Submitted to:

Mass General Brigham
Newton-Wellesley Hospital

Health Resources in Action
Advancing Public Health and Medical Research

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EXECUTIVE SUMMARY

Background and Methods

Newton-Wellesley Hospital (NWH) is a 273-bed comprehensive medical center affiliated with Mass General Brigham, a network founded by Massachusetts General Hospital and Brigham and Women's Hospital. NWH's mission is to treat and care for all its patients and their families as they would a beloved family member. In March 2021, NWH engaged Health Resources in Action (HRiA), a non-profit public health organization in Boston, to conduct its triennial community health needs assessment (CHNA). Of note, NWH received permission to provide an update to their 2018 CHNA for the 2021 cycle. NWH will pursue a full CHNA in 2022 to align with other facilities in the Mass General Brigham system.

The CHNA used a participatory, collaborative approach and examined health in its broadest context. As part of this assessment, NWH sought input from its Community Advisory Board, known as the Community Benefits Committee, to inform the methodology, including recommendation of secondary data sources. The assessment process included synthesizing existing data on social, economic, and health indicators from various sources, as well as, incorporating feedback from Community Benefits Committee members regarding health and social challenges in their area and recommendations for how to address these concerns.

Findings

The following provides a brief overview of key findings that emerged from this assessment.

<u>Community Social and Economic Context</u>
The following section provides an overview of the population within the NWH service area.

Demographic characteristics:

- *Age:* Similar to the 2018 CHNA, according to the American Community Survey of the U.S. Census Bureau, with the exception of Waltham (13.7%), all of the towns in the NWH service area had a higher percentage of children under 18 years of age compared to Massachusetts (20.0%). Focus group participants and interviewees described the population served by NWH as a mix, with aging adults, young families, and middle-aged persons.
- *Racial and Ethnic Diversity:* The diversity of the area was a characteristic previously named in almost every interview and focus group for the 2018 CHNA. Since then, the racial/ethnic composition of NWH's service area has remained consistent. According to the most recent census data, Waltham had the highest percent of Black (6.7%) and Hispanic/Latino (13.6%) residents in the NWH service area, relatively similar to the proportion of Black (6.9%) and slightly higher than Hispanic/Latino (11.8%) residents for Massachusetts overall. Since the 2018 CHNA, except for Needham and Newton, all towns experienced an increase in their immigrant population. According to the most recent census data, all the towns had a higher percent of residents born outside of the US than the state (16.8%), except for Wellesley (16.9%) which was similar.

- *Education:* The high quality of the area's school system was mentioned in most focus groups and interviews and was described as one of the primary reasons for living in the assessment communities. Similar to the 2018 CHNA, quantitative data indicate the six cities/towns in the NWH service area reported high levels of advanced collegiate education.
- Employment*:* Since the 2018 CHNA, trends suggest a decreases in the percent of residents unemployed in all towns across the NWH service area but decreases ranged from 5.3% to 3.0% in Waltham to 4.4% to 4.0% in Weston. Of note, unemployment data following the COVID-19 pandemic was not collected for this assessment.

Income and poverty: Focus group participants and interviewees previously reported that the economic status of residents in the NWH service area varies by community in the 2018 CHNA. Residents living in Newton, Needham, and Wellesley were described as largely affluent, while Natick was described as more middle class to upper middle class and Waltham was considered a more blue-collar community, with many lower income residents and a large proportion of public school students who are economically disadvantaged. According to the most recent census data, Weston (6.7%) and Waltham (5.3%) had the highest percent of families living below the poverty level, though this prevalence was below that for the state (7.0%). According to the Massachusetts Department of Elementary and Secondary Education, within the service area cities and towns, Waltham had the highest proportion of students who are economically disadvantaged (40.7%), meaning a student participates in certain public assistance programs, a prevalence that exceeded Massachusetts overall (36.6%).

Housing: The 2018 CHNA reported that the high cost of housing and changing housing dynamics as challenges in the NWH service area. Residents previously spoke about rising rent, lack of affordable housing and long wait lists. Participants described overcrowding and homelessness as two consequences of high housing costs and limited options. According to the most recent census data, housing cost burden was highest for renter-occupied units in Newton (46.7%) and owner-occupied units in Weston (35.8%).

Transportation: Perceptions about transportation in the service area varied in the 2018 CHNA. Transportation to Boston was previously mostly reported to be easy and many residents from the NWH service area traveled into the city. More locally, however, transportation options were reported to be less available, making travel from town to town difficult for those without personal vehicles. Reflecting patterns across Massachusetts, the majority of workers in each assessment community drove to work according to the most recent census data, a trend that was similar to the 2018 CHNA.

Food access and food insecurity: Feeding America projects an increase in food insecurity from 2019 to 2020-2021 as a result of the COVID-19 pandemic. While Middlesex and Norfolk counties had lower rates of food insecurity, both counties had higher average costs per meals[1] compared to the state overall. Higher food costs can contribute to an overall higher cost of living for individuals and families.

Crime and safety: Focus group participants and interviewees previously perceived their communities were largely safe from crime in the 2018 CHNA. However, participants had expressed concerns about personal safety in some communities. Several participants had voiced concerns about the safety of immigrants and the fear of police in some communities. Similar to the previous CHNA, in 2019,

[1] Average cost per meal is "*the average weekly dollar amount food-secure individuals report spending on food…divided by 21 (assuming three meals a day, seven days a week).*" Feeding America, Map the Meal Gap, 2019

according to the Federal Bureau of Investigations, the violent and property crime rates were highest in Waltham (162.6 violent crimes and 816.1 property crimes per 100,000 population) and Natick (101.8 violent crimes and 1,053.4 property crimes per 100,000 population). Property crimes rates decreased across the NWH region from 2017 to 2019, which was similar to the decrease seen in Massachusetts (1,561.1 to 1179.8) during the same time period.

Community Resources and Assets

Focus group and interview participants previously identified several strengths of their community in the 2018 CHNA. Community stakeholders and NWH Community Benefits department members elaborated on how these strengths have been impacted by community programming and engagement since the previous CHNA.

Community amenities: Participants previously spoke about the quality of green spaces and recreational opportunities available to them, as well as access to libraries, faith organizations, higher education, shopping, and the availability of cultural events in the. Additionally, participants appreciated the variety and extensiveness of services in their communities, including healthcare, public health, and programming for children and youth. NWH Community Benefits members collaborate with these diverse sectors to create programs and address community needs.

Collaboration: Collaboration across different organizations was also reported as an asset in the NWH service area. Participants shared examples of partnerships in the community including those between local police and schools and youth services organizations, work between public health departments and those working in senior services. These partnerships were essential during the COVID-19 response according to Community Benefits members.

Generosity: Generosity of residents was described as another important community asset. Participants described how residents are active in their communities and generous with their time and financial resources. Residents look out for one another and desire to give back. Community Benefits members expressed how mutual aid networks funded through community support supported residents through COVID-19 pandemic.

Strong local infrastructure: Several participants shared that the area has a strong business base and effective local government, which they believed were substantial assets. Participants praised local police, fire departments, and school leadership.

Community Health Issues

The assessment identified several key health issues and concerns affecting NWH's service area, namely:

Leading Causes of Mortality: Similar to the 2015 and 2018 CHNAs, the leading causes of death in the NWH service area are heart disease and cancer, according to the Massachusetts Department of Public Health.

Chronic Diseases and Related Risk Factors: Chronic diseases and related factors play a role in the community's mortality rate as well as their engagement with the health care system.. According to the Massachusetts Department of Public Health, most cities and towns in the NWH service area had lower rates of mortality due to heart disease as compared to the state (142.0 per 100,000 population), except for Natick (144.8 per 100,000 population) and Waltham (144.3 per 100,000 population). The asthma emergency department visit rate for Waltham residents (34.9 visits per 100,000 population) was almost

twice the rate for Needham residents (18.1 visits per 100,000 population), according to the Massachusetts Department of Public Health.

Mental Health: Among community health issues raised during the 2018 assessment process, mental health was the issue mentioned most frequently, particularly affecting elderly, immigrant, and low-income residents. Relative to the other cities/towns in the NWH service area, a larger percent of Waltham students reported depression, suicidal ideation, and suicide attempts, as noted in the previous CHNA. Middlesex and Norfolk County had a less favorable ratio of population per one mental health provider compared to the state.

Substance Use: Substance use was also reported to be a substantial challenge for the community in the 2018 CHNA. Opioids were the substance of greatest concern to participants. Substance use among seniors was also reported to be an issue in the community, as well as use among youth. Substance use patterns among youth varied across assessment communities: alcohol use was more prevalent in Weston, electronic cigarette use was highest in Waltham and in the Metro West region, and marijuana use declined in high school youth from Natick, Waltham, and Weston but increased in Newton students.

Reproductive and Maternal Health: Quantitative data from the Massachusetts Department of Public Health demonstrates that similar to patterns across Massachusetts, from 2013 to 2015, the percent of mothers with inadequate prenatal care increased slightly in Needham (11.1% to 13.0%), Wellesley (12.8% to 16.2%), and Weston (12.8% to 19.2%). Surveillance data for reproductive and maternal health has not been updated at a state or town level since the 2018 CHNA.

***COVID-19*:** The novel SARS-COV-2 pandemic, known as COVID-19, led to mild to severe illness, hospitalizations and death, in communities across the US and Massachusetts. While town level data was limited, Waltham had the highest number of total COVID-19 cases across the region. Massachusetts residents of color were experienced higher death rates due to COVID-19, which were consistent with national trends. COVID-19 vaccinations were ongoing at the time of the assessment, but Black, Hispanic, and American Indian/Alaskan Native residents of Massachusetts reported lower vaccinations compared to their White and Asian counterparts. In addition to physical health concerns, the pandemic affected social and economic wellbeing across Massachusetts leading to increased job losses, economic instability, social isolation, and other concerns.

Communicable Disease: According to data from the Massachusetts Department of Public Health, the chlamydia case rate per 100,000 population for all cities and towns in the NWH service area are below the rate for Massachusetts. However, following patterns across the state, the chlamydia case rate increased for all assessment communities from 2013 to 2018, with the greatest percent increase in Wellesley (40.5%), Needham (35.2%), Waltham (34.6%), and Natick (24.2%).

<u>Access to Care</u>

Access to affordable quality health care in important to physical, social, and mental health.

Cost and Insurance: The cost of care, including insurance, co-pays, and medication, was mentioned by participants as a barrier to access, especially for lower income residents, including seniors. Obtaining insurance was reported by participants to still be a challenge for residents, particularly those in the immigrant communities. According to the most recent census data, a higher proportion of Black residents in Needham (12.8%), Waltham (7.6%), and Wellesley (6.5%) lacked health insurance relative to the state (5.5%) and Middlesex (6.1%) and Norfolk Counties (4.4%).

Navigating the Healthcare System: Navigating complex healthcare systems was reported to be difficult, especially for residents with chronic illnesses or multiple providers. Continuity of care after hospitalization can be a challenge for cancer patients, frail seniors, and those with chronic illnesses. Participants reported a need for a strong network of community-based services as well as advocates/navigators to help patients navigate the healthcare system.

Behavioral Health: Focus group and interview participants previously reported that mental health and substance use services are insufficient to meet demand. Some mentioned that many mental health providers don't accept insurance or MassHealth, so people with mental health concerns, especially those who are lower income residents are undiagnosed or untreated. Additionally, stigma around mental health and substance use was shared as a substantial barrier to accessing care.

Cultural Competency: The lack of cultural competency of providers, as well as limited access to languages other than English were identified as barriers for some community participants to access healthcare. Miscommunication between providers and residents about health conditions and treatments was discussed, and according to one interviewee, led to improper use of medication. The lack of providers' knowledge and awareness of the unique needs of the LGBTQ population was also mentioned by participants as a barrier.

Transportation: According to participants, lack of cost-effective and convenient transportation options creates challenges to accessing health and other services in the NWH area, especially for lower income residents. While some options exist, long wait times, spotty service, and cost were previously noted to make it difficult for lower income residents and seniors to access medical care.

Key Themes and Conclusions

The 2021 NWH CHNA Report provides updated secondary data that was utilized in the 2018 CHNA by examining social, economic, and health patterns and community concerns, and considers persistent and emerging health concerns since the 2018 CHNA. Several key themes emerged from this review:

Community Strengths: Community stakeholders and NWH Community Benefits department members elaborated on how community strengths have been impacted by community programming and engagement since the 2018 CHNA. NWH Community Benefits members described how the community's collaboration, generosity, resources, and strong local infrastructure helped organizations come together during the initial COVID-19 response and its ongoing aftermath. Several members emphasized how these values have supported their community during a stressful and difficult time.

Identified Areas of Need

Housing - The 2018 CHNA reported that the high cost of housing and changing housing dynamics as challenges in the NWH service area. Since the 2018 housing costs have continued to rise for both renter-occupied and owner-occupied units according to data from the U.S. Census.

Transportation - Previously, residents reported that local transportation options were limited, and high transportation costs were challenging, especially for those without private vehicles.

Food access and food insecurity **-** Feeding America projects an increase in food insecurity from 2019 to 2020-2021 as a result of the COVID-19 pandemic. While Middlesex and Norfolk counties

had lower rates of food insecurity, both counties had higher average costs per meals[2] compared to the state overall. Higher food costs can contribute to an overall higher cost of living for individuals and families.

Mental Health - Among community health issues raised during the 2018 assessment process, mental health was the issue mentioned most frequently, particularly affecting elderly, immigrant, and low-income residents. Relative to the other cities/towns in the NWH service area, a larger percent of Waltham students reported depression, suicidal ideation, and suicide attempts, as noted in the previous CHNA. COVID-19 was also noted by community benefits members to have an impact on mental health during the pandemic.

Substance Use - Substance use was also reported to be a substantial challenge for the community in the previous CHNA, particularly related to opioids as well as specific concerns for seniors and youth.

Access to Care - During the previous assessment, residents reported challenges in meeting the social, economic, and health care needs of all residents in the NWH service area, especially immigrants, low-income residents, and seniors. A few participants previously reported that obtaining health insurance was still a challenge for some residents, particularly those in immigrant communities.

[2] Average cost per meal is "*the average weekly dollar amount food-secure individuals report spending on food…divided by 21 (assuming three meals a day, seven days a week).*" Feeding America, Map the Meal Gap, 2019

BACKGROUND

Overview of Newton-Wellesley Hospital

Newton-Wellesley Hospital is a full system member of Mass General Brigham, a nonprofit organization that includes academic medical centers Massachusetts General Hospital and Brigham and Women's Hospital. Serving its community for more than 130 years, NWH provides a wide range of services to its surrounding communities, including medical, surgical, obstetric and gynecological, cardiovascular, emergency, orthopedic, neonatal, pediatric, hematology/oncology and psychiatric care—with a medical staff of more than 1,000 physicians practicing a full range of specialties. NWH is a major teaching hospital for Tufts University School of Medicine and has established post-graduate training programs for residents of Massachusetts General Hospital and Brigham and Women's Hospital, teaching hospitals of Harvard Medical School.

Summary of Previous 2018 Community Health Needs Assessment

In 2018, Newton-Wellesley Hospital completed a community health needs assessment (CHNA) of its primary service area (Natick, Needham, Newton, Waltham, Wellesley, and Weston) using a participatory, collaborative approach that examined health in its broadest context. The purpose of this CHNA was to provide an empirical foundation for future health planning of communities served by NWH. The 2018 CHNA also fulfilled the community health needs assessment mandate for non-profit institutions as put forth by the MA Attorney General and the IRS. The assessments process included synthesizing existing data on social, economic, and health indicators, as well as conducting six focus groups and eight interviews with a range of diverse individuals to identify the perceived health needs of the community, challenges to addressing these needs, current strengths and assets, and opportunities for action. The 2018 assessment identified the following areas of needs: housing, transportation, mental health, substance use, access to care, and cancer. Previously collected information on these health issues, as well as community assets and resources, can be found in the 2018 assessment report available NWH's website: https://www.nwh.org/media/file/chna.pdf.

Summary of Previous Community Health Implementation Plan FY18-20

Following its 2018 CHNA process, NWH developed a plan to address the following priority areas: mental health, substance use, access to care, social determinants of health, chronic disease management and prevention, and other identified community health needs. The 2019 plan is available on NWH's website: https://www.nwh.org/media/file/CHIP.pdf. Since the 2018 CHNA, NWH has provided a variety of services and programming to address the identified key needs and issues (see Appendix A).

NWH included six priority areas in its 2018 implementation plan to address the needs of its service area and the table in Appendix A reviews the impact of that work. It is organized by priority area and includes a description of activities, services, and programs. The impact of these activities in FY' 2018, 2019, and 2020 is demonstrated by numbers of individuals served, services provided, and goals achieved.

Purpose and Scope of 2021 CHNA

In the spring of 2021, NWH decided to align their CHNA and planning cycle with that of their parent health system, Mass General Brigham. To accomplish that, NWH decided to complete a brief update to their 2018 CHNA and develop an accompanying one-year plan. The new three-year cycle will start in

2022 with the development of a full, detailed CHNA and three-year Community Health Improvement Plan (CHIP).

PROCESS AND METHODS

The following section describes how data for 2021 CHNA were collected and analyzed. This section also provides an overview of the health framework that guided this assessment process. This CHNA conceptualizes health in the broadest sense and recognizes that factors at multiple levels shape the community's health. These include, for example, lifestyle behaviors (e.g., physical activity and smoking), clinical care (e.g., access to medical services), social and economic factors (e.g., employment opportunities), and the physical environment (e.g., access to healthy food).

Definition of the Community Served

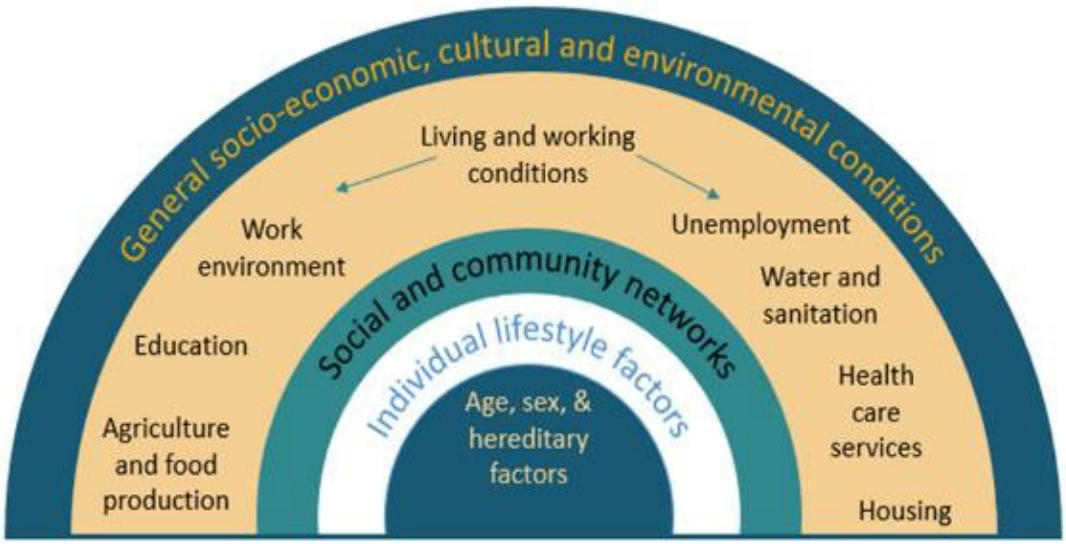
The 2021 NWH CHNA focused on the six cities and towns that comprise the Hospital's primary service area. These communities are Natick, Needham, Newton, Waltham, Wellesley, and Weston. While the CHNA process aimed to examine health concerns across the entire service area, there was a particular focus on identifying the needs of the most underserved population groups of the area, as well as further exploration of the key priorities identified by the previous CHNA.

Approach and Community Engagement Process

Social Determinants of Health Framework

Figure 1, below, provides a visual depiction of the multiple factors that shape health. Individual lifestyle factors, located closest to health outcomes, are influenced by upstream social and economic factors such as housing, educational opportunities, and occupational factors. The beginning of the CHNA describes many of these social and economic factors, and reviews key health outcomes among residents of the Newton-Wellesley Hospital service area.

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.

Community Benefits Committee Engagement

Members of the NWH Community Benefits Committee provided strategic oversight of the CHNA process. This committee is comprised of 24 community stakeholders from the hospital service area and Newton-Wellesley Hospital staff and administrators involved in strategic planning and community benefits efforts. A list of members can be found in Appendix B. The Community Benefits Committee guided several parts of the assessment including the design of CHNA methodology, recommendation of secondary data sources, and highlighting community voices during the data assessment process.

Following the 2018 CHIP, the Newton-Wellesley Collaborative for Health Families and Communities (CHF&C), under the Community Benefits Committee guidance, formed eight councils around the focus areas identified by the 2018 CHNA. Each council has approximately 20 members and include NWH health care providers, community partners, and volunteer community members. The eight councils are:

- Cardiovascular Council
- Domestic and Sexual Violence Council
- Elder Care Council
- Maternity Service Council
- Palliative Care Council
- The Resilience Council
- Substance Use Council
- Workforce Development Council

Each council meets quarterly to address community needs and implement community health priorities, informed by previous 2018 CHIP strategies and 2018 CHNA data. See Appendix C for further information on the councils.

Quantitative Data

Secondary data provide information about social and economic indicators, as well as health behaviors and health outcomes along the cancer continuum, specifically prevention and screening. When possible, this CHNA compared indicators from the 2018 CHNA to most recent data for the NWH service area. Data sources included: the U.S. Census Bureau, American Community Surveys, County Health Rankings, the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), the Massachusetts Department of Public Health, MetroWest Health Foundation, the Massachusetts Department of Elementary and Secondary Education, and the Federal Bureau of Investigation. Some data resources from the Massachusetts Department of Public Health have not been updated from the previous CHNA due to limitations on data requests in light of COVID-19's burden on health departments.

Qualitative Data

As noted earlier, the 2021 NWH CHNA process is a limited process to set up the hospital for broader, more engaged process in 2022. For this CHNA process, all qualitative data collection and resident community engagement was done through the Community Benefits Committee and the CHF&C councils and focused on the implementation of community benefit activities and response to the COVID-19 pandemic.

Limitations

As with all research efforts, there are limitations related to the assessment methods that should be acknowledged. First, for quantitative data sources, in several instances data for a given indicator could not be provided at the city/town level due to the small population size in the geographic region. Similarly, there were limited data available stratified by subgroups (e.g., race/ethnicity, age, etc.) for the communities in the NWH service area. In many cases data were only available at the county or state level. Middlesex County includes Natick, Newton, Waltham, and Wellesley; Norfolk County includes Needham and Wellesley.

While examining data across multiple time points provides important information about health patterns over time, there were some indicators for which data may not have been available for the same geographic unit (e.g., city vs. town; longitudinal data were not available for all towns) across multiple time points. There were also changes to the collection or reporting of a few indicators following the 2018 CHNA. Accordingly, direct comparisons across time points should be interpreted conservatively or with caution. For example, the indicator of poor mental health for adults shifted from 15+ days of poor mental health in the past month to 14+ days of poor mental health. Similarly, some data regarding patterns for middle school students were focused on different grade levels over time or across assessment communities (e.g., Grades 6-8 vs. Grades 7-8). Also, for students, data were not always available for the same year. Footnotes indicate any differences in the population or time period of focus across assessment communities.

Data based on self-reports should be interpreted with 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 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.

Data collection for this CHNA was conducted in the spring of 2021 during the COVID-19 pandemic. Findings from numerous studies, including the Massachusetts COVID-19 Community Impact Survey, note the pandemic's impact on access to things like healthy food, safe housing, affordable medicine, technology, employment, and childcare. The pandemic's impact on people's ability to afford and access basic needs have changed lives and put people at greater risk for poor health. Data on the impact of the pandemic is limited for the communities in the NWH service area. Most secondary data collected for this report does not reflect the impact of the pandemic as it was collected before 2020.

Since this CHNA is a one-year bridge report, NWH elected to forego formal qualitative data collection, including resident focus groups and stakeholder interviews done exclusively for this CHNA. NWH pursued other forms of qualitative data collection such as focus groups about COVID-19 with residents, town hall meetings, and programming feedback at NWH events. Due to this, most topics discussed in the 2021 CHNA report do not feature resident feedback as extensively as prior CHNAs. NWH plans to pursue extensive qualitative data collection for the 2022 CHNA but preferred to incorporate more informal comments in hopes of not overburdening their community with data collection during the COVID-19 pandemic.

Additionally, while the resident feedback provides valuable insights, results are not representative of a larger population due to non-random recruiting techniques and a small sample size. Residents that

provided feedback were individuals already involved in community programming. Because of this, it is possible that the responses received only provide one perspective of the issues discussed. Lastly, it is important to note that data were collected during singular moments in time, so findings, while directional and descriptive, should not be interpreted as definitive.

FINDINGS

Community Social and Economic Context

The health of a community is linked with numerous factors, including the resources and services that are available (e.g., access to healthy foods, transportation), and who lives in the community. The following section provides an overview of the population of the Newton-Wellesley Hospital service area. The demographics of a community are connected to the health behaviors and outcomes of that area. Age, race, and ethnicity are important factors that influence an individual's health, and the distribution of these characteristics in a community may shape the number and type of services and resources available.

Demographic Characteristics

Population

As shown in Table 1, cities/towns in the NWH service area range widely in size, from 88,593 residents in Newton and 62,777 residents in Waltham, to 28,747 residents in Wellesley and 12,112 residents in Weston in 2019. Data show that all the cities/towns in the NWH service area experienced total population growth between 2000 and 2019. During this time period, the town of Natick (12.3%) experienced a higher percent change in population than the state's overall population increase (7.9%), and that for Norfolk (7.7%) and Middlesex (9.2%) Counties.

Table 1: Total Population by State, County, and City/Town, 2000, 2015-2019

Geography	2000	2019	% Change
Massachusetts	6,349,097	6,850,553	7.9%
Middlesex County	1,465,396	1,600,842	9.2%
Norfolk County	650,308	700,437	7.7%
Natick	32,170	36,128	12.3%
Needham	28,911	30,970	7.1%
Newton	83,829	88,593	5.7%
Waltham	59,226	62,777	6.0%
Wellesley	26,613	28,747	8.0%
Weston	11,469	12,112	5.6%

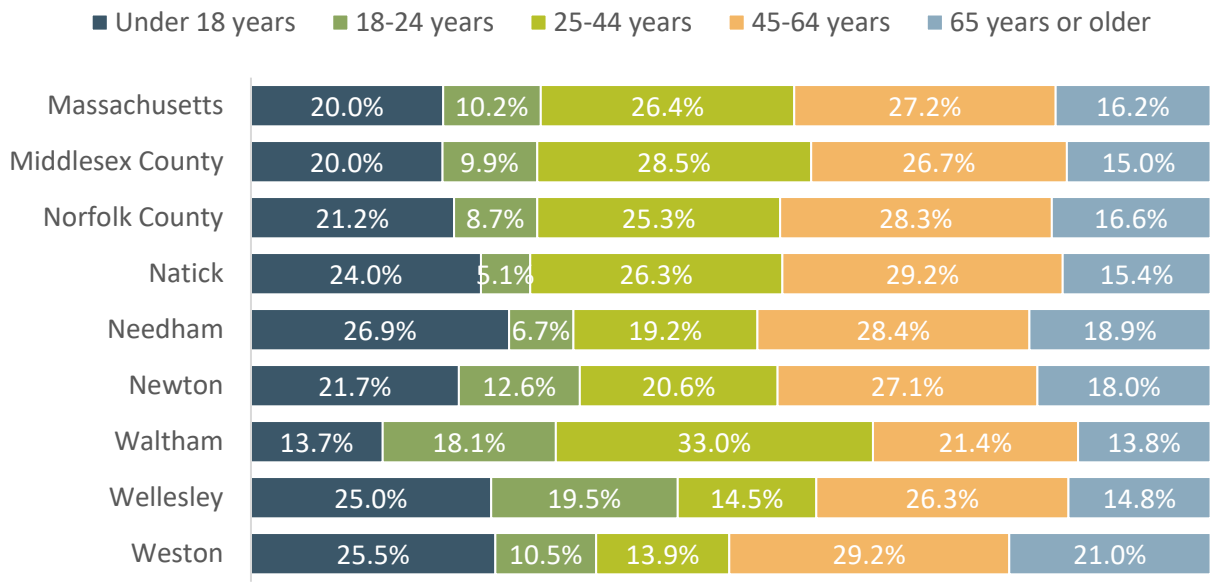
DATA SOURCE: U.S. Census Bureau, 2000 Census; and U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019.

Age Distribution

Similar to the 2018 CHNA, in 2015-2019, with the exception of Waltham (13.7%), all of the towns in the NWH service area had a higher percent of children under 18 years of age compared to the state (20.0%) (Figure 2). The proportion of residents 18-24 years of age in Waltham (18.1%) and Wellesley (19.5%) was nearly double that for Massachusetts (10.2%). The towns of Weston (21.0%), Needham (18.9%), and Newton (18.0%) had a larger proportion of residents age 65 or over compared to the state (16.2%). These patterns generally reflect the age distribution across cities/towns in the NWH service area reported in the 2015 CHNA (data not shown).

In discussing the age of residents of the assessment communities, focus group participants and interviewees described the population served by NWH as a mix, with aging adults, young families, and middle-age persons. Participants reported that Newton had a higher portion of elderly residents, while Waltham was described as younger, in part due to newcomers from other countries.

Figure 2: Age Distribution by State, County, and City/Town, 2015-2019

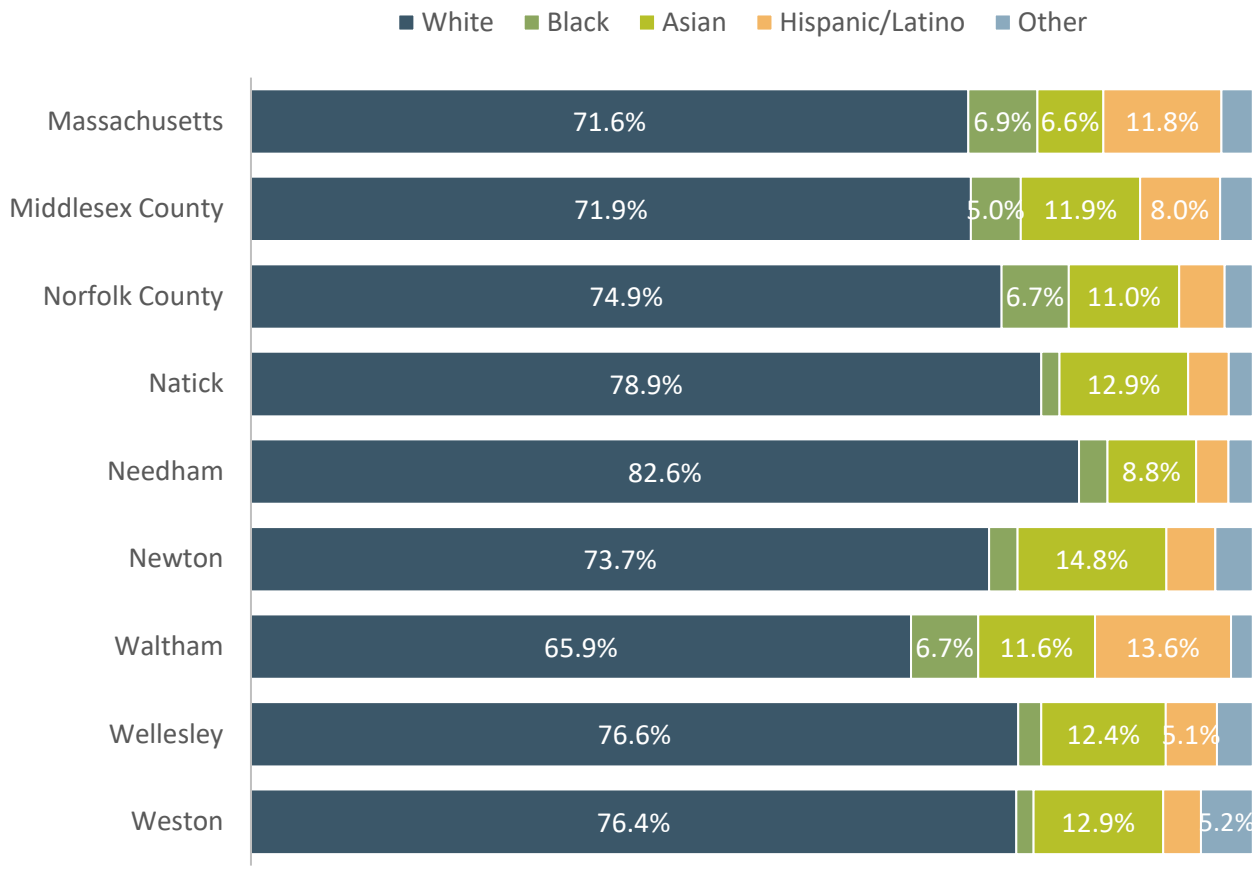


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Racial and Ethnic Diversity

Since the 2018 CHNA, the racial/ethnic composition of NWH's service area has remained consistent. As shown in Figure 3, Waltham had the highest percent of Black (6.7%) and Hispanic/Latino (13.6%) residents in the NWH service area, relatively similar to the proportion of Black (6.9%) and somewhat greater to the proportion of Hispanic/Latino (11.8%) residents for Massachusetts overall in 2015-2019. The towns of Needham (82.6%), Natick (78.9%), Weston (76.4%), Wellesley (76.6%), and Newton (73.7%) had a higher proportion of White residents than the average for the state (71.6%) in 2015-2019. Newton had the highest proportion of Asian (14.8%) residents in 2012-2016, similar to the 2018 CHNA. In 2015-2019, Weston had the highest percentage of residents who identified their race/ethnicity as "Other" (5.2%). This was a shift from the 2015 CHNA, where Wellesley had the highest proportion of residents (3.3%) who identified "Other" (data not shown).

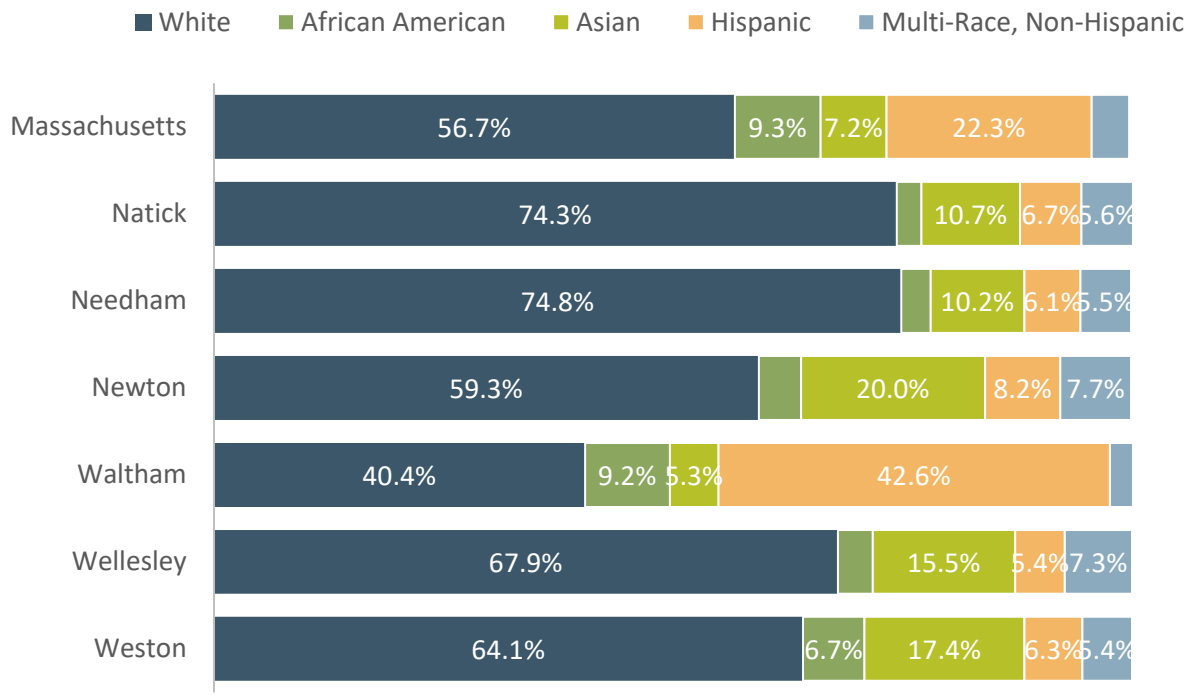
Figure 3: Racial/Ethnic Composition by State, County, and City/Town, 2015-2019



NOTE: Values <5% not presented.
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

In 2020-2021, 59.7% of Waltham School District students represented racial/ethnic minority groups, reflecting greater racial/ethnic diversity than public school districts across Massachusetts (43.2%) (Figure 4). Waltham School District had approximately double the proportion of Hispanic (42.6%) students enrolled than the state (22.3%), and a similar proportion of Black students (9.2%) as Massachusetts (9.3%). Except for Waltham (5.3%), the cities/towns in the NWH service area had a higher proportion of Asian students than the state (7.2%), with Newton (20.0%) and Weston (17.4%) having the highest percent of Asian students. Compared to the state overall (4.1%), apart from Waltham, cities/towns across the NWH service area had a higher proportion of students who identified as multi-racial.

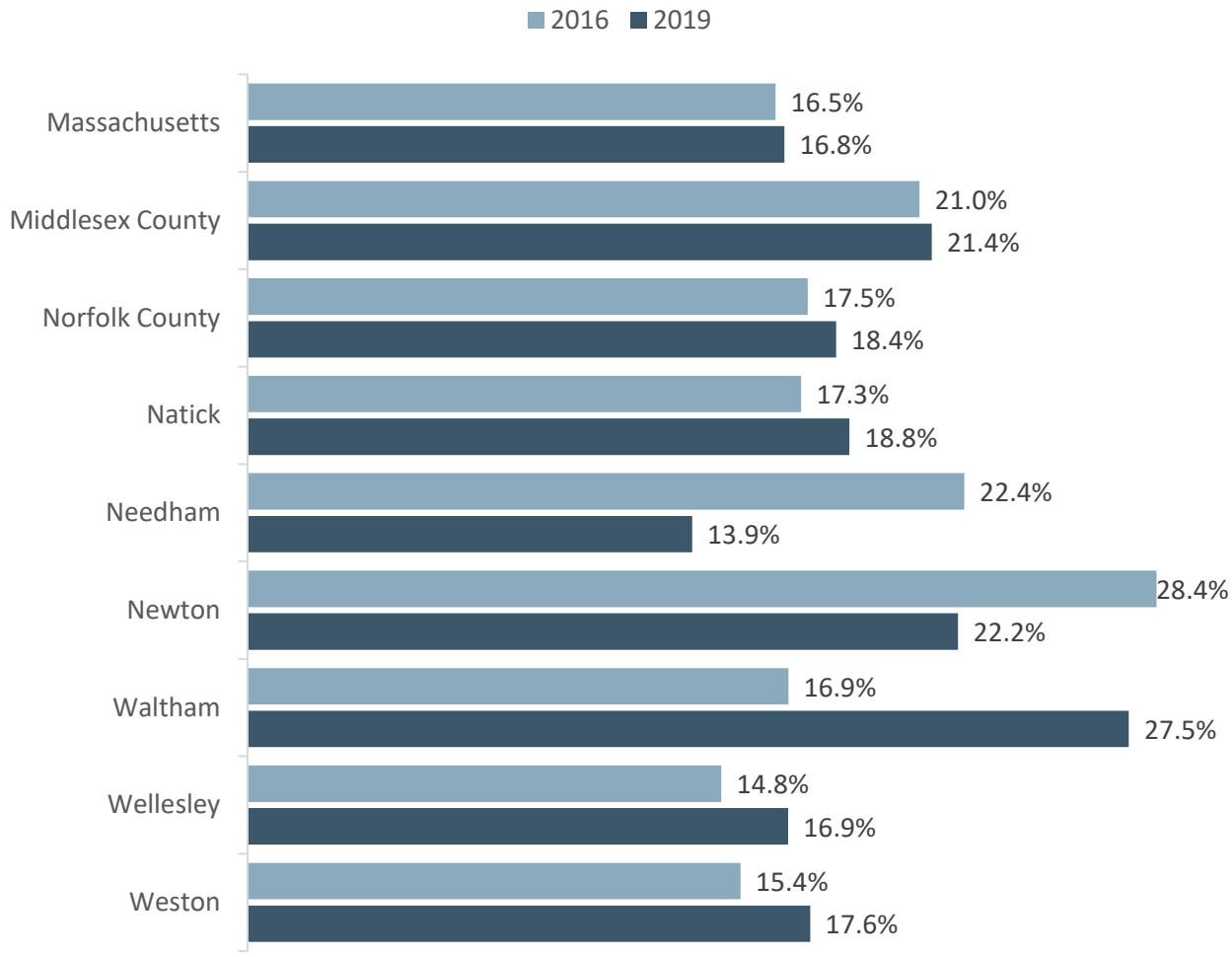
Figure 4: Racial Composition of Public School District Student Enrollment, by State and City/Town, 2020-2021



DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2020-2021
NOTE: Values <5% not presented. Students of Native American or Native Hawaiian/ Pacific Islander descent not presented, <5%.

As illustrated in Figure 5, from 2012-2016 to 2015-2019, most of the CHNA focus communities experienced an increase in the proportion of residents born outside of the United States. The exceptions to this growth were Needham and Newton. In 2015-2019, all the towns in the NWH service area, except for Needham (13.9%), had a higher percent of residents born outside of the U.S. than in the state overall (16.8%), while in 2012-2016 Wellesley (14.8%) and Weston (15.4%) had a lower percent of immigrant residents than the state (15.5%). Throughout the implementation of the 2019-2021 community benefit activities, NWH community benefit staff and the Community Benefits Committee members emphasized the vitality of their communities and saw diversity as a substantial asset. They also noted challenges as members noted the racial tension that exist.

Figure 5: Percent of the Population 5 Years and Over Born Outside of the US by State, County, and City/Town, 2012-2016 and 2015-2019

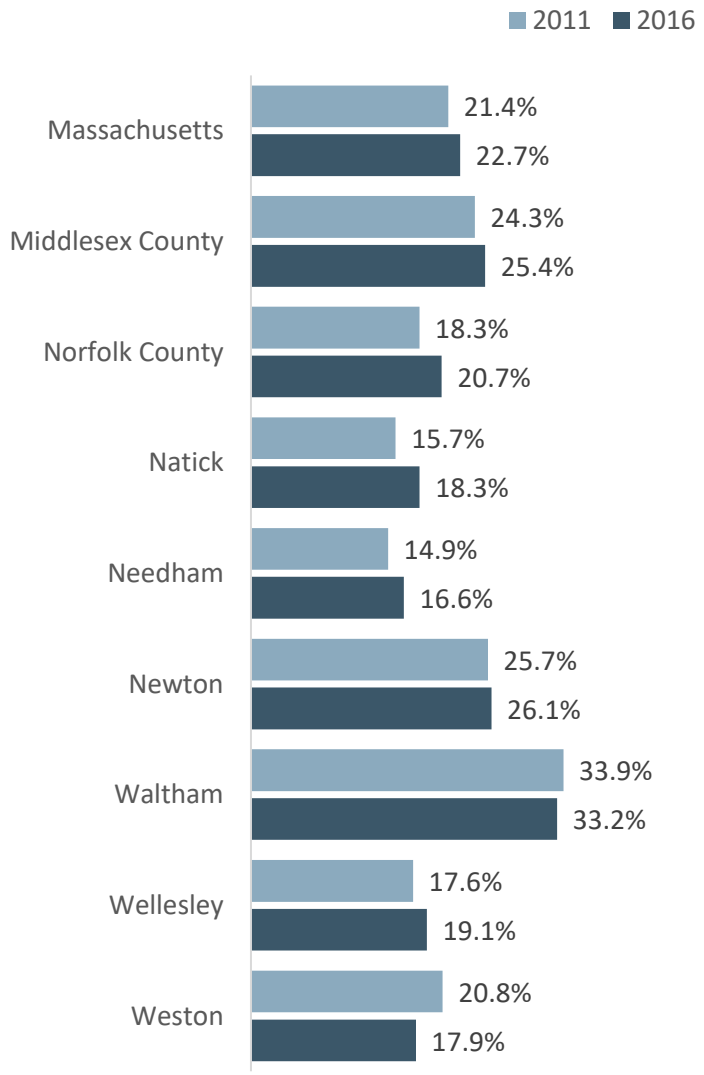


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016 and 2015-2019

Language

In 2012-2016, more than a quarter of residents 5 years of age and older in Waltham (33.2%) and Newton (26.1%) spoke a language other than English at home, a percent that exceeded that for the state (22.7%) (Figure 6). From 2007-2011 to 2012-2016, with the exception of Waltham and Weston, cities/towns across the NWH service area experienced a slight increase in the percent of residents who spoke a language other than English at home, similar to patterns across Massachusetts and for Middlesex and Norfolk Counties.

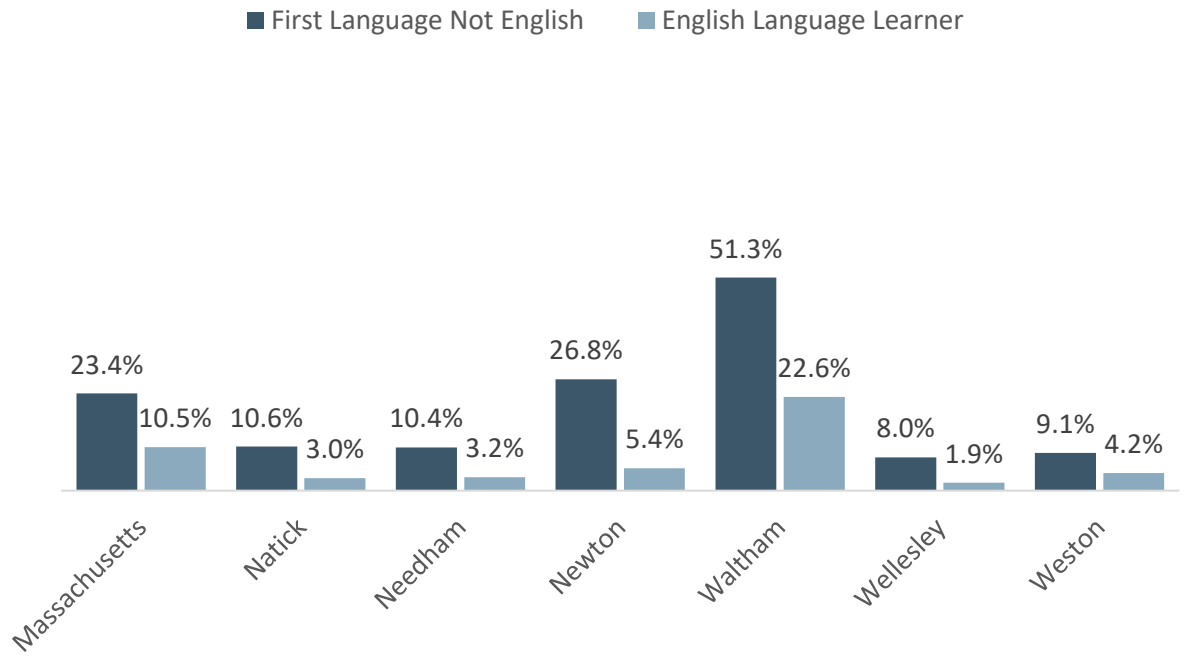
Figure 6: Percent of Population Over 5 Years Who Speak Language Other than English by State, County, City/Town, 2007-2011 and 2012-2016



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2007-2011 and 2012-2016

During the 2020-2021 academic year, the Waltham public school district had more than double the percent of students whose first language was not English or who were considered English language learners (51.3% and 22.6%, respectively) compared to the state (23.4% and 10.5%) (Figure 7). English was not the first language for slightly more than one-quarter (26.8%) of Newton public school district students.

Figure 7: Percent of Public School District Students whose First Language is Not English and who are English Language Learners by State and City/Town, 2020-2021

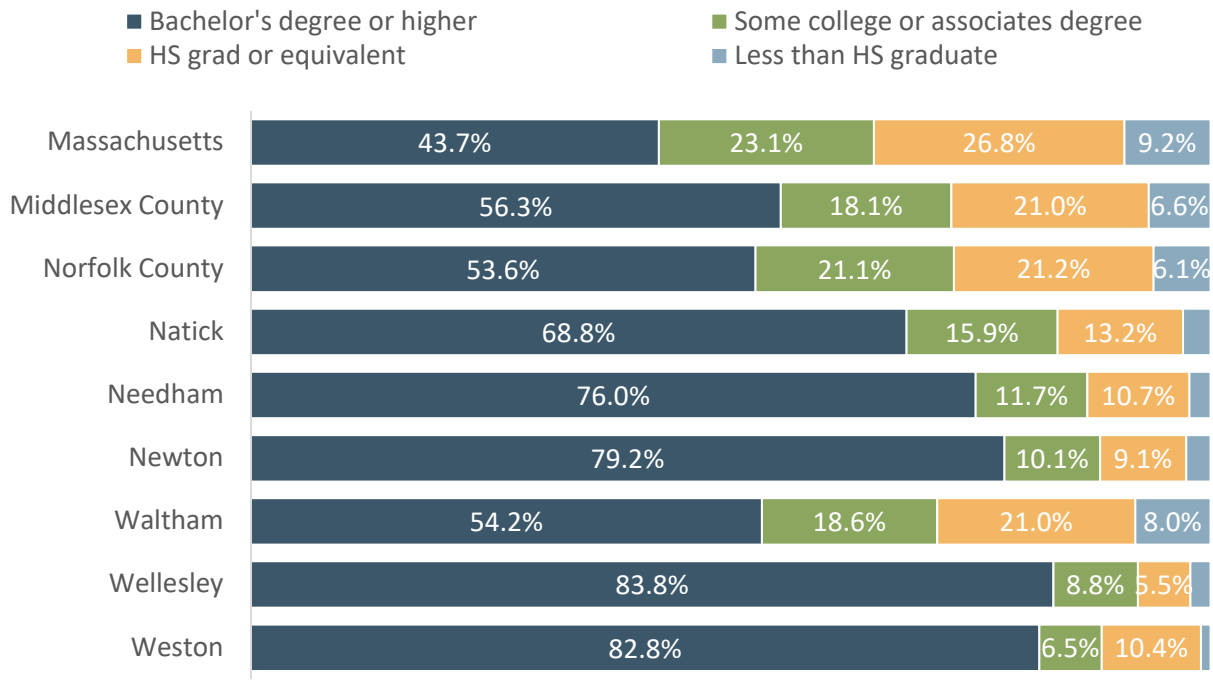


DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2020-2021

Education

Similar to the 2018 CHNA, quantitative data indicate the six cities/towns in the NWH service area have high levels of education (Figure 8). Compared to the state, higher proportions of adults aged 25 and older have earned a bachelor's degree or higher in all six assessment communities. Weston (82.8%) and Wellesley (83.8%) had the highest percent of residents who have earned a bachelor's degree or higher. Waltham (8.0%) had the highest percent of residents who had less than a high school diploma. Of note, the proportion of Waltham adults 25 years of age and older with a bachelor's degree or higher increased from 50.0% in 2012-2016 to 54.8% in 2015-2019. In the 2019-2021 community benefit plan the area's schools were reliable assets for the work.

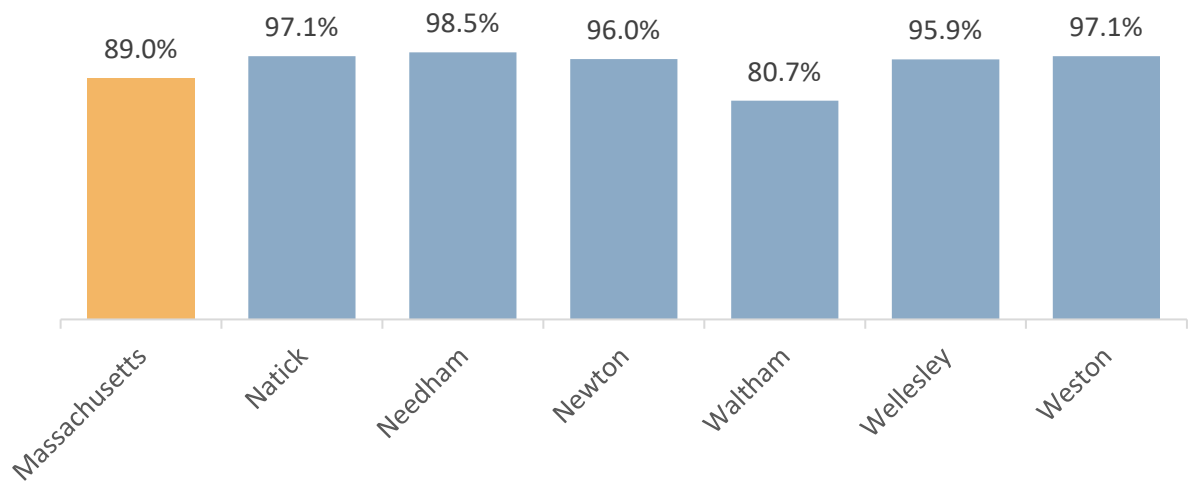
Figure 8. Educational Attainment of Adults Aged 25 Years and Older, by State, County, and City/Town, 2015-2019



NOTE: Values <5% not presented.
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

In 2020, Waltham (80.7%) had the lowest percent of students who graduated from high school within four years, below the state average (89.0%) (Figure 9). Among the other five towns in the NWH service area, at least 95% of high school students graduated within four years.

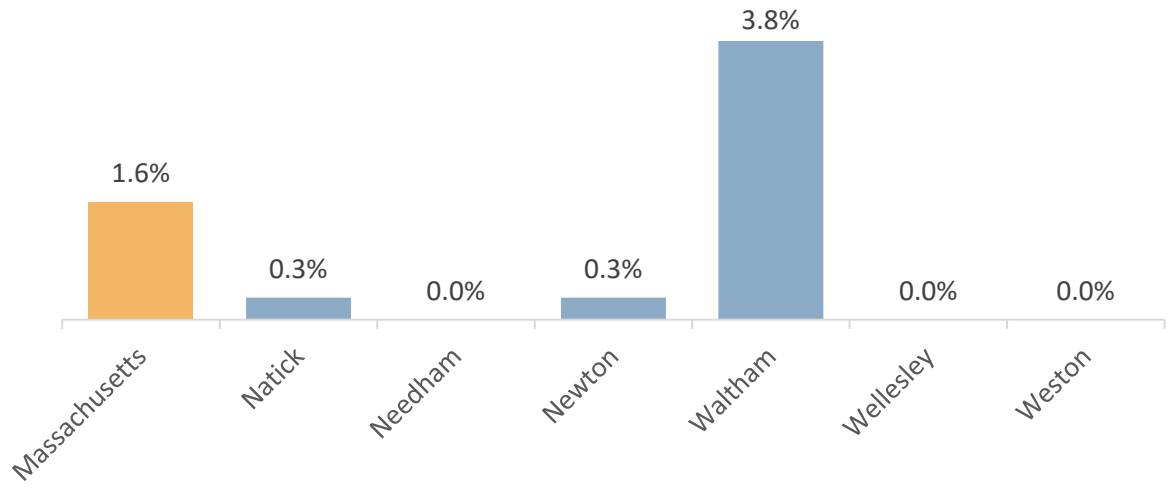
Figure 9: Percent of Public School District High School Students Who Graduate in Four Years, by State and City/Town, 2020



DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2020

As shown in Figure 10, the proportion of Waltham public school district students who dropped out of high school (3.8%) was more than double that of the state (1.6%) in 2021. One in three youth respondents to the Massachusetts COVID-19 Community Impact Survey reported worrying about continuing their education in the 2020-2021 school year.

Figure 10: Percent of Public School District High School Students who Dropped Out, by State and City/Town, 2020-2021



DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2020-2021

Employment

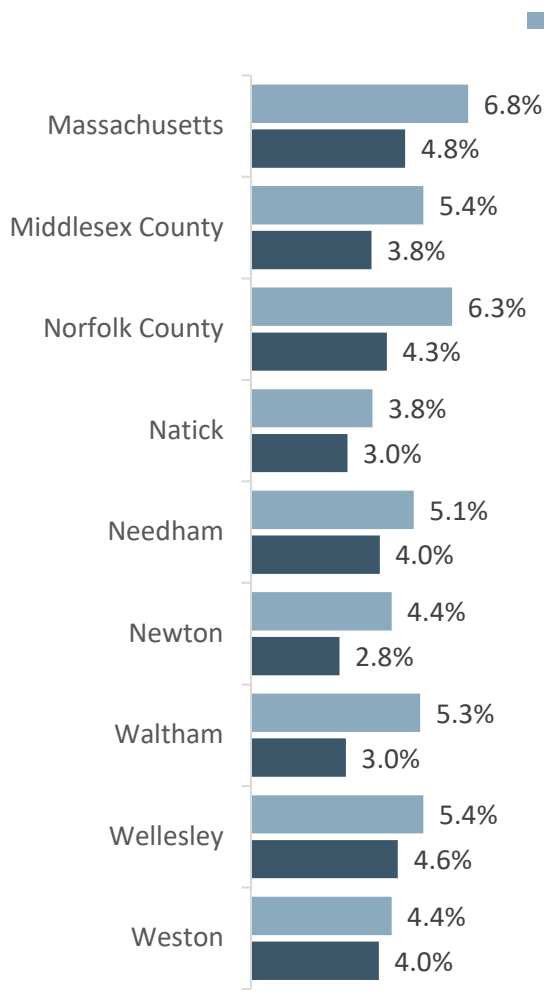
As illustrated in Figure 11, from 2012-2016 to 2015-2019 trends suggest all cities/town in the NWH service area experienced a decrease in unemployment. While there was little change in the percent of unemployed residents in Weston (4.4% to 4.0%), Waltham (5.3% to 3.0%) and Newton (4.4 to 2.8%) exhibited reductions similar to that of Massachusetts (6.8% to 4.8%), Middlesex County (5.4% to 3.8%), and Norfolk County (6.3 to 4.2%). In Natick, Needham, and Wellesley the unemployment rate decreased more than Weston but less than the statewide and countywide percentages. In the 2018 CHNA, Wellesley, Waltham, and Needham had the highest proportion of unemployed residents, and in 2015-2019, Wellesley, Weston, and Needham had the highest unemployment rate across the NWH service area.

Impact of COVID-19 Pandemic from the MA CCIS:

- *1 in 4 adults employed in the past year reported job loss, reduced hours or taking leave.*
- *43% of parents who reduced hours/took leave and 32% of parents who lost jobs listed need to take care of children as a reason*

These data are from a time period before the start of the COVID-19 pandemic. Pandemic impacts have influenced employment rates, household income, types of available jobs, and availability of childcare.

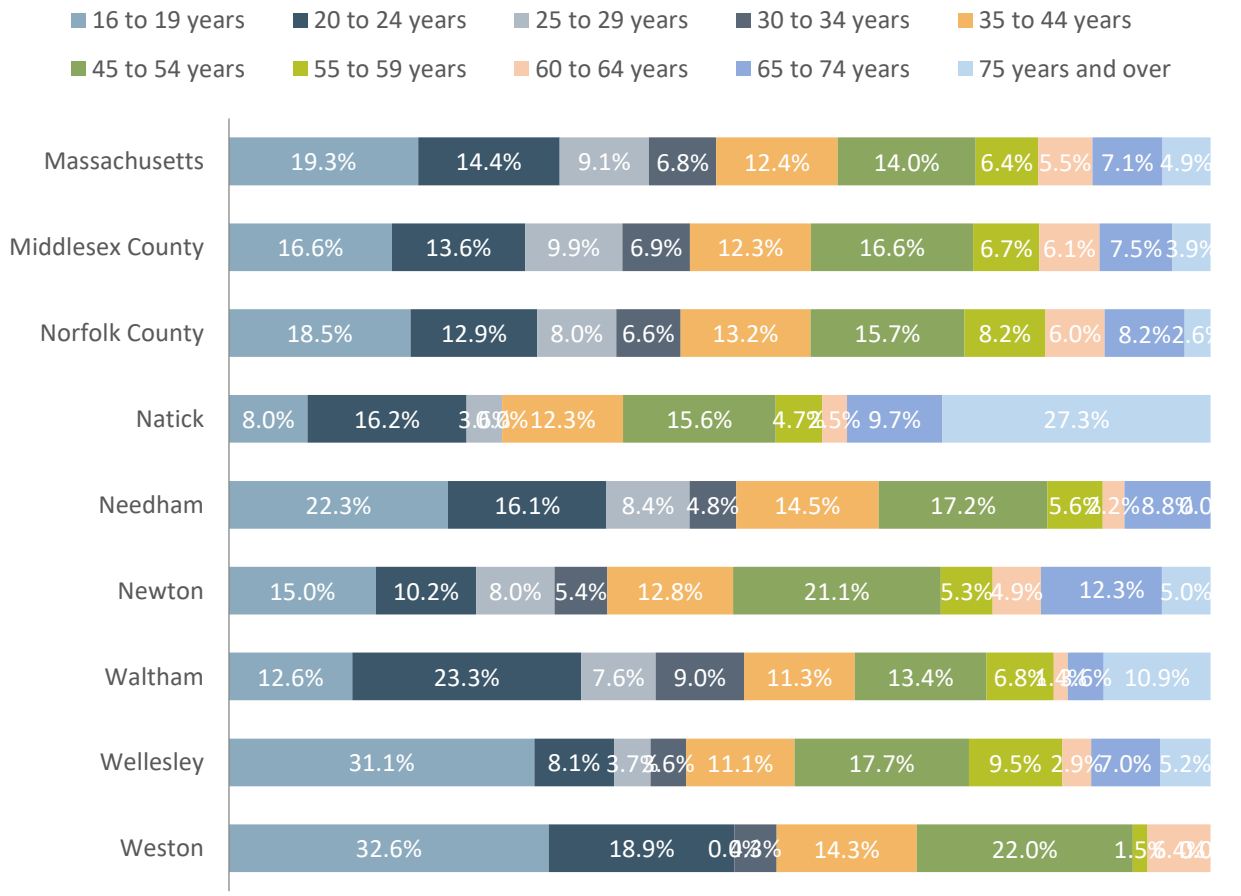
Figure 11: Unemployment by State, County, and City/Town, 2012-2016 and 2015-2019



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016 and 2015-2019

Shown in Figure 12 is the age distribution of unemployed residents across each of the NWH service area communities. In Weston (32.6%), Wellesley (31.1%) and Needham (22.3%), a higher share of unemployed residents were 16-19 years of age. In 2012-2016, the largest unemployed age group among adults in cities and towns was generally residents 45-54 years of age, except for Natick (27.3% were 75+) and Waltham (23.3% were 20-24 years of age).

Figure 12: Age Distribution of Unemployed Adults, by State, County, and City/Town, 2012-2016

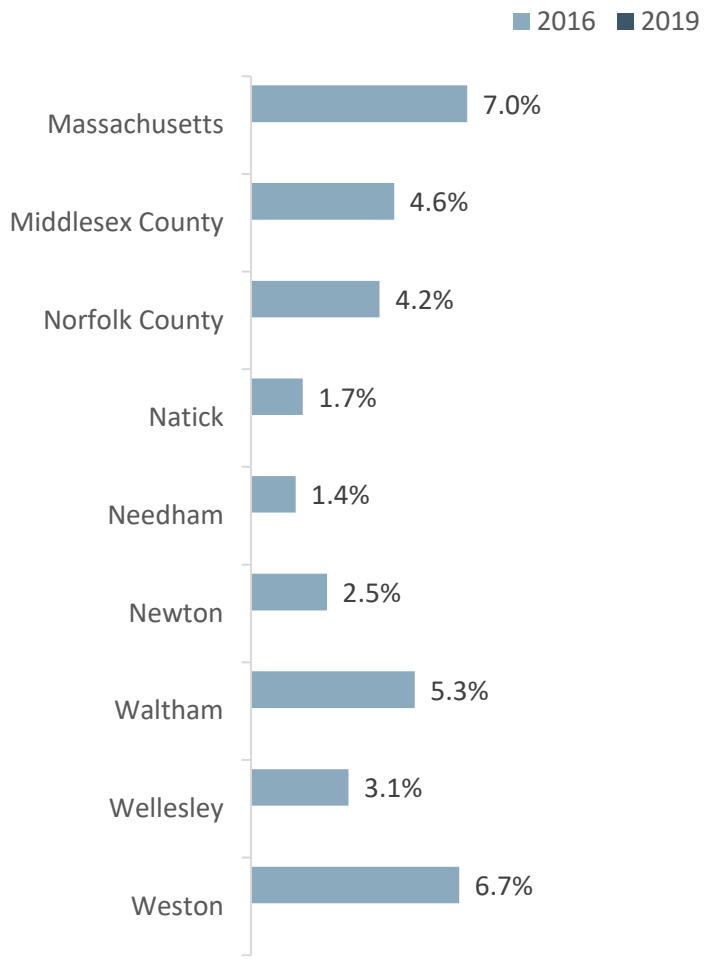


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016
NOTE: Data are for persons 16 years of age or older.

Income and Poverty

In 2015-2019, Weston (6.7%) and Waltham (5.3%) had the highest percent of families living below the poverty level, though this prevalence was below that for the state (7.0%) (Figure 13). In 2012-2016, Weston (4.8%) and Waltham (5.5%) also had the highest percent of families living in poverty among the six assessment communities. Of note, during 2012-2016 and 2015-2019 all six cities/town had a lower percent of families whose income in the past year was below the poverty level compared to the state.

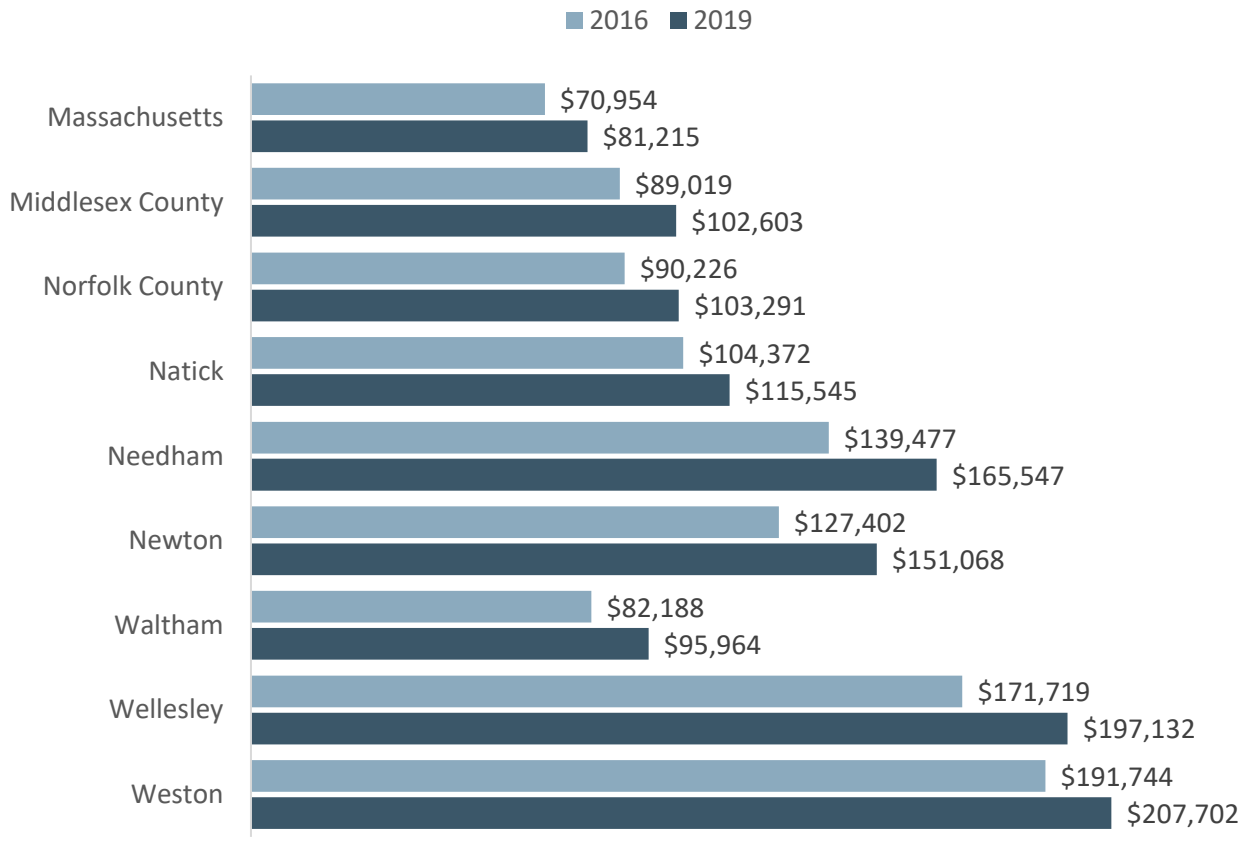
Figure 13: Percent of Families whose Income in the Past 12 Months is Below Poverty Level by State, County, and City/Town, 2012-2016 and 2015-2019



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016 and 2015-2019

Across the NWH service area towns, the median household income was lowest in Waltham in 2012-2016 ($82,118) and 2015-2019 ($95,964) (Figure 14). The median household income increased across all six assessment communities from 2012-2016 to 2015-2019. The towns of Needham (+$26,070), Wellesley (+$25,413), and Newton (+$23,666) experienced the greatest increase in median household income over this period, and it was more than double the household income increase seen across Massachusetts (+$10,261) and close to double patterns across Middlesex (+$13,584) and Norfolk (+$13,065) counties during the same period. Weston (+$15,958), Waltham (+$13,766), and Natick (+$11,173) were closer to state and county trends for median household income.

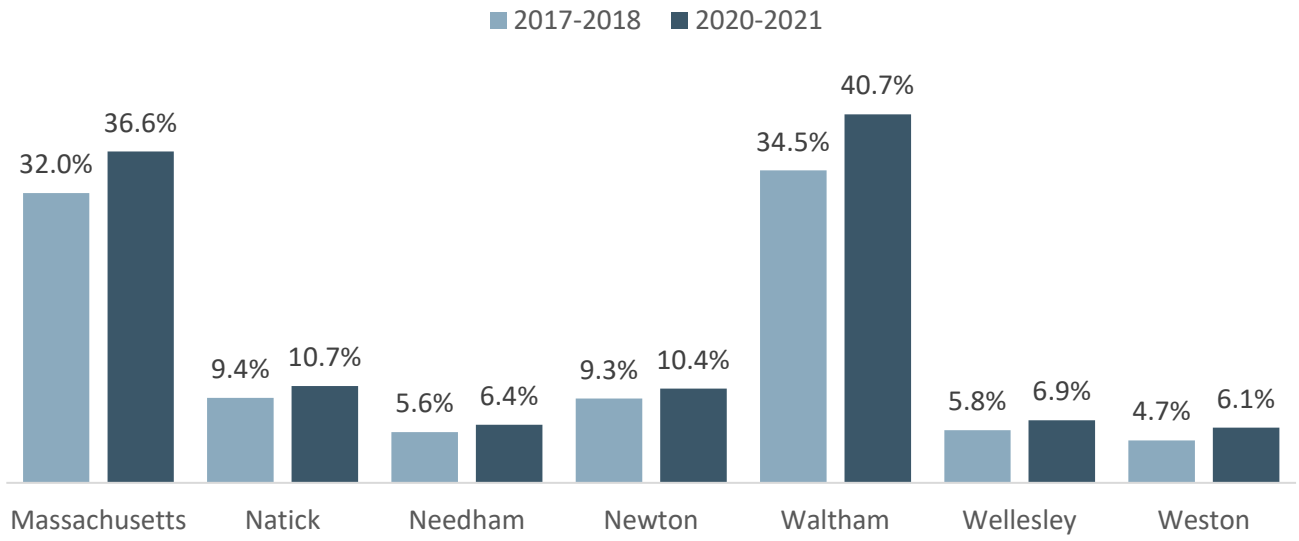
Figure 14: Median Household Income by State, County, and City/Town 2012-2016 and 2015-2019



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2012-2016 and 2015-2019

Economic disadvantage among public school students is assessed by whether a student participates in at least one of the following programs: Supplemental Nutrition Assistance Program (SNAP), Transitional Assistance for Families with Dependent Children (TAFDC); Department of Children and Families' (DCF) foster care program; and/or MassHealth (Medicaid). All the NWH service area and towns reported an increase in public school students who are economically disadvantaged from the 2017-2018 to 2020-2021 school year. The percentage of economically disadvantaged students increased from 34.5% in 2017-2018 to 40.7% in the 2020-2021 school year in Waltham, which exceeded that for the state (32.0% to 36.6%) (Figure 15). Among the other communities in NWH's primary service area, the percent ranged from 6.1% in Weston to 10.7% in Natick during the same period.

Figure 15: Percent of Public School District Students who are Economically Disadvantaged, by State and City/Town, 2016-2017 and 2020-2021



DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2016-2017 and 2020-2021

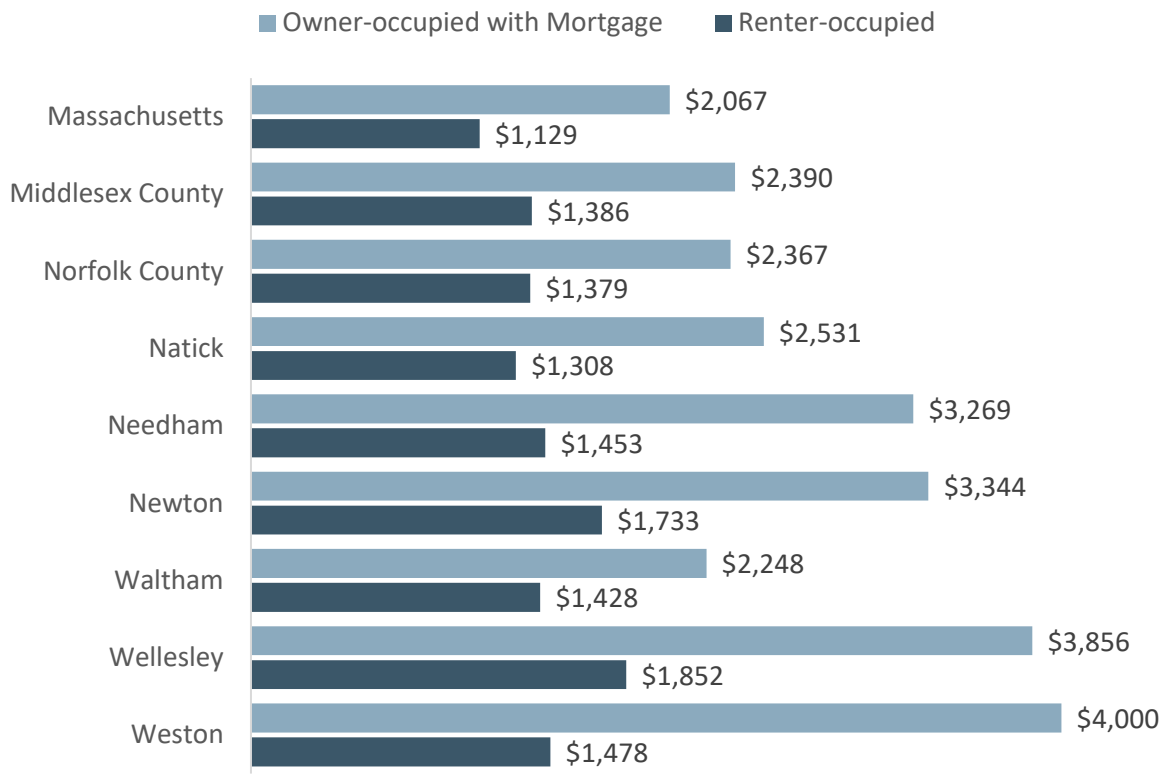
Housing

In 2012-2016, of the six NWH service area towns, median monthly housing costs for owner-occupied units were lowest in Waltham ($2,248), though these housing costs exceeded the average across Massachusetts ($2,067) (Figure 16). The towns of Natick ($1,308) and Waltham ($1,428) had the lowest renter-occupied housing costs across the assessment communities, yet these costs were higher than the state average ($1,129). Monthly housing costs for renter-occupied units were highest in Wellesley ($1,852) and Newton ($1,733) and lowest in Natick ($1,308). Monthly mortgage costs were highest in Wellesley ($3,856) and Weston ($4,000). Similar to the 2015 CHNA, in 2012-2016 the median monthly housing costs in each of the six assessment communities exceeded those for the state for both owner-occupied and renter-occupied units.

Impact of COVID-19 Pandemic from the MA CCIS:

- *Nearly 1 in 5 respondents worried that they would have to move out of their home soon.*
- *More than 1 in 3 respondents were worried about paying their housing and/or utility expenses.*

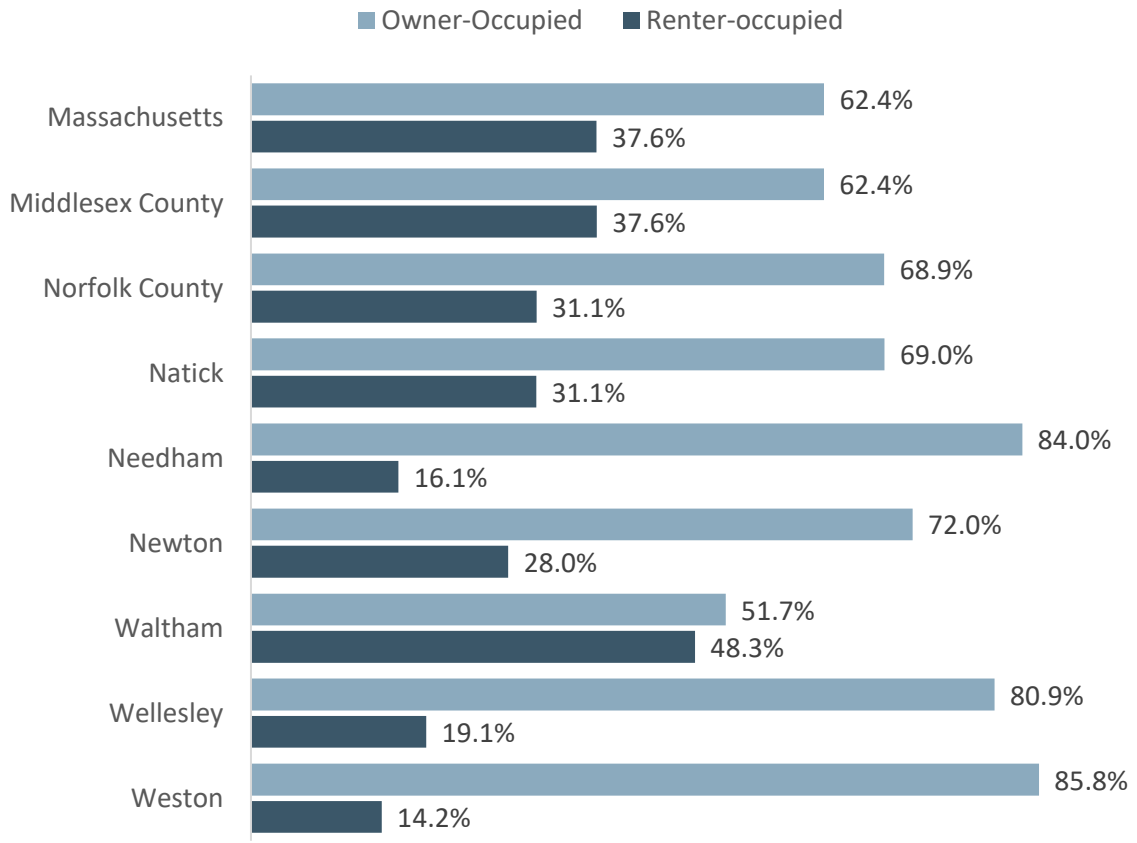
Figure 16: Median Monthly Housing Costs by Tenure and State, County, and City/Town, 2012-2016



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

Similar to patterns in the 2018 CHNA, with the exception of Waltham (51.7%), towns across the NWH service area had a higher percent of owner-occupied housing units than the state overall (62.4%) in 2015-2019 (Figure 17). About half (48.3%) of Waltham housing units were renter-occupied, compared to approximately one-third of Massachusetts units (37.6%). The towns of Weston (85.8%), Needham (84.0%), and Wellesley (80.9%) had the highest percent of owner-occupied housing units, mirroring patterns in the 2018 CHNA.

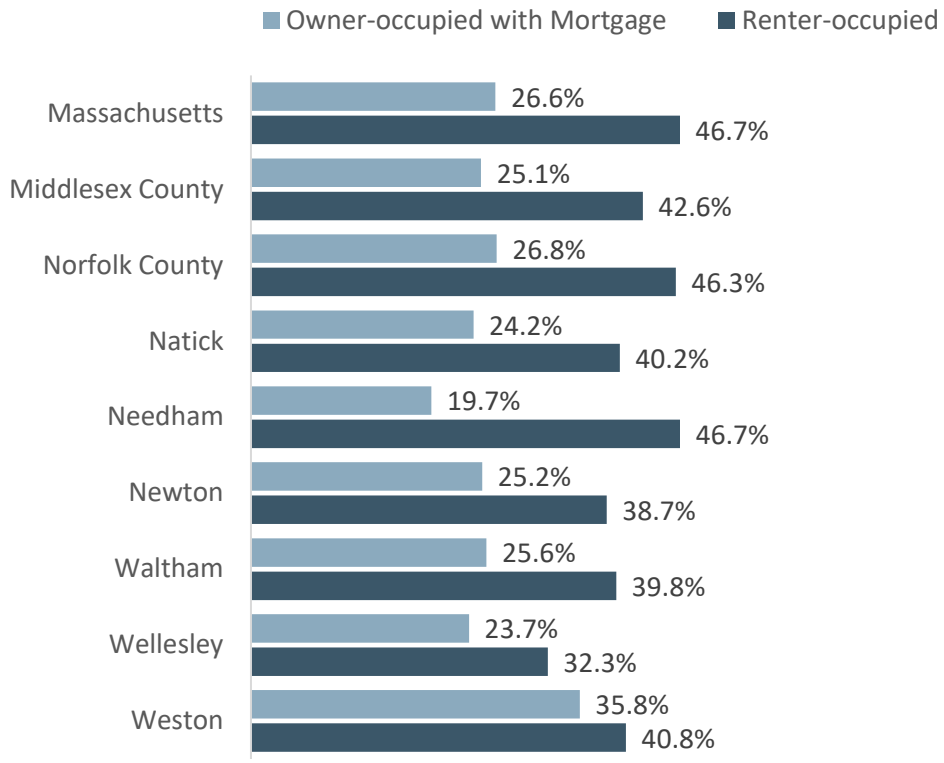
Figure 17: Percent of Owner-Occupied and Renter-Occupied Housing Units by State, County, and City/Town, 2015-2019



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

A household is considered by the Department of Housing and Urban Development to be "housing cost burdened" if more than 30% of monthly income is dedicated to housing costs (e.g., rent, mortgage, utilities). Housing cost burden was highest for renter-occupied units in Needham (46.7%) and owner-occupied units in Weston (35.8%). Similar to the 2018 CHNA, the percent of renter-occupied units with housing costs of 35% or more across five assessment communities was lower than that for the state (46.7%) with the exception of Needham (46.7%). As illustrated in Figure 18, in each of the six assessment communities a higher percent of renter-occupied housing units were housing cost burdened compared to owner-occupied housing units – a pattern that was also seen in the 2018 CHNA. Since 2012-2016, the percentage of housing cost burdened renters increased across Massachusetts (+6.6%) in 2015-2019 and all the NWH service areas, with the exception Newton (-1.2%), saw a similar increase in percentage of housing cost burdened renters ranging from 5.2% in Wellesley to 14.9% in Needham. While Weston (35.8%) had a high housing cost burden, the percentage of residents of owner-occupied units was lower than the state average for all towns in the NWH service area towns.

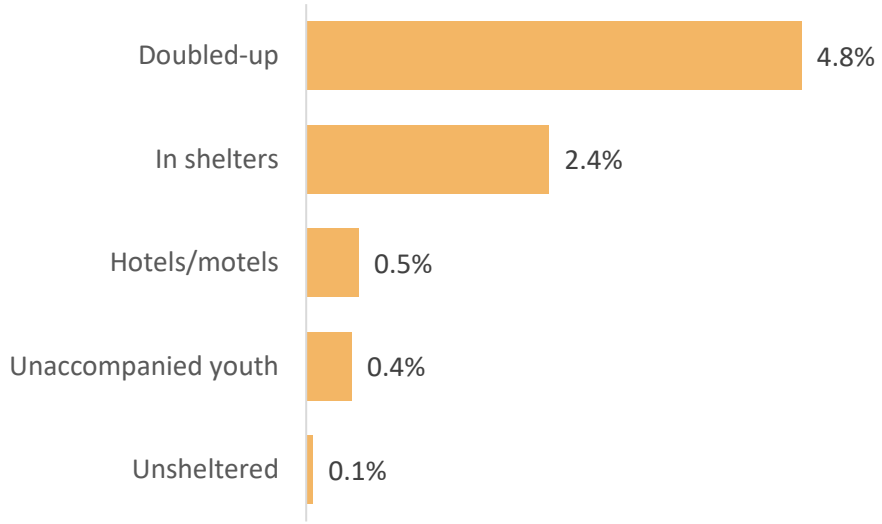
Figure 18: Percent of Housing Units Where Residents Whose Housing Costs are 35% or More of Household Income by State, County and City/Town, 2015-2019



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019
NOTE: Owner costs for owners with a mortgage

In 2018-2019, there were 26,180 homeless students across Massachusetts public schools. As illustrated in Figure 20, a higher proportion of youth (<18 years of age) who were experiencing homelessness reported “doubling up” (e.g., sharing a room) (4.8%) or shelters (2.4%) as their primary nighttime residence in 2018-2019. Compared to 2016-2017, the percentage of youth reporting being doubled up increased from 0.7% to 4.7% and students in shelters increased from 0.5 to 2.4%.

Figure 19: Percent of Homeless Youth by Primary Nighttime Residence in Massachusetts, 2018-2019



DATA SOURCE: Massachusetts Coalition for the Homeless, 2018-2019
NOTE: Denominator of Massachusetts statewide population under age 18 in 2016 (Source: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019)

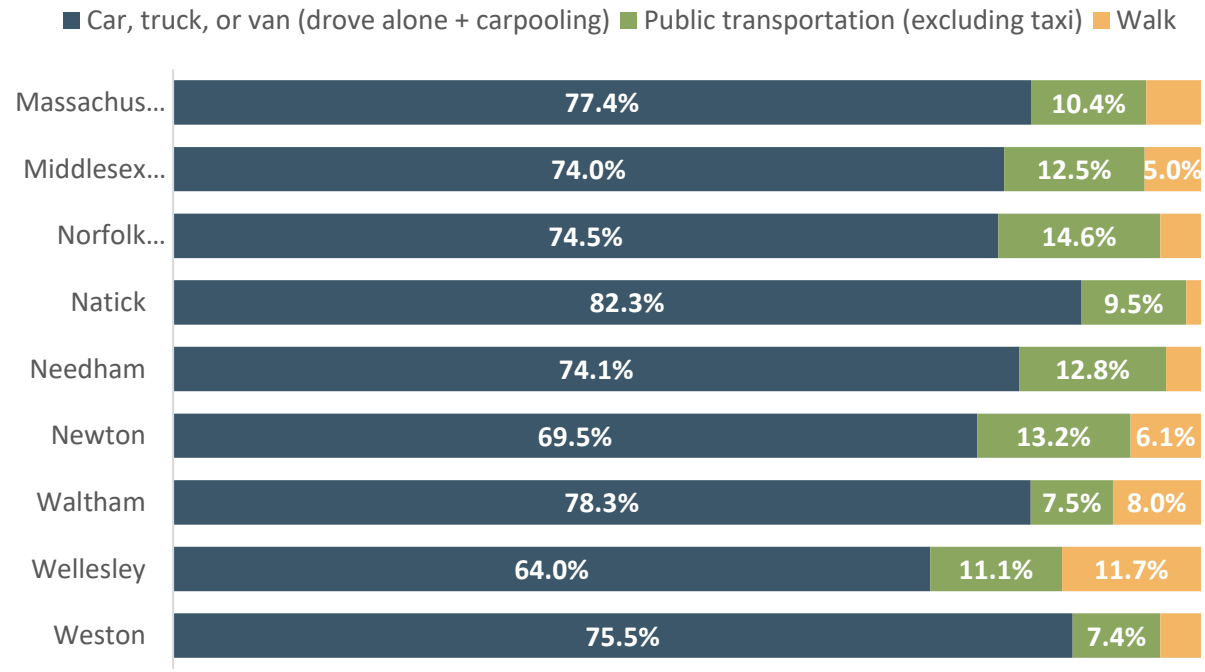
Transportation

Public transportation to Boston is available and many residents from the NWH service area travel into the city. However, some public housing developments are not within walking distance from public transportation, creating challenges for lower income residents. Local transportation options are less available making travel from town to town difficult for those without private vehicles. The RIDE program, for seniors and those with disabilities who cannot independently use public transportation is available but has some limitations.[3]

Reflecting patterns across Massachusetts, the majority of workers in each assessment community drove to work in 2016-2019, a trend that was similar to the 2018 CHNA. Newton (13.8%), Needham (12.8%), and Wellesley (11.8%) had a higher percent of residents who commuted to work via public transportation compared to the state (10.4%) (Figure 20). Across the six assessment communities, Weston (7.4%) had the lowest percent of public transportation commuting. A higher percent of residents walked to work in Wellesley (11.7%) than the other towns in the assessment area and the state overall (4.9%).

[3] https://www.mbta.com/accessibility/the-ride

Figure 20: Mode of Transportation to Work for Workers Aged 16+ Years by State, County, and City/Town, 2015-2019



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019
NOTE: Car, truck, or van includes both driving alone and carpooling; public transportation does not include taxi; other includes other means and working from home. Values <5% not presented.

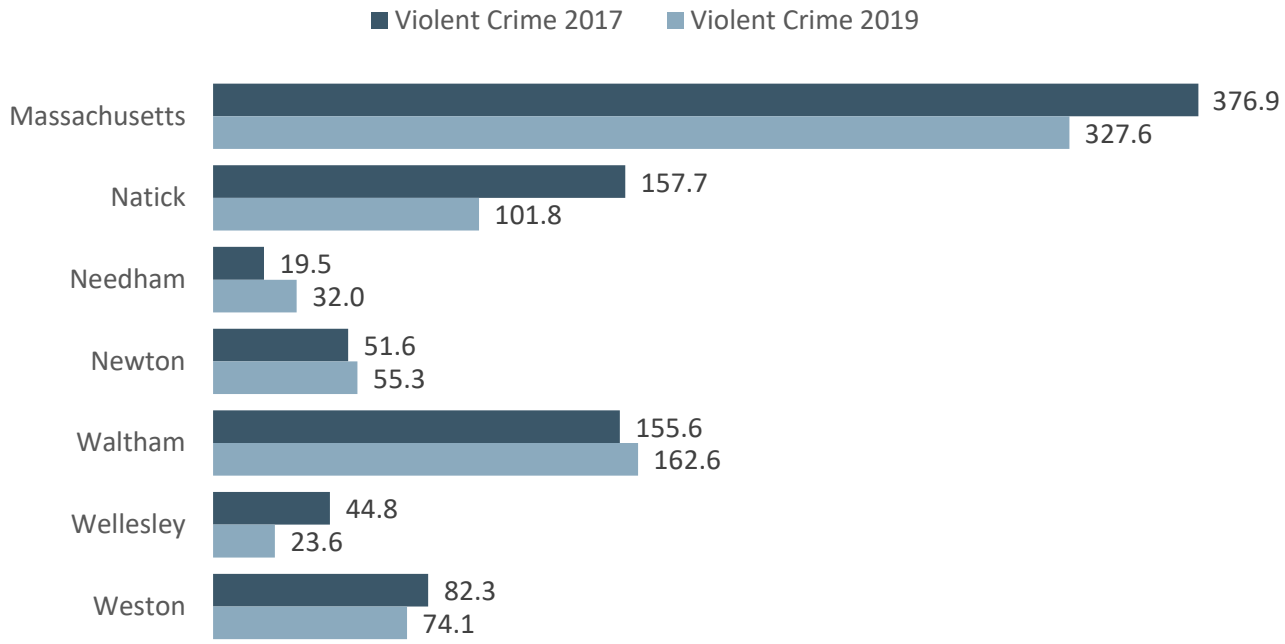
Crime and Safety

In 2017 and 2019, the violent crime rate was highest in Waltham (155.6 and 162.6 crimes per 100,000 population, respectively) and Natick (157.7 and 101.8 crimes per 100,000 population, respectively) (Figure 21). During this same period, the violent crime rate was lowest in Needham (19.5 crimes and 32.0 crimes per 100,000 population, respectively) but crime percentage grew by 39%. The violent crime rate across all six assessment communities was lower than that for Massachusetts overall in both 2017 and 2019, similar to the 2018 CHNA. Mirroring state patterns, from 2017 to 2019 the violent crime rate declined in Natick, Wellesley, and Weston, while the violent crime rate increased in Needham, Newton, and Waltham.

Impact of COVID-19 Pandemic from the MA CCIS:
1 in 3 respondents reported intimate partner violence (IPV) during COVID-19.
Experiences of IPV during COVID-19 were reported over 2 to 4 times more frequently by respondents identifying as:

- *LGBQA*
- *Of transgender experience and non-binary gender*
- *Multi-racial, American Indian/Alaska Native, Black, Asian, and Hispanic/Latinx*
- *Having a disability*

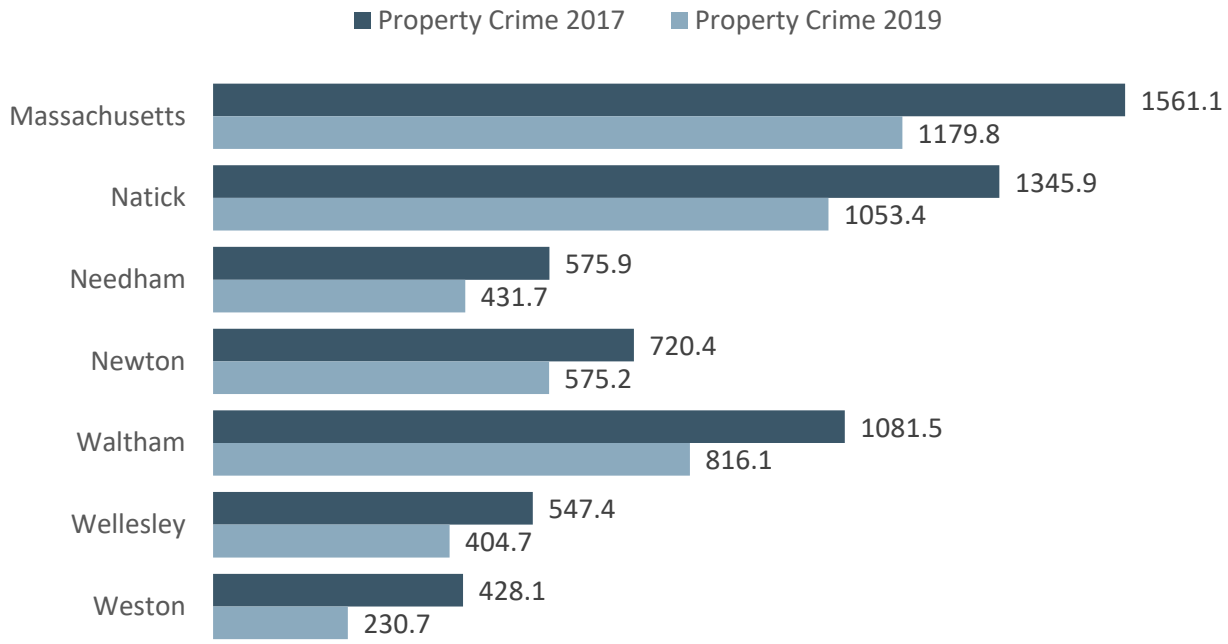
Figure 21: Violent Crime Rate per 100,000 Population, by State, County, and City/Town, 2017 and 2019



DATA SOURCE: Federal Bureau of Investigation, Offenses Known to Law Enforcement, 2017 and 2019
NOTE: Violent crime includes murder and non-negligent manslaughter, rape, robbery, and aggravated assault.

As shown in Figure 22, among the NWH service area, the property crime rate was highest in Natick and Waltham in both 2017 (1,345.9 and 1,081.5 crimes per 100,000 population, respectively) and 2019 (1,053.4 and 816.1 crimes per 100,000 population, respectively). In 2019, the property crime rate was lower than the state average (1,179.8 crimes per 100,000 population) for all six assessment communities, similar to the 2018 CHNA. From 2017 to 2019, following state patterns, the property crime rate declined across all six assessment communities.

Figure 22: Property Crime Rate per 100,000 Population, by State, County, and City/Town, 2017 and 2019

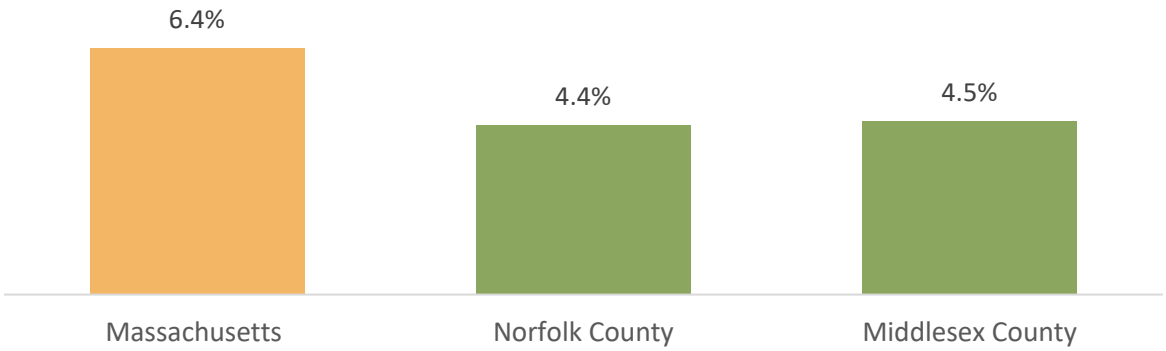


DATA SOURCE: Federal Bureau of Investigation, Offenses Known to Law Enforcement, 2017 and 2019
NOTE: property crime includes burglary, larceny-theft, and motor vehicle theft

Food Access and Food Insecurity

Food access is directly associated with mortality from obesity, hypertension, diabetes, and heart disease. As shown in Figure 23, in 2019 6.4% of low-income Massachusetts residents did not live close to a grocery store, an increase from 4.0% in 2015. The percentage of low-income residents that do not live close to a grocery store also increased in Norfolk (4.4%) and Middlesex (4.5%) counties between 2015 and 2019.

Figure 23: Percent of Population Who are Low-Income and Do Not Live Close to a Grocery Store, by State and County, 2019



DATA SOURCE: U.S. Department of Agriculture, Food Access Research Atlas, 2019
NOTE: Not close to a supermarket defined as beyond 1 mile for urban areas or 10 miles for rural areas

In 2019, Massachusetts had higher rates of overall food insecurity (8.2%) compared to Middlesex (6.4%) and Norfolk (5.9%) Counties (Table 2). The rate of child food insecurity was also higher in the state overall (8.9%) compared to Middlesex (4.9%) and Norfolk (4.6%) counties. While Middlesex and Norfolk counties had lower rates of food insecurity, both counties had higher average costs per meals[4] compared to the state overall. Higher food costs can contribute to an overall higher cost of living for individuals and families.

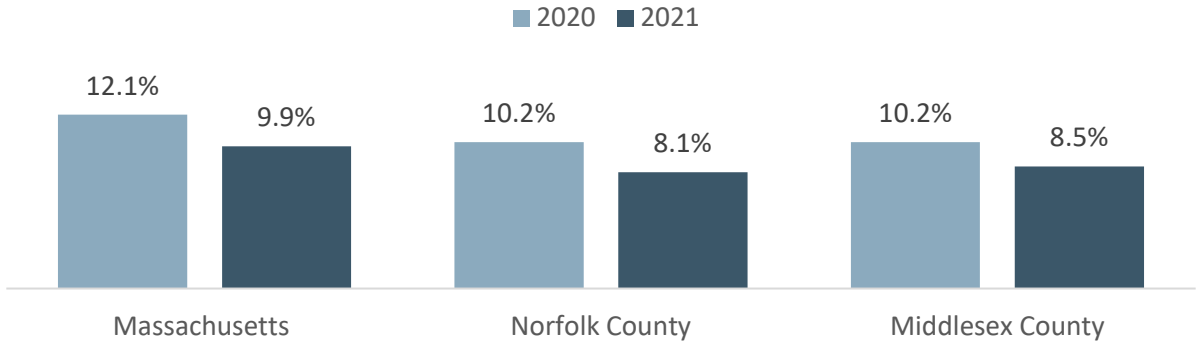
Table 2. Food Insecurity Rate and Number and Cost Per Meal, by State and County, 2019

	Overall Food Insecurity		Child Food Insecurity		Cost Per Meal
	Rate	# of Persons Food Insecure	Rate	# of Children Food Insecure	
Massachusetts	8.2%	566,930	8.9%	120,250	$3.69
Middlesex County	6.4%	102,660	4.9%	15,580	$4.18
Norfolk County	5.9%	41,100	4.6%	6,810	$3.97

DATA SOURCE: Feeding America, Map the Meal Gap, 2019

Feeding America projects an increase in food insecurity from 2019 to 2020-2021 as a result of the COVID-19 pandemic, see Figure 25. One in four respondents to the Massachusetts COVID Community Impact Survey worried about getting food or groceries.

Figure 24. Overall Projected Food Insecurity, by State and County, 2020-2021



DATA SOURCE: Feeding America, The Impact of Coronavirus on Food Insecurity, 2020-2021

[4] Average cost per meal is "*the average weekly dollar amount food-secure individuals report spending on food…divided by 21 (assuming three meals a day, seven days a week).*" Feeding America, Map the Meal Gap, 2019

Community Resources and Assets

The section below draws on themes from resident focus groups and stakeholder interviews from the 2018 CHNA. Community stakeholders and NWH Community Benefits department members were asked to provide comments and feedback to further describe how these strengths have been impacted by programming and community engagement efforts over the past three years.

Community Amenities

In the 2018 CHNA, people reported that they liked their communities and described them as wonderful places to live and raise their families. As one focus group participant stated, ***"****[Newton is] a nice city to raise family; I've been here for the last 40 years."* Participants spoke highly of green spaces and recreational opportunities available to them, as well as access to libraries, faith organizations, higher education, shopping, and the availability of cultural events. A NWH Community Benefits member stated, *"the schools are a critical resource for the community… it draws people to the area.*"

Additionally, participants previously commented on the variety and extensiveness of services in their communities, including healthcare, public health, and programming for children and youth. They also mentioned services that work to address the needs of lower income residents including community health centers, food programs, and shelters. Participants praised the range and commitment of social service organizations; one community organization noted how NWH invests in youth development: "*by investing time, expertise, and resources…. your team [is] is helping develop a talented and diverse workforce of tomorrow*".

Collaboration

Collaboration continues to be an asset reported in the NWH service area. A Community Benefits official mentioned, *"[NWH has] a variety of relationships with community organizations across the towns we serve…they do great work*". Members of the community benefits committee noted several partnerships across sectors in the community including youth services organizations, public safety organizations, senior centers, schools and higher education institutions, and public health departments. The Community Benefits division mentioned "*this community collaborates and allows people to learn from each other, people are open to sharing their experiences and best practices."* Community Benefits committee members stated that they felt the collaborative nature of the community helped organizations unite and enhance the response to the COVID-19 pandemic.

Generosity

Generosity was also described as another important community asset during the 2018 CHNA and was further emphasized due to the COVID-19 pandemic. Focus group participants previously described their communities as places where *"look out for each other*" and there is a desire *"to give back."* When the COVID-19 pandemic struck, Community Benefits members sighted the community's willingness to step up and support each other. One program director of a local homeless shelter noted, "*during [the] very early COVID times… you [NWH Community Benefit department] along with hospital staff stepped up to the plate"* regarding the NWH support for residents at a homeless shelter.

Strong Local Infrastructure

Several participants shared that the area has a strong business base and effective local government in the 2018 CHNA. Numerous residents had mentioned the Mayor of Waltham was accessible and supportive of their issues and concerns. The Mayor of Newton was also reported to be taking the lead on key community issues. Other participants praised local police and fire departments and school

leadership. As one interviewee from Waltham stated, *“our current superintendent and mayor are strengths to our community – especially around youth.*

Community Health Issues

Leading Causes of Mortality

As shown in Table 3, similar to the prior CHNAs, the leading causes of death in the NWH service area in 2017 were heart disease and cancer. These patterns were consistent with those for Massachusetts in 2017. In 2017, stroke emerged as the third leading cause of death for Needham, Newton, and Weston. In 2017, as with Massachusetts, chronic lower respiratory disease (CLRD) was the third leading cause of death in Natick, Waltham, and Wellesley. Of note, in the 2015 CHNA patterns for total cancer and lung cancer were presented separately, limiting further comparisons of leading causes of death across the prior CHNAs.

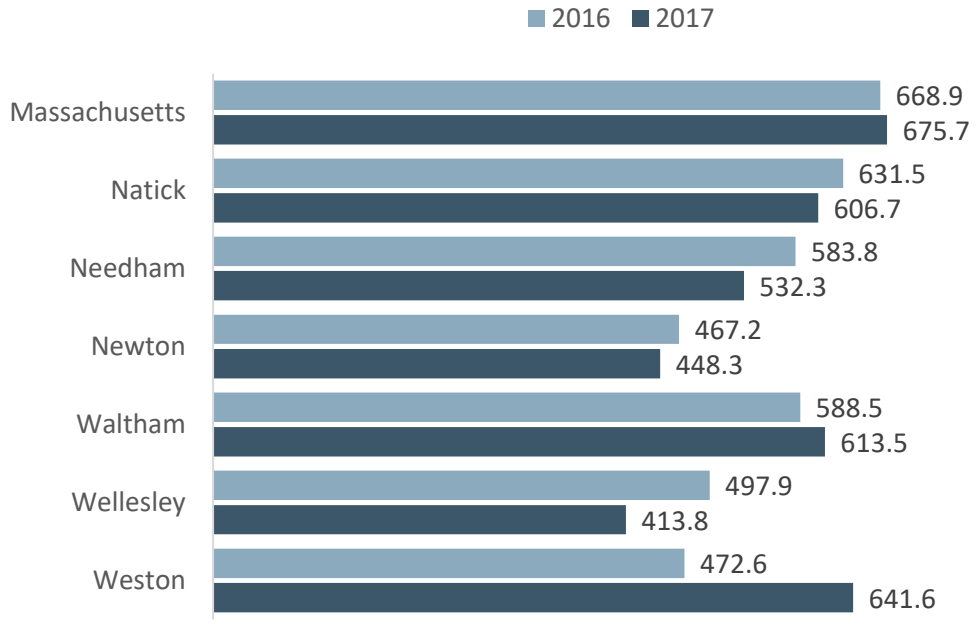
Table 3: Leading Causes of Death, by State and City/Town, 2017

Rank	Massachusetts	Natick	Needham	Newton	Waltham	Wellesley	Weston
1	All-Site Cancer	Heart Disease	Heart Disease	All-Site Cancer	All-Site Cancer	Heart Disease	Heart Disease
2	Heart Disease	All-Site Cancer	All-Site Cancer	Heart Disease	Heart Disease	All-Site Cancer	All-Site Cancer
3	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Stroke	Stroke	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Stroke

DATA SOURCE: Massachusetts Department of Public Health, Massachusetts Deaths, 2017

In 2016 and 2017, across the six assessment communities the age-adjusted mortality rate was lower than that of the state; however, rates varied by town (Figure 25). In 2017, Weston had the highest mortality rate (641.6 deaths per 100,000), in contrast, they had the lowest mortality rate in 2016 (472.6 deaths per 100,000). Waltham had the second highest mortality rate (613.5 deaths per 100,000 population) in 2017. From 2016-2017, Natick, Needham, Newton, and Wellesley saw a decrease in mortality rate.

Figure 25: Age-Adjusted Mortality Rate per 100,000 Population, by State and City/Town, 2016-2017



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2016-2017

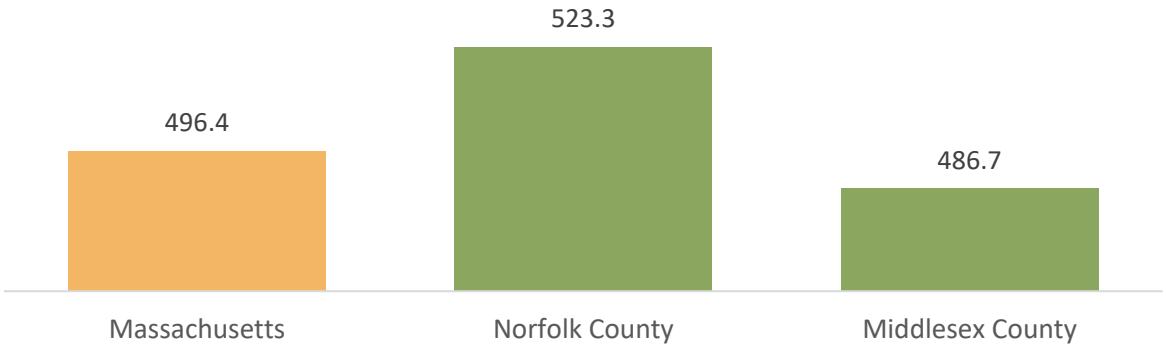
Chronic Diseases and Related Risk Factors

Chronic disease and related health issues such as obesity, are leading causes of needs for treatment and mortality.

Cancer

Cancer was a leading cause of death across the State and in Needham, Newton, Waltham, Wellesley, and Weston in 2017 (Table 3). Norfolk County had a higher age-adjusted cancer mortality rate (523.3 per 100,000) due to all cancers, compared to Middlesex County (486.7 per 100,000) and Massachusetts overall (496.4 per 100,000) (Figure 26

Figure 26: Age-Adjusted Mortality due to Cancer per 100,000 Population, by State and County, 2013-2017



DATA SOURCE: Massachusetts Cancer Registry, All Cancer Incidence, 2013-2017

When examined by cancer type, as shown in Table 4, from 2013-2017, breast cancer mortality (18.1 deaths per 100,000 population) and prostate cancer morality (18.5 deaths per 100,000 population) in Norfolk County each exceeded the average for Massachusetts.

Table 4: Age-Adjusted Mortality due to Cancer per 100,000 Population, by State and County, 2013-2017

Geography	Breast	Cervical	Colorectal	Lung	Prostate
Massachusetts	17.8	1.1	11.9	38.7	18.4
Norfolk County	18.1	0.9	11.6	37.7	18.5
Middlesex County	16.7	1.1	11.7	35.3	16.6

DATA SOURCE: Massachusetts Cancer Registry, https://www.cancer-rates.info/ma/, 2013-2017

The breast cancer incidence rate in Middlesex (199.5 cases per 100,000 population) and Norfolk (189.9 cases per 100,000 population) Counties exceeded the breast cancer incidence rate for Massachusetts overall (177.6 cases per 100,000 population) (Table 5). When compared to the state and Norfolk County, Middlesex County had higher incidence rates for colorectal (37.1 per 100,000), lung (62.4 per 100,000), and prostate cancers (110.3 per 100,000). Both Norfolk and Middlesex counties had lower incidence rates of cervical cancer (4.8 per 100,000 and 4.2 per 100,000, respectively) compared to Massachusetts (5.3 per 100,000).

Table 5: Age-Adjusted Cancer Incidence Rate, by State and County, 2014-2017

Geography	Breast	Cervical	Colorectal	Lung	Prostate	Breast
Massachusetts	177.6	5.3	36.7	62.2	102.8	177.6
Middlesex County	199.5	4.2	37.1	62.4	110.3	199.5
Norfolk County	189.9	4.8	35.8	56.6	102.4	189.9

DATA SOURCE: Massachusetts Cancer Registry, https://www.cancer-rates.info/ma/, 2014-2017

In 2009-2013, across five of the six assessment communities the cancer incidence rate was highest for breast cancer (Table 6), while in Weston cancer incidence was highest for prostate cancer. Breast cancer incidence was highest in Needham (536.9 cases per 100,000 population), cervical cancer incidence was highest in Waltham (14.7 cases per 100,000 population), colorectal cancer incidence was highest in Natick (243.8 cases per 100,000 population), and Weston had the highest incidence rate of cancer of the lung (364.0 cases per 100,000 population) and prostate (476.7 cases per 100,000 population)

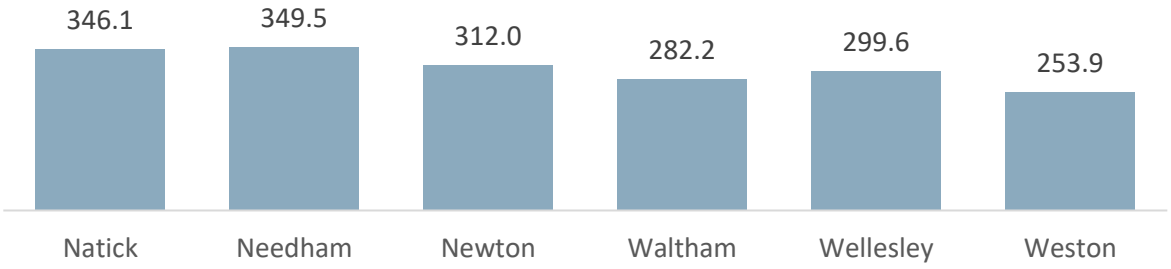
Table 6: Age-Adjusted Cancer Incidence Rate per 100,000 Population, by City/Town, 2009-2013

Geography	Breast	Cervical	Colorectal	Lung	Prostate
Natick	457.9	3.0	243.8	338.9	327.1
Needham	536.9	10.3	218.9	273.6	458.3
Newton	506.7	11.6	201.8	333.9	395.4
Waltham	381.6	14.7	189.2	329.4	238.1
Wellesley	470.1	7.0	157.9	175.4	428.0
Weston	433.4	0.0	216.7	364.0	476.7

DATA SOURCE: Massachusetts Department of Public Health, Massachusetts Cancer Registry, Cancer Incidence City & Town Supplement, 2009-2013
NOTE: MA data not provided

As shown in Figure 27, in 2013 the cancer hospitalization rate was lowest in Weston (253.9 hospitalizations per 100,000 population) and Waltham (282.2 hospitalizations per 100,000 population). The cancer hospitalization rate was highest in Needham (349.5 hospitalizations per 100,000 population) and Natick (346.1 hospitalizations per 100,000 population).

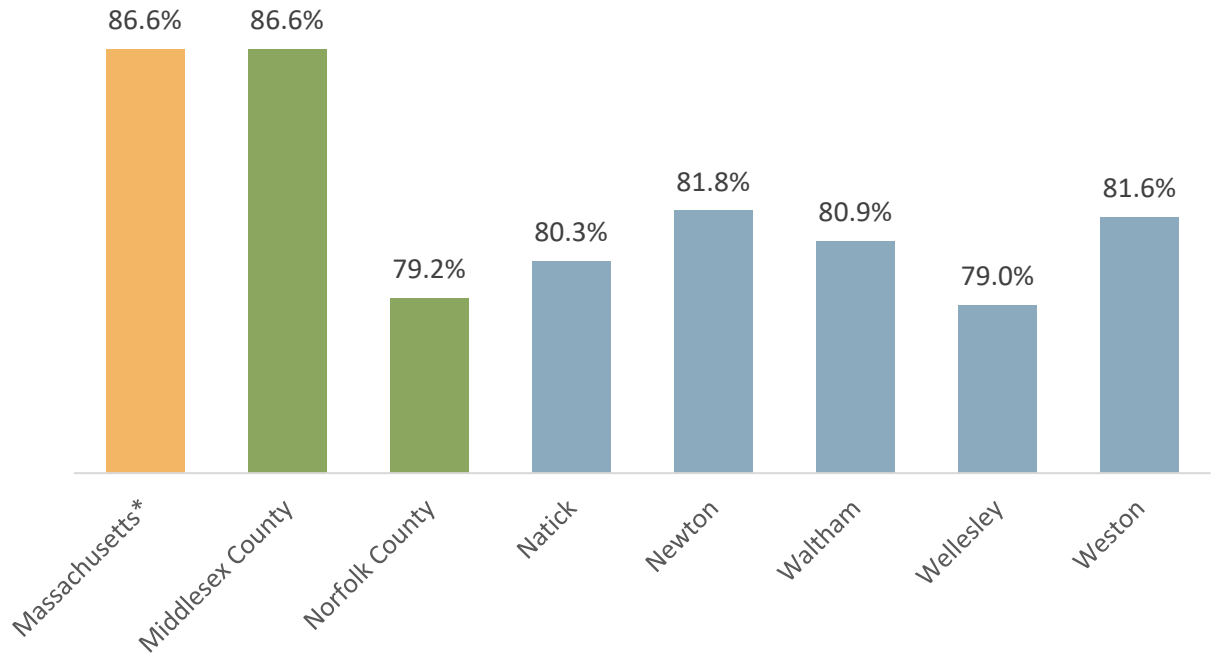
Figure 27: Cancer Hospitalization Rates per 100,000 Population, by State and City/Town, 2013



DATA SOURCE: Center for Health Information and Analysis (CHIA), as cited by Massachusetts Department of Public Health, 2013
NOTE: MA data not available

In 2018, the proportion of female residents 50 to 74 years of age that reported receiving a mammogram in the past two years was lower in all five NWH service towns than breast cancer screening across Massachusetts (86.6%) for that same year (Figure 28).

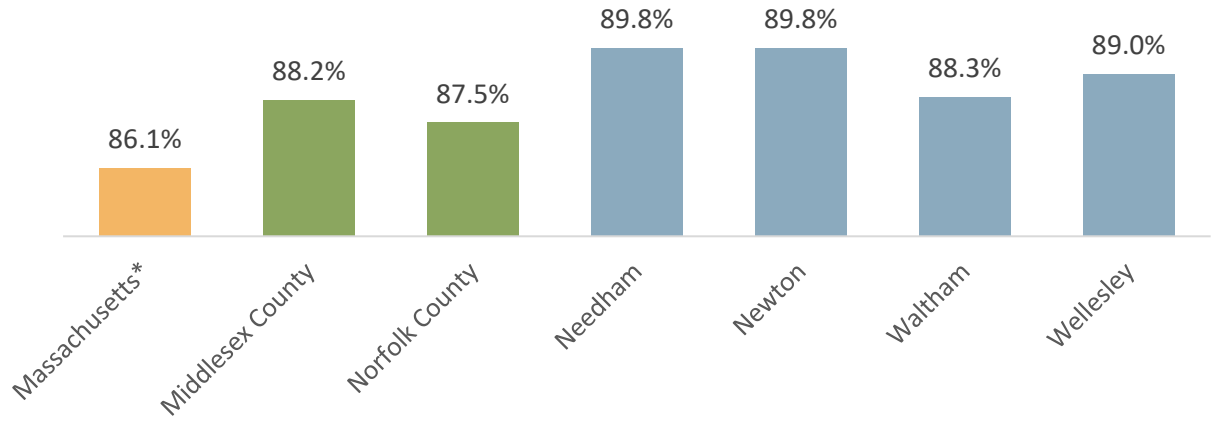
Figure 28: Percent of Female Adults (50-74 Years) who Reported Receiving a Mammogram within Past 2 Years, by State, County, and Town, 2018



DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018
NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

In 2018, nearly nine in ten female residents 21 to 65 years of age in each of the NWH service towns reported receiving a pap test within the past three years, slightly higher than the state overall (86.1%) (Figure 29).

Figure 29: Percent of Female Adults (21-65 years) who Reported Cervical Cancer Screening, by State, 2018

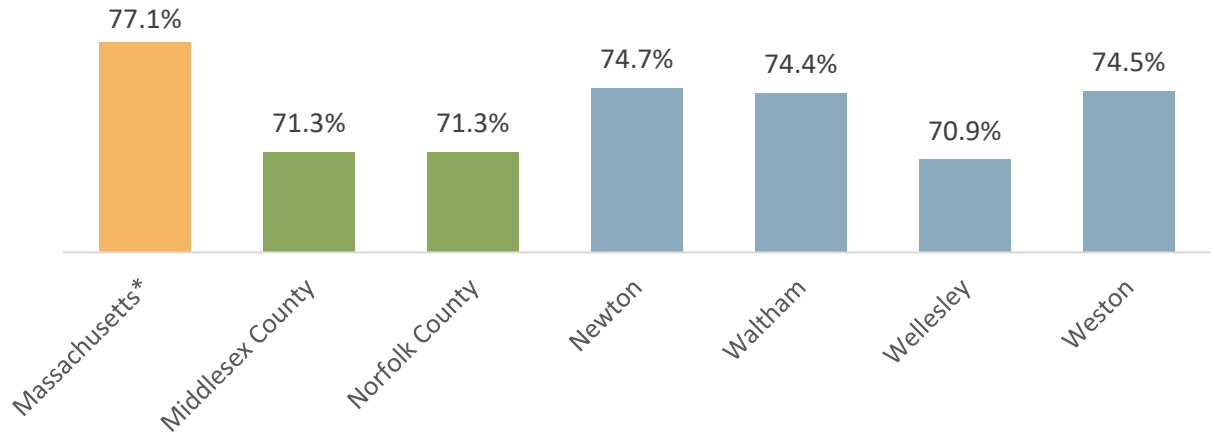


DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018

NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

In 2018, fewer than three-quarters of residents 50-75 years of age from regions served by NWH reported receipt of colon cancer screening within the time frames recommended by the US Preventive Services Task Force (Figure 30). In contrast, three-quarters (77.1%) of Massachusetts residents reported colon cancer screening within the recommended schedule.

Figure 30: Percent of Adults (50-75 years) who Reported FOBT within Past Year, Sigmoidoscopy within Past 5 Years and FOBT within Past 3 Years, or Colonoscopy within Past 10 Years, by State, County, and City/Town, 2018

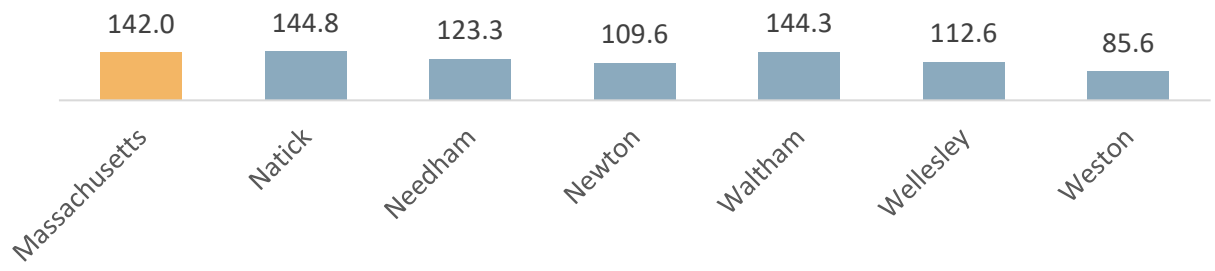


DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018
NOTE: Data not available on PLACES for Natick and Weston; data is crude for Massachusetts* and are age-adjusted for County and City/Town

Heart Disease

In 2014, the age-adjusted heart disease mortality rate in Natick (144.8 deaths per 100,000 population) and Waltham (144.3 deaths per 100,000 population) was greater than the state average (142.0 deaths per 100,000 population). Weston (85.6 deaths per 100,000 population) had the lowest heart disease mortality rate in the NWH service area (Figure 31).

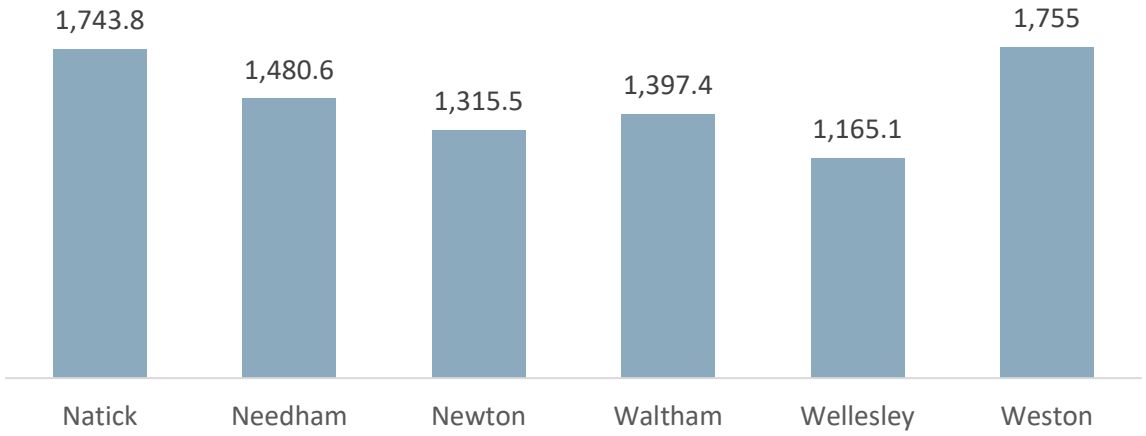
Figure 31: Age-Adjusted Mortality due to Heart Disease per 100,000 Population, by State and City/Town, 2014



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2014

In 2014, Waltham (1,154.8 hospitalizations per 100,000 population) and Natick (1,054.7 hospitalizations per 100,000 population) had the highest cardiovascular disease hospitalization rate across the six assessment communities (Figure 32). The cardiovascular disease hospitalization rate was lowest in Newton (732.8 hospitalizations per 100,000 population) and Needham (771.9 hospitalizations per 100,000 population) in 2013.

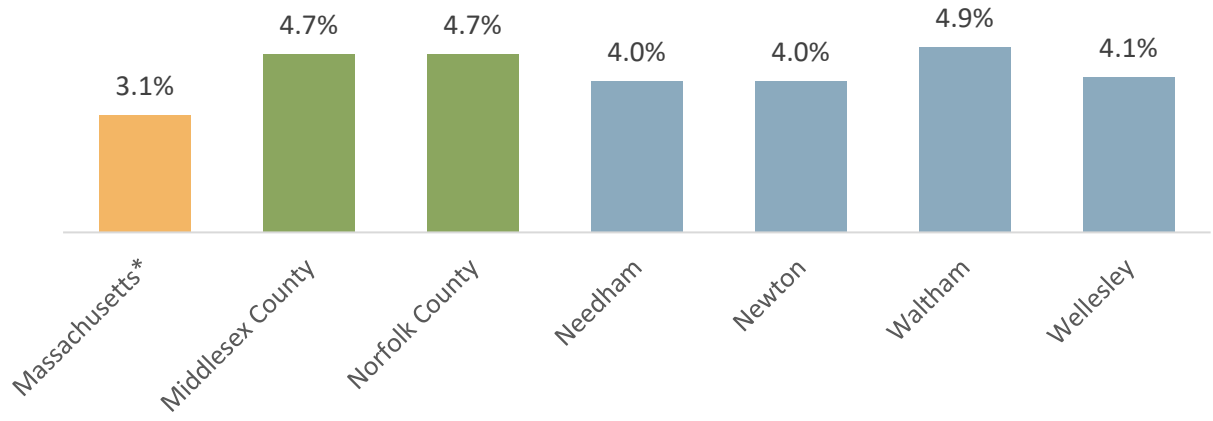
Figure 32: Cardiovascular Disease Hospitalization Rates per 100,000 population, by City/Town, 2014



DATA SOURCE: Center for Health Information and Analysis (CHIA), as cited by Massachusetts Department of Public Health, 2013
NOTE: MA data not available

While local data on heart disease prevalence among adults are not available for all communities, in 2018 3.6% of Massachusetts adults reported a coronary heart disease diagnosis (Figure 33). In Middlesex and Norfolk Counties, the rate increased slightly to 4.7% with similar rates in Needham, Newton, Waltham and Wellesley.

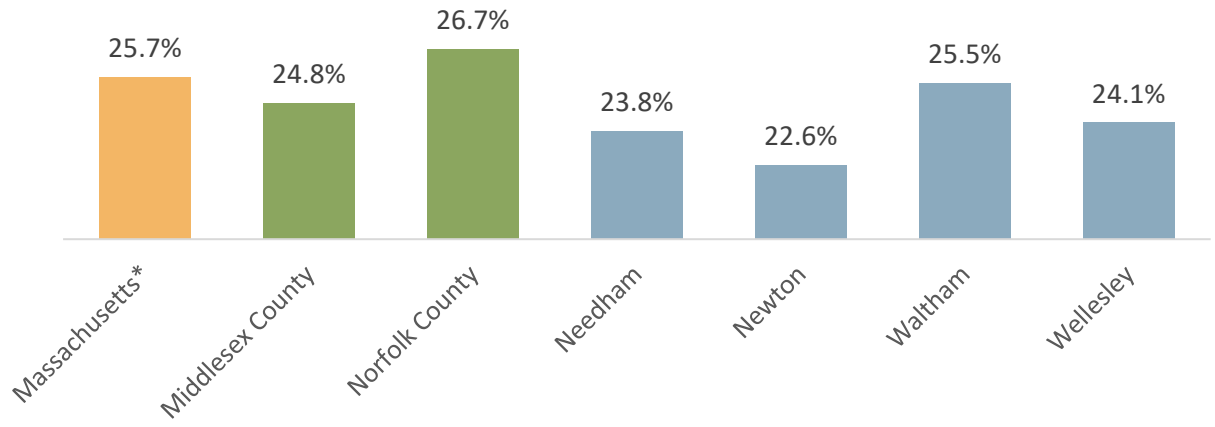
Figure 33: Percent of Adults Ever Reported Coronary Heart Disease Diagnosis, by Massachusetts, County, and City/Town, 2018



DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018
NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

As shown in Figure 34, one quarter of Massachusetts adults reported a high blood pressure diagnosis in 2018 (25.7%). In 2018, a slightly lower proportion of Needham, Newton, Waltham, and Wellesley adults reported being told by a health care provider that they had high blood pressure. At the county level, however, a greater proportion of Norfolk County adults (26.7%) reported having high blood pressure.

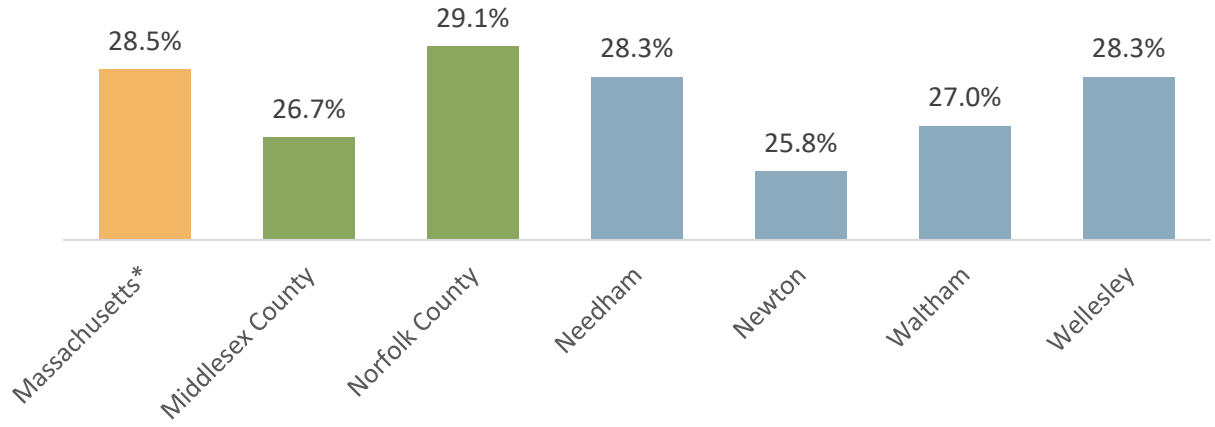
Figure 34: Percent of Adults Ever Reported High Blood Pressure, by Massachusetts, County, and City/Town, 2018



DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2017; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2017
NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

In 2015, nearly one-third of Massachusetts adults reported a high cholesterol diagnosis (30.1%, data not shown). Two years later, the state prevalence of high cholesterol diagnoses decreased to 28.5% (Figure 35). At the town level, the prevalence of high cholesterol among adults was slightly lower than the Massachusetts average.

Figure 35: Percent of Adults with High Cholesterol among Those Screened in the Past 5 Years, by Massachusetts, County, and City/Town, 2017

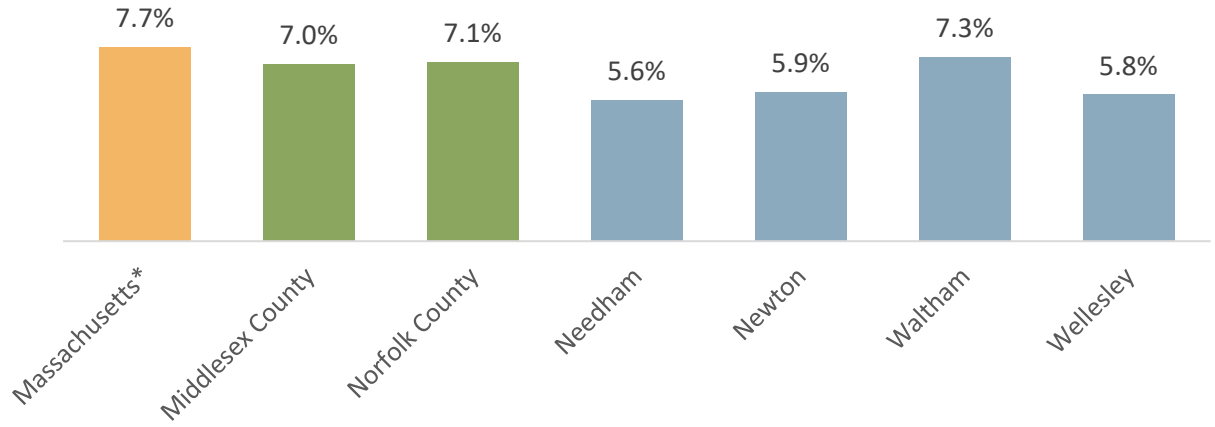


DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2017; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2017
NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

Diabetes

In 2018, 8.0% of adults across Massachusetts reported being diagnosed with diabetes (data not shown). Prevalence of diabetes in 2018 decreased slightly (7.7%) at the state level, with Middlesex County (7.0%), Norfolk County (7.1%), and service towns falling below state levels (Figure 36).

Figure 36: Percent of Adults Aged 18+ Years with Diagnosed Diabetes by State, County, and City/Town, 2018



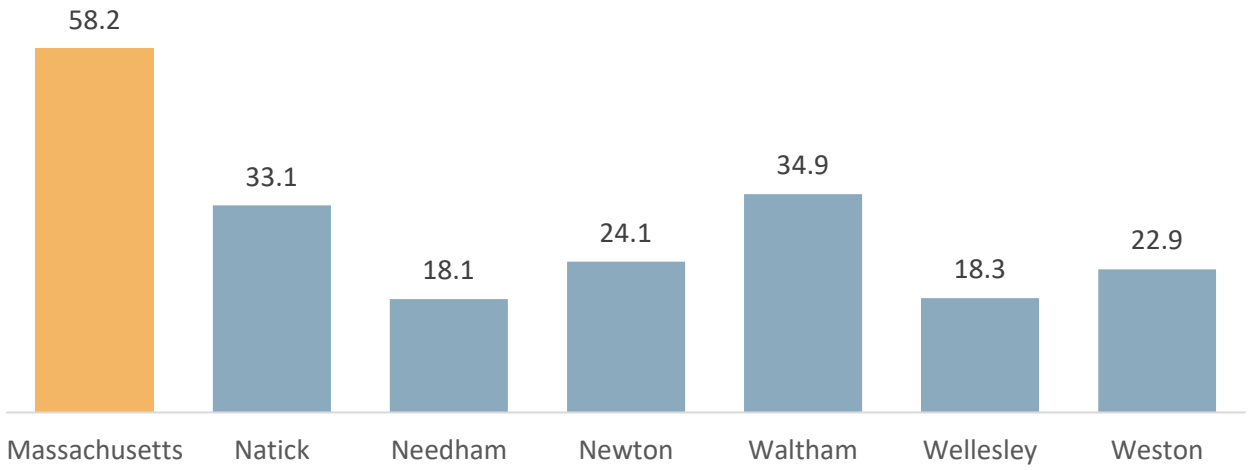
DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018

NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

Asthma

In 2017, the asthma emergency department visit rate was greatest for Waltham (34.9 ED visits per 100,000 population) and Natick residents (33.1 ED visits per 100,000 population; Figure 37). However, the asthma emergency department visit rate was lower across towns served by NWH than Massachusetts (58.2 ED visits per 100,000).

Figure 37: Asthma Emergency Department (ED) Visit Rates per 100,000 Population, by State and City/Town, 2017

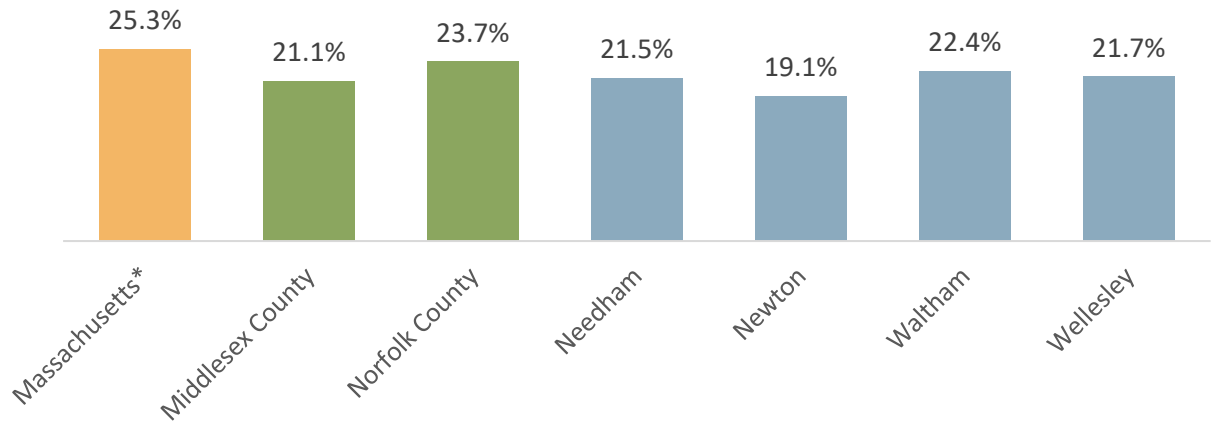


DATA SOURCE: Massachusetts Department of Public Health, Population Health Information Tool (PHIT), 2017

Obesity

The prevalence of obesity among adults 18 years of age and older was slightly lower in Middlesex (21.1%) and Norfolk (23.7%) counties, compared to Massachusetts overall (25.3%) in 2018 (Figure 38). Newton had a slightly lower prevalence of adult obesity (19.1%) compared to Needham, Waltham, and Wellesley.

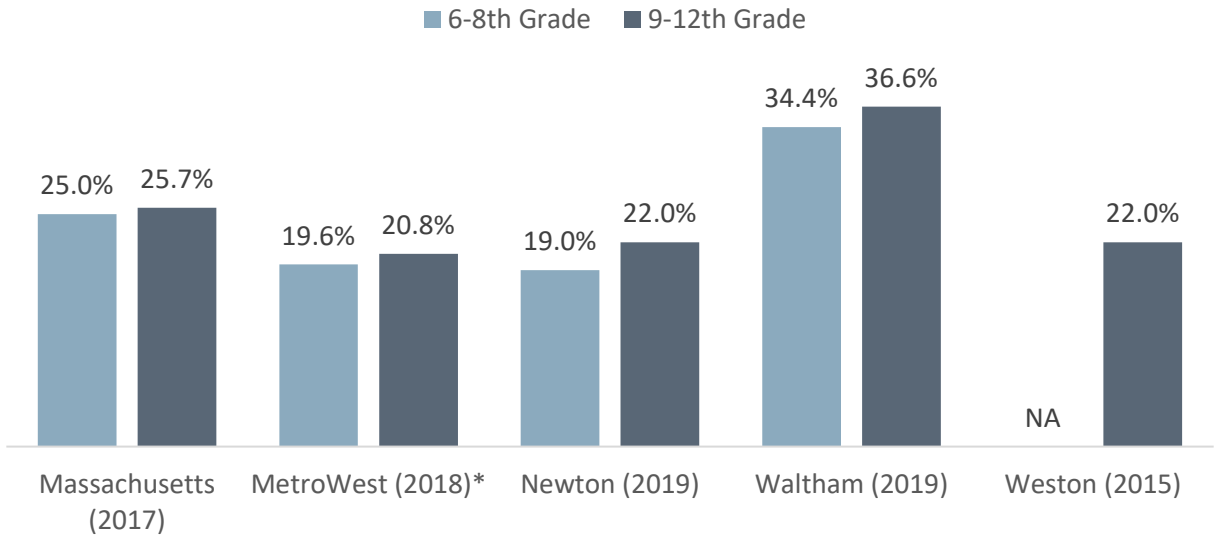
Figure 38: Percent of Adults 18+ who Are Obese, by State, County, City/Town, 2018



DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018 NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

In 2017, approximately a quarter of 6 – 8th graders (25.0%) and 9 – 12th graders (25.7%) in Massachusetts were identified as being overweight or obese. In 2019, the prevalence of overweight or obese 6 – 8th and 9 – 12th graders (34.4% and 36.6%, respectively) was higher compared to the same age groups in Newton (19.0% and 22.0%, respectively) (Figure 39).

Figure 39: Percent of Students (Grades 6-8 & 9-12) who are Overweight or Obese, by State and Select City/Town, 2015-2019

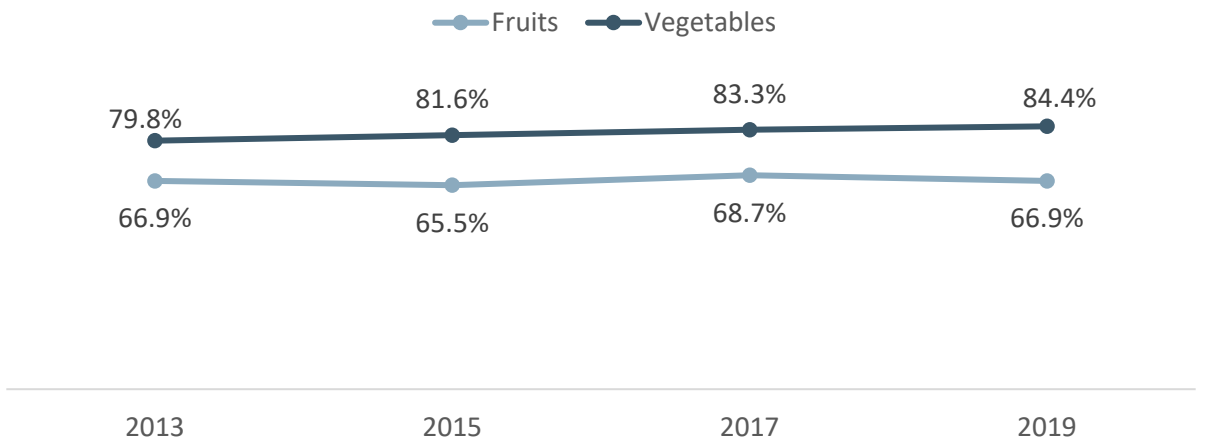


DATA SOURCE: Massachusetts Youth Health Survey, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: *indicates grades 7-8. Data for the other assessment communities were not available.

Healthy Eating and Physical Activity

In 2019, 84.4% of Massachusetts adults reported consuming vegetables at least once daily (Figure 40), an approximately 5% increase from 2013 (Figure 40). Compared to vegetable consumption, the proportion of adults who reported eating fruit at least once a day was lower (66.9%) in 2019. This proportion has remained relatively consistent between 2013 and 2019.

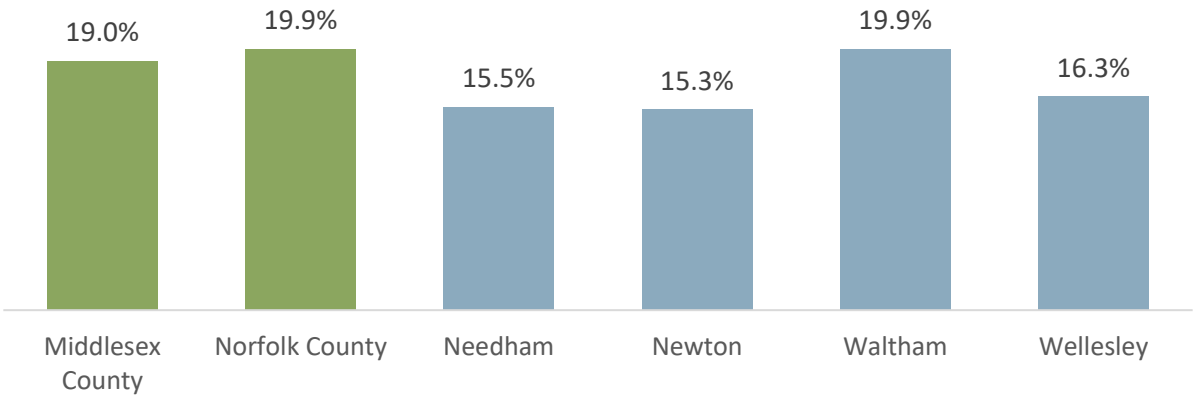
Figure 40: Percent of Adult Population Consuming Fruits and Vegetables At least One Time per Day, Massachusetts, 2013-2019



DATA SOURCE: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2013-2019
NOTE: Age-adjusted

As shown in Figure 41, approximately one-in-five adults in Middlesex (19.0%) and Norfolk Counties (19.9%) reported no leisure time physical activity in 2018. Waltham was the only one of the assessment communities to have a similar proportion of adults (19.9%) reporting no leisure time physical activity compared to its county overall. Needham (15.5%), Newton (15.2%), and Wellesley (16.3%) all had lower proportions in comparison.

Figure 41: Percent of Adult Population Over 18 Years Reported No Leisure Time Physical Activity, by County and Town, 2018



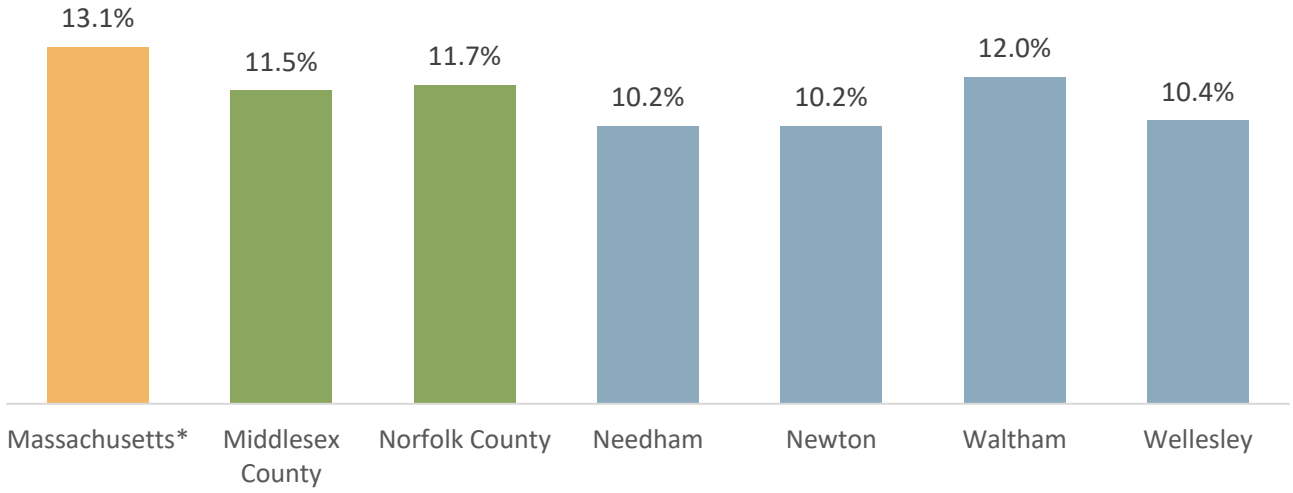
DATA SOURCE: County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018
NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

Mental Health and Substance Use

Mental Health

To assess mental health status among adults, the Behavioral Risk Factor Surveillance System survey asks respondents whether they experienced poor mental health, or feelings of sadness and depression for at least 14 days in the past month. As shown in Figure 42, Middlesex (11.5%) and Norfolk (11.7%) County adults were slightly less likely to report experiencing poor mental health than residents statewide (13.1%). Among the towns with available data, Waltham had the highest percentage of adults with poor mental health, at 12.0% compared to about 10% of adults in Needham, Newton and Wellesley.

Figure 42: Percent of Adults Reporting 14 or More Days of Poor Mental Health per Month, by State, County, and Town, 2018



DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018

NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

Impact of COVID-19 Pandemic from the MA CCIS:

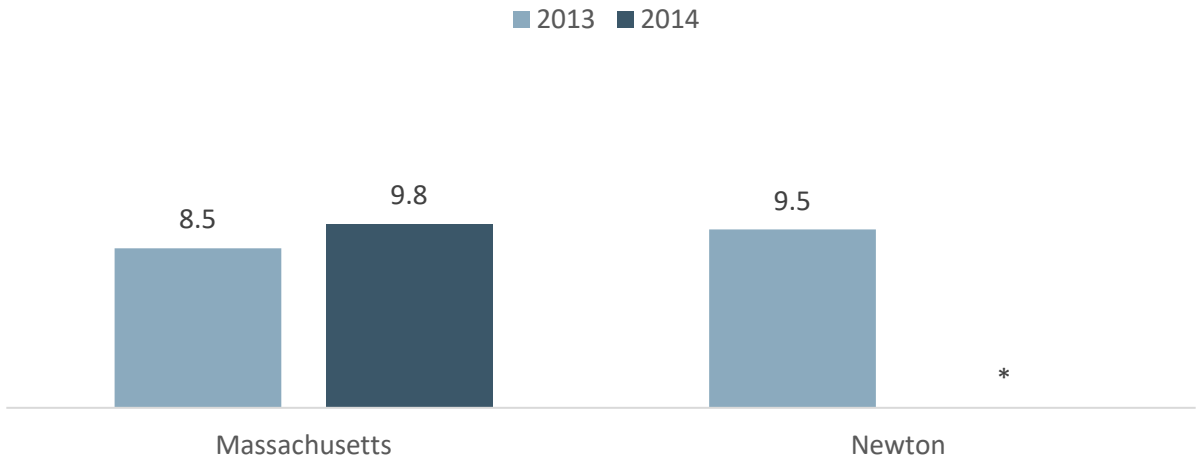
1 in 3 adult respondents reported 15+ days of poor mental health in the past 30 days.

The groups reporting the highest rates of poor mental health include:

- *Respondents with disabilities*
- *Respondents of transgender experience, non-binary respondents, and respondents questioning their gender identity*
- *LGBTQ+ respondents*
- *Multiracial, non-Hispanic/non-Latinx, American Indian/Alasa Native, and Hispanic/Latinx respondents*
- *Younger respondents*
- *Respondents with income <$35,000*
- *Those with lower educational attainment*

As shown in Figure 43, from 2013 to 2014, the suicide rate in Massachusetts ranged from 8.5 to 9.8 deaths per 100,000 population. In Newton, the suicide rate in 2013 (9.5 deaths per 100,000 population) was nearly double that in 2010 (4.7 deaths per 100,000 population) as reported in the 2015 CHNA. While more recent data were not available for all NWH assessment communities, in 2010 the suicide rate was highest in Natick (9.1 deaths per 100,000 population) and Weston (8.9 deaths per 100,000 population), and lowest in Needham (<1 death per 100,000 population) and Wellesley (3.6 death per 100,000 population) (data not shown).

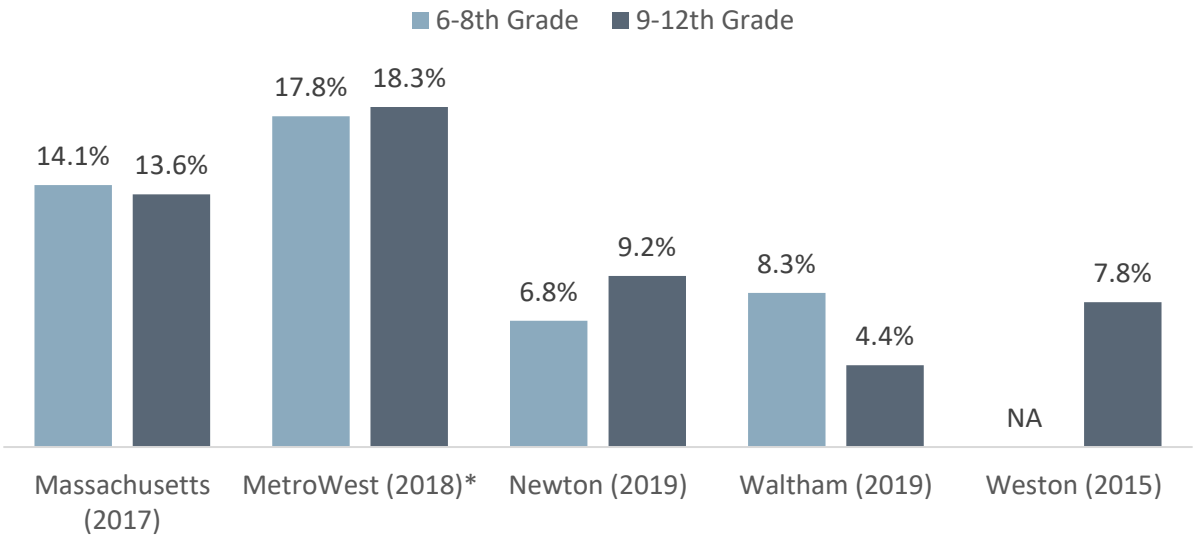
Figure 43: Suicide Mortality per 100,000 Population, by State and City/Town, 2013 and 2014



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2013 and 2014
NOTE: Data for the other assessment communities were not available; * indicates data not available

In 2015-2019, youth experiences of electronic bullying varied across the NWH assessment communities (Figure 44). Waltham had a lower prevalence of electronic bullying amongst high school students (4.4%) compared to Newton (9.2%), Weston (7.8%, 2015 data), and the state overall (13.6%). The proportion of middle school (17.8%) and high school (18.3%) students experience electronic bullying in the MetroWest region overall were higher compared to the state and the focal communities.

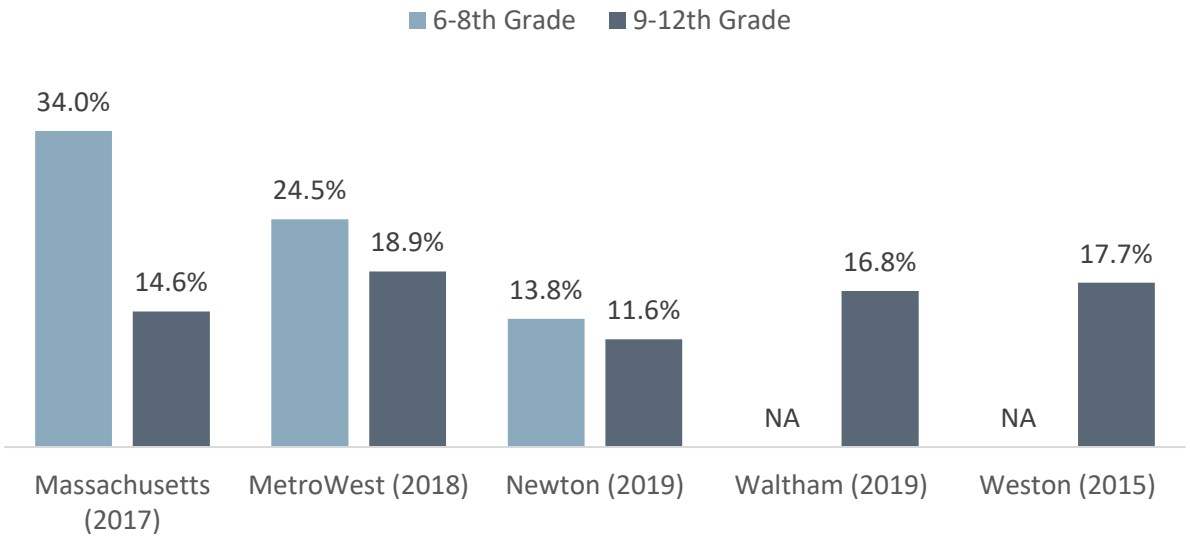
Figure 44: Percent of Students (Grades 6-8 & 9-12) Bullied Electronically by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

As shown in Figure 45, approximately one-third (34.0%) of Massachusetts middle school students reported being bullied on school property in 2017. That proportion decreases by more than half for high school students (14.6%) in the same time period. In 2018, approximately a quarter (24.5%) of middle school students in the MetroWest region reported being bullied on school property, compared to 18.9% of high school students. Compared to MetroWest, Waltham (16.8%) and Weston (17.7%) had similar proportions of high schoolers reported being bullied on school property, while the proportion of Newton was lower (11.6%).

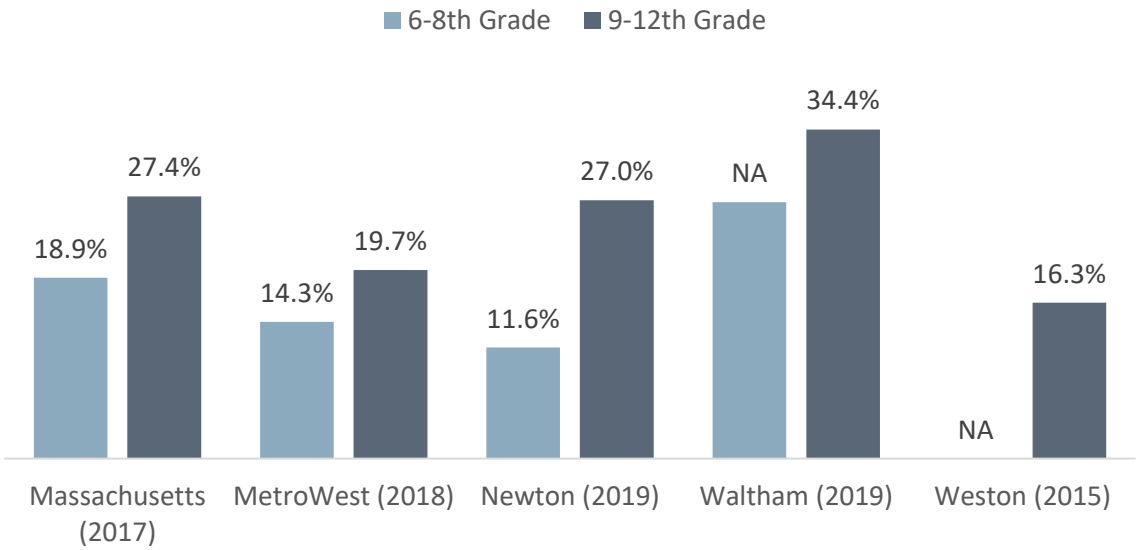
Figure 45: Percent of Students (Grades 6-8 & 9-12) Bullied on School Property by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

In 2015 - 2019, the percent of high school students reporting symptoms of depression was higher in Waltham (34.4%) compared to Newton (27.0%), Weston (16.3%), and the MetroWest region (19.7%) and Massachusetts (27.4%) overall (Figure 46). Nearly one-fifth of middle school youth (18.9%) across Massachusetts reported symptoms of depression in 2017, slightly higher when compared with the assessment communities and the MetroWest region (14.3%) overall.

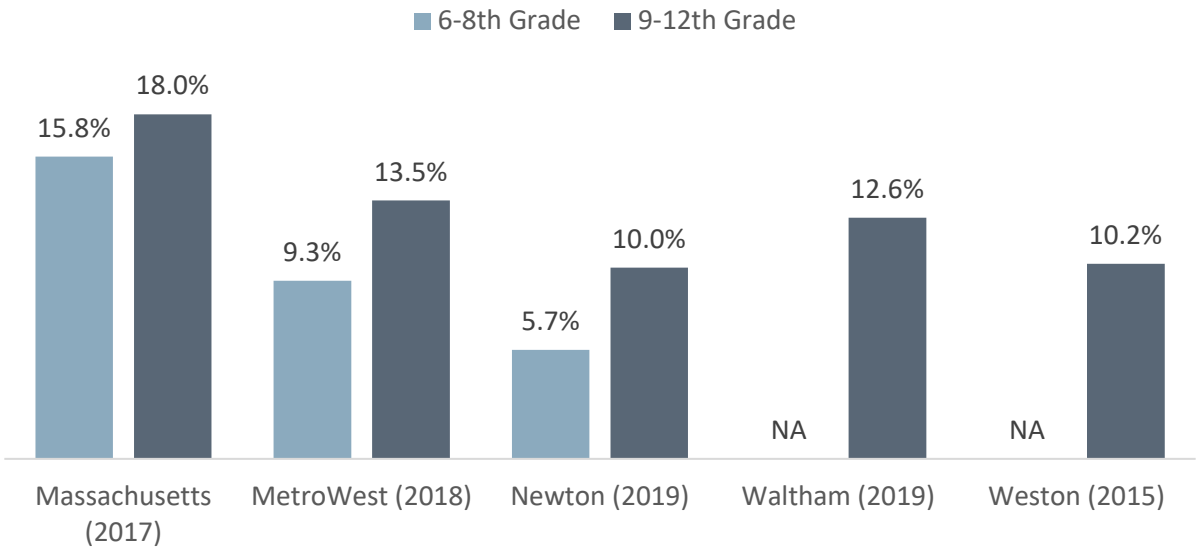
Figure 46: Percent of Students Symptoms of Depression Issues by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

In 2015-2019, high school youth in Waltham (12.6%) had the highest prevalence of reported self-harm compared to the other assessment communities for which data were available (Figure 47). However, compared to their peers statewide (18.0%), there was a lower percent of high school youth indicating self-harm for each of the assessment communities for which data were available. Newton was the only assessment community where data pertaining to self-harm reported by middle school students. The prevalence of self-harm among Newton middle school youth (5.7%) was lower compared to MetroWest (9.3%) and Massachusetts (15.8%) overall.

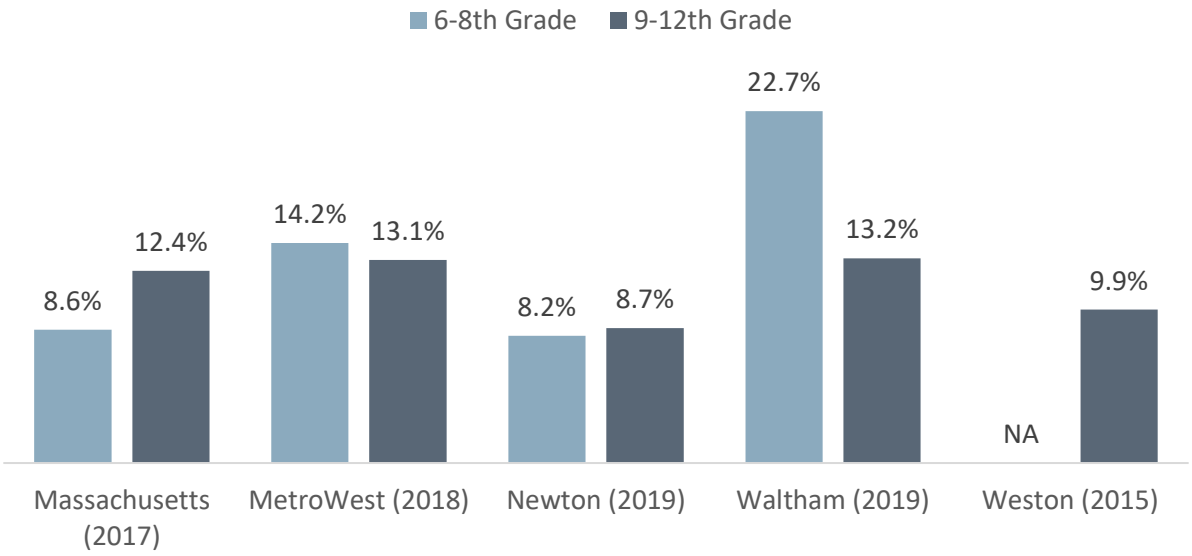
Figure 47: Percent of Students (Grades 6-8 & 9-12) Reporting Self Harm, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2015; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

As shown in Figure 48, more than one-fifth of middle school students (22.7%) in Waltham reported suicide ideation in 2019, an increase from the previous CHNA (14.8%). This percentage was also considerably higher compared to Newton (8.2%), the MetroWest region (14.2%), and Massachusetts overall (8.6%). The percentage of high school students reporting suicide ideation in Waltham (13.2%) was comparable to both the region (13.1%) and the state (8.6%), though higher when compared to Newton (8.7%) and Weston (9.9%).

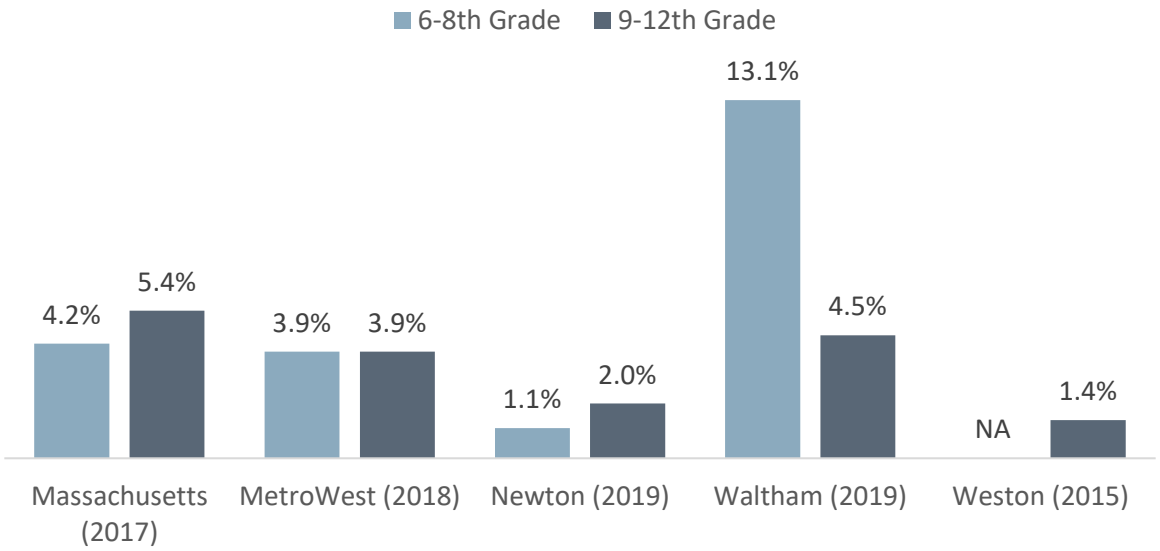
Figure 48: Percent of Students (Grades 6-8 & 9-12) Reporting Suicide Ideation, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: Suicide ideation defined as seriously considering suicide. *includes students in grades 7-8. Data for the other assessment communities were not available.

In 2015-2019, middle school student reports of a past suicide attempt were highest in Waltham (13.1%), more than double the prevalence from the previous CHNA (5.2%). Comparatively, percentages in Newton (1.1%), the MetroWest region (3.9%), and the state overall (4.2%). For high school youth, the prevalence of suicide attempts was highest in Waltham (4.5%) and lowest in Weston (1.4%) and was below the state average (5.4%) for all the assessment communities. These percentages were also consistent with those reported in the previous CHNA.

Figure 49: Percent of Students Reporting Suicide Attempt, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

Substance Use

Substance use is a challenge for the community. Table 7 shows the rates of admissions to Bureau of Substance Abuse Services (BSAS)-funded and licensed treatment programs. In FY 2017, the number of total admissions was highest for residents of Waltham (431 admissions) and Newton (227 admissions). Admissions where alcohol was the primary substance of use were most common in the assessment focus areas, where as heroin was the most common primary substance in admissions in Massachusetts overall. Of the assessment communities, Newton had the highest proportion of admissions where heroin was the primary substance (41.0% of all admissions), followed by Waltham (39.9%) and Wellesley (34.1%).

Table 7: Total Admissions to DPH Funded Treatment Programs and Percent Admissions by Primary Substance of Use, State, and City/Town, FY 2017

		Percent Admissions by Primary Substance of Use				
	Total Admissions to BSAS Funded/ Licensed Treatment Programs	**Alcohol**	**Heroin**	**Marijuana**	**Crack/ Cocaine**	**Other Opioids**
Massachusetts	98,944	55.3%	59.0%	24.1%	29.8%	13.5%
Natick	211	51.7%	34.1%	5.2%	3.3%	3.3%
Needham	0-100	50.8%	30.5%	*	*	*
Newton	227	44.5%	41.0%	4.8%	2.6%	4.4%
Waltham	431	48.5%	39.9%	3.2%	1.6%	5.8%
Wellesley	0-100	50.0%	34.1%	*	*	*
Weston	0-100	70.0%	*	*	*	*

DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Geographic Fact Sheets Report, FY 2017

Note: * Number of total admissions missing/unknown values for primary drug

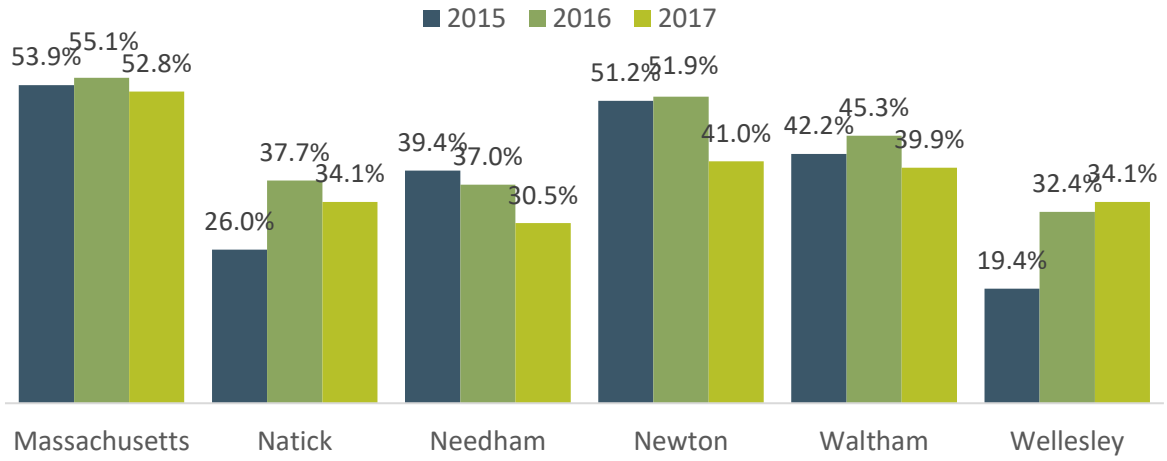
In 2017, among patients admitted for substance use treatment, Newton (41.0%) and Waltham (39.9%) had the highest percent of patients admitted where heroin was the primary substance of use (Figure 50). From 2015 to 2017, the prevalence of heroin-related treatment decreased in four of the five NWH assessment communities. Patients seeking treatment for heroin use increased in Wellesley from 32.5% in 2016 to 34.1% in 2017.

Impact of COVID-19 Pandemic from MA CCIS:

Among respondent who reporting substance use in the last 30 days:

- *41% reported that their current substance use increased compared to before the COVID-19 outbreak*
- *45% reported that their current substance use has remained about the same*
- *15% reported that their current substance use decreased*

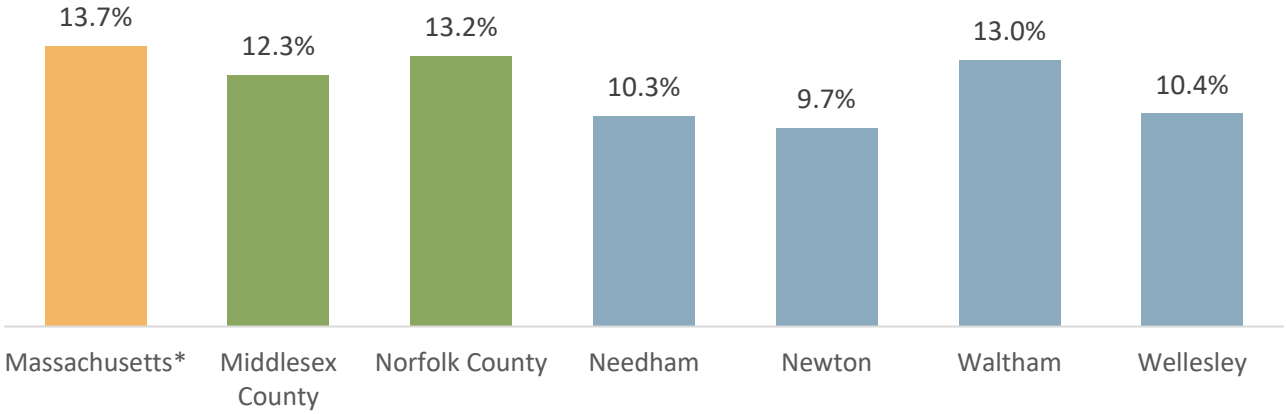
Figure 50: Percent of Patients in Treatment Listing Heroin as Their Primary Substance of Use, by Massachusetts and City/Town, 2015-2017



DATA SOURCE: Massachusetts Department of Public Health, Bureau of Substance Abuse Services, Geographic Fact Sheets Report FY 2017, 2015-2017
NOTE: Data not available for Weston

In 2018, approximately one in ten adults in Middlesex (12.3%) and Norfolk (13.2%) Counties reported that they currently smoked, a prevalence similar to Massachusetts overall (13.7%) (Figure 51). this is consistent with the prevalence reported in the previous CHNA. Of the focal communities, Waltham had the highest percentage of adults that reported smoking (13.0%), followed by Wellesley (10.4%), Needham (10.3%), and Newton (9.7%).

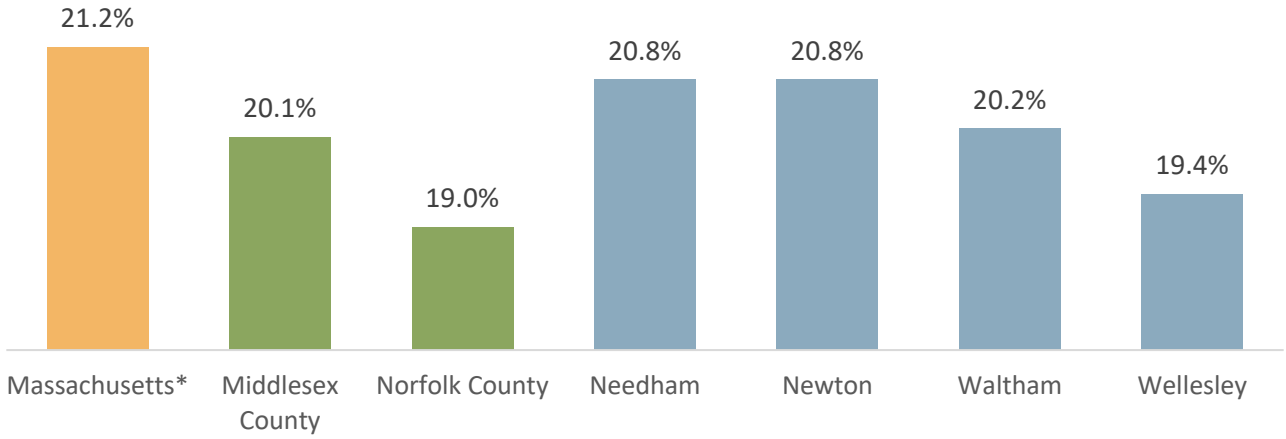
Figure 51: Percent of Adults Who Report Current Smoking Status, by State, County, and Town, 2018



DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018
NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

In 2018, approximately one-fifth of adults in Middlesex and Norfolk Counties reported excessive drinking (20.1% and 19.0%, respectively) (Figure 52). This was comparable to proportion in the focus communities and Massachusetts overall.

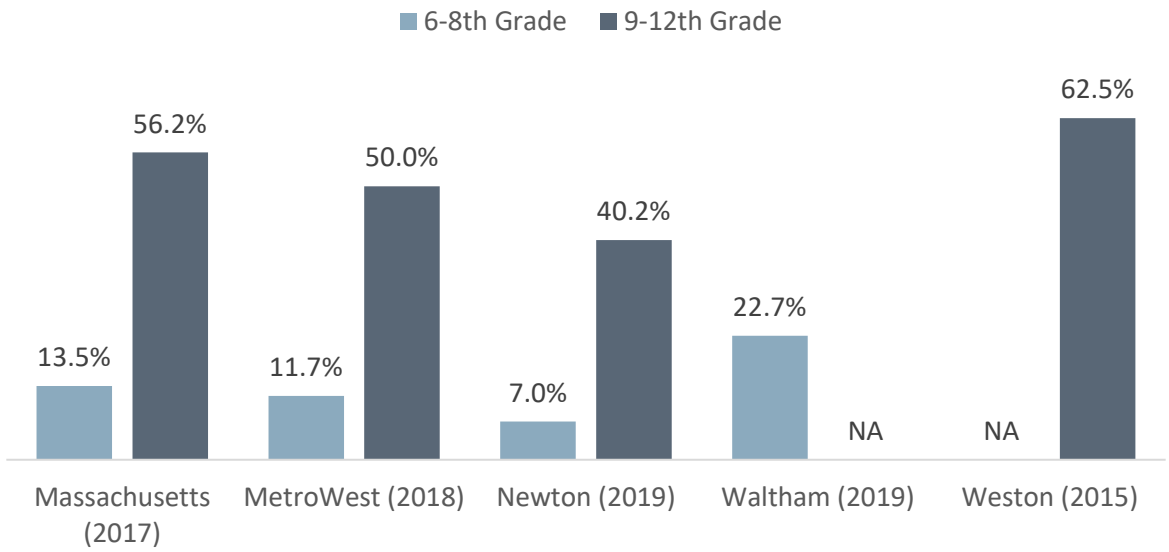
Figure 52: Percent of Adults Who Report Binge Drinking, by State, Country, and Town, 2018 2016



DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018
NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

Among middle school youth, lifetime alcohol use was highest in Waltham (22.7%), followed by MetroWest (11.7%) and Newton (7.0%) (Figure 53). Of the four NWH service area cities/towns, only Waltham had a prevalence among middle school students that exceeded the state (13.5). Among high school students, less than five in ten high school students in the MetroWest region (50.0%) and Newton (40.2%) reported alcohol use in their lifetime in 2015-2019, compared to the state overall (56.2%). Prevalence of lifetime alcohol use was highest among 9-12th grade youth in Weston (62.5%).

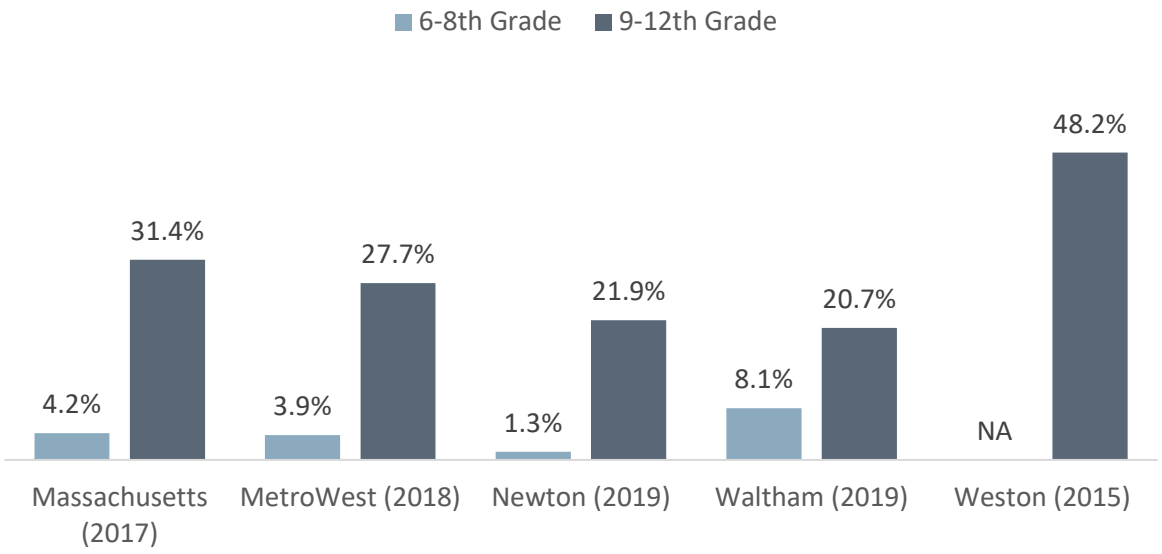
Figure 53: Percent of Students Reporting Lifetime Alcohol Use, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

During the 2015 to 2019 period, with the exception of Waltham (8.1%), current alcohol use among middle school youth was below the state average (4.2%) (Figure 54). The prevalence of current alcohol use among high school students ranged from less than one-quarter in Waltham (20.7%) to approximately half of students in Weston (48.2%) during the 2015 to 2019 period. Weston was the only assessment community where current alcohol use among high school youth exceeded the prevalence for Massachusetts youth overall (31.4%).

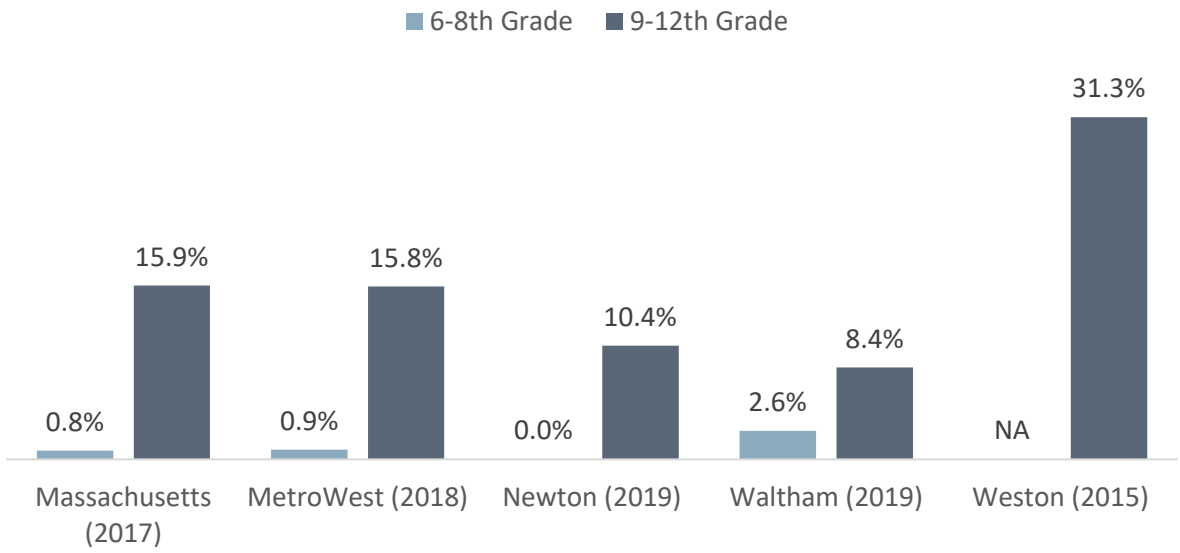
Figure 54: Percent of Students Reporting Current Alcohol Use, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

Following patterns for lifetime and current alcohol use, in 2015-2019 nearly one-third (31.3%) of high school students in Weston reported binge drinking, a prevalence that was nearly double that for Massachusetts overall (15.9%) and exceeded the prevalence across the other NWH service area cities/towns for which data were available (Figure 55). Among middle school students, reported binge drinking among MetroWest (0.9%) was similar to patterns for Massachusetts overall (0.8%) during the 2015 to 2019 period. Middle school students in Waltham reported binge drinking three times greater than the state average (2.6%). Since the 2015 CHNA and 2018 CHNA, binge drinking among middle school students declined slightly across Massachusetts (3.0% to 1.5% to 0.8%).

Figure 55: Percent of Students Reporting Current Binge Alcohol Use, by State and City/Town, 2015-2019

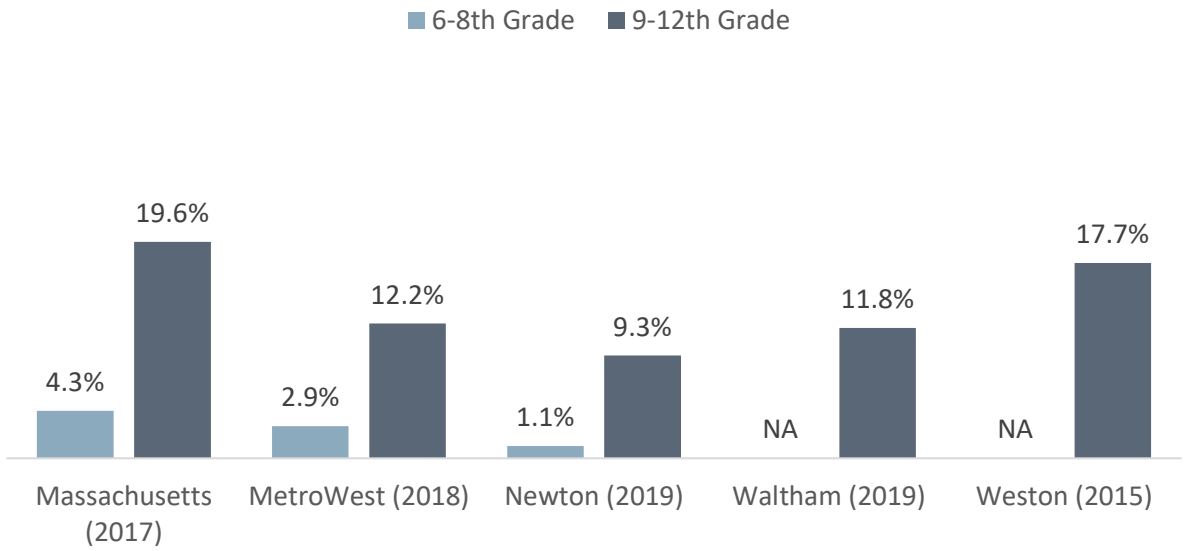


DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

Over the 2015 to 2019 period, a lower percent of middle school youth in each of the five assessment communities for which data were available reported lifetime cigarette use compared to their peers statewide (4.3%) (Figure **56**). Among middle school youth, the prevalence of lifetime cigarette use was highest in the MetroWest region (2.9%). Since the 2018 CHNA, there was a slight increase in lifetime cigarette use in Newton (0.6% to 1.1%) (2015 to 2017 data not shown).

The prevalence of lifetime cigarette use among high school youth was also lower in each of the four assessment communities compared to Massachusetts overall (19.6%) during the 2015 to 2019 period. Lifetime cigarette use was highest for high school youth in Weston (17.7%) and the MetroWest region (12.2%) and lowest in Newton (9.3%).

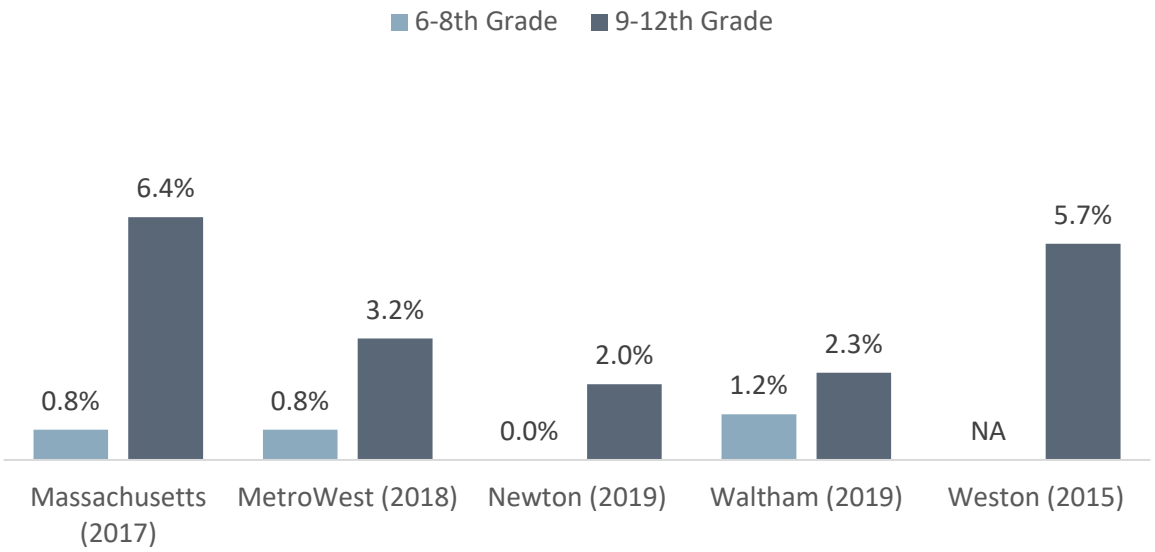
Figure 56: Percent of Students Reporting Lifetime Cigarette Use, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

As shown in Figure 57, during the 2015 to 2019 period, current cigarette among middle school youth in Newton and the MetroWest region was similar to or lower than Massachusetts overall, while the prevalence of current cigarette use among middle school students in Waltham (1.2%) was greater than state levels. In the four assessment communities for which data are available, a lower percent of high school youth reported current cigarette use than their peers statewide. Current cigarette use among high school students was highest in Weston (5.7%) and lowest in Newton (0.0%).

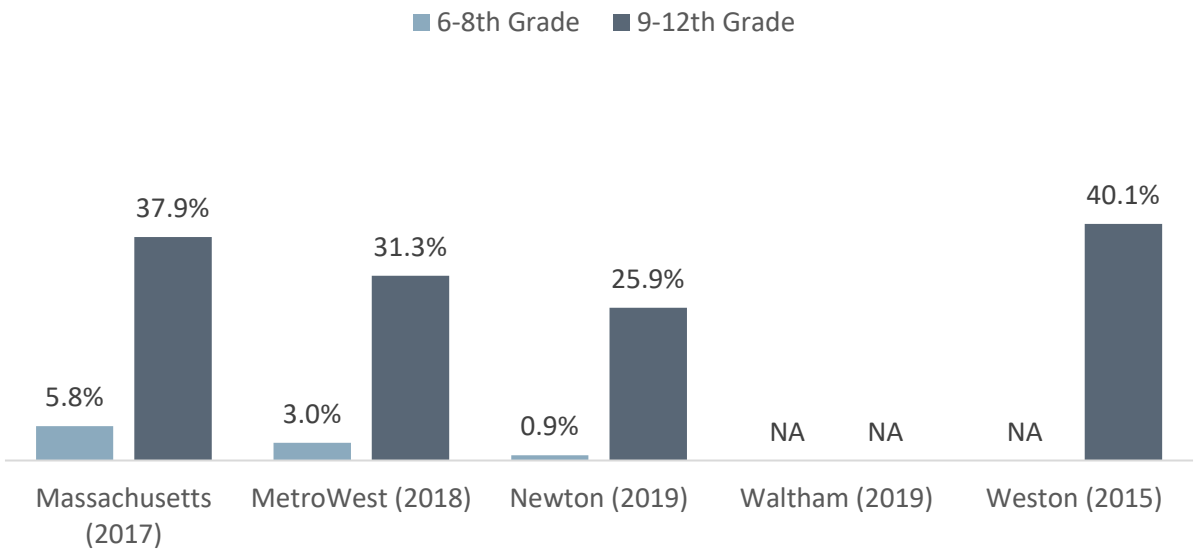
Figure 57: Percent of Students Reporting Current Cigarette Use, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

As shown in Figure 58, during the 2015-2019 period, a smaller proportion of middle school youth reported lifetime use of marijuana than those in high school. Among middle school students, lifetime marijuana use was highest in the MetroWest region (3.0%), followed by Newton (0.9%), and did not exceed the state (5.8%) for any of the cities/towns in the assessment region. Among high school students in most of the NWH service area cities/towns the prevalence of lifetime marijuana use was lower than Massachusetts overall (37.9%), except for Weston (40.1%). In the assessment region, lifetime marijuana use was lowest in Newton (25.9%).

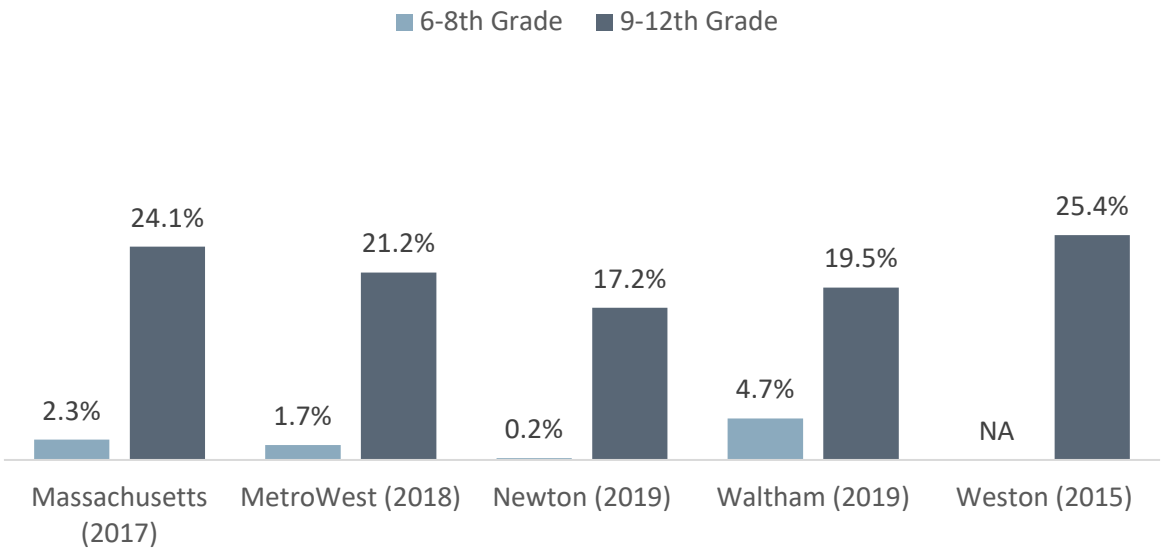
Figure 58: Percent of Students Reporting Lifetime Marijuana Use, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

Shown in Figure 59, current marijuana use among middle school students in Waltham (4.7%) was nearly double the state average (2.3%) and exceeded the prevalence across the NWH service area cities/towns for which data were available in the 2015 to 2019 period. During the 2015 to 2019, period, one-quarter of Weston (25.4%) high school students reported current marijuana use, similar to the statewide prevalence (24.1%). Approximately one fifth of high school students reported current marijuana use in the MetroWest region (21.2%), Waltham (19.5%), and Newton (17.2%).

Figure 59: Percent of Students Reporting Current Marijuana Use, by State and City/Town, 2015-2019



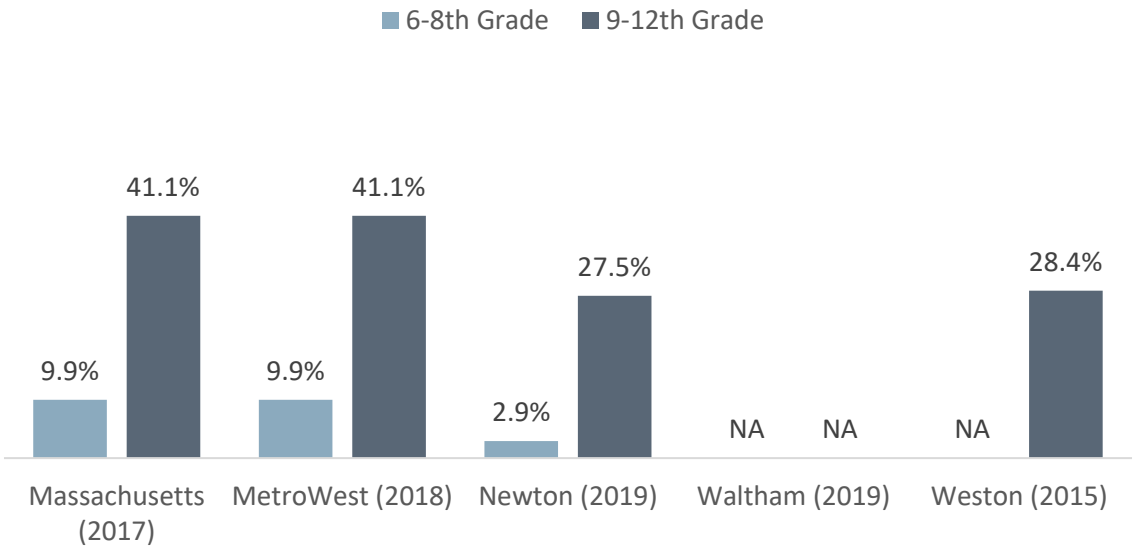
DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

Schools in the NWH service area have also begun adopting the Screening, Brief Intervention, and Referral to Treatment (SBIRT) program to address substance use by middle and high school students.[5]

During the 2015 to 2019 period, lifetime electronic cigarette use ranged from a high of 41.1% in the MetroWest region and at the overall state level, to a low of 27.5% in Newton (Figure 60). Data regarding the prevalence of lifetime electronic cigarette use for middle school students were not available for most assessment communities, though estimates indicate that 9.9% and 2.9% of middle school students in the MetroWest region and Newton, respectively, reported electronic cigarette use in their lifetime.

[5] https://www.mass.gov/service-details/screening-brief-intervention-and-referral-to-treatment-sbirt

Figure 60: Percent of Students Reporting Lifetime Electronic Cigarette Use by State and City/Town, 2015-2019

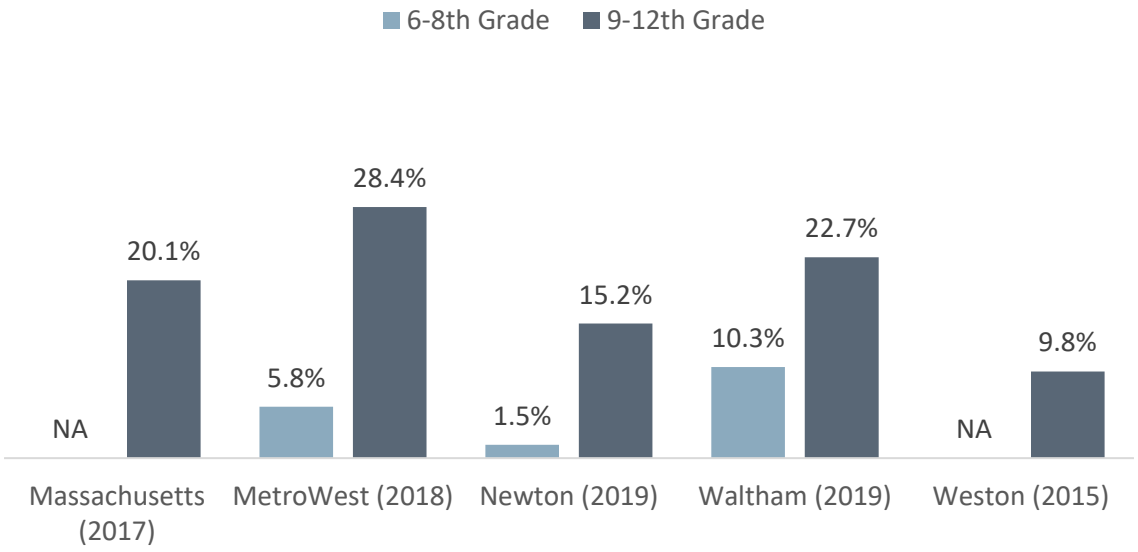


DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015

NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

As shown in Figure 61, during the 2015 to 2019 period current electronic cigarette use among middle school students was highest in the Waltham (10.3%). Among high school students, the prevalence of current electronic cigarette use in the MetroWest region (28.4%) exceeded the state average (20.1%) and was lowest in Weston (9.8%).

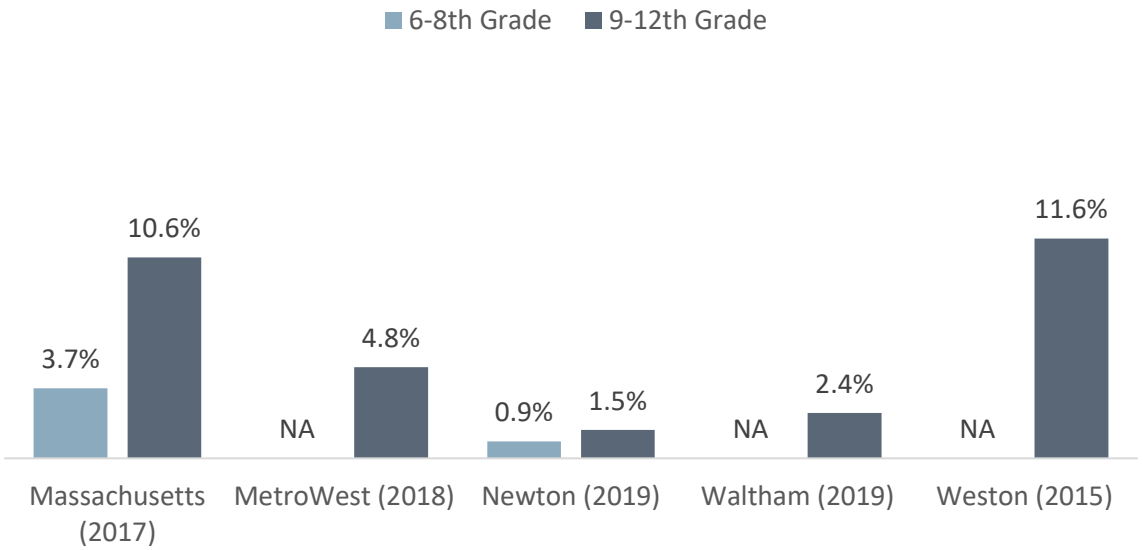
Figure 61: Percent of Students Reporting Current Electronic Cigarette Use by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Risk Report, 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

During the 2015-2019 period, lifetime prescription drug misuse reported by high school students exceeded the state average (10.6%) in Weston (11.6%) and was lowest in Newton (1.5%) and Waltham (2.4%) (Figure 62).

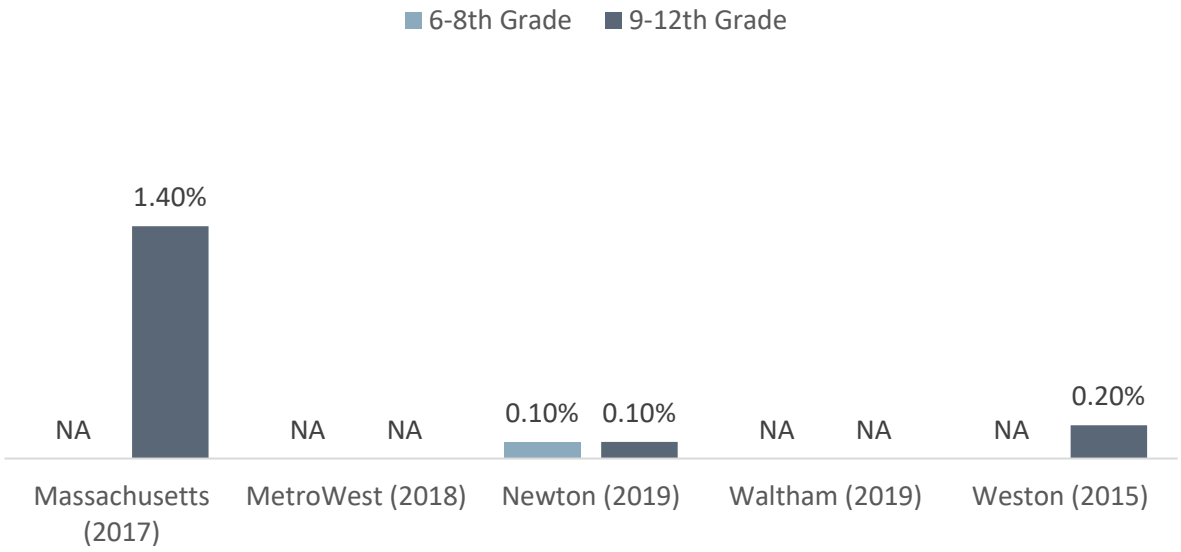
Figure 62: Percent of High School Students (Grades 9-12) Lifetime Misuse of Someone Else's Prescription, by State and City/Town, 2015-2019



DATA SOURCE: Massachusetts Youth Health Survey 2017; MetroWest Health Foundation, Health Data Search, 2018; Newton Youth Risk Behavior Survey, 2019; Waltham Public Schools Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

Among high school students in the NWH service area cities/towns for which data were available, current opioid use was lower than Massachusetts overall (Figure 63).

Figure 63: Percent of Students Reporting Lifetime Heroin Use, by State and City/Town, 2015, 2017, 2019



DATA SOURCE: Massachusetts Youth Health Survey 2017; Newton Youth Risk Behavior Survey, 2019; Weston Youth Health Assessment, 2015
NOTE: * includes students in grades 7-8. Data for the other assessment communities were not available.

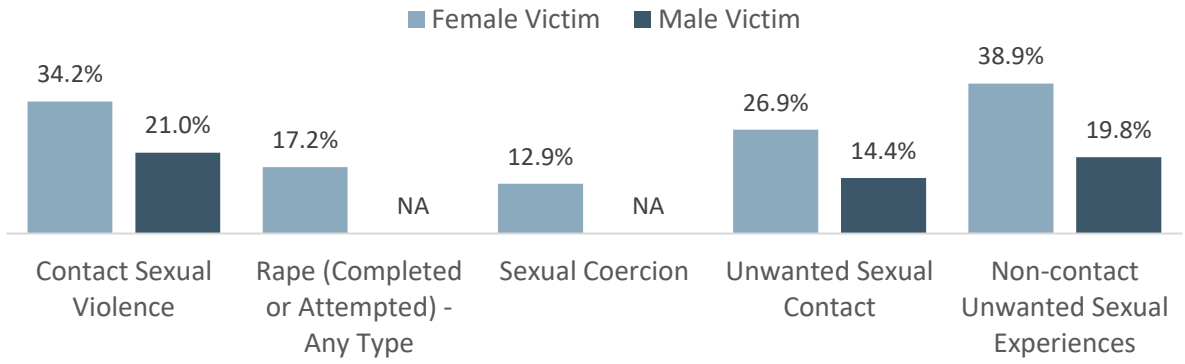
Violence, Abuse, and Neglect

Across Massachusetts, the prevalence of reported lifetime experiences of sexual violence was highest for female victims (Figure 64). In 2010-2012, more than one-third of women reported non-contact unwanted sexual experiences (38.9%) or sexual violence (34.2%). One-quarter of women reported unwanted sexual contact (26.9%), and 17.2% reported rape, with nearly one in ten reporting sexual coercion (12.9%). Among men, one fifth reported contact sexual violence (21.0%) and non-contact unwanted sexual experiences (19.8%), and 14.4% reported unwanted sexual contact.

Impact of COVID-19 Pandemic from the MA CCIS:
1 in 3 respondents reported intimate partner violence (IPV) during COVID-19.
Experiences of IPV during COVID-19 were reported over 2 to 4 times more frequently by respondents identifying as:

- *LGBQA*
- *Of transgender experience and non-binary gender*
- *Multi-racial, American Indian/Alaska Native, Black, Asian, and Hispanic/Latinx*
- *Having a disability*

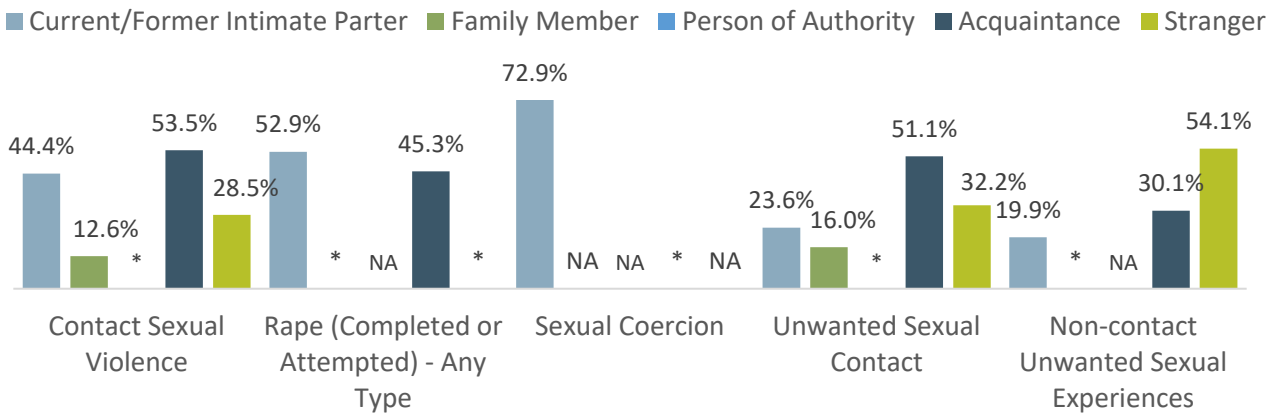
Figure 64: Lifetime Prevalence of Sexual Violence Victimization in the State of Massachusetts, 2010-2012



DATA SOURCE: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention, The National Intimate Partner and Sexual Violence Survey, 2010-2012 State Report

Shown in Figure 65 is the type of perpetrator for lifetime sexual violence victimization reported by women in 2010-2012. Intimate partners were the most common perpetrators of sexual coercion (72.9%) and rape (52.9%) for women. An acquaintance was the most common perpetrator of contact sexual violence (53.5%) and unwanted sexual contact (51.1%) for women. Strangers (54.1%) more commonly perpetrated non-contact unwanted sexual experiences.

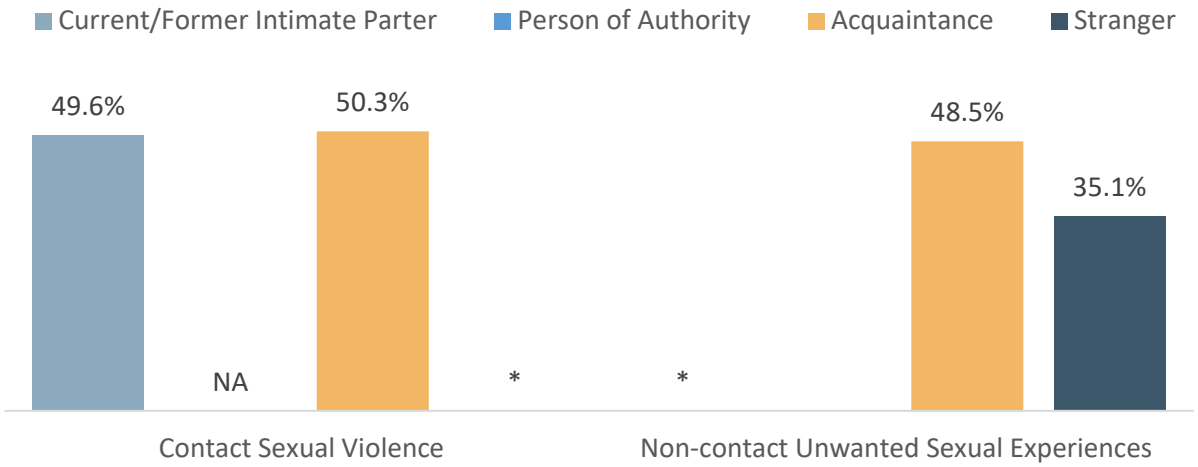
Figure 65: Lifetime Prevalence of Sexual Violence Victimization, by Type of Perpetrator, among Women, Massachusetts, 2010-2012



DATA SOURCE: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention, The National Intimate Partner and Sexual Violence Survey, 2010-2012 State Report
NOTES: Asterisk (*) denotes where rates were not calculated due to small counts; NA denotes where victimization by type of perpetrator were not reported.

Among men, an equal percent of perpetrators of lifetime contact sexual violence were acquaintances (50.3%) or intimate partners (49.6%) in 2010-2012 (Figure 66). Nearly one half of non-contact unwanted sexual experiences reported by men in 2010-2012 were committed by acquaintances (48.5%), followed by strangers (35.1%).

Figure 66: Lifetime Prevalence of Sexual Violence Victimization by Type of Perpetrator, among Men, Massachusetts, 2010-2012



DATA SOURCE: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention, The National Intimate Partner and Sexual Violence Survey, 2010-2012 State Report
NOTES: Asterisk (*) denotes where rates were not calculated due to small counts; NA denotes where victimization by type of perpetrator were not reported.

In 2019, across Massachusetts child maltreatment victimization was most commonly perpetrated by parents, followed by a person with multiple relationship ties to the child and then unmarried partner(s) (Table 8). Data at the city or county region were not available.

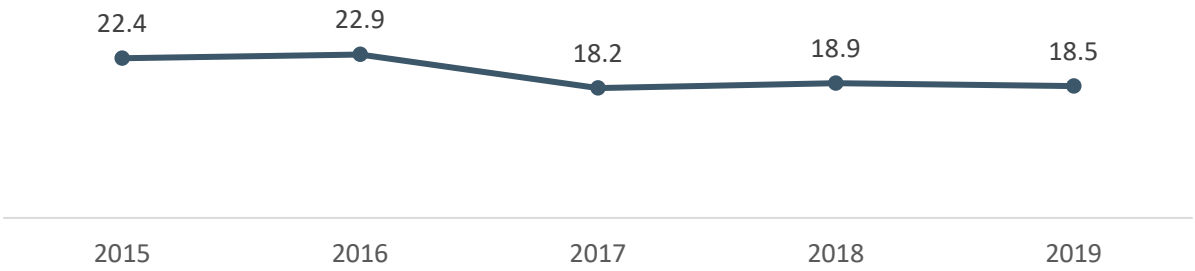
Table 8: Count of Child Maltreatment Victimization by Relation to the Child, Massachusetts, 2019

Perpetrator	Count
Parent	16,059
Multiple Relationships	1,097
Unmarried Partner of Parent	1,019
Relative	730
Legal Guardian	128
Group Home and Residential Facility Staff	55
Child Daycare Provider	51
Foster Parent	48
Other Professional	63
Other	485
Friend and Neighbor	-
Unknown	340

DATA SOURCE: U.S. Department of Health and Human Services, Administration for Children & Families and Administration on Children, Youth and Families, Children's Bureau, *Child Maltreatment*, 2019

As shown in Figure 67, the rate of child maltreatment victimization decreased from 22.4 cases per 1,000 children in 2015 to 18.5 cases of victimization per 1,000 children in 2019.

Figure 67: Rate of Child Maltreatment Victimization per 1,000 Children, Massachusetts, 2015 to 2019



DATA SOURCE: U.S. Department of Health and Human Services, Administration for Children & Families and Administration on Children, Youth and Families, Children's Bureau*, Child Maltreatment*, 2015-2019

From 2010 to 2016, the number of child maltreatment fatalities across Massachusetts ranged from 8 deaths in 2016 to 23 deaths in 2011 (Figure 68).

Figure 68: Count of Child Maltreatment Fatalities, Massachusetts, 2010-2016

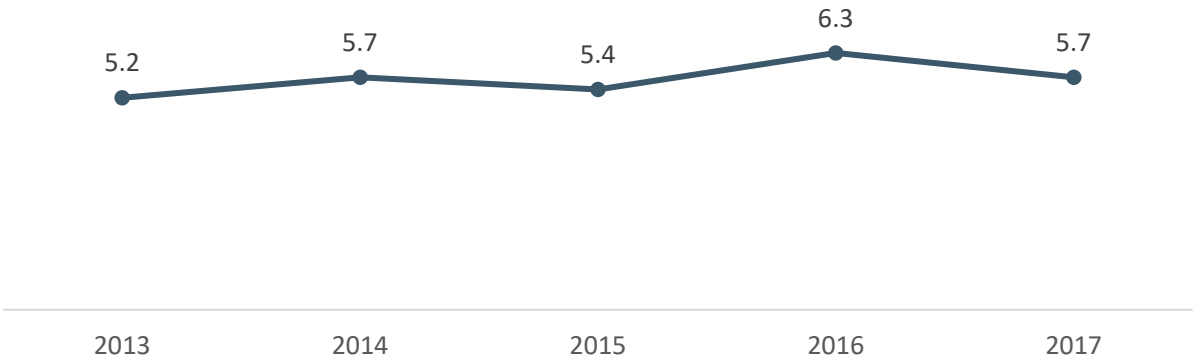
Year	Count
2010	17
2011	23
2012	20
2015	14
2016	8

DATA SOURCE: U.S. Department of Health and Human Services, Administration for Children & Families and Administration on Children, Youth and Families, Children's Bureau*, Child Maltreatment*, 2010-2016
NOTE: Data were not reported 2017-2019

Injury-Related Behaviors

In 2017, the age-adjusted mortality rate due to motor vehicle accidents was 5.7 deaths per 100,000 population in Massachusetts (Figure 69); in total, there were 423 deaths in the state, 1 in Needham, 3 in Waltham and no deaths in other service area cities/ towns due to motor vehicle accidents. While recent more recent death rates were not available for the NWH service area cities/towns, trends across Massachusetts suggest that the motor vehicle-related mortality rate remained stable from 2013 to 2017.

Figure 69: Age-Adjusted Motor Vehicle-Related Death Rate per 100,000 Population, by State, 2013-2017

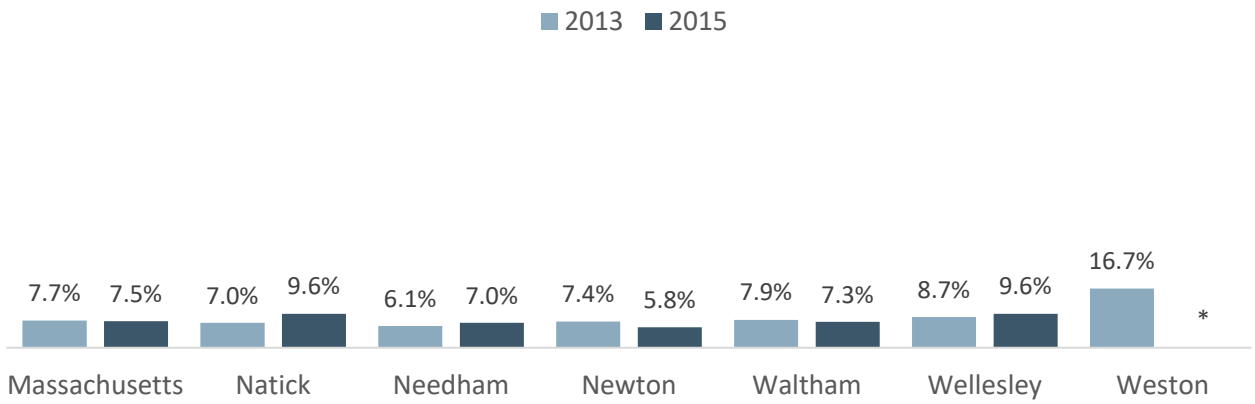


DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2016-2017
NOTE: Data not available for all assessment communities; * indicates data not available.

Reproductive and Maternal Health

In 2015, the proportion of low birthweights births was highest in Natick (9.6%) and Wellesley (9.6%), a prevalence that exceeded patterns across Massachusetts (7.5%) (Figure 70). In 2013, Weston (16.7%), Wellesley (8.7%), and Waltham (7.9%) had a prevalence of low birthweight that was higher than the state overall (7.7%). From 2013 to 2015, the percent of low birthweight births increased slightly in Natick (7.0% to 9.6%), Needham (6.1% to 7.0%), and Wellesley (8.7% to 9.6%), while this prevalence decreased for Newton (7.4% to 5.8%).

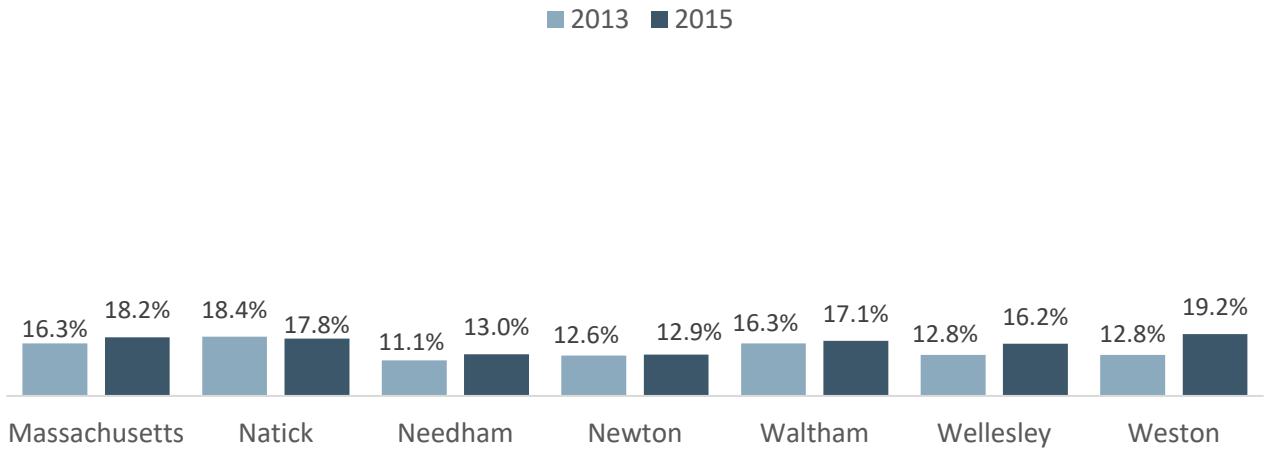
Figure 70: Percent of Low Birthweight Births, by State and City/Town, 2013 and 2015



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2013-2015
NOTE: * indicates data suppressed due to small numbers

Similar to patterns across Massachusetts, from 2013 to 2015, the percent of mothers with inadequate prenatal care increased slightly in Needham (11.1% to 13.0%), Wellesley (12.8% to 16.2%), and Weston (12.8% to 19.2%) (Figure 71). In 2015, the percent of mothers with inadequate prenatal care was highest in Weston (19.2%), a prevalence that exceeded the state average (18.2%). Natick (18.4%) and Waltham (16.3%) had the highest percent of mothers receiving inadequate prenatal care in 2013. From 2013 to 2015, inadequate prenatal care increased notably in Wellesley (12.8% to 16.2%) and Weston (12.8% to 19.2%).

Figure 71: Percent of Mothers with Inadequate Prenatal Care, by State and City/Town, 2013 and 2015



DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2013 and 2015

As shown in Table , among the NWH service area cities/towns for which data were available, the rate of births to adolescent mothers was consistently below the state average between 2013 - 2015.

Table 9: Rate of Births to Adolescent Mothers per 1,000, by State and City/Town, 2013-2015

	2013	2014	2015
Massachusetts	12.0	10.6	9.4
Newton	1.2	1.9	NA
Waltham	6.8	8.5	NA
Wellesley	0.0	0.0	0.0
Weston	0.0	0.0	0.0

DATA SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics, 2013-2014; MA PHIT, 2015
NOTE: Data not available for other assessment communities

Communicable Disease

The section below presents quantitative data related to for cases of COVID-19, HIV, Hepatitis C, tuberculosis, syphilis, gonorrhea, and chlamydia in the NWH service area.

COVID-19

On February 1, 2020, the Massachusetts Department of Public Health (MDPH) experienced its first recorded case of the SARS-COV-2 virus in the Commonwealth of Massachusetts.[6] Public health officials and scientists determined the novel SARS-COV-2 virus could lead to a mild to severe respiratory syndrome, known as COVID-19, in infected individuals.[7] Shortly afterwards, Governor Charlie Baker declared a state of emergency on March 10, 2020, due to local transmission of the virus in Massachusetts and growing concern for transmission across areas of the US.[8] The following section reviews data on cases, deaths, and vaccinations in the NWH service area as of 5/31/21 utilizing surveillance data from MDPH.

COVID-19 Cases

As shown in Figure 72, COVID-19 case numbers varied across the NWH service area, but Waltham experienced the highest number of total cases amongst the towns in the NWH service area.

Figure 72 Total COVID-19 Cases by State, County, and Town through 5/30/21

	Total COVID-19 Case Count	2015-2019 U.S. Census Population Estimate
Massachusetts	661,115	6,850,553
Middlesex County	134,871	1,600,842
Norfolk County	54,803	700,437
Natick	2,142	36,128
Needham	1,754	30,970
Newton	4,368	88,593

[6] https://www.mass.gov/news/man-returning-from-wuhan-china-is-first-case-of-2019-novel-coronavirus-confirmed-in
[7] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19
[8] https://www.mass.gov/info-details/covid-19-state-of-emergency

Waltham	5,638	62,777
Wellesley	1,356	28,747
Weston	542	12,112

DATA SOURCE: Massachusetts COVID-19 Dashboard COVID-19 Cases by State, County, and Town through 5/30/21; U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019.

COVID-19 Deaths

Public health officials and researchers determined that certain groups of people are more likely to become severely ill and possibly die from COVID-19 including older adults and certain people with disabilities who are more likely to live in congregate settings, have chronic health conditions, and face barriers to accessing healthcare.[9] Both Norfolk and Middlesex Counties saw deaths from COVID-19, although it is unclear if the deaths were more prominent in people with disabilities or older adults, see Table 10 below.

Table 10: Total Confirmed and Probable COVID-19 Deaths by State and County through 5/30/21

Geography	Total Confirmed and Probably COVID-19 Deaths
MA	17,855
Middlesex County	3,757
Norfolk County	1,789

DATA SOURCE: Massachusetts COVID-19 Dashboard COVID-19 Deaths by State and County through 5/30/21

When examining state-level COVID-19 mortality data in Massachusetts, residents of color made up a greater amount of the COVID-19 cumulative death rate percentage in comparison to their percentage of the statewide population, see Table 11 and Figure 73. Native Hawaiian/Pacific Islander and American Indian/Alaskan Native residents make up less than one percent of the Massachusetts population, but they each accounted for about 17% percent of the cumulative death rate per 100,000 persons of their race/ethnicity. These findings are consistent with national trends that racial and ethnic minorities are more likely to become severely ill and even die from COVID-19 due to longstanding social inequalities.[10]

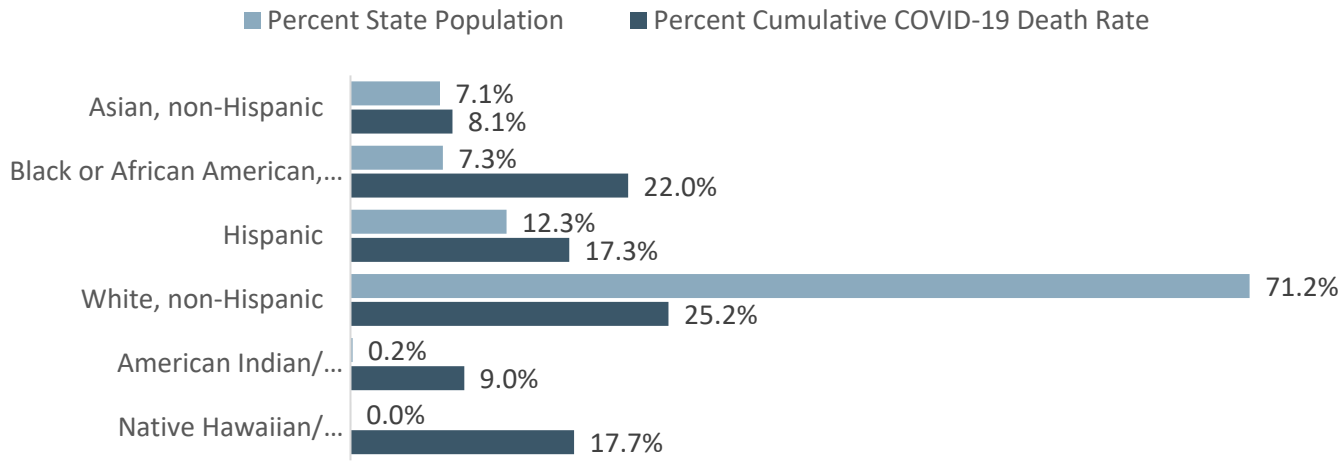
Table 11 COVID-19 Deaths in Massachusetts by Race/Ethnicity through 5/29/21

Race/Ethnicity	Deaths
Native Hawaiian/ Pacific Islander, non-Hispanic	5
American Indian/Alaskan Native, non-Hispanic	11
White, non-Hispanic	13045
Black or African American, non-Hispanic	1167
Hispanic	1545
Asian, non-Hispanic	457
Other race, non-Hispanic	1672
Unknown, missing, or refused	60

DATA SOURCE: Massachusetts COVID-19 Interactive Dashboard COVID-19 Deaths by Race/Ethnicity through 5/30/21

[9] https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html
[10] https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html

Figure 73: Percentage of Cumulative COVID-19 Death Rate per 100,000 by Race and Ethnicity through 5/29/31



DATA SOURCE: Massachusetts COVID-19 Interactive Dashboard COVID-19 Cumulative Death per 100,000 by Race/Ethnicity through 5/29/21
*Individuals who were recorded/reported as "Other race, non-Hispanic", "Multi-race" or were unknown/missing data were not reported on

COVID-19 Vaccinations

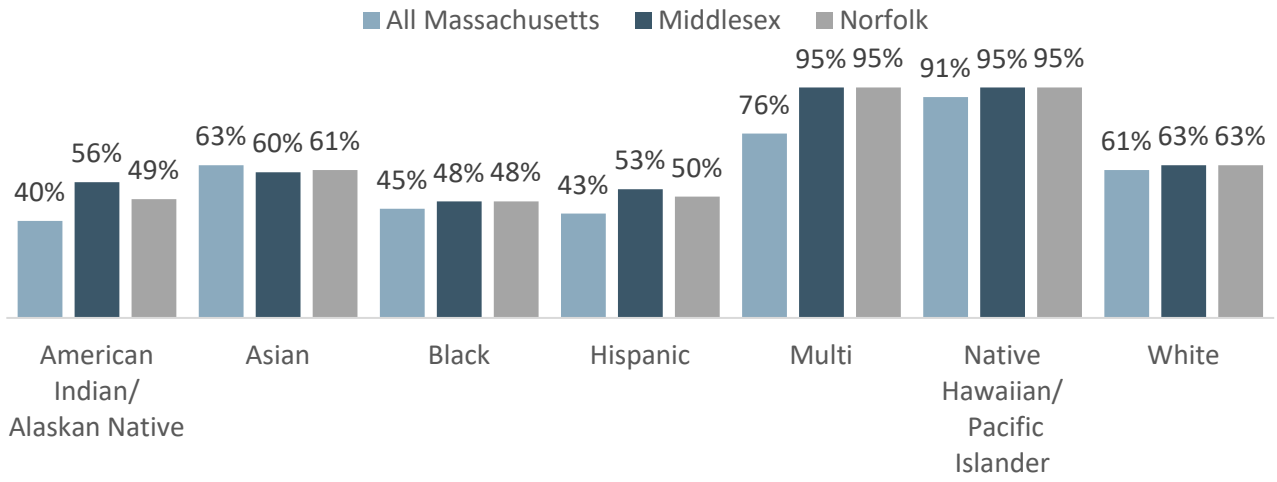
Overall, both counties have administered at least one dose of the COVID-19 vaccines to 67 percent of their population, slightly higher than the state overall. More Native Hawaiians, Pacific Islanders, and Multi-race residents of Massachusetts were reported to have received at least one dose of a vaccine compared to only about half of Hispanic, Black, and American Indian/Alaskan Natives have received at least one dose of the vaccine.

Table 12: Total Confirmed and Probable COVID-19 Deaths by State and County through 5/30/21

Geography	Total Confirmed and Probably COVID-19 Deaths
MA	17,855
Middlesex County	3,757
Norfolk County	1,789

DATA SOURCE: Massachusetts COVID-19 Dashboard COVID-19 Cases by State, County, and Town through 5/30/21; U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019.

Figure 74: Percentage of Individuals with at least One Dose Administered by State/County and Race/Ethnicity through 5/29/21



DATA SOURCE: Massachusetts COVID-19 Interactive Dashboard COVID-19 Percentage of Individuals with at least One Dose Administered by State/County and Race/Ethnicity through 5/29/21
* Individuals who were recorded/reported as "Unknown, Other race", were not reported on

HIV

From 2013 to 2017, Waltham had the highest number of new HIV diagnoses among the focus communities, followed by Newton (Table 13). Trends suggest a slight decline in new HIV diagnoses in Waltham (12 cases in 2013 to 7 cases in 2017).

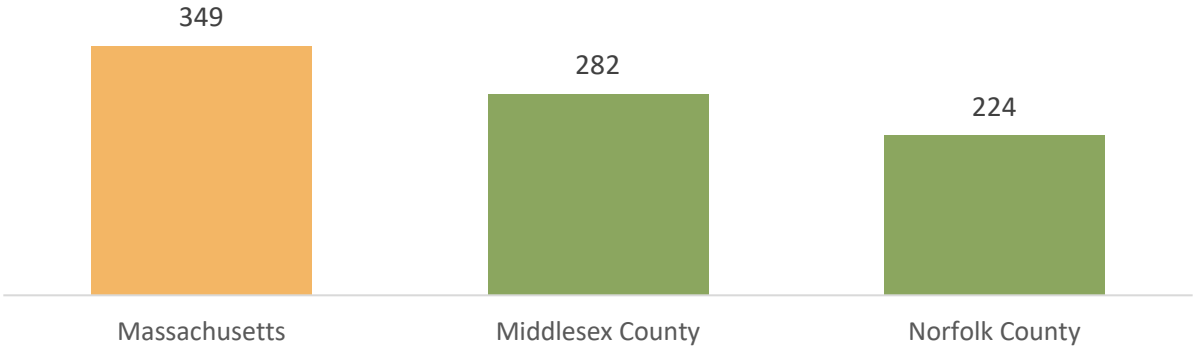
Table 13: Number of Individuals Newly Diagnosed with HIV, by State and City/Town, 2013-2017

Geography	2013	2014	2015	2016	2017
Massachusetts	696	653	605	641	611
Natick	<5	5	0	<5	0
Needham	0	<5	0	0	0
Newton	<5	<5	7	<5	<5
Waltham	12	12	7	7	7
Wellesley	0	0	0	0	<5
Weston	<5	0	0	0	0

DATA SOURCE: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, HIV/AIDS, 2013-2016; MA PHIT, 2017
NOTE: Does not include people incarcerated at the time of data collection

The rate of persons living with an HIV diagnosis who were 13 years of age or older was 19.2% below the rate for Massachusetts overall (349.0 cases per 100,000 population) for Norfolk County (282.0 cases per 100,000 population) and 35.8% below the state average for Middlesex County (224.0 cases per 100,000 population).

Figure 75: Rate of Persons Aged 13+ Years Living with a Diagnosis of HIV per 100,000 Population, by State and County, 2018



DATA SOURCE: National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, as reported by County Health Rankings, 2018

Hepatitis C

From 2013-2018, the number of confirmed and probable cases of Hepatitis C were highest in Waltham, followed by Newton, compared to the other assessment communities.

Table 14: Number of Confirmed and Probable Cases of Hepatitis C, by State and City/Town, 2013-2015, 2018

Geography	2013	2014	2015	2018
Massachusetts	8,177	8,899	8,994	6,770
Natick	20	24	24	7
Needham	10	6	11	5
Newton	46	42	37	28
Waltham	52	52	50	29
Weston	<5	<5	0	<5

DATA SOURCE: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, HIV/AIDS, 2013-2015; MA PHIT, 2018

Tuberculosis

From 2013 to 2018, the number of confirmed and probable cases of tuberculosis were highest in Waltham in 2018 (Table 15**Table 15**).

Table 15: Number of Confirmed and Probable Counts of Tuberculosis, by State and City/Town, 2013-2016, 2018

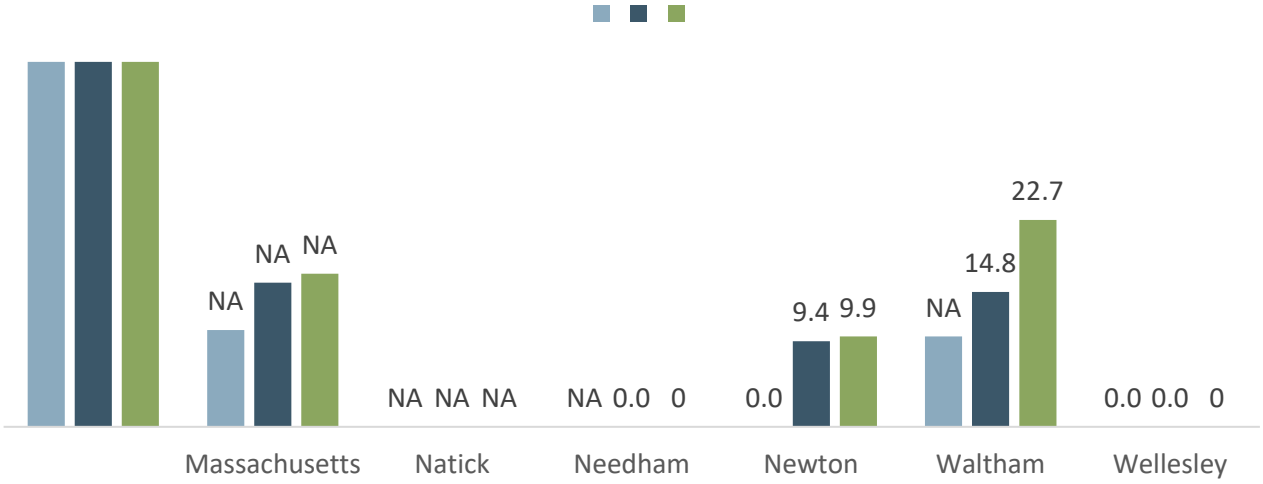
Geography	2013	2014	2015	2016	2018
Massachusetts	201	199	192	190	204
Natick	0	<5	0	<5	0
Needham	0	0	0	0	<5
Newton	6	3	1	2	1
Waltham	3	5	2	1	3
Wellesley	0	0	0	0	0
Weston	<5	0	0	0	0

DATA SOURCE: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, HIV/AIDS, 2013-2016; MA PHIT, 2018

Syphilis

Similar to state patterns, in Waltham the syphilis case rate increased from 9.9 cases per 100,000 residents in 2013 to 22.7 cases per 100,000 residents in 2018 (Figure 76). In 2018, the syphilis case rate in Newton (9.9 cases per 100,000 residents) was 41.0% below the rate for Massachusetts overall (16.8 cases per 100,000 residents).

Figure 76: Syphilis Case Rate per 100,000 Population, by State and City/Town, 2013, 2016, and 2018

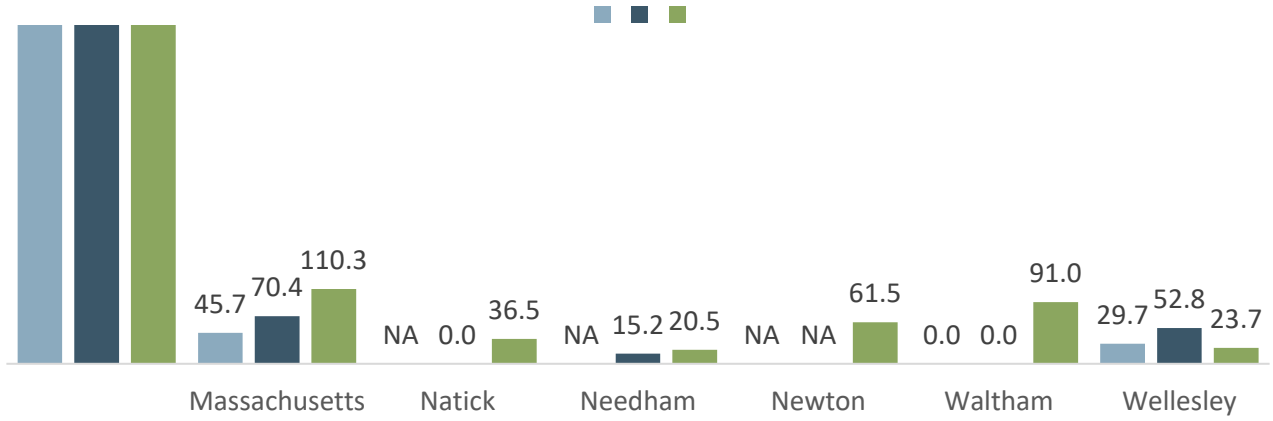


DATA SOURCE: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, Division of STD Prevention, 2013 and 2016; MA PHIT, 2018
NOTE: NA indicates that rates were not calculated due to small number of cases

Gonorrhea

Among the cities/towns in the NWH service region for which data were available, the gonorrhea case rate was below the state rate in 2013, 2016, and 2018 (Figure 77). In 2018, the gonorrhea case rate was highest in Waltham (91.0 cases per 100,000 population) and Newton (61.5 cases per 100,000 population), and lowest in Needham (20.5 cases per 100,000 residents).

Figure 77: Gonorrhea Case Rate per 100,000 Population, by State and City/Town, 2013, 2016, 2018

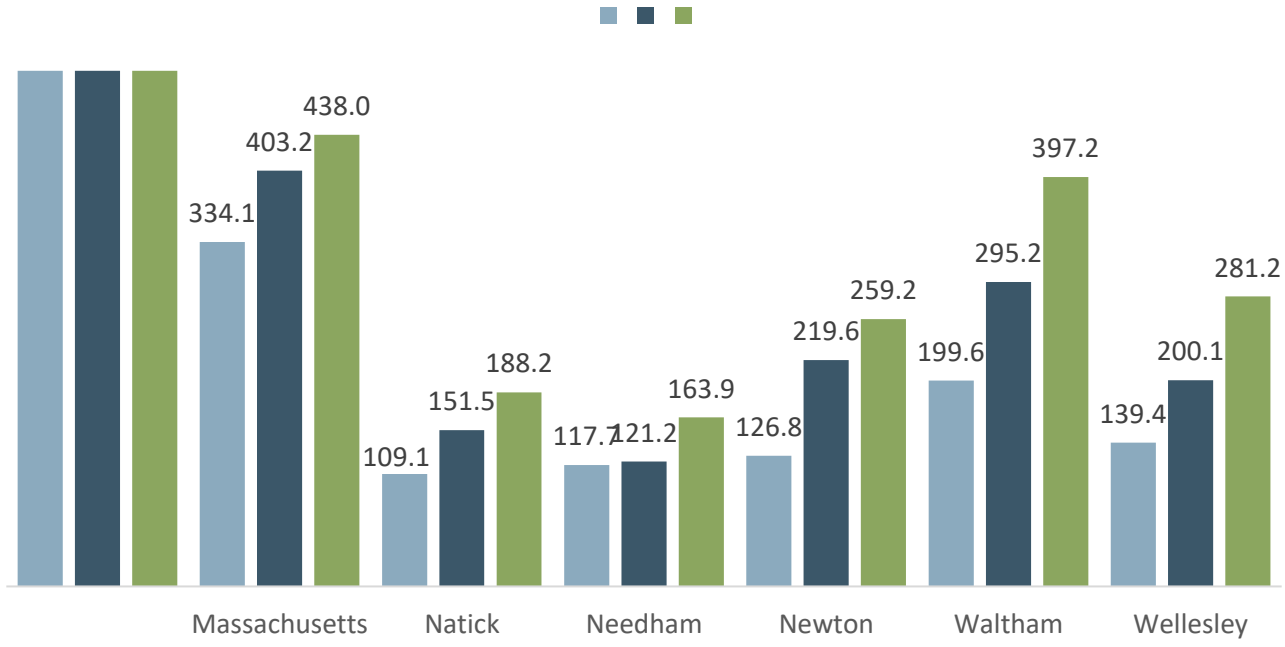


DATA SOURCE: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, Division of STD Prevention, 2013 and 2016; MA PHIT, 2018
NOTE: NA indicates that rates were not calculated due to small number of cases

Chlamydia

As shown in Figure 78, the chlamydia case rate was below the rate for Massachusetts overall for all cities/towns in the NWH service area. However, following patterns across the state, the chlamydia case rate increased for all assessment communities from 2013 to 2018, with the greatest percent increase in Waltham, Wellesley, and Needham. In 2013, 2016, and 2018, the chlamydia case rate was highest in Waltham (199.6, 295.2, and 397.2 cases per 100,000 population, respectively). The chlamydia case rate was lowest in Needham (163.9 cases per 100,000 population) in 2018.

Figure 78: Chlamydia Case Rate per 100,000 Population, by State and City/Town, 2013, 2016, and 2018



DATA SOURCE: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences, Division of STD Prevention, 2013 and 2016; MA PHIT, 2018

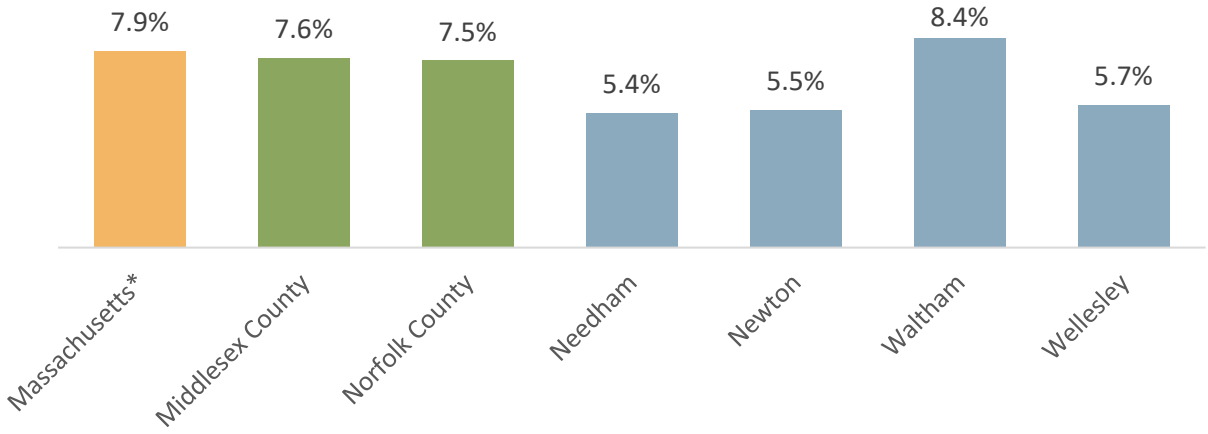
Access to Care

Access to affordable, quality health care is important to physical, social, and mental health.

Cost and Insurance

Health insurance helps individuals and families access needed primary care, specialists, and emergency care. As shown in Figure 79, in 2018 7.5-7.6% of adults aged 18 to 64 years of age across Middlesex and Norfolk Counties did not have health insurance, slightly below the prevalence across Massachusetts (7.9%).

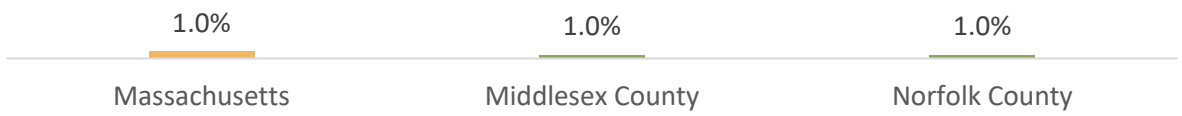
Figure 79: Percent of Adults 18 to 64 Years Old without Health Insurance, by State, County, and City/Town, 2018



DATA SOURCE: *Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018; County and City/Town data from Centers for Disease Control and Prevention, PLACES: Local Data for Better Health, 2018NOTE: Data not available on PLACES for Natick and Weston; data are age-adjusted

In 2018, 1.0% of children under 19 years of age in the state as well as Middlesex and Norfolk Counties did not have health insurance (Figure 80).

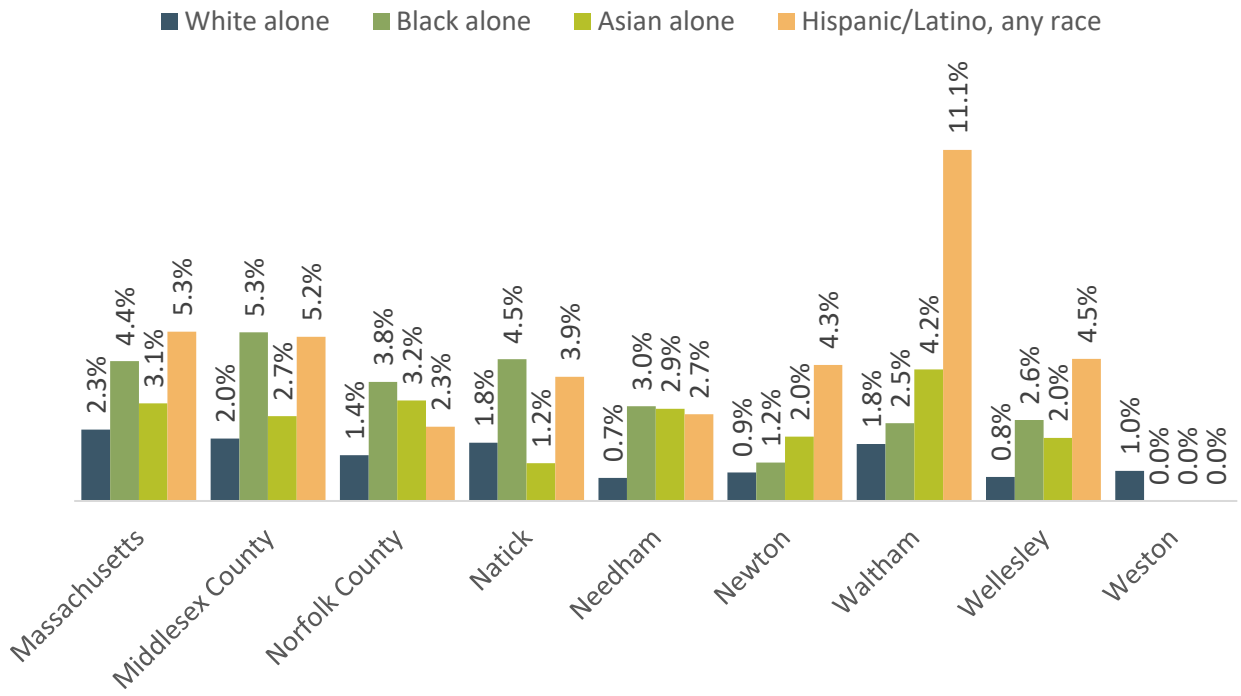
Figure 80: Percent of Children under Age 19 without Health Insurance, by State and County, 2018



DATA SOURCE: County Health Rankings & Roadmaps, Small Area Health Insurance Estimates, 2021 (uses data from 2018)

In 2015-2019, approximately 5% of Black and Hispanic/Latino Middlesex County residents did not have health insurance, compared to approximately 2% of White residents and 3% of Asian residents(Figure 81). During this period, a higher proportion of Black residents in Natick (3.8%), lacked health insurance relative to other towns within the service area. In Waltham, a higher percent of Hispanic/Latino (11.1%) residents lacked health insurance than any other racial group in the city. In Waltham, 4.2% of Asian residents lacked health insurance, a proportion that exceeded the state average (3.1%).

Figure 81: Racial Composition of Population without Health Insurance, by State, County, and City/Town, 2015-2019

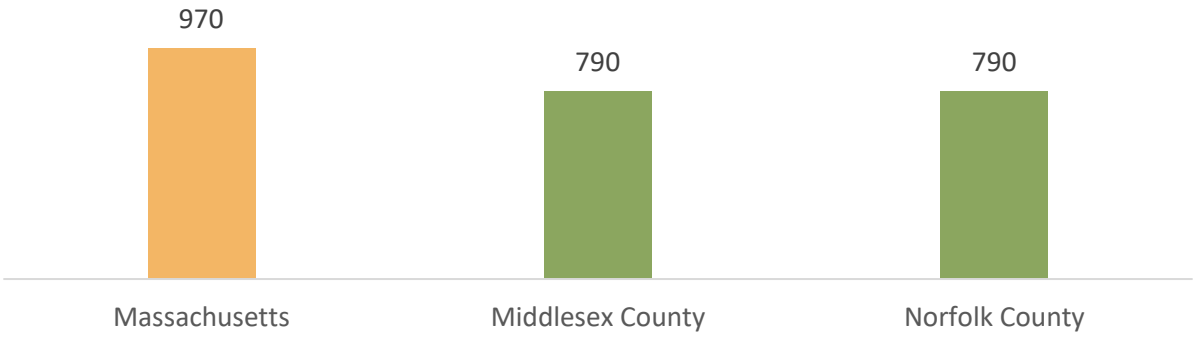


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015-2019

Physician Access

As shown in Figure 82, in 2018 there was one primary care physician per 790 residents in Middlesex and Norfolk counties, a ratio that was approximately 18% lower than the ratio for Massachusetts (970:1) overall.

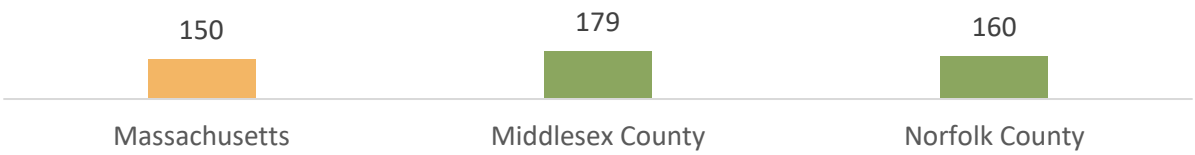
Figure 82: Ratio of Population per One Primary Care Physician, by State and County, 2018



DATA SOURCE: County Health Rankings & Roadmaps, Area Health Resource File/American Medical Association, 2021 (uses data from 2018)

In 2020, the ratio of Middlesex (179:1) and Norfolk (160:1) County population to mental health providers was slightly less favorable than the ratio for the state (150:1) (Figure 83). That is, for every 179 Middlesex County residents and every 160 Norfolk County residents, there was one mental health provider available, while on average a mental health provider was available per 150 Massachusetts residents.

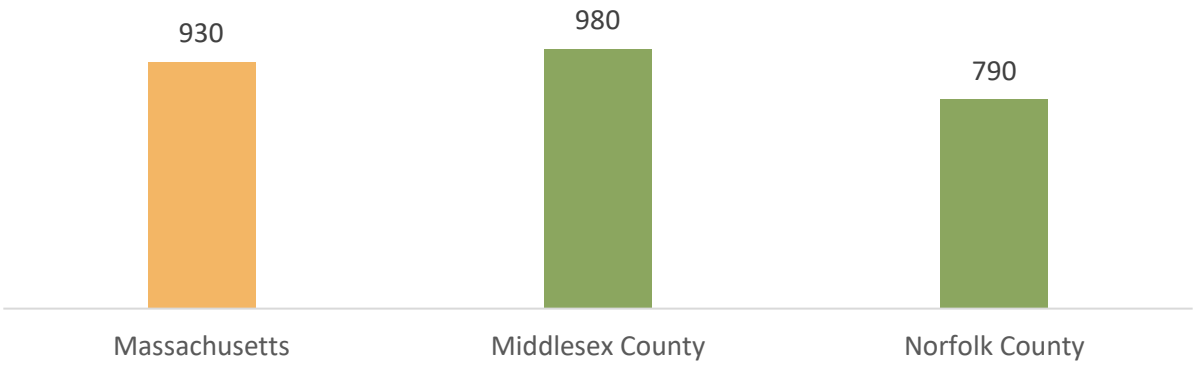
Figure 83: Ratio of Population per One Mental Health Provider, by State and County, 2020



DATA SOURCE: County Health Rankings & Roadmaps, CMS, National Provider Identification, 2021 (uses data from 2020)

Norfolk County has the highest number of dentists for its population size (760 residents per dentist), more than the state (930 residents per dentist) and Middlesex County (980 residents per dentist) as of 2019.

Figure 84: Ratio of Population per One Dentist, by State and County, 2019



DATA SOURCE: County Health Rankings & Roadmaps, Area Health Resource File/American Medical Association, 2019

KEY THEMES AND CONCLUSIONS

The 2021 NWH CHNA Report provides updated secondary data that was utilized in the 2018 CHNA by examining social, economic, and health patterns and community concerns, and considers persistent and emerging health concerns since the 2018 CHNA. Several key themes emerged from this review:

Community Strengths

Community stakeholders and NWH Community Benefits department members elaborated on how community strengths have been impacted by community programming and engagement since the 2018 CHNA. NWH Community Benefits members described how the community's collaboration, generosity, resources, and strong local infrastructure helped organizations come together during the initial COVID-19 response and its ongoing aftermath. Several members emphasized how these values have supported their community during a stressful and difficult time.

Identified Areas of Need

Housing

The 2018 CHNA reported that the high cost of housing and changing housing dynamics as challenges in the NWH service area. Since the 2018 housing costs have continued to rise for both renter-occupied and owner-occupied units according to data from the U.S. Census. According to the most recent census data, housing cost burden was highest for renter-occupied units in Newton (46.7%) and owner-occupied units in Weston (35.8%).

Transportation

Previously, residents reported that local transportation options were limited, and high transportation costs were challenging, especially for those without private vehicles. Reflecting patterns across Massachusetts, the majority of workers in each assessment community drove to work according to the most recent census data estimated in 2015-2019, a trend that was similar to the 2018 CHNA.

Food Insecurity

Feeding America projects an increase in food insecurity from 2019 to 2020-2021 as a result of the COVID-19 pandemic. While Middlesex and Norfolk counties had lower rates of food insecurity, both counties had higher average costs per meals compared to the state overall. Higher food costs can contribute to an overall higher cost of living for individuals and families.

Mental Health

Among community health issues raised during the 2018 assessment process, mental health was the issue mentioned most frequently, particularly affecting elderly, immigrant, and low-income residents. Relative to the other cities/towns in the NWH service area, a larger percent of Waltham students reported depression, suicidal ideation, and suicide attempts, as noted in the previous CHNA. Middlesex and Norfolk County had a less favorable ratio of population per one mental health provider compared to the state. COVID-19 was also noted by community benefits members to have an impact on mental health during the pandemic.

Substance Use

Substance use was also reported to be a substantial challenge for the community in the previous CHNA, particularly related to opioids as well as specific concerns for seniors and youth. Substance use patterns among youth varied across assessment communities: alcohol use was more prevalent in Weston, electronic cigarette use was highest in Waltham and in the Metro West region, and marijuana use declined in high school youth from Natick, Waltham, and Weston but increased in Newton students.

Access to Care

During the previous assessment, residents reported challenges in meeting the social, economic, and health care needs of all residents in the NWH service area, especially immigrants, low-income residents, and seniors. A few participants previously reported that obtaining health insurance was still a challenge for some residents, particularly those in immigrant communities. In Waltham, a higher percent of Hispanic/Latino (11.1%) residents lacked health insurance than any other racial group in the city, and it was more than double the statewide uninsured rate of Hispanic/Latino residents (5.3%) in 2015-2019. Since the 2018 CHNA, except for Needham and Newton, all towns experienced an increase in their immigrant population. Qualitative discussions from the previous CHNA reported that cultural competency of providers, language access, continuity of care, and navigating the healthcare system were common challenges among residents.

COVID-19

The novel SARS-COV-2 pandemic began about a year prior to starting the 2021 CHNA assessment. While town level data was limited, Waltham had the highest number of total COVID-19 cases across the region. Massachusetts residents of color experienced higher death rates due to COVID-19, which were consistent with national trends. COVID-19 vaccinations were ongoing at the time of the assessment, but Black, Hispanic, and American Indian/Alaskan Native residents of Massachusetts reported lower vaccinations compared to their White and Asian counterparts. In addition to physical health concerns, the pandemic affected social and economic wellbeing across Massachusetts leading to increased job losses, economic instability, social isolation, and other concerns.

PRIORITY HEALTH NEEDS OF THE COMMUNITY

In June 2021, members of the NWH Community Benefits Committee reviewed the updated data from the areas of need (housing, transportation, mental health, substance use, access to care, COVID-19) in the community health needs assessment and their impact on the most vulnerable populations identified (seniors, immigrants, and low-income residents). The Community Benefits Committee members also reviewed the previous priorities from the 2018 CHIP (Mental Health, Substance Use, Access to Care, Social Determinants of Health, Chronic Disease, and Other Identified Community Needs).

Committee members were instructed to consider the following criteria for ranking these needs:

- Achievable/Feasible
- Precedence
- Continuity
- Community Need
- Alignment with hospital and community initiatives

In late July 2021, committee members utilized a prioritization matrix with the above selection criteria to identify which priority areas should be continued from the previous CHIP. Committee members affirmed that they wanted to keep the previous six priorities but opted to condense them into four broad categories to help with implementation. The Committee members also identified the following priority populations to focus on: elders, youth and young adults, immigrants, and housing insecure residents. The four priority areas of the 2021 one-year CHIP are identified below:

- Mental Health
- Substance Use
- Social Determinants of Health
- Chronic Disease

APPENDIX A: Review of Initiatives

Newton-Wellesley Hospital 2021 Review of Initiatives

Based on the key findings from the 2018 CHNA, Newton-Wellesley Hospital identified six priority areas, each of which aligned with an identified community health need, that included: mental health, substance use, access to care, social determinants of health, chronic disease prevention and management, and other identified community needs. Since the 2018 Needs Assessment, Newton-Wellesley Hospital has provided a variety of services and programming to address the identified key needs and issues.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
		FY18	FY19	FY20
Priority Area: Mental Health				
Priority population: Youth				
Increase and expand access to child and adolescent mental health services	The National Institute of Mental Health reports that 1 in 5 children or adolescents experience a mental health problem before the age of 18. Child and Adolescent Psychiatry Clinic and service serves NWH patients.	There were 3,276 clinic visits in 2018, a 39% increase over 2017. 15% of the clinic visits were referrals from local schools. In FY18, ED visits were 611, an 11% increase from the previous year.	There were 3490 clinic visits, a 5% increase over FY18, 15% of clinic referrals were from local schools. Child psych consults decreased by 8 % in Emergency Department. Expanded capacity with two child psychiatrists and two clinical social workers.	4000 patients were seen in the Child and Adolescent Clinic, a 14% increase over FY19. Offered telehealth visits starting in April 2020 due to COVID-19. 600 pediatric patients were seen for mental health care in the Emergency Department.
The Resilience Project expansion & collaboration	The Resilience Project is a school- and community-based initiative to promote the mental health and well-being of	The Resilience Project incorporated school teams into the 7 high schools in NWH primary service area.	Child psychiatrist and social worker provided ongoing clinical consultation.	A clinical social worker was hired to provide expanded referrals, resources, and virtual visits.

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	adolescents run by mental health providers at NWH. The Resilience project expands access to mental health services, fosters school partnerships, and develops and conducts parent programs. Clinical team includes child psychiatrist, psychologist, and social worker who provide consultation and education to community.	A child psychiatrist and social worker visited the schools over 10 times to address issues of mental health. Included consultations with Special Education educators, guidance counselors, school nurses, and administration.	Clinical team held 17 professional development events, 500 in attendance. Integrated psychologist into project team and expanded group-based supports.	A pediatric psychologist was hired to oversee The Resilience Project and provide additional clinical services. Project expanded to include 11 middle schools in six towns within hospital's service area, reaching 8,000 students. Continued collaboration with 7 high schools (10,000 high school students). Group-based supports through parent skill building programs. 130 participants. Resilience Project team engaged with 1000 participants which included clinical consultation and professional development.
Provide professional development for school faculty and staff	Host annual Mental Health Summit that provides networking and collaboration opportunities for school professionals.	130 community members from NWH's Primary Service Area attended third annual summit focusing on student stress and wellbeing.	100 different school professionals attended fourth annual Summit focusing on resilience in education.	The fifth Summit had 120 in attendance, focused on balancing emotional health and academic success.
Conduct educational sessions and provide programming for student, parents, and	Created custom programming via Resilience Project: • "Raising Resilient Teens" & "Raising Resilient Kids": parent education sessions	Started development of groups focused on Raising Resilient Teens, 45 parents attended the sessions.	60 parents attended Raising Resilient Teens sessions, 30 attended a follow-up drop-in group, and an alumni group was offered.	130 participants in Raising Resilient Teens and Kids program and Resilient Parent Drop-in group. Provided 20 psychosocial presentations for community,

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community on youth mental health.	for managing and preventing problems in children • "Building Resilience" Series: monthly series discussing topics such as vaping, school refusal, benefits of family mealtime, etc. • Professional development for school administrators		Started the development of the "Building Resilience" series. About 550 people attended 25 different events for parents through PTO's, local parent groups, faith-based organizations, and others. 100 people attended the film screening of "Like" with a panel discussion at the hospital.	parents, and professionals on mental health. Launched the "Building Resilience" series with monthly educational sessions for parents and community members. Topics included: school avoidance/refusal, marijuana/vaping, DBT. Published 3 community newsletters with mental health resources. Worked with local media to promote supportive information for parents during COVID-19.
Promote employment, education, and community involvement with support of the Youth Interpreters Program	NWH sponsors a significant portion of the Waltham Partnership for Youth Language Access for Civic Engagements (LACE) Program interns to train as interpreter liaisons with by Cross Cultural Communications, Inc. Program.	20 Spanish/English bilingual teens trained as interpreter liaisons.	25 Spanish/English bilingual teens were trained as interpreter liaisons by Cross Cultural Communications, Inc. 20 community events were held hiring a total of 45 youth interpreters.	8 additional bilingual teens were trained as interpreter liaisons by Cross Cultural Communications, Inc. to become interpreters for community events. Expanded to include Haitian/Creole. 51 students were hired for 27 events.
Convene NWH Health in Higher Education Forums quarterly to address mental health	NWH convenes quarterly meetings with local area higher education leadership to address prevalent mental health concerns on college campuses.	4 forums were held that focused on substance use, mental health, eating disorders, clinical care and dorm settings.	2 forums were held. Focused on: International travel and infectious disease, sexual assault and safety and substance use and wellness communities.	2 forums held. Focused on mental health & substance use, college and hospital collaborations, and the impact

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concerns among young adults in college setting	Colleges include Wellesley College, Babson College, Bentley University, MassBay College, UMASS (Newton Campus), LaSalle College, Boston College, Brandeis University, Regis College, William James College, and others.			of COVID-19 on college campuses.
Priority population: Elders				
Conducted programs on social isolation and frailty for elder mental health by collaborating with community partners	Tai Chi has been identified to improve balance and wellbeing among elders. A Matter of Balance is an intervention that addresses fear of falling and prevent loss of function in elders through coping skills, fall risk reduction, and decreasing activity restrictions. NWH hosts annual senior supper for health education and socialization for seniors. Mindfulness workshops educate seniors about mind-body connection and overall health. Hosted at senior	82 elders participated in the Matter of Balance program 150 seniors attended annual senior supper.	Held 4, 12-week Tai Chi Sessions in collaboration with the Newton Senior Center. 120 community members participated in the program. 128 elders participated in the Matter of Balance program. 150 seniors attended annual senior supper. 12 Mindfulness Workshops were conducted at area senior centers, approximately 200 seniors participated. Worked in partnership with multiple community agencies to include senior centers, housing	90 seniors participated in Matter of Balance. 1000 seniors participated in Newton Senior Center Tai Chi sessions. Tai Chi was offered virtually due to COVID-19 and , so a larger number of community members could access the programming. 50 seniors attended annual senior supper. 3 Mindfulness Workshops were conducted at area senior centers, approximately 45 seniors attended.

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	centers and elder housing facilities. SMART program, developed at Massachusetts General Hospital, provides education on coping tools to relive stressors encountered in day-to-day living. Collaborate with Healthy Connections (Waltham), Newton Senior Services, and Jewish Community Housing for the Elderly		facilities, and social service organizations.	A pilot ran in 2020, with 10 Newton seniors attending the virtually-held SMART program. Expanded partnerships with multiple community agencies, to focus on balance and fall risk programming as well as expanding opportunities for socialization. Began the Senior Community Living Forum with independent and assisted living facilities, focused on COVID, and isolation.
Provide custodial resources for vulnerable patients for a safe transition from hospital to home	Provide housekeeping, laundry, grocery shopping, and prescription pick up	Explored opportunities to support a transition to home service.	Formally developed the Patient in Need program to address immediate patient challenges in maintaining lifestyle, care, necessities. Assisted 104 patients.	Patient in Need program assisted 130 patients in the categories of food, lodging, safety, and others. 30% increase over FY19.
Create an Elder Care Services Council that focuses on the needs of elders in the NWH community	See Appendix B for more information.			
Focus on needs of the caregiver in the arena of elder mental health	Create support programs for caregivers. • Conduct a Caregiver Self-care program in	Took part in focus groups and preliminary work on the pilot Caregiver mobile app.	Held a community education series titled “Partners in Caregiving”. 90 people attended.	

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	collaboration with community Council on Aging. • Pilot Caregiver mobile app in Waltham. • Offer Savvy Caregiver Training (The Healthy Living Center of Excellence) to NWH community caregivers.	App was never launched by initiating group.		
Priority population: Maternal				
Expand maternal mental health services through staffing, clinical tools, and communication resources	One out of seven women experience depression or anxiety during pregnancy or postpartum. Postpartum depression affects 10-15% of the NWH maternal patient population.	Created the Maternity Services Council with a focus to specifically address depression and mental health concerns in maternal patients, see appendix B for more details.	NWH hired a social worker for Perinatal Mood and Anxiety Disorder Initiative, 105 referrals in first six months of the program. Collaborated with 3 OB practices to pilot using screening for maternal patients at 24 weeks prenatal, 6 weeks postpartum, and 6 months postpartum. Development of a postpartum support group for new mothers.	337 patients referred in 2020. 537 since the program began in May 2019. Social work coverage increased to 24 hours. Expanded the Post-Partum Mothers Support group to two days per week with 11-15 new moms attending each session. Shifted to virtual during COVID-19. Expanded presence on the web for on-going education and information sharing.
Provide opportunities for community education on		A lecture on post-partum depression was held.	Community lecture on postpartum depression had 40 attendees.	Held a community-wide lecture with four workshops focused on healthy pregnancy, 30 attendees.

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postpartum depression and maternal wellness.			Established web-based platforms for education and information sharing.	
Priority population: Immigrants				
Improve cultural competency in mental health services for immigrant communities	Make materials available in a variety of languages. Involve bi-lingual and culturally diverse clinicians in outreach efforts. Provided clinical staff with training on providing patient advocacy that included instructions on cultural factors. Provided hospital-wide communication on utilizing interpreter services. Included how to access Interpreter Services in new employee orientation. Educated and raised awareness on cultural competence through an on-line education platform Provided clinical staff with training on providing patient advocacy that included instructions on cultural factors.	Provided 6844 completed Interpreter Service requests, including face-to-face, telephonic, video, ASL.	Provided 7365 completed Interpreter Service requests, including face-to-face, telephonic, video, ASL. Provided translated documents for: discharge instructions, patient rights, menus, and patient education.	Provided 10,616 completed Interpreter Service requests, including face-to-face, telephonic, video, ASL. A 44% increase over FY19. Provided translated documents for: discharge instructions, patient rights, menus, and patient education and patient guidebook. Ensured that the website and signage was available in the top five NWH languages: English, Spanish, Russian, Chinese – Cantonese, Chinese-Mandarin. Translated COVID Safe Care guidance in 12 languages, including COVID-19 Hotline information. Translated FAQ documents. Distributed materials to over 4000 Waltham residents a community which was highlighted as a hot-spot community in the pandemic.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
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Priority Area: Substance Use				
Expand access to and resources of the Substance Use Service.	NWH's Substance Use Service (SUS) provides consultative and outpatient services to adults with substance use disorders using a multidisciplinary approach.	SUS clinicians consulted >100 new patients and completed >200 patient referrals from primary care, inpatient care, and emergency department clinicians.	SUS clinicians completed 337 patient visits (68% increase over FY18) for those referred by NWH primary care, inpatient Hospitalist service, and emergency department clinicians.	SUS clinicians completed 800 patient visits (137% increase over FY 19). There was a 350% increase in new patient visits (FY20 = 284 vs. FY19 = 63). Patients were referred by NWH primary care, inpatient Hospitalist service, and emergency department clinicians. Expanded the SUS Service team to include a recovery coach and a licensed clinical social worker. Recovery Coach conducted weekly support sessions (via zoom during COVID-19). There have been 200 participants involved in the sessions.
Educate clinicians, pharmacists, and public health officials on best practices and roles in pain management and addiction	Expert substance use clinicians continued providing training in pain management and addiction to clinicians via education.		SUS clinicians provided education and training to medical personnel.	Piloted a Primary Care Physician Champion to provide consult and training on prescribing guidelines, tools, and safety in a primary care setting. Works as a liaison for referrals and transition of care between PCP practices and SUS clinic. Medical grand rounds were conducted and open to the

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				medical community, the focus was specific to addiction and COVID-19.
Address stigma associated with substance use by collaborating with community partners and other outreach efforts	SOAR Natick, which stands for Supporting Outreach and Addiction Recovery, is a support group for those with a loved one suffering from substance use disorder. The Purple Flag project plants purple flags in public spaces to represent Massachusetts residents that have died from an opioid overdose in the past year. Public displays were designed to encourage community and hospital staff engagement to reduce stigma around addiction. NWH staff and clinicians served in leadership roles on community initiatives and collaborations with local health departments, police, fire, and schools. Involvement included Newton Prevention, Awareness, Treatment and Hope (PATH).and MetroBoston		Partnered with SOAR Natick during International Overdose Awareness Day and National Recovery Month on two displays, one at NWH and another in the surrounding community. The Opioid Project displayed artwork and recordings of personal stories of people affected by the opioid epidemic. The Purple Flag Project displayed flags as a reminder of lives lost to the opioid epidemic in Massachusetts. Clinical and administrative staff involvement in community efforts.	NWH continued its partnership with SOAR Natick during International Overdose Awareness Day and National Recovery Month on two displays, one at NWH and another in the surrounding community. The Opioid Project displayed artwork and recordings of personal stories of people affected by the opioid epidemic. The Purple Flag Project displayed flags as a reminder of lives lost to the opioid epidemic in Massachusetts. On-going clinical and administrative staff involvement in community efforts.

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	Project Outreach, in addition to others.			
Provide resources to community partners for needed substances.	Distribute EpiPens to community partners and locations.		Provided 104 doses of EpiPens to local fire departments and colleges.	Provided 100 doses of EpiPens to local fire departments and colleges.
Provide substance use education and resources.	Substance use resources and treatment options were provided at all events. Provide education forums to various organizations throughout the community including education to school programs with youth, parents, and educators.	Conducted a community wide lecture on Vaping and Juuling. Created a Juuling Tool Kit that was distributed to community public health departments, schools, and parents.	Conducted community wide education through lectures, forums, and school-based curriculums on vaping, marijuana, and substance use with internal and external experts for various community organizations, parents, youth, and educators.	Conducted community wide education through lectures, forums, and school-based curriculums on vaping, marijuana, and substance use with internal and external experts for various community organizations, parents, youth, and educators. A variety of mediums were used such as film documentaries, Q&A, personal story sharing, research. Events were conducted virtually post-March 2020.
Collaborate with local community-based organizations, local and statewide agencies to address the opioid crisis.	NWH collaborated with the Middlesex District Attorney's office to create the Charles River Regional Opioid Task Force The task force meets monthly and brings community stakeholders together to focus on a collaborative, public safety		The hospital supported monthly forums with multidisciplinary community partners to promote education, community programming, sharing of data, exchange of best practices, and opportunities for collaboration for Charles River Regional Opioid Task Force.	Programming shifted to a virtual format, which allowed for increased collaboration with community organizations. Members of the NWH SUS clinical team and community benefits regularly participated and presented at the meetings

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	approach to addressing the opioid crisis.			
Provide prevention mechanisms to address substance use	Access and use of Narcan is an effective option for treating drug overdose. NWH provides Narcan and training to community partners to support their efforts of dealing with the opioid crisis. Naloxone kits are also made available to those who present at the hospital with an opioid overdose. MedSafe receptacles accepts controlled (Schedules II-V), non-controlled, and over the counter medicines. These receptacles can reduce unintended and illegal use of drugs by providing safe disposal options. Maintain use at hospital pharmacy location.	NWH dispensed 79 naloxone kits to patients in the Emergency Department. Provided 340 doses of Narcan to local community partners police and fire, public health, schools, and shelters. Provided training to community partners, as necessary. Made the MedSafe receptacle available to patients, visitors and community.	NWH dispensed 61 naloxone kits to patients in the Emergency Department. NWH provided 300 doses of Narcan to local community partners police and fire, public health, schools, and shelters. Provided training to community partners, as necessary. Made the MedSafe receptacle available to patients, visitors and community.	NWH dispensed 66 naloxone kits to patients in the Emergency Department. Provided 250 doses of Narcan to local community partners – police and fire, public health, schools, and shelters. Provided training to community partners, as necessary. Made the MedSafe receptacle available to patients, visitors and community.
Community Referral Resource database	*Partner with Massachusetts Health and Hospital Association to develop and promote a Community Referral Resources database for use in continuing care for SUD patients.*			Provided resources to the community through the SUS Clinic and Integrated Care Management and Community Health Workers and Behavioral Health Coaches.

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		FY18	FY19	FY20
Priority Area: Access to Care				
Improve access to primary care for school aged children by providing care, addressing social determinants of health, and collaborating with community partners.	The Pediatric Primary Care Clinic (PPCC) and NWH Waltham Family Medicine provide medical care to children and adolescents who are uninsured and/or who experience primary care access challenges. Clinics also provides help with food access, behavioral health, and financial counseling for MassHealth Applications. Clinicians collaborated on agency boards to promote primary care access by partnering Newton Boy's Girls Club, Mass Medical Society's School Health Committee, local colleges and universities, YMCAs, and local Boards of Public Health	The pediatric clinic had 523 visits, continued to receive youth referrals, and provided care to 30 uninsured patients awaiting Mass Health approval. Expanded language interpretation for clinics through hospital contract. NWH clinicians served on various community boards and in leadership positions in the NWH primary communities.	There were 491 visits to the pediatric clinic, continued receiving youth referrals, and provided care to uninsured patients. Collaborated with Waltham Public Schools to provide bi-lingual information on care access. NWH clinicians served on various community boards and in leadership positions in the NWH primary communities.	There were 375 visits to the pediatric clinic, continued receiving youth referrals, and provided care to uninsured patients. The newly hired Waltham Community Health Worker provided support and resources related to social determinants of health. NWH clinicians served on various community boards and in leadership positions in the NWH primary communities.
Expand palliative care services	Expand palliative care service into outpatient and community settings, see further detail in Appendix B.	Palliative Care Council focused on access to palliative care in outpatient settings, see Appendix B.	Support the exploration of a care model to expand palliative care in hospital and provider practice locations.	Palliative Care Council continued to support the exploration of the possibilities for growth of palliative care access into outpatient and primary care settings.

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		FY18	FY19	FY20
Convene DPH regarding access and care in hospitals and community	Convene Departments of Public Health and local community agencies on a quarterly basis to communicate challenges, share best practices, review services, and strategize solutions.	NWH Emergency Department provided data on a quarterly basis in the areas of top five diagnosis, overdose, and behavioral health	Topics included Stop the Bleed program, vaping diversion and cessation programs, tools for data gathering, substance use, and behavioral health. NWH Emergency Department provided data on a quarterly basis in the areas of top five diagnosis, overdose, and behavioral health.	Topics included behavioral health, safety, and COVID-19. NWH Emergency Department data is provided on a quarterly basis in the areas of top five diagnosis, overdose, and behavioral health. Increased frequency of meetings and consistent communication due to COVID-19. This preexisting structure eased communication during COVID-19.
Care Finder service	NWH's Care Finder Program makes primary or specialty appointments for those in need of care including Medicaid and uninsured patients.	Total year end call volume was 8000 calls.	Total year end call volume for was 8000 calls	Total year end call volume was 7500 calls.
Expand access for health appointments and discharge transportation	Expand hospital use of Circulation/Lyft Non-Emergent transport service to enable patients to come to and leave the hospital with greater ease. Provide Taxi vouchers through Veteran's Taxi for certain low-income populations that have difficulty accessing	Facilitated 411 rides through the Circulation/Lyft platform for ease of access to and from hospital care. Taxi voucher program provided Veteran's Taxi for clients of homeless shelters, residents of low-income housing, and seniors.	Facilitated 1,507 rides through the Circulation/LyftPlatform. This was an increase of over 200% compared to FY18. Veteran's Taxi provided vouchers for residents of low income housing to have ongoing access to needed healthcare services.	Facilitated 1422 rides through the Circulation/Lyft platform. Expanded use of Circulation/Lyft by the Emergency Department, Cancer Center, and Integrated Care Management Program. Provided taxi vouchers from Veteran's Taxi for residents of low-income housing to have on-

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	transportation for healthcare services.			going access to needed healthcare services.
Convene NWH Health in Higher Education Forums	NWH Health in Higher Education Forums meet quarterly and bring together hospital and college leadership to strategize on access to care of college age patients/students.	Approximately 25 leaders attended each forum. Forum topics included mental health, depression, opioid use, availability of cannabinoids with marijuana recreational use approval, eating disorders, and communicable diseases in dorm settings.	Approximately 25 leaders attended each forum. Forum topics included mental health, depression, opioid use, international travel, sexual violence, and wellness communities.	Approximately 30 leaders attended each forum. Forum topics included mental health, depression, and opioid use. Experts addressed COVID-19 concerns. Shared safety strategies for students including testing resources, residential living, and others.
Expand "off hours" clinics	Explore/expand development of "off hours" clinics in areas where patients do not have daytime flexibility for medical visits/treatments. Pursued through a broader hospital strategy to include consideration for community impact.			
Address basic needs for patients' medical condition with no alterative options	Multidisciplinary teams link patients to ongoing clinical and social services including food, lodging, safety, and other needs.		Aided 104 patients.	Aided 130 patients, a 30% increase over FY20.

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Incorporate community health worker (CHW) in NWH primary service area communities.	Community health workers linked families to community resources and offered ongoing support for accessing services.		Waltham practice location hired a community health worker to navigate patient/family needs related to social determinants of health needs.	Expanded CHW role in the Waltham community. Hired a CHW to serve the Newton and Needham. Exploring CHW roles in the Natick, Weston, and Walpole.
Collaborate with home care providers to address COVID-19	Convened the assisted and independent living facilities in NWH communities to respond to COVID-19 pandemic. Forums shared content expert information, relayed best practices, and aligned services.			25 assisted and independent living facilities gathered for first meeting. Given the positive feedback, the forum will continue quarterly.

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		FY18	FY19	FY20
Priority Area: Social Determinants of Health (SDOH) including Built Environment, Social Environment, Housing, Violence and Trauma, Education, Employment				
Built Environment				
Promote enhanced food access and healthy eating	Wellness Collaboration with Healthy Waltham mobile food pantry with cultural and age group considerations Support the Summer Eats program alongside Waltham Boys & Girls Club that provides children with free meals during the summer. Distributed promotional material about the program in both Spanish and English.	Summer Eats program served 33% more free meals to Waltham youth.	Includes breakfasts, snacks, lunch and dinner. In 2019 there was a 15% increase in meals served from 2018 and a 56% increase over 2017.	Supported Summer Eats adjustment due to COVID-19 while still addressing hunger needs.
Waltham Wellness Collaboration	Supports Healthy Waltham collaborative that works to promote healthy and active lifestyles. Supports Waltham Connections for Healthy Aging, a model that promotes healthy aging for local seniors that face economic, ethnic, or other barriers.	Walking Waltham initiative focused on Waltham's natural spaces and city streets. Held 1 physician led "Walk with a Doc" sessions, 60 seniors attended the session. Supported Healthy Waltham on implementing a new school wellness policy. Actively participated in Waltham Connections program.	Continued Walking Waltham. Held 7 physician led "Walk with a Doc" sessions, 60 seniors at each session, 400 total. Supported Healthy Waltham to participate in the School Health Advisory Committee to implement policy change as necessary. Actively participated in Waltham Connections program.	"Walk with a Doc" suspended due to COVID-19. Partnered with Healthy Waltham to distribute food to 800 clients, up from 200, during COVID-19. NWH provided additional financial support, COVID-19 care kits, and 61 flu vaccines at a mobile food market site.

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	Activities include: • Walking Waltham initiative to engage entire community (ages 2-96) and get more people walking, reduce obesity, and combat stress. • "Walk with a Doc" sessions with seniors to promote health education, physical activity, and socialization. • Conduct in-school programming around healthy eating and choices for Waltham youth	Conducted in-school programming for healthy eating and nutrition.	Continued programming for healthy eating and nutrition.	Continued participation in Waltham Connections for Healthy Aging. Continued programming for healthy eating and nutrition.
Social Environment				
Support Waltham Partnership for Youth Transportation study	Sponsored the Waltham Partnership for Youth (WPY) Rides Together study to address transportation needs of youth and families. The study considers how transportation systems can be designed to serve all people more efficiently, affordably and safely.	The study examined existing policy and practice in Waltham around transportation; engaged community members to identify gaps in current infrastructure; and proposed possible solutions.	The study identified three priorities to improve outcomes for transportation in Waltham. Engaged and collaborated with stakeholders to make changes.	Continued efforts to address the need for efficient affordable and safe transportation options in the City of Waltham,.
Housing				
Engage with housing facilities	Partner with low- income housing facilities (seniors and	Explored possibilities of clinical linkages with housing facilities.	Continued to engage in conversations regarding NWH	Program launch was put on hold due to COVID-19.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
		FY18	FY19	FY20
	others) to provide flu vaccines, educational programming, and clinical advisement		clinical care embedded in local housing facilities Began discussions for providing educational programming to low income housing facilities in Newton.	
Provide health programming to homeless shelters	Provided resources during COVID-19 (burner phones, masks, PPE supplies). Gave consultation for creation of testing site at the center.	Provide items and resources to local homeless shelters. Conducted annual flu clinics at shelters.	Provide items and resources to local homeless shelters. Conducted annual flu clinics at shelters.	Provided tangible and intangible supports to homeless shelters during COVID-19 to include PPE supplies, burner phones and clinical consultation. Conducted annual flu clinics at shelters
Improve culturally competent health care	Address the hospital's adequacy in delivering culturally competent care to vulnerable patient populations	Provided education on use of and access to Interpreter Services. Improve language access signage throughout the campus.	Provided education on use of and access to Interpreter Services. Improve language access signage throughout the campus.	Hospital created an Office of DEI and appointed a Chief to lead the efforts, hospital wide. Integrate NWH strategic imperatives and MGB United Against Racism objectives. Expanded education on services provide through Interpreter Services to enhance language access for patients and community members.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
		FY18	FY19	FY20
Violence and Trauma				
Expand NWH domestic and sexual violence program.	The Domestic Violence/ Sexual Assault (DV/SA) Program provides free, voluntary, and confidential services to patients and employees who are experiencing domestic violence, family violence, and sexual assault. The DV/SA program includes counseling, consultation, advocacy, education, partnerships including: • Supported capacity building of DV specialists in community including healthcare providers, institutions, and probate and family court • In-kind donations and expertise to local shelter	The DV/SA program served over 250 survivors, provided over 1,000 healthcare providers and multidisciplinary professionals.	The DV/SA program served over 500 survivors. Program provided 1500 hours of safety planning, counseling, and advocacy for survivors. Implemented domestic and sexual assault violent training for healthcare providers across state and locally. Held conference on trauma and oppression in the childbearing year, the Black maternal health crisis, transgender parents, and the impact of the political climate on immigrant parents and their children.	The DVSA program served over 734 survivors, 45% increase over FY19. The program provided 1000 hours to survivors. Additional thousands of hours were devoted to community education, training, policy development, and collaboration. Program provided $17,000 in emergency funding to victims for basic needs through the Domestic and Sexual Abuse Council. Provided COVID-19 self-care informational materials in multiple languages, COVID-19 Care Kits, and PPE to shelters and DSV organizations.
Oversight and participation in the National Sexual Assault Nurse Examiners (SANE) Telenursing Center at NWH	NWH's National TeleNursing Center (NTC) uses telehealth to support the delivery of quality, trauma-informed care for sexual assault patients.	The NTC provided education to hundreds of providers across the country to improve quality of DV/SA services and expanded access to national SANE protocols.	Program staff continue to serve on the project management team of the National SANE TeleNursing Center (NTC). The Center served six pilot sites across the nation.	The SANE Center served eight pilot sites across the nation on a 24/7 basis, providing real-time consultation to clinicians serving survivors of acute sexual assault at military installations, on Native American reservations, and in rural parts of the country.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
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Expand trauma-informed care approach	DV/SA program is part of a multidisciplinary Team, including the SANE program, several local district attorney's offices, and multiple local police departments, known as the Custody Awareness Collaborative (CAC), that infuses trauma informed practices into local police departments.	Supported CAC program by expanding collaboration to include campus police forces and Title IX coordinators.	Supported CAC by translating a toolkit into Spanish, advised on and facilitated the publication of "Like I am Invisible": IPV Survivor Mothers' Perceptions of Seeking Child Custody through the Family Court System.	The partnership trained numerous community-based victim services through education platforms, trainings and consultations.
Address abuse in vulnerable populations: elders, LGBTQ, immigrants	Grow accessibility for Latin, Spanish speaking, and undocumented survivors who are disproportionately at risk. The DV/SA program continued collaboration with REACH Beyond Domestic Violence. Participated in abuse later in life partnership alongside REACH Beyond DV, Springwell Elder Protection Services, Middlesex County DA Office. Trains community-based victim services providers and detectives in 7 counties. Build capacity around LGBTQ partner abuse and trauma.	Continued participation in abuse in later in life partnerships. DV/SA placed a bilingual intern with Latinas Know Your Rights Program with REACH and Greater Boston Legal Services. Continued other collaborative programs and activities including: • culturally and linguistically specific support groups • expressive art therapy groups • community education events were marketed in Spanish, with bilingual materials and interpretation available.	Provided a $50,000 grant to REACH Beyond Domestic. Began hiring a bilingual social worker in Waltham to better serve Latinx survivors of abuse and their children. Of REACH's total number of clients, over half are of Latina descent. Continued collaborative programming with REACH: • Culturally and linguistically specific support groups • Expressive art therapy • Community education series for parents concerning bullying (bilingual in Spanish, interpreter provided)	Continued collaboration with REACH Beyond Domestic Violence and Greater Boston Legal Services. Directly served over 150 Latinx survivors in Waltham, 60 families received emergency assistance, and 60 survivors received UVisas and asylum status. The DSV Council supported resources translation into 13 languages.

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		FY18	FY19	FY20
		• weekend retreat for female and genderqueer survivors • "Night of Healing" for survivors of sexual assault	Partnered to provide programing to address partner abuse and trauma in LGBTQ communities. • Partnered with The Network/ La Red to present a day-long conference on LGBTQ • panel presentation on "Breaking the Silence: Confronting Domestic Violence in LGBTQIA Communities" at Brandeis University. • Participate on the LGBTQIA Domestic and Sexual Violence Coalition.	
NWH Health In Higher Education Forums quarterly	Address sexual violence within the college age population through Health in Higher Education Forum meetings dedicated to college student health issues including sexual violence. Local area higher education leadership attends including Deans of Student Life, Directors of Student Health, Medical Directors, Public, Safety Leadership, and Chaplain Services.	NWH convened quarterly meetings with local area higher education leadership to address prevalent health concerns on college campuses.	NWH continued to convene quarterly meetings, approximately 25 leaders attend each forum, and sexual violence was discussed.	Continued quarterly forums, pivoted to virtual format during COVID-19.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
		FY18	FY19	FY20
Create a hospital council focused on domestic and sexual abuse	See Appendix B for further details.			
Employment & Education				
Participate in internship programs and provide healthcare career exposure	NWH participated in Waltham Partnership for Youth and Newton Health and Human Services Internship programs. Provide opportunities for youth to gain career exposure and learn from professionals about career opportunities. Provide student and adult populations through healthcare career exposure through fairs, internships, and career-focused opportunities. Partnered with One Family, Inc. to develop an educational program for clients in the OneFamily Scholar Program. NWH staff attend career fairs, club meetings, and spoke at events to educate attendees on healthcare career options.	Hosted two student interns from the Newton Mayor Youth Internship Program through Newton Health and Human Services. Hired two Waltham High School students through the Waltham Partnership for Youth summer Internship program for exposure in imaging and rehabilitation departments. Began planning for a Lunch and Learn event to be held in October 2018 alongside OneFamily Scholar Program. Began planning for a Career Night to be held at NWH focusing on careers that require less than four-year degrees, certificate programs, or formal schooling.	Established a three-year plan to provide sponsorship for the Youth Intern Coordinator at Waltham Partnership for Youth. Hired 14 Waltham High School students through the Waltham Partnership for Youth Summer Internship. 4 students were offered employment at the conclusion of the program. Held a Lunch and Learn at NWH for the One Family Scholars Program to expose adults to healthcare environment. Held a Career Night at NWH focused on careers requiring a two-year degree, certificate programs, or alternative training. Geared to high school students. Had 70 attendees.	Hired 20 Waltham High School students through the Waltham Partnership for Youth Summer Internship. Provided support to WPY for the Youth Intern Coordinator. Conducted weekly career exploration sessions for community teenagers through the NWH Volunteer Program, 38 student volunteers attended. Held a virtual NWH Career Event over two evenings with 75 attendees.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
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Provide work-skill based opportunities	NWH provides work skill Based opportunities for students and adults through the NWH vocational volunteer program.	Provided 126 individuals adult and youth in vocational programs with work placement opportunities. Individuals contributed over 8000 hours of service in the year.	Provided 84 adult and youth individuals, in vocational programs, with separate, ongoing work placements. Individuals contributed over 5000 hours of service in the year.	Provided 47 individuals adult and youth in vocational programs with separate, on-going, placement opportunities. Program was suspended due to COVID-19.
Workforce Development Council	See Appendix C for further details			
Priority Area: Chronic Disease Prevention and Management				
Conduct community-based outreach for health education, promotion, and disease prevention	NWH conducts a series of screenings, clinics, health awareness programs in the community. • CPR/First Aid certification for childcare, domestic violence workers, and parents living in homeless shelters with medically complex children • Conduct specialty clinics and screenings including blood pressure and sports injury • Support publication of Waltham Senior Center Newsletter, and translated it into Spanish	NWH conducted 7 specialty clinics/screenings in the community. NWH administered 970 flu vaccines at 14 flu clinics held at various locations in the NWH service areas. Partnered with Mt. Auburn Hospital to offer an 8-week Freedom From Smoking class smoking cessation class in Waltham at Charles River Health Center. 11 individuals signed up for the class, with 2 participants completing the program. 55 NWH clinical experts spoke at various community agencies and school events, and created a	NWH conducted 10 specialty clinics/screenings (senior centers, housing complexes) in the community including blood pressure screenings, advanced care planning, nutrition, stroke prevention, and safe driving. NWH administered 1103 flu vaccines at 13 flu clinics. 60 NWH clinical experts spoke at various community agencies and school event. 54 Domestic Violence workers were CPR/First Aid trained.	NWH conducted blood pressure and sports clinics. Several annual screening events were not held due to COVID-19 but addressed these topics through virtual programming. 50 NWH clinical experts spoke at various community agency and school events, and 600 individuals attended community health educational programs. Senior Webinar series focused on telehealth and cardiac care during COVID-19. 220 seniors attended.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
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	• Created the Senior Webinar Series during COVID-19 to address increased isolation among seniors.	monthly online Hot Topics segment for health education. 220 childcare workers. 64 Domestic Violence workers, 15 parents, who are residents of the Home Suites family homeless shelter, were CPR trained.		
Programs to address mobility function and fear of falling programs	See elder mental health under mental health priority	82 seniors took part in the Matter of Balance program.	Seniors took part in Matter of Balance (128) and Tai Chi programs (120).	90 seniors participated in the Matter of Balance Program. 1000 seniors took part in Tai Chi programming conducted by the hospital.
Promote home safety and safe care for seniors	Provide home care services to vulnerable populations through Neighbors Who Care (Waltham) and Newton At Home (Newton).	Explored opportunities to provide at home services for patients returning to the community.	Supported outside organizations with this expertise.	Supported outside organizations with this expertise.
Support programing to patients and caregivers for cardiac care issues	Offer Cardiac care support programming to patients and caregivers to address issues associated with cardiac care. Create Cardiovascular Council, see Appendix B.			
Provide cancer education and screening	NWH Cancer Center conducts annual Empowered Health, Empowered You focusing on self-care and cancer prevention		40 patients were seen during the annual skin cancer screening event.	102 individuals attended Empowered Health/Empowered

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
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options to at-risk populations	in community. Also conducts annual Cancer Survivorship event.		100 attendees participated in Empowered Health/ Empowered You women's cancer event. 90 attended cancer survivorship event (90 attendees),	You event, held virtually due to COVID-19. 120 individuals attended survivorship program, held virtually due to COVID-19.
Support local health & wellness initiatives	Send NWH representatives to community health, wellness, and safety events education events. NWH clinicians serve on local boards providing outreach to community.	NWH had representatives at 20 health community events such as Think Pink, car seat safety, scout first aid, and advanced care planning.	NWH had representatives at 100 health community events including: Swim Safety Event in partnership with Jewish Community Center, Living Well, Dying Wisely" in partnership with Good Shepard Community Care, and a Loneliness Forum in partnership with the Middlesex District Attorney's Office. Additional involvement was in collaboration with schools, businesses, chambers, senior living facilities, and others.	Due to COVID-19, in person events were suspended. NWH representatives participated in many virtual programs with schools, health departments, businesses, and others.
Priority Area: Other Identified Community Health Needs				

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
		FY18	FY19	FY20
Expand and conduct emergency preparedness	NWH facilitates emergency planning in the community by: • Participating in local, state, and regional emergency preparedness planning • Convening community partners for emergency management planning. • Serving in leadership capacity for local emergency management and disaster planning. • Partner with multiple agencies to prepare for the Boston Marathon. NWH also offers trainings and resources for emergency preparedness in the community including: • Tabletop exercises are discussion-based sessions where team members meet to discuss roles during emergency response. • Stop the Bleed is a training program from the American College of Surgeons that teaches	Conducted 4 Active Shooter Drills in City of Newton. Conducted 1 tabletop exercise with Waltham Provided 25 hemorrhage control kits for Newton Public Schools. Provided City of Newton with replacement Halo seals for kits. Conducted a Massachusetts Emergency Management Agency functional exercise for the Boston Marathon Conducted Mutual Aid Coordinating Entity and Urban Area Strategic Initiative presentations. Conducted numerous other presentations on emergency management to	Conducted Stop the Bleed sessions for community First Responders (10 attendees) and to school nurses. Presented program to Public Health Leaders. Conducted a Massachusetts Emergency Management Agency functional exercise for the Boston Marathon. Hosted an Emerging Infectious Disease Conference for hospitals and public health partners. Planned and conducted Active Shooter Drills in City of Newton. Conducted drills with Newton Fire and Cataldo Ambulance. Conducted tabletop exercise in Waltham.	Conducted 2 Active Shooter Drills in City of Newton. Conducted drills with Newton Fire and Cataldo Ambulance. Conducted a tabletop exercise with Waltham. Provided hemorrhage control kits for Newton Public Schools, as needed. Provide City of Newton with replacement Halo seals for kits, as needed. Boston Marathon planning suspended due to COVID-19. Addressed COVID-10 by convening community partners for planning, ensured regular meetings, and served as a content expert.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
		FY18	FY19	FY20
	people how to stop bleeding in severely injured persons. • HALO seals are high-performance occlusive dressings that can treat entrance and exit wounds.	community organizations Hosted a disaster training in partnership with National Disaster Interfaith Network for Boston area chaplains. 30 community chaplains attended and received certification.		
Develop partnerships and collaborations to address community health needs.	NWH created a model to expand community engagement, outreach, and services in areas identified in the 2018 CHNA. The model is known as The Collaborative for Healthy Families & Communities (CHF&C), and it includes 8 councils. The CHF&C is run by a Medical Director, a Director, and program outreach coordinator to facilitate the CHF&C collaborative. Each council has 20-35 members, 50 percent of councils are made up of community members who are passionate or have subject area expertise. Each council has two co-chairs that are community	Started planning for the addition of the following councils: • Domestic and Sexual Violence Council • Elder Care Council Examples of annual lectures included: • The Resilience Council held a screening and panel discussion of the film Screenagers. • The Collaborative held a lecture and discussion on Juuling and Vaping in schools. Both events had over 100 attendees.	Created the following additional Councils: • Domestic and Sexual Violence Council • Elder Care Council • Substance Use Council • Work Force Development Council • Cardiovascular Council Annual lectures included 6 lectures focused on postpartum depression, youth mental health, substance use, domestic and sexual violence, caregiving, health careers were held. Attendance ranged from 20 to 160 community members at each lecture.	500 people attended the Council programs virtually during COVID-19. Over 150 individuals were involved on the 8 councils. See Appendix A for further details on the work of councils.

Activities, Services and Programs listed in 2018 Implementation Strategy	Comment on Activity, Service and/or Program (e.g., collaborations, partnerships, successes, etc.)	Number of Individuals Served, Number of Classes Offered, etc.		
		FY18	FY19	FY20
	members and meets 4 times a year. Full list of Councils: • Resilience Council • Palliative Care Council • Maternity Services Council • Domestic and Sexual Abuse Council • Elder Care Services Council • Workforce Development Council • Substance Use Council • Cardiovascular Health Council Each council explores an initiative that addresses an community need related to the area of focus. Each Council also conducts an annual lecture for the community and promotes engagement and advocacy around their focus area.			

APPENDIX B: List of Community Benefits Committee Members

Last Name, First Name	Role and Organization	Service Area
Booma, Liz *Invitee	Chief, Child and Adolescent Psychiatry, NWH	NWH
Cohen, Shep	Chair, Board of Health	Wellesley
Collier, Duke *invitee	Past Chair, NWH Board of Trustees	NWH
Collins, Chris	Chair, NWH Community Benefits Committee	Wellesley
Cannella, Donlyn	Associate Director of Community Services, Springwell, Inc. *alternate for Jo White	Waltham
Crowley, Rev. Brandon Thomas	Senior Pastor, The Myrtle Baptist Church	West Newton
Daya, Mohini	Medical Director of Primary Care, Newton-Wellesley Medical Group	NWH
DiMaggio, Maria *invitee	Communications & Development Director, Healthy Waltham	Waltham
Dowcett, Kaytie	Executive Director, Waltham Partnership for Youth	Waltham
Gerard, Kim	Manager, Community Outreach, NWH Community Benefits Department	NWH
Jellinek, Michael	Medical Director, Newton-Wellesley Collaborative for Healthy Families and Communities (CHF&C)	NWH
Kay, Linda	Vice Chair, Century Bank	Newton
Lele, Lauren	Director, Community Benefits & Volunteer Services	NWH
McNeil, Josephine	Housing Advocate	Newton
Michel, Myriam	Executive Director, Healthy Waltham	Waltham
Miller, Erin *invitee	Coordinator, Domestic Violence/Sexual Assault Program	NWH
Soe, Yawai	Account Manager, Charles River Community Health Center	Waltham
Sullivan, Steve *invitee	NWH Board of Trustees; NWH Charitable Foundation Board; NWH Overseer, Co-Chair Palliative Care Council	NWH
Thakore, Kosha *invitee	Director, Diversity, Equity & Inclusion, NWH	NWH
White, Jim	Director, Public Health, Town of Natick	Natick
White, Jo	Director of Healthcare Partnerships, Springwell, Inc.	Waltham
Youngblood, Deborah	Commissioner, Health & Human Services	Newton
ZIke, Tiffany	Assistant Director, Department of Public Health	Needham

APPENDIX C: Newton-Wellesley Collaborative for Healthy Families and Communities (CHF&C) Councils

The NWH Collaborative for Healthy Families and Communities (CHF&C) Councils were integral in community engagement and implementation of the 2019 CHIP. Below are descriptions and the primary tasks of each council during the CHIP implementation period.

Council Name	Description & Membership	Recent Council Activities
Cardiovascular Council	Council members, consisting of community and healthcare leaders, evaluate the impact of existing community resources to create a heart healthy community. Additionally, they discuss how to supplement and optimize already existing hospital and municipal programs.	The council works to advance initiatives and education by emphasizing: • Community health programs encouraging physical activity • Preventive health and disease management
Domestic and Sexual Abuse Council	The Council is committed to robust healthcare and community-based responses to violence and abuse. Council members include survivors, advocates, community members, and healthcare providers.	The council has recently focused on: • Enhancing access for survivors who face linguistic and cultural barriers. • Community education • Strengthening relationships between healthcare and community-based providers • Public health approaches to violence, abuse and trauma
Elder Care Services Council	The Council aims to enhance programs and services to increase independence, safety, and happiness throughout life while respecting the goals of community elders. The council consists of elders, healthcare providers, home caregivers, municipal professionals, and other community members.	The council has recently focused on: • Health and wellness programs such as Matter of Balance, Tai Chi and Mindfulness workshops • Fall risk prevention • Addressing social isolation
Maternity Service Council	The Council seeks to improve Maternity Services during pregnancy and after delivery with a special mission to increase awareness and improve treatment of pregnancy-related depression. The Council consists of members from the community and hospital staff.	The council has recently focused on: • A screening tool to be used three or more times during pregnancy/postpartum • A new social worker position • Improved communication through social media

		• Support groups for mothers and families
Palliative Care Council	The Council members advocate for and provide philanthropic support to increase palliative care access in the NWH community. The council focuses on education in various forms to support their efforts. Council members have a wide range of experience across different disciplines.	The council has recently focused on: • Exploring ways to support and grow palliative care services in a variety of settings. Providing clinicians at all levels access to the Serious Illness Conversation training
The Resilience Council	The Council consists of volunteer leaders strengthening, expanding, and increasing access to mental health care at NWH for children and their families. The council focuses on improving the impact of Newton-Wellesley Hospital Child and Adolescent Psychiatry Service (CAPS) and the Resilience Project, which helps local schools manage mental health and wellness education.	The council has recently focused on: • Psychiatrist, psychologist, and social worker connections to each high school and middle school in the NWH service areas. • Annual Summit (professional development opportunity for school guidance counselors, nurses, social workers, teachers, and other educators and administrators) • Parent and teen support programs • Community education and outreach
Substance Use Council	The Council addresses best practices for substance use prevention, treatment, and life-saving services in healthcare and community settings. Council members consist of community members and substance use clinicians.	The council has recently focused on: • Recovery Coaches • Psychiatric clinical expertise • Primary care provider support and training • Alcohol use
Workforce Development Council	The Council comprises hospital and community leaders and individuals who are devoted to improving career opportunities, especially for area youth.	The council has recently focused on: • Youth Programs: Waltham summer youth intern program, Newton intern program, NWH student volunteer program. • Student and community exposure to healthcare careers across all levels, including conducting an annual career fair • Opportunities for non-working adults and adults in the workforce

		seeking opportunities for career exposure.