Shattuck Campus Planning

Public Health Needs and Services Assessment 2018-2019

DECEMBER 2019

DIVISION OF CAPITAL ASSET MANAGEMENT & MAINTENANCE

SHATTUCK CAMPUS PLANNING

Health Resources in Action
Advancing Public Health and Medical Research

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PAUL LUKEZ ARCHITECTURE
PARE CORPORATION

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Shattuck Campus Planning Overview

Inpatient and outpatient services at the Shattuck Hospital are moving to Boston's South End in 2022. Substance use and mental health services and a homeless shelter provided by five (5) private provider organizations are not relocating with the Hospital services. Beginning in July 2018, the Commonwealth engaged in a year-long planning process to inform programmatic and design recommendations for the future use of the Campus. The goals of the planning process were:

- Ensure that the Campus will continue to be used for the **purposes of the State Department of Public Health and minimize disruption in the delivery of core services** currently being provided at the Campus.
- Plan for a minimum **of 75 to 100 supportive housing units on the site**;
- Provide recommendations that are **economically feasible**;
- Engage a variety of **community stakeholders to inform recommendations;**
- Provide **necessary flexibility** to the Commonwealth in the next phase of implementation.

The planning process and recommendations were informed by an assessment of current and future public health needs, three public meetings and regular feedback from a Community Advisory Board. Additional information about potential programs and services was solicited through a Request for Information. The planning process shaped a collective vision for the site and provided recommendations for a program and service model that includes agreed upon planning principles and design goals. Recommendations are detailed in a Campus Plan, which the Commonwealth will use to inform a Request for Proposals they will issue in seeking (a) private partner(s) to advance the desired public health program of services at the site.

Public Health Needs and Services Assessment Purpose and Methods

As described above, the Shattuck Campus Planning Process was informed by an assessment. This document describes findings from this Public Health Needs and Services Assessment, which aimed to:

- Examine key health issues and risk factors for the area overall and by specific geographies and subpopulations including populations that are disproportionately affected by existing and emerging health concerns and social issues; and,
- Understand the service landscape and gaps with a focus on the populations currently being served at the Shattuck Campus.
- Identify strategic opportunities for the future of the Shattuck Campus

This assessment engaged diverse perspectives and included a document review and an analysis of existing data (secondary data) and qualitative data gathered through community meetings and events and key informant interviews.

Key Findings from the Shattuck Campus Health Needs & Services Assessment

Substance use and mental health disorders have a substantial impact on the health of Massachusetts residents

- The opioid epidemic continues to impact individuals, families and communities across Massachusetts.
  - Massachusetts ranks amongst the top 10 states with the highest rates of drug overdose deaths involving opioids.[1]
  - Eleven percent of Bostonians have a substance use disorder (SUD).[2]
  - In 2017, one Bostonian died every 48 hours from an opioid overdose.[3]
  - Substance use is estimated to cost society $442 billion each year in health care costs, lost productivity, and criminal justice costs.[4]
- SUD and mental health diagnoses are often co-occurring, and people frequently receive care from multiple systems.
  - In Fiscal Year 2016, over half of DPH substance use service clients reported a history of mental health treatment.[5]
  - Estimates for Boston residents with severe mental illness (SMI) range from 25,699 (3.7%) to 49,315 (7.1%).[6]

I found myself homeless and desperate to stop using drugs on January 11th, 2017. You may have no idea how hard it is to get into a holding in January. I was sick, penniless, and had been placed in a string of bad housing options previously. I had never been homeless before and this was a new bottom for me. The staff at Pine Street Inn Men's' Stabilization gave me the opportunity to get the help I needed, get into a half-way house, and get my life back in (relative) order again. They did indeed stabilize me. After 91 grueling days there I got into Hope House and graduated from there. Since then, I have lived on my own. Pine Street Inn Men's' Stabilization gave me the opportunity to become a clean member of society again…the facilities at Shattuck Hospital quite literally saved my life.

TIMOTHY M. O'ROURKE
Resident, Jamaica Plain

From a June 2019 letter written to the Shattuck Campus Planning Community Advisory Board

Current systems are not person-centered and are difficult to navigate; finding treatment can be challenging

- Many interviewees and community meeting participants noted that the behavioral health system, including SUD and mental health treatment, is currently not integrated with the rest of the health care system, making person-centered treatment challenging.
- There are long wait times for outpatient mental health and SUD treatment, regardless of insurance type. There is an inadequate supply of evidence-based treatment modalities, including medication-assisted treatment.[7]
    - More than half of Massachusetts adults who tried to find help for mental health or substance use said they had difficulty finding treatment. More than one-third gave up seeking help entirely and 1 in 8 went to the emergency room for treatment.[8]

Current services at the Shattuck campus are critical to the public health landscape

- Thousands of unique clients, particularly people with complex medical, behavioral health and housing needs, receive services at the Shattuck Campus each year from five (5) private provider organizations that will not be relocating to the South End with the rest of the hospital operations.[9]
- These private provider-run programs play a critical role in the behavioral health service landscape, providing substance use and mental health services, as well as shelter programs. Losing these programs would create a large gap in behavioral health services in the region.
- Future development should allow for the continuity of these vital services and programs, with minimal disruption at the Shattuck Campus.

Access to safe, affordable, stable housing matters for health

- Health and housing are connected through four pathways: stability, affordability, quality and safety, and neighborhood.[10] Improving housing access across these pathways has the potential to improve health outcomes and reduce health care costs, particularly among chronically homeless individuals.[11]
- Homelessness and housing instability can exacerbate health conditions and make these conditions more difficult to treat and control. People who are chronically homeless face substantially higher morbidity in terms of both physical and mental health and increased mortality.[12,13]
- Lack of access to affordable and stable housing is a compounding issue for individuals struggling with a behavioral health condition in Massachusetts.[14]
- There is an identified need for 4,354 units of permanent supportive housing for chronically homeless individuals, homeless families, and people with SUD and mental health conditions in Eastern Massachusetts.[15]
- New research shows that moving chronically homeless adults into supportive housing saves approximately $11,000+ per person in public health care costs annually.[16]

People receiving services at the Shattuck Campus and neighboring communities would benefit from added green and open space and improved integration with Franklin Park

- Green and open spaces promote mental and physical health. People who live in areas with more green space have less anxiety, stress and depression, and greater well-being compared to those with less green space.[17]

Improved pedestrian and bike paths and trails near and through the Shattuck Campus can provide needed connections from Morton Street to Forest Hills and to Franklin Park

- Thirty-four percent of Boston residents do not own a car. 42% of Boston residents want mobility and open space improvements in their neighborhood.[18]
- Pedestrian and bike connections and greenways in this area and across Boston will improve access to open space, transit and jobs, promote active recreation and improve climate change resiliency.[19]
- Qualitatively, most people that receive services at the Shattuck Campus do not have a car and are reliant on public transportation and/or shuttle service.

Opportunities at the Shattuck Campus Identified through the Health Needs & Services Assessment

This Health Needs & Services Assessment identified the following key opportunities for the Shattuck Campus. These opportunities were identified through the data review and analysis process by Health Resources in Action and build upon Campus assets to address current and future needs:

- Capitalize on recent health system transformations, including health care and social service collaboration with the inception of Accountable Care Organizations and the shift towards more integrated models of care.
- Address an urgent public health crisis by continuing to serve the population currently receiving services from private provider organizations at the Shattuck today and maintaining critical health care and behavioral health services in an integrated model; provide housing to address a critical health determinant.
- Enhance the quality of care and improve outcomes by designing a person-centered Campus that integrates medical and behavioral health care and has the advantage of co-location of key services.
- Contribute to the City of Boston, the Commonwealth and homeless service providers goal of increasing access to permanent supportive housing.
- Provide a healing environment with access to green and open spaces for people receiving services on-site as well as the broader community; better integration with Franklin Park and improved connectivity with surrounding communities.

BACKGROUND

Shattuck Campus Planning Overview

Inpatient and outpatient services at the Shattuck Hospital are moving to Boston's South End in 2022. Substance use and mental health services and a homeless shelter provided by five (5) private provider organizations are not relocating with the Hospital services. Beginning in July 2018, the Commonwealth engaged in a year-long planning process to inform programmatic and design recommendations for the future use of the Campus. The goals of the planning process were:

- Ensure that the Campus will continue to be used for the **purposes of the State Department of Public Health and minimize disruption in the delivery of core services** currently being provided at the Campus.
- Plan for a minimum **of 75 to 100 supportive housing units on the site**;
- Provide recommendations that are **economically feasible**;
- Engage a variety of **community stakeholders to inform recommendations;**
- Provide **necessary flexibility** to the Commonwealth in the next phase of implementation.

The planning process and recommendations are informed by an assessment of current and future public health needs, three public meetings and regular feedback from a Community Advisory Board. Additional information about potential programs and services was solicited through a Request for Information. The planning process is shaping a collective vision for the site and provides recommendations for a program and service model that includes agreed upon planning principles and design goals. Recommendations will be detailed in a Campus Plan, which the Commonwealth will use to inform a Request for Proposals they will issue in seeking (a) private partner(s) to advance the desired public health program of services at the site.

Planning Parameters and Concurrent Initiatives

Prior to issuing the Request for Proposal for the Shattuck Campus Planning project, DCAMM proposed leasing up to 2 acres of land on the Shattuck Campus for a term up to 99 years for the development of supportive housing. The Commonwealth and the City of Boston envisioned the concept of siting a supportive housing development on a portion of the Shattuck campus prior to the decision to move the public health hospital to the Newton Pavilion. After the decision was made to move the hospital, and after receiving public feedback, the Commonwealth decided to delay a vote of the Asset Management Board on the Shattuck Supportive Housing long-term lease to align and integrate the important supportive housing initiative with the overall Shattuck Campus Master Plan. The Commonwealth will return to the Board with recommendations from the master planning process when that is complete.

Given this, the Shattuck Campus Planning Project has several parameters that the final recommendations must incorporate. They include:

- Ensure that the Campus will continue to be used for the **purposes of the State Department of Public Health and minimize disruption in the delivery of core services** currently being provided at the Campus.

- Plan for a minimum **of 75 to 100 supportive housing units on the site**;
- Provide recommendations that are **economically feasible**;
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- Provide **necessary flexibility** to the Commonwealth in the next phase of implementation.

To make redevelopment financially feasible, the Commonwealth has articulated a desire to enter a public-private partnership for the future use of the Campus. The planning process will inform and set some core parameters of a Request for Proposal (RFP) that the Commonwealth will issue in seeking a private partner for the site. There are several concurrent planning initiatives happening in the City of Boston that are related to the Shattuck Campus Planning:

- The City of Boston Parks Department is launched a Franklin Park Master Planning process in 2019
- The City of Boston is working on a plan for Long Island to include addiction services and a recovery campus on Long Island after a new bridge is completed

Representatives of EOHHS are coordinating and participating with the City to avoid duplication with Shattuck Campus Planning.

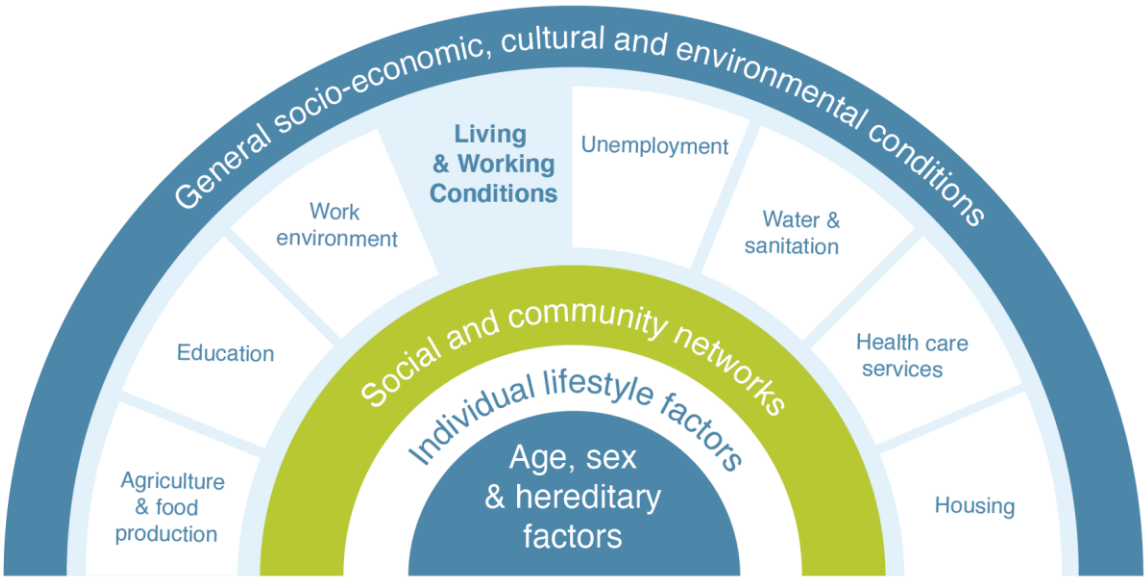
Assessment Context and Approach

In Massachusetts and across the country, preventable health conditions continue to increase, and health inequities based on race, income, and geography are a persistent challenge. Spending on chronic conditions such as heart disease, diabetes, hypertension, and asthma — many of which are preventable — currently accounts for 86% of national health care expenditures.[20] There is a movement in Massachusetts, and nationally, to bring together health care and public health strategies to improve health outcomes.

To this end, it is important to recognize that multiple factors affect health and there is a dynamic relationship between people and their environments. Where and how we live, work, play, and learn are interconnected factors that are critical to consider. That is, not only do people's genes and lifestyle behaviors affect their health, but health is also influenced by more upstream factors such as employment status and quality of housing stock. The social determinants of health framework addresses the distribution of wellness and illness among a population — its patterns, origins, and implications. While the data to which we have access are often a snapshot of a population in time, the people represented by that data have lived their lives in ways that are constrained and enabled by economic circumstances, social context, and government policies. Building on this framework, this assessment utilizes data to illustrate who is healthiest and least healthy in the community as well as to examine the larger social and economic factors associated with good and ill health.

The following diagram provides a visual representation of this relationship, demonstrating how individual lifestyle factors, which are closest to health outcomes, are influenced by more upstream factors such as employment status and educational opportunities (**Figure 1**). This report provides information on many of these factors, as well as reviews health outcomes relevant to those currently being treated at the Shattuck Campus.

FIGURE 1. SOCIAL DETERMINANTS OF HEALTH FRAMEWORK



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

Changing health care and housing landscapes

In Massachusetts, sixteen Accountable Care Organizations (ACOs) and two Managed Care Organizations (MCOs) — networks of physicians, hospitals and other health care providers — have been selected by the Commonwealth to provide integrated health care for their Medicaid patients with the goals of improving health and containing costs.[21] In this context, there is an increasing recognition of the impacts of social factors on health outcomes and incentives within the health system to address social determinants — like housing. Over 900,000 MassHealth members and 4,500 primary care providers will be part of these ACOs, which will restructure the current fee-for-service payment system by integrating their efforts with community-based health and social service organizations to improve behavioral health, long-term supports and health-related social needs for MassHealth members.[22]

MassHealth is also making changes within the behavioral health system specifically to improve health outcomes and quality of life for individuals with serious mental illness (SMI). MassHealth, in coordination with the Department of Mental Health, is promoting the integration of behavioral and physical health care through the creation of Behavioral Health Community Partners (BH CPs) to coordinate care across medical, behavioral, disability and social service needs for its most vulnerable members with serious mental illness and/or addictions.[23] Additionally, Long-Term Services and Supports Community Partners (LTSS CPs) serve a similar role for members with complex LTSS needs, such as children and adults with physical and developmental disabilities and brain injuries.

Similarly, a redesigned DMH Adult Community Clinical Services (ACCS) program will integrate with the healthcare system, deliver evidence based, clinically strengthened interventions, and support access to services to assist with competitive employment — Massachusetts Rehabilitation

Commission (MRC) provides vocational rehabilitation services to assist individuals with disabilities — including individuals with mental illness — in securing, maintaining, or advancing in competitive employment.[24]

It is within these complex systems changes that the Shattuck Campus, which currently serves a population of people primarily on MassHealth and Medicare and in the behavioral health system, is being redeveloped. Looking towards the future, the Shattuck will be operating in a world in which:

- Health care and social services are more intentionally collaborating — especially around health and housing — through Accountable Care Organization implementation
- Health care and behavioral health systems are integrated
- Health systems are looking to expand behavioral health services to respond to increasing demand and expectations from Commonwealth

As the health system is undergoing significant transformation, Massachusetts is also amid a multi-layered housing stability crisis which affects many people, but especially low-income residents, seniors, and communities of color.[25] Key characteristics of housing stability, including affordability, quality, support services to protect tenancy and availability, impact the short and long-term health outcomes of individuals.[26] Without the foundation of stable housing, medical treatments can be temporary, costly fixes that do not result in improved health outcomes. Housing instability can be a driver in high health care utilization and costs; linkages between housing and various health behaviors, environmental factors and risks exist.

The housing crisis is particularly acute among those in the behavioral health system. Lack of access to low-threshold, affordable, and stable housing for individuals with behavioral health conditions impedes treatment and recovery. Without stable housing, those with the highest behavioral health needs end up admitted to the emergency department or an inpatient unit when their condition could have been managed in a less intensive setting. This exacerbates upstream capacity issues such as emergency department overcrowding and backlogs for inpatient beds.[27] As such, there is a great opportunity for health systems to collaborate with housing partners for solutions that achieve the goals of each sector. Successful interventions require partnerships among health care, housing, community and public health partners, among others.

Priorities for Collaborative Action

Among the many relevant community health data sources available, HRiA refers in this report to the Boston CHNA-CHIP Collaborative, a new initiative created by a number of stakeholders — community organizations, health centers, community development corporations, hospitals, and the Boston Public Health Commission who are in the midst of the first large-scale collaborative city-wide Community Health Needs Assessment (CHNA) and Community Health Improvement Planning (CHIP) process.

The goals of the CHNA are to:

- Systematically identify the health-related needs, strengths, and resources of a community to inform future planning,
- Understand the current health status of Boston overall and its sub-populations within their social context, and

- Meet regulatory requirements for a number of institutions, organizations, and agencies (e.g., IRS requirements for non-profit hospitals, PHAB for health departments).

The CHNA used a participatory, collaborative approach that engaged the community through different avenues. Over 100 Collaborative members representing health care, public health, education, community development, social service, and community-based organizations provided input throughout the CHNA process and played an integral role in data collection efforts. Data collection efforts were focused on engaging hard-to-reach populations who are not typically engaged in these processes or represented in the secondary data. To support this effort, the Collaborative hired Health Resources in Action (HRiA), a non-profit public health organization, as a consultant partner to provide strategic guidance and facilitation of the process, collect and analyze data, and develop the report deliverables.

Through an online survey, small group discussions with residents and organizational staff across the city, and a large inclusive prioritization meeting to identify the priorities for collaborative action. The final priorities selected were:

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

PUBLIC HEALTH NEEDS AND SERVICES ASSESSMENT PROCESS AND METHODS

Purpose and Scope of Assessment

Given the context described above, HRiA has conducted this needs and opportunities assessment to describe key health needs, understand gaps in programs and services in the region and identify ways in which the land at the Shattuck Campus might mitigate existing public health and economic issues. By reviewing and analyzing secondary and qualitative data, the overall aims of this assessment are to:

- Examine key health issues and risk factors for the area overall and by certain geographies and subpopulations including populations that are disproportionately affected by existing and emerging health concerns and social issues; and,
- Understand the service landscape and gaps, with a focus on the populations currently being served at the Shattuck Campus.
- Identify strategic opportunities for the future of the Shattuck Campus

Methods

HRiA utilized a mixed methods approach that included reviewing documents, gathering secondary data from surveillance systems, organizations, and agencies and collecting qualitative data from community members and stakeholders. Data were analyzed to describe the area's existing services, health needs and assets, and strategic opportunities for the future.

Quantitative Data

Secondary data provide information about social and economic indicators, as well as health behaviors and health outcomes in Boston, surrounding communities and Massachusetts. Data sources included: the U.S. Census Bureau, American Community Surveys, the Centers for Medicare and Medicaid Services, the Behavioral Risk Factor Surveillance System, the Youth Risk Behavior Surveillance System, the American Medical Association, the Federal Bureau of Investigation, the Massachusetts Department of Public Health, Department of Mental Health, Boston's Joint 2019 Community Health Needs Assessment (described above), the Boston Public Health Commission, the Health of Boston Report, the Massachusetts Substance Use Helpline and the Boston Behavioral Risk Factor Survey, among many others.

Qualitative Data

Qualitative data was gathered through several opportunities for residents and other stakeholders to share their perspectives on the future uses of the Shattuck campus. Data was gathered through notes taken by trained notetakers and via comment cards at two public events. The data presented here were gathered during three public meetings sponsored by DCAMM for the proposal to use 2-acres of the 13-acre Shattuck Campus for supportive housing, held in the spring of 2018 (April and May), comments collected from about 100 people at the Caribbean Festival in Franklin Park (August) and the Shattuck Partner 5K (September), three Shattuck Campus planning community meetings (September 2018, January 2019 and

June 2019) and input provided at (7) meetings of the Community Advisory Board (August, October and December 2018 and February, April, May and June 2019). For additional context, HRiA also attended community meetings related to supportive housing in Jamaica Plain, met with nearby residents of a local community development corporation, and had discussions with experts and organizations providing health care and housing services in the region.

In addition to the qualitative data captured during community meetings and events, HRiA also conducted five structured interviews with leaders at four of the current Shattuck vendor organizations. HRiA created a semi-structured interview guide that included questions to understand the services provided, within the context of the broader public health services landscape, and to identify potential gaps in services should a future Shattuck Campus not have space available to the existing vendors. Thus, conversations focused on existing services, as well as understanding what future services might look like, given the changing public health landscape. Furthermore, HRiA discussed physical plant considerations with the current vendors, to understand how new buildings and spaces on the Campus might support their services.

The collected qualitative data were coded and analyzed thematically; HRiA team members examined and coded notes to identify similarities and differences across responses. Frequency and intensity of discussion on a specific topic were key indicators used for extracting main themes. Extracted themes are summarized, highlighting community and sub-group priority concerns and perceived assets.

Document Review and Expert Input

Lastly, to better understand the existing services landscape, HRiA also reviewed relevant reports and spoke to several experts, including members of the Community Advisory Board with topical expertise. Reports from the Center of Health Information and Analysis, the Massachusetts Health Policy Commission, the city of Boston (Office of Recovery Services and Department of Neighborhood Development) and the Blue Cross Blue Shield of Massachusetts Foundation, among many others, provided essential information in the areas of substance use, mental health and housing/homelessness. Key contextual information from these documents and experts is summarized in relevant sections of the report below.

Limitations

As with all data collection efforts, there are several limitations related to the assessment's methods that should be acknowledged. Years of the most current data available differ by data source, and some of the secondary data were not available at the local levels. Additionally, several sources did not provide current data stratified by race/ethnicity, gender, or age — thus these data could only be analyzed by total population.

Secondary survey data that are included in this report and is based on self-reports, such as the Behavioral Risk Factor Surveillance Survey (BRFSS), should be interpreted with particular caution. In some instances, respondents may over- or underreport behaviors and illnesses based on fear of social stigma or misunderstanding the question being asked. In addition, respondents may be prone to recall bias — that is, they may attempt to answer accurately, but they remember incorrectly. In some surveys, reporting and recall bias may differ according to a risk factor or health outcome of interest. Despite these limitations, most of the self- report surveys analyzed in this CHNA benefit from large sample sizes and repeated administrations, enabling comparison over time.

While the qualitative data gathered through community meetings and events and interviews provide valuable insights, results are not statistically representative of a larger population due to non-random recruiting techniques. Because of this, it is possible that the responses received only provide one perspective of the issues discussed.

Assessment Findings

Key findings from the data gathered and analyzed for this assessment are presented below. Because the current services and programs on the Shattuck Campus provide essential behavioral health, housing and health care services, the assessment focuses on these core areas. However, given that the broader community has interests and needs beyond those topical areas, other issues are explored as well, to provide a fuller picture of the variety of service gaps and potential opportunities at the Shattuck Campus. Additionally, because the Shattuck Campus currently provides services for a cross-section of Boston residents, including but not limited to those who live in abutting neighborhoods, the data presented in this report show the City as a whole, compared to the Commonwealth. Where possible, data is presented by neighborhood, and by race/ethnicity as well.

Current Services at Shattuck Campus

Commonwealth services moving to the Newton Pavilion in 2021

Lemuel Shattuck Hospital (LSH) is one of the four DPH-operated hospitals statewide and delivers both medical and psychiatric care to patients requiring multi-disciplinary treatment and support. The facility is unique within the Massachusetts public health system in that it houses beds operated by the Department of Public Health (DPH), the Department of Mental Health (DMH), and the Department of Correction (DOC) under one roof. The current hospital has:

- 117 Inpatient Medical/ Surgical Beds
- 28 Inpatient Medical/Surgical Beds for patients within the corrections system
- 115 Psychiatric Beds

These services will be moving to the Newton Pavilion building, formerly owned by Boston Medical Center, in Boston's South End in 2022. LSH provides acute and longer-term care services for a clientele diverse in age, race, diagnoses and treatment needs. The populations served at LSH are often low income or living in poverty, uninsured or underinsured, homeless or without stable housing, justice involved, and living with co-occurring medical and behavioral conditions and/or substance use disorders.

Services provided at Shattuck that are not moving with the hospital to the Newton Pavilion in 2022:

A core component of the Shattuck Campus planning health needs and services assessment is understanding the role of the existing vendors at the Shattuck Campus within the broader context of citywide and regional services. Five organizations *("vendors")* run eight programs at the Shattuck Campus that serve thousands of unique clients each year and will not be moving with the Shattuck Hospital to the Newton Pavilion. Understanding their role in the behavioral health and homeless services regional landscape is critical to identifying future uses for the Shattuck Campus. In addition to understanding the role the vendor programs play in the public health landscape, HRiA also gathered information on the operational aspects of the program to better understand and plan for the

impact of the move on each of the programs, both operationally and financially. HRiA conducted five interviews with vendor organizations, and identified cross-cutting themes, gaps and opportunities. The vendors programs are listed in **Table 1** below.

TABLE 1: CURRENT SHATTUCK VENDOR PROGRAMS (NOT MOVING TO NEWTON PAVILION)

Tenant Name	Services Provided
VICTORY PROGRAMS LARC	Living and Recovering Community (LARC): LARC is an intensive residential treatment program that offers comprehensive substance use disorder stabilization and medical case management services with housing search advocacy for up to 90 days. Services are provided within a treatment planning model that is individualized to meet the unique needs of each client in this way. LARC offers a safe and structured space in which program participants can focus on establishing or re-establishing rituals of recovery and wellness that enhance the quality of life.
WOMEN'S HOPE	Women's Hope: Women's Hope is a 14 to 28-day stabilization unit for women with substance use. Women's Hope is located on 11th floor at LSH and provides up to 28 days of specialized residential treatment program for women addressing substance use disorders. Designed specifically for women, the program's case management and addiction recovery support team helps clients to build self-awareness and confidence as they continue in their own recovery. They receive referrals from emergency rooms, detox centers, doctor's offices, crisis stabilization services, shelters. While clients are in the program they are assigned a clinician to work with them throughout their stay to set up services for aftercare, obtain medications they have not been on routinely, as well as start the process of healing and coping more effectively with the trauma most have experienced in their lives.
PINE STREET INN SHELTER	Shelter: The Pine Street Inn (PSI) Shattuck Shelter serves 125 men (130 during winter overflow) per night in its low barrier emergency homeless shelter. In additional to clean, safe shelter – PSI Shattuck Shelter provides access to veteran services, specialized housing placement for chronically homeless guests, workforce development programs, mental health counseling and case management, and rapid re-housing services. Boston Health Care for the Homeless also operates a health clinic on-site.
MEN'S STABILIZATION PROGRAM ***Source:*** *Medicare CMS 2552 Report*	Stabilization: Men's Stabilization is Pine Street Inn's 54 bed men's only post-detox shelter-based Structured Outpatient Addictions Program that provides intensive treatment and support for homeless individuals struggling with substance use issues. The typical stay is 4–6 weeks. Clients receive individual therapy, group therapy, case management and aftercare services specific to addictions and mental health treatment, seven days a week. Clients are also provided shelter/residential support services 24 hours a day, seven days a week.

BAY COVE HUMAN SERVICES ANDREW HOUSE:	Andrew House: 24-bed facility specializing in treating men only who, in addition to abusing substances, may also be living with mental health disorders, HIV+/AIDS, using more than one substance, or may be receiving methadone maintenance medication.
GILL MENTAL HEALTH	Gill Mental Health Clinic: The staff of psychiatrists, clinical nurse specialists, and therapists provide a full range of diagnostic and behavioral health treatment services to adults (21 +), including psycho-pharmacological, counseling, and psychotherapy for individuals and groups. They specialize with working with people with severe and persistent mental illness, dual-diagnosis, and other related psychiatric disorders.
HEALTH CARE RESOURCE CENTERS	Health Care Resource Centers (HCRC) provides Methadone Assisted Treatment to the community of Jamaica Plain and surrounding areas and to all the tenant programs located at LSH. In addition, HCRC accepts direct admits from LSH inpatient care. As part of the program they provide onsite nursing and doctor visits, Master's level individual, couples, family and group counseling, case management, and psycho-education.
HIGH POINT DETOX	High Point Treatment Center is a 32-bed unit located on the 12th floor of LSH. The Section 35 Women's Addiction Treatment program is for women civilly committed with services that include detoxification and clinical stabilization. The program consists of Acute Treatment Services (ATS) and Clinical Stabilization Services (CSS) beds.

Several cross-cutting themes were identified from the interviews with vendor programs and are relevant to planning for the future use of the Campus:

Current services at the Shattuck campus are critical to the public health landscape

Interview participants noted that:

- Thousands of unique clients, particularly people with complex medical, behavioral health and housing needs, receive services at the Shattuck Campus each year from five (5) private provider organizations that will not be relocating to the South End with the rest of the hospital operations.
- These private provider-run programs play a critical role in the behavioral health service landscape, providing substance use and mental health services, as well as shelter programs; losing these programs would create a large gap in behavioral health services in the region.
- Future development should allow for the continuity of these vital services and programs, with minimal disruption at the Shattuck Campus.

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TIMOTHY M. O'ROURKE
Resident, Jamaica Plain

From a June 2019 letter written to the Shattuck Campus Planning Community Advisory Board

Programs find that being co-located with the hospital and other like-services is beneficial

Interview participants described the Shattuck Hospital Campus as an integral part of the service landscape in Boston and the region, particularly for people with complex medical, behavioral health and housing needs. When Long Island closed in 2014, interviewees noted, the Campus became more essential as the regional system lost both emergency shelter and behavioral health treatment beds. Because the people being served at the Shattuck have complex needs and are challenging to reach, the programs utilize other services on-site at the Campus to fill specific client needs that cannot be filled by a single program alone. The vendor programs provide unique services for their clients, but interviewees described similarities across the patient populations that make co-location advantageous to individual programs:

- The Gill Mental Health Clinic patients use lab, medical clinic and primary care services at the Shattuck Hospital.
- Clients of Women's Hope, which moved to the Shattuck Campus in 2012, have benefitted from hospital services as well as the suboxone and methadone clinic.
- LARC regularly uses the hospital's emergency services, the Medically Assisted Treatment (MAT) program located at Shattuck, the primary care clinic and other services.
- The Pine Street Inn Hospital Emergency Shelter and the Shattuck Hospital have been operationally and programmatically integrated since the Shelter's inception. Guests of the Shelter are also patients at the hospital and are regularly referred to programs elsewhere on Campus.

Behavioral health and homeless services are expensive to operate and difficult to site

Interviewees from all the vendor programs expressed concern that — should a future version of the Shattuck Campus be planned without space for their programs — they would be unable to relocate to another place in Boston. Programs raised concerns regarding challenges with getting community support for siting programs that serve people who have behavioral health diagnoses and are homeless or housing unstable. Most of the programs have experience trying to open programs in other parts of Boston and noted that they were delayed years before being operational due to permitting challenges. Several of the programs shared that the experiences in the aftermath of the closing of Long Island were damaging to their programs, patients and staff and that the systems are still feeling the impacts of those closures today. Some programs noted that inadequate reimbursement rates, rent in Boston and the high cost of providing quality services to clients makes operating their programs very challenging. Many noted being unable or unwilling to expand their services — despite the demand — because they are unable to cover the cost of providing the services. In this context, interviewees from all the programs expressed that should space be available on the future site that planning for phased-in construction and minimal disruption of services is essential.

Supportive housing is critical, and there isn't enough of it

Most of the Shattuck vendor program clients are on MassHealth, and many are homeless or at-risk for being homeless. All interviewees identified permanent supportive housing (PSH) as the core strategy to eliminating chronic homelessness and stabilizing people in recovery. Several of the Shattuck vendors operate supportive housing, and all identified a lack of supportive housing units as a significant barrier to keeping people that are in the behavioral health system stable and healthy. Program leaders noted that low-threshold housing is necessary because many people in the behavioral health system are actively using substances, have CORIs, or other barriers that prohibit them from accessing other types of housing.

Consider transportation to and from the Campus when planning

Many interviewees from the vendor programs suggested that planning for various ways for people to travel to and from the site is critical. Currently, clients of the vendor programs arrive to the Campus by taxi or bus (often paid for by voucher from a referring agency), on foot, via car if they are dropped off by family or friends, or by van from another program. Staff typically drive to campus or take public transportation. Because six of the eight programs are in-patient and operate 24 hours/day, some staff arrive at and leave the Campus at hours when public transportation is not running. Many staff and clients who do ride the MBTA also use the shuttle service — provided by the Commonwealth — that runs from the Shattuck Campus to the Forest Hills T station. Some of the programs own vans that they use to transport clients between program sites.

Consider Campus security when planning

Interviewees from all the programs mentioned that their programs benefit from the security provided by the Shattuck Hospital and that ensuring the Campus continues to have security in the future is critical. Most noted that their programs use Campus security somewhat regularly and appreciate the presence even if they are not regularly using security staff. One interviewee noted that for some clients, the presence of security can be triggering but that for other clients and for staff, the security presence provides a feeling a safety on Campus. One interviewee emphasized the importance of security from a prevention standpoint and talked about a philosophy and approach to security that is more of a partnership with staff and clients than a law enforcement role. Another interviewee mentioned that for some clients that are experiencing a psychotic episode or are actively using substances, their aggressive behavior requires security for the safety of the person and those nearby. Lastly, one interviewee commented that having security cameras on site would be helpful.

Campus has potential to reduce barriers to treatment and recovery

Many interviewees noted that step down programs are critical as people navigate through the continuum of care on the path to recovery. People's ability to stay in recovery can be impacted by the difficult transition periods between programs. Many interviewees noted that co-located treatment beds across the continuum of care with case management and care coordination to connect people to low-barrier shelter and supportive housing was an opportunity uniquely suited to the Shattuck site. Interviewees stated that programs would also like to see opportunities for workforce development for clients and members of the surrounding community on the site.

Community Social and Economic Context

POPULATION

Boston continues to experience population and economic growth that varies by neighborhood and race/ethnicity. Despite an economic upturn in recent years, residents experience disparities in employment and financial security — particularly residents of color and those with lower levels of education — resulting in greater economic inequality.[28]

Boston's current population is nearly 670,000 residents[29] and the Boston Planning and Redevelopment Authority anticipants that the population will continue to grow to an estimated 723,500 people by 2030.[30] Boston's overall population increased by 8% in the last several years and Latino residents experienced a growth of 20.1%[31] as compared to the population increase in Massachusetts (3.5%). Almost 10% of Massachusetts' population resides in Boston.

TABLE 2. TOTAL POPULATION IN MASSACHUSETTS AND BOSTON, 2007–2016

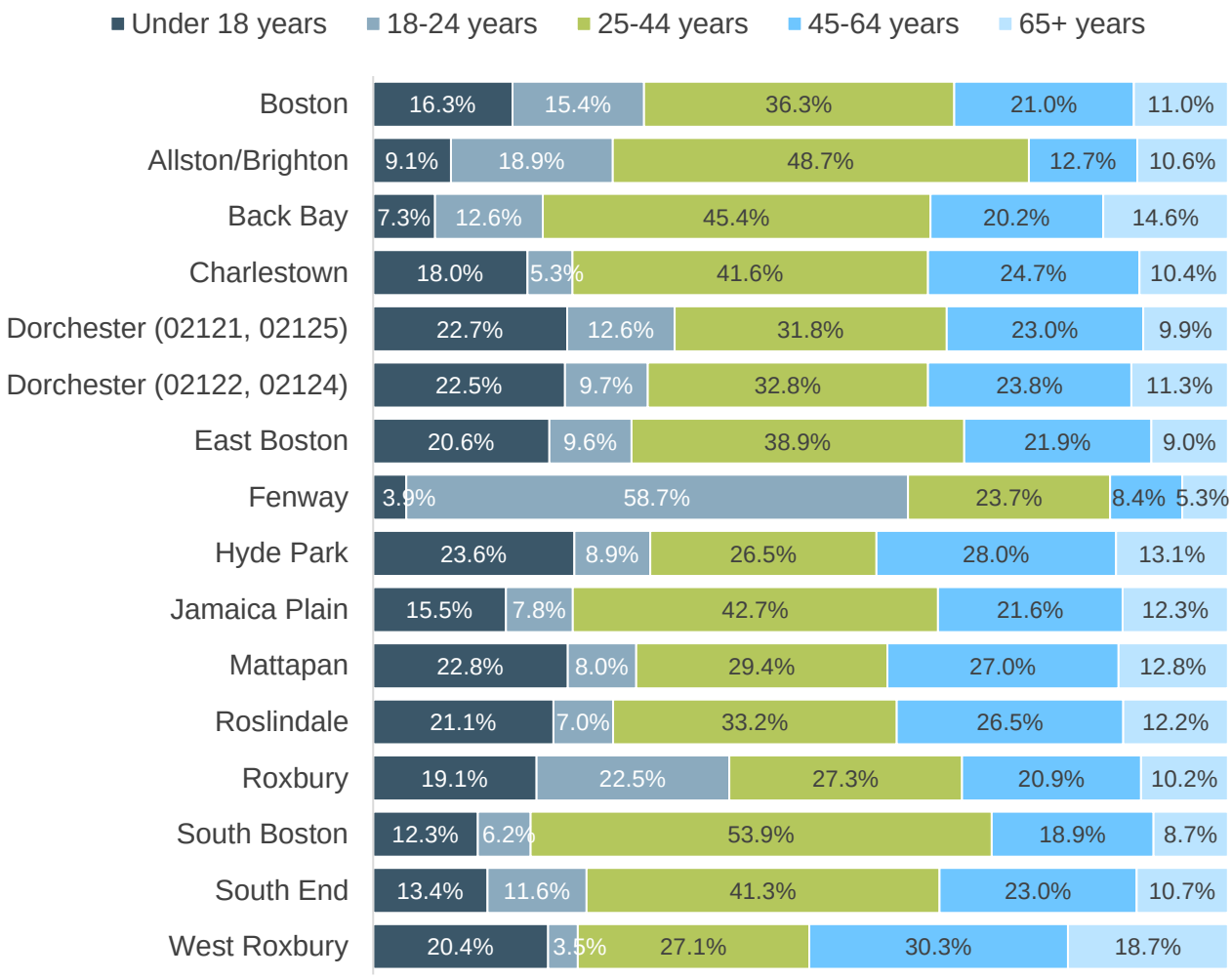
Geography	2007–2011 Population	2013–2017 Population	% Change
Massachusetts	6,512,227	6,742,143	3.5%
Boston	609,942	669,158	8%

DATA SOURCE: *U.S. Department of Commerce, Bureau of the Census, American Community Survey, 2007–2011 and 2013–2017*

AGE DISTRIBUTION

According to American Community Survey estimates, relative to Massachusetts, Boston had a larger percentage of the population that are between 18 and 44 years old. More than one-third of residents in Boston (35.8%) are 25–44 years of age, while just over a quarter of residents in Massachusetts (26.1%) are 25–44 years of age. Boston's population represents a range of age groups, but the distribution of these ages varies across neighborhoods (**Figure 2**).

FIGURE 2. AGE DISTRIBUTION, BY BOSTON AND NEIGHBORHOOD, 2013–2017

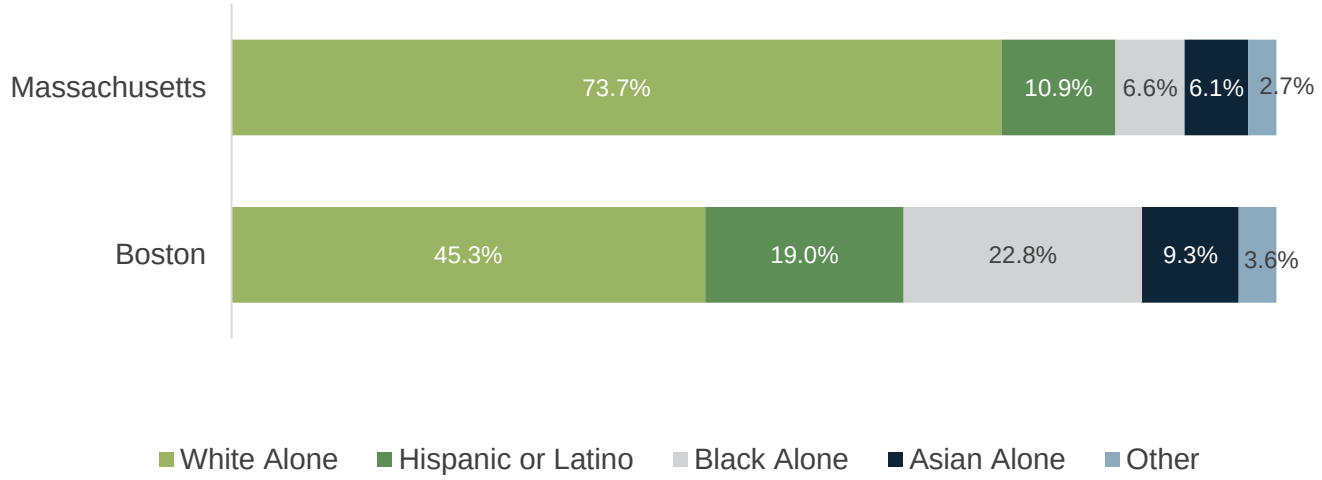


RACIAL AND ETHNIC COMPOSITION

According to American Community Survey estimates, Boston is a diverse city with 23% of residents identifying as Black, nearly 20% identifying as Latino, and nearly 10% identifying as Asian. Boston has a large immigrant community, with most immigrants in the city having been born in the Caribbean or Asia.

As shown in **Figure 3,** Boston is more racially and ethnically diverse than Massachusetts. Residents were more likely to identify as white in both Massachusetts (73.7%) and Boston (45.3%) than any other category. The proportion of residents identifying as Hispanic or Latino in Boston (19.0%) was almost double the proportion of residents identifying as Hispanic or Latino in Massachusetts (10.9%). Additionally, the proportion of residents identifying as Black in Boston (22.8%) was more than three times the proportion of residents identifying as Black in Massachusetts (6.6%). Likewise, 9.3% of Boston residents identified as Asian, compared to 6.1% of Massachusetts residents.

FIGURE 3. RACIAL/ETHNIC COMPOSITION IN MASSACHUSETTS AND BOSTON, 2012–2016



DATA SOURCE: *U.S. Department of Commerce, Bureau of the Census, American Community Survey, 2012–2016*

One-third of Boston residents speak a language other than English at home, the most prevalent language being Spanish.[32] In the 2019 Joint Boston Community Health Needs Assessment, non-English focus group participants reported that for the most part, they were able to access some community resources in their native language; however, they also reported experiencing much longer wait times for these services. One resident explained, "*I do not speak English, so I [usually] wait 1–2 hours for any social services.*"

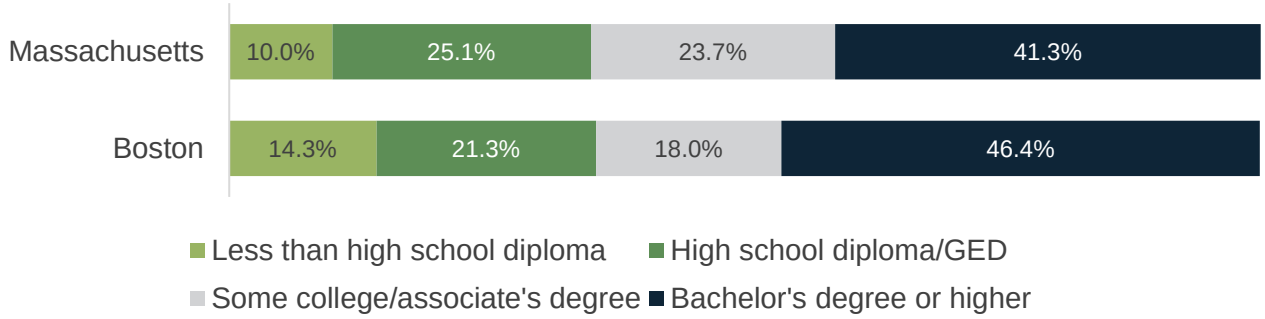
EDUCATION AND EMPLOYMENT

Individuals of lower educational attainment generally have less favorable health profiles compared to their counterparts with greater educational attainment.[33] Most directly, education increases economic and social resources.[34] Those with higher levels of education are less likely to experience unemployment and economic hardship and have more social connections than those with lower levels. As shown in

Figure 4, compared to Massachusetts (41.3%), a higher proportion of residents in Boston (46.4%) had a college degree or higher. At the same time, compared to Massachusetts (10.0%), a higher proportion of residents in Boston (14.3%) had less than a high school diploma. The proportion of residents with a high school diploma or GED and with some college or an Associate's degree was higher in Massachusetts (25.1%, 23.7%) as compared to Boston (21.3%, 18.0%).

Quantitative data show that some neighborhoods have much higher educational attainment than others. By neighborhood, East Boston, Roxbury, Dorchester, and the South End have a substantially greater proportion of residents who do not have a high school diploma compared to Boston overall.[35]

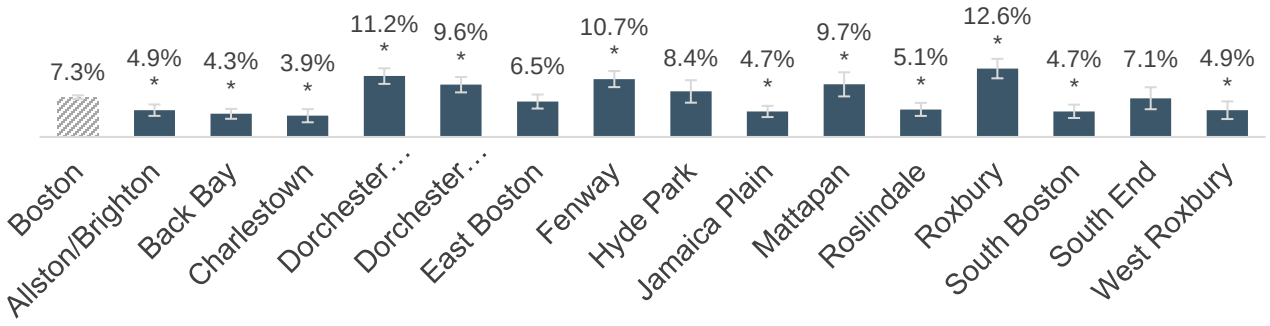
FIGURE 4. EDUCATIONAL ATTAINMENT OF ADULTS AGED 25 YEARS AND OLDER, BY STATE AND CITY, 2012–2016



DATA SOURCE: *U.S. Department of Commerce, Bureau of the Census, American Community Survey, 2012–2016*

Unemployment, underemployment, and job instability not only make it more difficult to purchase goods and services that enhance health, but also have been shown to contribute to stress-related health conditions and poorer mental health.[36] Unemployment rates were higher in Massachusetts as compared to Boston from 2007 to 2016.[37] In 2018, Boston had an unemployment rate of 3.0% according to the U.S. Bureau of Labor Statistics (BLS). However, 2018 BLS data are not able to be examined by different neighborhoods or population groups. Data from the 2013–2017 aggregated American Community Survey from the U.S. Census shows that 7.3% of Boston residents were not employed over this five-year period, yet that figure was substantially higher for the neighborhoods of Roxbury, Dorchester, Fenway, and Mattapan (**Figure 5**).

FIGURE 5: PERCENT POPULATION 16 YEARS AND OVER UNEMPLOYED, BY BOSTON AND NEIGHBORHOOD, 2013–2017



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

NOTE: *Neighborhoods as defined by Boston Public Health Commission; Back Bay includes Back Bay, Beacon Hill, Downtown, North End, and West End; South End includes South End and Chinatown; Asterisk (*) denotes neighborhood estimate was significantly different compared to the Boston estimate ($p < 0.05$); Error bars show 95% confidence interval*

A review of qualitative data gathered for Joint Boston CHNA shows that those with lower education or fewer skills (especially in technology), immigrants, and those with a criminal record additionally were reported to experience employment challenges. Numerous Boston CHNA survey respondents reported feeling underemployed, wanting higher pay, or desiring greater job satisfaction. Focus group members and interviewees described challenges in getting a secure job, specifically around meeting educational credential requirements, navigating online job application systems, and dealing with CORI criminal background checks. Furthermore, focus group and interview participants identified the need for more trade schools and job centers that can help residents gain skills and training to create pathways beyond entry-level positions.

POVERTY AND INCOME

Income is a significant determinant of one's health. For individuals, income influences where people live, their ability to access higher education and skills training, and their access to resources to help them cope with stressors. Income also shapes access to health-promoting resources such as healthy food and health care.[38] Compared to their higher income counterparts, low-income individuals have higher rates of smoking, obesity, and physical inactivity; more limited access to healthy foods, opportunities for physical activity, and healthy environments; higher rates of physical limitations, heart disease, diabetes, stroke, and other chronic conditions; and more limited access to health care.[39] At a community level, regardless of individual level of income, low community wealth often correlates with more limited educational and job opportunities, greater community violence, environmental pollution and disinvestment in essential infrastructure and resources.[40]

The median income for Massachusetts overall was $70,954 in 2012–2016.[41] The median income for Boston was lower compared to Massachusetts as a whole. Across all indicators of income and financial security, there are substantial differences across racial and ethnic groups, that are similarly patterned as other social, economic, and health inequities. The median household income in Boston was $62,021 but the spread between the community with the lowest median household income (Dorchester, $27,964) and the highest (South Boston, $170,152) is substantial. In four communities — Dorchester, Fenway, Roxbury and the South End — approximately 25–35% of residents live below the federal poverty level.

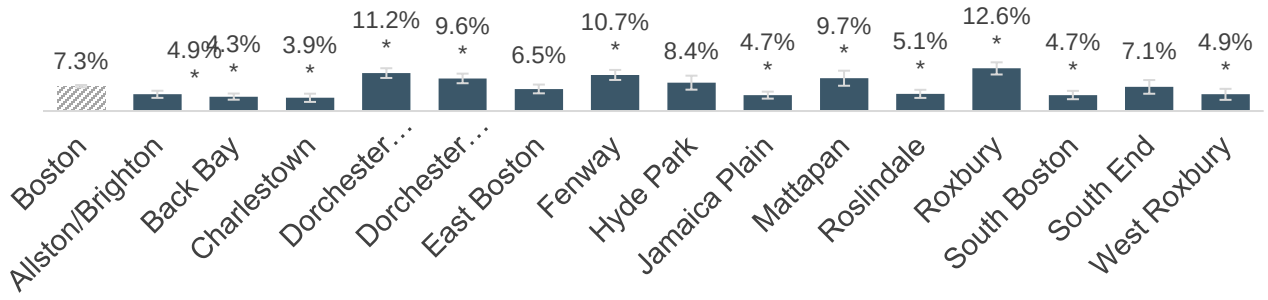
WORKFORCE AND JOB TRAINING

Americans spend more than half their waking lives at work.[42] Employment can confer income, benefits, and economic stability, among other factors that promote health. Well-paying jobs enable workers to live in healthier neighborhoods, afford nutritious food, and pay health care-related expenses.[43] and unemployment, underemployment, and job instability have been shown to contribute to stress-related health conditions and poorer mental health.[44]

Throughout the community engagement process participants indicated an interest in including opportunities for continuing education and workforce training at the Shattuck Campus. Some participants noted a need for a trade school or a school of health sciences/nursing. At the fall community meeting, some participants suggested job training and workforce development services, including services for English Language Learners.

According to the Bureau of Labor Statistics, in 2018, Boston's unemployment rate was 3.0%. However, when examining unemployment data by neighborhood, unemployment rates have been substantially higher in Roxbury, Dorchester, Fenway, and Mattapan compared to Boston overall in the past several years (**Figure 6**). In Boston CHNA focus groups and interviews, those with lower education or fewer skills (especially in technology), immigrants, and those with a criminal record additionally were reported to experience employment challenges. One interviewee shared, *"We have become the two cities of Boston. The extreme and stark difference is right in your face; where you have urban affluence right up against urban poverty… the Ritz condo development right next to St. Francis House…"* Several focus group participants from Dorchester, East Boston, Mattapan, Chinatown, and Allston/Brighton described working multiple low-wage jobs and the stressors that come from a lack of job security. One Dorchester resident shared, *"I have three jobs and still make less than $45,000 a year, barely getting by."* Immigrant communities, single-parent households, residents with a criminal record, and parents of children with special needs were described as especially vulnerable to unstable employment situations.

FIGURE 6. PERCENT POPULATION 16 YEARS AND OVER UNEMPLOYED, BY BOSTON AND NEIGHBORHOOD, 2013–2017



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

NOTE: *Neighborhoods as defined by Boston Public Health Commission; Back Bay includes Back Bay, Beacon Hill, Downtown, North End, and West End; South End includes South End and Chinatown; Asterisk (*) denotes neighborhood estimate was significantly different compared to the Boston estimate ($p < 0.05$); Error bars show 95% confidence interval*

The Boston Mayor's Office of Workforce Development supports many organizations through a variety of funding sources, each with its own purpose**.** There are several organizations funded by the Mayor's Office of Workforce Development in Boston within a one-mile radius of the Shattuck Campus.[45]

- *Boston Private Industry Council School-to-Career Office* — Connects Boston Public School students and recovered dropouts or those who are at risk of dropping out with employment in churches, child care centers, Boys and Girls clubs and similar venues.
- *Ethos* — Runs the Boston Money Management Program, which assists low-to-moderate income elderly and disabled adults with routine tasks of money management.

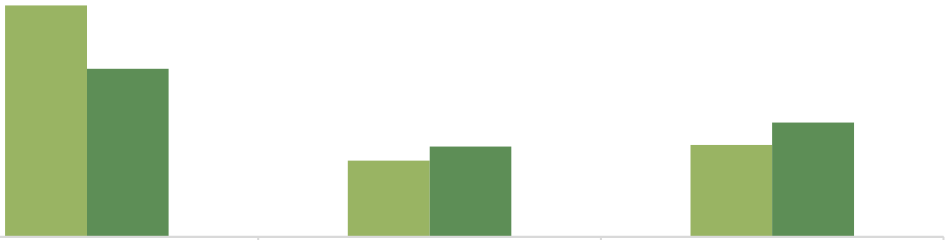
- *Somali Development Center* — Provides support services and case management to Somali-Americans, ages 16–22, living in Boston to help them acquire employment and become self-sufficient.

Health systems in Boston and across the country are looking at ways to invest in the communities they serve to lift residents out of poverty, help create career pathways for low-income, minority, and hard-to-employ populations, and begins to transform neighborhoods.[46] Other neighboring organizations may also help promote career pathways for people receiving services at the Shattuck Campus.

VIOLENCE AND NEIGHBORHOOD SAFETY

As shown in **Figure 7**, Massachusetts high school students (14.6%) were more likely to report being bullied at school than Boston high school students (10.6%). Boston high school students were slightly more likely to report being threatened or injured with a weapon at school or to be in a physical fight at school than Massachusetts high school students.

FIGURE 7. SCHOOL-BASED EXPERIENCES OF VIOLENCE OF MASSACHUSETTS AND BOSTON YOUTH, 2017

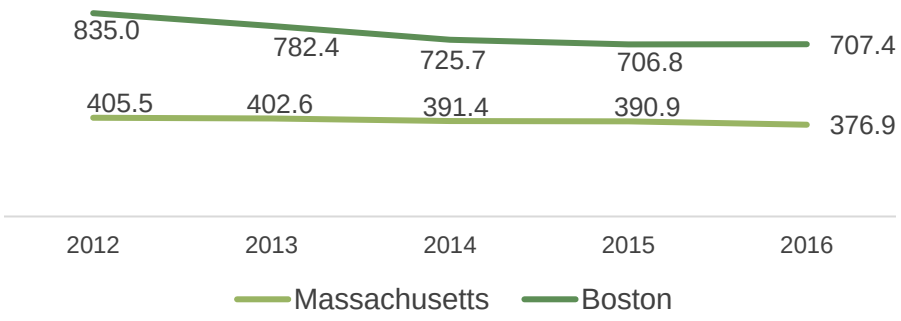


	Bullied at School	Threatened or Injured with a Weapon at School	Physical Fight at School
Massachusetts	14.6%	4.8%	5.8%
Boston	10.6%	5.7%	7.2%

DATA SOURCE: *Centers for Disease Control and Prevention, Youth Online: High School YRBS, 2017 Results*

From 2012 to 2016, the Boston violent crime rate exceeded the Massachusetts violent crime rate approximately two-fold (**Figure 8**). The Massachusetts violent crime rate decreased 7% from 2012 to 2016. The Boston violent crime rate decreased 15% from 2012 to 2016, but it increased slightly from 2015 to 2016.[47]

FIGURE 8. VIOLENT CRIME RATE PER 100,000 POPULATION, IN MASSACHUSETTS AND BOSTON, 2012–2016



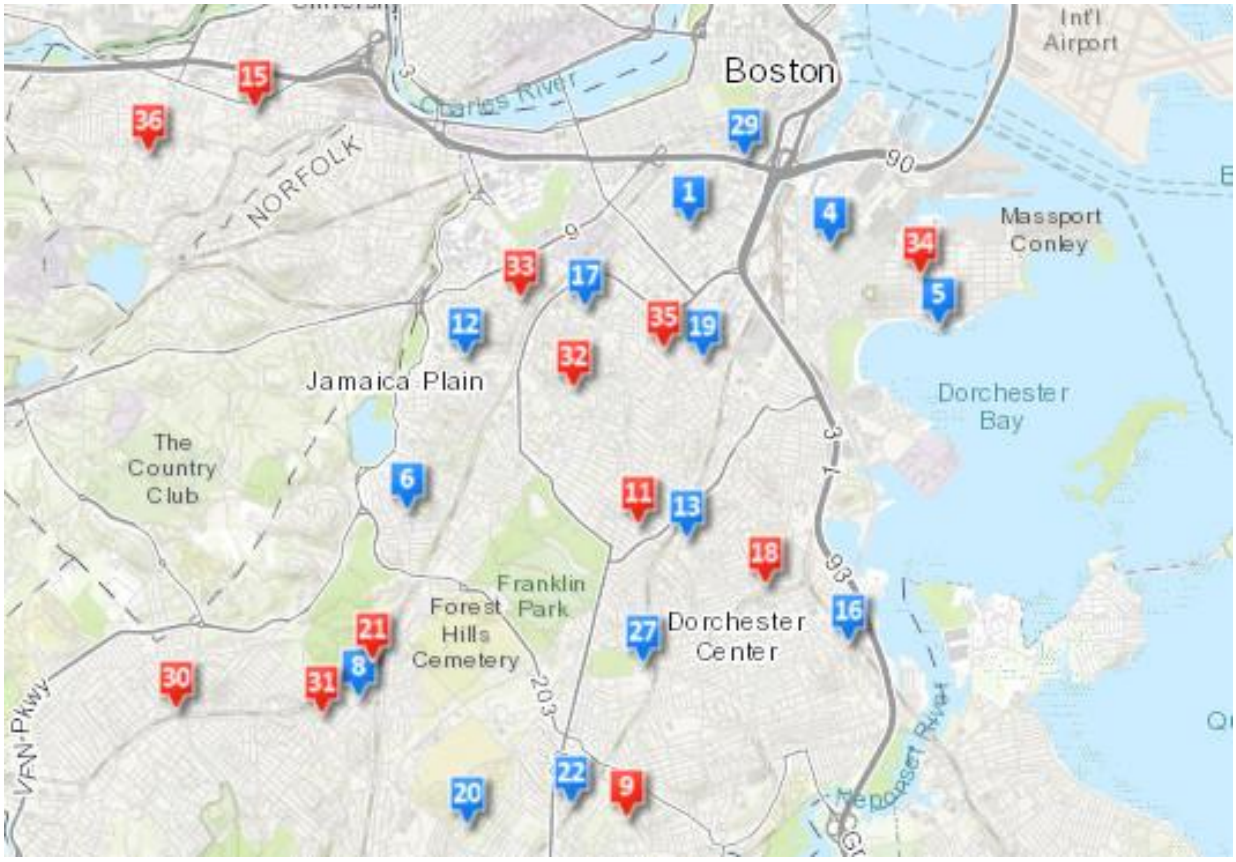
DATA SOURCE: *Federal Bureau of Investigation, Offenses Known to Law Enforcement, 2012–2016*

NOTE: *Violent crime includes murder and non-negligent manslaughter, rape, robbery, and aggravated assault.*

According to the 2016–2017 Health of Boston report, in 2015, the rate of injury-related emergency department (ED) visits in Boston was 10,162.5 per 100,000 residents. The rate of injury-related ED visits was higher in Dorchester (zip codes 02121, 02125), Dorchester (zip codes 02122, 02124), Hyde Park, Mattapan, Roxbury, and the South End compared with the rest of Boston.[48] Among the zip codes with the highest rates of injury-related ED visits, some abut Franklin Park, including 02121. One event participant commented that *"some of the biggest health challenges facing families revolve around not having safe, welcoming places for families, particularly children, to play and recreate together".*

Community Center: Many participants in the community engagement process indicated that they'd like to see a community center be built on the property. Those who mentioned this shared that such a space would give community residents a place to go and connect, as well as a place to co-locate services. A few residents noted that this type of space would be especially beneficial for children and youth. A map of the City of Boston's Center for Youth and Family 36 community centers can be found in **Figure 9**. In the neighborhoods near the Shattuck site, there are 2 centers in Jamaica Plain, 3 in Mattapan, 4 in Roxbury and 5 in Dorchester. In the map of Boston Centers for Youth and Families (BCYF) Community Centers Facilities to the left, blue markers indicate facilities with a pool and red are community centers without a pool.

FIGURE 9: BOSTON CENTER FOR YOUTH AND FAMILY COMMUNITY CENTERS



CHILDCARE AND YOUTH CONNECTEDNESS

In 2016, Massachusetts was ranked the 2nd out of 50 states and the District of Columbia for the most expensive infant care.[49] (*see **Table 3** below for costs*).

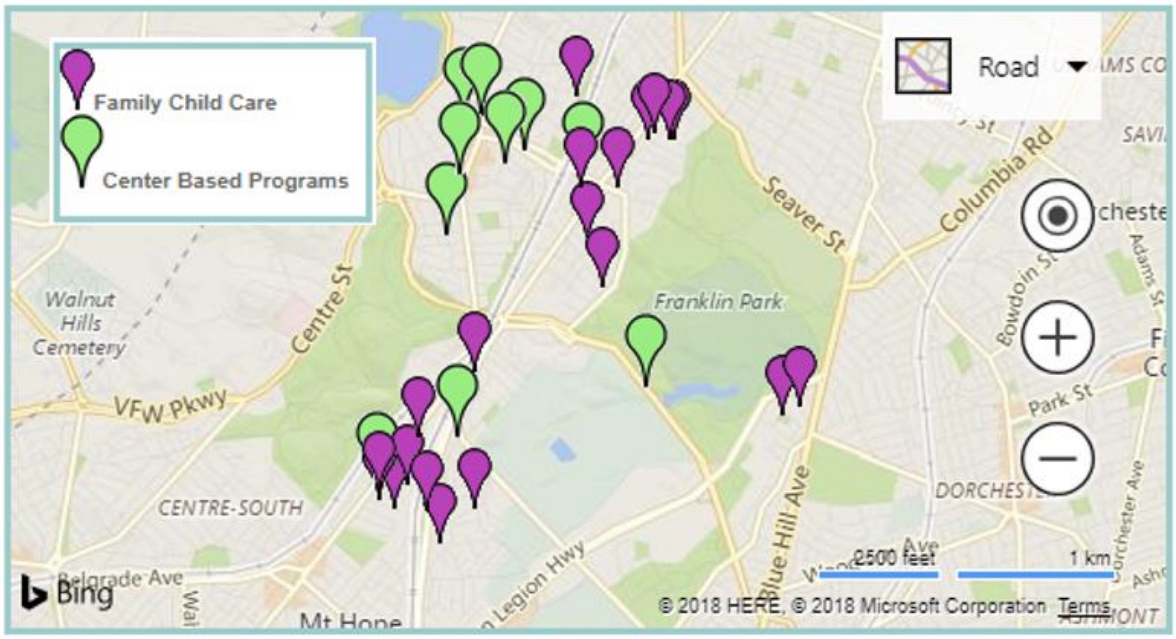
TABLE 3: AVERAGE ANNUAL COST OF CARE FOR YOUNG MASSACHUSETTS CHILDREN, 2018[50]

Age Range	Child Care Center	Family Child Care Homes
Infant	$20,415 – $20,886	$11,158 – $12,750
Toddler	$18,845 – $19,080	$10,659 – $12,246
Four-year-old	$14,736 – $15,672	$10,258 – $12,066

*(**NOTE:** ranges represent averages for accredited and non-accredited centers or homes)*

Within a 1-mile radius of the Shattuck campus there are 20 licensed family child care programs, with the capacity to serve 148 children[51] and 10 center-based programs, with the capacity to serve 578 children.

FIGURE 10. LICENSED FAMILY CHILD CARE AND CENTER-BASED PROGRAMS WITHIN A ONE-MILE RADIUS OF SHATTUCK CAMPUS



According to a 2015 report by the Urban Institute, infants and toddlers have the largest gaps in subsidized care and subsidized child care system does not adequately address the large need for care during nontraditional hours. Furthermore, matching needs and supply within geographic regions is challenging, particularly for the smaller DCF, teen, and homeless programs, which use contracts to serve special populations.[52]

Shattuck Child Care Center was relocated when the Nurses Building was demolished. It is currently located in a church in Jamaica Plain and serves 48 children. The Center was available to employees of the Shattuck Hospital and people that lived nearby. The need for childcare facilities was mentioned by participants at most of the public engagements.

There may be limitations about who can receive behavioral health and housing services on the Campus if a childcare facility is included on the Campus in redevelopment.

HOUSING & HOMELESSNESS

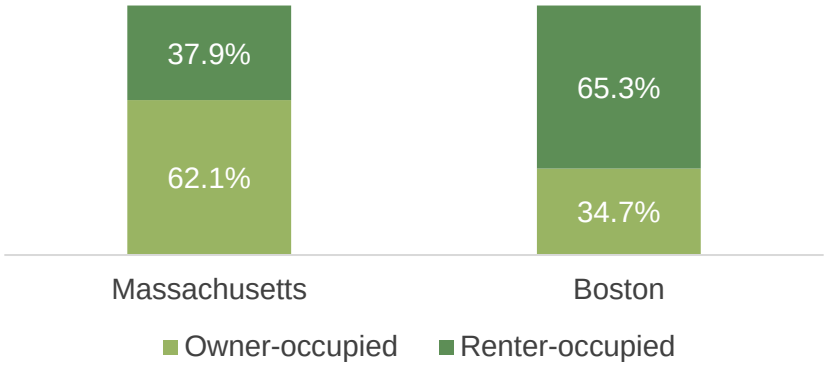
Key Finding: Access to safe, affordable, stable housing matters for health

- Lack of access to affordable and stable housing is a compounding issue for individuals struggling with a behavioral health condition in Massachusetts.[53]
- Homelessness and housing instability can exacerbate health conditions and make these conditions more difficult to treat and control. People who are chronically homeless face substantially higher morbidity in terms of both physical and mental health and increased mortality.[54,55]
- There is an identified need for 4,354 units of permanent supportive housing for chronically homeless individuals, homeless families, and people with SUD and mental health conditions in Eastern Massachusetts.[56]
- New research shows that moving chronically homeless adults into supportive housing saves approximately $11,000+ person in public health care costs annually.[57]

Massachusetts is experiencing a multi-layered housing stability crisis — due in part to a low rate of housing production which has not kept pace with population growth and needs, soaring rents, and the lingering effects of the foreclosure crisis, which affects a wide swath of residents, but especially low-income residents, seniors, and community of color.[58] The crisis has been compounded by the opioid epidemic in Massachusetts and an influx of people from outside the city: 50 percent of people who are homeless in Boston came from another town or state.[59] Conversely, many working-class Bostonians are being forced to move outside of the city because of soaring rents and too few affordable units. This influx in new residents seeking shelter and housing services in Boston is due to Boston's low-threshold approach, a model which offers shelter to anyone seeking it; as such, Boston is providing housing and shelter services for the region and not just people from the city itself. The MDPH Chapter 55 study estimated that approximately one in every 25 adults in Massachusetts has been homeless at some point between 2011 and 2015.[60] There were over 31,000 homeless children in MA in 2014[61] and 24% of households pay more than 50% of their income for rent; a family must make >$24 per hour to afford rent for a 2-bedroom apartment.[62]

As shown in **Figure 11**, most residents in Massachusetts (62.1%) owned their homes in 2012–2016, while most residents in Boston (65.3%) rented their homes during this same period.

FIGURE 11. PERCENT OF RESIDENTS WHO OWN OR RENT HOMES, IN MASSACHUSETTS AND BOSTON, 2012–2016

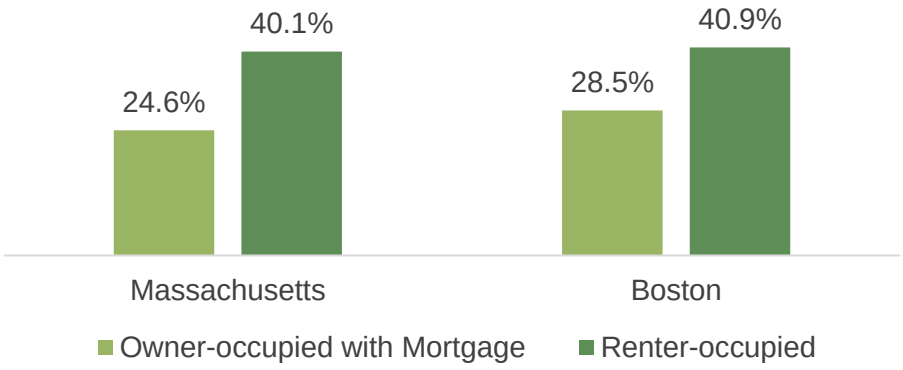


DATA SOURCE: *U.S. Department of Commerce, Bureau of the Census, American Community Survey, 2012–2016*

Approximately two in five residents who rent in Massachusetts (40.1%) and Boston (40.9%) pay at least 35% of their household income on housing costs (

Figure). Approximately a quarter of Massachusetts residents (24.6%) and three in ten Boston residents (28.5%) who own their homes pay at least 35% of their household income on housing costs.

FIGURE 12. PERCENT OF HOUSING UNITS PAYING AT LEAST 35% OF HOUSEHOLD INCOME HOUSING COSTS, IN MASSACHUSETTS AND BOSTON, 2012–2016

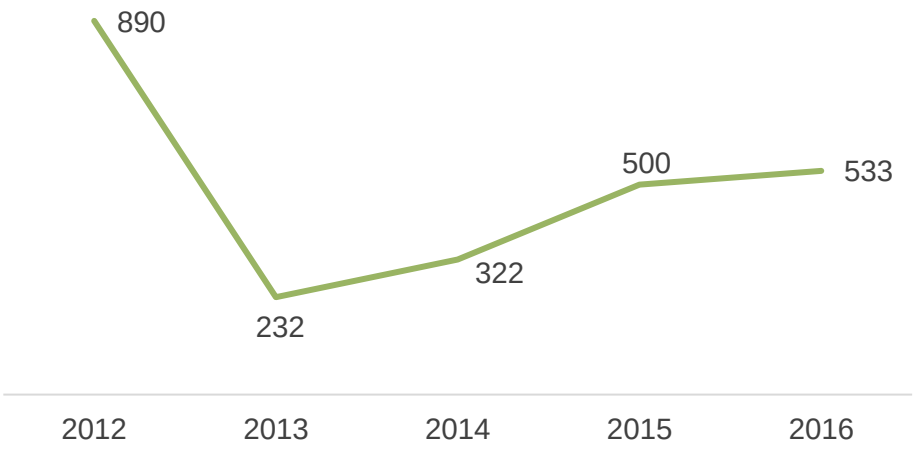


DATA SOURCE: *U.S. Department of Commerce, Bureau of the Census, American Community Survey, 2012–2016*

While the number of Boston foreclosure petitions is 40% lower in 2016 (533) than it was in 2012 (890), foreclosure petitions have been increasing since 2013 (

Figure).

FIGURE 13. NUMBER OF FORECLOSURE PETITIONS IN BOSTON, 2012–2016



DATA SOURCE: *Residential foreclosure petitions, Warren Group, as reported by Health of Boston 2016–2017*

The 2018 Update of the Housing Boston 2030 plans sets new goals for housing production, including income-restricted housing designed to be affordable to a range of incomes, plans for strategic growth that preserve and enhance existing neighborhoods, and new focus areas on preventing displacement, increasing homeownership, and promoting fair and equitable access to housing. To address these challenges, the Walsh Administration has set a 2030 goal of 69,000 new housing units in Boston, 15,820 of which will be income-restricted.[63]

Furthermore, people with mental and/or substance use disorders can be particularly vulnerable to becoming homeless or being precariously housed. According to Housing and Urban Development's (HUD) 2016 Annual Homelessness Assessment Report, of those who experience homelessness, approximately 202,297 people have a severe mental illness or a chronic substance use disorder. In Massachusetts, the risk of opioid-related overdose death for persons who reported experiencing homelessness is up to 30 times higher than it is for the rest of the population.[64] Overdose is the leading cause of death among people served by Boston Health Care for the Homeless and opioids were implicated in 81% of overdose deaths in a study of mortality among homeless people served between 2003 and 2008.[65] And, according to Patty Kenny, former DMH Area Director, 40% of people applying for services in Boston from DMH are homeless.[66]

It is critical that housing issues be addressed when individuals are discharged from inpatient or outpatient mental health or addiction treatment settings. Clients leaving intensive treatment settings who do not have adequate housing to support their recovery have a considerably higher risk of relapse[67] and people who are chronically homeless face substantially higher morbidity in terms of both physical and mental health and increased mortality.[68,69]

In 2018, over 6,000 residents were counted as homeless or housing unstable in Boston **(Table 4**) and over 17,000 were counted as such in Massachusetts.[70] These data may not account for residents who are temporarily without a permanent address and are staying with friends or in their car. Among those identified, most homeless residents were staying in emergency shelters (5,427 individuals), followed by transitional shelters (598 individuals), and unsheltered housing (163 individuals). Among this homeless population, four in ten homeless residents identified as Black (45.1%), 36.1% as white, and 17.0% as two or more races. More than 35% identified as Latino (any race).

TABLE 4. TOTAL NUMBER OF HOMELESS INDIVIDUALS LIVING IN BOSTON, BY RACE, ETHNICITY, AND SHELTER TYPE, 2018

	SHELTERED				
	Emergency Shelter	Transitional Housing	UNSHELTERED	TOTAL	PERCENT OF TOTAL
American Indian or Alaska Native	13	4	0	**17**	**0.3%**
Asian	45	3	5	**53**	**0.9%**
Black	2,566	188	36	**2,790**	**45.1%**
Native Hawaiian or Other Pacific Islander	38	3	0	**41**	**0.7%**
White	1,913	251	70	**2,234**	**36.1%**
Multi-race	852	149	52	**1,053**	**17.0%**
TOTAL	**5,427**	**598**	**163**	**6,188**	
Latino	2,079	103	8	**2,190**	**35.4%**
Not Latino	3,348	495	155	**3,998**	**64.6%**
TOTAL	**5,427**	**598**	**163**	**6,188**	

DATA SOURCE: *U.S. Department of Housing and Urban Development, Continuums of Care, HUD 2018 Continuum of Care Homeless Assistance Programs Homeless Populations and Sub Populations, 2018*

NOTE: *Safe Haven programs are included in the Transitional Housing category*

The City of Boston has steadily increased the number of housing units for homeless individuals by targeting resources and committing to new investments. Despite considerable progress in the last few years, the demand for shelter services has increased. The average length of stay in emergency shelter increased from 112 nights in January 2013 to 168 nights in June 2014. In 2014, the 450-bed emergency shelter on Long Island was unexpectedly closed due to failing bridge infrastructure. In October 2018, 471 people were on the City's list of chronically homeless, defined as a person experiencing chronic homelessness with a disabling condition who has been continuously homeless for a year or more or has had at least four episodes of homelessness in the past three years.[71]

Lack of access to affordable and stable housing is a compounding issue for individuals struggling with a behavioral health condition in Massachusetts.[72] Homelessness and housing instability can exacerbate health conditions and make these conditions more difficult to treat and control.

There are 12 homeless shelters in Boston for individuals, providing approximately 1,850 beds. Four shelters serve both men and women, 4 shelters serve only men, and 4 shelters serve only women. 1,067 of the 1,850 beds for homeless men and women are in zip codes 02118 and 02119 (South End / Roxbury).[73] The Department of Mental Health has 3 shelters for individuals in Boston who are DMH clients. There are 60 beds at the Erich Lindemann Mental Health Center (60 co-ed and 20 women only), 20 beds at the Fuller Mental Health Center for men only, and 40 co-ed at the Massachusetts Mental Health Center.[74]

The Pine Street Inn (PSI) Shattuck Shelter serves 125 men (130 during winter overflow) per night in its low barrier emergency homeless shelter. In additional to clean, safe shelter PSI Shattuck Shelter provides access to veteran services, specialized housing placement for chronically homeless guests, workforce development programs, mental health counseling and case management, and rapid re-housing services. Boston Health Care for the Homeless also operates a health clinic on-site.

Supportive Housing:

Permanent supportive housing (PSH) — an approach also known as Housing First — is targeted to people who suffer from complex medical, mental and addiction disabilities whose conditions are very challenging and expensive to manage when the person is homeless. Housing provides these individuals with the stability they need to get treatment for complex health conditions and disabilities. Of the total number of single adults with special needs and a disabling condition in the emergency shelter system in Boston in 2015, 39% of them had a mental health condition and 35% had a substance use disorder.[75] PSH is an important tool for addressing the high costs associated with the chronically homeless population's frequent use of emergency shelters and hospital emergency rooms, and for transitioning chronically homeless households out of shelters and into stable long-term housing, such as a rented apartment. A Blue Cross Blue Shield Foundation report estimates $11,000+ annual savings per person in public healthcare costs after chronically homeless adults move into supportive housing.[76] There is an identified need for over 2,000 permanent supportive housing units in Suffolk County and nearly 15,000 in Eastern Massachusetts for chronically homeless individuals, homeless families and people with a behavioral health diagnosis.[77]

Permanent supportive housing tenants live in leased, independent apartments or shared living arrangements that are integrated into the community. Tenants have access to a broad range of comprehensive community-based services, including medical and mental health care, substance abuse treatment, case management, vocational training, and life skills training. The use of these services is not a condition of ongoing tenancy. Housing First represents a shift toward *"low-threshold"* housing; by removing the barriers to housing, individuals are given an opportunity to deal with the complex health and life issues they face as tenants, rather than as clients of a prescribed, linear system of care.[78]

There are several types of permanent supportive housing:

- **Purpose-built or single-site housing:** Apartment buildings designed to primarily serve tenants who are formerly homeless or who have service needs, with the support services typically available on site.
- **Scattered-site housing:** People who are no longer experiencing homelessness lease apartments in private market or general affordable housing apartment buildings using rental

subsidies. They can receive services from staff who can visit them in their homes as well as provide services in other settings.

- **Unit set-asides:** Affordable housing owners agree to lease a designated number or set of apartments to tenants who have exited homelessness or who have service needs, and partner with supportive services providers to offer assistance to tenants.[79]

Of the 950 units of permanent supportive housing the city estimates it needs to end chronic homelessness in Boston, it estimates that 750 will become available through strict targeting of vacancies of existing permanent supportive housing units by utilizing its Coordinated Access System. Boston has a goal of developing 200 new Permanent Supportive Housing units focusing primarily on permanent supportive housing that offers 24/7 on-site support for people with major barriers to stability. The units must be *"low-barrier"* in that the requirements to become a tenant must not screen out the very individuals who need such housing options, including people with criminal histories, poor credit, prior evictions, mental illness, and active substance use, among other factors that prevent them from gaining access to mainstream housing resources.

A Continuum of Care (CoC) is a regional or local planning body that coordinates housing and services funding for homeless families and individuals, including outreach, intake and assessment, emergency shelter, transitional housing and permanent supportive housing. In Boston, the CoC is coordinated by the City's Neighborhood Development Supportive Housing Division. The providers in the Boston area are listed in **Table 5** below:

TABLE 5. LIST OF BOSTON CONTINUUM OF CARE PROVIDERS

Bay Cove Human Services	FamilyAid
Boston Housing Authority	HEARTH
Boston Public Health Commission	Heading Home
Boston Rescue Mission	HomeStart
Bridge over Troubled Waters	Kit Clark Senior Services
Casa Myrna	Metro Housing Boston
Eliot Human Services	Mass Housing and Shelter Alliance
New England Center and Home for Veterans	Pine Street Inn
Project Hope	St. Francis House
VA Boston	Victory Programs

The Boston Continuum of Care was home to, on average, 39% of the state's chronically homeless population between 2015 and 2017. A 2018 report issued by the Federal Reserve Bank of Boston identified a gap in Permanent Supportive Housing Beds for Chronically Homeless Families for Boston Continuum of Care Area for 2017 of between 100–140 units. Massachusetts has a persistent shortage of PSH beds needed to house its chronic homeless population. The size of these shortages can vary from year-to-year and the shortfall poses a persistent obstacle for service providers and policymakers who seek to use PSH to serve the state's chronically homeless population.[80] The need for supportive housing for chronically homeless individuals, homeless families and people with mental health and substance use disorder in Eastern Massachusetts number 4,354 units and for Suffolk County 425 units.[81]

Community Input

In the 2019 CHNA, concerns about housing costs, gentrification, and homelessness emerged during focus group and key informant discussions, especially with residents who lived in Chinatown, Downtown, and East Boston. Focus group participants from these neighborhoods perceived that homelessness was on the rise and often related those who were homeless with mental health or substance use issues. However, key informants with expertise in housing indicated that homelessness impacts a diverse range of residents across the city regardless of health status, race, or family makeup.

As one person at a DCAMM-sponsored meeting stated, *"housing is reaching a crisis point in Boston. This one piece of land is available."* Throughout the Shattuck Campus planning community engagement, support for building housing for low and moderate-income residents was strong. A couple of participants suggested that these be low-density, low-rise structures with communal spaces and integrated with the surrounding parkland. Townhouses were specifically mentioned by a couple of participants in the fall community meeting. A few residents specifically stated that luxury housing should not be built on the site. Overall, participants in the discussions voiced support for supportive housing, noting the high and rising number of homeless people in Boston and the lack of affordable housing. As one person stated, *"Boston has a great need for supportive housing."* One person shared a personal example, saying *"I was once homeless. I got housing, got sober, got hope and turned my life around. Others could benefit too."*

Notably, some residents did not agree that housing should be built on the site. Comments related to this included a view that housing may not serve a *"public health purpose",* as is required by statue for the Shattuck Campus and shouldn't be considered for this site because it abuts Franklin Park. Specific questions and concerns were raised related to the location of the housing on the site and access and connectivity to nearby communities.

BEHAVIORAL HEALTH: MENTAL HEALTH AND SUBSTANCE USE

Key Finding: Substance use and mental health disorders have a substantial impact on the health of Massachusetts residents

- The opioid epidemic continues to impact individuals, families and communities across Massachusetts.
    - In 2016, Massachusetts had the highest rate of opioid-related ED utilization and the third highest inpatient utilization among states that reported this data to the Agency for Healthcare Research and Quality.82
    - Eleven percent of Bostonians have a substance use disorder (SUD).[83]
    - In 2017, one Bostonian died every 48 hours from an opioid overdose.[84]
    - Substance use is estimated to cost society $442 billion each year in health care costs, lost productivity, and criminal justice costs.[85]
- SUD and mental health diagnoses are often co-occurring, and people frequently receive care from multiple systems.

- Over half of DPH substance use service clients reported a history of mental health treatment.[86]

Key Finding: Current systems are not person-centered and are difficult to navigate; Finding treatment can be challenging

- The behavioral health system, including SUD and mental health treatment, is currently not integrated with the rest of the health care system, making person-centered treatment challenging.
- There are long wait times for outpatient mental health and SUD treatment, regardless of insurance type. There is an inadequate supply of evidence-based treatment modalities, including medication-assisted treatment.[87]
  - More than half of Massachusetts adults who tried to find help for mental health or substance use said they had difficulty finding treatment. More than one-third gave up seeking help entirely and 1 in 8 went to the emergency room for treatment.[88]

MENTAL HEALTH

The distribution of mental disorders in the general population is not equal across sex, sexual orientation, race/ethnicity, and socioeconomic status.[89] Lesbian, gay, bisexual, transgender, and/or queer (LGBTQ) individuals are about three times more likely than straight individuals to have a mental health condition such as depression or anxiety.[90] Black and Latino individuals are less likely than White individuals to receive medical treatment for mental health disorders when they do arise, which may contribute to the development of chronic depression.[91] The South End experienced the highest rates of *suicide mortality* in Boston (12.8 deaths per 100,000) — more than double the rate of Boston overall (6.7 deaths per 100,000 residents).[92]

Exposure to stressors may partially explain why certain groups suffer from poorer mental and physical health outcomes than others. Economic difficulties, job strain, family responsibilities, material disadvantage, and discrimination can have harmful effects on mental health.[93]

Furthermore, people with mental health disorders have poorer health outcomes and shorter lives than those without. People with co-occurring disorders often experience more severe and chronic medical, social, and emotional problems than people experiencing a mental health condition or substance-use disorder alone. Individuals with serious mental illness have a life expectancy of 25 years less than the general population. For individuals with co-occurring disorders, the life expectancy is 35 years less.[94]

The behavioral health system in Massachusetts is regulated and funded by three state agencies, all of which are under the Executive Office of Health Human Services: Department of Mental Health, Department of Public Health and MassHealth. These agencies serve thousands of Massachusetts residents in a variety of capacities:

- DMH serves approximately 30,000 individuals with severe and persistent mental health disorders— including children and adolescents with severe and persistent mental health disorders as well as individuals referred from the courts for evaluation and aid in sentencing.

- More than 150,000 individuals were served by DPH's Bureau of Substance Abuse Services (BSAS) contracted providers in fiscal year (FY) 2014.
- More than 1.89 million individuals are currently enrolled in the MassHealth program; one in five MassHealth members has used a mental health service and one in 20 has used a SUD service.[95]

Barriers to treatment in Massachusetts mimic similar challenges across the country. Namely, an insufficient workforce, lack of services provided in a timely manner and a lack of insurance coverage / high cost of care. In Massachusetts, over 45% of Massachusetts adults with any mental health disorder reported not receiving any care, and almost 60% of Massachusetts youth who experienced a major depressive episode received no mental health service.[96] As system challenges make it difficult to access services, the prevalence of behavioral health conditions persists across the Commonwealth: More than 20 percent of Massachusetts residents experienced a mental illness and 10 percent experiencing a SUD between 2016 and 2017.[97] One in five MassHealth members has used a mental health service and one in 20 has used a SUD service.[98]

And, according the Boston Public Health Commission's 2016–2017 Health of Boston report,[99] accessing outpatient mental health services in Boston is very difficult:

- 68% of clinics have reduced their outpatient clinic capacity in the past three years to minimize growing financial losses; 45% are actively considering further reductions;
- 60% have wait times of at least one month for a child to get a routine prescriber assessment; 58% have wait times of at least one month for adults;
- 59% have unfilled psychiatrist positions; 45% have unfilled nurse prescriber positions;
- 76% lost money delivering outpatient services in FY15; the average annual loss was $555,000 — 17% of the average operating budget.
- Only half of psychiatrists in the Northeast accept employer-based private insurance,[100] and just 55% of mental providers in Massachusetts take Medicaid.[101]

These struggles are confirmed by the interviews HRiA conducted with vendors at the Shattuck providing mental health services and are largely due to poor reimbursement rates from private and public payers. Recently, however, the MassHealth Section 1115 waiver was extended and may greatly benefit individuals on MassHealth, especially those with complex health care needs, and institutions that provide services to those on MassHealth. Prior to the 1115 waiver, MassHealth paid for outpatient counseling, methadone treatment, short-term detoxification services, and short-term residential services for people seeking treatment for substance use disorder. Under the new system, longer-term residential services and additional recovery support services will also be available through MassHealth. Those systems changes may make it possible for more individuals with serious mental illness to improve the quality of their lives with the appropriate intensity of services, supports and evidenced based treatments.

SUBSTANCE USE

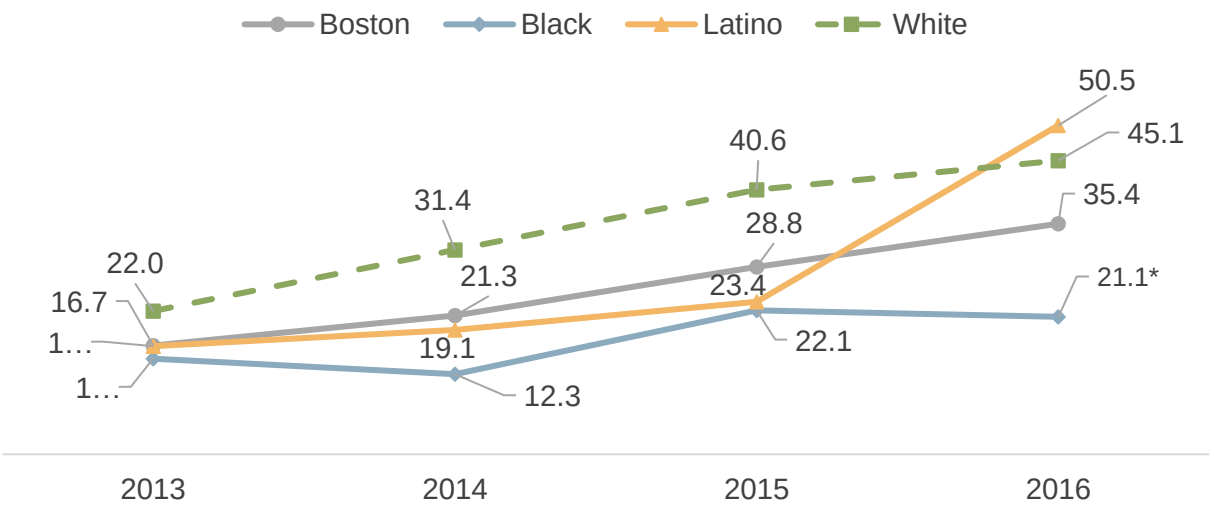
Many Massachusetts adults receiving treatment in acute care hospitals have comorbid behavioral health conditions: in 2013 and 2014, 40% of patients admitted to Massachusetts acute care hospitals had at least one comorbid behavioral health condition (any mention of a diagnosis of a mental health disorder, SUD, or co-occurring diagnoses of mental health and substance use

disorders).[102] Given that vendor program interviewees reported that most of their current patients have comorbid conditions, it is critical to analyze the existing mental health and substance use resource and service gaps holistically. The substance use treatment services continuum of care is depicted as a reference in **Appendix 1**.

Approximately 10% of the Massachusetts population suffers from SUD.[103] In 2015, Boston's rate was 11.3%.[104] In Boston, alcohol and heroin are most often abused. When measured by years of potential life lost before age 75, Massachusetts residents lost 60,000 years of life in 2015 due to poisonings (most of which are opioid related.[105]

- ***Binge Drinking*.** The percent of Boston adults reporting binge drinking (having 5 or more drinks on an occasion for men or 4 or more drinks on an occasion for women) has remained steady since 2010, with approximately one-quarter of Boston adult BRFSS respondents reporting this behavior.[106]
- ***Opioids.*** Opioid-related deaths have increased 450% over the last 16 years in Massachusetts.[107] Unintentional opioid overdose rates are highest in the South End, which is more than twice the rate compared to Boston overall (277.6 patient encounters per 100,000 population). The rate of opioid overdose deaths in Boston has substantially increased since 2013 and was highest among Latino residents (50.5 deaths per 100,000 residents), followed by White residents (45.1 deaths per 100,000 residents) in 2016.[108]
- According to the 2017 Massachusetts State Health Assessment, fentanyl is increasingly recognized as a problem in Massachusetts and across the country. Fentanyl can be up to 50 times more potent than heroin. Data from the MDPH quarterly opioid-related overdose death report shows the rate of fentanyl present in opioid-related deaths with a toxicology screen increased from a low of 19% in the third quarter of 2014 to 81% in the first quarter of 2017.[109] In interviews, Shattuck vendors reported an increase in detox services for addiction to crystal meth.

FIGURE 14: UNINTENTIONAL OPIOID OVERDOSE MORTALITY RATE, BY BOSTON AND RACE/ETHNICITY, AGE-ADJUSTED RATE PER 100,000 RESIDENTS 12 YEARS AND OVER, 2013–2016



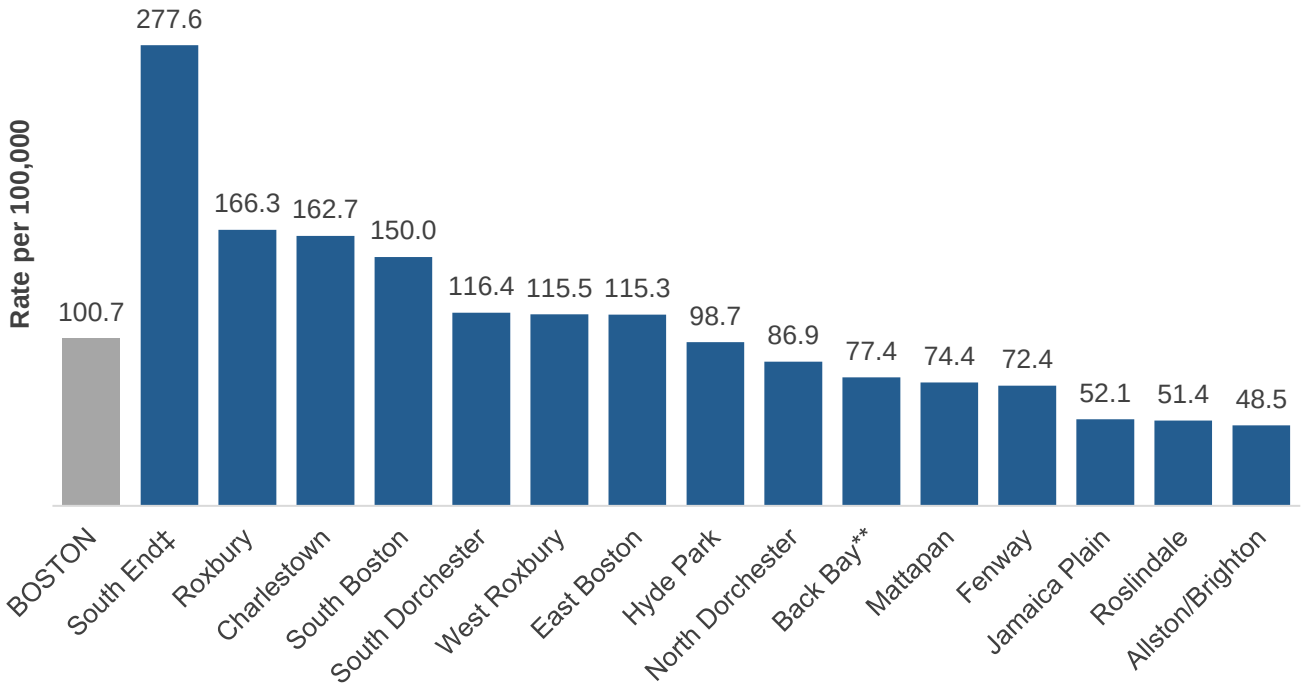
DATA SOURCE: *Massachusetts Department of Public Health, Boston resident deaths, 2013–2016*

DATA ANALYSIS: *Boston Public Health Commission, Research and Evaluation Office*

NOTES: *Sample size for Black and Latino for 2013 and 2014 are ≤ 20 and rates should be interpreted with caution; Data not shown for Asian due to insufficient sample size; Dashed line indicates reference group for statistical testing done for 2016 data; Asterisk (*) denotes where estimate was significantly different compared to reference group for 2016 data (p <0.05); Change over time was statistically significant for Boston (increase over time), Latino (increase over time), and White (increase over time)*

Boston's South End has a high concentration of behavioral and homeless services. Unintentional opioid overdose rates are highest in the South End, which is more than twice the rate compared to Boston overall (277.6 patient encounters per 100,000 population). In 2014, Boston Medical Center (and Good Samaritan Medical Center, and Mercy Medical Center) had the highest volume of opioid-related hospital discharges across all hospitals in the Commonwealth. Two of the five OTP methadone treatment facilities in Boston are in 02118.

FIGURE 15. AGE-ADJUSTED UNINTENTIONAL OPIOID OVERDOSE/POISONING HOSPITAL PATIENT ENCOUNTERS* OF RESIDENTS AGES 12+, 2010–2013 COMBINED



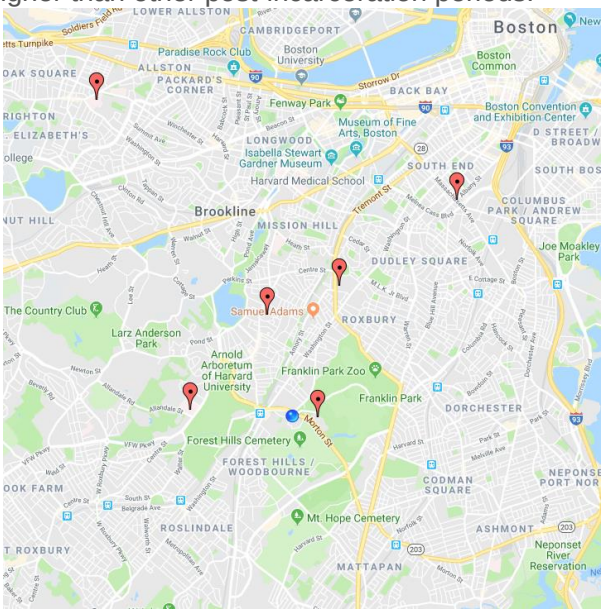
** Includes ED visits, observational stays and inpatient hospitalizations, **Includes Beacon Hill, Downtown, the North End, and the West End, ‡ Includes Chinatown*

DATA SOURCE: *Hospital Case Mix Database, MA Center for Health Information and Analysis (CHIA)*

DATA ANALYSIS: *Boston Public Health Commission Research and Evaluation Office*

Not treating substance use disorder is costly to the healthcare system, and to society more broadly.[110] The annual economic impact of substance use in the United States in the form of crime, productivity losses and health care costs totals hundreds of billions of dollars.[111] One in ten of all Boston hospital ED visits and 1 in 20 of all inpatient admissions in 2012 were related to substance use disorder.[112] Public payers bear a substantial burden of opioid-related hospital discharges: in 2015 public payers covered 76% of opioid-related discharges, compared to 64% of overall discharges. MassHealth pays for a large share of opioid-related hospital discharges. Despite accounting for only 25% of the Commonwealth's population, MassHealth patients made up more than half (51%) of all opioid-related discharges in 2015.[113]

Like the inequities across populations described in the mental health section of this report**,** racial and ethnic groups with addiction disorders are at risk for poor outcomes, due in part to socioeconomic factors like unemployment and housing instability. Black and Hispanic people were less likely than whites to complete treatment for alcohol and drugs.[114] People who are leaving prisons and jails are at elevated risk for fatal overdoses. The risk of opioid-related death following release from incarceration is more than 50 times greater than for the public.[115] Fatal overdoses during the first month after release from incarceration are six times higher than other post-incarceration periods. And, despite accounting for only 25% of the Commonwealth's population, MassHealth patients made up more than half (51%) of all opioid-related discharges in 2015.[116]



The behavioral health system is difficult to navigate for everyone, but some groups have more challenges when seeking care than others. Individuals and families report long wait times and difficulty accessing Clinical Stabilization Services (CSS) and Transitional Support Services (TSS) services. Access to long-term residential programs is hampered by bed capacity and patient flow issues. In 2016, there were nearly three times the numbers of ATS beds (953) statewide as CSS (454) or TSS (342).[117] However, approximately 730 new Licensed Beds/Programs/Homes have been added since January 2015.[118]

At most, approximately 600 beds, or a quarter of residential capacity, become available each month. This is substantially less than the approximately 3,000 people completing a 24-hour detoxification program in a month, or the approximately 900 completing CSS and TSS programs.

Substance Use Treatment Program and Services Landscape

The rate of admissions to DPH funded or licensed substance use treatment programs was almost 50% higher in Boston (2,407.5 admissions per 100,000 population) as compared to Massachusetts (1,651.9 admissions per 100,000 population) overall (**Table 6**). About half of these admissions were for intravenous drug use in both Boston and Massachusetts.

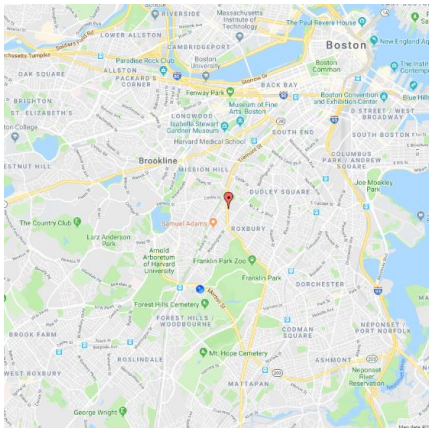
TABLE 6. RATE OF ADMISSIONS TO DPH FUNDED TREATMENT PROGRAMS PER 100,000 POPULATION, BY STATE AND CITY, FY 2017

Geography	Admissions to DPH Funded/Licensed Treatment Programs	Intravenous Drug User Admissions to DPH Funded/Licensed Treatment Program
Massachusetts	1,651.9	707.4
Boston	2,407.5	1,194.8

DATA SOURCE: *Office of Statistics and Evaluation, Bureau of Substance Addiction Services, Massachusetts Department of Public Health, FY2017*

INPATIENT DETOXIFICATION, OR ACUTE TREATMENT SERVICES (ATS)

ATS is the first step toward recovery for people who need medical management or who will go through withdrawal.



- Detox services provide 3–5 days of 24-hour care and monitoring for withdrawal. Medical management might be needed. Inpatient detoxification allows a patient to be closely monitored and given medication to manage withdrawal.
- 6 programs are within a 5-mile radius of Shattuck Campus, 1 of these programs is currently at the Shattuck Campus (Andrew House)
- High Point Detox, also located at the Shattuck Campus is a Section 35 Women's Addiction Treatment program is for women civilly committed with services that include detoxification and clinical stabilization. In 2019, with permission from the Commonwealth, the facility will also begin accepting referrals from community-based programs.

CLINICAL STABILIZATION/STEP DOWN (CSS)

These *"step down"* services offer 24-hour treatment for people who need a safe and structured setting to support their recovery after detoxification.

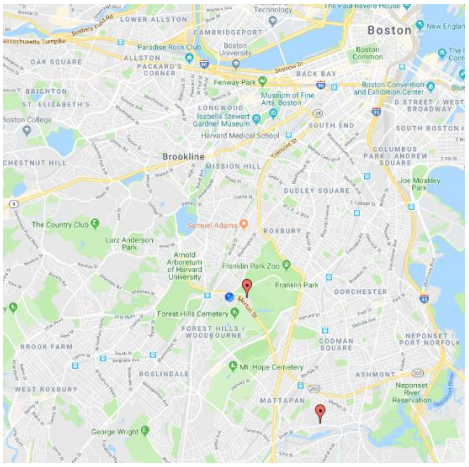
- Services include nursing support, case management, education and counseling, and aftercare planning. These programs help to bridge services between detoxification and rehabilitation programs, such as halfway houses. This might also be an inpatient treatment option for someone addicted to marijuana or cocaine.
- 1 program is within a 5-mile radius of Shattuck Campus

TRANSITIONAL SUPPORT SERVICES (TSS)

TSS provides up to 30 days of residential services for people who need a safe and structured setting to support their recovery after detoxification. Services include nursing support, case management, education, and aftercare planning. Programs provide intensive case management to prepare people for longer term residential care, such as halfway houses.

- There are very few of these programs statewide. Two are within a 5-mile radius of Shattuck Campus, 1 of these programs is currently at the Shattuck Campus (Women's Hope)

MEDICATION-ASSISTED TREATMENT (MAT)



- Opioid use disorder can be effectively treated with pharmacologic intervention combined with evidence-based behavioral therapy.[119] Medication-Assisted Treatment (MAT) is an effective out-patient, evidence-based treatment option that helps reduce cravings for opioids or alcohol and reduce withdrawal symptoms.
- MAT programs provide medication, like methadone, buprenorphine, and injectable naltrexone. They also provide other medical and support services. All MAT medications require supervision by a licensed professional or program. Treatment can be short-term or long-term. Some programs offer outpatient detox or short-term MAT services. Some inpatient programs offer MAT that is continued after the patient leaves the treatment program (and becomes outpatient).
- There are 11 methadone licenses in Boston; five are Opioid Treatment Programs. In the Commonwealth, MAT providers are heavily concentrated in the most densely populated areas of the state and the majority are clustered in eastern Massachusetts.
- HRCR currently provides MAT at the Shattuck Campus. Almost 80% of active patients at HRCR live in Boston (21% Dorchester; 13% Jamaica Plain; 10% Roxbury; 8% Roslindale; 7% Mattapan).[120]

COUNSELING AND OUTPATIENT SERVICES

- Outpatient counseling provides assessment and treatment for adults and adolescents, their families, and/or their partners who are affected by addiction.
- Services are in a community-based setting such as a medical office. Counseling and therapy usually happen up to 3 times per week. The goal is to help people gain and maintain skills for recovery. Services can be for individuals, groups, and families.
- 44 programs are within a 5-mile radius of Shattuck Campus, one of these programs, operated by the Pine Street Inn, is located at the Shattuck Campus (Pine Street Inn and hopeFound merged in 2012)

RESIDENTIAL TREATMENT

- These services are for people who recently stopped using alcohol and/or other drugs, are medically stable, and can be in a structured residential program. These are also known as halfway houses, where people live at the program where they get treatment.
- Residential programs help people in early recovery to become a part of their community again and develop new supports to keep them in recovery. Residential treatment is usually three to nine months long.
- 24 programs are within a 5-mile radius of Shattuck Campus.

Gaps in Behavioral Health Continuum

The lack of coordination between Mental Health and Substance Use Treatment systems, mentioned in Ready for Reform: Behavioral Health Care in Massachusetts, to help people with co-occurring SUD and mental health conditions to obtain the right level of care, in the right setting, at the right time is a common theme.[121] Most Shattuck vendor interviewees mentioned that their own patients have challenges when transitioning between programs and that there are too few recovery coaches at all levels of care; increasing the number of recovery coaches may be one solution to improve continuity of care by getting the individual into the next level of appropriate care and support individuals during critical transition periods.[122] Approximately 30% of individuals who reported an unmet need for SUD treatment did not receive treatment because they lacked health coverage and/or could not afford it.[123]

A January 2019 report issued by Manett Health and the Blue Cross Blue Shield Foundation of Massachusetts identified six gaps in Behavioral Health Continuum.[124] They include:

1. Lack of appropriate training among primary care and other physical health providers in techniques for identifying individuals with behavioral health needs, treating those who can be managed in a primary care setting, and providing appropriate referrals for more complex cases.
2. Long wait times for outpatient mental health and SUD treatment, regardless of insurance type. Lack of attention to and expertise in treating co-occurring mental health and SUD needs and co-occurring behavioral and physical health conditions. Inadequate supply of evidence-based treatment modalities, including medication-assisted treatment.
3. Emergency Services Programs (ESPs), mobile crisis interventions, and other urgent care programs are underfunded and struggle to hire qualified staff. Services are not widely covered by commercial insurance. Emphasis of ESPs has historically been on treating those with mental health conditions, as opposed to SUDs or cooccurring conditions.
4. Long wait times for partial hospitalization and intensive outpatient programs. Financial viability for these programs remains a challenge, driven in part by staffing and licensure requirements.
5. Lack of specialized beds for children with autism and individuals of all ages with intellectual and developmental disabilities, driven in part by difficulty hiring and retaining adequate clinical staff. Lack of clinical knowledge about care options across the continuum among

community-based providers (e.g., PCPs), leading to many referrals to acute settings that could be managed in the community.

6. Patients are often *"lost"* in navigating the transition between settings. Lack of interoperability and ability to exchange data across entities hinders seamless care management.

OPPORTUNITIES

A 2017 Health Policy Commission's Opioid Use Disorder Report evaluated the impact of the opioid epidemic on the health care system. The report recommends that the Commonwealth increase access to and effectiveness of evidence-based opioid use disorder treatment by integrating pharmacologic interventions into systems of care, by focusing on whole-person approaches and providing supportive housing for people that have a dual diagnosis or co-occurring conditions.[125]

A May 2019 report from the Health Policy Commission recommends that the Commonwealth continue to promote and fund evidence-based integrated care models for the treatment of co-occurring disorders, particularly those that integrate care with community based organizations, primary care providers, and social service organizations and that additional efforts should be made to drive innovation, identify compelling new care models, and evaluate their efficacy to build the evidence base for integrated, high-quality behavioral health care.[126] There is an opportunity at the Shattuck Campus to create a space for programs that provide that innovative and integrated care.

Community Input

Many people throughout the planning process have expressed support for support for maintaining behavioral health services on the Campus. Some noted that it was critical to learn more about who the programs currently serve and what role those services are playing in the broader health services landscape. During community meetings and events, many community members and Advisory Board members, as well as the Commonwealth, indicated that it is important to continue to provide services like those already sited at the Shattuck Campus. Specific recommendations included substance use services (detox and longer-term recovery services) as well as long-term housing for individuals leaving detox. Analysis of the qualitative data collected during community meetings and events shows that many community members who suggested the Shattuck site be used to deliver healthcare services also stressed that this should include both physical and mental health services. Suggestions for mental health services included counseling and case management services, medication services, and peer and other support group programs.

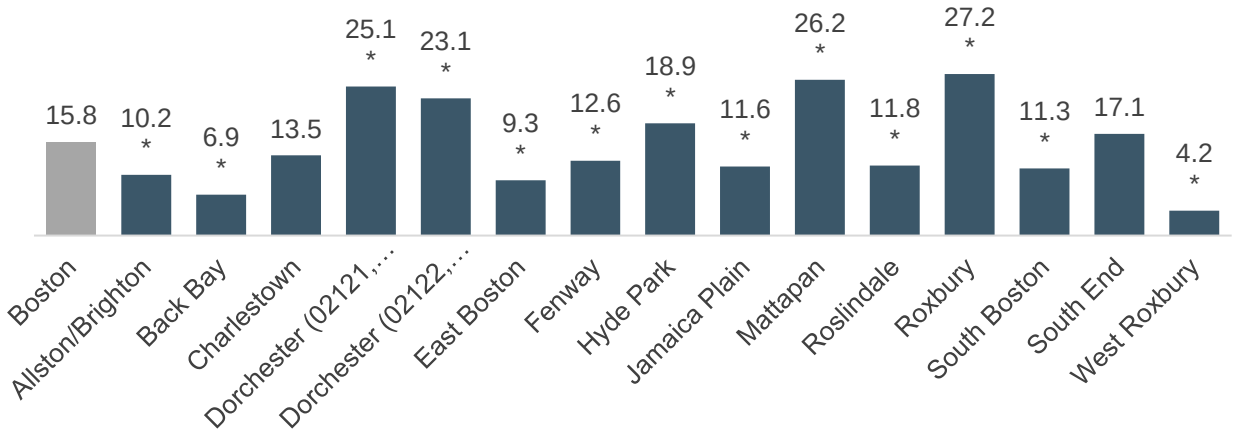
In the 2019 Joint Boston CHNA, substance use was considered a priority health issue in many focus group and interview discussions. Participants mentioned a variety of substances including marijuana, prescription drug use, and opioids as being among the most concerning. Co-occurring mental health and substance use issues were frequently discussed among key informants, as well as the interrelationship between trauma, mental health, and substance use. Participants noted that there were several barriers to treatment and recovery services, including cost, availability of different options, and limited cultural and language competencies of providers to treat immigrant communities.

CHRONIC DISEASE

Chronic disease is both prevalent and costly. Six in ten American adults have a chronic disease and four in ten have two or more.[127] The total costs in the U.S. for direct health care treatment for chronic health conditions totaled $1.1 trillion in 2016 — equivalent to 5.8 percent of the U.S. gross domestic product (GDP).[128] As seen across other health issues, many chronic conditions such as heart

disease, diabetes, and asthma disproportionately affect communities of color, lower income individuals, and residents of low resourced neighborhoods, the same groups more likely to experience employment, financial, and housing insecurity.

FIGURE 16. ASTHMA HOSPITALIZATION RATE, BY BOSTON AND BY NEIGHBORHOOD, AGE-ADJUSTED RATE PER 10,000 RESIDENTS, 2016–2017 COMBINED



DATA SOURCE: *Massachusetts Center for Health Information and Analysis, Acute Hospital Case Mix Databases, 2016–2017 Combined*

DATA ANALYSIS: *Boston Public Health Commission, Research and Evaluation Office*

NOTES: *Asterisk (*) denotes where neighborhood estimate was significantly different compared to the rest of Boston ($p < 0.05$)*

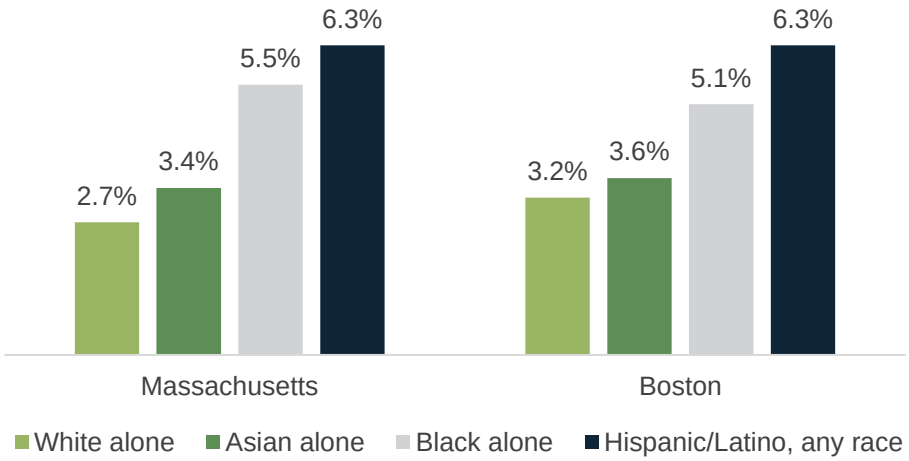
According to the 2019 Boston CHNA, there are considerable differences in rates of chronic disease by race and geography in Boston. Both diabetes and asthma emerged in the qualitative data gathering as concerns. While there is a low prevalence of diabetes and asthma in Boston (9% and 11% respectively), Black and Latino residents have a higher prevalence of diabetes and experience higher diabetes-related hospitalization and death rates than White residents. Additionally, Black and Latino adults and children experience substantially higher asthma-related emergency department visits compared to White adults and children. In 2013–2017, one-quarter (25%) of Boston adults reported being diagnosed with hypertension, one of the most important risk factors for heart disease and stroke.

HEALTH CARE ACCESS

Boston CHNA focus group, interview, and survey participants shared positive perceptions of the quality and proximity of health care in their community, but they still cited several concerns over access. The biggest barriers to health care access discussed in the focus groups were: being under-insured; language and immigration status; navigation and care coordination challenges; transportation; and lack of culturally-sensitive approaches to care. In 2012–2016, over 6% of Massachusetts and Boston Hispanic and Latino residents did not have health insurance, which is approximately twice the proportion of White residents who did not have health insurance in Massachusetts and Boston (**Figure 17**). Over 5% of Black Massachusetts and Boston residents did

not have health insurance, and approximately 3.5% of Asian Massachusetts and Boston residents did not have health insurance.

FIGURE 17. RACIAL COMPOSITION OF POPULATION WITHOUT HEALTH INSURANCE, BY STATE AND CITY, 2012–2016



DATA SOURCE: *U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012–2016*

As shown in **Figure 18**, in 2015 there was one primary care physician per 950 Massachusetts residents and per 670 Suffolk County residents.

FIGURE 18. RATIO OF POPULATION PER ONE PRIMARY CARE PHYSICIAN, BY STATE AND COUNTY, 2015

DATA SOURCE: *American Medical Association, Area Health Resource File, as reported by County Health Rankings, 2015*

Community Input

When discussing access to care, a prominent theme across Boston CHNA focus groups and interviews was the challenge of navigating the complex health system. Focus group members spoke about struggling to understand their health care benefits; for example, one participant reported that that they *"felt lost in the system."* Several focus group participants emphasized that many simply do

not know what resources are available to them or how to access them. One interviewee summarized, *"When you have to find services and then you have to go to them…when you've [experienced] trauma, coordinating all this stuff yourself is really hard; organizing and having to stay on top of it. We are not as good with coordination as a system; we've talked about it, but we don't really know what that looks like yet at the ground level."*

Boston CHNA participants identified a need for more navigation services that could help patients access services and resources across sectors. Multiple key informants and focus group participants identified peer navigators and community health workers as valuable resources. One focus group participant shared, *"Doctors only have a certain amount of time and you can't rely on them to talk to patients about everything. But there does need to be more navigators available to help patients understand and explain."* Key informants in the Boston CHNA echoed the value of these services; however, reimbursement models and funding constraints appear to make it difficult for organizations to fund these positions.

Residents participating in the Shattuck community process suggested that the Shattuck campus could also be used to deliver healthcare services to community residents. Specific suggestions about how to do this varied. Among the suggestions were hospital services, specifically expanding the current hospital's services, pharmacy, urgent care services and outpatient mental health services, patient navigators and systems changes to make navigation between primary care and behavioral health, transitions within levels of behavioral health care, and supports across the health and housing systems easier.

BUILT ENVIRONMENT

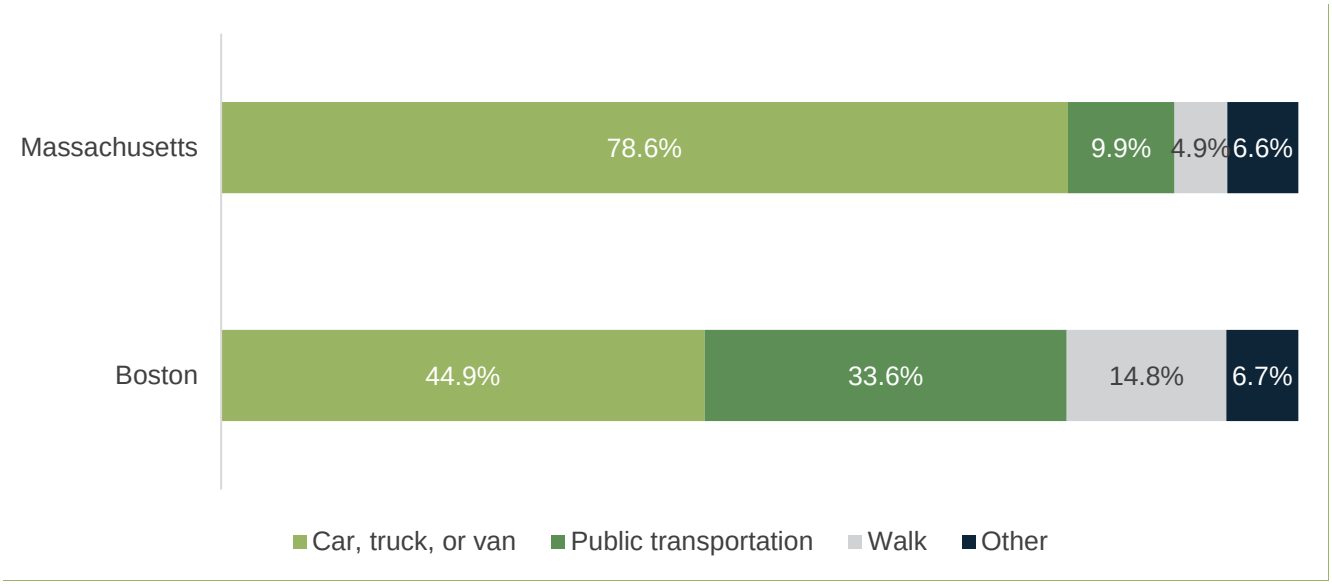
Transportation and connectivity

Key Finding: Improved pedestrian and bike trails and paths near and through the Shattuck Campus can provide needed connections from Morton Street to Forest Hills and to Franklin Park.

- Thirty-four percent of Boston residents do not own a car. Forty-two percent of Boston residents want mobility and open space improvements in their neighborhood.[129]
- Pedestrian and bike connections and greenways in this area and across Boston will improve access to open space, transit and jobs, promote active recreation and improve climate change resiliency.[130]
- Vendor interviewees reported that most people that receive services at the Shattuck Campus do not have a car and are reliant on public transportation and/or shuttle service.

As shown in **Figure 19**, almost four out of five Massachusetts residents (78.6%) commute to work by car, van, or truck, compared to less than half of Boston residents (44.9%). One-third of Boston residents (33.6%) commute to work by public transportation, while one out of ten Massachusetts residents (9.9%) commute by public transportation. The proportion of Boston residents (14.8%) that commute to work by walking is three times that of Massachusetts residents (4.9%).

FIGURE 19. MODE OF TRANSPORTATION TO WORK FOR WORKERS AGED 16+ YEARS BY STATE AND CITY, 2012–2016



DATA SOURCE: *U.S. Department of Commerce, Bureau of the Census, American Community Survey, 2012–2016*

EXISTING SERVICES

- **Walkability.** The Walk Score walkability index ranges from 0 to 100, based on walking routes to local destinations such as grocery stores, parks, schools, and store outlets. While Boston has an overall walk score of 81, the Shattuck Campus has a walk score of 39.[131]

- **Public transportation.** Boston has one of the highest AllTransit Performance Score of 9.4, which looks at connectivity, access to jobs, and frequency of service. Boston's score is the third highest in the nation, after San Francisco and New York City.[132] Over a third of Metro Boston jobs (37%) are within a half-mile of an MBTA transit or commuter rail station.[133] The Shattuck Campus is within a 15-minute walking distance of the Forest Hills T station with access to both the MBTA Orange Line and the Needham Commuter Rail Line. Eight MBTA bus lines stop within a half-mile of the Shattuck Campus (16, 21, 31, 32, 34, 36, 38, 195).[134] Among the six legacy transit systems (Boston, Chicago, New York City, Philadelphia, San Francisco, and Washington, DC) Boston has the oldest fleet of busses and the second-oldest fleet of subway cars.[135] Additionally, subway headway, or the interval of time between subway trains, increased by 41% in Boston from 2000 to 2015. This is the largest increase of subway headway during that time among the six legacy transit systems, with San Francisco being the city with the second largest increase of 5%.[136]

- **Driving.** In 2017, nearly 40% of the workforce in Suffolk County drives alone to work, compared to 70% of the Massachusetts workforce. Among Suffolk County workers who commute in their car alone, the average commute was 30.1 minutes.[137]

- **Bike trails.** There are bike trails that run along the edge of the Shattuck Campus and through Franklin Park, depicted in **Figure 20** below. Connectivity between existing back lanes is inadequate; according to some community members leaving the site on bike and heading towards Forest Hills can be quite dangerous. Proposed bike lanes from improved connectivity can be found in the second map (**Figure 21**), with dotted lines indicated a proposed route. These maps are from the Metropolitan Area Planning Council's Trail Map.[138]

FIGURE 20: CURRENT BIKE TRAILS NEAR SHATTUCK CAMPUS, FROM METROPOLITAN AREA PLANNING COUNCIL'S (MAPC) TRAIL MAPS

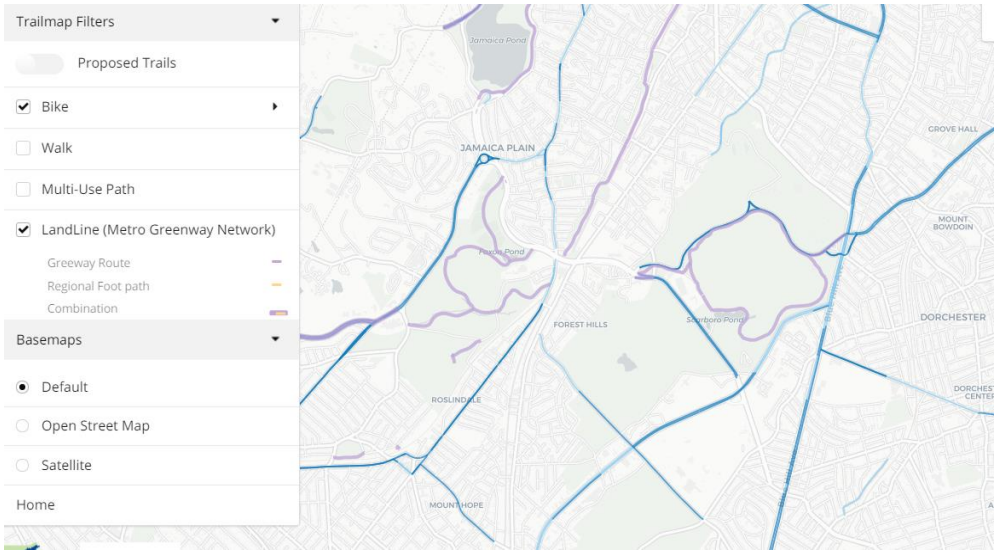
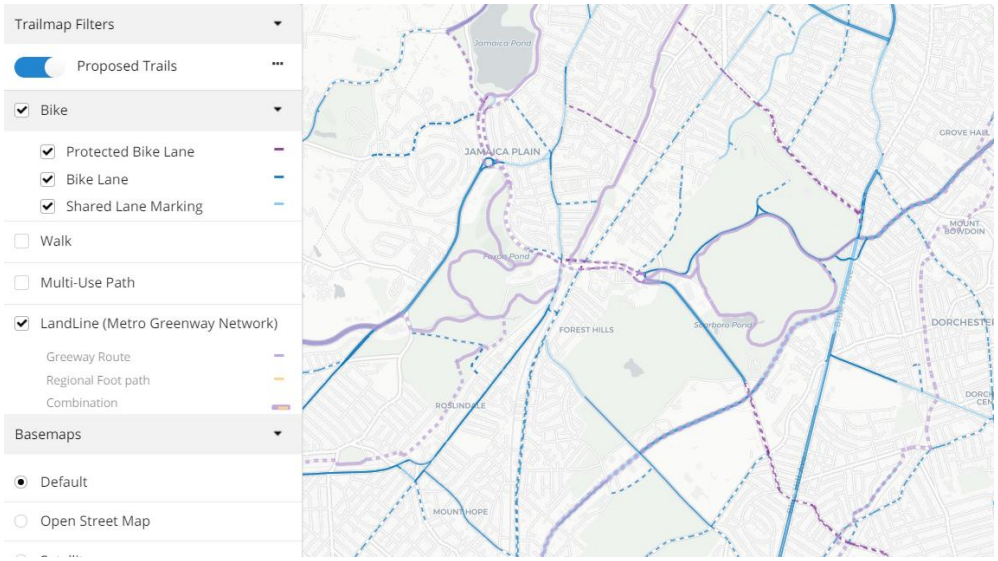


FIGURE 21: MAPC PROPOSED BIKE TRAILS FOR IMPROVED CONNECTIVITY NEAR SHATTUCK CAMPUS



EXISTING TRANSPORTATION SERVICES TO SHATTUCK CAMPUS

Residents in subsidized-cost housing often have complex needs that necessitate a variety of supportive services. Transportation access is integral to these residents being able to connect with those services as well as key destinations such work, grocery stores, child care, and medical services.[139] Given that the people who access services at the Shattuck Campus rely on public transportation and that there will be supportive housing on site, planning for improved access to the site is important.

Most people that access services at the Shattuck Campus arrive by means other than a car. The Department of Public Health currently runs a shuttle from offsite surplus parking site & to Forest Hills MBTA station to Shattuck Campus. Shuttle service will be discontinued when the Shattuck Hospital moves to Newton Pavilion. The Campus is 0.6 miles to Forest Hills T Station. Current MBTA bus service includes the #16 bus via Jewish War Veterans Pkwy and the #21 and #31 buses on Morton Street. Bike Path connections are planned from Forest Hills to Franklin Park.

Community Input

Addressing transportation access issues was mentioned by a couple of residents, such as one who attended the DCAMM event who said, *"the campus is isolated with no sidewalks and inadequate bus stops. We shouldn't warehouse people. Services should be integrated with the community."* More frequent and reliable bus transportation was often mentioned, as was a BlueBikes station. Additional suggestions relating to integration with the local community included connecting to the independent living facility on Morton Street and the Forest Hills Cemetery.

A couple of community members stressed the need to attend to traffic and safety issues in the area, specifically safety on Morton Street. Several people at the DCAMM and fall community meetings noted the lack of safety in accessing buses and suggested that this be improved with safer bus stops.

Opportunity:

Suggestions from community members and interviewees for improving transportation included: more frequent bus transportation; adding a stop light and cross walk on Morton Street near the bus stop; adding a shelter and sidewalk to make the current bus stop on Morton Street safer; adding a Hubway (bike) station; as well as being mindful about connecting to the independent living facility on Morton Street and the Forest Hills Cemetery.

GREEN SPACE

Key Finding: People receiving services at the Shattuck Campus and neighboring communities would benefit from added green and open space at the Campus and improved integration with Franklin Park

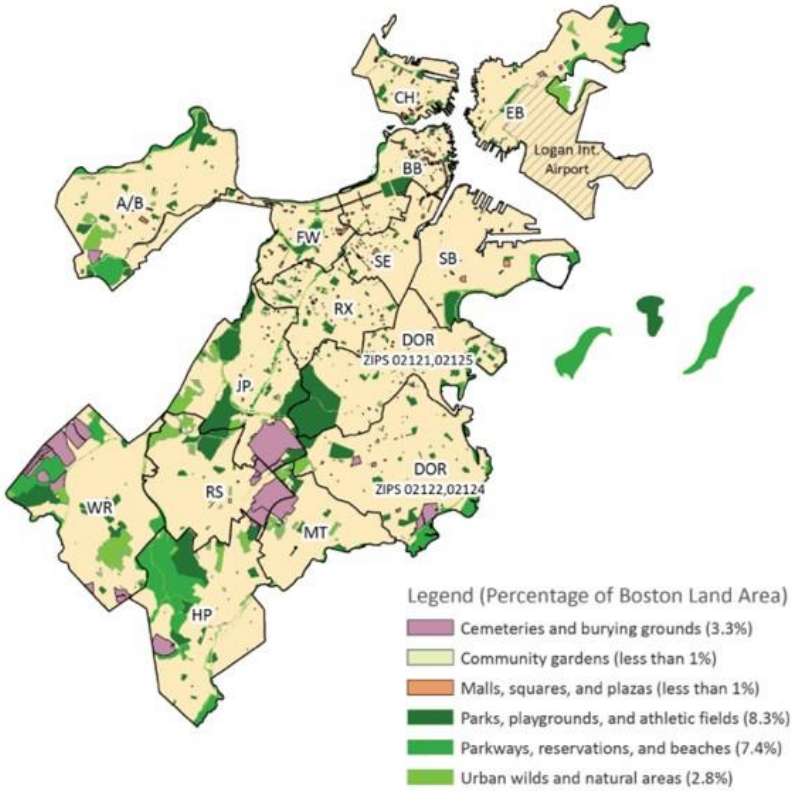
- Green and open spaces promote mental and physical health. People who live in areas with more green space have less anxiety, stress and depression, and greater well-being compared to those with less green space.[140]

The Shattuck Campus sits between the Forest Hills Cemetery and Franklin Park, a 485-acre park designed by Frederick Law Olmsted. Established in 1885, Franklin Park includes a woodland preserve, recreational areas, the Franklin Park Zoo, White Stadium, a golf course and open space.[141]

Places with access to green and open spaces promote mental and physical health. The natural and built environment of parks, playgrounds, recreation centers, and walking paths support physical activity by providing places for people to engage in exercise and active play.[142] According to the 2016–2017 Health of Boston report:

- Approximately 21% percent of Boston neighborhoods, excluding the Harbor Islands and including ponds and reservoirs, is open space;
- Jamaica Plain (37%) and Hyde Park (34%) have the highest percentages of land consisting of open space, while the South End (5%) and Roxbury (9%) have the least; and,
- Approximately 80% or 8.8 square miles of Boston's open space is publicly accessible. Public access to some open space may be limited, depending on location and ownership.

FIGURE 22. GENERAL OPEN SPACE BY TYPE AND NEIGHBORHOOD, 2017



DATA SOURCE: *Health of Boston 2016–2017*

Community Input

Given the location of the Shattuck campus near Franklin Park and the fact that the campus was, until the 1950s, part of the park, the importance of green space in the new project was a dominant theme during community meetings and events. As one participant stated, *"keep open space access for city residents a high priority."* Community members shared several ideas about how to do this including developing trails and gardens on the campus and enhancing recreational opportunities. There were suggestions for developing a healing and/ or community garden; a farmer's market was suggested as well as a nature/Audubon center and an indoor botanical garden.

Many participants, including some members of the Community Advisory Board, advocated that the Shattuck property be turned back to the park, which several described as aligned to a public health purpose. As one person at this meeting stated, *"the parkland was stolen to create this hospital. We have the opportunity to do something different with neighborhood involvement that incorporates both the park and DPH."* Another echoed this theme, saying *"the state should consider restoring the land to the Emerald Necklace. Parkland is a public health purpose for people living in urban areas."* Community members stressed the importance of ensuring that maximizing and enhancing green space be a priority. There was not consensus among the hundreds of people who participated in various community engagement meetings; many participants disagreed and advocated to the Commonwealth for continued homeless and behavioral health services on the Campus.

Some participants suggested that opportunities for physical activity be provided on the campus. During the Fall Shattuck Campus Planning community meeting and the Caribbean Festival, specific ideas for physical activity were shared and included: outdoor recreational space (jogging paths and walking trails) as well as indoor facilities such as a gym/fitness center and pool.

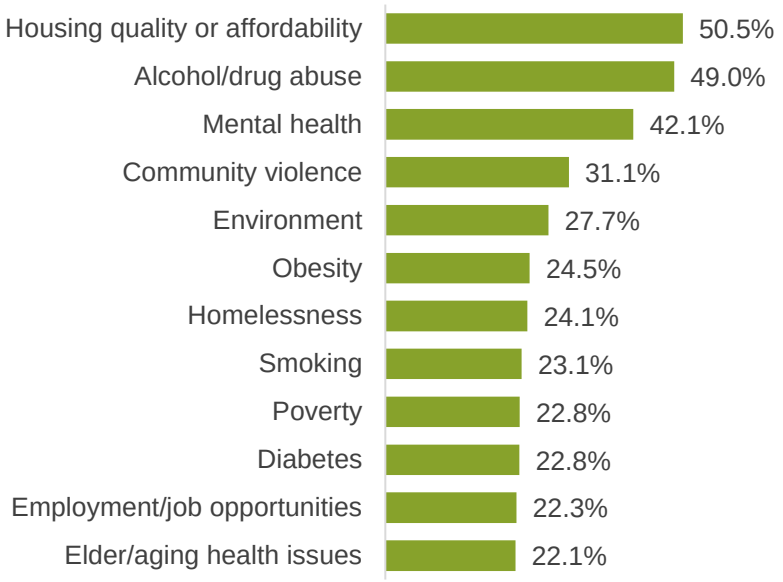
Community members stressed the importance of integrating the Shattuck site with the park and the community. An overarching theme across conversations was the need to ensure that whatever is built on the Shattuck site is not separate from the surrounding community — both the people and the parkland. A campus that connects and is connected to the community around it was frequently mentioned in discussion. Residents described a desire for a campus that is *"family friendly"* and that promotes, in the words of one community member, *"a sense of community and stability."* As one participant stated, *"a gathering place for residents to engage in their community and different issues, thinking, etc. together. How can you build something that lifts up people in the community"?* Residents stressed the importance of ensuring that whatever is built on the site is reflective of the wishes of the local community and meets their needs. As one person stated, *"no us and them."*

Another theme in community conversations was the importance of ensuring that whatever is built is also integrated with the surroundings, rather than set off. Residents shared that there should be *"synergy"* and *"connection"* between the buildings on the campus and the surrounding park land. One resident described a desire for *"more permeable edges to campus."* Participants suggested landscaping that integrates the buildings with the park, using pathways to reinforce connections, maximizing green space, and not using fencing. In sharing their vision for the site, members of one small group stated the following vision: *environmental and design features should reflect the harmonious uses of the natural landscape, restoring connectivity into the park and integrated into the community. The Shattuck campus should be a model for the best emerging practices using nature as a healing force*.

COMMUNITY PERCEPTIONS OF HEALTH: 2019 BOSTON COMMUNITY HEALTH NEED ASSESSMENT

Health-related concerns that were identified as most pressing among CHNA participants were housing, substance use and mental health, community violence, the environment (including air quality and effects of climate change), and chronic conditions and their related risk factors.

FIGURE 23: PERCENT BOSTON CHNA SURVEY RESPONDENTS REPORTING TOP MOST IMPORTANT CONCERNS IN THEIR COMMUNITY OR NEIGHBORHOOD THAT AFFECT THEIR COMMUNITY'S HEALTH (N=2,053), 2019



DATA SOURCE: *Boston CHNA Community Survey, 2019*

NOTE: *The figure above only presents the concerns that over 20% of survey respondents selected*

Understanding residents' perceptions of health is important because it provides insights into lived experiences, including key health concerns and facilitators and barriers to addressing health conditions. As seen in the graph on the right, the top community health concerns among Boston CHNA survey respondents were housing quality or affordability (51%) and alcohol/drug abuse (49%), followed by mental health (42%) and community violence (31%); these were also top concerns by neighborhood, race/ethnicity, age group, gender, and sexual orientation, with the addition of chronic diseases and related behaviors as well as the environment. In the context of the Shattuck Campus planning, it's useful to understand those community perceptions of health by neighborhood; the data in **Table 7**. below shows that amongst people living in neighborhoods that abut the Shattuck Campus, substance use, housing quality/affordability, mental health and homeless are all within the top five concerns.

TABLE 7: TOP MOST IMPORTANT CONCERNS IN COMMUNITY OR NEIGHBORHOOD THAT AFFECT THEIR COMMUNITY'S HEALTH, BY NEIGHBORHOOD, 2019

Population

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

DATA SOURCE: *Massachusetts Department of Public Health, Massachusetts Death Files, 2014–2016 Combined*

DATA ANALYSIS: *Boston Public Health Commission, Research and Evaluation Office*

SHATTUCK CAMPUS OPPORTUNITIES

Opportunities at The Shattuck Campus Identified Through The Health Needs & Services Assessment

This Health Needs & Services Assessment identified the following key opportunities for the Shattuck Campus. These opportunities were identified through the data review and analysis process by Health Resources in Action and build upon Campus assets to address current and future needs:

- Capitalize on recent health system transformations, including health care and social service collaboration with the inception of Accountable Care Organizations and the shift towards more integrated models of care.
- Address an urgent public health crisis by continuing to serve the population currently receiving services from private provider organizations at the Shattuck today and maintaining critical health care and behavioral health services in an integrated model; provide housing to address a critical health determinant.
- Enhance the quality of care and improve outcomes by designing a person-centered Campus that integrates medical and behavioral health care and has the advantage of co-location of key services.
- Contribute to the City of Boston, the Commonwealth and homeless service providers goal of increasing access to permanent supportive housing.
- Provide a healing environment with access to green and open spaces for people receiving services on-site as well as the broader community; better integration with Franklin Park and improved connectivity with surrounding communities.

APPENDIX

Appendix 1: Substance use treatment services continuum of care

0

Level 0.5:

Early Intervention Services

1

Level 1:

Medication-assisted treatment (MAT), Counseling and Outpatient services

2

Level 2:

Transitional Support Services (TSS) or Short-term residential treatment

3

Level 3:

Clinical Stabilization Services (CSS) or Short-term rehabilitation/ stabilization and transitional services

4

Level 4:

Acute Treatment Services (ATS) or Inpatient detoxification (detox)

Other Services:

- Tapering
- Residential treatment over 30 days or halfway houses

other

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