Charles River Community Health

COMMUNITY HEALTH NEEDS ASSESSMENT

October 2021

Introduction & Purpose of Needs Assessment

Charles River Community Health (CRCH) is a federally qualified community health center (FQHC) serving Allston, Brighton, Waltham, MA and surrounding areas. CRCH's 2021 Community Health Needs Assessment (CHNA) of its service areas follows up on the needs assessment it conducted in 2018. CRCH creates a new CHNA every three years to meet the Health Resources and Services Administration (HRSA) health center program requirements (Section 330(k)(2) and Section 330(k)(3)(J) of the PHS Act).

The goals of this CHNA process is to achieve the following:

- To support CRCH staff in developing a comprehensive portrait of the health status of CRCH's service area using a social determinants of health framework
- To describe both overall trends and unique issues by sub-populations, and to compare these trends and issues to local and state data
- To generate action-oriented data that informs service and program planning and development as well as strategic planning
- To ensure CRCH is addressing the most pressing health concerns among residents of Allston-Brighton, where it has been serving the community for 47 years; and in Waltham, where it has operated a health center for 17 years, as well as its general patient population.

Approach and Methods

This section describes how data for the community health needs assessment was compiled and analyzed, as well as the broader lens used to guide this process. Data from a multi-lingual community survey of residents, patients, those who work in our service area, and other stakholders, along with census data, was collected and analyzed by the Health Center staff. The CHNA defines health in the broadest sense and recognizes that numerous factors impact a community's health — from lifestyle behaviors (e.g., diet and exercise), to clinical care (e.g. access to medical services), to social and economic factors (e.g., employment opportunities), to the physical environment (e.g., air quality).

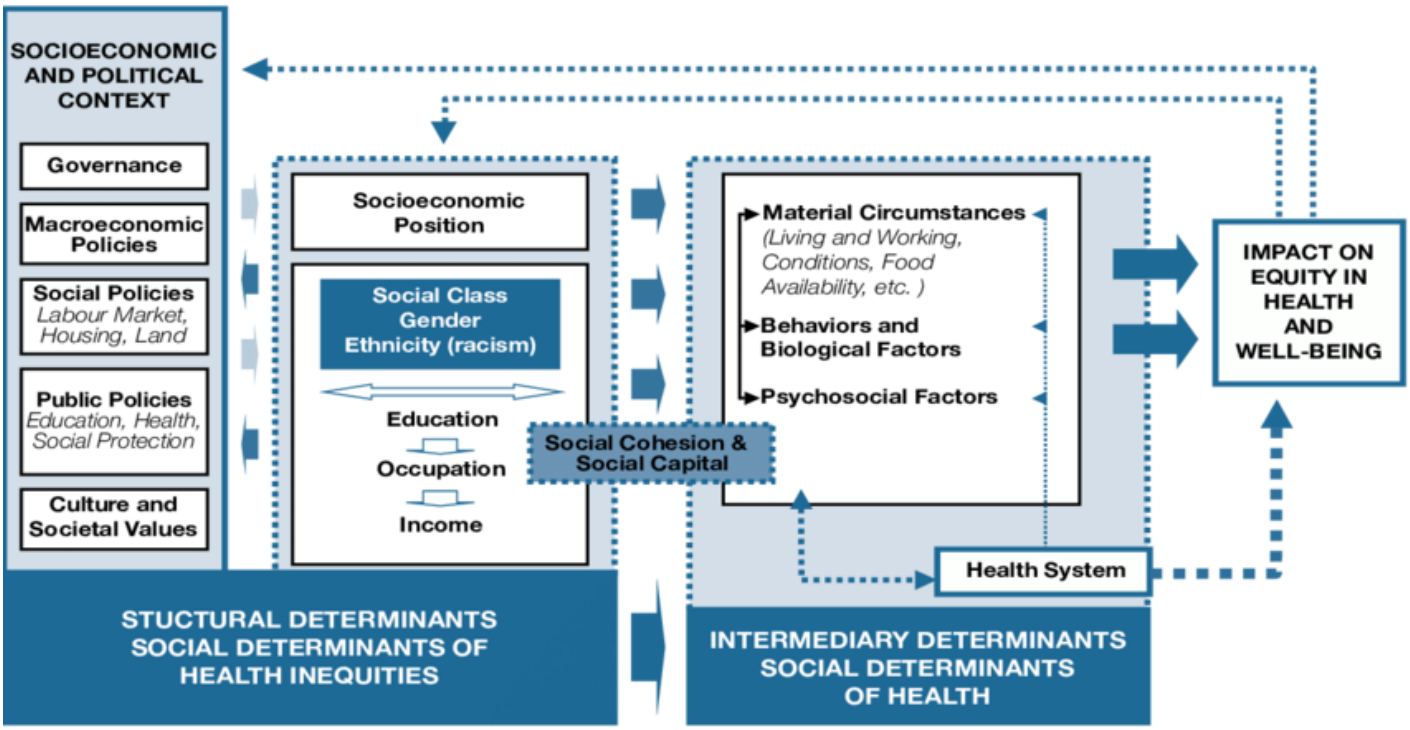
Social Determinants of Health (SDOH) Framework

According to the US Department of Health and Human Services and represented by the image below, SDOH can be grouped into five domains: Econimic Stability, Education Access and Quality, Health Care Access and Quality, Neighborhood and Built Environment, and Social and Community Context. It is important to recognize that multiple factors have an impact on health and there is a dynamic relationship between real people and their lived environments. Where we are born, grow, live, work, and age—from the womb to our community environment later in life—and the interconnections among these factors are critical to consider. That is, not only do people's genes and lifestyle behaviors affect their health, but health is also influenced by more upstream factors such as employment status and access to quality of housing. For example, if a

person does not have access to a grocery store with healthy foods in their neighborhood, nutrition is impacted. This can increase risk factors for chronic health conditions. The social determinants of health framework addresses the distribution of wellness and illness among a population.

The following diagram provides a visual representation of this relationship, demonstrating how individual lifestyle factors, those closest to health outcomes, are influenced by more upstream factors such as educational opportunities and the built environment.

Social Determinants of Health Framework



DATA SOURCES: World Health Organization, A Conceptual Framework for Action on the Social Determinants of Health: Social Determinants of Health Discussion paper 2, 2010.

Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved [date graphic was accessed], from https://health.gov/healthypeople/objectives-and-data/social-determinants-health

Review of Secondary Data

In an effort to develop a social, economic, and health portrait of Allston-Brighton, Waltham and CRCH's patient population, the Health Center reviewed existing data drawn from national, state, county, Community Health Network Areas and local sources. Health center specific data – such as patient demographics, services, and clinical indicators – was obtained from the Bureau of Primary Health Care Uniform Data System (UDS). Additional sources of data include the UDS

Mapper, U.S. Census, Massachusetts Department of Public Health, Boston Public Health Commission, City of Boston Homeless Census 2021, and Massachusetts Department of Elementary and Secondary Education, among others. Data analyses was generally conducted using the original data source (e.g., U.S. Census, Massachusetts Department of Public Health). The types of data also included self-report of health behaviors from large, population-based surveys such as the Behavioral Risk Factor Surveillance System (BRFSS), as well as vital statistics.

It should be noted that aside from population counts, age and racial/ethnic distribution, other data from the U.S. Census are derived from the American Community Survey, comprised of data from a sample of a given geographic area. Per Census recommendations, aggregated data from the past five years was used for these indicators to yield a large enough sample size to look at results by city/town and to reflect that 2020 U.S. Census data was still being updated at the state and local agency level at the time of this report.

Collection and Analysis of Primary Data

In addition to reviewing secondary data, CRCH collected primary data through multilingual community needs assessment surveys completed by residents,patients, community based organizations and others who work and/or serve the Allston, Brighton, and Waltham communities. Based off the survey used in 2018, we created an updated 50-question survey for 2021. The updated survey captured information related to health status, social determinants of health, health risk factors, prevalence of disease, access and care seeking behaviors, impact of the COVID 19 pandemic and barriers to care from 376 residents living in Allston-Brighton, Waltham or surrounding communities served by CRCH. Surveys were conducted in English, Spanish, Portuegese, Chinese, Vietnamese, Arabic and Haitian-Creole.

These primary and secondary data efforts culminated in development of this report, which will inform CRCH's program planning, strategic planning, and help us better meet the needs of our community, as well as meeting federal health center program requirements.

Summary of Findings: Community Health Priorities

The most significant health-related issues facing the communities in CRCH's service area were the broader social and economic determinants of health (e.g. poverty, food insecurity, health/disease literacy, etc.). These factors were exacerbated by the COVID 19 pandemic and were a barrier to many residents, particularly low income, racial & ethnic minority, and older adult residents, from maintaining a healthy lifestyle and/or accessing the regular preventive and acute health services they need.

Summary of Health Data & Related Findings – Allston-Brighton

Large proportions of individuals residing within Boston and CRCH's Allston-Brighton service area live in poverty, have limited formal education, are unemployed/underemployed, and struggle to afford housing, food and other essential household items. These populations are disproportionately from racial & ethnic minority groups and, partly as a result of their poverty,

face inequities in health and access to care outcomes. It is critical to acknowledge that there is a multitude of individual, community and societal factors including racism and institutional discrimination working together to create these inequities. It is insufficient to talk solely about race/ethnicity, foreign-born status, or language; as the underlying and correlative issues related to health and well-being involve economic opportunity, education, crime, and community cohesion.

Demographic Characteristics: According to 2020 UDS data, CRCH's patient population is predominantly Hispanic/Latino at 67.5%. This is much higher compared to Allston, which identifies as 51.1% White, and 13.4% Hispanic/Latino and Brighton, which identifies as 65.1% White and 12.1% Hispanic/Latino. While Allston and Brighton mirror Boston in that the majority of residents speak English, there is an incredible diversity of languages beyond that. Allston contains a larger percentage of Spanish speakers than Brighton. Chinese speakers in both Allston and Brighton top the Boston average and are a larger population than Portuguese speakers. CRCH's patient population is even more linguistically diverse. In 2020, 59.5% of CRCH patients were best served by a language other than English and has one of the highest percentages among health centers statewide in Massachusetts[2], and those languages ranged from Spanish and Portuguese to Thai and Vietnamese.

Income, Poverty, and Employment: Allston has the fifth highest poverty rate in the City of Boston, at 27.9%. Brighton's poverty rate is also higher than the state overall and the U.S. at 18.9%. Poverty rates are higher among CRCH's largest patient demographic, Hispanics – the rate for Boston's Hispanic residents is 23.9% as compared to 18.9% overall. According to 2020 UDS data, CRCH serves a patient population in which 93.9% of families have incomes below 200% of the Federal Poverty Level (FPL) and 66.7% below 100% FPL. In terms of employment, Latinos are overrepresented in low-paid occupations With more than 63% of Latinos working in seven major occupation categories: Building & Grounds,Cleaning and Maintenance, Food Preparation & Serving, Office and Administrative Support, Production, Sales, Transportation & Material Moving and Construction. This compares to 41% of non-Latinos in the same occuations. In addition to these occupations having lower wages, wages that are earned by Latinos are lower than their non-Latino coworkers. For instance, the median wage for Food Prepartion & Serving for Latinos is $25,900 compared to $28,313 for non-Latinos. Other categories of workers see a 20-62% differencial between Latino and non-latino workers. [1]

Housing and Transportation: Given Allston-Brighton's mix of transient students, young professionals, and immigrant communities, a very high percent of housing units in Allston-Brighton are renter-occupied with little change in the past three years. According to the Boston

[1] Granberry, Phillip, "Latinos in the Labor Force" (2020). *Gastón Institute Publications*. 248. https://scholarworks.umb.edu/gaston_pubs/248

in Context: Neighborhoods report, the overwhelming majority of Allston/Brighton housing units are renter occupied, compared to 65% in Boston and to 37.% in Massachusetts.[2] The 2015-2019 American Community Survey Estimates cites that the majority of Brighton and Allston residents either walk or take public transportation to work, as compared to Boston overall. [3]

Table 1. Housing and Public Transit Distribution by City and Community

Housing Unit (%)				
	Allston	Brighton	Boston	State
Owner occupied housing units	12.2%	23%	35%	62.4%
Renter occupied housing units	87.8%	77%	65.0%	37.6%
Mode of Commuter Transportation (%)				
Work at home	3.6%	4.4%	3.4%	5.2%
Walked	23.9%	8%	15.1%	4.9%
Car, truck or van	25.8%	49.8%	44.2%	77.4%
Bus	18.8%	14.5%	13.5%	3.3%
Subway/elevated	18.4%	18.2%	18.5%	5.1%
Commuter rail	1.0%	0.5%	1.1%	1.8%

Source: Boston Planning and Development Agency Boston in Context: Neighborhoods 2015-2019 American Community Survey (January 2021) http://www.bostonplans.org/getattachment/e2eb8432-ac72-4a7e-8909-57aafdfbecd9

The COVID 19 pandemic has significantly impacted where people work and their use of public transportation. According to a report by the City of Boston (November 2020), Anticipating Post-Pandemic Commute Trends in Metro-Boston, prior to the pandemic more than half of respondents (N=4,200) never teleworked. During the pandemic, 60% of survey respondents indicated they have teleworked every day with only 15% of respondents reporting they had not teleworked at all during the pandemic. This significantly impacted use of public transportation during the

[2] Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

[3] Boston in Context: Neighborhoods: http://www.bostonplans.org/getattachment/1882b00d-48fe-41bc-ac1a-6979e25dbaf1#:~:text=Boston%20in%20Context%20%2D%20Neighborhoods%20compares,%2C%20economic%2C%20and%20housing%20characteristics.&text=Neighborhood%20boundaries%20are%20based%20on,zip%20codes%20and%20zoning%20districts.

pandemic. The report also indicated that the majority of respondents planned to return to their pre-pandemic mode of transportation.

Access to Medical Care: CRCH consistently has one of the highest numbers of uninsured patients among Massachusetts Community Health Centers. Per our 2020 UDS data, 35% of our patients were uninsured. This is higher than both the national average of 22.9% and the percentages for all of our peers in Massachusetts (UDS Data Comparisons 2020 report). In 2020, CRCH's payer mix was 35% uninsured, 40% MassHealth and other public insurance members, 3.6% Medicare, and 18% private insurance. CRCH's payer mix has much higher levels of uninsured (compared to 14.7% statewide) and much lower levels of Medicare (compared to 13% statewide) and private insurance (compared to 28.3% statewide) coverage than our health center peers. Among Allstson/Brighton residents who were surveyed in CRCH's 2021 Needs assessment survey, 20.37% reported not having health insurance at some point during the past 12 months, 72% of respondents usually accessed primary care services at a community health center, and 17.6% reported that transportation had stopped them from accessing medical, dental, substance use or behavioral health care when needed. Finally, 23% of Allston-Brighton respondents cited that they have skipped filling a prescription at least once in the past year due to the cost.

Computer and Internet Access: The COVID 19 pandemic impacted every aspect of daily life. Schools closed and students went online for classes, many jobs and businesses went completely or partially remote/work from home and telehealth became the lifeline of medical and behavioral health care. The digital divide became evident quickly as low-income individuals and families, those with limited English proficiency, and those experiencing other social determinants of health were left behind. In our survey, we included questions related to computers, internet and use of telehealth. Allston-Brighton survey respondents reported a lower percentage of having access to computers (80.7%) compared to 91.4% of Boston residents (American Community Survey data 2015-2019).

When asked about familiarity and useage of telehealth, 23% of Allston-Brighton survey respondents were not familiar with telehealth and the majority of those that reported having at least one appointment in the past 12 months via telehealth had it via telephone/audio only (65% compared to 32% video). Other reported barriers to using telehealth included respondents indicating they did not know how to use telehealth services, or did not have access to a phone, computer or internet.

Emergency room use: Although Massachusetts further expanded health insurance coverage under the Affordable Care Act, coverage does not necessarily equal access to services. In addition, the COVID 19 pandemic led to suspension of some inpatient and outpatient care for months, resulting in delays in seeking care until urgent. CRCH's community needs assessment found 23.15% of Allston-Brighton respondents reported one or more emergency room visits in the last 12 months.

High prevalence of chronic conditions: CRCH's community needs assessment survey found 24.8% had diabetes or pre-diabetes, 25.4% had hypertension or borderline/pre-hypertension, and 23% had high cholesterol. Between 2018 and 2021, the percentages of respondents reporting diabetes or pre-diabetes and hypertension or bordline/pre-hypertension nearly doubled. See the UDS Mapper map of Allston-Brighton in Appendix A indicating the prevalence of chronic conditions in the community.

High need for additional mental health screening: 47% of Allston-Brighton community needs assessment survey respondents indicated they had little interest or pleasure in doing things for several days or more within the past 2 weeks, and 41% reported they felt depressed for several days or more within the past 2 weeks.

Lack of access to healthy food: CRCH's community needs assessment survey found that 17% of Allston-Brighton respondents have cut the size of meals or skip meals due to lack of financial resources within the past 3 months, and 25% are able to buy fresh fruits and vegetables only some of the time or none of the time in their neighborhood.

COVID 19 Pandemic impact: The COVID 19 pandemic in Massachusetts has been devasting in terms of number of cases, deaths and economic impacts. As of October 2021, Boston has had more than 80,000 cases and more than 1,400 deaths. The Boston Public Health Commission's COVID 19 data also reveals the disproportionality of COVID on Black and Latino/Hispanic Bostonians. While Black Bostonians represent 22% of the population, they account for 25% of COVID cases and 33% of COVID deaths. Hispanic/Latino Bostonians represent 19.8% of the population they account for 29% of COVID cases and 13% of COVID deaths.

The number of cases in Allston-Brighton has followed a similar trend to Boston in the rise and fall of cases. In the peak months of March, August, September, November of 2020 and July of 2021, Allston /Brighton accounted for more than 10% of all Boston cases. Black and Latino/Hispanic residents of Allston/Brighton were also disproportionately impacted in percentage of cases and deaths. CRCH's 2020 UDS data indicate 67.6% identify as Hispanic/Latino and 8.7% identify as Black and therefore have been disproportionately impacted by COVID.

The CDC reports, "Some of the many inequities in the social determinants of health that put racial and ethnic minority groups at increased risk of getting sick and dying from COVID-19 include: Discrimination, healthcare access and useage, housing, occupation, education, income and wealth gaps." Blacks and Latino/Hispanic are more likely to be essential and hourly workers with increased exposure to COVID, are more likely to live in overcrowded living conditions due to the high cost of housing and more reliant on public transportation. Additionally, they are less likely to have insurance and due to discrimination and a lack of trust, less likely to engage with the healthcare system.

Further, a recent report, Living in Boston During COVID 19: Economic Strains highlighted the impact on Boston residents. The report showed that more than four in ten of Boston's residents experienced an adverse economic impact of the pandemic by the time of the survey (Summer 2020). About one-quarter of those working just before the pandemic spent some time not working after it began. About one in five of all respondents reported their personal income had declined "a lot." Those who lost income reported much higher levels of economic vulnerability, including low levels of savings and more worries about finances. Reports of income loss during the pandemic rose as educational level declined, with those with no more than an 8th grade education being twice as likely to have lost income than those with a graduate degree. Latinx, Asian, and Black residents were much more likely to have lost income than white respondents and those who classified themselves as multiracial. Among Latinx respondents in neighborhoods with a high ethnic concentration, those who responded in Spanish were most likely to have lost a lot of income. There were stark differences in economic impact between Boston's neighborhoods. Many of those in the poorest communities lost a lot of income and in some communities of color, between one-third and one-half of residents were worried about running out of money for food.

CRCH's Needs Assessment survey found similar trends including:

- 18.54% of survey respondents indicated they had lost a job.
- 24.55% of survey respondents indicated they had a reduction in hours.
- 12.03% of survey respondents indicated they were unable to work due to having COVID.
- 8.29% of survey respondents were unable to work due to caring for children, homeschooling or caring for someone with COVID.
- 8.46% of survey respondents were unable to pay rent/mortgage with 3.74% having to move.
- 6.99% of survey respondents indicated they had challenges to accessing medical or dental services

Summary of Key Health Data & Related Findings – Waltham Findings

The following provides a brief overview of key findings for the Waltham community.

Community Social and Economic Context

Demographic Characteristics: According to the American Community Survey, Waltham and the region continues to experience population growth. Since 2018, the population of Waltham increased 4%. According to 2020 UDS data, CRCH's patient population is predominantly

Hispanic/Latino (67.5%) compared to the City of Waltham, which identifies as 65.9% White, non-Hispanic and 13.6% Hispanic/Latino. In 2020, 59.2% of CRCH patients were best served by a language other than English compared to 32.5% of Waltham residents speaking a language other than English at home. CRCH serves the fifth highest percentage of patients served by a language other than English of all Massachusetts health centers.

Income, Poverty, and Employment: While US Census data shows a small percent of Waltham families are below the federal poverty level (FPL) (9.3%), this percentage has increased since 2018. UDS data indicates CRCH serves a patient population in which 93.9% of families have incomes below 200% of FPL and 66.7% have incomes at or below the FPL. In addition, CRCH's community survey found 66% of Waltham respondents had annual household incomes below $38,367 a year, significantly below the median income for Waltham households ($95,964), and the state overall ($81,215). CRCH's community survey also found 13.9% of respondents unemployed, 31.9% employed full time and 33.3% employed part time.

Housing and Transportation: A higher percent of housing units in Waltham are renter-occupied (48%) compared to Middlesex County and Massachusetts (41.7% for MA and 37.6% for Middlesex in 2019). Quantitative data also indicates that similar to the State and County, the primary mode of transportation for the majority of Waltham residents was car, truck, or van (78%), with less than 10% reporting the use of public transportation (7.5%), and walking (8%).

Computer and Internet Access: Waltham survey respondents reported a lower percentage of computers (81.1%) compared to 93.8% of Waltham residents (American Community Survey data 2015-2019).

When asked about familiarity and useage of telehealth, 30% of Waltham survey respondents were not familiar with telehealth and the majority of those that reported having at least one appointment in the past 12 months via telehealth had it via telephone/audio only (77% compared to 24% video). Other reported barriers to using telehealth included respondents indicating they did not know how to use telehealth services, felt that there was a lack of privacy or did not have access to a phone, computer or internet.

Community Health Issues

Access to Medical Care: Among Waltham residents who were surveyed for CRCH's 2021Needs assessment, 15.5% reported not having health insurance at some point during the past 12 months, 87.5% reported accessing primary care services at a community health center, 14% reported that transportation had stopped them from accessing medical, dental, substance use or behavioral health care when needed. Finally, 18% of Waltham respondents cited that they have skipped filling a prescription at least once in the past year due to the cost.

Emergency room use: CRCH's community needs assessment found 36.3% of Waltham respondents reported one or more emergency room visits in the last 12 months as the COVID 19 pandemic led to suspension of some inpatient and outpatient care for months, resulting in delays in seeking care until urgent needs arose.

High prevalence of chronic conditions: CRCH's community needs assessment survey found 23.9% of Waltham respondents reported having diabetes or pre-diabetes, 21% had hypertension or borderline/pre-hypertension, and 22% had high cholesterol. See the UDS Mapper map of Waltham in Appendix A indicating the prevalence of chronic conditions in the community.

High need for additional mental health screening: 43.2% of Waltham community needs assessment survey respondents indicated they had little interest or pleasure in doing things for several days or more within the past 2 weeks, and 32.8% reported they felt depressed for several days or more within the past 2 weeks.

Lack of access to healthy food: CRCH's community needs assessment survey found that 11.2% of Waltham respondents have cut the size of meals or skipped meals due to lack of financial resources within the past 3 months, and 18.2% are able to buy fresh fruits and vegetables only some of the time or none of the time in their neighborhood.

Mortality: As per the the most recent data report from Massachusetts of Public Health published in 2019**,** for both Waltham mirrored State as a whole, with Cancer, Heart Disease and Chronic Lower Respitory Diseases as the leading causes of premature mortality.

Chronic Diseases and Related Risk Factors: HRSA's Bureau of Primary Health Care Uniform Data System's (UDS) 2020 Report indicates the most prevalent chronic conditions among CRCH patients are hypertension and diabetes. While city-specific data are not available among adults, rates of healthy eating and active living (predictors of obesity) as well as obesity are similar for Middlesex County and Massachusetts, where approximately 1 in 4 adults is obese. Youth data indicates that more Waltham public school youth are physically active compared to their peers statewide; however, they experience higher rates of overweight and obesity.

Behavioral Health: Substance abuse and mental health are significant issues in Waltham, particularly among the youth population. Waltham public school students reported higher rates of intentional self-harm, suicide ideation, and suicide attempts than their peers statewide. According to the Youth Behavioral Risk Survey, while alcohol use declined by 44% between 2015 and 2019, one in five students reported drinking. Additionally, illegal drug use rose from 1.6% to 3% during the same time period. As per data from Massachusettes Department of Public Health, within the state of Massachusetts, the number of opioid deaths in Waltham in the past 5 years have been steadily rising.

Conclusions

Allston-Brighton

- *Diversity:* Allston-Brighton continues to have a high proportion of foreign-born residents and a large percentage of residents who speak a language other than English at home. This diversity also seen in CRCH's patient population, of which nearly 62% are Hispanic/Latino and over half reported being best served in a language other than English.

- *Poverty*: Allston-Brighton residents are poorer than the state overall, with significant pockets of poverty as indicated by the community needs assessment survey. CRCH is serving those with the lowest income.

- A high proportion of Allston-Brighton residents (20%) surveyed did not have continuous health insurance coverage, and significant numbers of residents face financial barriers to prescription costs. Allston-Brighton residents also use the emergency room (23%).

- *Behavioral Health*: Continued screening is needed to identify Allston-Brighton adults who are depressed and/or have substance use disorder and connect them with appropriate services and supports at CRCH and elsewhere.

- *Access to healthy foods*: Significant numbers of Allston-Brighton residents have experienced hunger due to cost (17%), and cannot regularly access healthy foods in their community (54%).

Waltham

Through a review of the secondary social, economic, and epidemiological data in Waltham as well as CRCH's patient population, this assessment report provides an overview of the social and economic environment of the area, and the health conditions and behaviors that most affect the population. While Waltham is more diverse and has a more affordable cost of living, its residents experience disproportionately worse health outcomes compared to the County and State:

- ***Diversity****:* Waltham more racially, ethnically, and linguistically diverse than Middlesex County or State. This is also seen in CRCH's patient population of which 67.5% of patients are Hispanic/Latino and 59.5% reported being best served in a language other than English.

- ***Poverty***: Waltham residents are poorer than Middlesex County but similar compared to the state's overall poverty rates. CRCH serves those with the lowest income, indicated by

the community needs assessment survey with 66% of the Waltham respondents reporting living below the poverty level.

- ***Access to Care***: Survey results showed room for improvement regarding rates for continuous health insurance coverage, and there were reports of residents facing financial barriers to prescription costs. 36% of Waltham residents also reported using the emergency room in the past 12 months.

- ***Access to healthy foods***: Results show that Waltham residents have experienced hunger due to cost (11%), and cannot always regularly access healthy foods in their community (53%).

- ***Cancer and heart disease:*** Cancer and heart disease are the leading causes of death in Waltham and across Massachusetts. Additionally, Waltham residents are more likely to die from cancer compared to residents across the County and State. Hypertension, a risk factor for heart disease, is the leading diagnosis among the CRCH patient population; and improvements are needed to ensure CRCH is working with patients to help them better manage their chronic conditions.

- ***Adolescent obesity*****:** Despite engaging in physical activity more often than their peers statewide, youth in Waltham are more likely to be overweight and obese. From 2015-2017, the percent of adolescent patients receiving weight screening and follow-up at CRCH has increased to 47%.

- ***Mental health and substance use:*** Youth in Waltham Public Schools report high levels of depression, anxiety, self-harming behavior as well as suicidal ideation and attempts. Waltham and Middlesex County continue to experience a shortage of providers for both mental health and substance use disorders.

Detailed Community Characteristics, Determinants of Health, and Health Equity Factors

An understanding of community need and health status in CRCH's service area begins with knowledge of the population's characteristics as well as the underlying social, economic, and environmental factors that impact health. This information is critical to: 1) recognizing disease burden, health disparities and health inequities; 2) identifying target populations and health-related priorities; and 3) targeting strategic responses.

This assessment captured a wide range of quantitative and qualitative data related to age, gender, sexual orientation, race/ethnicity, income, poverty, family composition, education, violence, crime, unemployment, access to food and recreational facilities, and other determinants of health. These data sets provided valuable information that characterized the population as well as provided insights into the leading determinants of health and health

inequities. The following provides details around key findings related to community characteristics and the social, economic, and environmental determinants of health for CRCH's service areas of Allston-Brighton and Waltham.

Allston-Brighton

- **Age:** Age is one of the most fundamental factors in determining scope of need. Cities tend to have more families with young children, college-aged adults, and young adult professionals than suburban or rural areas, and Boston is no exception. With respect to age, Boston and Allston-Brighton's populations are younger than the Commonwealth's population, with a median age of 32.8 for Boston and 27.5 for Allston and 30.8 for Brighton compared to 39.2 for the Commonwealth (Table 2). Allston-Brighton overall has higher proportions of children/youth (0-18 years old) and young adults (20-34 years old), and lower proportions of middle-aged adults (35-59 years old) and older adults (60+) than the Commonwealth overall.

  Table 2. Age Distribution by State, City and Community

Age Distribution and Median Age			
	Massachusetts	Boston	Allston-Brighton
Total Population, 2020 U.S. Census Data	7,029,917	675,647	74,588
Under 18 years old	20.02%	15.93%	8.07%
18 to 34 years old	24.39%	39.21%	61.75%
35-59 years old	32.97%	28.67%	18.5%
60 years old and over	11.69%	16.19%	23.0%
Median Age (years)	39.2	32.8	Allston: 27.5 Brighton: 30.8

U.S. Census Bureau, 2015-2019 American Community Survey, BPDA Research Division Analysis retrieved from: https://www.bostonplans.org/getattachment/e2eb8432-ac72-4a7e-8909-57aafdfbecd9
https://statisticalatlas.com/neighborhood/Massachusetts/Boston/Allston-Brighton/Age-and-Sex

- **Race/Ethnicity, Foreign Born Status, and Language:** One of the most crucial and actionable findings from this assessment is the fact that throughout Boston, and particularly in the communities that make up CRCH's service area, there are large numbers and proportions of racial/ethnic minority, foreign born, and non-English speaking residents. By examining the racial, ethnic, cultural and language profiles of Boston, we can understand the context for health status and the structural, discriminatory, and social factors that contribute to health inequities.

  The World Health Organization states, "Many factors combine together to affect the health of individuals and communities. Whether people are healthy or not, is determined by their

circumstances and environment. To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level, and our relationships with friends and family all have considerable impacts on health… The context of people's lives determine their health, and so blaming individuals for having poor health or crediting them for good health is inappropriate."

Community health centers have been at the heart of the dialogue in this country regarding the impacts of race/ethnicity, culture, and racism on health disparities. CRCH continues to be committed to addressing these factors.

According to the 2015-2019 American Community Survey, 56% of Boston's residents identify as people of color. In addition, 28.3% of Boston's population was foreign born and 37.7% speak a language other than English at home. These percentages have continued to increase annually. The largest single ethnic/minority group in Boston is African American/black with 22.7% of the population falling in this group. In addition:

- In Allston-Brighton (61.5%) non-Hispanic, white is the largest racial/ethnic group, however, 89.5% of the Health Center's patient population identify as people of color, including 67.5% identifying as Latinx/Hispanic.
- Allston has the second highest percentages of foreign born residents in Boston. Of the 22 neighborhoods in Boston, Allston-Brighton combined has the 7th highest proportions of foreign-born residents at 29.7%.
- Of all the Boston neighborhoods, Allston-Brighton (29.7%) has the seventh largest percentages of residents who speak a language other than English at home. CRCH also has a high percentage of patients who seek services in a language other than English at 59.5%, the 5th highest of all Massachusetts health centers.

Table 3. Race/Ethnicity Distribution and Languages by State, City, Community 2015-2019, and CRCH 2020

	Massachusetts	Boston	Allston-Brighton	CRCH
Total population	7,029,917	675,647	74,558	13,538
Race/Ethnicity Distribution				
Asian	6.6%	9.6%	17.4%	7.7%
Black of African American	6.9%	22.7%	4.7%	8.7%
Latino or Hispanic	11.8%	19.8%	12.4%	67.5%
White	71.6%	53.0%	61.5%	10.5%
Other	3.1%	3.4%	4.0%	0%

Source: Boston Neighborhood Demographics, 2015-2019 American Community Survey

Income/Poverty, Employment, and Education: Socio-economic status is well recognized as a critical determinant of health. According to Health People 2030, "People with steady employment are less likely to live in poverty and more likely to be healthy, but many people have trouble finding and keeping a job. Additionally, research shows that people with higher levels of education are likely to be healthier and live longer. Access to healthcare, housing, healthy foods and regular exercise are all correlated with socio-economic status and determinants of health.

While Boston has numerous affluent neighborhoods, large proportions of the City's population live in poverty, have limited formal education, are unemployed or underemployed, and struggle to afford housing, food, and other essential household items. In Boston overall, 18.9% of the population is living in poverty, which is twice the state's rate overall. CRCH's patient population (as per 2020 UDS report) is significantly low income, with 66.6% at or below 100% of the Federal Poverty Level, and 93.9% at or below 200% FPL. CRCH's community needs assessment found 66.8% reporting annual household income of $38,637 or less, and 58% of Allston-Brighton respondents reporting annual household income of $38,637 or less, indicating significant pockets of poverty in the community.

With respect to education, 12.8% of Boston residents have less than a high school diploma or GED equivalency, which is similar to Massachusetts rate of 12%. Our community needs assessment survey results for Allston-Brighton indicate 22% have less than a high school education, significantly higher than the State, city or neighborhood, and indicative of the vulnerable population CRCH serves.

Unemployment rates are also higher in Boston compared to the stateoverall (5.6% compared to 5% - August 2021). The COVID-19 pandemic significantly impacted employment, especially work in the service and retail industry. At the highth of the pandemic, between April and September 2020, unemployment rates ranged between 10% and 16% in Boston.

Socio-economic status is strongly associated with race/ethnicity, in particularly African American/Black and Hispanic/Latinx groups are more likely to have low socio-economic status. Allston has a much higher percentage of residents living in poverty compared to Boston overall and the state while Brighton's is slightly lower than Boston overall.

Table 4. Income and Educational Attainment by State, City and Community

	Massachusetts	Boston	Allston	Brighton	CRCH
	Income				
Median Household Income	$81,215	$71,115	$58,141	$77,625	N/A
Percent population living Below Poverty Level	9.4%	18.9%	27.9%	17.2%	58%
	Educational Attainment (%)				
Less than a High School diploma	12%	12.8%	5.5%	6.7%	22%
Percentage of students that are minority race/ethnicity	42.9%	84.7%	81% (Combined Allston/Brighton)		N/A

DATA SOURCE: Boston Neighborhood Demographics, 2015-2019 American Community Survey

Unstable Housing, Community Cohesion, and Homelessness: An increasing body of evidence has associated housing quality with poor overall health status and illness due to infectious diseases, chronic illnesses, injuries, poor nutrition, and even mental disorders. These health issues are inherent to low income residents, but there are also clear links between poor housing conditions and illnesses such as asthma, diabetes, heart disease and cancer, which confound and exacerbate these health issues. At its extreme, those who live in substandard housing, are rent burdened, are forced to move frequently or without housing have dramatically higher rates of illness and shorter life expectancy.[4]

[4] https://www.cbpp.org/research/housing/housing-and-health-partners-can-work-together-to-close-the-housing-affordability

Table 5. Geographic Mobility of Allston-Brighton (2015-2019) [5]

	Allston	Brighton	Boston
Mobility (%)			
Same house 1 year ago	61.2%	72.7%	80.2%
Moved within same county	10.9%	9.6%	9.2%
Moved from different county within the same state	6.5%	6%	4.3%
Moved from different state	13.8%	6%	4.2%
Moved from abroad	7.6%	2.6%	2.0%

Lack of affordable housing also has an impact on poverty and the ability of individuals and families to pay for food and other essential household items. There are 70 low-income public housing facilities in Boston that house nearly 26,000 low-income residents. However, due to high demand for Section 8 and other subsidy programs and the stock of available vouchers and project-based units, there are long waiting lists. At the time of this report, the waiting list for Boston was closed and they were selecting applicants who applied in October 2008. These facilities present great strategic opportunities to target low-income, at-risk populations with community health interventions, but they also demonstrate the high need that exists in the service area and present problems in their own right. While there have been great improvements over the last decade in Boston's public housing stock, many individuals living in Boston's public housing struggle with unhealthy living environments due to the age of the housing stock, poor airquality, pest infestations and other factors.

Additionally, the cost of housing in Boston is among the highest in the country. According to the National Low Income Housing Coalition, the annual wage needed to afford a one bedroom apartment in Allston is $88,795 and $94,806 in Brighton. The fair market monthly rent for a one bedroom in Allston is $2,220 and in Brighton, $2,370. The median household income for both Allston and Brighton is well below what is needed to afford housing. As reported, the majority (93.9%) of CRCH patients have household incomes at or below 200% of the Federal Poverty Level putting them at significant risk for being rent burdened.

[5] U.S. Census Bureau, 2015-2019 American Community Survey, BPDA Research Division Analysis retrieved from: https://www.bostonplans.org/getattachment/e2eb8432-ac72-4a7e-8909-57aafdfbecd9

- **Food Insecurity and Hunger:**
  According to Health People 2020, food insecurity is defined as "the disruption of food intake or eating patterns because of lack of money and other resources". The U.S. Department of Agriculture identifies two types of food insecurity:
    1. Low food security that includes reports of reduced quality, variety or desirability of diet with little or no reduced food intake.
    2. Very low food security that includes reports of multiple indications of disrupted eating patterns and reduced food intake.

  Issues related to food insecurity, food scarcity, hunger and the impact of unhealthy diets on the prevalence and impact of obesity are at the heart of the public health discourse. These issues were certainly among the dominant themes from CRCH's community needs assessment's surveys. Survey respondents also reported hunger in the past three months because they or their families had been forced to reduce the size of their meals and/or to skip meals altogether due to economic reasons.

  According to the CRCH community survey, only 45.8% of Allston-Brighton respondents overall had access to fresh fruits and vegetables at all times, 28.9% reported that they had access to fruits and vegetables most of the time, and 2.8% reported that they had no access to these items. Seventeen percent (17%) of Allston-Brighton survey respondents reported that they had skipped or cut the size of meals and 13% of respondents said that they had gone hungry in the past three months due to inability to buy food.

Key health-related findings

At the core of the CHNA process is an understanding of access to care issues, the leading cause of illness and death, and the extent that population segments and communities participate in certain risky behaviors. This information is critical to assessing health status, clarifying health-related disparities, and identifying community health priorities. The assessment captured a wide range of quantitative data from Federal, State, and local data sources, including from the US Census Bureau, the Massachusetts Department of Public Health, and the Boston Public Health Commission. The assessment also compiled information through a multi-lingual community survey. Specifically, quantitative data was captured on primary care, health risk factors, chronic diseases, mental health and substance use disorder, maternal and child health, and infectious diseases. Again, qualitative information gathered from the surveys greatly informed this section by providing community perceptions on the confounding and contributing factors of illness, health priorities, and strategic responses to the issues identified.

The following are key findings related to health insurance coverage and access to primary care, health risk factors, chronic disease, mental health and substance abuse, maternal and child health, and infectious disease. Summary data tables/graphs are included below.

- **Health Insurance Coverage and Access to Primary Care Medical Services:** The extent to which a person has insurance, which helps to pay for medical services as well as access to a full continuum of high quality, timely, accessible health care services, is critical to overall health and well-being. Easy access to primary care is particularly important, as it greatly impacts one's ability to receive regular preventive, routine, and urgent care, as well as chronic disease management services for those in need. According to ODPHP's Healthy People 2020, nationally, low income, racial ethnic minority populations are less likely to have a consistent source of primary care, less likely to have a routine check-up, and less likely to be screened for illnesses, such as breast cancer, prostate cancer, or colon cancer. [6] Data also suggests that low income, racial/ethnic minority populations are more likely to use hospital emergency department and inpatient services for care that could be avoided or prevented with easily accessible primary care services.

  Greater Boston has one of the strongest and most comprehensive healthcare systems in the world. This system is expansive and spans the full healthcare continuum from outreach and screening services, to primary care medical, medical specialty care, hospital emergency and trauma services, and hospital inpatient care, as well as outpatient surgical and long-term care services. Access to dental and behavioral health services are more problematic, but relative to other geographies, Boston is better situated. Boston has a strong safety net system, anchored by a strong, statewide presence of federally qualified health centers (FQHCs), which has few rivals across the country. Massachusetts also leads the nation with the lowest State uninsured rates in the nation. In 2021, 3% of the State's population lacked medical health insurance, with the largest single group of uninsured being undocumented immigrants, followed by those struggling with administrative and policy barriers related to retaining coverage.

  Significant inequities exist among who and how residents of Boston receive care. Despite the overall success of the Massachusetts' heath reform efforts, data captured for this assessment shows that large segments of the population face significant barriers to care and struggle to access services due to lack of insurance, cost, transportation, cultural/linguistic barriers, and shortages of providers willing to serve Medicaid insured or low income, uninsured patients.

  - Among Boston FQHCs, the uninsured rate is highest at Charles River Community Health at 35%, and is the highest in the Commonwealth.
  - CRCH has a high percentage of Latinx and a growing immigrant population with low educational attainment. Latinx and individuals with less than a high school diploma are less likely to have a primary care provider.

[6] Healthy People 2020: https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services/national-snapshot

Health Risk Factors: There is a growing appreciation for the effects that certain health risk factors, such as obesity, lack of physical exercise, poor nutrition, and tobacco use, have on health status and the burden of chronic disease. Over the past two decades, obesity rates in the United States have doubled for adults and tripled for children. These trends have spanned all segments of the population, regardless of age, sex, race, ethnicity, education, income, or geographic region.

Lack of physical fitness and poor nutrition are the leading factors associated with obesity and the leading risk factors associated with chronic diseases, such as heart disease, hypertension, diabetes, cancer, and depression. Access to healthy foods and good nutrition helps prevent disease, and is essential for healthy growth and development of children and adolescents. Overall fitness and the extent to which people are physically active reduces the risk for many chronic diseases, links to good emotional health, and helps to prevent disease. Tobacco use is the single most preventable cause of death and disease in the United States. According to the Center for Disease Control and Prevention, each year, approximately 480,000 Americans die from tobacco-related illnesses. For every person who dies from tobacco use, 30 more people suffer with at least one serious tobacco-related illness, such as chronic airway obstruction, heart disease, stroke, or cancer.[7] Massachusetts and Boston have lower rates of tobacco use than many geographic areas throughout the United States. However, given that tobacco use is still the leading cause of illness and disease in the United States, it is important that work be done to lower these rates even further. CRCH's survey found 11% reported using tobacco products and 3.5% reporting using vaping products. The percentages were higher for Allston-Brighton survey respondents with 16.8% reporting using tobacco products and 4.7% reporting using vaping products.

When looking across all of these health risk factors (obesity, lack of physical exercise, poor nutrition, and tobacco use), the quantitative data compiled for this assessment confirms the trends seen nationally; African Americans/blacks and Hispanics/Latinos are more at-risk and fare worse than their non-Hispanic, white counterparts. Qualitative information from the assessment surveys corroborated these findings.

- **Chronic Disease and Cancer:** Cardiovascular disease (heart disease), cancer, and cerebrovascular disease (stroke) are the three leading causes of death in the United States, Massachusetts, and Boston. In addition, diabetes ranks in the top 10 across all three of these geographic areas, and asthma and other respiratory diseases have a huge impact on large portions of adults and children. Mental health issues, discussed in more detail below, are chronic conditions for many, and are often paired with other medical conditions. All of these conditions, individually and collectively, have a major impact on people living in

[7] https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm

Boston. All of the chronic conditions cited above share the health risk factors cited above (tobacco use, lack of physical exercise, poor nutrition and obesity/overweightness) as leading factors.

As mentioned, there are major health disparities across all of these conditions among racial/ethnic groups. Rates of illness and death vary by condition, but overall, non-Hispanic, white populations are less likely to have chronic health conditions than their racial/ethnic counterparts. This puts a disproportionate burden on communities with high proportions of these population segments.

- Boston's African American/black and Hispanic/Latino residents have higher rates of diabetes, heart disease and cerebrovascular disease hospitalizations, and cancer death rates than non-Hispanic, white residents. CRCH's population is comprised of 76% Black and Latinx patients.
- While there was considerable variation across the neighborhoods, residents from cities and towns that are part of the greater Boston area are generally more likely to have high cholesterol, diabetes, and hypertension.
    - High Cholesterol: 23% of Allston/Brighton survey respondents reported having high cholesterol.
    - Diabetes: 25% of Allston/Brighton survey respondents reported having pre-diabetes/diabetes. This was almost twice as many as in 2018.
    - Hypertension: 25% of Allston/Brighton survey respondents reported having borderline hypertension/hypertension.This was almost twice as many as in 2018.

- **Mental Health and Substance Use Disorder:** Mental illness and substance use disorder have a profound impact on the health of people living throughout the United States. Data from the Centers for Disease Control and Prevention suggests that approximately one in five (20%) adults in the United States experience a mental illness in any given year[8] and an estimated 21 million Americans struggle with drug or alcohol problems.[9] Depression, anxiety, and alcohol abuse are directly associated with chronic disease, and a high proportion of those living with these issues also have a chronic medical condition.

  According to data from CRCH's community survey, high proportions of the population struggle with persistent sadness and/or were at risk for depression. CRCH's community needs assessment survey found 47% of Allston-Brighton respondents reported little interest or pleasure in doing things for several days or more in the past 2 weeks, and 40% reported being depressed for several days or more in the past 2 weeks. Additionally, 13% reported struggling with alcohol and drug use – a significant increase since 2018. The Kaiser Family

[8] https://www.cdc.gov/mentalhealth/learn/index.htm

[9] http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=40

Foundation reported, “Mental distress during the pandemic is occurring against a backdroup of high rates of mentall illness and substance use prior to the current crisis”. Further, in a survey Kaiser Family Foundation conducted in June of 2020, 13% of adults reported new or increased substance use due to COVID-related stress and 11% of adults reported suicidal thoughts in the past 30 days. [10]

In 2017 (most recent data), the total admissions to DPH-funded programs for treatment was 98,944 and increased from the previous year. Heroin was the most common reason for admission (52.8%) followed by alcohol (32.8%). Boston followed a similar trend to the state with 14,780 admissions with Heroin being reported for over half of admissions (56.9%) followed by alcohol (29.9%). [11]

Opioid use is another major issue facing Boston. In 2020, Boston had the highest number of Opiod related overdose deaths in the state (245), representing 12% of the total opiod related overdoses in the state. This represented a 58% increase in deaths since 2015. In 2020, in Massachusetts, Black non-Hispanic males had the largest increase in deaths – 69% of any racial/ethnic group. In a May 2021 press release the Governor highlighted the disparity. “Both the COVID-19 pandemic and the opioid epidemic have underscored the importance of supporting disproportionately impacted communities, and as we address both issues, our Administration has continued to focus on equity as a core component of our response.”

Waltham

- **Age Distribution**: According to the American Community Survey (ACS) 5-Year estimates, 72.4% of Waltham’s population was between the ages of 18 and 64 years, compared to 65.5% of Middlesex County and 63.8% of Massachusetts overall (Table7).

  The overall population age distribution among Waltham residents was largely mirrored among the 2020 Charles River Community Health patient population; however, there was a substantially larger proportion of youth compared to seniors represented among the patients (27.3% and 7.2%, respectively).

10 https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/

11 https://www.mass.gov/doc/admissions-statistics-by-city-and-town/download

Table 6: Age Distribution by State, County, City, and Health Center, 2015-2019 and 2020**

Geography	Under 18 years	18-44 years old	45-64years old	65 and over
Massachusetts	20.0%	36.6%	27.2%	16.2%
Middlesex County	19.9%	38.4%	26.6%	14.9%
Waltham	13.7%	51.0%	21.3%	13.8%
CRCH	27.3%	43.5%	22.0%	7.2%

*DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

**DATA SOURCE: US Department of Health and Human Services, HRSA Health Center Program, 2020 UDS Report, Charles River Community Health

- **Racial and Ethnic Composition:** Table 8 details the racial and ethnic composition at the State, County, and City level as well as within the Charles River Community Health patient population. According to these 2015 - 2019estimates, the City of Waltham is comprised primarily of White, non-Hispanic residents (65.9%), followed by Hispanic/Latino residents (13.6%) and Asian residents (11.6%). By contrast, the patient population seen at CRCH is predominantly Hispanic/Latino (67.5%), with 89.5% of patients identifying as a racial/ethnic minority. Examining characteristics of the student population in the Waltham school district shows that more than one-third of the students enrolled identify as Hispanic and has increased over the past three years (43%) (Figure 1).

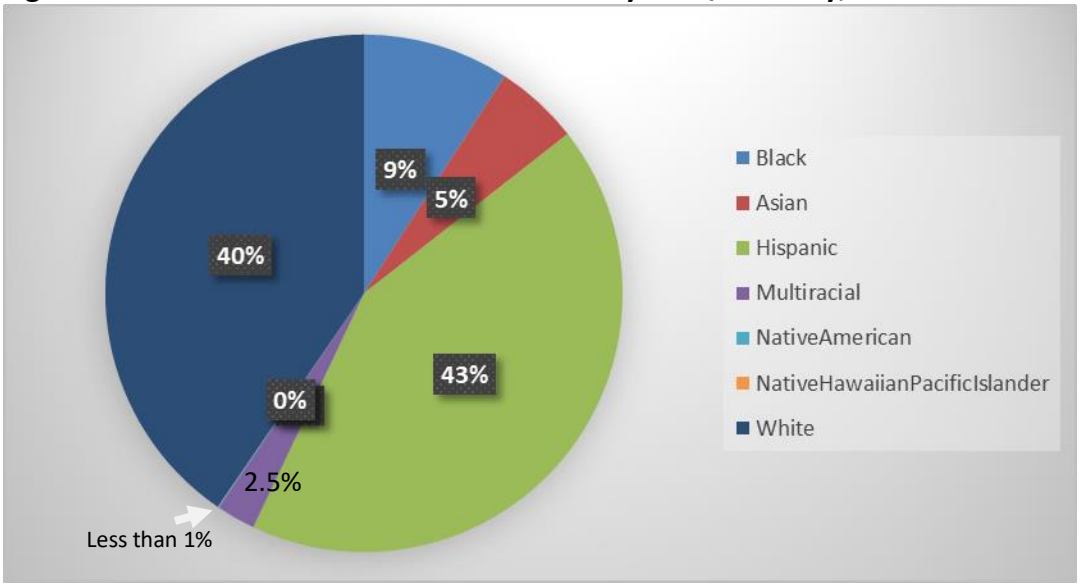
Table 7: Racial/Ethnic Composition by State, County, City, and Health Center, 2012-2016* and 2017**

Geography	White, non-Hispanic	Black	Asian	Hispanic/ Latino	More than One Race
Massachusetts	71.6%	6.9%	6.6%	11.8%	2.1%
Middlesex County	71.9%	5.0%	11.9%	8.0%	3.0%
Waltham	65.9%	6.7%	11.6%	13.6%	3.8%
CRCH	12.7%	8.7%	7.7%	67.5%	51.1%

*DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

**DATA SOURCE: US Department of Health and Human Services, HRSA Health Center Program, 2020 Health Center Profile, Charles River Community Health, 2020

Figure 1: Waltham School District Enrollment by Race/Ethnicity, 2020-2021 Academic



DATA SOURCE: Massachusetts Department of Elementary & Secondary Education, Information Services, Statistical Reports, 2020-2021. https://www.doe.mass.edu/infoservices/reports/enroll/default.html?yr=2021

Language Composition

As listed in Table 8, Waltham has a much higher percentage of residents that speak a language other than English and that speak English less than "very well" compared to the County and State. Spanish and other Indo European languages the most common.

Table 8: Languages other than English by State, County, and City, 2015-2019

Massachusetts	Middlesex County	Waltham
Language other than English (23.8%)	Language other than English (26.5%)	Language other than English (32.5%)
Speak English less than "very well" (9.2%)	Speak English less than "very well" (9.2%)	Speak English less than "very well" (11.2%)
Spanish (9.1%)	Spanish (6.0%)	Spanish (11.2%)
Other Indo European (9.0%)	Other Indo European (11.6%)	Other Indo European (10.7%)
Asian/Pacific Islander (4.3%)	Asian/Pacific Islander (7.3%)	Asian/Pacific Islander (8.0%)
Other Languages (1.4%)	Other Languages (1.7%)	Other Languages (2.3%)

DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

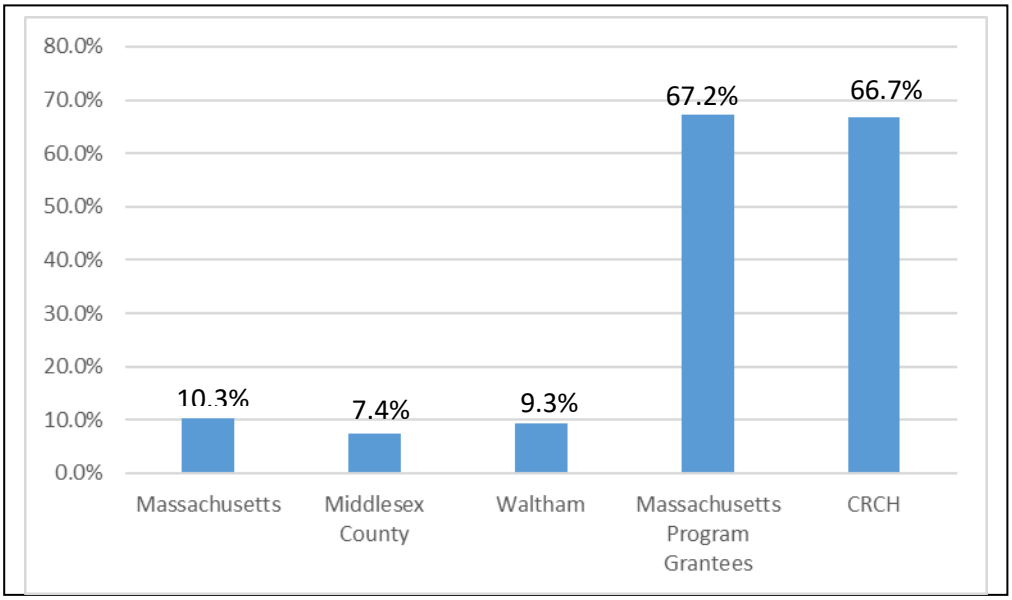
Table 9 illustrates trending data for the percent of patients best served in another language across all Massachusetts State grantees and specifically within the Charles River Community Health population. This data generally shows an upward trend, with more than half of the CRCH's patients reported as being best served in a language other than English and much higher than Massachusetts CHC's as a whole. In 2020, CRCH served the 5th highest percentage of patients best served in a language other than English of all Massachusetts health centers.

Table 9: Percent of Patients Best Served in another Language by Massachusetts health centers and Charles River Community Health, 2018-2020

	2018	2019	2020
Massachusetts CHC's	35.08%	40.59%	36.64%
CRCH	55.83%	58.61%	59.52%

- **Income, Poverty, and Employment:** As shown in Figure 2, 9.3% of Waltham families have incomes below the FPL compared to 10.3% of overall Massachusetts residents. In addition, CRCH's community needs assessment survey found 66% of Waltham respondents with annual household incomes less than $38,367 a year, indicating significant pockets of poverty in the community, and indicating CRCH is a safety net for those most vulnerable in the community. See Appendix B for a UDS Mapper map showing the low income community in Waltham.

Figure 2: Percent of Families below Federal Poverty Level - State, County, City, and Health Center, 2015-2019* and 2020**



*DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019**DATA Source: https://data.hrsa.gov/tools/data-reporting/program-data/state/MA

Education : Error! Reference source not found.11 reports characteristics of the student population in the Waltham school district with comparisons to Massachusetts overall. This data shows that for 51.3% of Waltham students, English is not their first language and 22.6% of students are English language learners. Additionally, over half of students are reported to be "high needs" and approximately 16.3% students has a disability, and 40.7%of students is economically disadvantaged.

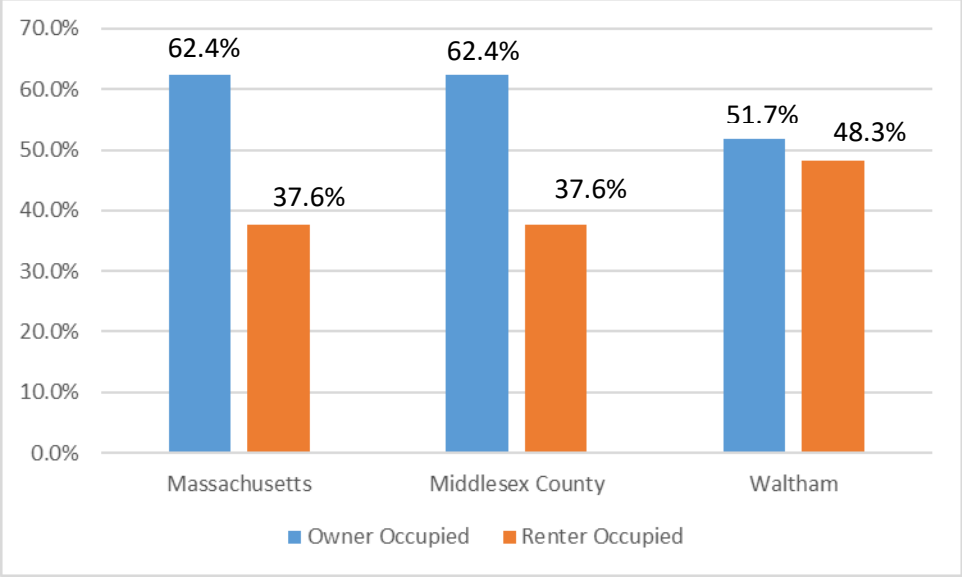
Table 10. Student Population Characteristics by District (Waltham) and State, 2020-2021 Academic Year

	State	Waltham
First Language Not English	23.4%	51.3%
English Language Learner	10.5%	22.6%
Students with Disabilities	18.7%	16.3%
High Needs	51%	57.7%
Economically Disadvantaged	36.6%	40.7%

MA Department of Public Health: https://profiles.doe.mass.edu/general/generalstate.aspx?topNavID=1&leftNavId=100&orgcode=00000000&orgtypecode=0

- Housing and Transportation: According to aggregate data from 2015 to 2019, approximately half of housing units in Waltham were renter-occupied (48.3%), which is higher than the proportion of housing units that were renter-occupied across the County or State (
- Figure 4).

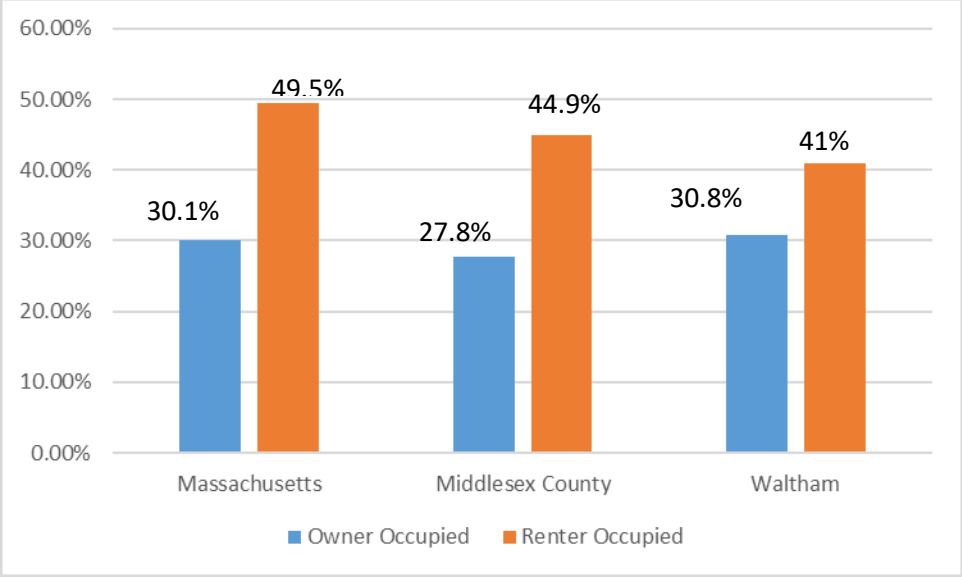
Figure 3: Housing Tenure by State, County, and City, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

Figure4 illustrates the proportion of renters and owners whose housing costs comprise 30% or more of their household income aggregated from 2015 to 2019. When individuals spend more than 30% of their income on housing costs, they are considered “rent burdened” making housing instability a greater risk. Generally, more renters reported spending greater than a third of their household income on housing costs compared to owners. Specifically, in Waltham, 41% of renters and 30.8% of owners reported as such and has increased since 2018. Waltham sees a higher percentage of owners reporting paying more than 30% of household income compared to Middlesex County as a whole,which is similar to the County overall. Among Charles River Community Health patients, 3.4% were experiencing homelessness in 2020.

Figure 4: Percent of Residents Whose Housing Costs are 30% or more of Household Income by State, County, and City, 2015-2019



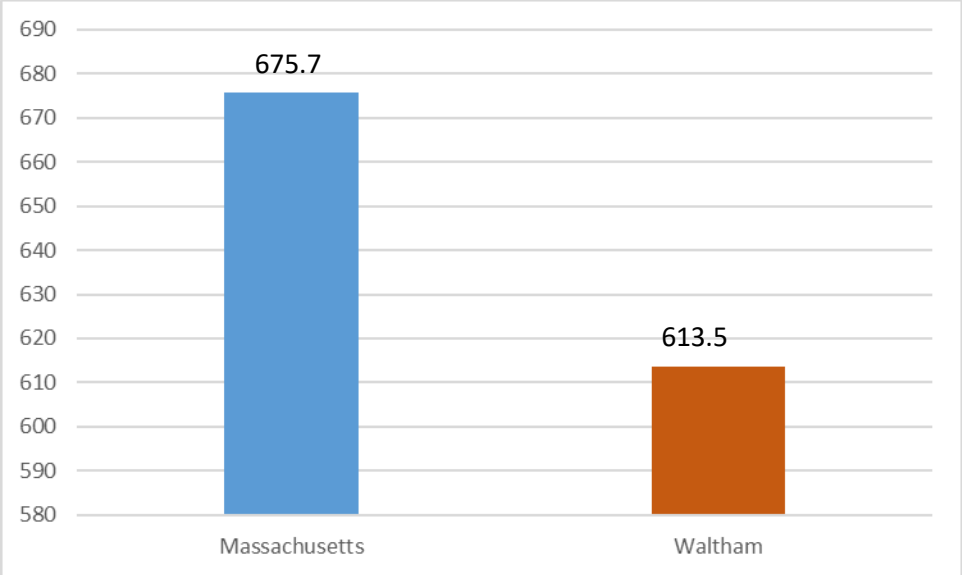
DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

COMMUNITY HEALTH ISSUES

This section provides a quantitative overview of leading health conditions that emerged as the most prominent in CRCH’s needs assessment from an epidemiological perspective of examining incidence, prevalence, and mortality data.

- **Mortality:** Quantitative data show that the mortality rate in the city of Waltham is below that reported by the State overall (613.5 and 675.7 per 100,000 population, respectively) (Figure6). Table 12 specifies the leading causes driving mortality among residents. These data indicate that among Waltham residents overall and across the State, cancer is the leading cause of death, followed by heart disease.

Figure 5: Age-Adjusted Mortality Rate per 100,000 Population by State and City, 2017



DATA SOURCE: https://www.mass.gov/doc/2017-death-report/download

Table 11: Top 5 Causes of Death (Number of Deaths) by State and City, 2017

Rank	Massachusetts (n)	Waltham (n)
1	Total Cancer (12,937)	Total Cancer (117)
2	Heart Disease (12,165)	Heart Disease (91)
3	CRLD* (2,843)	CLRD*(23)
4	Stroke (2,370)	Opioid Related(15)
5	Opioid Related (1,965)	Diabetes(14)

DATA SOURCE: Massachusetts Deaths 2017, Massachusetts Department of Public Health
*Chronic Lower Respiratory Disease

Chronic Diseases and Related Risk Factors

This section examines individuals' personal health behaviors and risk factors (i.e., regarding physical activity and nutrition) that result in chronic diseases among residents. Due to data constraints, many health behavior measures are available only at the county level, not

individual municipalities or subpopulations. When appropriate and available, municipal statistics are compared to the county and/or state as a whole.

- **Healthy Eating, Physical Activity, and Obesity:** Data from the Behavioral Risk Factor Surveillance System (BRFSS, 2019) indicates that 17.2% of Massachusetts residents meet the recommended daily intake of fruits and vegetables (5 or more per day). However, CRCH's needs assessment survey found only 46.4% of Waltham respondents were able to buy fresh fruits and vegetables could access healthy food in the community all of the time. According to the BRFSS, 25.2% of Massachusetts adults are considered obese compared to 21.1% of Middlesex Couty adults. Overall in the state, 12.2% of children ages 10-17 considered obese.

Table 112 presents Charles River Community Health's preventive health screening and services related to obesity. In 2020, 63.75% of our adult patients and 31.98% of adolescents received weight screening. These percentages were impacted by COVID and restrictions due to the State's public health emergency order as some care was reduced temporarily and many services moved to telehealth which could not serve all needs such as taking an in-person patient weight.

Table 12: Obesity Prevention and Counseling among Adolescent and Adult CRCH Patients and Across Massachusetts Grantee Sites, 2018-2019

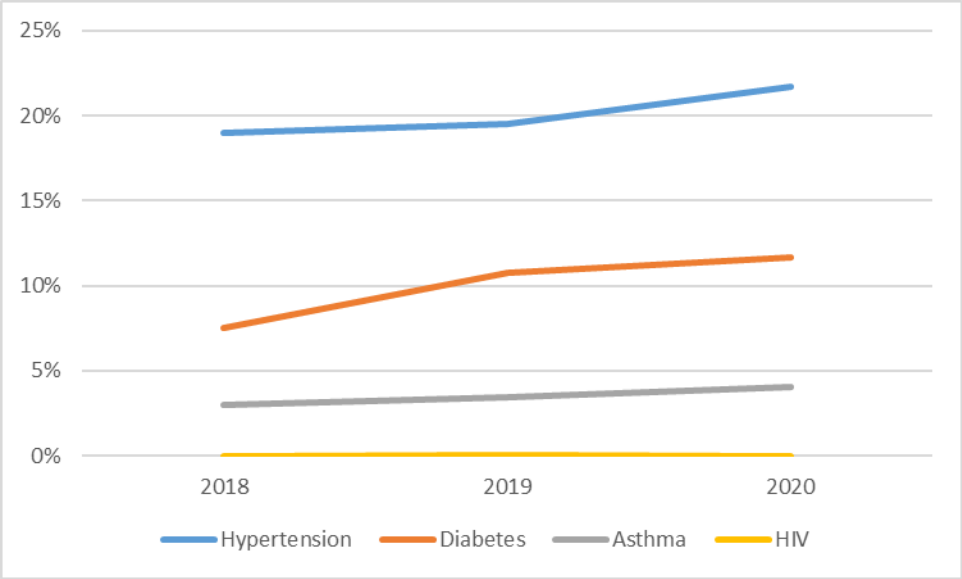
	2018	2019	2020
Massachusetts Program Grantee Sites Overall			
Adolescent Weight Screening and Follow Up	60.52%	62.2%	49.64%
Adult Weight Screening and Follow Up	58.31%	60.18%	54.4%
Charles River Community Health			
Adolescent Weight Screening and Follow Up	33.3%	37.2%	31.98%
Adult Weight Screening and Follow Up	64.9%	69.28%	63.75%

DATA SOURCE: https://www.mass.gov/doc/a-profile-of-health-among-massachusetts-adults-2019/download https://data.hrsa.gov/tools/data-reporting/program-data/state/MA

- **Hypertension, Diabetes, Asthma, and HIV:**
-

- Figure 7 provides data on the percent of Charles River Community Health patients with specific diagnoses as reported to the UDS in calendar years 2018 through 2020. This data shows that the percent of patients diagnosed with hypertension, diabetes, asthma or HIV have remained relatively consistent. Of note, hypertension is the leading diagnosis among this population, increasing each year and at 21% in 2021. Please see the UDS Mapper map in Appendix B indicating the prevalence of chronic conditions in Waltham.

Figure 6: Percent of Charles River Community Health Patients with Specific Medical Conditions, 2018-2020



Data Source: HRSA 2020 UDS

Health center clinical data presented in Table 14 shows, chronic disease management among the patient population in 2020. The data is largely consistent across all Massachusetts Program Grantee sites as well as specifically among Charles River Community Health patients in that majority of diabetic, ischemic vascular disease, asthma, and coronary artery disease patients had their diseases effectively managed.

Table 13: Chronic Disease Management among Charles River Community Health Patients and Across Massachusetts Program Grantee Sites, 2020

Type	Massachusetts Program Grantee	Charles River Community Health

	Sites	
Heart Attack/Stroke Treatment (Aspirin Therapy for Ischemic Vascular Disease Patients)	80.58%	76.43%
Diabetes control (diabetic patients with HbA1c<=9%)	35.94%	39.69%
Statin Therapy for the Prevention and Treatment of Cardiovasular Disease	69.13%	63.59%
Blood pressure control (Hypertensive patients with blood pressure <140/90)	52.51%	53.26%

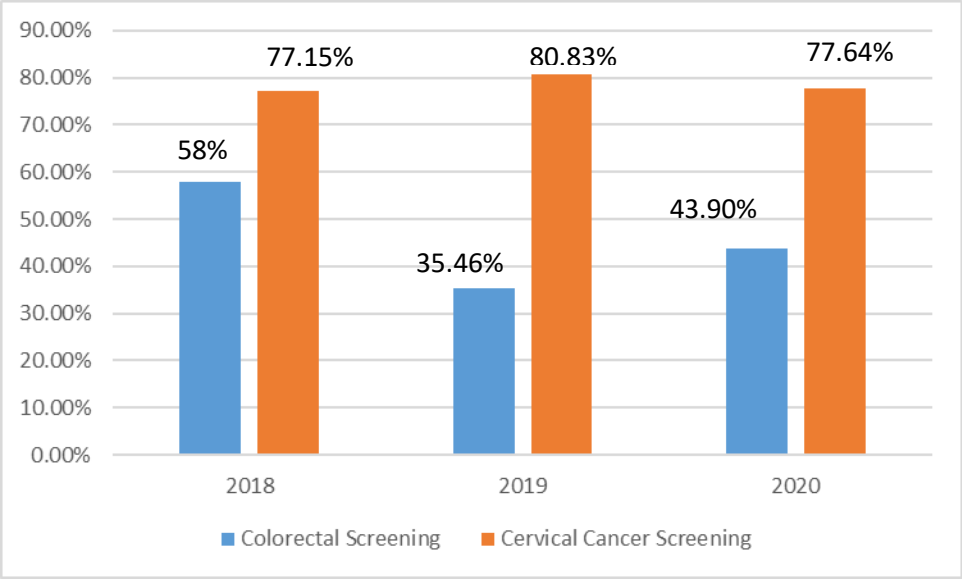
DATA SOURCE: HRSA 2020 UDS

- **Cancer:** Cancer is a leading cause of death across the state and in Middlesex County. Examining age-adjusted cancer mortality rate demonstrates that residents in Middlesex County have a rate of 140.5 deaths per 100,000 population compared to the State rate of 143.1 deaths per 100,000 population.[12]

Figure 7 illustrates that among Charles River Community Health patients, cervical cancer screening is generally performed more often than colorectal cancer screenings, which is consistent with grantee sites overall across the State. Due to the State's emergency order in March of 2020, screenings were halted contributing to a decline in the percentage of screenings. In July, 2020 when in person visits resumed, CRCH prioritized cancer screenings for and while we saw an increase in the second half of 2020 in screenings we are still working to reach our targeted screening rates.

Figure 7: Cancer Screening by Select Sites among Charles River Community Health Patients, 2018-2020

[12] CDC United States Cancer Statistics https://gis.cdc.gov/Cancer/USCS/#/StateCounty/

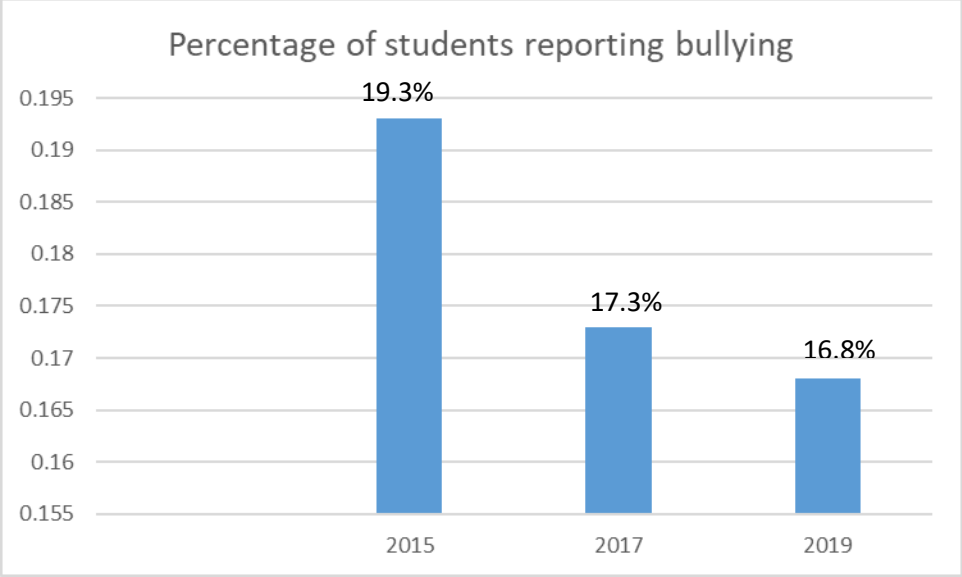


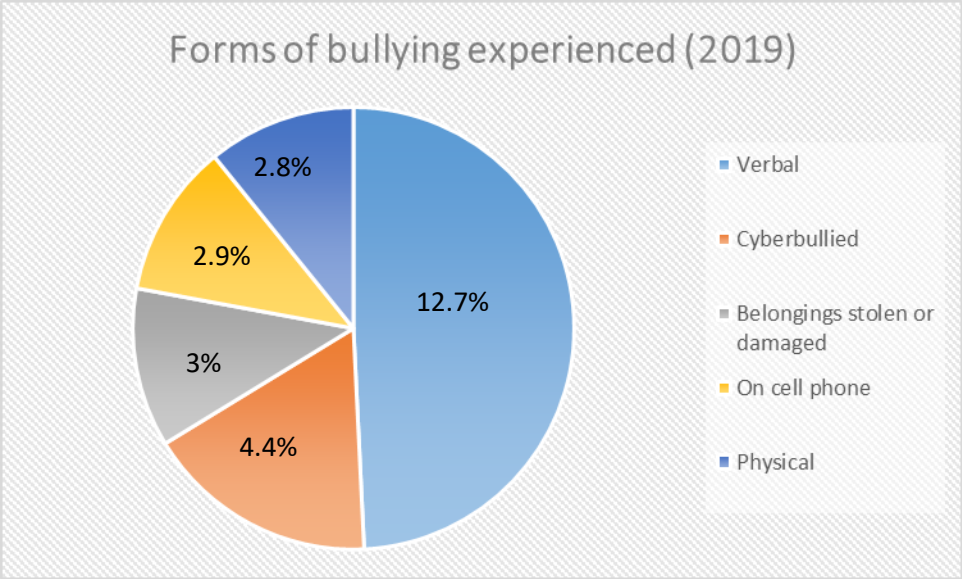
DATA SOURCE: https://data.hrsa.gov/tools/data-reporting/program-data/state/MA

Behavioral Health

- **Safety at School:** Data regarding school-based experiences of violence show that while the overall percentage of high school students who have experienced bullying Has decreased since 2015, the percentage of students (7.7%) missing school due to feeling unsafe has increased in the past four years. Verbal bullying is most frequently reported, females were two times more likely to report missing school and missing school due to safety fears is highest among Latinx (Figure 8).

Figure 8: School-Based Experiences of Violence by Waltham Youth at Waltham High School, 2019





DATA SOURCE: Youth Risk Behavior Survey Waltham, 2019

Mental Health Status: The 2019 Waltham Youth Risk Behavior Survey captures data to mental well being and indicates that many youth are struggling with stress, anxiety, depression and suicidal ideation. These measures increased from 2017 to 2019 and have been compounded by the COVID 19 pandemic. In 2019, 3 out of 4 (75.1%) Waltham youth respondents reported experiencing overwhelming anxiety and of these, half experienced stress and anxiety frequently. The top five reported reasons for stress included; school work/academic, my future, family issues, body image and non-acceptance/bullying.

The percentage of Waltham youth reporting depression increased slightly from 2017 (34.4%) to 2019 (35.4%) and remains higher than the state overall (33.8%). Females were more likely than males to experience depression and Latinx and youth of color were more likely than their White peers to experience depression.

The percentage of Waltham youth seriously considering committing suicide remained constant between 2017 (13.9%) and 2019 (13.2%). Females were more likely to consider, plan, and attempt. Suicide attempts were more frequent among 12th graders and Latinx students.

According to the Kaiser Family Foundation Issue Brief on Mental Health and Substance Use Considerations Among Children During the COVID 19 Pandemic, pandemic-related factors such as social distancing and stay-at-home orders can lead to loneliness and isolation which are known risk factors for poor mental health. Additionally, income insecurity and poor mental health experienced by parents during the pandemic can also adversely affect children's mental

health. The Kaiser Family Foundation also reports that, " Adolescents, young children, LGBTQ youth, and children of color may be particularly vulnerable to negative mental health consequences of the pandemic. During the pandemic, more than 25% of high school students reported worsened emotional and cognitive health; and more than 20% of parents with children ages 5-12 reported their children experienced worsened mental or emotional health."

Table 14 provides the ratio of population to mental health providers by State and County. The ration of population to mental health providers has decreased for the overall state and Middlesex county since 2017. In 2019, there were 8% more mental health providers per resident in Middlesex County compared to Massachusetts overall.

Table 14: Ratio of Population to Mental Health Providers by State and County, 2017 and 2019

Geography	Ratio 2017	Ratio 2019
Massachusetts	180:1	150:1
Middlesex County	200:1	170:1

DATA SOURCE: https://www.countyhealthrankings.org/app/massachusetts/2021/county/snapshots/017

- **Substance Use Disorder:** In 2017 (most recent data) the total admissions to DPH-funded programs for treatment was 98,944 and increased from the previous year.The City of Waltham had a slight decline over the past year (441admissions). The data shows that alcohol was the primary drug of use for which treatment was being sought (48.5%) in Waltham, and a much higher percentage than the state overall (32.8%). Heroin was the highest percentage for the state overall (52.8%) compared to Waltham (39.9%). The percentages for alcohol had increased in Waltham while Heroin declined from the previous year, mirroring the state trends. [13]

Key Themes and Conclusions

Through a review of secondary data, as well as collection and analysis of primary data via a community needs surveys of residents, patients, people who work in the community, and other stakeholders in Allston-Brighton and Waltham, this assessment provides an overview of the social and economic environment of the community served by Charles River Community Health, and key health issues and needs. There were several overarching themes:

- **Social determinants of health significantly impacts the lives of residents.** Living in poverty, living in transient or unstable housing, and having low educational attainment levels, and facing linguistic and cultural barriers all have a significant impact on the social and economic environment of the Allston-Brighton and Waltham communities. CRCH is a key asset to

[13] https://www.mass.gov/doc/admissions-statistics-by-city-and-town/download

helping to address the community's health care needs using a social determinants of health framework.

- **Despite increased health insurance coverage, cost, insurance status, and cultural and language barriers continue to hinder residents' ability to access care.** While CRCH is a key asset to assisting patients and community members in enrolling in MassHealth and Affordable Care Act coverage, there are still financial barriers to care, especially obtaining prescriptions. Language barriers also continue to be concerns, especially when coupled with low educational attainment levels, resulting in residents not understanding how to navigate the complex U.S. health care system and access care. CRCH is a key asset in helping to educate residents in many languages about how to enroll in insurance and how to access care. More education and work is needed to address when to use emergency room care vs. primary care at the health center.

- **Behavioral health is a high need.** For both children and adults, mental health issues are prevalent in Allston-Brighton and Waltham and point to the increased need for mental health and substance use disorder services. CRCH provides an inegrated approach to behavioral health focused on screening, interventions and having on-site brief, focused behavioral health treatment by a Behavioral Health Integration clinician within the medical exam room for patients who are not ready to engage in long term therapy in the behavioral health department, or whose behavioral health needs might be better addressed with a few short and focused interventions after a medical visit. CRCH continues to offer traditional long-term therapy in the behavioral health department for patients for whom this is the best fit for their needs. CRCH also provides Medication Assisted Treatment to better serve our patients and those in the community with substance use disorder.

- **Chronic diseases and related lifestyle behaviors disproportionately affect low income residents and residents of color.** Chronic diseases including diabetes, hypertension and high cholestorol are prevalent especially in the Allston-Brighton community. Obesity, food insecurity and limited access to healthy foods in both communities exacerbates these health issues. CRCH is a key asset in adressing immediate needs through our mobile market, food prescriptions, connecting individuals to SNAP and WIC as well as food pantries, farmers markets and other local community-based organizations.

- **COVID-19 Pandemic:** The COVID-19 pandemic magnified and significantly increased social determinants of health needs for the residents of our service area. This included employment, housing, access to healthy foods, and access to care as well as disportionate rates of illness, hospitalization and death. Equity issues exist with COVID vaccination rates lower among residents of color. Additionally, the pandemic has taken a toll on mental health with increased rates of depression and anxiety. The pandemic impacted not only impacted our communities, our patients and our health care system. CRCH continued, throughout the pandemic, as a key asset in providing access to care, education about

COVID, COVID testing and vaccinations to those most in need in the communities we serve. The pandemic also impacted healthcare. State and local public health emergency orders forced much of the preventative care and screenings to cease for a period of time. This has impacted management of chronic conditions, cancer screenings and immunizations. While we saw a quick pivot to the use of telehealth, social determinants are impacting usage of telehealth as well given the digital divide. While the full impact of the pandemic is yet to be seen, the impact on our communities to date is significant.

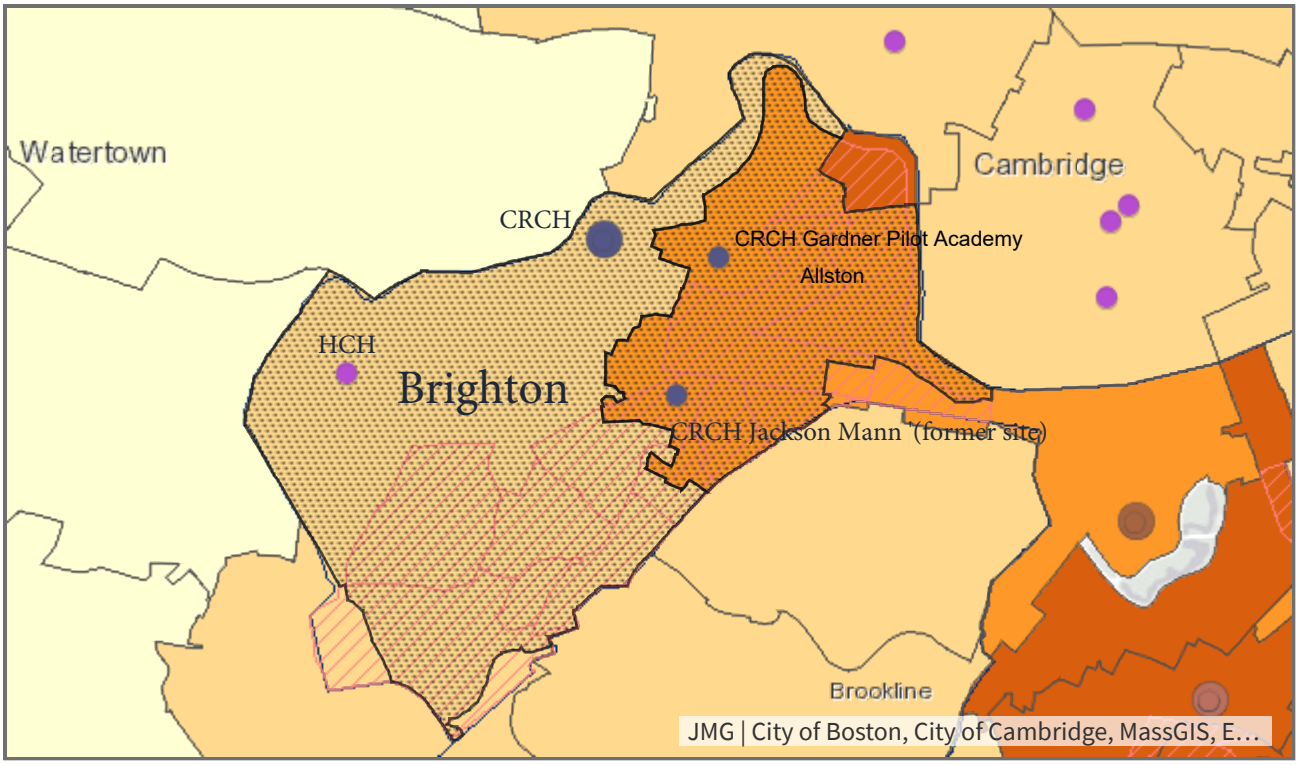
APPENDICES – See separate attachments

APPENDIX A – UDS Mapper of Allston-Brighton Community

APPENDIX B - UDS Mapper of Waltham Community

UDS Mapper Printout

UDS Mapper



States	
Counties	
ZCTAs	
Primary Care HPSAs	Geographical Area Single County Population Group
Medically Underserved Areas/Populations (MUA/P)	MUA MUP Governor Designated
Pop: Low-Income (%) 2015-2019	
<15%	
15 - 30%	
30 - 45%	
45 - 60%	
>60%	
	Selected ZCTAs
Health Center Administrative Locations	HCP Awardee HCP Look-Alike
Health Center Service	HCP Awardee

Annotations area

Delivery Sites	HCP Look-Alike 

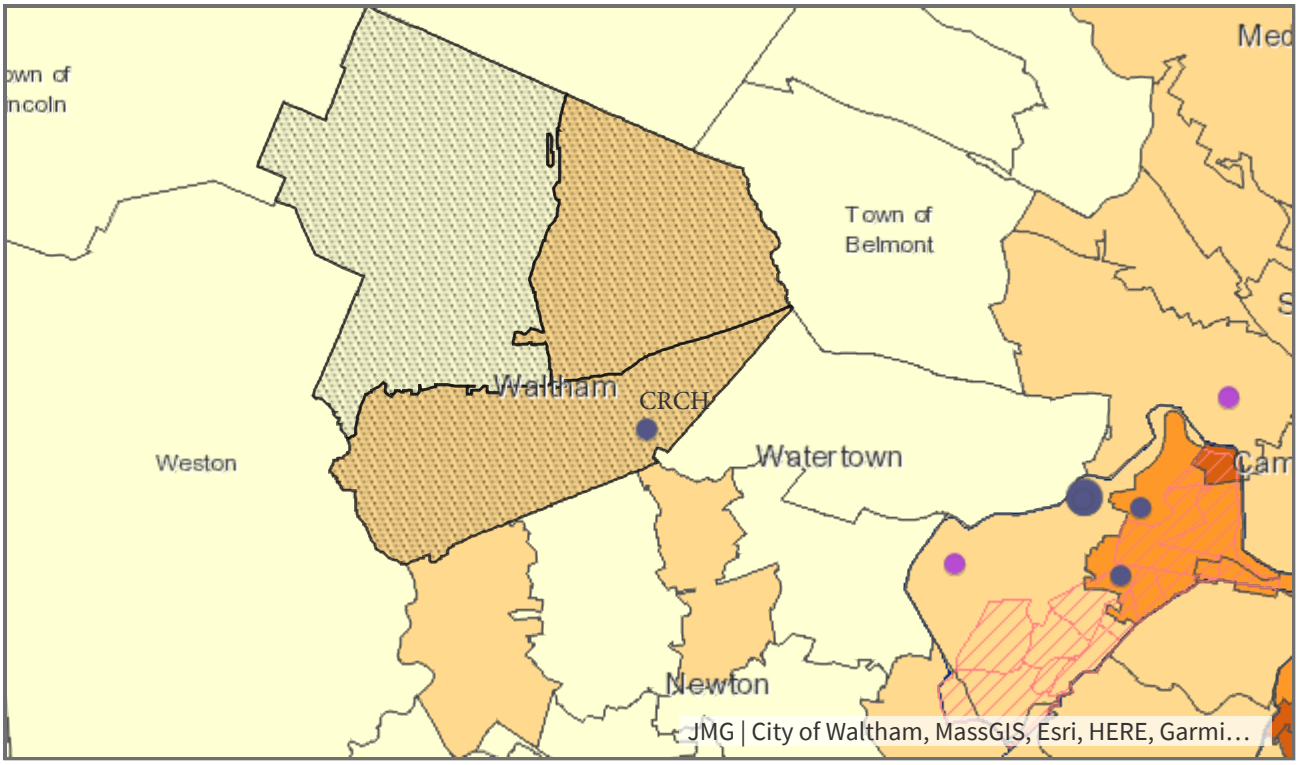
ZCTA	Post Office Name	State	HCP: Health Center Count (Combined) 2020	HCP: Dominant Health Center 2020	Pop: Total (#) 2015-2019	Pop: Low-Income (#) 2015-2019
Summary:					64,858	20,712
02134	Allston	MA	15	CHARLES RIVER COMMUNITY HEALTH, INC.	19,907	7,549
02135	Brighton	MA	19	CHARLES RIVER COMMUNITY HEALTH, INC.	44,951	13,163

ZCTA	Post Office Name	HCP: Total Patients (#) 2020	HCP: Penetration of Low-Income (%)	HCP: Penetration of Total Population (%)	Pop: Low-Income (%) 2015-2019	Pop: Not Employed (%) 2015-2019
Summary:		7,900	38.14 %	12.18 %	32.24 %	27.50 %
02134	Allston	2,970	39.34 %	14.92 %	38.24 %	30.37 %
02135	Brighton	4,930	37.45 %	10.97 %	29.58 %	26.17 %

ZCTA	Post Office Name	Pop: Households With Limited English Proficiency (%) 2015-2019	Pop: Adults Ever Told Have Diabetes, Est. (%) 2018	Pop: Adults Ever Told Have High Blood Pressure, Est. (%) 2017	Pop: Adults Who Are Obese, Est. (%) 2018	Pop: Adults with No Dental Visit in Past Year, Est. (%) 2018
Summary:		13.33 %	4.83 %	16.90 %	16.57 %	28.57 %
02134	Allston	12.40 %	4.30 %	14.70 %	16.50 %	30.70 %
02135	Brighton	13.74 %	5.10 %	18.00 %	16.60 %	27.50 %

UDS Mapper Printout

UDS Mapper



States	
Counties	
ZCTAs	
Primary Care HPSAs	Geographical Area Single County Population Group
Medically Underserved Areas/Populations (MUA/P)	MUA MUP Governor Designated
Pop: Low-Income (%) 2015-2019	
<15%	
15 - 30%	
30 - 45%	
45 - 60%	
>60%	
	Selected ZCTAs
Health Center Administrative Locations	HCP Awardee HCP Look-Alike
Health Center Service	HCP Awardee

Annotations area

Delivery Sites	HCP Look-Alike 

ZCTA	Post Office Name	State	HCP: Health Center Count (Combined) 2020	HCP: Dominant Health Center 2020	Pop: Total (#) 2015-2019	Pop: Low-Income (#) 2015-2019
Summary:					62,660	10,326
02453	Waltham	MA	13	CHARLES RIVER COMMUNITY HEALTH, INC.	29,505	5,910
02452	Waltham	MA	7	CHARLES RIVER COMMUNITY HEALTH, INC.	14,909	2,215
02451	Waltham	MA	8	CHARLES RIVER COMMUNITY HEALTH, INC.	18,246	2,201

ZCTA	Post Office Name	HCP: Total Patients (#) 2020	HCP: Penetration of Low-Income (%)	HCP: Penetration of Total Population (%)	Pop: Low-Income (%) 2015-2019	Pop: Not Employed (%) 2015-2019
Summary:		6,345	61.45 %	10.13 %	18.58 %	31.30 %
02453	Waltham	4,081	69.05 %	13.83 %	22.40 %	28.76 %
02452	Waltham	1,091	49.26 %	7.32 %	20.09 %	40.21 %
02451	Waltham	1,173	53.29 %	6.43 %	12.11 %	27.88 %

ZCTA	Post Office Name	Pop: Households With Limited English Proficiency (%) 2015-2019	Pop: Adults Ever Told Have Diabetes, Est. (%) 2018	Pop: Adults Ever Told Have High Blood Pressure, Est. (%) 2017	Pop: Adults Who Are Obese, Est. (%) 2018	Pop: Adults with No Dental Visit in Past Year, Est. (%) 2018
Summary:		6.59 %	6.41 %	23.06 %	20.97 %	25.89 %
02453	Waltham	8.42 %	6.00 %	21.70 %	21.30 %	27.10 %
02452	Waltham	5.82 %	6.40 %	22.60 %	20.00 %	26.00 %
02451	Waltham	4.19 %	7.10 %	25.70 %	21.20 %	23.80 %