondents in the final survey sample. These extensive data collection and review efforts provided rich information for the assessment.

Assessment Findings and Prioritization

The 2022 BWH CHNA focuses on the many existing strengths and assets within the BWH priority neighborhoods, as well as health needs and opportunities. Through the CHNA process, five key community health priorities emerged: housing, mental and behavioral health, financial stability and mobility, violence and trauma, and physical health and wellness. Key findings from the community strengths and assets section in addition to each priority need area are highlighted below and discussed in detail in the report. To determine the priorities for community health needs, the following criteria were used: (1) Burden and urgency of the community health need (2) Equity (3) Impact (4) Feasibility; and (5) Potential for collaboration.

- **Demographics**: The demographic characteristics of a community are key to understanding and assessing social determinations of health as well as inequities that may exist in local health outcomes. BWH's priority neighborhoods represent 38% of Boston's total population. According to 2020 Census estimates, more than half of Boston residents identify as people of color (55%). BWH's priority neighborhoods of Mattapan, Dorchester, Roxbury and Mission Hill have some of the highest percentages of Black/African American, Hispanic/Latino, and Asian residents in the City. Also, 37% of Boston's population (5 years of age and older) speak a language other than English at home. The racial, ethnic, and linguistic diversity of Boston's residents was identified as a unique strength by interviewees and focus group participants, adding richness to Boston's many communities.

- **Community Assets and Strengths:** Numerous assets and strengths were raised such as the strong sense of community among residents, support for neighbors by neighbors, and the resiliency and resourcefulness of community members. Stakeholders also noted how Boston communities are vibrant, culturally-rich, and innovative and have a strong history of community activism and commitment to problem solving. Collaboration among the wide range of community-based institutions was also noted as a strength.

- **Financial Stability and Mobility:** Residents of BWH's priority neighborhoods face barriers to financial stability and these are disproportionately experienced by residents of color. Mission Hill, Roxbury, and Dorchester have higher rates of poverty and of adult residents without a high school diploma compared to Boston overall. Income loss reported during the pandemic was

notably higher for Latino and Black residents. Community members shared the considerable challenge to make ends meet amid rising costs.

- **Housing:** Many housing issues were raised including, but not limited to the interconnectedness between housing and other priority areas, discrimination in access to housing, the effects of high housing costs, rental assistance issues, and how COVID-19 further exacerbated housing challenges. In Boston's COVID-19 Health Equity Survey, over 40% of respondents reported having had trouble paying their rent or mortgage during the COVID-19 pandemic, with highest proportions reported among Latino, Asian, and Black adults, and adults with at least one child in the home. City Life/Vida Urbana reported after the first year of COVID-19 that "64% of all eviction filings occurred [in] Roxbury, Dorchester, Mattapan, and Hyde Park—neighborhoods where the majority of residents are people of color—even though only 40% of all rental housing in Boston is located in these neighborhoods."[i]

- **Mental and Behavioral Health:** The pandemic's impact on mental and behavioral health was emphasized repeatedly by community residents, leaders, and providers. Boston CHNA Survey respondents from Dorchester, Jamaica Plain, Mattapan,[1] and Roxbury identified social isolation/mental and emotional wellbeing as their top pandemic-related challenge. Barriers to care, however, abound. According to the COVID-19 Health Equity Survey, 10% of Boston adults reported delaying mental health care due to the pandemic and 7% of Boston adults reported delaying mental health care specifically because of cost. Moreover, bureaucratic barriers, limited options, lack of culturally appropriate and linguistically congruent care were some of the barriers to mental health care raised by BCCC and internal stakeholders. In addition to an escalation in mental health concerns, substance use and overdose remain a significant issue. According to combined 2020-2021 Massachusetts Department of Public health data, Dorchester (all zip codes) and Roxbury had statistically significantly higher unintentional opioid overdose mortality rates than Boston overall and the rates for Black and Latino residents were 1.6 and 1.4 times higher than that for White residents, respectively.

- **Violence and Trauma:** The COVID-19 pandemic created conditions intensifying violence and trauma with a disproportionate impact on communities of color and other marginalized groups. Community leaders and Boston residents described trauma as one of the top-of-mind concerns and internal stakeholders drew attention to elevated experiences of violence and trauma for patients, residents, and communities during the pandemic. In an article about the impact of COVID-19 and violence, researchers from Boston Medical Center (BMC) noted the "rise in penetrating violent trauma admissions despite decreases in hospital admissions, leading to our most violent summer in five years."[ii] Domestic and intimate partner violence were also cited during internal and BCCC discussions as an area that worsened during the pandemic. Stay-at-home orders and reduced capacity in domestic violence shelters left many trapped at home in abusive relationships.[iii] Boston Police Department crime reports note that there was a "22% increase in simple assault and battery reports of domestic violence" in the early pandemic months of the stay-at-home advisory.[iv] More broadly, stakeholders discussed the impacts of racism and discrimination on health, citing the role of intergenerational trauma, and highlighted concerns about the relationship and interactions between community members and the police.

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[1] Social isolation/mental and emotional wellbeing and paying for utilities, rent, and other supplies were tied for top response among Mattapan respondents.

- **Physical Health and Wellness:** Internal and BCCC stakeholders and secondary data highlight a number of physical health and wellness issues and notable inequities among Boston residents, including mortality, chronic disease, managing pre-existing conditions and physical activity during COVID-19, food insecurity, maternal and child health, access to health care, and other factors that impact wellness. Racial and ethnic differences in mortality and premature mortality in Boston demonstrate the continuing effect of systemic and structural racism on health outcomes. Across all leading causes of death, 2020 MA Department of Public Health data show that Black residents had the highest mortality rates across all demographic groups. Boston Public Health Commission data from 2020-2021 combined show how premature mortality was significantly higher among Black and Latino residents than White residents, with the rate for Black residents more than double that of White residents (383 per 100,000 compared to 177 per 100,000, respectively). In addition, several physical health and wellness issues were highlighted by Boston residents, including, but not limited to, access to health care, chronic disease prevalence, and food insecurity. These issues, like many others, were exacerbated by the COVID-19 pandemic. For example, according to the COVID-19 Health Equity Survey, 23% of Boston adults reported using food assistance services during the COVID-19 pandemic, compared to 16% pre-pandemic and significantly more Latino and Black adults (both 40%) reported using food assistance services during the pandemic than White adults (8%).

Additional Communities

BWH operates licensed sites in Chestnut Hill, Foxborough, and West Bridgewater, and consistent with IRS guidelines these localities are included in the assessment. While these municipalities face health challenges as highlighted in this report, data show that the priority neighborhoods in Boston face greater health challenges and thus, they are the primary focus of this assessment.

Mass General Brigham System Priorities

Mass General Brigham Community Health leads the Mass General Brigham system-wide commitment to improve the health and well-being of residents in the Mass General Brigham priority communities most impacted by health inequities.

In addition to the priorities each hospital identifies that are unique to its communities, Mass General Brigham identified two system-level priorities: cardiometabolic disease and substance use disorder. These priorities emerged from a review of hospital-level data and prevalent trends in population health statistics that show Black and Hispanic individuals are disproportionately affected by disparities in health outcomes and excess deaths related to these conditions. For example, nationally, non-COVID deaths disproportionately affected Black, American Indian/Alaska Native, and Latino persons; these inequities worsened when looking at excess deaths, with greatest disparities seen for heart disease and diabetes. Moreover, from 2014 to 2021, opioid-related overdose deaths in Massachusetts increased dramatically for Black and Hispanic residents.

System-wide efforts within these two areas will aim to reduce racial and ethnic disparities in outcomes, with the goal of improving life expectancy.

Background

About Brigham and Women's Hospital

Brigham and Women's Hospital (BWH) is a founding member of Mass General Brigham and a teaching affiliate of Harvard Medical School. With nearly 1,000 inpatient beds, approximately 50,000 inpatient stays, and over 2.6 million outpatient encounters annually, clinicians across the Brigham provide compassionate, high-quality care in virtually every medical and surgical specialty to patients locally, regionally, nationally and around the world. An international leader in basic, clinical, and translational research, BWH has nearly 5,000 scientists, including physician-investigators, renowned biomedical researchers and faculty supported by nearly $750 million in funding. The Brigham's medical preeminence and service to the community dates to 1832, with the opening of the Boston Lying In, one of the nation's first maternity hospitals designed to care for women unable to afford in-home medical care. Its merger with the Free Hospital for Women resulted in the Boston Hospital for Women in 1966. In 1980, the Boston Hospital for Women, the Peter Bent Brigham Hospital and the Robert Breck Brigham Hospital officially merged to become BWH. With nearly 21,000 employees across the Brigham family—including the Brigham and Women's Physicians Organization and Brigham and Women's Faulkner Hospital (BWFH)—that rich history is the foundation for our commitment to providing superb care for some of the most complex cases, pursuing breakthroughs in biomedical research, training the next generation of health care providers, and serving the local and global community.

Mass General Brigham is a single, integrated health care system that consists of 16 member institutions and encompasses a range of health care organizations. In addition to its academic medical centers, these include top-tier specialty hospitals, community hospitals, a rehabilitation network, a health insurance plan, a physician network, a teaching organization and many locations for urgent and community care. Working together as one system, Mass General Brigham's health care organizations work to leverage their collective expertise, resources, and compassion to better serve patients and the community.

BWH's Commitment and Approach to Community Health

BWH has a long-standing commitment to promoting health equity and strengthening health outcomes for patients, families, employees, and community members. As part of that commitment, the Center for Community Health and Health Equity (CCHHE) was established in 1991 to develop, implement, manage, and evaluate initiatives that minimize health inequities and improve the well-being of those living in the hospital's priority Boston neighborhoods of Dorchester, Jamaica Plain, Mattapan, Mission Hill, and Roxbury. CCHHE, along with BWH's two licensed community health centers, Southern Jamaica Plain Health Center and Brookside Community Health Center, and BWH clinical and research colleagues work with community-based organizations, local schools, residents, hospital departments, businesses, and government agencies to break through structural barriers so critical to health outcomes and so often encountered by individuals and families in these priority communities.

CCHHE approaches its work through a racial equity framework meaning that its recognition of racism as a root cause of many health inequities. This shapes how the Center thinks about, pursues, and designs initiatives. Dr. Camara Jones recognizes the systemic nature and consequences of racism in her definition:

> "Racism is a system of structuring opportunity and assigning value based on the social interpretation of how one looks (which is what we call race) that unfairly disadvantages some individuals and communities, unfairly advantages other individuals and communities, and saps the strength of the whole society through the waste of human resources."[v]

The manifestations of systemic racism are evident throughout our societal structures as described by Braveman et. al:

> "Racism is not always conscious, explicit, or readily visible—often it is systemic and structural. Systemic and structural racism are forms of racism that are pervasively and deeply embedded in systems, laws, written or unwritten policies, and entrenched practices and beliefs that produce, condone, and perpetuate widespread unfair treatment and oppression of people of color, with adverse health consequences. Examples include residential segregation, unfair lending practices and other barriers to home ownership and accumulating wealth, schools' dependence on local property taxes, environmental injustice, biased policing and sentencing of men and boys of color, and voter suppression policies."[vi]

Furthermore, CCHHE acknowledges how structural barriers and discrimination based on gender, race, ethnicity, sexual orientation, gender identity, disability, and class intersect to create unique dynamics affecting equity. Naming and taking steps toward dismantling barriers and discrimination is critical to the hospital's approach to the CHNA-CHIP process. In addition, the BWH CHNA defines health in the broadest sense and recognizes the critical role social determinants of health (SDoH) play in shaping community health. Healthy People 2030 define these determinants as "the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."[vii]

Purpose and Scope of Community Health Assets and Needs Assessment

A community health assets and needs assessment (CHNA) identifies community health assets, needs, and opportunities to improve community health. A community health implementation plan (CHIP) outlines the hospital's plan to address these needs, taking identified assets and opportunities into account. The BWH CHNA is also a key source document for public health planning processes and to meet federal and state regulations, including an Affordable Care Act (ACA) requirement of non-profit hospitals to conduct a CHNA and CHIP every three years.

The 2022 CHNA was conducted during an unprecedented time, including the COVID-19 pandemic and social movements reckoning with and calling for racial equity and justice. This context shaped the assessment approach and content, in that the 2022 Collaborative CHNA also explores how the pandemic and racial injustices have affected priorities that emerged from the previous CHIP.

In line with BWH's clinical and research approaches, this report seeks to recognize the lived experiences of different populations and subpopulations and understand the differential and intersectional experiences of inequity. Specific populations that are noted in this CHNA include but are not limited to the LGBTQIA+ community, individuals living with disabilities, and older adults. It is also important to note that while these and other populations are discussed in the report, not all groups or lived experiences are explored. Moreover, the assets, interests, and needs of populations are multifaceted and layered, and while this report covers many community health assets and needs, it is certainly not exhaustive. There will be opportunity for further in-depth exploration with specific groups and communities as BWH develops and implements the CHIP.

For the 2022 CHNA-CHIP, BWH was an active member of the Boston CHNA-CHIP Collaborative (the Collaborative), an initiative bringing multiple stakeholders together to assess top priority community

health issues in Boston and identify opportunities for shared responses. Participants include community members, community organizations, community health centers, the Boston Public Health Commission (BPHC), and Conference of Boston Teaching Hospital (CoBTH) members. The 2022 Collaborative CHNA builds on its previous report by focusing on the priority areas identified in 2019 further: financial stability and mobility, housing, behavioral health, and accessing services.

Methodology of Assessment

Primary Data Collection

The Boston CHNA-CHIP Collaborative (BCCC)

Primary data[2] collection for the BCCC was led by the Community Engagement Work Group (CEWG), which included 24 members representing a range of organizations. From October 2021 to March 2022, CEWG members and their partners conducted 29 virtual and in-person focus group discussions with a total of 309 residents. Some focus groups were conducted in languages other than English, including Spanish, Chinese, and Vietnamese. The focus groups engaged a broad range of individuals including young people, older adults, persons with disabilities, under-resourced individuals and families, LGBTQIA+ populations, racially/ethnically diverse populations, limited-English speakers, immigrant and asylee communities, families affected by incarceration and/or violence, and veterans.

In addition to focus groups, BCCC conducted 62 key informant interviews. Key informants were leaders and staff from many sectors including 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.

To note, the BCCC uses the term "residents" to refer to participants in focus groups, interviews, and community listening sessions. This report has adopted the same language when referencing primary data from the BCCC report.

After completion, CEWG members summarized key themes from their discussions. These summaries were analyzed to identify common themes and sub-themes across population groups and the unique challenges and perspectives identified by populations and sectors, with an emphasis on diving deep into the root causes of inequities. Frequency and intensity of topic specific discussions were key indicators used to extract main themes. Additional information about BCCC qualitative data collection can be found in the BCCC report in Appendix E.

BWH Interviews & Discussions

To complement the Collaborative data collection, BWH engaged in additional primary data collection to illuminate the strengths, needs, and priorities specific to BWH and its priority neighborhoods, and to engage and draw on the expertise of internal and community stakeholders.

Additional primary data were collected through 9 key informant interviews and 8 discussion groups with internal BWH stakeholders. Interviewees and discussion group attendees were identified based on their strategic areas of expertise and their connections to BWH priority communities. Interviews and discussion groups took place from January to April 2022. For a list of key informants and discussion groups, see Appendix B.

The question guides for these conversations were designed to build on what was learned from the 2019 CHNA and assess other current and emerging public health concerns, including the COVID-19 pandemic. BWH staff facilitated and took notes for internal interviews and discussion groups, which lasted approximately 45 minutes and one hour, respectively. All conversations were held virtually and recorded with the interviewees'/participants' permission. The key informant interview guide can be

[2] According to the Encyclopedia of Research Design (2010), primary data are data collected firsthand by an individual or researcher for a specific purpose or project.

found in Appendix C. The discussion group guides had common questions as well as some questions tailored to their specific stakeholder group; an example of one of these guides can be found in Appendix D.

At the end of this process, all notes were reviewed and key themes from each conversation were identified by note takers and facilitators. Notes and key themes were compiled and reviewed in depth and checked against recordings, as needed. A thematic analysis was conducted to better understand the frequency and range of themes that arose in these conversations. In the sections to follow, high level themes from the interviews and discussion groups are shared in aggregate; no information provided can be linked to individual interviewees or discussion group participants.

The Boston CHNA Survey

BWH also provided support for a community survey of Boston residents (referred to as the Boston CHNA Survey), which was led by BWFH and Massachusetts General Hospital (MGH). The brief, 14-question anonymous survey asked about the following: the top areas that hospitals should focus on to make communities healthier, key challenges experienced due to COVID-19, source(s) of routine health care and barriers to needed care, and types of services/resources that residents would like to see provided through a community mobile health van.

The Boston CHNA Survey was available in 6 languages: English, Haitian Creole, Portuguese, Spanish, Simplified Chinese, and Traditional Chinese. The survey utilized a convenience sampling of respondents. It was available online on the secure web platform, REDCap, and paper surveys were handed out at BWFH mobile community van events. MGH, BWFH, and BWH promoted the online survey through social media accounts and/or through internal staff networks and distribution lists. Survey data were collected from January 15, 2022 to March 25, 2022. A raffle incentive was provided.

Survey data were cleaned and analyzed by the MGH Center for Community Health Improvement (CCHI) Evaluation Team using the statistical software, R. A total of 1,715 surveys were collected. After excluding those who did not live or work in Boston and additional data cleaning, a total of 494 survey respondents were used in the final sample of analysis. The data were stratified by race/ethnicity, neighborhood, and age group.

Secondary Data Collection

The Boston CHNA-CHIP Collaborative

The 2022 Boston CHNA secondary data[3] gathering effort was led by the Secondary Data Work Group (SDWG), which included 16 members representing a range of organizations. To identify a list of social, economic, and health indicators, SDWG members prioritized data that aligned with 2019 priority areas, were likely to demonstrate the impact of COVID-19, or where there were the greatest inequities by race/ethnicity, neighborhood, or other characteristics. These indicators provided insights into patterns across Boston, by neighborhood, and by population groups. Secondary data sources included:

- U.S. Census Bureau American Community Survey (ACS)
- Vital statistics (birth/death records)
- Hospital case mix data

[3] According to the Encyclopedia of Research Design (2010), secondary data are data collected by someone other than the primary user, for another aim or purpose.

- Boston Behavioral Risk Factor Surveillance Survey (BBRFSS)
- BBRFSS COVID-19 Health Equity Survey
- Youth Risk Behavior Survey (YRBS)
- Massachusetts Department of Public Health Bureau of Substance Addiction Services treatment data

Secondary data in the 2022 CHNA represent the most recent data available to the BCCC at the time of analysis. In several instances, data is combined across years to more robustly understand patterns by neighborhood as well as social and demographic factors. Additional information about BCCC secondary data collection can be found in the BCCC report in Appendix E.

BWH-Specific and Additional Secondary Data

In addition to the quantitative data collected and analyzed by the Collaborative, BWH reviewed and incorporated additional secondary data sources to inform this assessment. BWH-specific data on clinical care and interpretive services utilization were obtained and analyzed. Specific internal data sources include:

- BWH Utilization and Emergency Department data (obtained from EPSI [an internal Mass General Brigham service utilization and billing database] in the Enterprise Data Warehouse [EDW])
- BWH Interpreter Services data (obtained from BWH Interpreter Services)

This CHNA is also informed by select local, statewide and national reports published in the last several years on key topics. Many of these reports investigate the impacts of COVID-19 on social determinants of health and other health outcomes, and overall, complement the other sources of primary and secondary data collected for this CHNA.

This report uses terminology as presented in its original data source and so there may be some differences in how groups are referenced across this assessment. For example, readers will see the terms Latino, Latinx, and Hispanic all used.

Limitations and Considerations

While the data sources used in this CHNA are highly credible, there are some limitations and considerations that are important to keep in mind. Much of the secondary data available for this CHNA, including ACS data, other Census data, vital records, and BRFSS data, either pre-date the pandemic or include only the early weeks or months of the pandemic. As a result, the impact of COVID-19 on many social determinants of health is likely understated in some data. Furthermore, each of the secondary data sources use various methods and indicators differently. This may result in differing results across sources. In addition, the Census Bureau has noted concerns about the quality of their 2020 data products because data collection operations were significantly impacted by the COVID-19 pandemic. In order to address concerns about the timeliness and quality of secondary data sources, extensive qualitative data were gathered to shed light on Boston residents' recent experiences and perspectives on many factors, including the social determinants of health and how these issues have been affected by the COVID-19 pandemic.

Moreover, due to the ongoing COVID-19 pandemic, BCCC Work Group members conducted the majority of interviews and focus groups with community leaders and residents remotely, which may have

impacted participation—both in terms of who is able to participate remotely and the information elicited in remote discussions.

Lastly, there were several limitations to the Boston CHNA Survey. As noted above, the survey methodology utilized convenience sampling, meaning that it was distributed to Boston residents who were likely already connected to BWFH, MGH and/or BWH and thus, does not represent the population at-large. In addition, there were a small number of respondents within certain sub-groups and specific Boston neighborhoods and therefore, these particular findings need to be interpreted with caution.

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

The COVID-19 pandemic has been an important backdrop to the 2022 Boston CHNA. Like the virus itself, the impact of the pandemic continues to evolve. As a result, it is important to view all findings in this report as representing a snapshot at the point of data collection. Specifically, as part of the BBRFSS, the COVID-19 Health Equity Survey was conducted by the BPHC to understand experiences among residents who have been most impacted by the pandemic. This survey was conducted in December 2020 and January 2021 with a random sample of over 1,650 residents and was administered in multiple languages. The survey examined issues related to job loss, food insecurity, access to services, mental health, as well as COVID-19 risk perceptions, vaccination, and information sources.

Geographic Level Reporting

Data from the Collaborative report is not available for Mission Hill as a separate and distinct community. Rather, Mission Hill data are included with Roxbury data, based on the use of ZIP code tabulation areas for data analysis, unless otherwise noted in this report.

In addition, due to the relatively large geographic area and population of Dorchester, much of the data for this community is separated into two groups defined by ZIP code: Dorchester (02121, 02125) and Dorchester (02122, 02124). When data are presented for Dorchester without a ZIP code distinction, it means that results pertain to all of Dorchester as a single community.

Lastly, the Additional Communities section presents select data on the communities in which BWH's three licensed sites are located: Chestnut Hill, Foxborough, and West Bridgewater. There was limited secondary and primary data available for these geographies and thus, the section covers general demographic and health status information, as was available.

Assessment Findings

Community Demographics

The demographic characteristics of a community are important context for assessing social determinants of health and understanding inequities that may exist in local health outcomes.[viii] While age, race and ethnicity, and language are important factors that can impact an individual's health, the distribution of these characteristics in a neighborhood, the social and economic opportunities available (or not readily available), and structural barriers present are key to understanding community health and health inequities. The section below provides an overview of the population and demographics of Boston and BWH priority neighborhoods (Dorchester, Jamaica Plain, Mattapan, Mission Hill[4], and Roxbury).

Total Population and Age Distribution

According to 2020 Decennial Census Redistricting data analyzed by the Boston Planning and Development Agency (BPDA), Boston's population is 675,647. This represents a 9% increase from 2010 to 2020, continuing a growth trend since 1980.[ix] As shown in Table 1, the population of BWH's priority neighborhoods varies considerably from just under 18,000 residents in Mission Hill to over 120,000 in Dorchester. Overall, the priority neighborhoods represent 38% of the city's total population.

Table 1. Population Totals and Percent Increase (2010 to 2020) for Boston and BWH Priority Neighborhoods

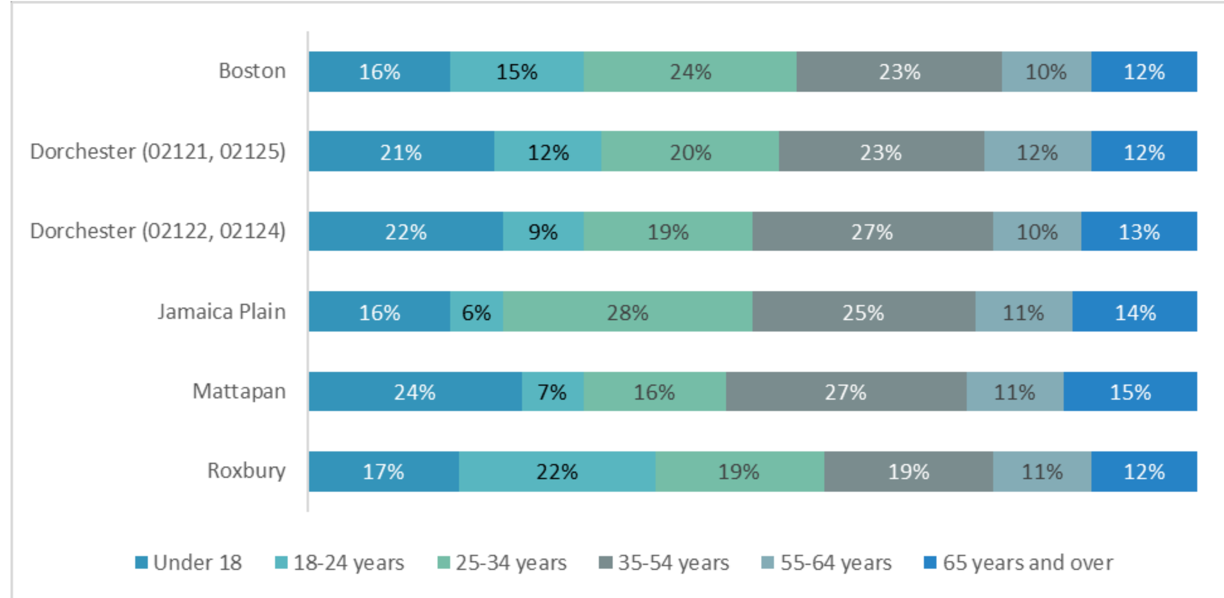
	Total Population	% Increase from 2010 to 2020
Boston	675,647	9%
Dorchester (all ZIPs)	122,191	7%
Jamaica Plain	41,012	10%
Mattapan	23,834	6%
Mission Hill	17,886	12%
Roxbury	54,905	10%

DATA SOURCE: U.S. Census Bureau, 2020 Decennial Census Redistricting Data, BPDA Research Division Analysis

Community needs change over the course of the lifespan and as such, the age distribution of communities—and differences between them—is helpful information for community health planning and programming. Of BWH's priority neighborhoods, Mattapan has the highest percentage of children followed closely by Dorchester. Mattapan also has the highest percentage of older adults in the five communities. By contrast, Roxbury has two to three times as many young adults aged 18-24 than any other priority neighborhood. Nearly two-thirds of Jamaica Plain's population is between the ages of 25 and 64. This is higher than Boston overall and each of the other priority communities.

[4] Data for Mission Hill are included where available.

Figure 1. Age Distribution for Boston and BWH Priority Neighborhoods, 2016-2020



DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap)

Racial and Ethnic Diversity

Racial and ethnic health inequities are persistent and among today's leading public health challenges. For example, people of color experienced a disproportionate burden of COVID-19-related income loss, cases, and deaths.[x xi] Understanding the racial, ethnic, and language profiles of Boston residents provides additional important context to data about health status and inequities.

According to 2020 Census estimates (Table 2), more than half of Boston residents identify as people of color (55%). Mattapan, Dorchester, and Roxbury have some of the highest percentages of Boston residents who identify as Black/African American. In fact, while BWH communities account for 38% of the city's population, these five communities account for 69% of the city's Black/African American population. Roxbury has the second highest percentage of residents who identify as Hispanic/Latino and Mission Hill has one of the largest proportions of residents who identify as Asian/Pacific Islander. BCCC focus group participants and key informants discussed the racial and ethnic diversity of residents across Boston as a unique strength, referencing Black/African American, African, Latino, Cape Verdean, Haitian, Asian, and other Caribbean communities in the Boston area.

Table 2. Racial and Ethnic Distribution, by Boston and BWH Priority Neighborhood, 2020

	Asian or Pacific Islander	Black/African American	Hispanic/ Latino	White	Other
Boston	11%	19%	19%	45%	6%
Dorchester (all ZIPs)	11%	35%	21%	22%	11%
Jamaica Plain	7%	11%	22%	54%	6%
Mattapan	2%	68%	17%	6%	6%
Mission Hill	24%	14%	19%	39%	5%
Roxbury	6%	42%	31%	13%	9%

DATA SOURCE: U.S. Census Bureau, 2020 Decennial Census Redistricting Data, BPDA Research Division Analysis

Foreign-Born and Immigrant Communities

Data from the 2016-2020 ACS indicate that the foreign-born population in Boston is 28%, representing more than 194,500 individuals. Approximately one-third or more of the residents of Dorchester (02121, 02125) (36%), Dorchester (02122, 02124) (32%), and Mattapan (34%) are foreign-born. This percentage is lower for the neighborhoods of Roxbury (24%) and Jamaica Plain (22%).[xii]

A theme across several BCCC interviews and focus groups highlighted 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 BCCC key informants and focus group participants observed that undocumented immigrants experience additional barriers to housing, health insurance, and accessing resources and assistance programs, which they perceived as being based on legal status and fear of deportation.

Language Diversity

According to 2016-2020 ACS data, 37% of Boston's population (5 years of age or older) speaks a language other than English at home and 17% speak English less than "very well". As evident in Table 3, there are six Boston communities in which more than 40% of residents speak a language other than English at home. Three of BWH's priority neighborhoods—Mission Hill, Roxbury, and Dorchester—are among the six. Similarly, there are four communities across the city in which more than 20% of residents speak English less than "very well." Dorchester and Roxbury are two of these four communities.[xiii]

Table 3. Language Spoken at Home and English Proficiency (for Population 5+), by Boston and BWH Priority Neighborhood, 2016-2020

	% Speaks Language Other Than English at Home	% Speaks English Less than "Very Well"
Boston	37%	17%
Dorchester (all ZIPs)	41%	21%
Jamaica Plain	31%	10%
Mattapan	34%	17%
Mission Hill	43%	16%
Roxbury	41%	21%

DATA SOURCE: U.S. Census Bureau, 2016-2020 American Community Survey, BPDA Research Division Analysis

BCCC key informants and focus group participants noted many languages spoken among Boston residents, including Cantonese, Mandarin, Russian, Spanish, Haitian Creole, Cape Verdean Creole, and indigenous languages. Some residents described free English classes as an existing and important resource for residents for whom English is not their first language. However, language barriers still emerged as a key issue affecting immigrant communities. Language barriers experienced by non-English speakers and the need for expanded language access, specifically in health care settings, was a theme reinforced by internal stakeholders as well.

Population Living with a Disability

According to the 2020 BRFSS, approximately one in four adults in Massachusetts have a disability, representing more than 1.2 million adults.[5] [xiv] Adults with disabilities in Massachusetts, like elsewhere, experience a range of health disparities and are more likely to have depression, diabetes, and heart disease compared to those who do not have a disability.[xv]

Locally, some 6% of Boston residents younger than 18 years of age report living with a disability as do 9% of Boston adults 19 to 64 years of age.[6] The percentage of residents younger than 18 living with a disability is more than three times higher in Dorchester (02122, 02124) (19%) compared to Boston and is also higher in Dorchester (02121, 02125) (12%), Roxbury (11%), and Mattapan (10%). Mattapan and Roxbury (both 12%) have slightly higher percentages of adults 19-64 living with a disability in comparison to Boston.

BWH Specific Data on Priority Communities

The information included below looks specifically at BWH's patient population and those who most frequently visited a BWH facility for care in Fiscal Year (FY) 2021 (October 1, 2020 to September 30, 2021). Information on services provided by BWH's Interpreter Services in FY2021 is highlighted as well.

Geography

In FY2021, there were 362,203 patients who most frequently went to a BWH facility for care. Of this patient population, approximately one-in-five were residents of Boston (21%, n=74,687). Of patients who

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[5] The 2020 BRFSS disability types include: mobility, cognition, independent living, hearing, vision, and self-care.

[6] The ACS disability types include: hearing, vision, cognitive, ambulatory, self-care, and independent living.

resided in Boston, 51% were residents of one of BWH's priority neighborhoods (n=38,056) (Table 4). While residents of BWH's priority neighborhoods make up more than half of BWH's Boston patient population, they represent approximately 11% of the hospital's patient population overall.

Table 4. Of BWH Patient Population Residing in Boston, Percentage by Priority Neighborhood, FY2021

Neighborhood	Percentage
Dorchester (02121, 02125)	10% (n=7,596)
Dorchester (02122, 02124)	10% (n=7,402)
Jamaica Plain	14% (n=10,267)
Mattapan	4% (n=2,737)
Mission Hill	7% (n=5,361)
Roxbury	6% (n=4,693)
Total for Priority Neighborhoods	51% (n= 38,056)

DATA SOURCE: EPSI (an internal Partners HealthCare service utilization and billing database) in the Enterprise Data Warehouse (EDW), extracted August 2022.
NOTES: BWH patients are defined as those patients who most frequently went to a BWH facility; these data do not include patients served by Brigham and Women's Physicians Organization.

Race/Ethnicity

As evident in Table 5, when looking at BWH's patient population overall (for FY2021), the majority identify as White. There is more diversity, however, when looking at the patient population that resides in Boston and specifically in BWH's priority neighborhoods. More than one-half of Mattapan patients identify as Black/African American and more than one-half of Dorchester (02121, 02125) and Roxbury patients identify as Latino/Hispanic. Although not included in the table below, less than 0.5% of all BWH patients identify as American Indian/Alaska Native or Native Hawaiian/Other Pacific Islander.

It is interesting to note that the racial and ethnic backgrounds of BWH patients do not always reflect the diversity of patients' home communities. Specifically, the neighborhoods of Mattapan and Roxbury have higher percentages of Black/African American residents (68% and 42%, respectively) than the BWH patient pools from those same communities (57% and 36%, respectively). Also, 24% of Mission Hill residents identify as Asian, but 11% of BWH patients from Mission Hill identify as Asian.

Table 5. Race/Ethnicity of BWH Patient Population and by Boston and Priority Neighborhood, FY2021

Geography	Asian	Black/African American	Other	White/ Caucasian	Latino/ Hispanic
Total	5%	8%	6%	71%	10%
Boston	5%	20%	17%	41%	33%
Dorchester (02121, 02125)	2%	34%	27%	15%	50%
Dorchester (02122, 02124)	3%	38%	19%	22%	38%
Jamaica Plain	6%	9%	16%	55%	30%
Mattapan	.6%	57%	20%	6%	37%
Mission Hill	11%	18%	19%	35%	34%
Roxbury	2%	36%	27%	14%	51%

DATA SOURCE: EPSI (an internal Partners HealthCare service utilization and billing database) in the Enterprise Data Warehouse (EDW), extracted August 2022.
NOTES: BWH patients are defined as those patients who most frequently went to a BWH facility; these data do not include patients served by Brigham and Women's Physicians Organization; unknown responses are not included in the table above; race and ethnicity are asked as two separate questions, but data are combined in the table above.

Payor Information

While 42% of BWH's overall patient population who most frequently went to a BWH facility in FY2021 are insured by public payors, this percentage is higher for Boston patients (55%) and for patients from BWH's priority neighborhoods (65%). When looking at these neighborhoods specifically, the percentages insured by public payors range from 77% among patients from Dorchester (02121, 02125) to 45% among patients from Jamaica Plain.[xvi] To note, patients of Brigham and Women's Physicians Organization [BWPO] are not included in the data above.

Emergency Department Visits

Looking at BWH Emergency Department (ED) data, there were a total of 51,327 visits to the BWH ED in FY2021. Of these visits, 21,809 were visits by Boston residents (43%). Five percent of the visits by Boston residents had a primary diagnosis of mental health or substance use disorder, which was slightly higher than the percentage for all ED visits (4%).[xvii]

Interpreter Services

BWH provides face-to-face interpreter services for 30 different languages, including American Sign Language (ASL). Interpreter services are supplemented through video (41 languages) and phone (240 languages). The hospital also provides portable devices (TTY machines and amplified headsets) for those who are hearing impaired.

In FY2021, a total of 164,027 interpreter requests were made and completed. Over 60% of requests were delivered through telephonic interpretation, over 20% through Non-ASL Face-to-Face interpretation, over

15% through video remote interpretation, and 1% through ASL Face-to-Face interpretation. In the Emergency Department, a total of 13,056 interpreter requests were made and completed (23% of total ED visits).[xviii]

Community Assets and Strengths

While much of this assessment focuses on community needs, Boston and its neighborhoods have many assets and strengths that are key to the health and wellbeing of residents and were clearly evident during the pandemic. Assets and strengths include a wide range of resources, such as the social capital and abilities of community members, academic, health care and faith institutions, cultural life, businesses, parks, libraries, and community coalitions and organizations. The assets and strengths noted here are those elevated by community residents, leaders, and providers in the course of primary data collection and secondary data review.

Community Resources

One main theme that emerged regarding City assets was the presence of many resources in Boston be they organizations, spaces, environments, or people. For example, BCCC key informants and focus group participants discussed the breadth of community-based institutions in the City, 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. 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. Beyond the people, they spoke of their communities as being vibrant, full of rich cultural traditions, artistic, intelligent, and innovative. Internal stakeholders also discussed the resources and community-based organizations within BWH's priority communities and noted BWH community-based services, including two community health centers, the BWH free care pharmacy,[7] and the many non-clinical providers that support community residents.

Collaboration and Supportive Relationships

More than just the presence of organizations and community leaders, stakeholders underscored that the way people and organizations work together is a strength of the City. BCCC focus group participants and key informants emphasized a strong sense of community among residents, especially those who have lived in their neighborhoods for years. They described their neighbors as supporting each other even when they have limited resources. Resource sharing and collaboration among a network of community-based organizations was also discussed as an important strength. Internal stakeholders highlighted BWH's existing partnerships with community organizations and recommended growing the relationships and connections with community members and community-based organizations. Furthermore, internal stakeholders suggested listening to and learning from the immense local wisdom and prioritizing equitable community voice.

[7] The BWH free care pharmacy provides medication free of cost for those without insurance.

"The community has come together for food distributions, to work together as a community to support the community with food access. There is always more to do, but this is a way that we have improved and supported each other."
BCCC Focus Group Participant

Adaptability and Commitment

Boston's strengths lie not only with residents and organizations working well together, but also their commitment to advancing the health and well-being of their communities coupled with their ability to adapt in challenging environments. For example, when asked about community strengths, BCCC focus group participants and key informants described community members as "resilient" and "resourceful" when faced with difficult circumstances. Moreover, they noted the strong history of community activism and a commitment to solving problems. Specifically, regarding the pandemic, The Boston Foundation (TBF) spoke with 150 of their nonprofit partners from Phase I of its COVID-19 Response Fund grants during the summer of 2020 and repeatedly heard how inventive Greater Boston community organizations had been in the face of COVID-19. TBF heard organizations express achieving "...new levels of creativity, versatility, and flexibility, often devising new programming they otherwise wouldn't have thought of to meet client needs" and how "Nonprofit staff...overcame countless challenges to keep their doors open and support their communities."[xix] Similarly, most BWH Health Equity Grantees, all of which are community organizations in BWH priority neighborhoods, noted in their FY21 annual reports how they needed to shift programming and explored new ways to operate to continue supporting their program participants and communities during the pandemic. Moreover, these Grantees exemplified the strength of community leaders not only responding to the needs of their immediate communities during the pandemic, but going further and supporting the community at large. For example, a few Grantees organized and distributed information about vaccines and participated in mobile COVID-19 testing sites by partnering with different health centers and one of the Grantees co-led a bilingual awareness campaign in partnership with Greater Boston Latino Network where they handed out free masks, hand sanitizer, and bilingual pamphlets with essential COVID-19 and vaccine information.

Financial Stability and Mobility

Income, employment, and educational attainment are powerful social determinants of health. In 2019, financial stability and pathways to greater financial mobility were key priority areas in both the Boston and BWH community needs assessments. Financial stability denotes the resources essential to one's life and well-being and mobility refers to positive change in one's financial conditions over time. Historical disinvestment, housing discrimination and other forms of structural racism have shaped the socio-economic landscape for communities of color in Greater Boston resulting in disproportionately fewer assets compared to white residents.[xx]

Key informants and focus group participants noted that low-income communities in Boston generally include residents of color, immigrants, people with disabilities, LGBTQIA+ residents, and older adults on fixed incomes. They 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.

Specifically, low-income community members, residents of color and in particular immigrants, people with disabilities, and residents with a criminal record were noted to have additional financial security challenges. They described the cost of living as high and rising, including escalating housing and food costs while wages have not increased. These important social determinants of health are discussed later in this report.

"Food prices have gone up a lot while my wage has stayed the same."
BCCC Focus Group Participant

There continue to be substantial differences in income and financial stability across Boston neighborhoods by race and ethnicity. The COVID-19 pandemic further exposed these economic inequities, with residents who were most economically vulnerable reporting higher percentages of income loss in response to this economic shock (Figure 2). Latino and Black residents in Boston reported income loss during the pandemic at significantly higher levels compared to other groups. Those with incomes below $25,000 were twice as likely as those with incomes over $50,000 to report income loss as a result of the pandemic. Moreover, as the ACLU reported in April 2020, Dorchester and Roxbury, two BWH priority neighborhoods, were two of the City's neighborhoods with some of the highest percentages of COVID-essential workers and COVID-19 rates.[xxi]

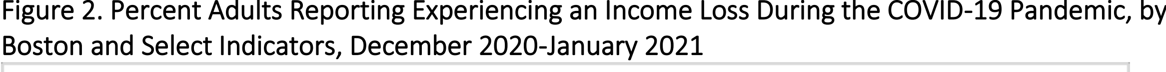
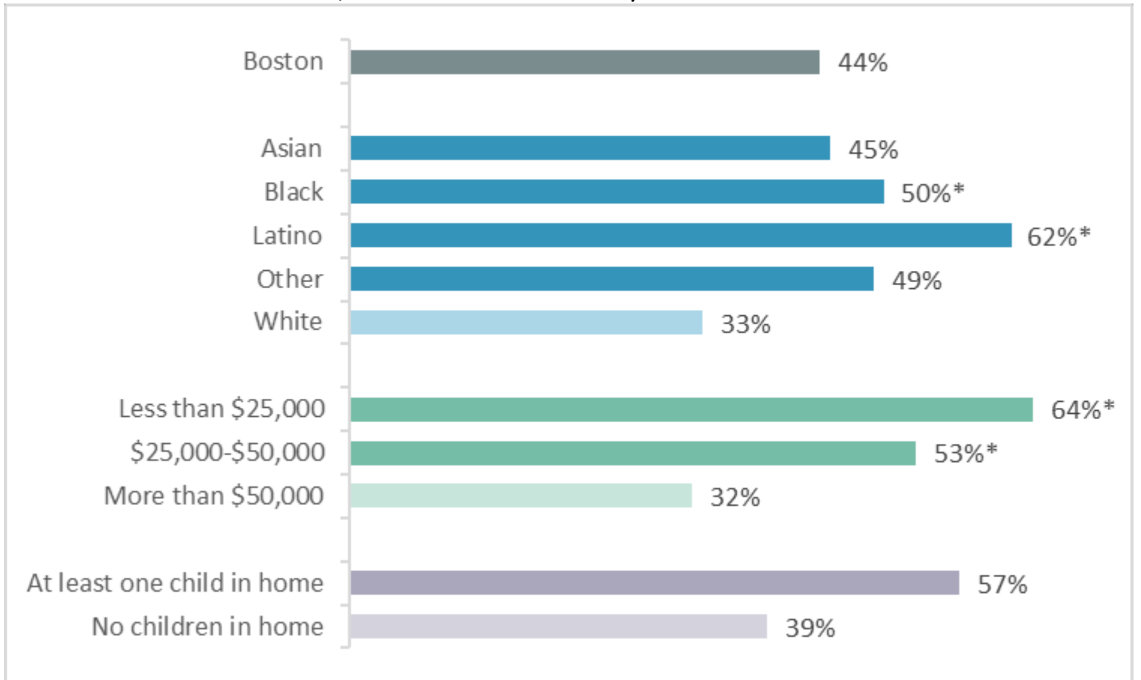


Figure 2. Percent Adults Reporting Experiencing an Income Loss During the COVID-19 Pandemic, by Boston and Select Indicators, December 2020-January 2021



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

Poverty

According to 2016-2020 ACS data, in Boston, 13% of families and 18% of individuals are living in poverty. Decennial 2020 census redistricting data analyzed by the BPDA suggest that nearly half of all Boston residents living in poverty reside in BWH's priority neighborhoods.[xxii] As shown in Map 2, BWH priority neighborhoods have some of the highest percentages of families living in poverty across the city. The percentage of individuals living in poverty in Dorchester and Roxbury is higher than in Boston; notably, one-third of individuals in Roxbury live in poverty. The BPDA analysis, where data specific to Mission Hill residents is available, 39% are cited as living in poverty, which is more than twice as high as Boston overall.[xxiii] Similarly, all but one of the priority neighborhoods have a lower median household income than Boston overall. Notably, Boston's median household income ($76,300) in nearly twice the median household income for residents of Roxbury ($39,600).

Map 2. Percentage of Families Living in Poverty by Boston Neighborhoods

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap)

Education

The importance of educational attainment and its relationship to economic stability and mobility among Boston residents is paramount. Generally considered one of the most educated states in the nation, over 90% of Massachusetts residents have a high school diploma and 45% have at least a bachelor's degree. Among Boston residents overall, 88% graduated from high school and 52% have at least a bachelor's degree. However, educational attainment varies significantly by community. Notably, one in five Roxbury residents over the age of twenty-five lack a high school diploma. This is significant given that Roxbury also has higher percentages of individuals and families living in poverty compared to the city. Furthermore,

the percentage of residents with at least a bachelor's degree is lower in four of the five priority neighborhoods. In Mattapan, less than 20% of residents have a college degree.

The pandemic presented many educational challenges. BCCC focus group and interview participants described remote learning during the pandemic as particularly hard for young people who already face challenges in school. In the 2021-2022 school year, 30% of Boston Public School (BPS) students were identified as Limited English Proficient (LEP) or English Language Learners (ELL) and nearly 69% of students were considered economically disadvantaged (participating in one or more state-administered programs of SNAP, TAFDC, DCF, or MassHealth). According to the COVID-19 Health Equity Survey, 14.5% of Boston adults with children reported unmet educational needs for children or teens during the pandemic. Furthermore, a Boston Foundation report documents significant losses in educational outcomes among Boston Public School students, noting a 12.7% percentage point drop in 6th grade math scores from the 2018/19 school year to the 2020/21 school year (32% proficient in 2018/19 compared to 19% proficient in math 2020/21).[xxiv]

Housing

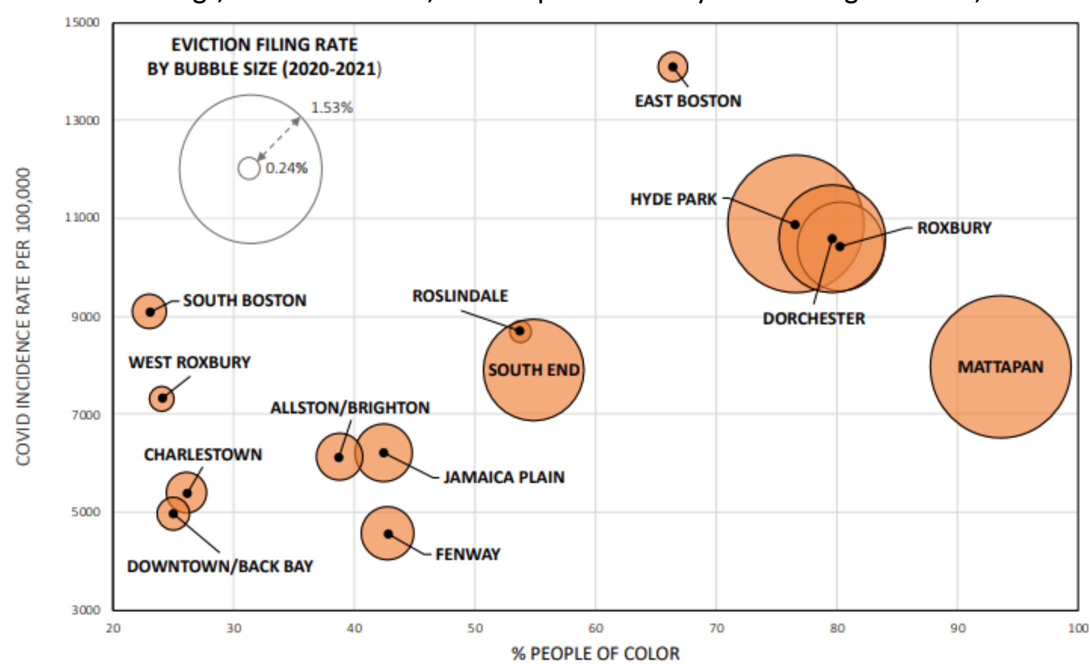
Housing is deeply connected to health and as in 2019, continues to be a priority area. Healthy People 2030 explains housing instability, "…encompasses a number of challenges, such as having trouble paying rent, overcrowding, moving frequently, staying with relatives, or spending the bulk of household income on housing" as well as homelessness.[xxv] While for some homeowners housing can be an important source of wealth, for low-income residents housing instability increases the risk of adverse physical and mental health outcomes.[xxvi,xxvii] The COVID-19 pandemic further aggravated housing insecurity and again spotlighted the deep-seated effects of systemic racism on housing. As the Boston Foundation explains, "…the economic effects of the COVID-19 recession on historically disadvantaged communities are clear. Black and Hispanic/Latinx residents are more likely than White residents to be in low-wage jobs and, therefore, more likely to face a layoff or loss of hours during the pandemic. These households were also more likely to already be paying over 30 percent ("cost burdened") and, in some cases, 50 percent or more of household income toward housing ("severely cost burdened")."[xxviii]

Pre-pandemic (2015, 2017, and 2019, combined), the percentage of BBRFSS adult respondents from Dorchester (10%) who reporting moving in the past three years because they could no longer afford their home was significantly higher than Boston overall (7%). According to ACS 2016-2020 data, most residents in BWH's priority neighborhoods are renters and are more likely to be housing cost burdened than their homeowner peers.[xxix] For example, over 55% of residents of Dorchester, Mattapan and Roxbury rent and over 54% of renters in these neighborhoods are housing cost burdened. For homeowners, less than 50% in these neighborhoods and less than 30% in Boston overall experience housing cost burden. Moreover, for Boston residents who aspire to purchase a new home, racial and ethnic inequities abound. A recent WBUR analysis reported that Black mortgage applicants were denied three times more and Hispanic applicants two times more than White applicants between 2015 and 2020 in Boston.[xxx] WBUR also reported that home loans in majority-Black Boston neighborhoods were denied two and a half times more than in majority-White neighborhoods.[xxxi]

COVID-19 has further exacerbated housing challenges and inequities. In the Boston CHNA Survey, respondents from Jamaica Plain, Mattapan, and Roxbury identified housing as a main challenge they are experiencing due to COVID-19. In the COVID-19 Health Equity Survey, over 40% of respondents reported

having had trouble paying their rent or mortgage during the COVID-19 pandemic, with significantly higher proportions reported among Latino, Asian, and Black adults as compared to White adults and among adults with at least one child at home as compared to those without children at home. Some BCCC key informants observed that while several policies were enacted during the pandemic to help tenants stay in their homes (e.g. eviction moratorium), the increases in housing costs and limited availability of affordable housing remained major challenges. In Roxbury/Dorchester, for example, the average asking rent in multifamily properties between the first quarter of 2020 and first quarter of 2022 rose 7% and in Fenway/Mission Hill by 6%.[xxxii] Between 2011 and 2021, home values in Roxbury increased by 214% and in Mattapan by 170%.[xxxiii] City Life/Vida Urbana reported after the first year of COVID-19 that "64% of all [Boston] eviction filings occurred [in] Roxbury, Dorchester, Mattapan, and Hyde Park—neighborhoods where the majority of residents are people of color—even though only 40% of all rental housing in Boston is located in these neighborhoods."[xxxiv] Figure 3 exemplifies how this inequity was further compounded by a higher incidence rate of COVID-19 in these neighborhoods as well.[xxxv]

Figure 3. Evictions Filings, COVID Incidence, and People of Color by Boston Neighborhood, 2021



AUTHOR: Ben Walker, MIT Department of Urban Studies and Planning, 2021 (author provided permission for use in report)
SOURCES: Massachusetts Trial Court, Boston Public Health Commission, and American Community Survey 2015-2019 5-year estimate

Conversations with BCCC key informants, focus group participants, residents, and internal stakeholders highlighted many housing issues in Boston, including, but not limited to:

- **Interconnection:** interconnectedness between housing and other priority areas; COVID-19 related income loss resulting in more residents moving in with others, making physical distancing more challenging in crowded homes; prioritization of paying rent over other health needs such as food and physical activity;
- **Discrimination:** racism related to unfair housing prices; language barriers to accessing housing; discrimination in acceptance of housing vouchers by landlords and experienced by those formerly incarcerated;

- **High Cost and Impacts:** high and rising costs (rent, housing costs, property taxes) contributing to homelessness and housing instability, overcrowding, and displacement; gentrification and overdevelopment leading to displacement; high housing costs' effects on low-income residents, residents of color, older adults, immigrants (noting undocumented immigrants), and people with disabilities;
- **Rental Assistance Issues:** lack of landlord participation in government rental assistance programs; concern that rental assistance programs instituted during COVID-19 are ending; complexity of earning more and losing one's housing voucher despite market rate remaining unaffordable.

Boston CHNA Survey respondents from BWH priority neighborhoods selected housing stability and homeownership as one of the top three areas that hospitals should address to improve community health. When asked about the types of services or resources respondents would seek on a mobile van, a top response for survey respondents of BWH's priority neighborhoods was housing resources and support.

Mental and Behavioral Health

Mental and behavioral health were identified as priority areas in the 2019 CHNA. Data gathered for this assessment strongly suggest that mental and behavioral health concerns have increased dramatically over the past three years. Specifically, the pandemic's impact on mental and behavioral health was emphasized repeatedly by community residents, leaders, and providers. Concerns about mental and behavioral health are not surprising or unique to BWH's priority communities. Across the globe in 2020, the pandemic resulted in an increase of major depressive disorder cases by 28% and of anxiety disorder cases by 26% according to the World Health Organization's Global Burden Disease study.[xxxvi] Similarly, findings from the Blue Cross Blue Shield of Massachusetts Foundation's Massachusetts Health Survey conducted in early 2021 suggest that "more than one in three (35%) Massachusetts adults ages 19 and over reported needing behavioral health care for themselves or a close relative" during the first year of the pandemic.[xxxvii]

Boston CHNA Survey respondents from Dorchester, Jamaica Plain, Mattapan,[8] and Roxbury identified social isolation/mental and emotional wellbeing as their top pandemic-related challenge. When asked on the Boston CHNA Survey about the top three areas hospitals should focus on to make their communities healthier, mental health services were the most identified area among Dorchester, Jamaica Plain, Mattapan,[9] and Roxbury respondents. One BCCC interviewee emphasized the pervasiveness of the issue by stating that "mental health [conditions are] a virus in our community... and depriv[e] our community of so many good people, young people, old people." BCCC stakeholders noted the impact of the pandemic on a range of mental health issues, including social isolation, fear about getting COVID-19, feeling overwhelmed by changing pandemic information, and uncertainty about the future of the pandemic. Internal stakeholders also stressed the gravity of mental health issues and how they impact other core aspects of people's lives. During an internal focus group, one participant stated, "[clients] cannot

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[8] Social isolation/mental and emotional wellbeing and paying for utilities, rent, and other supplies were tied for top response among Mattapan respondents.

[9] Mental health services and improved care for medical conditions were tied as top response among Mattapan respondents.

continue with their basic needs due to their mental health" and another added, "depression gridlocks people."

"Mental health [conditions are] a virus in our community... and deprive our community of so many good people, young people, old people."
BCCC Interviewee

Throughout the BCCC process, community leaders and residents described stress, depression, and anxiety as top-of-mind concerns among all populations. However, some groups were cited as being disproportionately impacted, including youth, low-income households, caregivers, elders, and people of color. BCCC participants suggested that the pandemic aggravated many low-income families' already high levels of stress and had a particularly devastating effect on older adults who experienced the loss of friends and family.

Additionally, several participants in BCCC focus groups or interviews discussed adverse childhood experiences (ACEs)—such as racism, violence, poverty, home environments, housing conditions, addictions, neglect, and the loss of loved ones—and how the trauma associated with those experiences affect all aspects of a person's life. One such adverse childhood experience, and potential source of trauma, is being cared for by a person with mental illness. This is notable given that according to BBRFSS data from 2015, 2017, and 2019 combined, approximately 18% of Boston residents reported having lived with a caregiver with mental illness as a child; this percentage was significantly higher for Dorchester (02121, 02125) (22%) and Jamaica Plain (23%). This is important to consider given that children's exposure to specific ACEs may have increased during the pandemic.[xxxviii]

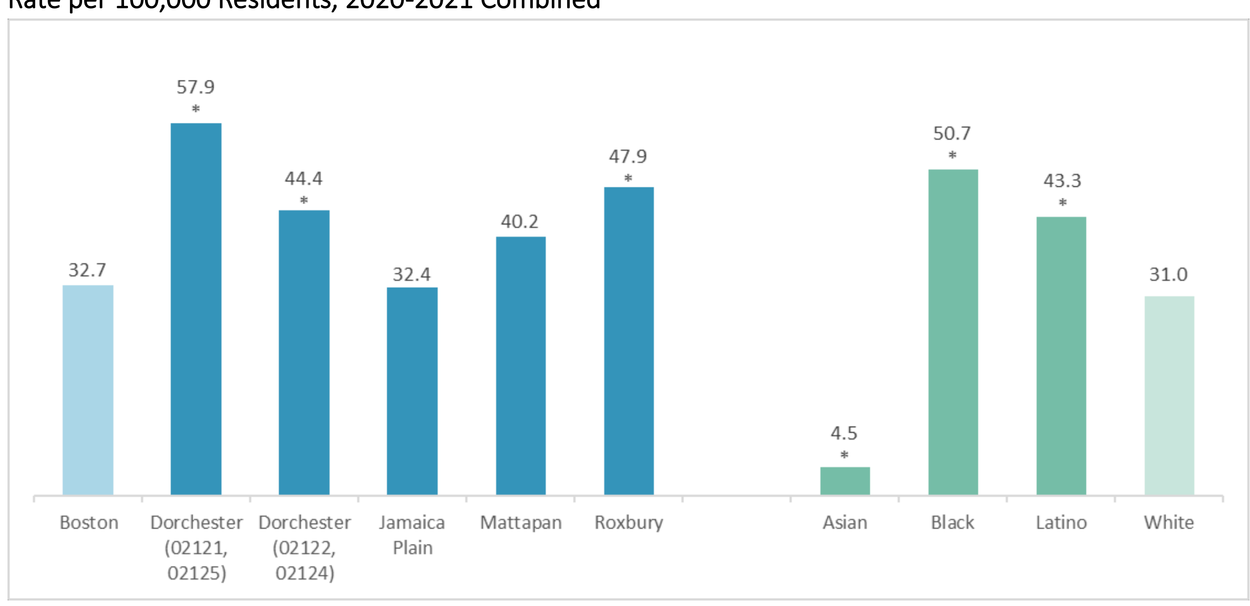
"Depression gridlocks people."
Internal Focus Group Participant

Youth mental health was mentioned as a particular concern. Pre-pandemic (2019), 35% of Boston high school students reported persistent sadness, defined as feeling "so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities," and 16% seriously considered attempting suicide.[xxxix] Furthermore, 34% of students who identified as LGB reported having seriously considered attempting suicide.[xl] BCCC focus group and interview participants emphasized the impact of the pandemic on youth, citing the disruption of routines, trauma, despair, adverse childhood experiences, overcrowded housing, and addiction. BCCC youth focus group members mentioned a number of factors that affect their mental health including 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. In addition, youth also described being exposed to challenging environments at home during the stay-at-home phase of the pandemic.

In addition to an escalation in mental health concerns, substance use and overdose remain a significant issue. Data from the Centers for Disease Control and Prevention show that between 2019 and 2020 drug overdose deaths increased close to 30% and reached 93,000 deaths, the highest on record.[xli] When asked on the Boston CHNA Survey about the top three areas hospitals should focus on to make their communities healthier, substance misuse and the opioid crisis was the most identified area for Jamaica Plain and Roxbury respondents. As shown in Figure 4, across 2020-2021 combined, Dorchester (all zip codes) and Roxbury had statistically significantly higher rates of unintentional opioid overdose mortality

rates than Boston overall and the rates for Black and Latino residents were 1.6 and 1.4 times higher than that for White residents, respectively. The BCCC reported that the rate among Black residents in 2020-2021 was 2.4 times higher than it was in 2016 while the difference was much less stark for Latino and White residents during this time.

Figure 4. Unintentional Opioid Overdose Mortality Rate, by Geography and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2020-2021 Combined



DATA SOURCE: Massachusetts Department of Public Health, Boston resident deaths, 2020-2021 combined
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; Bars with lighter shading indicate reference group for its specific category; Asterisk (*) denotes where estimate was significantly different compared to reference group within specific category ($p < 0.05$)

BCCC focus group participants also noted 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. The escalation of substance use and overdose has prompted Mass General Brigham to make this a system-wide priority, with the goal of reducing racial and ethnic inequities in substance use disorder outcomes and improve life expectancy.

Internal stakeholders explained how access issues have been exacerbated by COVID-19, citing an increased demand for mental health providers and staff retention challenges. As one internal focus group participant expressed, "I was always really proud of our access.... mental health care was like a walk-in service…. And then the pandemic hit and we just couldn't….to this day, it's a huge challenge." "The needs are totally different now," the participant further explained, "[It] is just like problem upon problem." In February 2022, the Association of Behavioral Health underscored the negative impact of COVID-19 on the mental health workforce and suggested that delays for outpatient treatment in MA "are primarily due to a crisis in the ability to attract and retain therapists, prescribing physicians, and nurses."[xlii] As of September 2021, just 32% percent of the need for psychiatrists is met in MA and the ABH reported "in 2021, for every 10 Master's-prepared clinicians hired, approximately 13 Master's-prepared clinicians left their positions [in MA]..." [xliii, xliv]

“I was always really proud of our access…. mental health care was like a walk-in service…. And then the pandemic hit and we just couldn’t….to this day, it’s a huge challenge.”
Internal Focus Group Participant

Additional barriers to mental health care arose as well. According to the COVID-19 Health Equity Survey, 10% of Boston adults reported delaying mental health care due to the pandemic and 7% of Boston adults reported delaying mental health care specifically because of cost. BCCC focus group participants noted that stigma surrounding the utilization of services is also a concern, particularly among immigrant communities, communities or color, and youth. BCCC stakeholders identified financial barriers to mental health care including bureaucratic barriers, such as needing a referral from a primary care provider, and limited mental health options for low-income communities. Internal stakeholders explained how this concern is particularly true for those with certain insurance coverage, namely MassHealth. Both through internal conversations and the BCCC process, participants described a lack of culturally appropriate and linguistically congruent care, with BCCC participants specifically identifying this as an issue for low-income residents, residents of color, and LGBTQIA+ residents. Participants in BCCC interviews and focus groups also 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.

Violence and Trauma

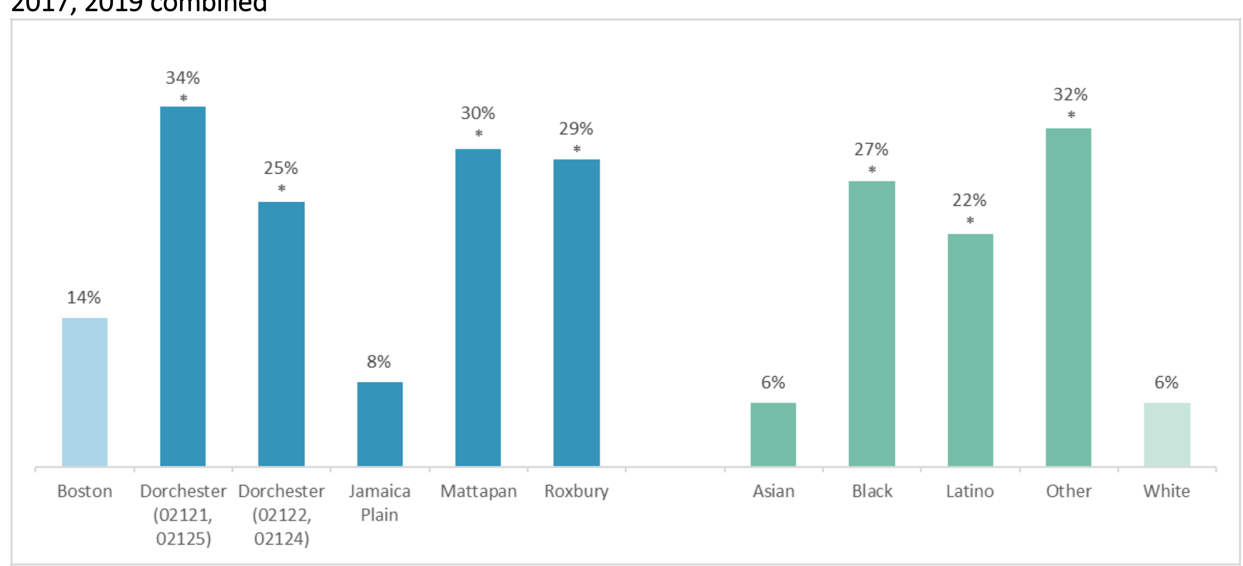
Violence and trauma are critical public health concerns that impact all aspects of health and wellness and surfaced as a reoccurring theme and priority area in BWH’s 2019 CHNA. In 2022, violence and trauma remain important community health concerns for BWH’s priority neighborhoods, particularly for Dorchester, Mattapan, and Roxbury.

The COVID-19 pandemic created conditions intensifying violence and trauma with a disproportionate impact on communities of color and other marginalized groups. Community leaders and Boston residents described trauma as one of the top-of-mind concerns and internal stakeholders drew attention to elevated experiences of violence and trauma for patients, residents, and communities during the pandemic.

Nationwide, U.S. cities saw record levels of violence in 2020 with increases in firearm homicides across big cities.[xlv] In Boston, there was a 5% decrease in overall crime, but shootings increased by 29% (compared to 2019) and deadly shootings increased by 34%.[xlvi] In an article about the impact of COVID-19 and violence, researchers from Boston Medical Center (BMC) noted the “rise in penetrating violent trauma admissions despite decreases in hospital admissions, leading to our most violent summer in five years.”[xlvii]

Spikes in violent incidents took place on top of already existing concerns and inequities related to community violence and neighborhood safety for BWH’s priority neighborhoods and Boston’s communities of color. For example, BBRFSS data (2015, 2017 and 2019) indicate that Dorchester (all ZIP codes), Mattapan, and Roxbury had significantly higher percentages of adults who reported their neighborhood was unsafe compared to Boston overall. Boston residents who identify as Black, Latino and an “Other” race/ethnicity also had significantly higher percentages of reporting their neighborhood was unsafe compared to White residents. (Figure 6)

Figure 6. Percent of Adults Reporting Neighborhood is Unsafe, by Geography and Race/Ethnicity, 2015, 2017, 2019 combined



DATA SOURCE: Boston Behavioral Risk Factor Surveillance System, 2015, 2017, and 2019 Combined
Data Analysis: Boston Public Health Commission, Research and Evaluation Office
*For neighborhood, statistically significant difference compared to Boston overall; for race/ethnicity, statistically significant difference compared to White.

In one discussion group with internal stakeholders, attendees shared that community violence is an acute and persistent challenge for residents of Dorchester. These sentiments were reiterated by BCCC focus group and interview participants, who expressed concerns regarding neighborhood safety and gang-affiliated violence during the pandemic.

"Every day you hear about people getting shot"
Internal Discussion Group Participant

While community violence is a significant concern among residents and community leaders, they acknowledged that interpersonal violence is also a concern. Specifically, domestic and intimate partner violence were cited during internal and BCCC discussions as an area that worsened during the pandemic. Stay-at-home orders and reduced capacity in domestic violence shelters left many trapped at home in abusive relationships.[xlviii] According to data from more than 40 U.S. states, about half of domestic violence service providers surveyed during this time saw an increase in gun threats towards survivors of intimate partner violence.[xlix] Boston Police Department crime reports note that there was a "22% increase in simple assault and battery reports of domestic violence" in the early pandemic months of the stay-at-home advisory.[l]

BCCC participants and internal stakeholders also discussed the impacts of racism and discrimination on health and cited the role of intergenerational trauma. Specific examples of intergenerational trauma provided include: the history of slavery, stereotypes that devalue people of color, and "white-washing" critical histories and cultural practices of people of color. Several BCCC participants mentioned systemic racism and white supremacy as affecting opportunities and all facets of life. The impacts of discrimination and trauma on LGBTQIA+ communities in particular were also noted. Of BBRFSS respondents (2015, 2017, 2019 combined), 6% indicated that they had been threatened at least a few times a month due to discrimination. This percentage is significantly greater among Black and Latino residents (10% and 8%,

respectively). The numbers increase dramatically for residents who indicated they had been threatened at least once *a year* because of discrimination (17% of Boston residents).

In addition to the impacts of racism and discrimination, stakeholders participating in BCCC focus groups and interviews highlighted concerns about the relationship and interactions between community members and the police. BBRFSS data (2015, 2017, 2019 combined) indicate that about 30% of Black adults in Boston and 15% of Latino adults reported ever feeling like they were stopped by police due to their race or ethnicity, compared to just 2% of White adults. While it was noted that there was greater dialogue around police violence toward communities of color, community leaders and residents highlighted greater strides still need to be made.

In the Boston CHNA Survey, when asked what hospitals should focus on to make their community healthier, respondents from Dorchester and Mattapan identified neighborhood safety and violence as a top area. Neighborhood safety and violence was also identified by Black/African American respondents and those who identified as an "Other" race/ethnicity or two or more races. Neighborhood safety and violence was also a top concern for respondents 25 years of age and younger.

Attendees of internal discussion groups offered additional insight into how to address challenges related to violence and trauma and specifically mentioned the importance of trauma-informed care in hospital settings. Attendees shared that providers are observing the manifestations of trauma in patients' experiences in clinical settings, which is why training on and the implementation of trauma-informed care is so important.

Physical Health and Wellness

In addition to secondary data about a range of issues related to physical health and well-being, internal and BCCC stakeholders highlighted a number of areas of concern and COVID-19's impact on them. The section below highlights key issues such as mortality, chronic disease, managing pre-existing conditions and physical activity during COVID-19, food insecurity, maternal and child health, access to health care, and other factors for wellness.

Mortality

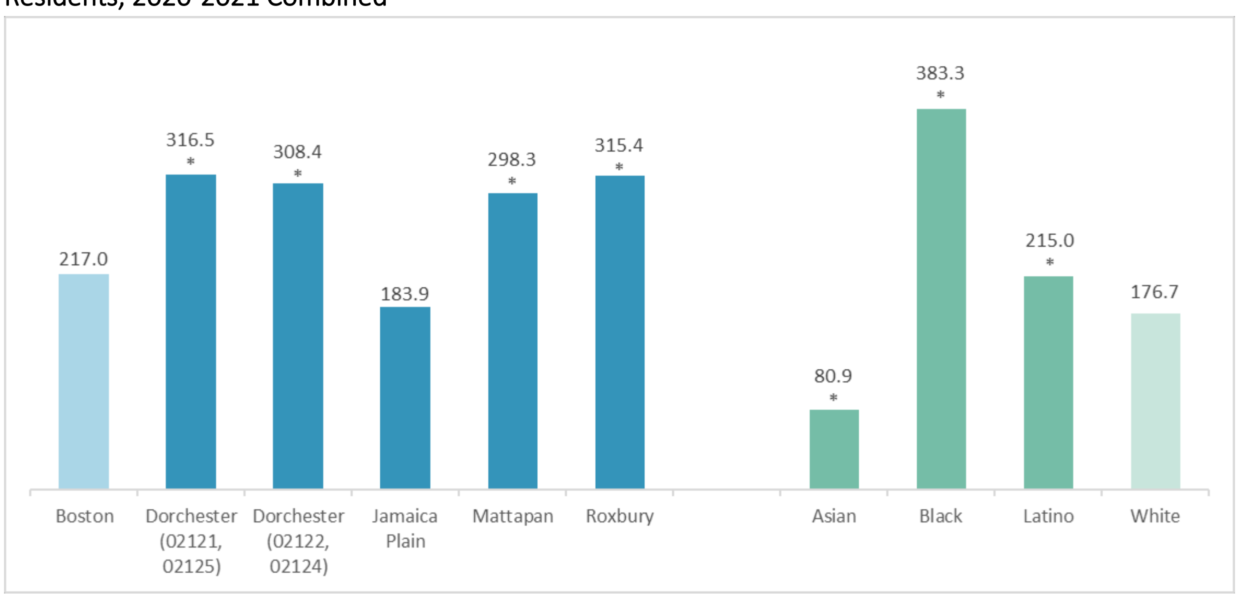
In Boston, racial and ethnic differences in mortality and premature mortality are reflective of the economic and social inequities in the City. Mortality rates released by the MA Department of Public Health for 2020 demonstrate stark differences across racial groups, particularly in relation to the inequitable toll of COVID-19 on communities of color across Boston. In 2020, COVID-19 was the leading cause of death for Black, Latino, and Asian residents in Boston. Moreover, the COVID-19 mortality rate for Black residents (238 per 100,000) is the highest for all racial groups and more than twice the rate for White residents (104 per 100,000). Furthermore, although cancer remained the leading cause of death for White residents in 2020, the rate (118 per 100,000) remains lower than for Black residents (167 per 100,000) despite it being the third leading cause of death among Black residents. Looking across all leading causes of death, Black residents have the highest mortality rates across all groups.

In 2020-2021, the premature mortality[10] rate in Boston was 217 per 100,000 residents according to the Boston Public Health Commission. This rate varied dramatically by community. Figure 5 shows the rates in

[10] Premature mortality refers to deaths among persons under 65 years of age.

BWH neighborhoods, four of which are significantly greater than Boston overall and the highest across the city. Furthermore, premature mortality was significantly higher among Black and Latino residents than White residents, with the rate for Black residents more than double that of White residents (383 per 100,000 compared to 177 per 100,000, respectively).

Figure 5. Premature Mortality Rate, by Geography and Race/Ethnicity, 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 reference group (Boston and White residents) ($p < 0.05$).

Across Boston, the MA Department of Public Health reported the leading causes of premature mortality in descending order were accidents, cancer, heart disease, COVID-19, and homicide in 2020. Notably, the rates of premature death for each cause among Black residents were higher than Boston overall. In particular, the rate of premature death due to homicide among Black residents was four times the rate for Boston overall (30.6 per 100,000 and 7.5 per 100,000, respectively).

Chronic Disease

Chronic disease is prevalent in Boston and among BWH priority neighborhoods. As one BCCC focus group participant expressed, “It seems like almost every family has high blood pressure, cholesterol, or diabetes.” Heart disease, diabetes, asthma, and obesity were some of the most frequently cited health conditions during BCCC interviews and focus group discussions. Other chronic disease health concerns mentioned include cancer, dementia, Alzheimer’s, osteoporosis, and chronic obstructive pulmonary disease (COPD). Table 6 shows the percent of adults in Boston and by BWH priority neighborhood with various chronic conditions.

"It seems like almost every family has high blood pressure, cholesterol, or diabetes."
BCCC Focus Group Participant

Table 6. Chronic Disease and Health Outcomes in Boston and by BWH Priority Neighborhood, 2019

Percent of adults:	Boston	Dorchester (02121, 02125)	Dorchester (02122, 02124)	Jamaica Plain	Mattapan	Roxbury
Diagnosed with diabetes	8%	12%	11%	7%	14%	12%
With high cholesterol	23%	25%	26%	25%	27%	24%
With high blood pressure	23%	30%	30%	22%	37%	29%
With coronary heart disease	4%	5%	5%	4%	6%	6%
With asthma	11%	13%	12%	10%	14%	13%
With COPD	5%	6%	6%	4%	7%	6%
Who are obese	23%	29%	28%	22%	33%	29%
Who have had a stroke	3%	4%	4%	2%	5%	4%

DATA SOURCE: CDC PLACES Project, 2019 (accessed via PolicyMap).
NOTE: Percentages are not age-adjusted.

Table 6 shows that nearly one quarter of Boston adult residents had high cholesterol, high blood pressure, or were obese in 2019. When looking across neighborhoods, differences in chronic disease prevalence highlight health inequities across the City. For example, the percent of adults in Mattapan who had high blood pressure was 14 percentage points higher than Boston overall and the percentage of those who were obese was 10 percentage points higher than the City. The prevalence of chronic disease, in particular cardiometabolic conditions, has led to Mass General Brigham making it a system-wide priority, with the goal of reducing racial and ethnic inequities in cardiometabolic disease outcomes and improve life expectancy.

Managing Pre-Existing Conditions & Physical Activity during COVID-19

Beyond COVID infections, hospitalizations, and deaths, the pandemic affected the physical health and well-being of Boston residents. BCCC key informants and focus group participants underscored how pre-existing conditions worsened during the pandemic, including chronic conditions that are difficult to manage, conditions that remained undiagnosed, and chronic conditions linked with trauma. BCCC focus group participants explained that during the COVID-19 pandemic they have not been able to engage in as much physical activity and have been 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." The Living in Boston During COVID-19: Physical and Mental Health Report indicated that 19% of its survey respondents said their physical health had declined from the March through the Fall 2020.[li] Furthermore, the report mentions Dorchester

(02121, 02125) and Mission Hill as "…neighborhoods with the highest proportions of residents reporting a decline in their physical health since March tend[ing] to have more residents who were poor…"[lii]

"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."
BCCC Focus Group Participant

Maternal and Child Health

In BCCC qualitative data collection, community leaders and residents noted Black women's maternal health as a community health concern. Data from 2015 showed the Black maternal mortality[11] rate to be nearly two times higher than the White maternal mortality rate in MA.[liii] With regards to COVID-19, in a study of all-cause maternal mortality in the US before and during the pandemic, researchers found a 33.3% rise in maternal deaths across the US between April and December 2020, with the highest rises among Hispanic and non-Hispanic Black women.[liv] They note this amount is more than the overall percent of excess death thought to be due to the pandemic (22%) and explain, "Change in maternal deaths during the pandemic may involve conditions directly related to COVID-19 (respiratory or viral infection) or conditions exacerbated by COVID-19 or other health care disruptions (diabetes or cardiovascular disease)..."[lv] With COVID-19 inequitably affecting communities of color,[lvi] the painful effects of COVID-19 on maternal health underscores how systemic racism impacts current and future generations.

In addition to inequities in maternal health, there are also differences by race/ethnicity and by neighborhood related to infant health in Boston. As shown in Table 7, infants born to Black and Latino mothers are significantly more likely than those born to White mothers to have low birthweight and/or be preterm births. Infant mortality rates across the city also vary by race. Notably, the mortality rate among infants born to Black mothers is four times the rate of those born to White mothers, and the mortality rate of infants born to Latino mothers is twice the rate of those born to White mothers. Furthermore, three BWH priority communities— Dorchester (02122, 02124), Jamaica Plain, and Mattapan—have significantly higher rates of infant mortality than Boston overall.

[11] According to the CDC Maternal Mortality Review Board, maternal mortality is defined as death within pregnancy, delivery, or one year from delivery date.

Table 7. Select Infant Health Indicators by Race/Ethnicity and Geography

		Low Birthweight Births (2019)	Preterm Births (2019)	Infant Mortality Rate per 1,000 live births (2017-2019 combined)
Race/Ethnicity	Asian	8%	9%	2
	Black	13%*	13%*	9*
	Latino	9%*	10%*	4*
	White	6%	8%	2
City & Neighborhood	Boston	9%	10%	4
	Dorchester (02121, 02125)	13%*	13%	3
	Dorchester (02122, 02124)	9%	10%	8*
	Jamaica Plain	7%	8%	5*
	Mattapan	11%	12%	5*
	Roxbury	11%	11%	NA

DATA SOURCE: Massachusetts Department of Public Health, Boston Resident Live Births
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; 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; *Indicates a statistically significant difference in comparison to reference group; reference groups are shaded in light gray.

Access to Health Care

Access barriers came up in nearly every BCCC conversation. The section below highlights a multitude of barriers cited regarding access to health care and underscored the pandemic's exacerbating effect. In addition, it draws specific attention to Internet access as it became a crucial tool during the pandemic.

With regard to accessing health care, residents noted barriers such as income, health insurance, distrust of health care systems and health providers, concerns about undocumented legal status, difficulty navigating the health care system, transportation, long waits for and difficulty securing a medical appointment, language barriers, and lack of cultural sensitivity among providers. Participants described limited staffing and support for home health care as a concern, particularly for older adults and residents with disabilities. Participants with disabilities described several barriers to health care, including lack of accessible equipment, communication barriers (e.g., interpretation), the need for support in completing forms, limited training among providers in treating patients with a range of disabilities, denial of access to care (e.g., psychological services, rehabilitation, nursing homes) for people with developmental disabilities, limited information about available resources or services needed, and lack of reliable Internet service.

Patients "might not trust the [hospital], but…they usually trust [the community health center]. Some people wouldn't get their vaccines until they could get them at [the community health center]." "There is a sense of trust…and the COVID site really, really solidified that and introduced some people in the neighborhood to us because we had it open to the community."
Internal Discussion Group Participant

Residents described how racial and ethnic inequities in health care access have been magnified by the pandemic. Residents noted patients who rely on family support for interpretation during visits have lost this support due to COVID-19 policies that limit visits to the patient only. Key informants and focus group participants also discussed how residents with chronic health conditions and those with undiagnosed conditions have been affected by delayed health care and ongoing lack of a medical home. Participants also described a growth in telehealth visits. While telehealth provides another way for individuals to access health care, participants noted that conducting assessments and developing treatment plans can be difficult during telehealth visits and that telehealth visits can be a barrier for older adults, immigrants, and persons with disabilities. Participants noted that some patients prefer in-person visits and cited several barriers to using telehealth, including technological resources, support, and training needed.

"People's health has been put on the back burner"
Internal Discussion Group Participant

Residents identified many barriers to accessing to COVID-19 information and testing. Residents explained the lack of clarity regarding COVID-19 information and language barriers to accessing changing and time-sensitive information for those whose first language was not English. Lack of access to technology also emerged as a barrier to COVID-19 information, particularly for older adults who relied on others to use technological devices to sign up for COVID-19 resources or access information. Residents also described rampant misinformation about the pandemic. With regard to testing, COVID-19 Health Equity Survey respondents cited needing a referral or symptoms to qualify for a test, finding a clinic that offered testing, the length of time that it takes to get tested, and long wait times to receive COVID test results were the leading barriers to COVID-19 testing among Boston residents in December 2020/January 2021. The COVID-19 Health Equity Survey also reported that more than one in five Boston residents cited issues such as transportation, getting time off of work, and cost of a test as barriers to getting a COVID test in December 2020-January 2021.

As highlighted in this section, Internet access became an essential household resource during the COVID-19 pandemic given its absolute necessity for remote work, education, and accessing health care. While approximately nine in ten Boston adults reported having Internet access at home during the pandemic in the COVID-19 Health Equity Survey, it is notable that a significantly smaller percent of Latino adults reported Internet access at home during the pandemic compared to White adults (86% and 96%, respectively).

Boston CHNA Survey respondents echoed many of the access issues raised above. When asked what barriers prevent respondents from getting needed health care, the most common barriers for all respondents included: can't get an appointment; not enough time; concern about COVID exposure; insurance issues; and cost. Notably, the top barrier identified for respondents who live/work in Jamaica

Plain and Mattapan was the lack of providers or staff who speak their language. The top barrier in Dorchester was concern about COVID exposure and in Roxbury it was lack of time.

In addition to raising many issues previously mentioned, internal stakeholders also highlighted how access to health care could be improved. Stakeholders emphasized the need for a more coordinated, collaborative, and integrated approach to care, noting room for growth within the hospital system. They also suggested increasing access to digital navigation programs and technology training; legal services provided on site and in community settings; Spanish-speaking providers and diverse providers generally; and mobile clinics as multi-purpose testing sites.

Food Insecurity

Food insecurity is a crisis in Massachusetts and in BWH priority communities. Pre-COVID food costs in MA were highest of any state in the nation and as the pandemic took hold, national grocery prices rose 2.6% in April 2020.[lvii] From the beginning of the COVID-19 pandemic to March 2021, SNAP applications in Massachusetts increased by a staggering 360%.[lviii] And yet, while SNAP is a vital program, 45% of those reporting food insecurity in Massachusetts in 2021 did not use SNAP, citing barriers including stigma and self-reliance, not knowing how to apply for the program, or being unsure about eligibility.[lix] In 2021, 32% of Massachusetts residents experienced food insecurity and between July 2021 and July 2022, the food-at-home (grocery store or supermarket food purchases) consumer price index rose by 13.1 percent.[lx,lxi] Food insecurity inequitably impacts Latinx adults, Black adults, LGBTQ+ adults, and households with children in Massachusetts.[lxii] As The Greater Boston Food Bank (GBFB) showed in its June 2022 report about food equity and access in Massachusetts, 53% of Black adults and 61% of Latinx adults experienced food insecurity in 2021 as compared to 27% of White adults, and 51% of LGBTQ+ adults and 40% of households with children in the state experienced food insecurity in 2021 as well.[lxiii]

In BWH priority communities, food insecurity was a concern prior to the pandemic and has become an even more significant issue with increased barriers to accessing healthy, affordable food since the pandemic. Pre-pandemic (2015, 2017, and 2019 combined), BBRFSS reported that BWH priority neighborhoods of Dorchester (02121, 02125), Dorchester (02122, 02124), Mattapan and Roxbury all had significantly higher percentages of adults reporting they were hungry and could not afford food (17%, 13%, 20% and 15%, respectively) compared to adults in Boston (10%). The COVID-19 Health Equity Survey documented that significantly more Black adults (30%) and Latinx adults (43%) compared with White adults (6%) and significantly more adults living in predominantly Black and Latinx (PBL) residential zip codes[12] (29%), which include most of BWH priority neighborhoods, compared with adults living in non-PBL Residential Zip Codes (9%) reported often or sometimes the food they bought didn't last and they could not afford to buy more in the past 12 months.[lxiv] When asked about challenges experienced due to COVID-19, access to food was one of the top five responses among Boston CHNA Survey respondents from Dorchester, Jamaica Plain and Mattapan. Several residents interviewed by the BCCC underscored that many low-income residents were not been able to eat healthy foods during the COVID-19 pandemic

[12] PBL Residential Zip Codes refers to zip codes associated with higher percentages of Black and Latinx residents compared with White residents based on the 5-year ACS estimates (2014-2018). These zip codes include 02119, 02120, 02121, 02122, 02124, 02125, 02126, 02128, 02131, 02136. These neighborhoods include Roxbury, Dorchester, Mattapan, East Boston, Roslindale, and Hyde Park.

due to financial constraints and some residents—such as older adult—faced barriers to safely accessing food due to concern about virus transmission.

Internal stakeholders also emphasized food insecurity as a key theme and area of concern in 2022, namely due to the impact of the COVID-19 pandemic and rising food prices. Discussion group participants noted the connections between food insecurity and financial insecurity. As one participant said, "Food is so expensive that if your job does not pay enough, you cannot get the food you need." In one discussion group, participants shared that food resources are one of the top three areas of support requested by community members. In another group, attendees noted the need for "access to affordable and accessible food" for community members.

"Food is so expensive that if your job does not pay enough, you cannot get the food you need."
Internal Discussion Group Participant

To support their food needs, many residents are accessing food assistance. According to the COVID-19 Health Equity Survey, 23% of Boston adults reported using food assistance services during the COVID-19 pandemic compared to 16% pre-pandemic, and significantly more Latino and Black adults (both 40%) reported using food assistance services during the pandemic than White adults (8%). Additionally, adults with at least one child in the home reported using food assistance during the COVID-19 pandemic significantly more than adults who did not have children at home (38% and 17%, respectively).

Boston residents who responded to the Boston CHNA survey see a role for health care to play in addressing food insecurity. Survey respondents from Jamaica Plain, Mattapan, and Roxbury identified food insecurity as a top five area that hospitals should focus on to help make their communities healthier. Respondents from Dorchester, Mattapan and Roxbury respondents selected food assistance, including SNAP enrollment, as a top service or resource they would seek for themselves or their family on a mobile van.

Other Factors for Wellness

BCCC stakeholders described a number of activities and spaces important for physical health and wellness. Youth and LGBTQIA+ focus group participants described sleep as critical to promoting health and identified stress and anxiety as barriers to living a healthy lifestyle and getting adequate sleep. Several focus group participants described physical activity, including going for a walk, playing sports, and working out, as important for feeling good, relieving stress, and overall health. 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. Several focus group participants noted the importance of clean neighborhoods, including air quality and trash. LGBTQIA+ focus group participants also described a need for gyms that are more welcoming to LGBTQIA+ residents. According to Living in Boston During COVID-19: Physical and Mental Health Report, respondents in the Fall 2020 who exercised more reported their physical heath improving.[lxv]

An additional critical factor impacting wellness is climate change, one of today's most significant public health threats.[lxvi] Health effects are already being felt locally[lxvii], particularly due to increased exposure to heat as a result of warming temperatures and more frequent heat waves,[lxviii] a trend that is expected to continue. The National Institute for Health Care Management notes "communities such as those that are

low-income, previously redlined, or otherwise marginalized, face disproportionately higher levels of heat."[lxix] Certain populations are at increased risk from heat, including older adults, infants and children, pregnant women, outdoor workers, homeless individuals, those with preexisting medical conditions, and those with limited resource. Access to air conditioning in the home is an important protective factor, but not available to all, in particular those with limited resources. Furthermore, people living in urban areas are exposed to hotter temperatures than those living in surrounding suburban or rural areas. This is due to the urban heat island effect, a process in which urban areas become hotter than surrounding suburban areas due to greater amounts of heat-retaining concrete, asphalt, and buildings and fewer trees, grass, and other green spaces. The urban heat island effect disproportionately affects communities of color and socioeconomically disadvantaged communities.[lxx] Boston has one of the largest urban heat island effects among US cities.[lxxi]

Additional Communities

In addition to focusing on the five priority neighborhoods located in Boston, BWH also serves members of three communities where the hospital operates licensed sites, including in Chestnut Hill, Foxborough, and West Bridgewater. While all communities, including these three, face health challenges, the data indicate that the concerns faced by BWH priority neighborhoods in Boston are greater and thus, they are the primary focus of this report.

The following subsections present a brief snapshot of the communities where BWH licensed sites are located, based on available data. It is important to note that when comparing demographic and socioeconomic data from the 2016-2020 ACS, the three communities are compared to Massachusetts. However, health indicators data from the CDC PLACES Project (2019) are not available for Massachusetts overall; therefore, health indicators for each community are compared to Boston. Please see Appendix F for all data tables for the licensed sites.

Chestnut Hill

BWH operates Brigham and Women's Health Care Center in Chestnut Hill, Massachusetts. In addition to providing a number of programs and services, including laboratory and radiology services, and allergy and clinical immunology, the health care center is home to the Gretchen S. & Edward A. Fish Center for Women's Health.[lxxii] [lxxiii]

Along with BWH's presence in Chestnut Hill, Newton-Wellesley Hospital (part of the Mass General Brigham System) also serves the Chestnut Hill community. For a thorough look at the health needs and assets of the Newton community, which includes Chestnut Hill, please see Newton-Wellesley Hospital's 2021 Community Health Needs Assessment, linked here.

Overview of Community

Chestnut Hill is a village spread across three municipalities: Boston, Brookline, and Newton, with the primary ZIP code of 02467. Demographic data from the Census Bureau's 2016-2020 ACS 5-Year Estimates indicate that nearly 23,000 residents live in Chestnut Hill.[lxxiv]

Looking at age distribution, young adults (18-24 years of age) account for nearly one-third of Chestnut Hill's population (31%). By contrast, young adults are just over 20% of the state's overall population. Also, Chestnut Hill has more than twice the percentage of residents who identify as Asian (16%) when compared to Massachusetts (4%). Chestnut Hill has a higher percentage of residents who are foreign born (24%) as well (compared to 17% for MA).[lxxv]

Social Determinants of Health Indicators

Chestnut Hill fares better than the state across a host of socioeconomic indicators. First, residents of Chestnut Hill have substantially higher educational attainment compared to Massachusetts residents overall. Notably, 82% of residents over the age of 25 have at least a bachelor's degree. Additionally, Chestnut Hill has lower percentages of individuals and families living in poverty (6% and 3%, respectively) compared to the state (10% and 7%, respectively). Chestnut Hill also has a substantially higher median household income ($150,223 for Chestnut Hill and $84,385 for the state). The median home value is just over $1,000,000 in Chestnut Hill compared to approximately $400,000 for Massachusetts. Although lower than the state (46%), nearly one in four renters in Chestnut Hill are cost burdened (38%).[lxxvi]

Health Indicators

Data from the Census Bureau's 2016-2020 ACS 5-Year Estimates indicate that Chestnut Hill has lower percentages of adults (19-64) who are uninsured (2%) than Boston (4%).[lxxvii] Also, according to the CDC PLACES Project (2019), Chestnut Hill has lower percentages of adults with fair or poor health (9%), poor physical health (7%), and poor mental health (13%) compared to Boston (17%, 11%, and 16% respectively).[lxxviii]

Looking at risk factors, Chestnut Hill has lower percentages of adults who smoke (8% compared to 14% in Boston) and who are obese (17% compared to 23% in Boston). Chestnut Hill residents also fare better than Boston in terms of select chronic conditions with lower percentages of adults diagnosed with diabetes (5% compared to 8% in Boston) and who have high blood pressure (19% compared to 23% in Boston).[lxxix]

Lastly, when looking at the severe COVID-19 health risk index for 2020, Chestnut Hill has a very low status, meaning residents have very low risk for developing serious complications from COVID-19 due to underlying health conditions.[13] [lxxx]

Foxborough

Brigham and Women's/Mass General Health Care Center in Foxborough, Massachusetts provides primary care and specialty services, including cardiology, dermatology, general and gastrointestinal surgery, orthopedic surgery, pain management, plastic surgery, rehabilitation, sports medicine, diagnostic radiology, and lab services.[lxxxi]

Overview of Community

Foxborough (primary ZIP Code of 02035) is a town located in Norfolk County, Massachusetts and is situated approximately 22 miles southwest of Boston and 18 miles northeast of Providence, Rhode Island. Demographic data from the U.S. Census Bureau's 2016-2020 ACS 5-Year Estimates indicate that nearly 18,000 residents live in Foxborough.[lxxxii]

Overall, the age distribution of Foxborough residents is comparable to that of Massachusetts. Notably, Foxborough exhibits less racial diversity than the state and specifically has a lower percentage of Latino residents (4%) compared to Massachusetts (12%). Foxborough has a lower percentage of foreign born (11%) and non-English speaking residents (4%) than the state as well (17% and 9% respectively).[lxxxiii]

Social Determinants of Health Indicators

For most socioeconomic indicators, Foxborough residents fare better when compared with the state. Looking at educational attainment, more than half of Foxborough's residents have at least a Bachelor's degree (55%) compared to 45% for the state overall. Foxborough has a lower percentage of individuals and families living in poverty (4% and 2% respectively) compared to Massachusetts (10% and 7% respectively). Foxborough also has a higher median household income ($92,978) than the state ($84,385). However, 56% of Foxborough residents who rent their home are cost burdened and this percentage is higher than for Massachusetts (46%).[lxxxiv]

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[13] The severe COVID-19 health risk index (2020) was created by PolicyMap for the New York Times. The index has 6 levels (very low, low, below average, above average, high and very high). The underlying health conditions include: COPD, heart disease, high blood pressure, diabetes, and obesity.

Health Indicators

According to the CDC PLACES Project (2019), Foxborough has lower percentages of adults with poor or fair health (12%) and with poor mental health (12%) in comparison to Boston (17% and 16% respectively). Foxborough, on the other hand, has higher percentages of adults with high cholesterol (31%) and high blood pressure (26%) compared to Boston overall (23% and 23% respectively).[lxxxv]

Lastly, when looking at the severe COVID-19 health risk index for 2020, Foxborough has a below average status meaning that residents have a below average risk for developing serious complications from COVID-19 due to underlying health conditions.[14] [lxxxvi]

Additional Information for Foxborough

In February 2020, Community Conversations were held in three different community locations in Foxborough to support the development of a Community Health Initiative. In total 65 community residents, town administrators, and local service providers attended. Of those attending, 70% were community residents and 43% were a representative of a local organization, with some identifying as both. The majority of community residents were longtime, older residents of the community.

Overall, there was a great deal of consistency across the three meetings regarding the most pressing community health needs. Six common themes emerged, three of which are somewhat connected (and largely related to the needs of seniors in Foxborough) and three that are somewhat unique. In order of prevalence, the six themes were:

1. Social isolation among seniors who are homebound and/or living alone
2. Lack of transportation for seniors and individuals with physical disabilities
3. Lack of affordable housing, particularly for seniors
4. Lack of access to mental health services and supports for residents of all ages
5. Lack of services for survivors of intimate partner violence
6. Barriers to utilizing physical environment for recreation and exercise

West Bridgewater

Brigham and Women's MRI West Bridgewater in West Bridgewater, Massachusetts offers radiological services by board certified radiologists.[lxxxvii]

Overview of Community

West Bridgewater is a town located in Plymouth County (primary ZIP Code of 02379). Demographic data from the U.S. Census Bureau's 2016-2020 ACS 5-Year Estimates indicate that nearly 7,300 residents live in West Bridgewater.[lxxxviii]

West Bridgewater has a similar age distribution to that of the state. West Bridgewater exhibits less racial diversity than Massachusetts overall with 9 in 10 residents identifying as White (91%). Also, the percentages of residents who identify as foreign born (4%) and who are non-English speaking (2%) are lower compared to the state (17% and 9% respectively).[lxxxix]

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[14] The severe COVID-19 health risk index (2020) was created by PolicyMap for the New York Times. The index has 6 levels (very low, low, below average, above average, high and very high). The underlying health conditions include: COPD, heart disease, high blood pressure, diabetes, and obesity.

Social Determinants of Health Indicators

As noted above for Chestnut Hill and Foxborough, West Bridgewater also fares better than the state on key socioeconomic indicators. Looking at educational attainment, West Bridgewater has a higher percentage of residents with a high school diploma (31%) than the state (24%), but a lower percentage of residents with at least a Bachelor's degree (38% and 45% respectively). West Bridgewater has lower percentages of individuals (4%) and families (4%) living in poverty compared to Massachusetts (10% and 7% respectively). West Bridgewater's median household income ($105,377) is also higher than the state's ($84,385). Moreover, West Bridgewater has a higher percentage of households who own their home (87%) than the state (63%). Also, West Bridgewater has a slightly lower percentage of renters who are cost burdened (42%) compared to the state (46%).[xc]

Health Indicators

According to the CDC PLACES Project (2019), West Bridgewater has a higher percentage of adults who received a routine check-up in the past year (82%) compared to Boston (78%). West Bridgewater also has lower percentages of adults with poor or fair health (13%) and poor mental health (13%) compared to Boston (17% and 16% respectively). West Bridgewater, however, has higher percentages of adults with high cholesterol (32%), high blood pressure (32%), and who are obese (26%) in comparison to Boston (23%, 23%, and 23% respectively).[xci]

Lastly, when looking at the severe COVID-19 health risk index for 2020, West Bridgewater has a below average status meaning that residents have a below average risk for developing serious complications from COVID-19 due to underlying health conditions.[15] [xcii]

[15] The severe COVID-19 health risk index (2020) was created by PolicyMap for the New York Times. The index has 6 levels (very low, low, below average, above average, high and very high). The underlying health conditions include: COPD, heart disease, high blood pressure, diabetes, and obesity.

Mass General Brigham System Priorities

Context and Priorities

Mass General Brigham Community Health leads the Mass General Brigham system-wide commitment to improve the health and well-being of residents in hospital member priority communities most impacted by health inequities. Mass General Brigham's commitment to the community is part of a $30 million pledge to programs aimed at dismantling racism and other forms of inequity through a comprehensive range of approaches involving our health care delivery system and community health initiatives.

While not required to conduct a CHNA under current regulations, Mass General Brigham's belief in the critical importance of system-wide, population-level approaches resulted in our decision to have every hospital conduct a 2022 CHNA. Having all our hospitals on the same three-year cycle will prove invaluable in our efforts to eliminate health inequities by identifying system-wide priorities that require system-level efforts.

In addition to the priorities each hospital identifies that are unique to its communities, Mass General Brigham identified two system-level priorities: cardiometabolic disease and substance use disorder. These priorities emerged from a review of hospital-level data and prevalent trends in population health statistics. Our efforts within these priorities will aim to reduce racial and ethnic disparities in outcomes, with the goal of improving life expectancy.

Key Findings

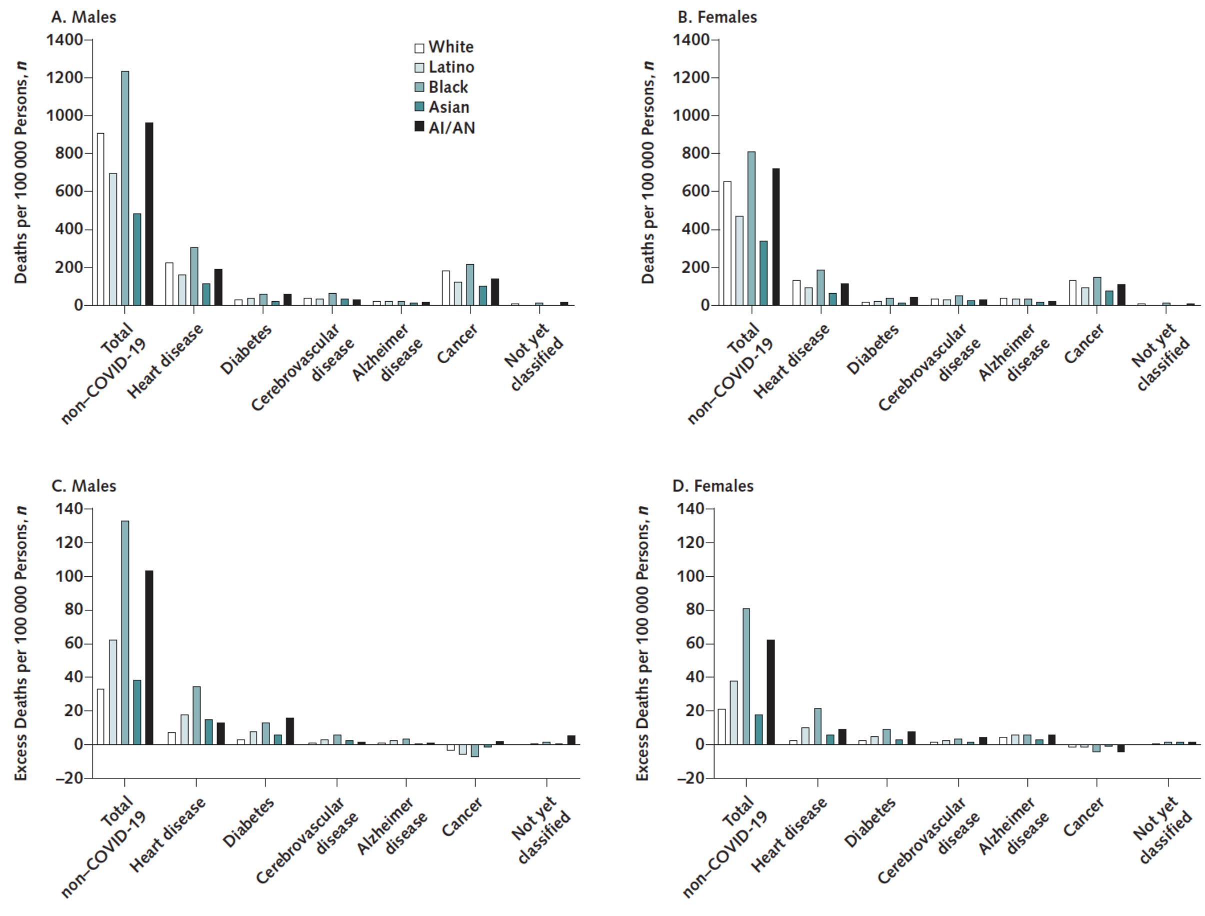
In a national study of deaths during the first wave of the COVID-19 pandemic (March to December 2020), researchers explored non-COVID deaths and excess deaths, defined as the difference between the number of observed and number of expected deaths.

Nationally, non-COVID deaths disproportionately affected Black, American Indian/Alaska Native, and Latino persons (A. and B.) (Figure 7).[xciii]

Moreover, when looking at excess deaths, the inequities worsened (C. and D.). The greatest disparities are seen for heart disease and diabetes. Inequities also exist for all cancer deaths but not excess cancer deaths.

Figure 7. Racial and Ethnic Disparities in Excess Deaths During the COVID-19 Pandemic, March to December 2020, Annals of Internal Medicine

Figure 3. Age-standardized non-COVID-19 cause-specific deaths per 100 000 persons in the United States in March to December 2020 among males (*A*) and females (*B*) and age-standardized non-COVID-19 excess cause-specific deaths per 100 000 persons among males (*C*) and females (*D*), by race/ethnicity.



AI/AN = American Indian/Alaska Native.

DATA SOURCE: Sheils et al. Racial and Ethnic Disparities in Excess Deaths During the COVID-19 Pandemic, March to December 2020. Annals of Internal Medicine, Vol 174 No. 12. December 2021. 1693-1699

Massachusetts mortality data for 2019 reveal that heart disease and unintentional injuries, which includes drug overdoses, account for the second and third highest causes of death. As shown in Figure 8, the highest number of deaths among individuals from birth to age 44 were the result of unintentional injuries. However, among those 45 years of age and older, heart disease accounts for the highest or second highest cause of death across these age groups.

Figure 8. Top Ten Leading Underlying Causes of Death by Age, Massachusetts, 2019

Rank	Age Groups (number of deaths)								
	<1 year	1-14 years	15-24 years	25-44 years	45-64 years	65-74 years	75-84 years	85+ years	All
1	Short gestation and LBW[1] (57)	Unintentional Injuries[3] (20)	Unintentional Injuries[3] (186)	Unintentional Injuries[3] (1319)	Cancer (2781)	Cancer (3446)	Cancer (3430)	Heart Disease (5622)	**Cancer (12584)**
2	Congenital malformations (56)	Cancer (17)	Suicide (67)	Cancer (241)	Heart Disease (1585)	Heart Disease (1786)	Heart Disease (2581)	Cancer (2641)	**Heart Disease (11779)**
3	SIDS[2] (21)	Congenital malform (9)	Homicide (43)	Suicide (202)	Unintentional Injuries[3] (1138)	Chronic Lower Respiratory Disease[5] (632)	Chronic Lower Respiratory Disease[5] (893)	Stroke (1260)	**Unintentional Injuries[3] (4094)**
4	Complications of placenta (19)	Other infect (8)	Cancer (27)	Heart Disease (193)	Chronic liver disease (383)	Unintentional Injuries[3] (340)	Stroke (629)	Alzheimer's Disease (1128)	**Chronic Lower Respiratory Disease[5] (2842)**
5	Pregnancy Complications (13)	Homicide (8)	Heart Disease (7)	Homicide (77)	Chronic Lower Respiratory Disease[5] (350)	Stroke (331)	Alzheimer's Disease (415)	Chronic Lower Respiratory Disease[5] (941)	**Stroke (2463)**
6	Respiratory distress (8)	Ill-defined conditions-signs and symptoms[4] (7)	Injuries of Undetermined Intent[3] (7)	Chronic liver disease (62)	Diabetes (312)	Diabetes (300)	Unintentional Injuries[3] (381)	Unintentional Injuries[3] (709)	**Alzheimer's Disease (1662)**
7	Bacterial sepsis of newborn (7)	Influenza & Pneumonia (4)	Diabetes (6)	Ill-defined conditions-signs and symptoms[4] (37)	Suicide (281)	Nephritis (221)	Diabetes (358)	Influenza & Pneumonia (612)	**Diabetes (1386)**
8	Necrotizing entercolitis (6)	Suicide (3)	Influenza & Pneumonia (4)	Diabetes (29)	Stroke (212)	Septicemia (181)	Nephritis (339)	Nephritis (553)	**Nephritis (1280)**
9	Circulatory System (5)	Septicemia (2)	Ill-defined conditions-signs and symptoms[4] (4)	Stroke (29)	Septicemia (171)	Chronic liver disease (180)	Parkinsons (285)	Diabetes (381)	**Influenza & Pneumonia (1217)**
10	Intrauterine Hypoxia (4)	In situ neoplasms (2)	Chronic Lower Respiratory Disease[5] (2)	Injuries of Undetermined Intent[3] (26)	Nephritis (150)	Influenza & Pneumonia (179)	Influenza & Pneumonia (276)	Ill-defined conditions-signs and symptoms[4] (355)	**Septicemia (942)**
All Causes	255	106	389	2,646	9,417	9,974	13,570	22,303	58,660

Note: Ranking based on number of deaths. The number of deaths is shown in parentheses.

1. LBW: Low birthweight. 2. SIDS: Sudden Infant Death Syndrome. 3. Injuries are subdivided into 4 separate categories by intent: unintentional, homicide, suicide, and injuries of undetermined intent (deaths where investigation has not determined whether injuries were accidental or purposely inflicted). 4. Ill-Defined Conditions: Includes ICD-10 codes R00-R99. 5. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title).

In Boston, heart disease mortality for Black and Hispanic residents was second only to COVID-19 in 2020 (Figure 9).

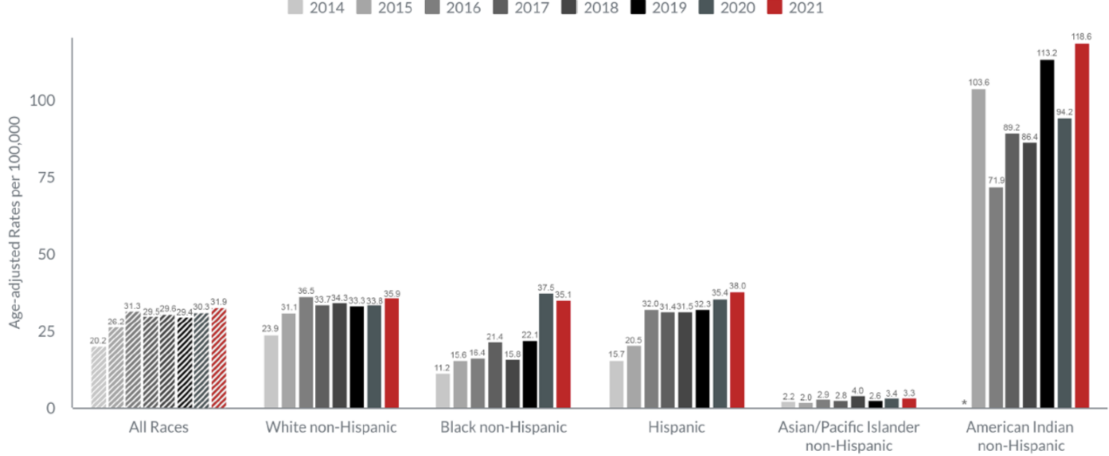
Figure 9. Leading Causes of Mortality, by Boston and Race/Ethnicity, Age-Adjusted Rate per 100,000 Residents, 2020

	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

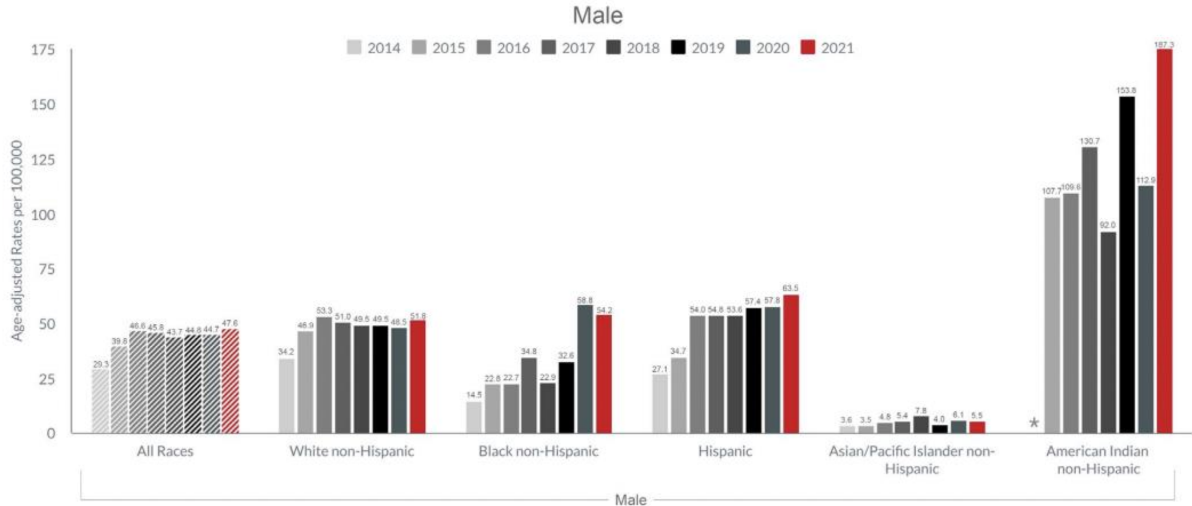
From 2014 to 2021, opioid-related overdose deaths in Massachusetts increased dramatically for Black and Hispanic residents (Figures 10 and 11). Death rates for American Indian residents have consistently and significantly outpaced deaths rates for all other races.

Figure 10: Massachusetts Opioid-Related Deaths, All



DATA SOURCE: MA Department of Public Health. https://www.mass.gov/doc/opioid-related-overdose-deaths-demographics-june-2022/download

Figure 11: Massachusetts Opioid-Related Deaths, Males



DATA SOURCE: MA Department of Public Health. https://www.mass.gov/doc/opioid-related-overdose-deaths-demographics-june-2022/download

Focus Areas

As Mass General Brigham develops and implements programming and supports that will reduce disparities in health outcomes for the two system priorities, our efforts will focus on the highest need communities across our hospital priority neighborhoods. We will also continue to support locally identified priorities at the hospital level.

Prioritization

Criteria for Prioritization

To determine the priorities for community health needs, the following criteria were used: (1) Burden and urgency of the community health need (2) Equity (3) Impact (4) Feasibility; and (5) Potential for collaboration.

Key Priority Areas

The following 5 community health priority areas were approved by the BWH Community Advisory Committee and adopted by the BWH Board Committee for Diversity, Inclusion, Health Equity and Community Health in July 2022:

Financial Stability and Mobility

Residents of BWH's priority neighborhoods face barriers to financial stability and these are disproportionately experienced by residents of color. Mission Hill, Roxbury, and Dorchester than had higher rates of poverty compared to Boston overall there are and higher rates of adult residents without a high school diploma in Roxbury. Income loss reported during the pandemic was notably higher for Latino and Black residents. Income loss reported during the pandemic was notably higher for Latino and Black residents in Boston. [lxx] Community members shared the considerable challenge to make ends meet amid rising costs.

Housing

Housing concerns included lack of stable and affordable housing, rising costs, higher rates of eviction, displacement, and overcrowding. In most BWH priority communities, residents are cost-burdened and the high cost of housing has also resulted in the displacement of local residents who are compelled to relocate to reduce housing costs.

Mental and Behavioral Health

Mental health concerns and access to mental health care was a primary issue of concern. The stress and emotional toll of the pandemic was a prominent theme with specific concerns cited for young people and older adults who were isolated from family and friends. The lack of culturally-competent treatment was noted as a critical service gap. The dramatic increase in opioid-related overdose for Black and Hispanic residents in Massachusetts in recent years is an issue of significant concern.

Physical Health and Wellness

Several concerns related to overall physical health and wellness arose, including most notably, chronic disease, food insecurity, and access to culturally appropriate health care. In addition, the racial and ethnic differences in mortality and premature mortality reflect the ongoing effect of systemic and structural racism on health outcomes. It is critical to note the significant impact the COVID-19 pandemic had on numerous areas related to physical health and wellness.

Violence and Trauma

Community violence emerged as an important theme with many respondents from Dorchester, Mattapan and Roxbury reporting safety concerns in their neighborhoods. Data indicate that violence disproportionately impacting communities of color and impacting premature mortality.

Rationale for Identified Health Needs Not Prioritized by BWH

Access to childcare was an issue identified as an important priority in the BCCC process. Boston residents specifically identified challenges and barriers to affording and accessing childcare; a need that was exacerbated by the COVID-19 pandemic. BWH recognizes the importance and impact of this issue. While BWH will not focus on addressing the availability and affordability of childcare specifically, the hospital continues to offer support to pregnant and parenting individuals and their families through a range of community-based interventions as well as through citywide policy and advocacy efforts. Also, BWH will continue to support the BCCC process as it addresses childcare, one of the Collaborative priority areas.

Next Steps and Considerations Towards Implementation Plan

BWH will play an active role in the development of the BCCC CHIP. The BWH CHIP development will actively engage internal stakeholders and BWH Community Advisory Committee in the process.

Appendices

Appendix A: BWH Community Advisory Committee Members
Appendix B: List of BWH Stakeholders Interviewed and Discussion Groups
Appendix C: Internal Key Informant Interview Guide
Appendix D: Internal Discussion Group Guide
Appendix E: Collaborative Materials
Appendix F: Additional Communities Data Tables

Appendix A: BWH Community Advisory Committee Members

Name	Organization
Alan Gentle	Roxbury Center for Financial Empowerment
Alex Oliver	Sociedad Latina
Leslie Pelton-Cairns	Mass League of Community Health Centers
Monalisa Smith	Mothers for Justice and Equality
Patricia Toney	Community Resident
Thaddeus Miles	Mass Housing
Toni Wiley	Sportsmen's Tennis and Enrichment Center
Uchenna Ndulue	Boston Public Health Commission
Vivien Morris	Mattapan Food and Fitness Coalition

Appendix B: BWH Key Stakeholder Interviews & Discussion Groups

Internal Stakeholders

Name	Title
MaryCatherine Arbour, MD, MPH	Associate Physician for Research, Division of Global Health Equity, Brigham and Women's Hospital; Assistant Professor, Department of Global Health and Social Medicine, Harvard Medical School
Cheri Blauwet, MD	Assistant Professor of Physical Medicine and Rehabilitation, Harvard Medical School; Brigham and Women's Hospital Distinguished Chair in Physical Medicine and Rehabilitation; Interim Associate Chief Medical Officer, Spaulding Rehabilitation Hospital; Director, Kelley Adaptive Sports Research Institute
Deborah Enos, MS	BWH Board of Trustees Member
Molly Jarman, PhD, MPH	Lead Investigator, Center for Surgery and Public Health; Assistant Professor, Department of Surgery
Mimi Jolliffe, FNP, MPH	Executive Director, Brookside Community Health Center
Bernie Jones, EdM	Vice President, Primary and Value-Based Care, Public Policy, and Administrative Operations
Richard Joseph, MD, MBA	Physician at Brigham Center for Weight Management and Wellness, Co-Founder of Vital CxNs
Cheryl Lang, MPH	Senior Program Manager, Stepping Strong Injury Prevention Program
Solanlly Montero	Population Health Manager, Community Health Worker, Brookside Community Health Center
Valerie Stone, MD, MPH	Vice Chair for Diversity, Equity and Inclusion, Department of Medicine, Brigham and Women's Hospital; Professor of Medicine, Harvard Medical School
Kate Takayoshi, MSN/MPH, NP-C	Nurse Practitioner and Team Leader, Supervisor at the Bridge Clinic
Gwill York, MBA	BWH Board of Trustees Member

Discussion Groups

Patient and Family Relations Team
Social Care Team
Southern Jamaica Plain Community Health Center Advisory Committee
Student Success Jobs Program (SSJP) Students
Community Mental Health Providers *(two groups)*
Brigham and Women's Hospital Health Equity Huddle Team

Appendix C: Internal Key Informant Interview Guide

Brigham and Women's Hospital/Brigham and Women's Faulkner Hospital
2022 Community Health Assessment
Key Informant Interview Guide

Introduction

- Introduce interviewer and notetaker
- Thank you for taking the time to talk with us today and contributing to BWH's/BWFH's Community Health Assets and Needs Assessment (CHNA) and Community Health Implementation Plan (CHIP).
- We undertake a CHNA every 3 years (*our last one was completed in 2019*). As we did in 2019, we are taking part in the city-wide CHNA-CHIP collaborative that includes the CoBTH hospitals, community organizations, health centers, and the Boston Public Health Commission. As part of this joint effort, information is being gathered from numerous primary and secondary data sources to inform the collaborative CHNA-CHIP.
- For our BWH CHNA-CHIP, we are also conducting interviews and discussion groups with key internal and community stakeholders.
- The final CHNA and CHIP must be approved by the board (or a board appointed committee) and we present the CHNA for approval in or around early summer (details TBD).
- In our discussion, we will be asking about the current needs and assets of our priority neighborhoods, which are [**if BWH interview: Dorchester, Jamaica Plain, Mattapan, Mission Hill, and Roxbury; if BWFH interview: Hyde Park, Jamaica Plain, Roslindale and West Roxbury.**] We understand your knowledge of these specific neighborhoods may vary, and that is fine.
- *Also, starting in 2019, we have included additional locations in the CHNA where we have a hospital license, per guidance from Mass General Brigham*.
- We are also interested in hearing your perspective on opportunities for the hospital to work in partnership with these communities to address community needs and leverage community assets and strengths.
- For documentation and analysis purposes, it would be helpful for us to record this conversation so we can come back to it and check our notes, include quotations, etc. Note: your name will not be linked to what you share today. Please let us know if you are comfortable with this; we will delete all recordings at the conclusion of the 2022 CHNA/CHIP process.

Background

1. I'd like to start by asking you to provide a brief overview of your primary role(s) and responsibilities at BWH/BWFH.

2. At the conclusion of the 2019 CHNA, the following areas were identified as top community health priorities for our priority neighborhoods: 1) financial security and mobility; 2) housing; 3) behavioral health (mental health and substance use); 4) access to services (with a focus on health and wellness services); 5) violence and trauma (f*or BWH specifically*); and 6) chronic disease (f*or BWFH specifically*).
    a. Based on your experience and expertise, do these areas feel like the most pressing today?
    b. Are there any current and/or emerging public health concerns that are missing from this list?

3. We know the COVID-19 pandemic has exacerbated many existing health inequities and has disproportionately impacted communities of color. We are interested to hear your perspective and reflections on any specific community health issues that emerged through the pandemic.
    a. From your point of view, what are the implications of the COVID-19 pandemic on health care delivery and access, and specifically, for how members of our priority neighborhoods get/receive care?

Brigham and Women's Hospital Role

1. What role do you see BWH/BWFH playing in efforts to improve the health and well-being of individuals who live in our priority neighborhoods? This includes community members who are patients as well as those who are not.
    a. What is your perception of the community-based outreach and programming currently offered?
       Probe: What are these impressions based on?
    b. Are there BWH/BWFH departments or staff that you believe should be specifically involved in future efforts?

2. What programs or partnerships do you think would help us better meet the needs of residents of our priority neighborhoods and have the greatest impact on addressing health inequities?
       Probe: What partnerships could be forged?

3. We are always interested in learning from the experience of others and are eager to build upon the strengths of our communities.
    a. Are there any highly impactful community health approaches and resources that you would like us to be aware of (that could be either happening at BWH/BWFH or elsewhere)?
    b. As an organization, how do you think we could more systemically build upon the strengths and assets in these communities?

4. Do you have any additional thoughts you would like to convey to inform the community health assets and needs assessment process?

Closing: Thank you very much for your time. If you (or your colleagues) are interested in learning more or being involved in the next phases of the CHNA-CHIP process, please let us know and we will include you in information/updates that are shared over the next few months.

Appendix D: Internal Discussion Group Guide

Brigham and Women's Hospital/Brigham and Women's Faulkner Hospital
2022 Community Health Assets and Needs Assessment
Internal Discussion Group Guide

Introduction

- Introduce facilitator and notetaker (names, roles, etc.)
- Thank you for taking the time to talk with us. Our conversation today will contribute to BWH's/BWFH's Community Health Assets and Needs Assessment (CHNA) and Community Health Implementation Plan (CHIP), which is a report/process we engage in every three years (last one in 2019). Like in 2019, we are taking part in the city-wide CHNA-CHIP Collaborative and information is being gathered from numerous sources as part of this group effort.
- In our discussion, we will be asking about the current needs and assets of our priority neighborhoods, which are [**if BWH: Dorchester, Jamaica Plain, Mattapan, Mission Hill, and Roxbury; if BWFH: Hyde Park, Jamaica Plain, Roslindale and West Roxbury.**] We understand your knowledge of these specific neighborhoods may vary, and that is fine.
- We are also interested in hearing your perspectives on opportunities for the hospital to work in partnership with communities to address community priorities and leverage community assets and strengths.
- We will be taking notes during the conversation, but your names will not be linked to your responses/what you share. We ask that, as a group, we respect each other's privacy and confidentiality.
- It would be helpful for us to record this conversation so we can come back to it and check our notes, make sure we capture your perspectives accurately, etc. Please let us know if you are comfortable with this by messaging the interviewer yes/no or verbally confirming or declining. If everyone agrees, we will record the discussion today and will delete all recordings at the conclusion of the 2022 CHNA/CHIP process.
- Tech/Zoom logistics and ground rules; some ideas:
    - We encourage you to keep cameras on, but please do what feels right/comfortable to you.
    - We also encourage you to practice self-care when needed [stand up, stretch, etc.].
    - If you need to leave or step away, please let the facilitator know by sending a message in the chat or stating it in the group.
    - We want everyone to have the chance to share their thoughts and experiences; to participate and/or ask questions, we invite you to unmute yourself or use the "raise hand" feature on Zoom. You can also share thoughts in the chat.
    - When you are not speaking, we kindly ask that you keep yourself on mute and listen while others have the opportunity to contribute.
    - Should you get disconnected, please try to rejoin or communicate via email (*put email address in chat*).
    - Other ground rules?
    - Any questions before we get started?
    - (*Start recording, if all consent/agree*)

Discussion Questions

1. Attendee introductions – depending on group, possible prompts:

   a. I'd like to start by asking each of you to introduce yourselves and provide a brief overview of your primary role(s) and responsibilities at BWH/BWFH.
   b. I'd like to start by asking each of you to introduce yourselves by sharing your first name, the neighborhood in which you live, and how long you have lived there.

2. When we completed our last Community Health Assets and Needs Assessment (CHNA) in 2019, the following areas were identified as top community health priorities for our priority neighborhoods: 1) financial security and mobility; 2) housing; 3) behavioral health (mental health and substance use); 4) access to services (with a focus on health and wellness services); 5) violence and trauma (f*or BWH specifically*); and 6) chronic disease (f*or BWFH specifically*).
   a. Based on your experiences, do these areas feel like the most pressing today?
   b. Also, given we are nearly two years into the COVID pandemic, we are interested to hear what, if any, new community health concerns have surfaced.

3. Of the community health priorities discussed (*can either be from the above list or others that were suggested*), which do you think should be prioritized?
   a. *Probe*: Are there any sub-populations impacted by these community health concerns that warrant specific focus/attention?

4. What resources and/or supports currently exist to address these community health priorities? What is working well?
   a. *Probe*: How can we build upon these resources and the strengths of our communities?

5. What else might be needed to respond to these community health needs AND what role can BWH/BWFH play in this response*?*
   a. *Probe*: What partnerships could be forged or what programs are needed?

6. What information is important for hospitals, like BWH and BWFH, to know so we can work collaboratively with residents and local community organizations?

7. Do you have any additional thoughts you would like to convey to inform the community health assets and needs assessment process?

Additional Questions for Groups with BWH/BWFH Staff

8. Your expertise in working with community members is an important asset to and resource for Brigham Health. Based on your experience, what are some of the strategies you use to engage and support community members? How can these strategies and/or best practices be shared more widely across the institution/system?

Closing

- Thank you very much for your time and participation in this discussion.
- We will be using the information shared today (along with information gathered from many other sources) to inform our CHNA and CHIP to help guide our work over the next three years?
- If you are interested in learning more about this effort, please let us know or reach out to us at – ADD CONTACT NAME.
- Thank you again – your input and feedback are very valuable, and we appreciate your contributions.

Appendix E: Collaborative Materials

All Collaborative materials can be found by accessing the website of the Boston CHNA-CHIP Collaborative, located at http://www.bostonchna.org

Appendix F: Additional Community Data Tables

This appendix includes a series of data tables for each of BWH's licensed sites in Chestnut Hill, Foxborough, and West Bridgewater.

Chestnut Hill

Table 8. Population Statistics for Chestnut Hill and Massachusetts, Combined Total 2016-2020

Indicator		Chestnut Hill	Massachusetts
Population	Total Population	22,982	6,873,003
Age	Population age 0-17	17%	23%
	Population age 18-24	31%	21%
	Population age 25-34	9%	12%
	Population age 35-54	18%	20%
	Population age 55-64	9%	7%
	Population age 65 or older	16%	17%
Race/Ethnicity	Asian	16%	7%
	Black or African American	3%	7%
	Hispanic or Latino	7%	12%
	White	68%	71%
Foreign Born	Foreign born population	24%	17%
Non-English Speakers	Population (5+) non-English speaking	7%	9%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 9. Educational Attainment for Chestnut Hill and Massachusetts, Combined Total 2016-2020

Indicator		Chestnut Hill	Massachusetts
Population	Total Population	22,982	6,873,003
Education	Less than a high school diploma	2%	9%
	With a high school diploma and no college	5%	24%
	People age 25 or older with a GED or alternative credential	.4%	3%
	With some college or an Associate's degree	11%	23%
	With at least a Bachelor's degree	82%	45%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 10. Employment, Income, and Housing Indicators for Chestnut Hill and Massachusetts, Combined Total 2016-2020

Indicator		Chestnut Hill	Massachusetts
Population	Total Population	22,982	6,873,003
Unemployment	Percent of people unemployed	3%	5%
Poverty & Income	Percent of people in poverty	6%	10%
	Percent of families in poverty	3%	7%
	Median income of a household	$150,223	$84,385
Housing	Median home value	$1,016,300	$398,800
	Percent of all households that own a home	66%	63%
	Percent of all households that rent a home	34%	38%
Financial Burden	Percent of all homeowners who are burdened by housing costs	23%	26%
	Percent of all renters who are cost burdened	38%	46%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 11. Select Health Indicators for Chestnut Hill and Boston, 2019 *(unless noted otherwise)*

Indicator		Chestnut Hill	Boston
Population	Total Population	22,982	675,647
Health Insurance & Access	Percent of adults 19-64 with no health insurance coverage (2016-2020)	2%	4%
	Percent of adults reporting to have a personal doctor or health care provider (2018)	83%	Data not available
	Percent of adults who received a routine check-up within past year	79%	78%
Health Status	Percent of adults with poor or fair health	9%	17%
	Percent of adults with poor physical health	7%	11%
Mental Health & Substance Use	Percent of adults with depression	24%	17%
	Percent of adults with poor mental health	19%	19%
	Percent of adults who binge drink	13%	16%
	Percent of adults who smoke	23%	22%
Chronic Disease & Health Outcomes	Percent of adults diagnosed with diabetes	5%	8%
	Percent of adults with high cholesterol	24%	23%
	Percent of adults with high blood pressure	19%	23%
	Percent of adults with coronary heart disease	4%	4%
	Percent of adults with asthma	10%	11%
	Percent of adults with COPD	3%	5%
	Percent of adults who are obese	17%	23%
	Percent of adults who have had a stroke	2%	3%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network); CDC PLACES Project, 2019 (accessed via PolicyMap, CARE Network).
NOTE: Percentages are not age-adjusted. Data for Massachusetts were not available for these health indicators, so data were included for Boston to serve as a point of reference and comparison.

Foxborough

Table 12. Population Statistics for Foxborough and Massachusetts, Combined Total 2016-2020

Indicator		Foxborough	Massachusetts
Population	Total Population	17,917	6,873,003
Age	Population age 0-17	22%	23%
	Population age 18-24	10%	21%
	Population age 25-34	13%	12%
	Population age 35-54	26%	20%
	Population age 55-64	14%	7%
	Population age 65 or older	16%	17%
Race/Ethnicity	White	81%	7%
	Black or African American	7%	7%
	Asian	7%	12%
	Hispanic or Latino	4%	71%
Foreign Born	Foreign born population	11%	17%
Non-English Speakers	Population (5+) non-English speaking	4%	9%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 13. Educational Attainment for Foxborough and Massachusetts, Combined Total 2016-2020

Indicator		Foxborough	Massachusetts
Population	Total Population	17,917	6,873,003
Education	Less than a high school diploma	3%	9%
	With a high school diploma and no college	20%	24%
	People age 25 or older with a GED or alternative credential	3%	3%
	With some college or an Associate's degree	22%	23%
	With at least a Bachelor's degree	55%	45%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 14. Employment, Income, and Housing Indicators for Foxborough and Massachusetts, Combined Total 2016-2020

Indicator		Foxborough	Massachusetts
Population	Total Population	17,917	6,873,003
Unemployment	Percent of people unemployed	5%	5%
Poverty & Income	Percent of people in poverty	4%	10%
	Percent of families in poverty	2%	7%
	Median income of a household	$92,978	$84,385
Housing	Median home value	$451,500	$398,800
	Percent of all households that own a home	67%	63%
	Percent of all households that rent a home	33%	38%
Financial Burden	Percent of all homeowners who are burdened by housing costs	22%	26%
	Percent of all renters who are cost burdened	56%	46%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 15. Select Health Indicators for Foxborough and Boston, 2019 *(unless noted otherwise)*

Indicator		Foxborough	Boston
Population	Total Population	17,917	675,647
Health Insurance & Access	Percent of adults 19-64 with no health insurance coverage (2016-2020)	3%	4%
	Percent of adults reporting to have a personal doctor or health care provider (2018)	87%	Data not available
	Percent of adults who received a routine check-up within past year	79%	78%
Health Status	Percent of adults with poor or fair health	12%	17%
	Percent of adults with poor physical health	10%	11%
Mental Health & Substance Use	Percent of adults with depression	20%	17%
	Percent of adults with poor mental health	12%	19%
	Percent of adults who binge drink	23%	16%
	Percent of adults who smoke	13%	22%
Chronic Disease & Health Outcomes	Percent of adults diagnosed with diabetes	8%	8%
	Percent of adults with high cholesterol	31%	23%
	Percent of adults with high blood pressure	26%	23%
	Percent of adults with coronary heart disease	5%	4%
	Percent of adults with asthma	10%	11%
	Percent of adults with COPD	5%	5%
	Percent of adults who are obese	23%	23%
	Percent of adults who have had a stroke	3%	3%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network); CDC PLACES Project, 2019 (accessed via PolicyMap, CARE Network).
NOTE: Percentages are not age-adjusted. Data for Massachusetts were not available for these health indicators, so data were included for Boston to serve as a point of reference and comparison.

West Bridgewater

Table 16. Population Statistics for West Bridgewater and Massachusetts, Combined Total 2016-2020

Indicator		West Bridgewater	Massachusetts
Population	Total Population	7,254	6,873,003
Age	Population age 0-17	21%	23%
	Population age 18-24	8%	21%
	Population age 25-34	15%	12%
	Population age 35-54	26%	20%
	Population age 55-64	12%	7%
	Population age 65 or older	18%	17%
Race/Ethnicity	White	91%	7%
	Black or African American	2%	7%
	Asian	1%	12%
	Hispanic or Latino	3%	71%
Foreign Born	Foreign born population	4%	17%
Non-English Speakers	Population (5+) non-English speaking	2%	9%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 17. Educational Attainment for West Bridgewater and Massachusetts, Combined Total 2016-2020

Indicator		West Bridgewater	Massachusetts
Population	Total Population	7,254	6,873,003
Education	Less than a high school diploma	3%	9%
	With a high school diploma and no college	31%	24%
	People age 25 or older with a GED or alternative credential	2%	3%
	With some college or an Associate's degree	28%	23%
	With at least a Bachelor's degree	38%	45%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 18. Employment, Income, and Housing Indicators for West Bridgewater and Massachusetts, Combined Total 2016-2020

Indicator		West Bridgewater	Massachusetts
Population	Total Population	7,254	6,873,003
Unemployment	Percent of people unemployed	3%	5%
Poverty & Income	Percent of people in poverty	4%	10%
	Percent of families in poverty	4%	7%
	Median income of a household	$105,377	$84,385
Housing	Median home value	$369,700	$398,800
	Percent of all households that own a home	87%	63%
	Percent of all households that rent a home	13%	38%
Financial Burden	Percent of all homeowners who are burdened by housing costs	27%	26%
	Percent of all renters who are cost burdened	42%	46%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network)

Table 19. Select Health Indicators for West Bridgewater and Boston, 2019 *(unless noted otherwise)*

Indicator		West Bridgewater	Boston
Population	Total Population	7,254	675,647
Health Insurance & Access	Percent of adults 19-64 with no health insurance coverage (2016-2020)	4%	4%
	Percent of adults reporting to have a personal doctor or health care provider (2018)	88%	Data not available
	Percent of adults who received a routine check-up within past year	82%	78%
Health Status	Percent of adults with poor or fair health	13%	17%
	Percent of adults with poor physical health	11%	11%
Mental Health & Substance Use	Percent of adults with depression	19%	17%
	Percent of adults with poor mental health	13%	19%
	Percent of adults who binge drink	20%	16%
	Percent of adults who smoke	15%	22%
Chronic Disease & Health Outcomes	Percent of adults diagnosed with diabetes	8%	8%
	Percent of adults with high cholesterol	32%	23%
	Percent of adults with high blood pressure	32%	23%
	Percent of adults with coronary heart disease	6%	4%
	Percent of adults with asthma	10%	11%
	Percent of adults with COPD	6%	5%
	Percent of adults who are obese	26%	23%
	Percent of adults who have had a stroke	3%	3%

DATA SOURCE: US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates (accessed via PolicyMap and CARES Engagement Network); CDC PLACES Project, 2019 (accessed via PolicyMap, CARE Network).
NOTE: Percentages are not age-adjusted. Data for Massachusetts were not available for these health indicators, so data were included for Boston to serve as a point of reference and comparison.

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