

Needham Community Health Assessment



Needham Public Health Division

January 2024

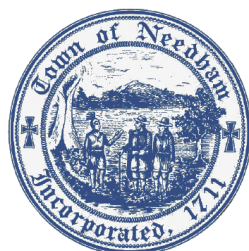


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EXECUTIVE SUMMARY

Background and Purpose

In 2021, the Needham Health Division (NPHD) launched efforts to pursue public health accreditation. Foundational to this work is a Community Health Assessment (CHA). Although the Division has conducted needs assessment for various population groups over the years, this Community Health Assessment is the first comprehensive view of health of the Needham community by the Health Division. The Community Health Assessment provides an understanding of the current health of our community and identifies needs and areas of concern. With this information, the NPHD will engage stakeholders and the broader community to develop a Community Health Improvement Plan that will identify areas that NPHD can work to improve health.

Approach

In order to complete this assessment, NPHD was able to gather primary and secondary data from many sources. Beth Israel Deaconess Hospital Needham (BID-N) conducted a Community Health Needs Assessment in 2022 which provided a baseline for our data and areas of need. Other survey data used included the Senior Assessment conducted in 2022 by NPHD, an Assessment of the Needham Housing Authority Residents conducted by NPHD 2019, The Metro west Adolescent Health Survey conducted in 2021, the Needham Parent Survey conducted in 2022, and the National Community Survey conducted by the Town of Needham in 2022. It is of significance to note that some of this data was collected prior to the COVID-19 pandemic, while some was collected in different phases of the COVID-19 pandemic. This may cause some biases and differences in data, and of course we anticipate that many aspects of health have been and will continue to be impacted by the pandemic for years to come.

Community Health Assessment Priorities

The Community Health Assessment was designed to provide a population-based assessment that covers a full range of health issues affecting the Needham community. Needham Public Health Division reviewed priority areas identified in the BID-N Community Health Needs Assessment and aligned the Public Health Division priority areas within those. After the review of local data, the Needham Public Health Division identified the following priority areas:

Community Health Assessment Priority Areas				
Beth Israel Deaconess Hospital – Needham Priority Areas	Equitable Access to Care	Social Determinants of Health	Mental Health and Substance Use	Complex and Chronic Conditions
NPHD Priority Areas	Access to Transportation Resources for Healthcare Needs	Cost of Living Burden	Mental health and substance use	Physical Health, heart disease and other risk factors

Vision for the Future

Based on data from this Community Health Assessment, the Community Health Improvement Plan (CHIP) will outline community health priorities, initiatives, projects, and policies that will be implemented to improve community health. It will include timelines, assign roles and responsibilities for achieving these goals and provide measures to monitor the impact of efforts. NPHD will monitor progress of the initiatives outlined in the CHIP and will aim to provide another Community Health Assessment Plan in the next five years.

INTRODUCTION

The Needham Board of Health, founded in 1877, and its Public Health Division strive to prevent and control the spread of disease, to address environmental issues, to promote healthy lifestyles, and to protect the public health and social well-being of all Needham's residents, especially the most vulnerable. This work addresses the social determinants of health, or the conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks, as defined in Healthy People 2020.

In 2022, the Needham Public Health Division (NPHD) began the Community Health Assessment process to understand the community's current health status and needs through a comprehensive review of primary and secondary data. The community health assessment identifies priority areas for the Division to focus its efforts and resources to best meet community needs.

BACKGROUND ON ASSESSMENT/COMMUNITY HEALTH IMPROVEMENT PLANNING PROCESS

In 2021, the Needham Health Division (NPHD) launched efforts to pursue public health accreditation. Foundational to this work is a Community Health Assessment. Although the Division has conducted needs assessment for various population groups over the years, this Community Health Assessment is the first comprehensive view of health of the Needham community by the Health Division. The Community Health Assessment provides an understanding of the current health of our community and identifies needs and areas of concern. With this information, the NPHD will engage stakeholders and the broader community to develop a Community Health Improvement Plan that will identify areas that NPHD can work to improve health. Based on data from this Community Health Assessment, the Community Health Improvement Plan will outline community health priorities, initiatives, projects, and policies that will be implemented to improve community health, roles and responsibilities, timelines, and provide measures to monitor impact of efforts

This report describes the details of data collection, data analysis, and the findings of the Community Health Assessment. It is of significance to note that some of this data was collected prior to the COVID-19 pandemic, while some was collected in different phases of the COVID-19 pandemic. This may cause some biases and differences in data, and of course we anticipate that many aspects of health have been and will continue to be impacted by the pandemic for years to come.

ACKNOWLEDGEMENTS/COMMUNITY PARTNERS

The Needham Public Health Division would like to acknowledge organizations and individuals who supported this effort and provided guidance and insights on all aspects of the assessments, including survey and focus group participants along with key informants.

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DATA COLLECTION METHODS

Needham Public Health gathered primary and secondary, quantitative, and qualitative data that could be used to better understand the health of the community and identify areas for improvement. Descriptions of data sources are below.

QUANTITATIVE DATA COLLECTION METHODS

Existing Secondary Data

Existing data from local, state, and federal sources were reviewed to describe Needham as a community. These secondary data sources include the U.S. Census Bureau, the Center for Disease Control's PLACES: Local Data for Better Health, Massachusetts Department of Public Health, and Beth Israel Deaconess Needham Hospital. Tables and graphs of this secondary data are found throughout the report, and data included represent the most recent data collected at the time this report was written. Where available, data is provided for Needham, Massachusetts, and the United States to provide context for the data.

Beth Israel Deaconess Needham 2022 Community Health Needs Assessment

The 2022 Community Health Needs Assessment report for Beth Israel Deaconess Hospital-Needham (BID Needham) is the culmination of a collaborative process that began in September 2021. At the foundation of this endeavor was a desire to meaningfully engage and gather important input from residents, community-based organizations, clinical and social service providers, public health officials, elected/appointed officials, hospital leadership, and other key collaborators from throughout BID Needham's Community Benefits Service Area. Substantial efforts were made to provide community residents with opportunities to participate, with an intentional focus on engaging cohorts who have been historically underserved (1).

The National Community Survey (Needham Community Survey)

The *National Community Survey* is about the “livability” of Needham and was developed by the National Research Center at Polco (2). The survey represents the opinions of a sample of 630 residents collected from April 11, 2022, to May 20, 2022. The survey results were weighted so that the demographic profile of respondents was representative of the demographic profile of adults in Needham. All households within the Town of Needham were eligible to participate in the survey. An individual within each household was selected using the birthday method, which selects a person in the household by asking the “person whose birthday has most recently passed” to complete the questionnaire.

Most commonly, the percent positive is the combination of the two most positive response options (i.e., excellent/good, very safe/somewhat safe, etc.). Throughout this document, this survey will be referred to as the *Needham Community Survey*.

Primary Data

Data specific to Needham residents through surveys or interviews that are administered in whole or in part by Needham Public Health Division:

MetroWest Adolescent Health Survey (Needham Public Schools with Metro West Health Foundation, Education Development Center, and Needham Public Health Division)

In the fall of 2021, middle and high school students in Needham and the MetroWest region (40,000 students in 25 communities west of Boston) participated in the eighth administration of the adolescent survey (3). While the survey was administered every other year from 2006 to 2018, there was a one-year delay in the administration of the survey in the fall of 2021 due to the challenges of surveying youth during remote learning. This was the first time that the survey was administered online; prior administration used paper-and-pencil survey instruments. The online survey administration was possible in 2021 because of increased technological capabilities and the universal prevalence of one-to-one device programs at all participating schools, both of which were accelerated by the need to make online learning possible for all students during COVID-19.

Needham Parent Survey (Substance Prevention Alliance of Needham, a program of the Needham Public Health Division)

The Substance Prevention Alliance of Needham (SPAN) and the Needham Public Health Department conduct a survey of parents/caregivers of students in grades 6-12 every 2 years, in concert with the Metro West Adolescent Health Survey. This survey collects information on attitudes, beliefs, and behaviors regarding underage drinking, youth substance use, and wellness. The survey asked questions in seven broad domains: (1) health and wellness, (2) home and community life, (3) communication with child and other parents, (4) parental attitudes and beliefs about youth substance use, (5) parental perceptions of youth substance use and related behaviors, (6) parenting behaviors, and (7) prevention and support. The anonymous survey was administered online as a questionnaire between April 11 and June 22, 2022. To be eligible, parents had to: (a) have at least one child in grades 6-12 in public or private school in Needham (regardless of town of residence) or (b) be a Needham resident with at least one child in grades 6-12 in a school outside of Needham. This was the sixth time the survey was administered.

Assessment of Needham Housing Authority Residents (Needham Department of Health and Human Services and Needham Housing Authority)

In an effort to understand the needs of residents and to increase access to a range of Town services, the Needham Department of Health and Human Services (HHS) conducted an assessment of public housing residents. The survey was

distributed in November 2018 via door-to-door delivery and in January 2019 by mail. The assessment, completed and shared in January 2020, sought to better understand Needham Housing Authority (NHA) residents' sense of the strengths and challenges regarding needs, resources, and opportunities within the community. The results will be used to inform community planning to improve NHA residents' quality of life. Throughout this document, this assessment will be referred to as the *Housing Authority Assessment*.

Needham Healthy Aging Assessment (Needham Public Health Division, Needham Aging Services Division, Needham Community Council, Beth Israel Deaconess Needham)

During summer 2022, the Needham Public Health Division, in collaboration with the Needham Aging Services Division, conducted a Healthy Aging in Needham Assessment focused on residents ages 60 and older. The purpose of this assessment was to gather information on factors supporting and impacting seniors living in Needham. Focus groups and key informant interviews with residents, and town and organizational leaders supplemented anonymous survey data to provide insights into challenges faced by seniors as they age in the community. Throughout this document, this assessment will be referred to as the *Healthy Aging Assessment*.

QUALITATIVE DATA COLLECTION METHODS

Focus Groups

Focus groups were utilized in the *Healthy Aging Assessment* as well as the *Housing Authority Assessment*, and this data is included throughout this report. Focus groups allow for more detailed information about our community which can supplement quantitative data and can often give information which cannot be captured in surveys and other quantitative data tools. Facilitators guide the conversation with specific questions and prompts. Focus groups allow the Needham Public Health Division and other involved entities to collect more information from specific, perhaps underrepresented groups.

Key Stakeholder Interviews

Key stakeholder interviews were conducted for the *Healthy Aging Assessment* and are another important qualitative data collection method. Key stakeholder interviews, like focus groups, allow the Needham Public Health Division to collect more detailed reports on the community. Key stakeholders are representatives from throughout the community—heads of community groups, town representatives, religious leaders, and service providers. The benefit of key stakeholder interviews is the collection of information and perspectives from people who may interact closely with the study populations, who oversee policies, and who are responsible for programming, which gives context and a fuller view of the issues.

DATA LIMITATIONS

Large scale community assessments often face limitations in quantitative and qualitative data collection. Timely quantitative data (within the past 5 years) was a constraint in this assessment. While older data may provide a general baseline of health within our community, it does mean that recent trends in health are not displayed. All data obtained from the Massachusetts Department of Public Health (MDPH) was confirmed to be the most current data at the time of writing the community health assessment. Much of the quantitative data was not available by age or race stratification, which made it difficult to identify gaps that certain populations may face based on this data. However, attempts were made to obtain some such information in focus groups and key informant interviews. Data such as surveys based on self-

reporting may include overreporting, underreporting, recency bias, and recall errors and as such should be interpreted with caution.

Needham HHS and NPHD have specific programs that focus on the under 18 and over 60 years of age populations in town. As a result, more data is available on these populations. More detailed data on the population between these two age groups (19-59 years of age) is necessary.

The COVID-19 pandemic brought unique challenges to our data collection and interpretation. As we have recently exited the public health emergency initiated by the pandemic, it is unclear whether trends in the data may continue with time, or whether we may see a return to a pre-pandemic “baseline”. Future community health assessments may highlight the lasting impact of the pandemic on Needham residents.

DEMOGRAPHIC CHARACTERISTICS

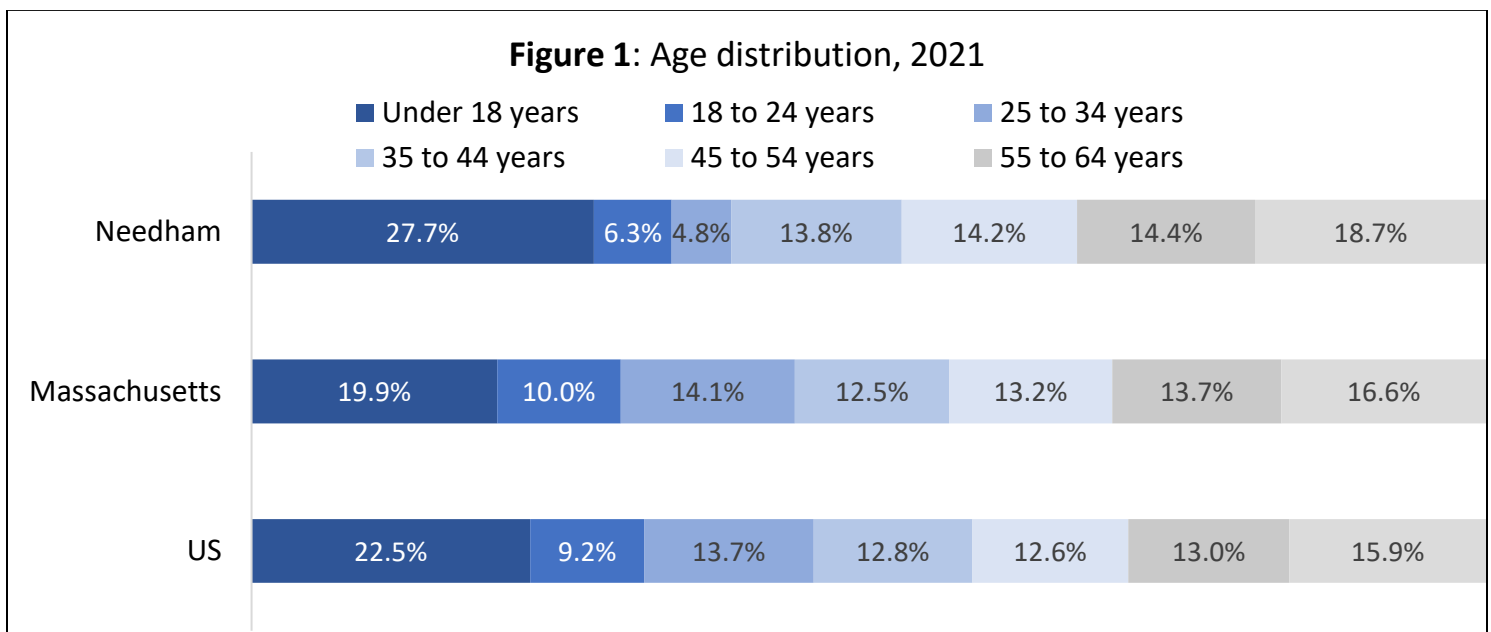
This section details demographic characteristics of the Needham population.

Population Size

Needham is 12.7 square miles in size and has a population of 32,091 as of the 2020 Decennial Census¹. Needham’s population grew 11 percent from 2010 to 2020.

Age

FIGURE 1 shows the age distribution in Needham compared to the United States and Massachusetts in 2021. Overall, Needham has a higher percentage of people under the age of 18 and over the age of 65 when compared to Massachusetts and the United States. Needham has a much lower percentage of people aged 25 to 34 compared to Massachusetts and the United States.

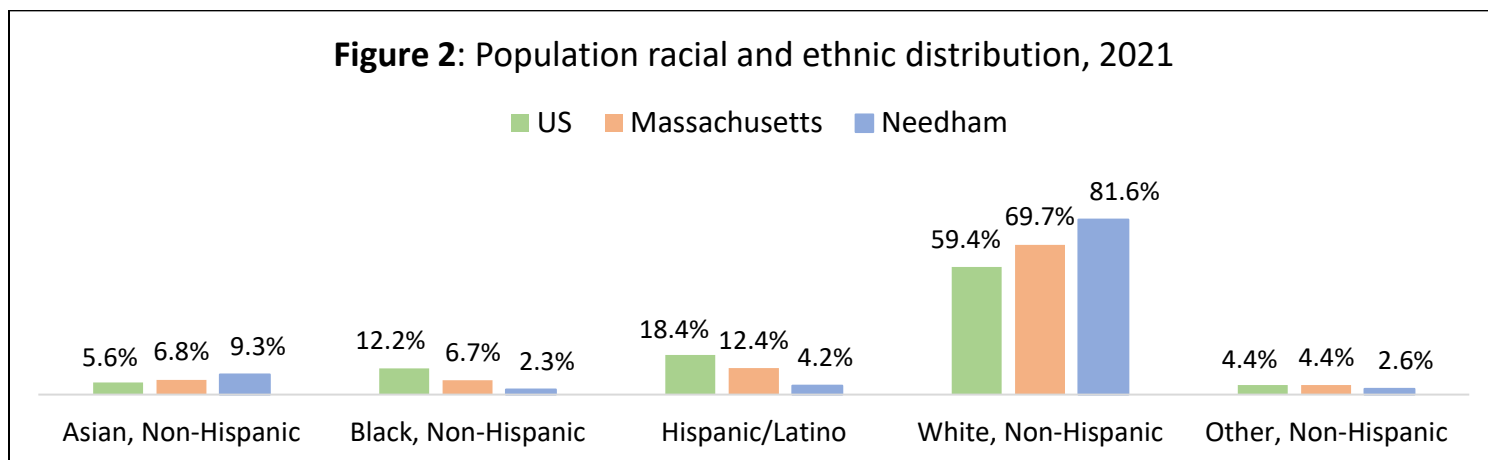


¹ More information on the Decennial Census of Population and Housing can be found here: <https://www.census.gov/programs-surveys/decennial-census.html> . Data accessed via <https://data.census.gov/> .

DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021²

Race and Ethnicity

Needham has a higher percentage of white, non-Hispanic persons than Massachusetts and the United States, and notably lower percentages of black non-Hispanic persons and Hispanic/Latino persons, as seen in **FIGURE 2**.



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

Language Spoken at Home and Foreign-Born Population

In 2021, 81.7% of individuals in Needham spoke only English at home, slightly higher than in Massachusetts (75.6%) and the United States (81.7%). Roughly 18% of Needham residents speak a language other than English at home, the largest proportion of whom speak other Indo-European languages. The full list of Indo-European languages can be found on the US Census Bureau website: <https://www.census.gov/topics/population/language-use/about.html> Less than 1% of Needham residents speak Spanish and 5% of residents speak Asian and Pacific Island languages in their household.

In 2021, 15.2% of Needham's population was foreign born. Among the Needham residents who are foreign born, roughly 40% are from Europe and 40% are from Asia. These are higher percentages compared to Massachusetts and the United States. However, Needham has a much smaller percentage of foreign-born residents from Latin America (11.9%) than Massachusetts (37.7%) and the United States (50.0%) in 2021. Approximately 3% of Needham residents are from Africa and another 3% are from Northern America.

QUALITY OF LIFE

Quality of Life is a subjective perception, for a moment in time, that may include things such as how someone perceives their community, personal values, wellbeing, opportunities that are offered to them, and how those things fit into their personal goals. Quality of Life is important to understand the needs of the community. It often highlights needs that include diverse and equitable access to underserved populations.

Based on key stakeholder interviews for the *Healthy Aging Assessment*, numerous strengths of the Needham community were identified to address health challenges of the community. Needham is perceived to have an engaged, active

² More information on the American Community Survey can be found here: <https://www.census.gov/programs-surveys/acs> . Data accessed via <https://data.census.gov/> .

community and has a profile of collaboration across town services resulting in availability of resources and a reputation for responsiveness.

Specific town resources highlighted include but are not limited to the following organizations and services.

Community Organizations

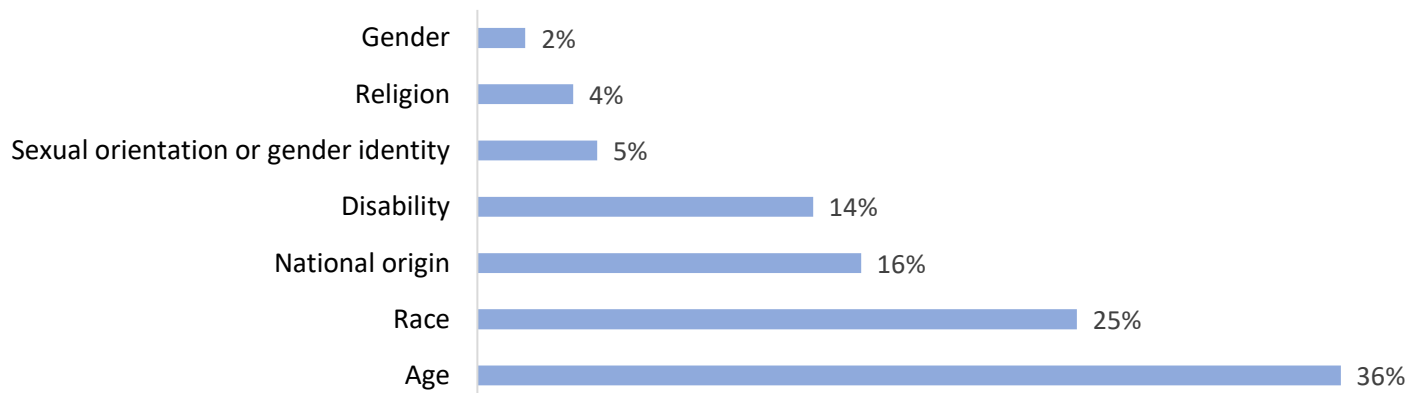
- ◆ Center at the Heights (Senior Center)
- ◆ Needham Community Council
- ◆ Needham Public Health Division
- ◆ Needham Council on Aging
- ◆ Needham Youth and Family Services
- ◆ Needham Police and Fire Departments and Emergency Medical Services
- ◆ Needham Parks and Recreation
- ◆ Friends of Needham Board of Health
- ◆ Needham Public Schools
- ◆ Needham Interfaith Clergy Association
- ◆ Needham Free Public Library
- ◆ The Needham Channel (cable)
- ◆ Needham Community Farm
- ◆ Beth Israel Deaconess – Needham Hospital
- ◆ Needham Community Education (Needham Public Schools)
- ◆ Needham Exchange Club

Community Services

- ◆ Transportation services, MBTA
- ◆ Traveling Meals

While Needham is perceived to have many different strengths, there are also concerns expressed about living in Needham. For example, 41% of The *Needham Community Survey* respondents perceived national origin or race as a barrier to living in Needham and 1 out of 3 respondents reported age as a barrier to living within Needham, as shown in **FIGURE 3**.

Figure 3: Currently perceive barriers to living in Needham:



DATA SOURCE: Needham Community Survey, 2022³

³ Data can be found here: <https://needhamma.gov/3704/National-Community-Survey>.

PRIORITY AREAS

In 2022, Beth Israel Deaconess Hospital – Needham (BID-Needham) released its Community Health Needs Assessment report, a culmination of a collaborative process that began in September 2021. The town of Needham is one of four municipalities in the hospital’s community service benefits area, also including Dedham, Norwood, and Westwood. Given the timeliness and relevance of the hospital’s community health needs assessment and subsequent priority setting, NPHD has given significant weight to these priority areas while also considering the ongoing work of the public health division, historical and current issues of concern to the Needham community, and findings from primary and secondary data analyzed by the NPHD. The alignment of BID-Needham’s and NPHD Community Health Assessments, priority areas, and follow-up actions will help facilitate complimentary and collaborative efforts to best address the needs of the community.

BID-Needham’s Priority Areas

- ◆ Equitable Access to Care
- ◆ Social Determinants of Health
- ◆ Mental Health and Substance Use
- ◆ Complex and Chronic Conditions

EQUITABLE ACCESS TO CARE

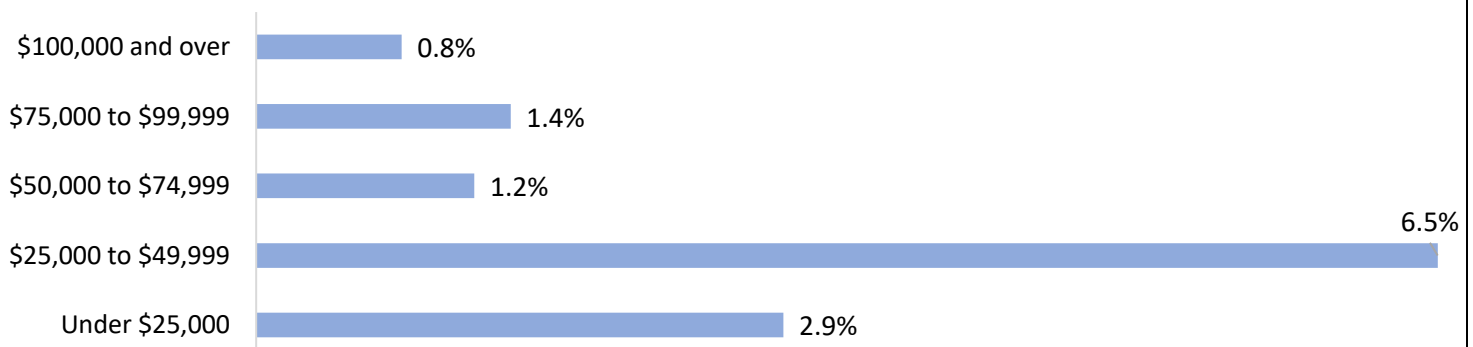
Access to care is critical to people’s health. Barriers to access include, but are not limited to, lack of health insurance, cultural or language differences, lack of a primary care physician, financial constraints, and limited transportation. Healthy People 2030 focuses on improving health by helping people get timely, high-quality health care services (4).

Health Insurance

People who do not have health insurance may be unable to afford the health care and medications they need and are also less likely to have a primary care provider. Without a primary care provider, they may be missing out on preventative care and screenings, or important treatments (4).

According to the 2021 American Community Survey, 1.3 % of the Needham population is without health care coverage, compared to 2.5% without health care coverage in Massachusetts. Rates of uninsured in Needham are highest amongst Black or African American residents (5.0%). The rate of uninsured was also highest (6.5%) among individuals with a household income between \$25,000 and \$49,999 (**FIGURE 4**).

Figure 4: Percent uninsured by household income



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

Preventative healthcare

Needham is broken up into 5 Census tracts, as shown in the map below. PLACES, a collaboration between the Centers for Disease Control (CDC), the Robert Wood Johnson Foundation, and the CDC Foundation, uses data from the Behavioral Risk Factor Surveillance System to provide population level data and community estimates of health measures for the census tracts in Needham.

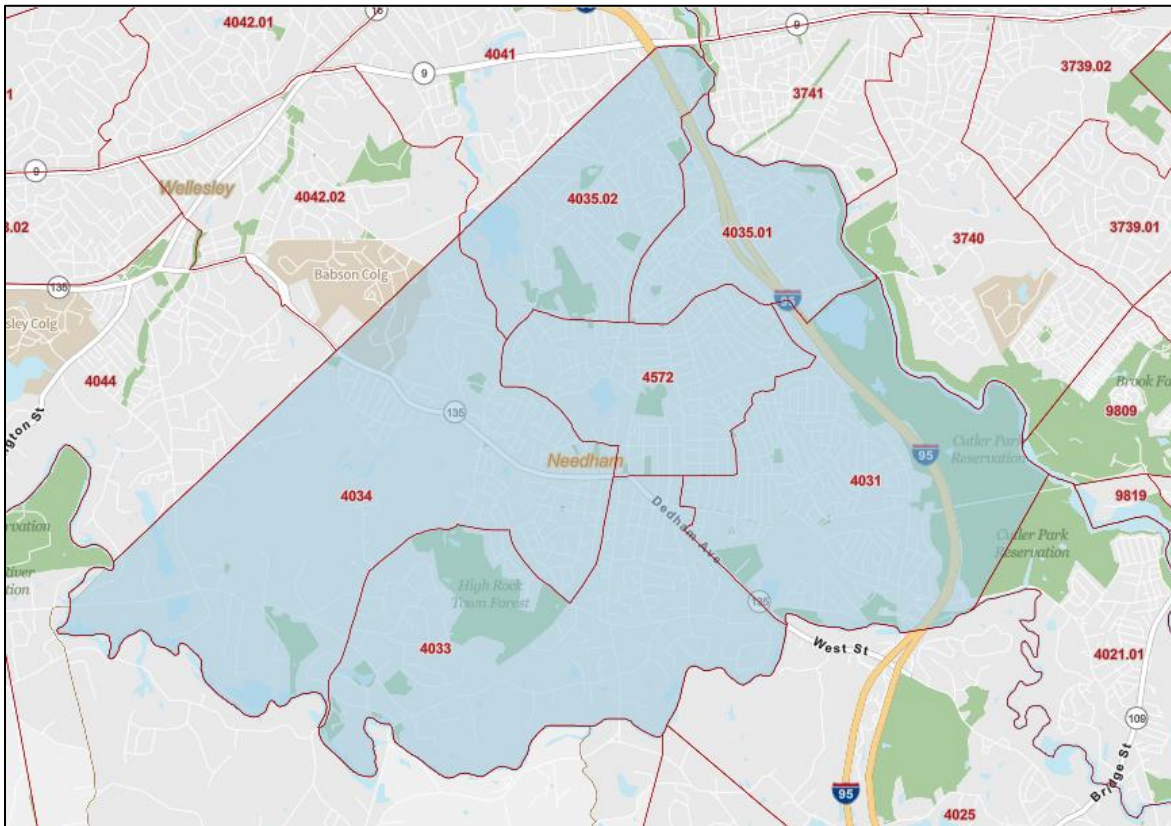


TABLE 1 shows the incidence of a variety of aspects of preventative healthcare, by census tract. The data shows that there are not large discrepancies by census tract in Needham. However, the data displays the differences in preventative measures by Needham residents. For example, the incidences of cervical cancer screening among women aged 21-65 years of age are higher than the incidence of preventative services used among men or women aged ≥ 65 years.

Table 1: Preventative Healthcare Type	4031	4033	4572	4034	4035
Lack of health insurance among adults aged 18-64 years*	2.0	2.0	2.2	2.4	2.6
Annual checkup among adults aged 18 years and older*	75.6	76.1	75.9	76.3	75.2
Dental visit among adults aged 18 years and older	82.0	82.4	81.1	80.6	79.1
Blood pressure medication among adults aged 18 years and older with high blood pressure*	74.8	75.8	76.1	77.3	75.5
Cholesterol screening among adults aged 18 and older*	93.4	93.5	93.0	92.3	92.1
Mammography used among women aged 50-74 years	81.8	82.1	81.3	81.4	80.9
Cervical cancer screening among women aged 21-65 years	90.1	90.3	89.4	88.5	88.7

Colorectal cancer screening among adults aged 50-75 years	82.9	82.9	82.7	82.5	81.2
Preventative services used among men aged >=65 years	61.2	61.6	60.2	59.6	59.2
Preventative services used among women aged >=65 years	47.5	47.3	45.5	43.4	43.8

DATA SOURCE: Centers for Disease Control and Prevention, PLACES Local Data for Better Health, 2021⁴

* Data as of 2021

Barriers to care or delaying care.

Health insurance may not be the only reason people are not getting the health care services they need. Some people may not have access to transportation to get to their appointments or may live too far from their providers. Others may find barriers to making appointments, such as a lack of provider availability. The COVID-19 pandemic introduced a new set of barriers to seeking care, with shortages in staff, a feeling of discomfort entering healthcare facilities, or the inaccessibility of virtual options. Qualitative data from the *Healthy Aging Assessment* included delays in accessing health care. These included but were not limited to long wait times, less availability for dental and eye care, retiring primary care providers, lack of therapist availability, loss of insurance with spouse death, and time commitment issues caring for an ill spouse.

The *Healthy Aging Assessment* found that one quarter of respondents indicated that they delayed seeking health care during the past six months. The most common reason for delaying health care was worry about exposure to the COVID-19 virus. One in five respondents reported difficulty accessing health care during the past six months due to lack of provider availability or long wait times (**TABLES 2 & TABLE 3**).

Table 2: Health Care in the Past 6 months for residents 60+ (n=687)	Number	Percentage
Did not need health care	58	8.4%
Did not delay seeking health care	461	67.1%
Delayed seeking health care	168	24.5%
Missing	51	-
Reasons for Delaying Health Care in Past 6 Months for residents 60+ (n=687)	Number	Percentage *
Did not have transportation	23	3.3%
Worried about exposure to COVID-19	110	16.0%
Did not have anyone to go with	15	2.2%
Some other reason	37	5.4%

*Respondents could choose more than one option so percentages may sum to more than 100%

DATA SOURCE: Survey on Healthy Aging in Needham, 2022⁵

Table 3: Difficulty Accessing Health Care in Past 6 Months for residents 60+ (n=666)	Number	Percentage
Did not need health care	58	8.7%
No difficulty accessing health care	478	71.8%
Had trouble accessing health care	130	19.5%
Missing	72	-

DATA SOURCE: Survey on Healthy Aging in Needham, 2022

⁴ More information on PLACES: Local Data for Better Health can be found here: <https://www.cdc.gov/places/index.html> . Data accessed via <https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65> .

⁵ Data can be found here: <https://www.needhamma.gov/DocumentCenter/View/44472/Senior-Assessment-Report-2022-2023PDF> .

Furthering this, just over a third of respondents in the *Housing Authority Assessment* reported having difficulty doing errands such as visiting their doctor’s office (**TABLE 4**). While the reason for this is unknown, it highlights that there are many factors which contribute to a resident’s ability to access appropriate healthcare.

Table 4: Reported difficulty doing errands such as visiting your doctor's office or shopping for Housing Authority residents (n=108)	Number	Percentage
No	71	65.7%
Yes	37	34.3%
Missing	7	-

DATA SOURCE: An Assessment of Needham Housing Authority Residents, 2020⁶

Access to care.

The *Needham Community Survey* asked respondents to rate various aspects of health and wellness in Needham as “Excellent”, “Good”, “Fair”, “Poor”, or “Don’t know”. Positive responses include those who rated each item as “Excellent” and “Good”. **TABLE 5** shows Needham residents highly rated the availability of affordable quality health care (78% positive) and availability of preventative health services (82%). Far fewer respondents positively rated Needham’s availability of affordable quality mental health care (55%).

Table 5: Health and Wellness	% Positive
Availability of affordable quality health care	78%
Availability of preventative health services	82%
Availability of affordable quality mental health care	55%

DATA SOURCE: Needham Community Survey, 2022

SOCIAL DETERMINANTS OF HEALTH

Social determinants of health have a major impact on people’s health, well-being, and quality of life and contribute to health disparities and inequities (5). Social determinants of health can be grouped into different domains including economic stability; education access and quality; health care access and quality; neighborhood and built environment; social and community context; and violence. One of the Healthy People 2030 overarching goals is specifically related to social determinants of health: “Create social, physical, and economic environments that promote attaining the full potential for health and well-being for all” (5). Similarly, a goal of BID-Needham is to “Enhance the built, social, and economic environments where people live, work, play, and learn in order to improve health and quality-of-life outcomes” (1).

⁶ Data can be found here: <https://needhamma.gov/DocumentCenter/View/24635/An-Assessment-of-Needham-Housing-Authority-Residents-Assets-and-Opportunities>

EDUCATION

Needham residents highly rated education and enrichment opportunities in the community such as K-12 education as seen in **TABLE 6**. Nationally, Needham ranked in the 80th percentile or higher.

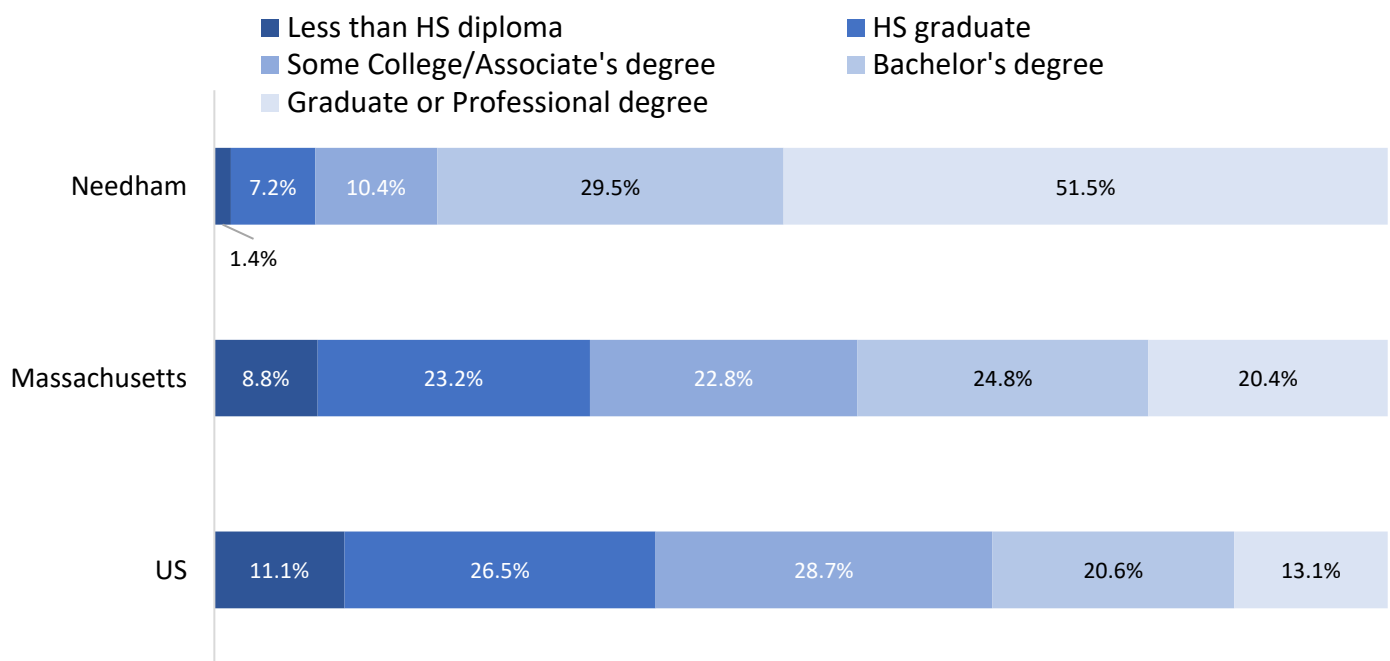
Table 6: Education and Enrichment	% Positive
Overall opportunities for education, culture, and the arts	80%
Adult educational opportunities	86%
K-12 education	93%

DATA SOURCE: National Community Survey, 2022

People who are more educated are more likely to live longer and be healthier, according to Health People 2030. Those who do not graduate from high school or college are less likely to get a safe, high paying job and additionally are more likely to have chronic health problems (6).

Needham has a highly educated population, with 81% of the population aged 25 and older holding at least a bachelor's degree (**FIGURE 5**). This is much higher than in Massachusetts (45.2%) and the United States (33.7%). For about 1 in 10 Needham residents, the highest level of education is some college or an associate degree. In Massachusetts, this is the case for about 1 in 4 (22.8%) and in the United States (28.7%).

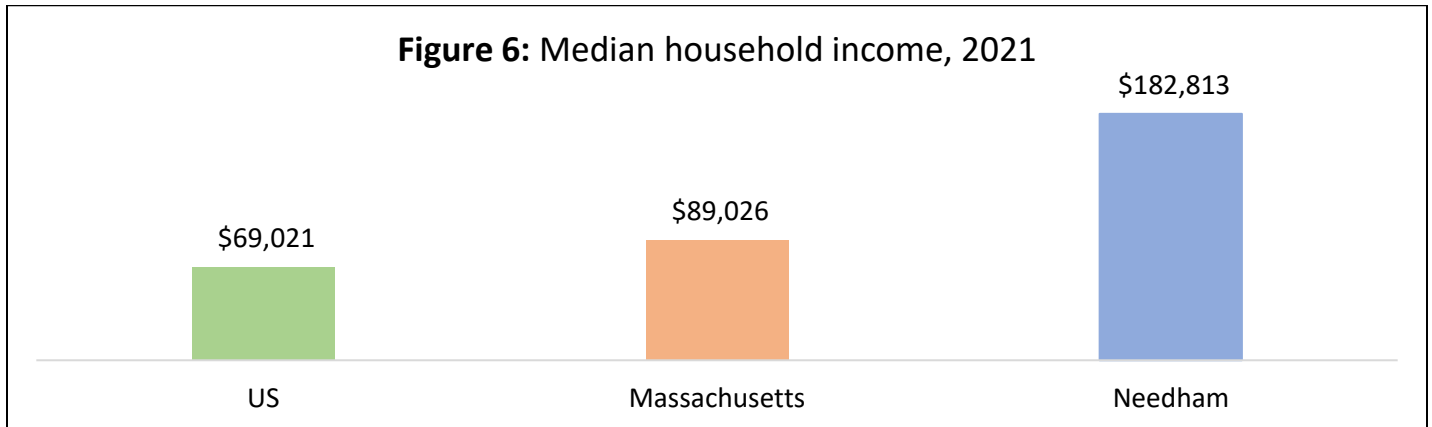
Figure 5: Educational attainment for population aged 25 years and older, 2021



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

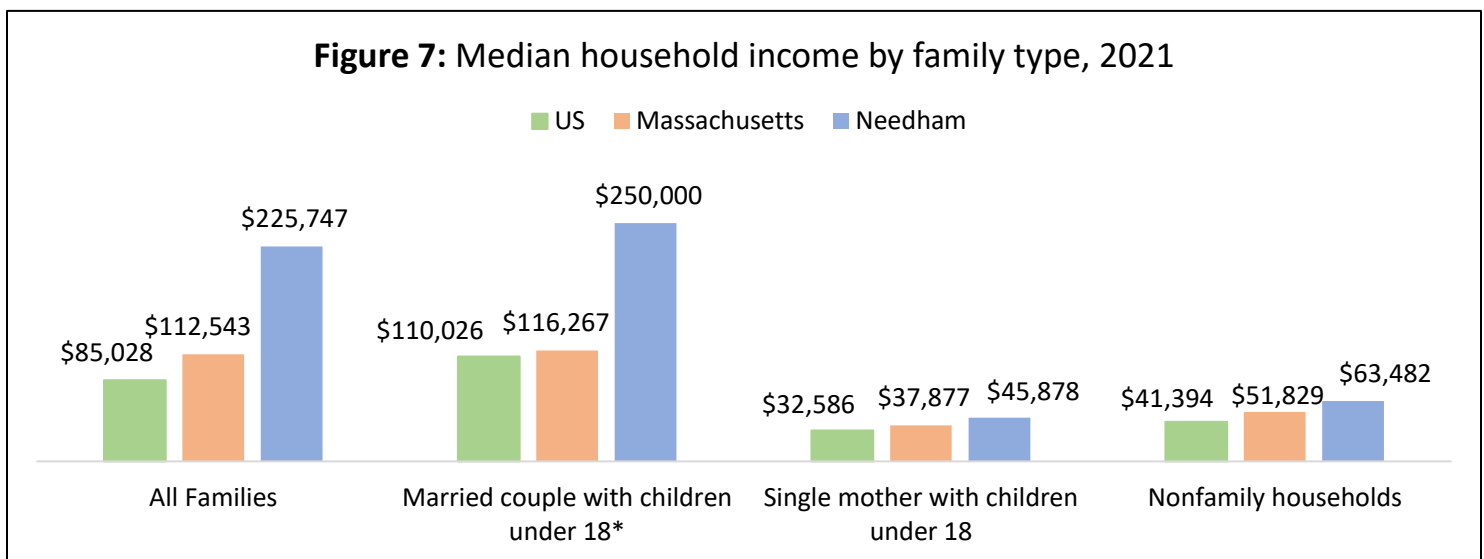
INCOME

The median household income for Needham in 2021 was \$182,813, which is greater than twice the household income for Massachusetts, at \$89,026 and the United States, at \$69,021 (**FIGURE 6**).



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

FIGURE 7 displays household income by family type. For each family type, Needham families are reporting higher median household incomes than families in Massachusetts and the United States. In Needham, married couple families with children under 18 report the largest median household income (greater than \$250,000) and single mothers with children under 18 report the lowest median household income (\$32,586).



*In Needham, median household income is \$250,000+

DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

The *Healthy Aging Assessment* asked residents 60+ to identify their household pre-tax income in 2022 (**TABLE 8**). The largest percentage of respondents reported a household income of \$100,000 to \$149,999. It is important to note that almost 10% of respondents reported a household income of less than \$25,000. This information provides more detailed

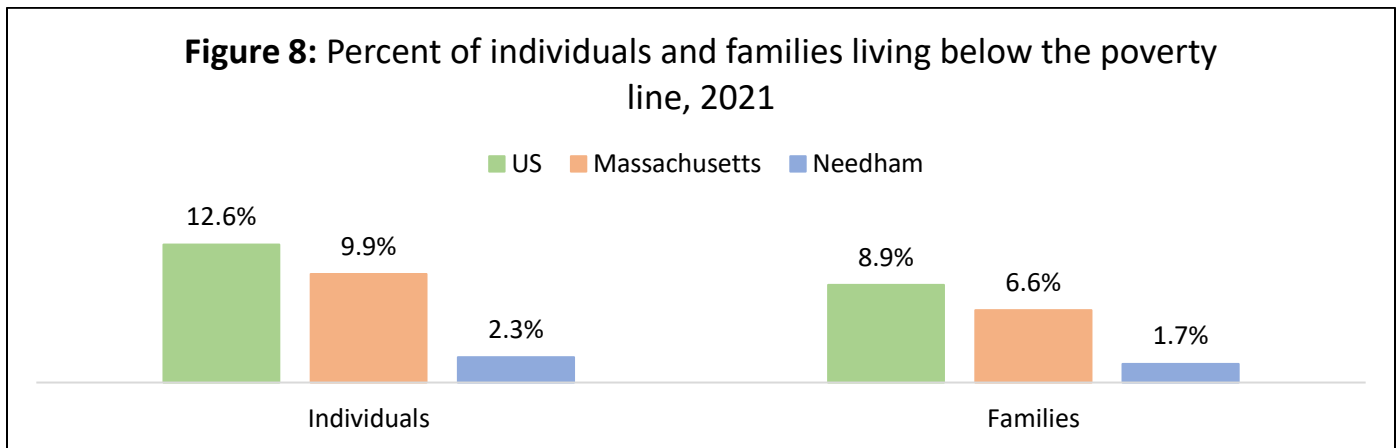
insight into the demographic breakdown of median household income. While the median household income in Needham may be considerably higher than the state and national median household income, it is important to note that this number differs greatly depending on age.

Table 8: Household Pre-Tax Income in Calendar Year 2022 for residents 60+ (n=651)	Number	Percentage
Less than \$25,000	63	9.7%
\$25,000 to \$49,999	63	9.7%
\$50,000 to \$74,999	97	14.9%
\$75,000 to \$99,999	117	18.0%
\$100,000 to \$149,999	137	21.0%
\$150,000 to \$199,999	80	12.3%
\$200,000 to \$249,999	45	6.9%
\$250,000 or more	49	7.5%
Missing	87	-

DATA SOURCE: Survey on Healthy Aging in Needham, 2022

Poverty

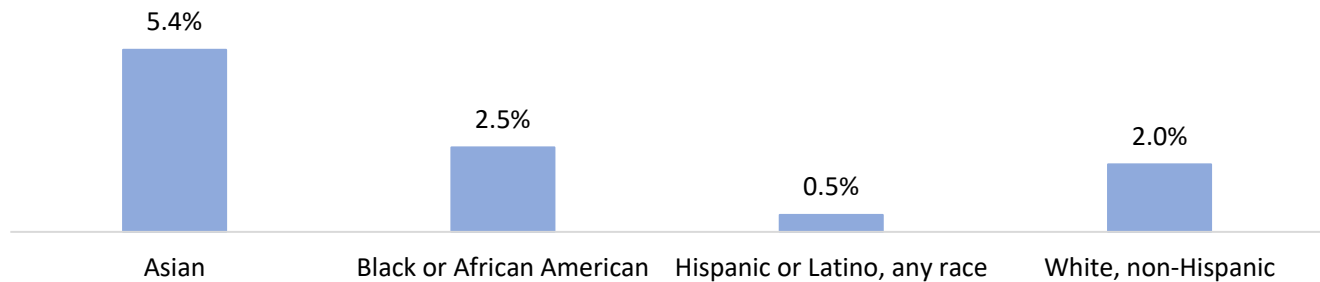
FIGURE 8 shows the percent of individuals and households who were living below the poverty line in 2021. Needham has a significantly lower proportion of individuals and families living below the poverty line than Massachusetts and the United States. The poverty thresholds for 2021 by size of family and number of related children under 18 years can be found here: <https://www2.census.gov/programs-surveys/cps/tables/time-series/historical-poverty-thresholds/thresh21.xlsx>



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

Looking closer at individuals living below the poverty line in 2021, **FIGURE 9** shows that in Needham, the Asian population has a higher percent of individuals living below the poverty line, followed by the Black or African American population. For all three geographic breakdowns (US, MA, and Needham), persons of color are more likely to live below the poverty line.

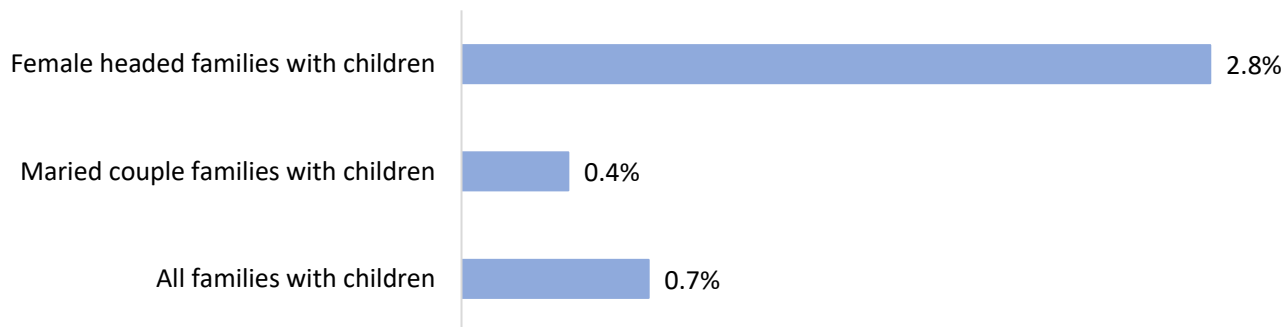
Figure 9: Percent of individuals living below the poverty line by race and ethnicity, 2021



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

Looking at family type, female headed families with children are far more likely to live under the poverty line than married couple families with children in Needham, Massachusetts, and the United States. Overall, Needham families were living under the poverty line less than families in Massachusetts and the United States in 2021 (**FIGURE 10**).

Figure 10: Percent of residents living below the poverty line, by family type, 2021



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

In all three geographic breakdowns, significantly more families in renter-occupied households lived below the poverty line than families in owner-occupied households. In Needham, 1.2% of owner-occupied households lived below the poverty line versus 8.7% of renter-occupied households (**FIGURE 11**).

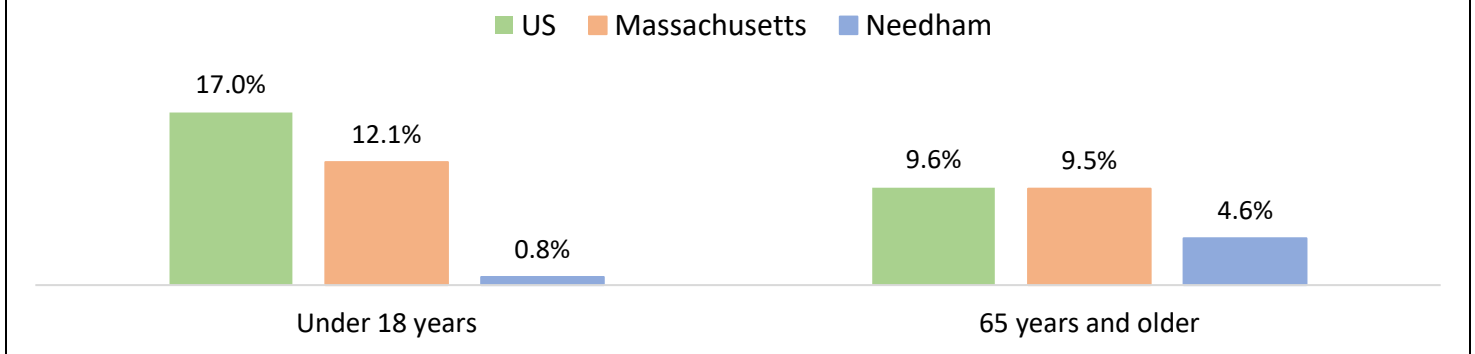
Figure 11: Percent of families living below the poverty line by owner vs. renter status, 2021



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

FIGURE 12 demonstrates that different age populations may be disproportionately impacted by financial burdens. 2.3% of individuals in Needham lived below the poverty line in 2021, but 0.8% of residents under 18 years of age lived under the poverty line and 4.6% of residents aged 65 and older lived below the poverty line.

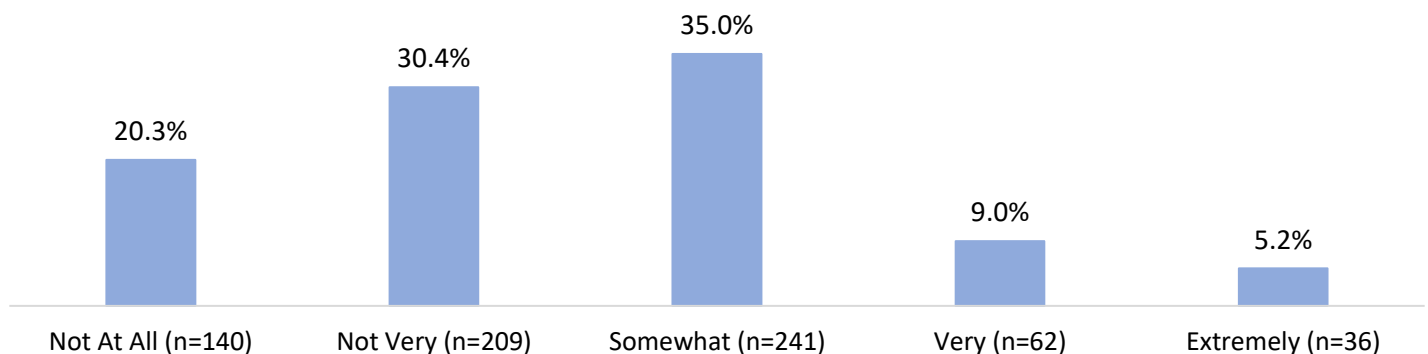
Figure 12: Percent of residents living below the poverty line, by age group, 2021



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

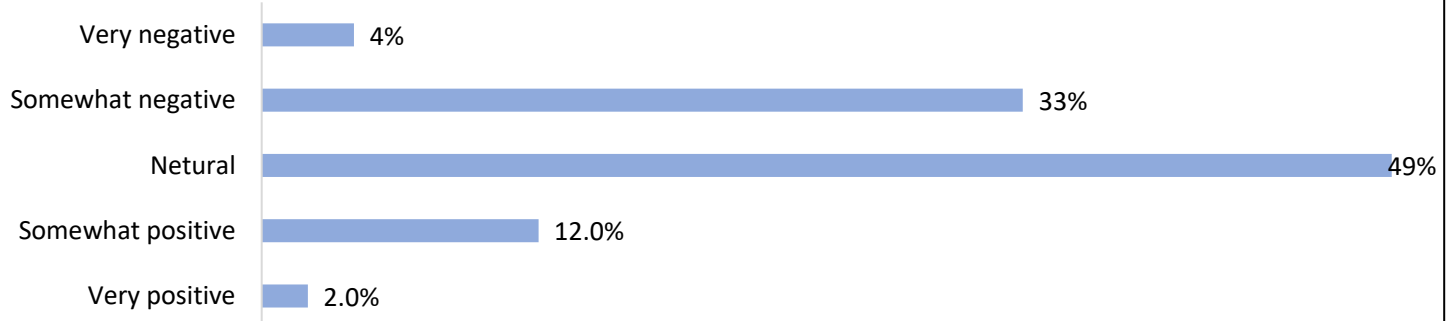
Concerns About Cost of Living

Data from the *Healthy Aging Assessment* indicate that residents' worry about cost of living (e.g., food, gas, heating oil, electricity, housing) and its impact on financial security was inversely related to household annual income, particularly among those with annual household income under \$50,000. The largest proportion of respondents reported being "somewhat worried" about the cost of living (**FIGURE 13**).

Figure 13: Percent of residents 60+ who report worrying about cost of living

DATA SOURCE: Survey on Healthy Aging in Needham, 2022

The *Needham Community Survey* asked Needham residents what they felt the impact of the economy would be on their family income in the next 6 months (**FIGURE 14**). While the largest proportion of residents reported feeling it wouldn't have an impact (neutral), 33% felt it would have a negative impact on their family income.

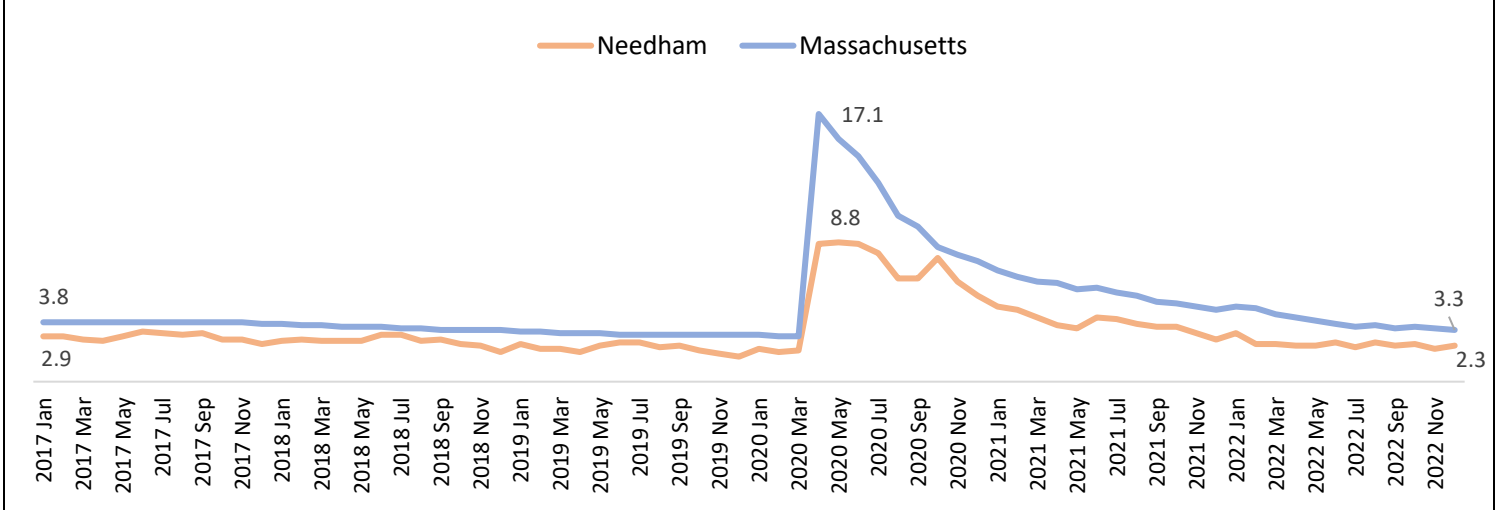
Figure 14: Impact the economy will have on your family income in the next 6 months:

DATA SOURCE: Needham Community Survey, 2022

EMPLOYMENT

FIGURE 15 shows the unemployment rate in Needham and Massachusetts from 2017 to 2022. Worth noting is the significant increase in the unemployment rate from March to April of 2020, corresponding with the closure of businesses due to COVID-19 pandemic restrictions.

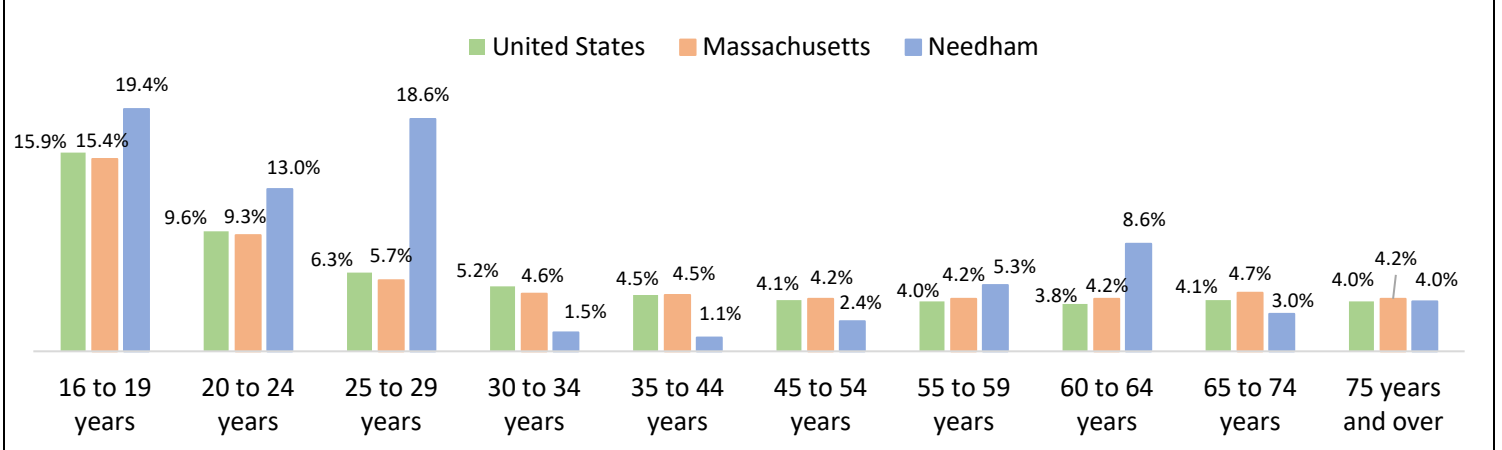
Figure15: Unemployment Rate, 2017-2022



DATA SOURCE: U.S Bureau of Labor Statistics⁷

In Needham, the unemployment rate in 2021 was 4.8%, which was slightly lower than Massachusetts (5.4%) and the United States (5.5%). **FIGURE 16** shows the unemployment rates by age in 2021. The unemployment rates for those 16 to 29 years of age is notably higher in Needham than in Massachusetts and the United States and the unemployment rate for those aged 60 to 64 years of age (8.6%) in Needham is more than double that in Massachusetts (4.2%) and the United States (3.8%). This may be indicative of college age kids and retirement ages that do not need to work during this phase of their life.

Figure 16: Unemployment rate by age, 2021



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

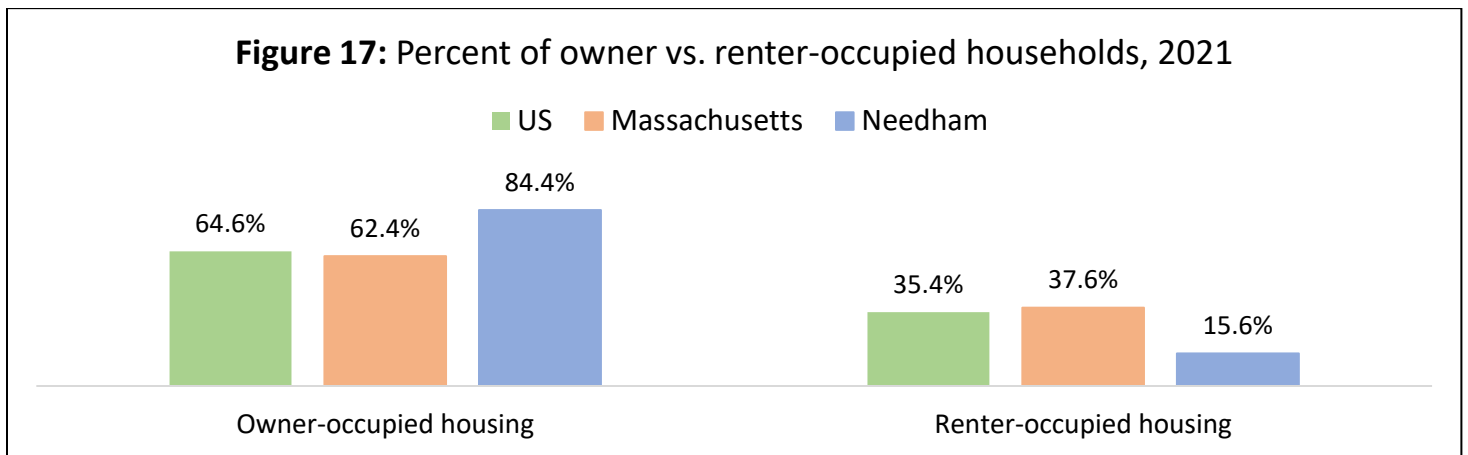
⁷ More information on the Bureau of Labor Statistics can be found here: <https://www.bls.gov/> . Data accessed via <https://beta.bls.gov/dataQuery/search> .

HOUSING AND HOUSING COSTS

Housing instability encompasses a number of challenges, such as having trouble paying rent, overcrowding, moving frequently, or spending the bulk of household income on housing. These experiences may negatively affect physical health and make it harder to access health care (7).

Type of Housing

FIGURE 17 shows the percentage of households in Needham that were owner or renter occupied in 2021. The vast majority of households in Needham are owner-occupied households (84.4%). This is higher than the percentage of owner-occupied households in Massachusetts (62.4%) and the United States (64.6%).



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

The *Healthy Aging Assessment* asked residents 60+ years of age about their residence setting (**TABLE 9**) and type of residence (**TABLE 10**). Most respondents reported living in a private residence (92%), followed by a Needham Housing Authority property (3.6%). Almost 80% of respondents reported living in a single-family home, followed by an apartment (13.5%).

Table 9: Residence Setting for residents 60+ (n=720)	Number	Percentage
Private residence	670	91.9%
Affordable housing (Chapter 40B)	14	1.9%
Needham Housing Authority Property	26	3.6%
Senior housing	17	2.3%
Long-term care facility	2	0.3%
Missing	9	-

DATA SOURCE: Survey on Healthy Aging in Needham, 2022

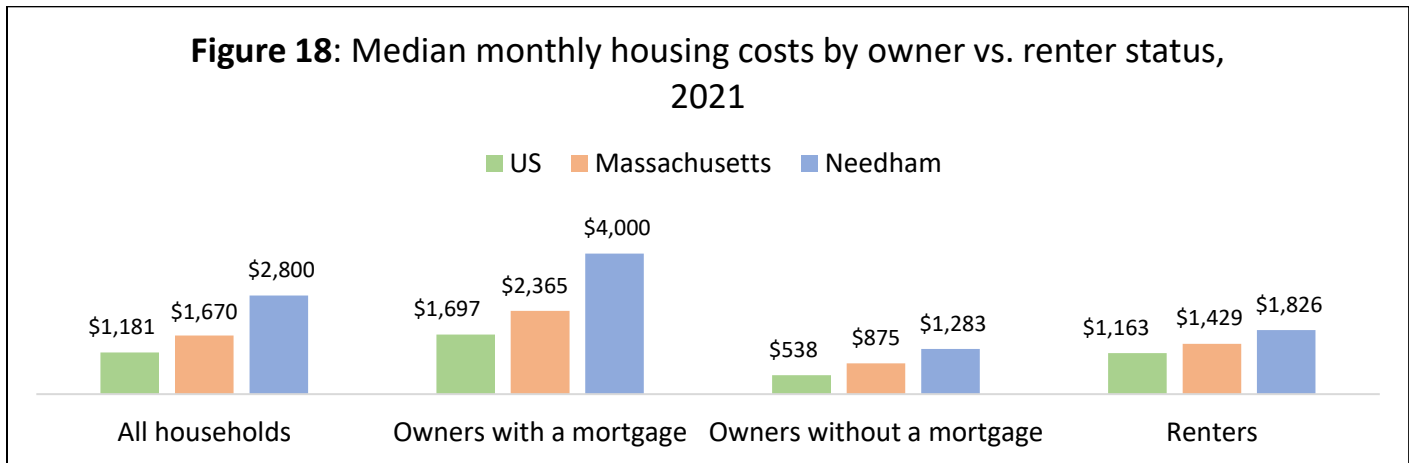
Table 10: Type of Residence for residents 60+ (n=733)	Number	Percentage
Single family home	579	79.0%
Town home or duplex	21	2.9%
Apartment	99	13.5%
Condominium	32	4.4%

Accessory dwelling unit (attached apartment)	2	0.3%
Missing	5	-

DATA SOURCE: Survey on Healthy Aging in Needham, 2022

Housing Cost

The median monthly housing costs are broken down in **FIGURE 18** by owner vs. renter status. Owners with a mortgage have the highest median monthly housing costs in all three geographic breakdowns. Owners without a mortgage have the lowest median monthly housing costs in all three geographic breakdowns.

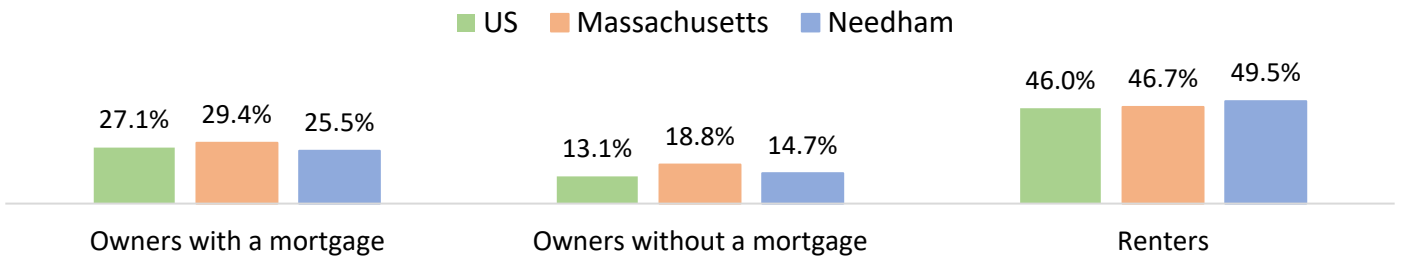


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

According to the 2021 American Community Survey, the median monthly housing costs for all households were higher in Needham (\$2,800) than in Massachusetts (\$1,670) and the United States (\$1,181). The most significant difference can be seen when comparing median monthly housing costs for owners with a mortgage in Needham to Massachusetts and the United States. Owners with a mortgage in Needham have median monthly housing costs that are more than double those in the United States (\$1,697) and are greater than \$1500 more than those in Massachusetts (\$2,365).

FIGURE 19 displays the percent of cost burdened households by owner or renter status. *Cost burdened* is defined as spending 30% or more of household income on housing. Renters experienced the highest percentage of cost burden in all three geographic breakdowns compared to owners, with or without a mortgage. In Needham, a slightly smaller percentage of owners with a mortgage (25.5%) experienced cost burden compared to Massachusetts (29.4%) and the United States (27.1%). However, a slightly higher percentage of renters in Needham experienced cost burden (49.5%) compared to Massachusetts (46.0%) and the United States (46.7%).

Figure 19: Percent of cost burdened households by owner vs. renter status, 2021



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

In the *Needham Community Survey*, residents were asked to rate several facets of the community including cost of living, availability of affordable quality housing, and variety of housing options. A quarter of respondents positively rated the variety of housing options, while fewer than 2 in 10 respondents gave positive marks to the availability of affordable quality housing (**TABLE 11**).

Table 11: Facet of Needham: Needham Community Survey	% Positive
Cost of living	20%
Availability of affordable quality housing	17%
Variety of housing options	25%

DATA SOURCE: Needham Community Survey, 2022

TRANSPORTATION

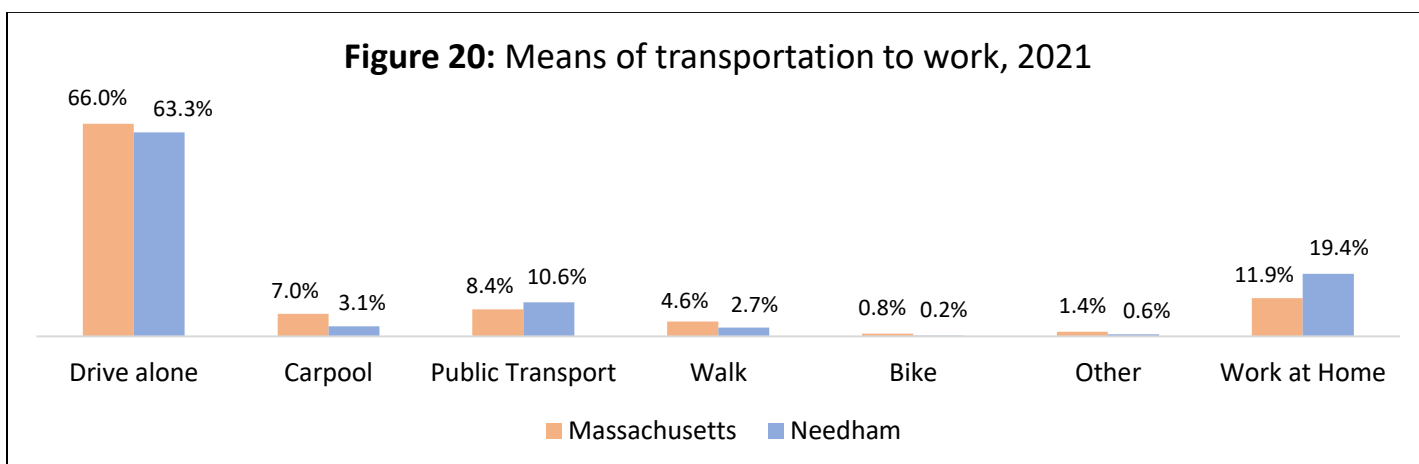
As part of the Social Determinants of Health and the built environment, transportation can provide positive outcomes for those who have access to it. Transportation can include a personal vehicle, public transit such as a bus or train, and access to ride shares. People who do not have access to the services may be unable to get proper access to resources such as food, health care, and other needs.

Many respondents of the *Needham Community Survey* positively ranked ease of public parking (77%) and walking (85%). Ease of travel by car was also positively ranked (87%), though traffic flow on major streets was ranked slightly lower (69%) (**TABLE 12**).

Table 12: Mobility and transportation	% Positive
Overall quality of the transportation system	66%
Traffic flow on major streets	69%
Ease of public parking	77%
Ease of travel by car	87%
Ease of walking	85%

DATA SOURCE: National Community Survey, 2022

Figure 20 shows the various means of transportation to work in Needham and Massachusetts in 2021. The most common form of transportation in both geographies is driving alone, followed by working from home. A higher percentage of Needham residents worked at home (19.4%) and utilized public transport (10.6%) compared to Massachusetts (11.9% and 8.4%, respectively). In contrast, a smaller percentage of Needham residents carpool to work (3.1%) and drove alone (63.3%) compared to Massachusetts (7.0% and 66.0%, respectively).



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

Respondents of the *Needham Community Survey* were also asked to indicate whether they had used public transportation instead of driving, and walked or biked instead of driving (**TABLE 13**). While a large percentage of respondents indicated they had walked or biked instead of driving (73%), a much smaller percentage reported using public transportation instead of driving (39%).

Table 13: Mobility and transportation for Needham residents	% Positive
Used public transportation instead of driving	39%
Walked or biked instead of driving	73%

DATA SOURCE: Needham Community Survey, 2022

Qualitative thematic analysis from the *Healthy Aging Assessment* identified transportation as another common theme. Most commonly, seniors reported a general lack of transportation options in the area and a need for transportation to medical appointments, as well as a desire to have free or reduced cost ridesharing programs. Respondents were asked how often they currently use different modes of transportation to get around Needham for things like shopping, visiting

the doctor, visiting friends, and running errands. Respondents were much more likely to drive themselves, followed by walking or having others drive. A very small percentage of respondents reported using a public bus or shuttle, taxi or cab, or a special transportation service (**TABLE 14**).

Table 14: Transportation methods for Needham residents 60+ (n=655)	Never	Rarely	Sometimes	Very Often
Drive self	10.2%	1.2%	4.6%	84.0%
Walk	26.6%	16.9%	33.3%	23.2%
Have others drive	45.2%	24.6%	20.6%	9.6%
Use ride-sharing service like Uber or Lyft	69.3%	18.3%	9.2%	3.2%
Ride a bike	78.6%	10.1%	8.1%	3.2%
Use public bus or shuttle	82.1%	12.5%	4.7%	0.6%
Take a taxi or cab	82.9%	12.7%	3.8%	0.6%
Special transportation service	93.4%	3.2%	2.4%	0.9%

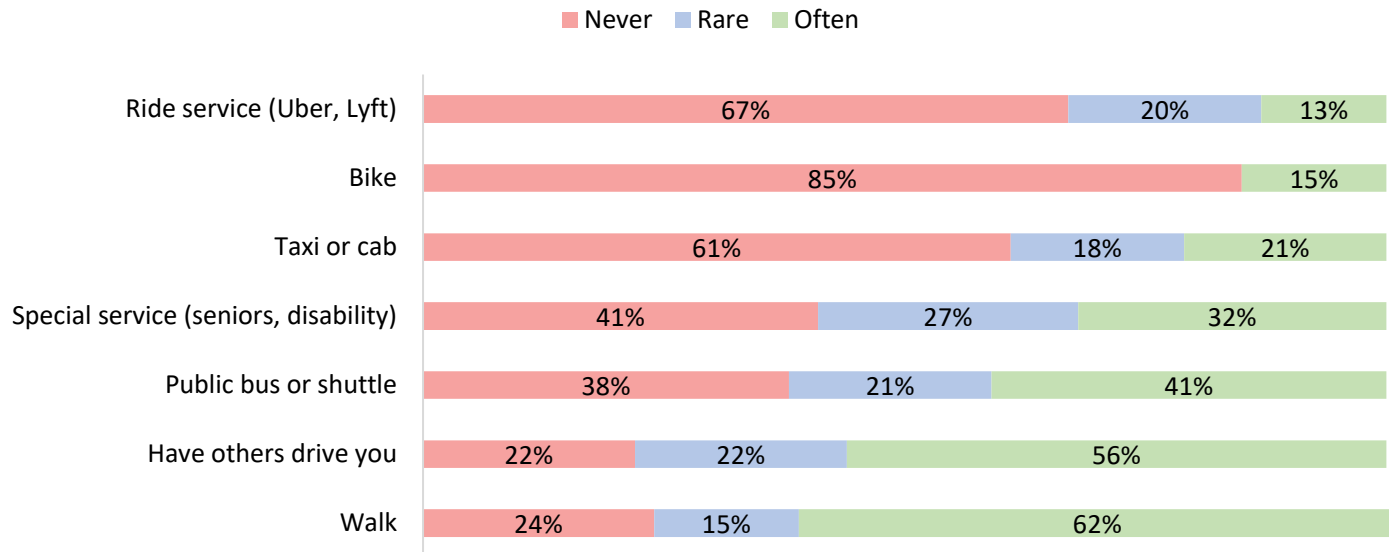
DATA SOURCE: Survey on Healthy Aging in Needham, 2022

One respondent of the *Healthy Aging Assessment* commented “I am very concerned that when I cannot drive, transportation is very limited.” Another commented “I wish I had transportation to doctors’ appointments outside Needham into Boston”.

Some respondents of the *Housing Authority Assessment* reported public transportation as the biggest issue affecting their quality of life, with one respondent commenting “without better local transportation, one becomes a recluse”. Another respondent commented “if there is public transportation, it is not explained to residents. Most have stopped driving due to age or physical restrictions. It would allow residents to attend religious services if they desired or just going to the community.”

37.3% of survey respondents in the *Housing Authority Assessment* reported not having access to a car or other vehicle of personal use. The majority of those respondents reported that they often walk to their destination (62%), followed by having others drive them (56%), and public bus or shuttle (41%) (**FIGURE 21**).

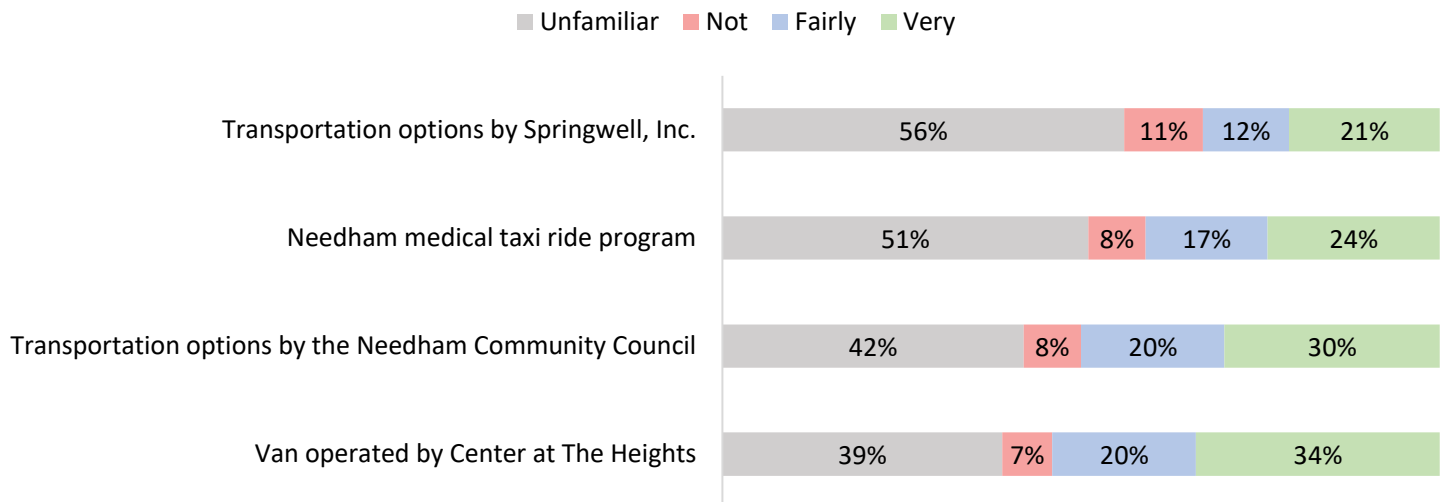
Figure 21: Current transportation methods among those Housing Authority Assessment respondents without access to a vehicle



SOURCE: An Assessment of Needham Housing Authority Residents, 2020

Respondents of the *Housing Authority Assessment* were asked about four community transportation resources. Among them, the van operated by the Center at the Heights was rated as the most important, followed by transportation options by the Needham Community Council. Notable is the fact that over a third of the respondents reported being unfamiliar with the four transportation resources, and over half of the respondents were unfamiliar with the transportation options by Springwell, Inc and the Needham medical taxi ride program (**FIGURE 22**).

Figure 22: Importance of community transportation resources to Housing Authority Assessment respondents



SOURCE: An Assessment of Needham Housing Authority Residents, 2020

FOOD ACCESS

Access to food is considered a basic, physiological need in Maslow’s Hierarchy of Needs. When basic needs aren’t satisfied, it becomes difficult to achieve needs higher on the pyramid- including belonging and love, esteem, and self-actualization (8).

In 2021, 1.7% of Needham residents received Supplemental Nutrition Assistance Program benefits (SNAP). This is a significantly smaller percentage than in Massachusetts (12.2%) and the United States (11.4%). However, when we examine the many facets and challenges of food access, we found that many residents 60+ experienced some challenge with various aspects of food access in the 12 months prior to the *Healthy Aging Assessment*. 12.2% of respondents to the *Healthy Aging Assessment* reported having difficulty finding the food they wanted, and roughly 5% of respondents reported having difficulty getting transportation to the grocery store. 4.5% of respondents reported feeling they could not afford to eat a balanced meal and 3.8% reported worrying that their food would run out before they could get more (TABLE 15).

Table 15: Food Access for Needham residents 60+	Number	Percentage
You had difficulty finding the kind of food that you wanted	84	12.2%
You had difficulty getting transportation to the grocery store	37	5.4%
You had difficulty having groceries delivered	34	5.0%
Food Preparation for Needham residents 60+		
You were not able to prepare or cook food because of health problems	52	7.6%
Food security for Needham residents 60+		
You felt that you couldn't afford to eat balanced meals	31	4.5%
You worried that your food would run out before you could get more	26	3.8%
Each row was asked as a Yes/No question. Percentages represent "Yes" responses.		

DATA SOURCE: Survey on Healthy Aging in Needham, 2022

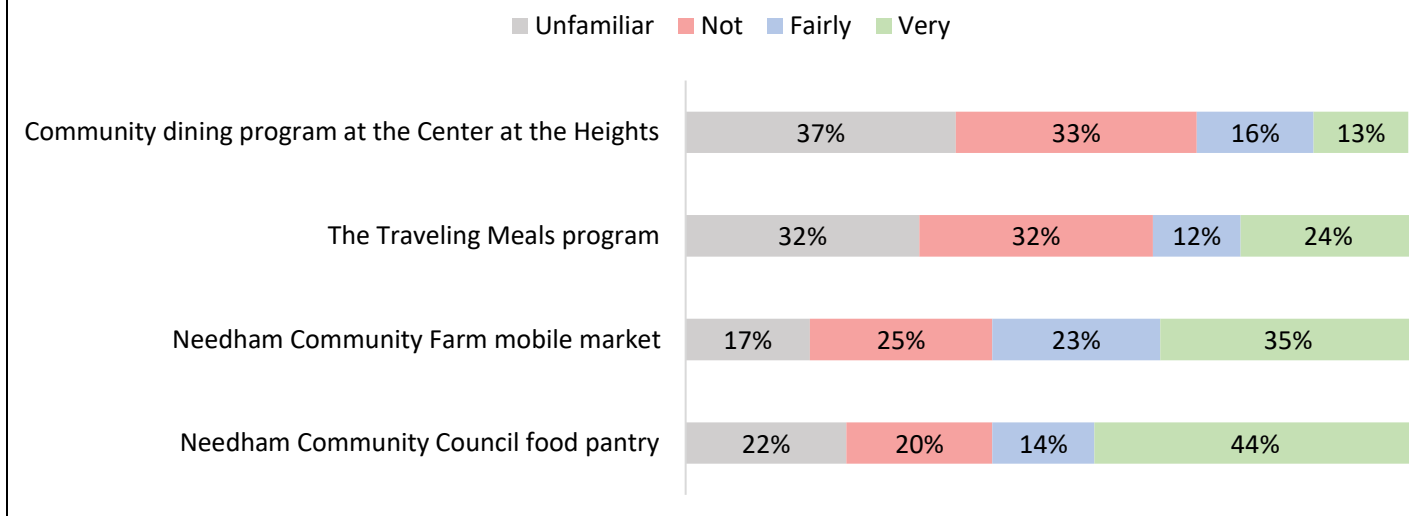
The *Housing Authority Assessment* cost of food as a barrier to food accessibility, with one survey respondent reporting “I feel that even though our grocery stores do a lot for Needham, their prices are way too high.”

Community Food Resources

While Needham is often rated as a very resourceful town, many residents were unaware of some of the most important resources to food access within Needham.

When asked to rate the importance of four community food resources, *Housing Authority Assessment* respondents rated the Needham Community Council Food Pantry the highest, followed by the Needham Community Farm Mobile Market. Notable is the fact that around a third of respondents were not familiar with the Traveling Meals Program or the Community Dining Program at the Center at the Heights (FIGURE 23).

Figure 23: Importance of community food resources to Housing Authority Assessment respondents



SOURCE: An Assessment of Needham Housing Authority Residents, 2020

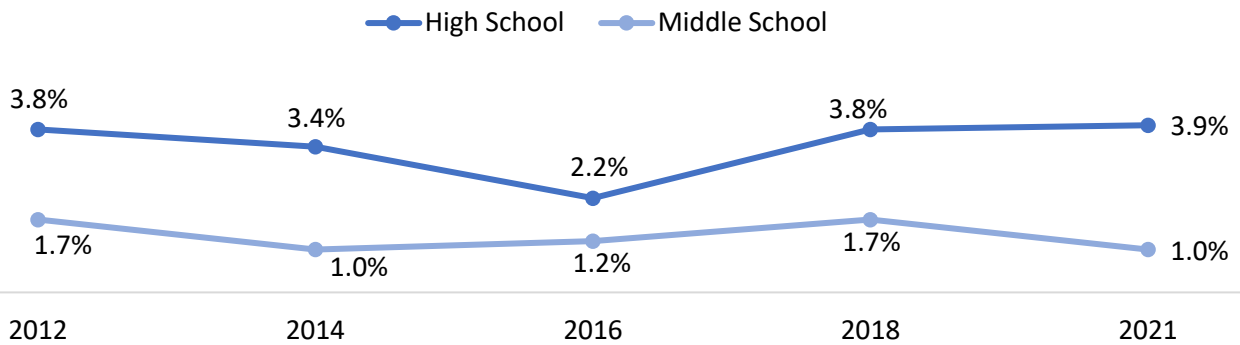
Some *Housing Authority Assessment* respondents noted food and groceries as the biggest issue affecting their quality of life, with one commenting they “have to travel too far for affordable groceries and too expensive if delivered”. Another commented “the only store close to me is very expensive. I’m on a fixed income, so this poses a real concern”.

Safety and Violence

According to the Massachusetts Department of Public Health, violence as a Social Determinants of Health encompasses three main areas including self-directed violence, interpersonal violence, and collective violence (9) .

The *Needham Community Survey* asked Needham residents to rate how safe or unsafe they feel in a variety of scenarios. Overall, Needham respondents highly rated safety in the community and Needham ranked very highly in safety on a national level. 99% of respondents positively rated how safe they feel in their neighborhood during the day, in Needham’s downtown/commercial area during the day, and from violent crime. 98% positively rated how safe they feel from property crime and 93% of respondents positively rated how safe they feel from fire, flood, or other natural disaster.

When we look at youth perspectives on safety, the percentage of students reporting staying home from school because of safety concerns has also remained consistently low from 2012 to 2021 (**FIGURE 24**).

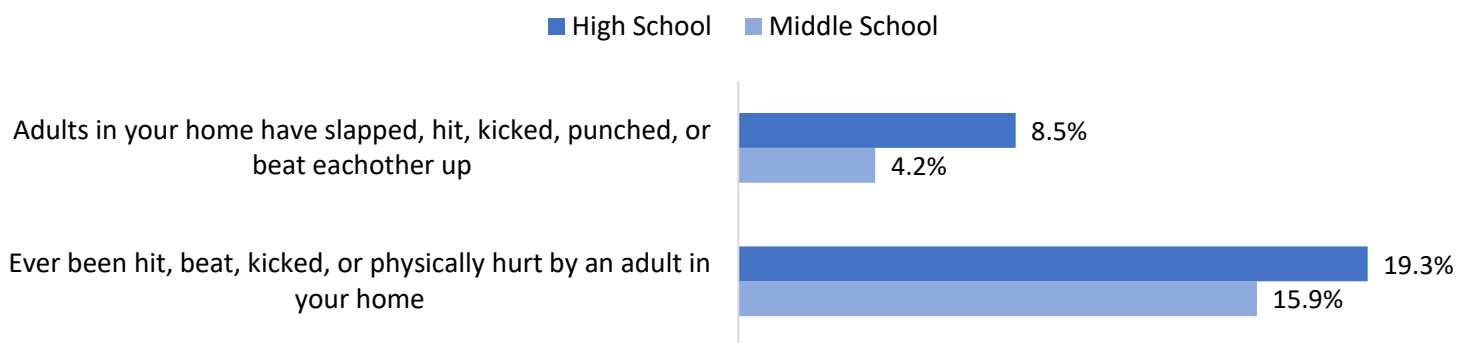
Figure 24: Percent of Needham HS and MS students reporting safety concerns, 2012-2021

DATA SOURCE: MetroWest Adolescent Health Survey, 2012-2021⁸

Interpersonal Violence

Interpersonal violence is “violence that occurs between individuals like intimate partner violence, elder abuse, youth violence, child abuse and neglect, and community violence” (9).

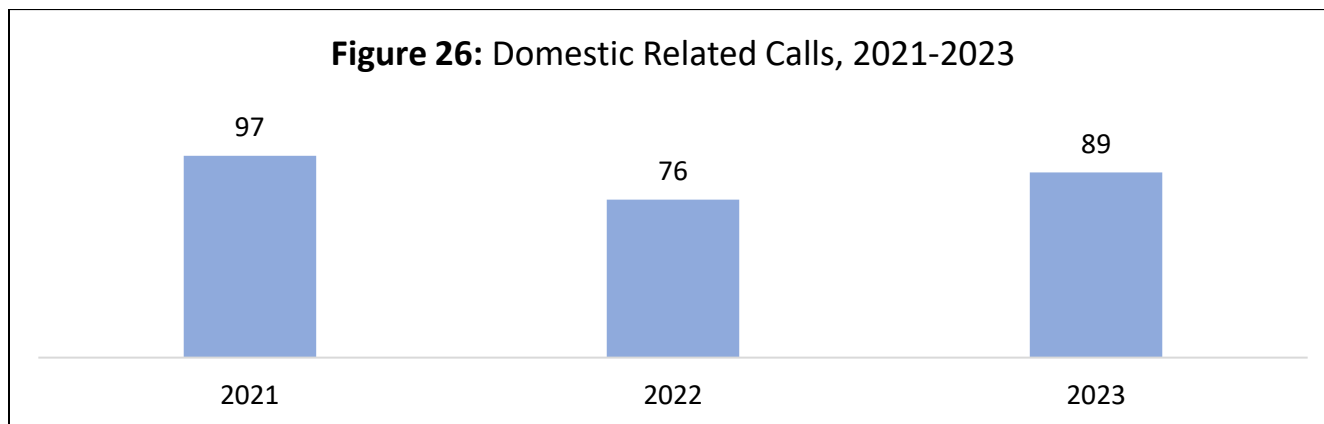
In 2021, 8.5% of Needham High School students reported that adults in their home have slapped, hit, kicked punched, or beat each other up and 19.3% reported having ever been hit, beat, kicked, or physically hurt by an adult in your home. Needham Middle School students reported these at lower rates, with 4.2% reporting adults in their home that have slapped, hit, kicked, punched, or beat each other up and 15.9% reporting having ever been hit, beat, kicked, or physically hurt by an adult in their home (**FIGURE 25**).

Figure 25: Percent of Needham MS and HS students reporting experiences of violence at home, 2021

DATA SOURCE: MetroWest Adolescent Health Survey, 2021

⁸ Data can be found at <https://www.needhamma.gov/5177/Metro-West-Adolescent-Health-Survey>. Additional relevant data can be found at <https://mwhealth.org/knowledge-center/foundation-publications>.

FIGURE 26 shows the number of domestic violence related calls that the Needham Police responded to in 2021-2023. 2021 and 2023 saw a similar number of calls, with a slight decrease in calls in 2022.

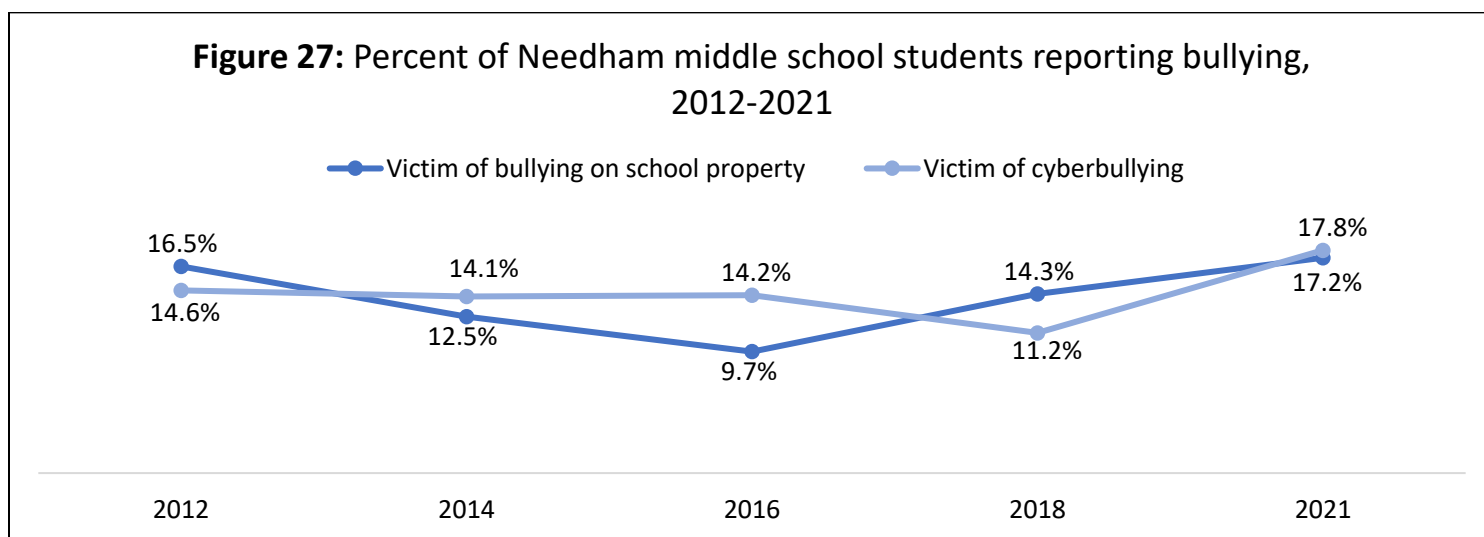


DATA SOURCE: Needham Police Department

Bullying

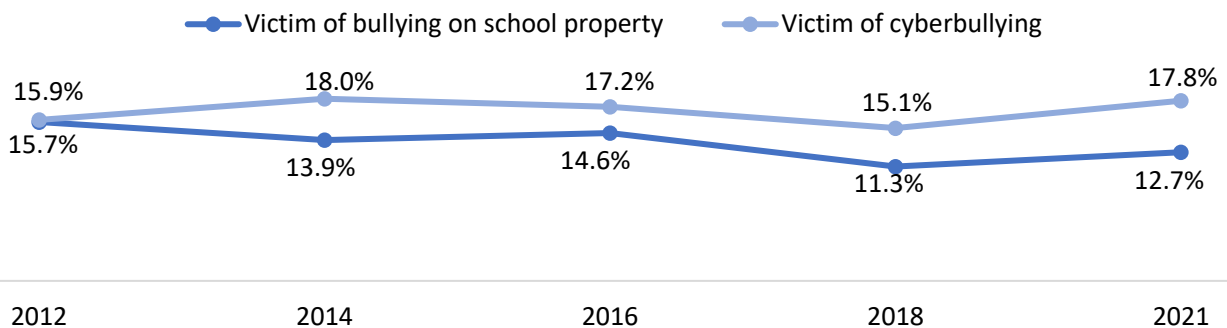
Bullying is a form of interpersonal violence that is often not seen outwardly. Many Needham youth have reported being bullied in some form throughout their middle school and high school years.

FIGURE 27 shows the percentage of Needham Middle School students who reported being a victim of cyberbullying or bullying on school property from 2012-2021. There were notable increases from 2018 to 2021 in both the percentage of students reporting cyberbullying (11.2% in 2018 to 17.8%) and bullying on school property (14.3% in 2018 to 17.8% in 2021).



DATA SOURCE: MetroWest Adolescent Health Survey, 2012-2021

In Needham high school students, a consistently higher percentage of students reported being the victim of cyberbullying than reported being the victim of bullying on school property (**FIGURE 28**). There was an increase in the percent of students who reported being a victim of both methods of bullying from 2018 to 2021, but it was much smaller than what was observed for Middle School students.

Figure 28: Percent of Needham High School students reporting bullying, 2012-2021

DATA SOURCE: MetroWest Adolescent Health Survey, 2012-2021

Needham has seen fluctuations in violence data since 2018. As with much of the data presented in this report, the COVID-19 pandemic is likely a factor in these fluctuations. For example, the number of domestic violence calls in 2021 may have been higher because more people were remaining at home due to the pandemic and youth cyberbullying may have increased during the pandemic because youth were interacting less in person and more virtually, via computers or video games. Needham Public Health Division will be able to understand these trends better in the future, as additional years of data are collected in these areas.

MENTAL HEALTH AND SUBSTANCE USE

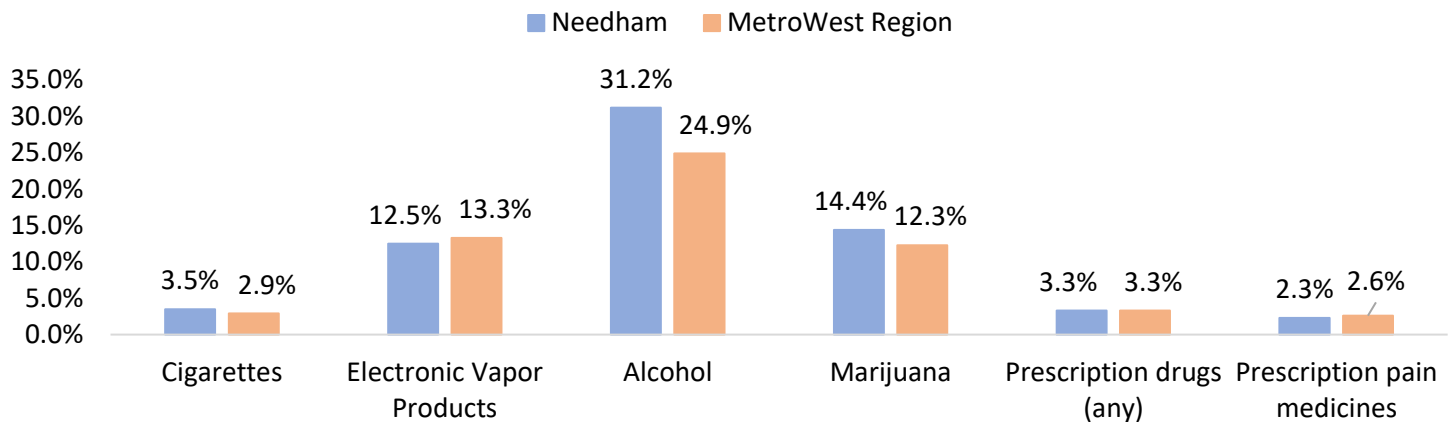
Healthy People 2030 includes goals to “Improve mental health” (10); “Reduce misuse of drugs and alcohol” (11); “Reduce drug and alcohol addiction (12); and “Reduce illness, disability, and death related to tobacco use and secondhand smoke” (13). BID-Needham's goal related to mental health and substance use is to “Promote social and emotional wellness by fostering resilient communities and building equitable, accessible, and supportive systems of care to address mental health and substance use” (1). NPHD has focused for many years on youth substance use prevention, evolving programs to meet the needs of the community, and trends in substance use. This continues to be a priority of NPHD. We also know that mental health conditions impact millions of people worldwide and have been increasing (14).

SUBSTANCE USE

Needham Public Health Division participates in the administration of the MetroWest Adolescent Health Survey to gather data on many different topics impacting youth health and wellness. This survey provides the Needham Public Health Division with robust substance use data which assists and supports the Division in supporting advocacy efforts, educational campaigns, and program development.

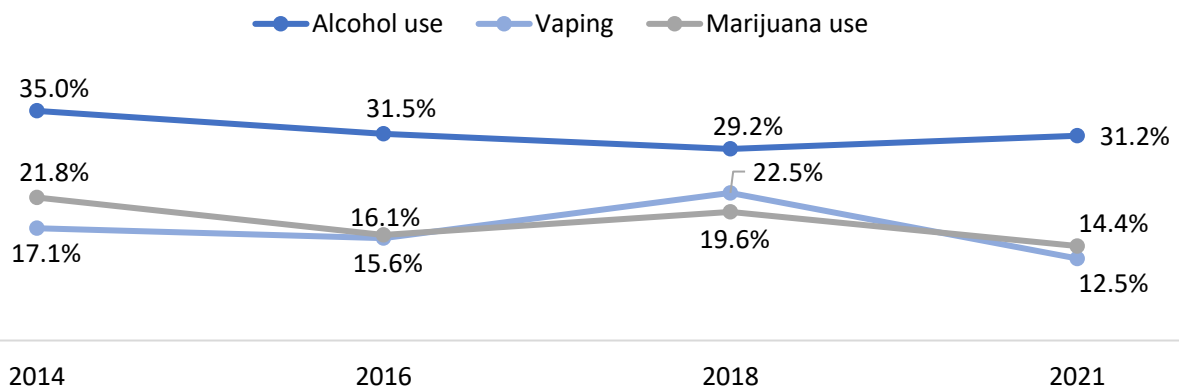
Current Substance Use

FIGURE 29 shows the 30-day use of substances by Needham High School students and students in High Schools in the MetroWest Region in 2021. Needham High School students report slightly higher use of cigarettes and marijuana, and notably higher use of alcohol.

Figure 29: Percent of Needham High School students reporting substance use in the last 30 days, 2021

DATA SOURCE: MetroWest Adolescent Health Survey, 2021

Despite a declining trend in current (past 30 days) and lifetime alcohol use since 2014, the percent of students reporting current alcohol use increased from 29.2% in 2018 to 31.2% in 2021. Conversely, the percentage of Needham High School students reporting current (past 30 days) and lifetime electronic vapor product use decreased notably from 2018 to 2021. The percent of students reporting current (past 30 days) and lifetime marijuana use also decreased from 2018 to 2021 (**FIGURE 30**).

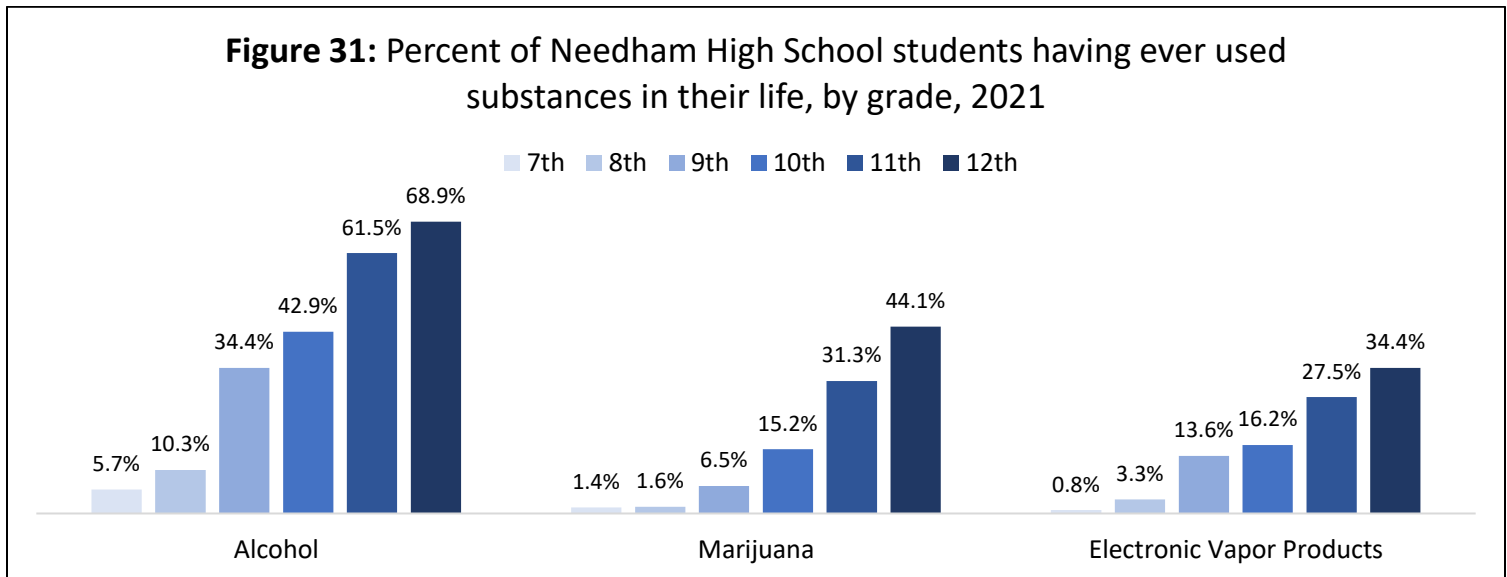
Figure 30: Percent of Needham High School students reporting substance use in the last 30 days, 2014-2021

DATA SOURCE: MetroWest Adolescent Health Survey, 2014-2021

Lifetime Substance Use

The percentage of students reporting having ever used substances in their lifetime increases by grade. Notably, middle school (seventh and eighth grade) substance use is considerably lower than high school (ninth through twelfth grade) substance use. There is a substantial increase in the percentage of students reporting substance use between eighth

grade and ninth grade, with the percentage of students more than doubling between eighth and ninth grade for each substance (**FIGURE 31**).



DATA SOURCE: MetroWest Adolescent Health Survey, 2021

Looking closer at the MetroWest Adolescent Health Survey and trends in alcohol use among Needham high school students, females report alcohol use at much higher rates than their male counterparts. Female high school students in Needham report higher rates of current use (in the last 30 days), lifetime use (having ever used alcohol in their lifetime), and binge drinking.

Additionally, 10.9% of Needham High School students reported having ever lived with someone who was having a problem with alcohol/drug use in 2021.

Parental Attitudes, Perceptions, and Beliefs

The *Needham Parent Survey* respondents were asked to indicate how wrong they feel it would be for their child to use any of the substances below (**TABLE 16**). Respondents expressed the most negative opinions towards use of prescription drugs not prescribed to them.

Table 16: Parental attitudes and beliefs about youth substance use (n=165)	Not At All Wrong	A Little Bit Wrong	Wrong	Very Wrong
Use prescription drugs not prescribed to them	0.0%	0.0%	1.8%	98.2%
Use other illegal drugs (e.g. cocaine, heroin, ecstasy)	0.0%	0.0%	1.8%	98.2%
Have 1 or 2 alcoholic drinks nearly every day*	0.0%	0.6%	4.9%	94.5%
Use an electronic vapor product such as Juul*	0.0%	0.6%	17.1%	82.3%
Smoke tobacco	0.0%	4.2%	24.8%	70.9%
Use marijuana	1.8%	9.1%	30.9%	58.2%
Drink alcohol occasionally	8.5%	29.1%	33.9%	28.5%

DATA SOURCE: Needham Parent Survey, 2022⁹

*n=164 for these questions

⁹ Data can be found at <https://www.spanneedham.org/surveys>.

When asked about their personal beliefs on the acceptability of youth substance use in different scenarios, respondents expressed negative opinions about the acceptability of youth marijuana use at home (91.5% disagree or strongly disagree and youth marijuana use without driving (85.5% agree or strongly agree) as acceptable behaviors. The least negative responses were on the acceptability of alcohol use at home if responsible and not excessive (20.6% agree or strongly agree).

The *Needham Parent Survey* asked parents to estimate the percentage of Needham students in ninth through twelfth grade who engage in substance use and related issues. Respondents were only asked to estimate use among the age group of their oldest child (parents of ninth through twelfth graders estimated use among ninth through twelfth graders). **TABLE 17** shows these estimates side by side with the percentage of students in grades nine through twelve who reported this substance use behavior in the 2021 *Metro West Adolescent Health Survey*.

In all categories below, parents of ninth through twelfth graders estimated substance use rates to be higher than the use rates reported by students in the 2021 *MetroWest Adolescent Health Survey*.

Table 17: Parents' perception vs. student reported substance use	9th-12th Grade (Parent Estimate)	9th-12th Grade 2021 Survey Data
Drank Alcohol (past 30 days)	48.7%	31.2%
Binge Drank (past 30 days)	23.7%	19.3%
Rode with Driver Who Drank Alcohol (past 30 days)	19.0%	12.1%
Used marijuana (past 30 days)	38.4%	14.4%
Used electronic vapor product (past 30 days)	32.3%	12.5%
Used illegal drug other than marijuana (past 30 days)	12.4%	*
Ever misused prescription drugs	18.7%	4.1%

DATA SOURCE: Needham Parent Survey, 2022 AND Metro West Adolescent Health Survey, 2021

*Question not asked in this format in Metro West Adolescent Health Survey

TABLE 17 reveals that parental perception is an over-estimate of use compared to actual use reported by Needham High School students. The largest areas of over-estimate include alcohol, marijuana, and vaping. Data from the Needham Parent Survey also sheds light on parental attitudes towards occasional alcohol use in Needham, with 62.4% of respondents reporting they feel it would be “wrong” or “very wrong” for their child to drink alcohol occasionally, which was significantly lower than the percent who felt it was “wrong” or “very wrong” for their child to use other substances, including marijuana, tobacco, and EVPs. This perception changes when the use increases to 1 or 2 alcoholic drinks nearly every day, with 99.4% of respondents reporting they feel it would be “wrong” or “very wrong”.

Adult Use

TABLE 18 shows that the percentage of Needham residents in 2021 who reported binge drinking in the past 30 days was slightly higher than both Massachusetts and the United States. In the *Housing Authority Assessment*, some respondents reported substance use as the biggest issue affecting their quality of life, with one respondent commenting “Substance abuse (i.e., alcohol abuse) is spilling out of the apartments. We are experiencing people acting inappropriately in the corridors. Ambulances for rehab for alcohol arrive often. It’s destabilizing and raises safety issues”.

Table 18	Adults Age 18+ Binge Drinking in the Past 30 Days
Needham	17.70%
Massachusetts	16.76%
United States	15.50%

DATA SOURCE: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2021¹⁰

TABLE 19 shows the rates of overdose deaths and suspected deaths related to opioids in Needham.

Table 19: Drug overdose data	2020	2021	2022
Opioid related overdose deaths	2	3	1
Total suspected drug overdoses	12	17	9
Opiate drug overdoses	6	8	3
Non-opiate drug overdoses	6	9	6

DATA SOURCES: Massachusetts Department of Public Health and Needham Police Year End Reviews, 2021 and 2022¹¹

Needham, Massachusetts was the first town or city in the United States to change the law for the age of buying cigarettes from 18 to 21. In 2021 Needham had a much lower smoking rate amongst adults than both Massachusetts and the United States, as seen in **TABLE 20**. However, a respondent from the *Housing Authority Assessment* commented “tenants still smoke inside their units, and they need to be more mindful of their neighbors.”.

Table 20	Adults Age 18+ as Current Smokers
Needham	8.20%
Massachusetts	12.12%
United States	13.50%

DATA SOURCE: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2021.

MENTAL HEALTH

Residents’ mental health is an area that is believed to be greatly affected by the pandemic. The full scope of what will be needed is unclear at this time and more data over time will be needed to fully understand the landscape of mental health in Needham. Throughout the state of Massachusetts, 25% of emergency department beds in from October 2021-September 2022 were occupied by persons awaiting behavioral health treatment, as there are not enough behavioral health providers to meet the growing need (15). We know Needham residents are not exempt from the impacts of both the mental health crisis and the provider shortage.

Adolescent Mental Health

Suicidal Ideation

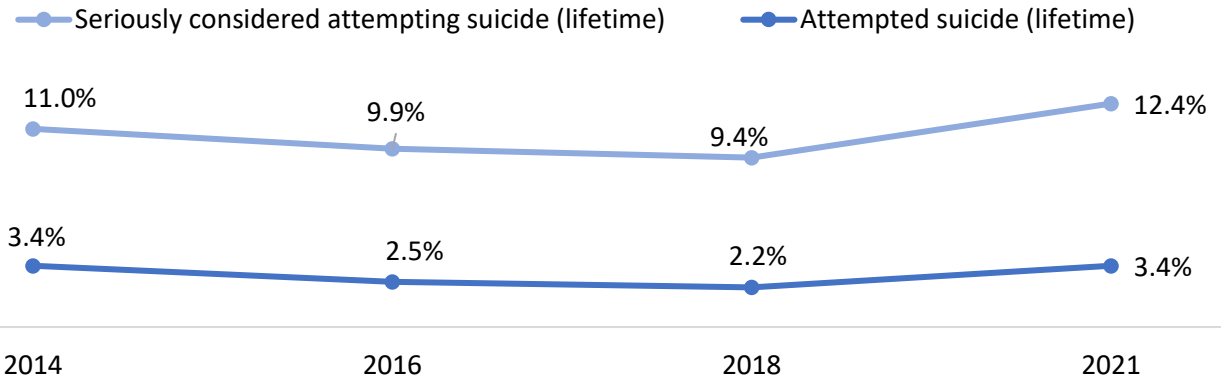
Between 2018 and 2021, the percentage of Needham high school students reporting “seriously considering attempting suicide” increased notably, after decreasing from 2014 to 2018. The percentage of high school students reporting having

¹⁰ More information on the Behavioral Risk Factor Surveillance System can be found here: <https://www.cdc.gov/brfss/index.html> . Data accessed via <https://www.cdc.gov/brfss/brfssprevalence/> .

¹¹ Data found at <https://www.needhamma.gov/4998/Annual-Data-Reports> .

attempted suicide was the same in 2014 and 2021. However, in both instances, there was a considerable increase in the percentage from 2018 to 2021 (**FIGURE 32**).

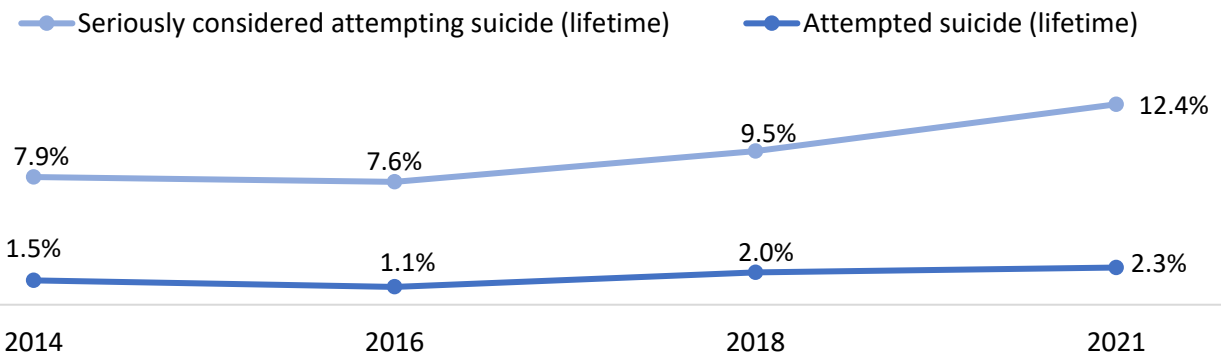
Figure 32: Percentage of Needham High School students reporting suicide ideation or attempting suicide in their lifetime, 2014-2021



DATA SOURCE: MetroWest Adolescent Health Survey, 2014-2021

Between 2014 to 2021, the percentage of Needham High School students reporting suicide ideation or suicide attempts increased. Suicide attempts increased very slightly from 2018 to 2021, but suicidal ideation increased notably from 2018 to 2021, and both had increased from 2016 to 2018 (**FIGURE 33**).

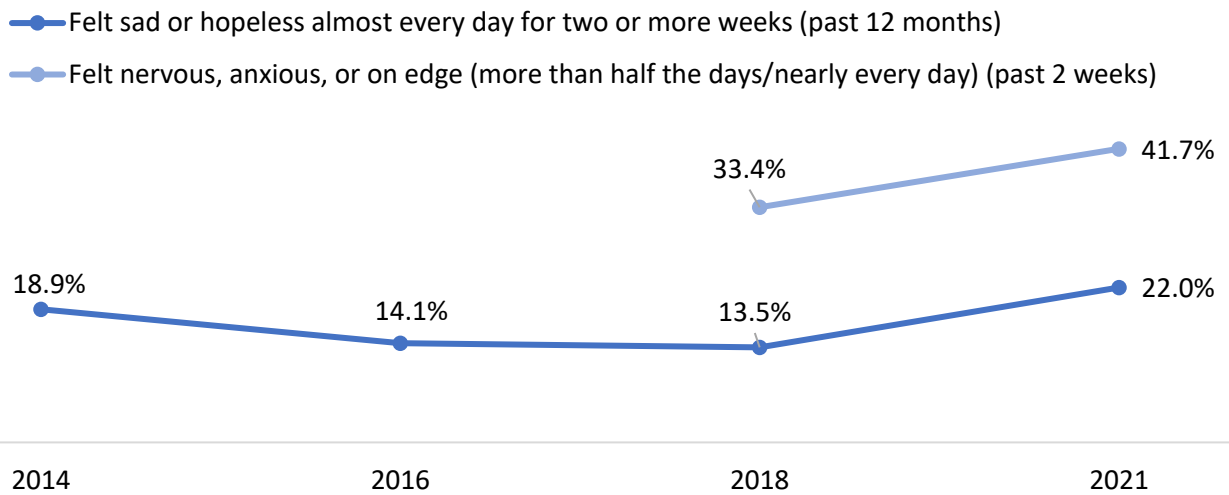
Figure 33: Percentage of Needham Middle School students reporting suicide ideation or attempting suicide in their lifetime, 2014-2021



DATA SOURCE: MetroWest Adolescent Health Survey, 2014-2021

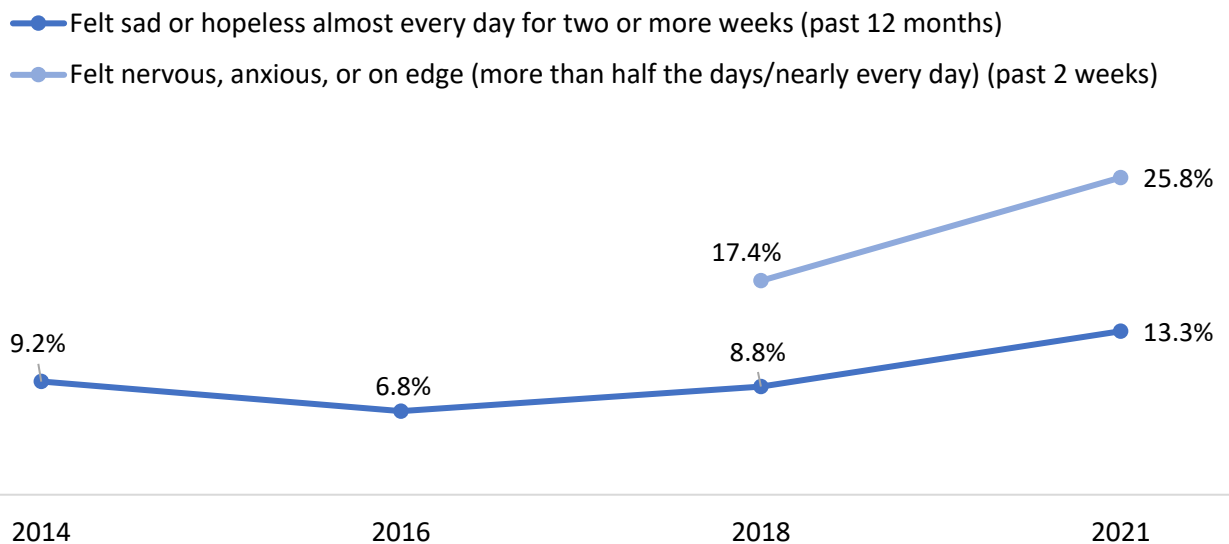
Depression and Anxiety

From 2014 to 2021, the percentage of high school students reporting symptoms of depression in the past 12 months had increased (**FIGURE 34**). The percentage of students feeling nervous, anxious, or on edge in the past two weeks increased from 2018 (when the data was first collected) to 2021.

Figure 34: Percentage of Needham High School students reporting depression or anxiety symptoms, 2021

DATA SOURCE: MetroWest Adolescent Health Survey, 2014-2021

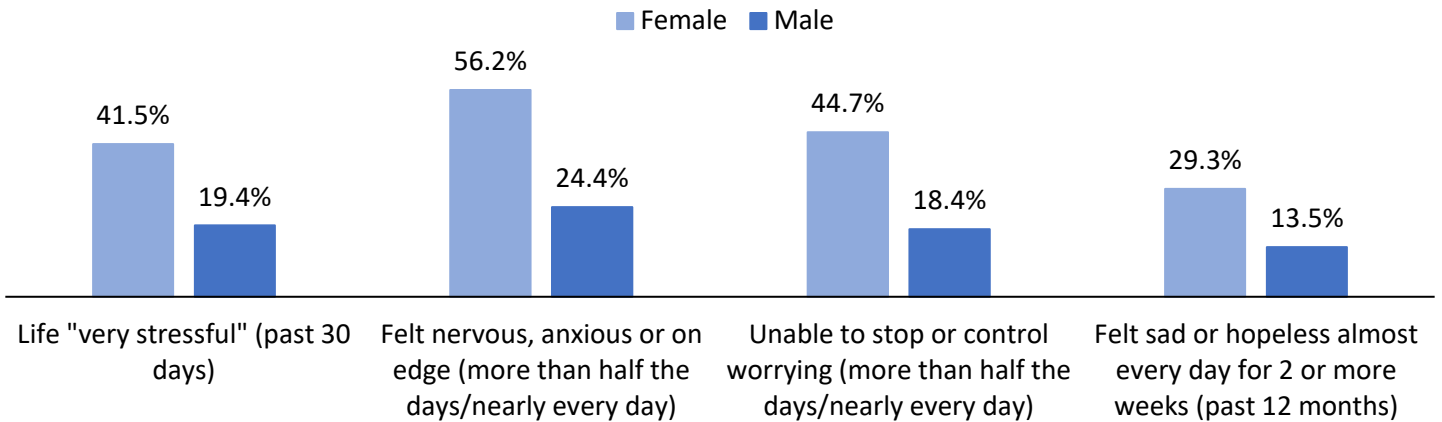
From 2014 to 2021, the percentage of middle school students reporting symptoms of depression in the past 12 months had increased (**FIGURE 35**). The percentage of students feeling nervous, anxious, or on edge in the past two weeks increased from 2018 (when the data was first collected) to 2021.

Figure 35: Percent of Needham Middle School students reporting depression or anxiety symptoms, 2021

DATA SOURCE: MetroWest Adolescent Health Survey, 2014-2021

Looking further at mental health indicators, we see that female high school students are reporting symptoms of stress, anxiety, and depression at higher rates than their male counterparts (**FIGURE 36**). In fact, females were at least two times as likely to report experiencing these symptoms than males.

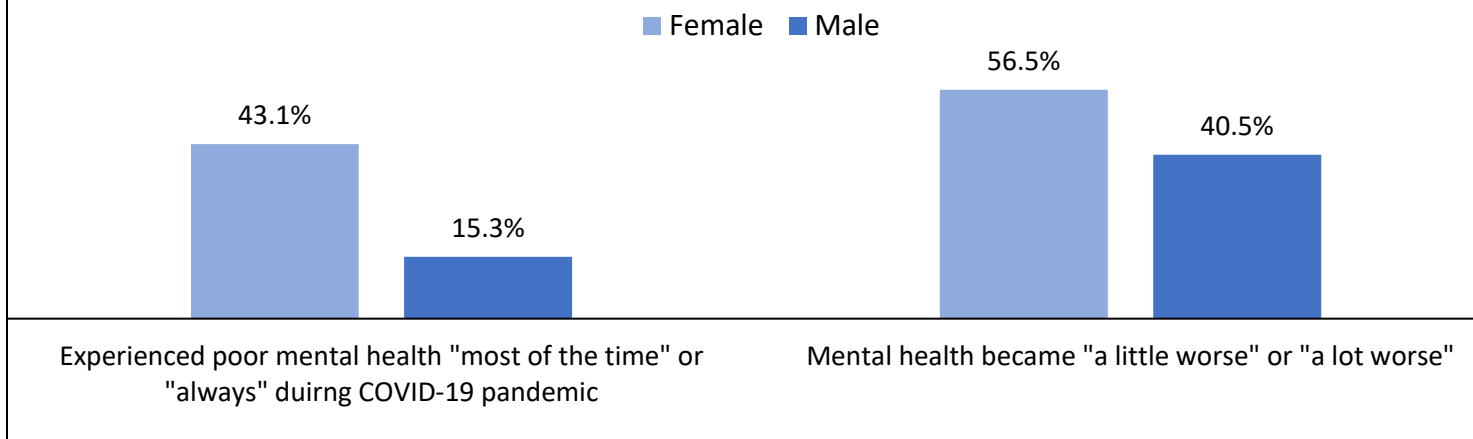
Figure 36: Percentage of Needham High School Students reporting stress, anxiety, or depression symptoms, by sex, 2021



DATA SOURCE: MetroWest Adolescent Health Survey, 2021

Not surprisingly, the COVID-19 pandemic impacted the mental health of Needham High School students, with females reporting a greater impact than male. More than half of females (56.5%) and 40.5% of males reported their mental health became a little or a lot worse due to the pandemic, with 43.1% of females reporting that they experienced poor mental health most of the time or always during the pandemic (**FIGURE 37**).

Figure 37: Percentage of Needham High School students reporting the pandemic having an impact on their mental health, 2021



DATA SOURCE: MetroWest Adolescent Health Survey, 2021

Adult Mental Health

Nearly 1 in 5 residents of Needham reported depression (**TABLE 21**) while just over 1 in 10 residents reported having poor mental health (**TABLE 22**) in 2021. It is anticipated that this will increase in the following years, due to the mental health crisis experienced during the COVID-19 pandemic.

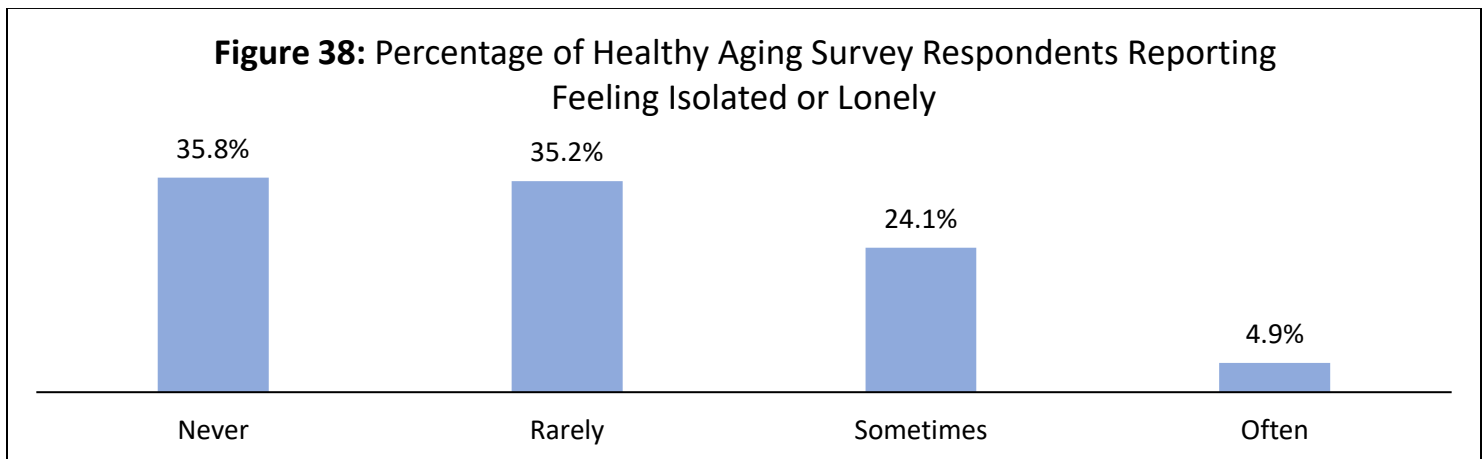
Table 21	Adults Age 18+ with Depression
Needham	18.60%
Massachusetts	29.90%
United States	19.50%

DATA SOURCE: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2021.

Table 22	Adults Age 18+ with Poor Mental Health
Needham	11.20%
Massachusetts	14.73%
United States	14.70%

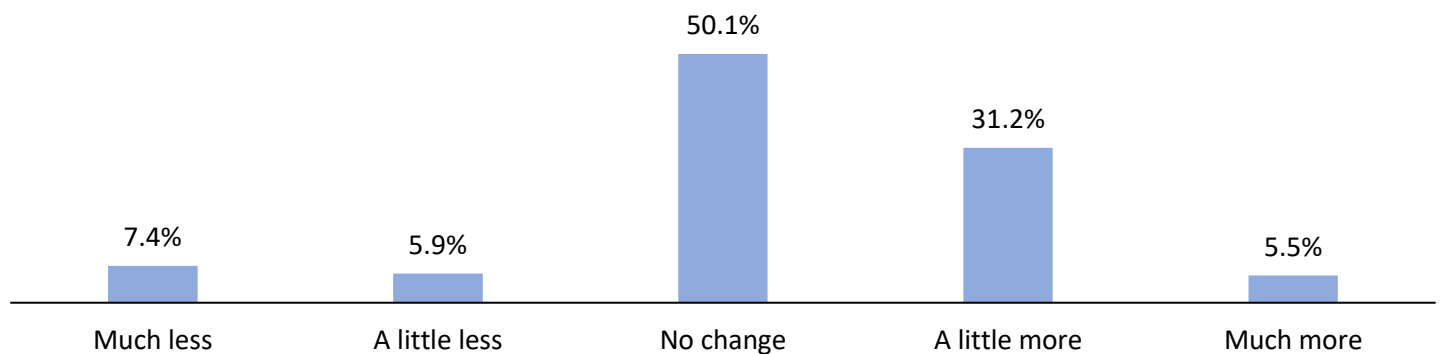
DATA SOURCE: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. 2021.

In the *Healthy Aging Assessment*, most respondents (71%) reported never or rarely feeling isolated or lonely (lacking companionship, feel left out, isolated from others), 24% felt this way sometimes, and ~5% felt isolated or lonely often (**FIGURE 38**). Over a third of respondents reported feeling more isolated or lonely since the outset of the COVID-19 pandemic (**FIGURE 39**).



DATA SOURCE: Survey on Healthy Aging in Needham, 2022

Figure 39: Percentage of Healthy Aging Survey Respondents Reporting Feeling Isolated or Lonely in Comparison to Before COVID-19 Pandemic



DATA SOURCE: Survey on Healthy Aging in Needham, 2022

Housing Authority Assessment respondents also reported a sense of community as an issue affecting their quality of life. One respondent commented that they “hope to have friends who I can trust so we can take care of each other, communicate with each other, and learn from each other. Friends who make me feel confident that I am a part of the community and someone useful”. Another commented “I feel isolated”.

COMPLEX AND CHRONIC CONDITIONS

BID-Needham's goal related to complex and chronic conditions is to “Improve health outcomes and reduce disparities for individuals at-risk for or living with chronic and/or complex conditions and caregivers by enhancing access to screening, referral services, coordinated health and support services, medications, and other resources” (1). Healthy People 2030 has set multiple goals for various health conditions such as [chronic kidney disease](#), [diabetes](#), [heart disease and stroke](#), [overweight and obesity](#) (16).

Physical Health

In the 2022 *Needham Community Survey*, 84% of Needham respondents positively rated their own overall health. 90% of respondents positively rated the health services in Needham and 82% positively rated the overall health and wellness opportunities.

In the *Housing Authority Assessment*, half of the respondents reported that their health was poor or fair in comparison to others their age (**TABLE 23**).

Table 23: Perceived health status for Housing Authority residents (n=113)	Number	Percentage
Poor	15	13.3%
Fair	40	35.4%
Good	37	32.7%
Very Good	17	15.0%
Excellent	4	3.5%
Missing	2	-

SOURCE: An Assessment of Needham Housing Authority Residents, 2020

Some *Housing Authority Assessment* respondents also identified physical health or mental health as the biggest issue affecting their quality of life, with one respondent commenting “I have problems with balance, depth perception, and endurance”. Another commented “poor physical and mental health are problems”.

Additionally, half of the *Housing Authority Assessment* respondents reported having difficulty walking or climbing stairs (**TABLE 24**).

Table 24: Reported difficulty walking or climbing stairs by Housing Authority Residents (n=107)	Number	Percentage
No	54	50.5%
Yes	53	49.5%
Missing	8	-

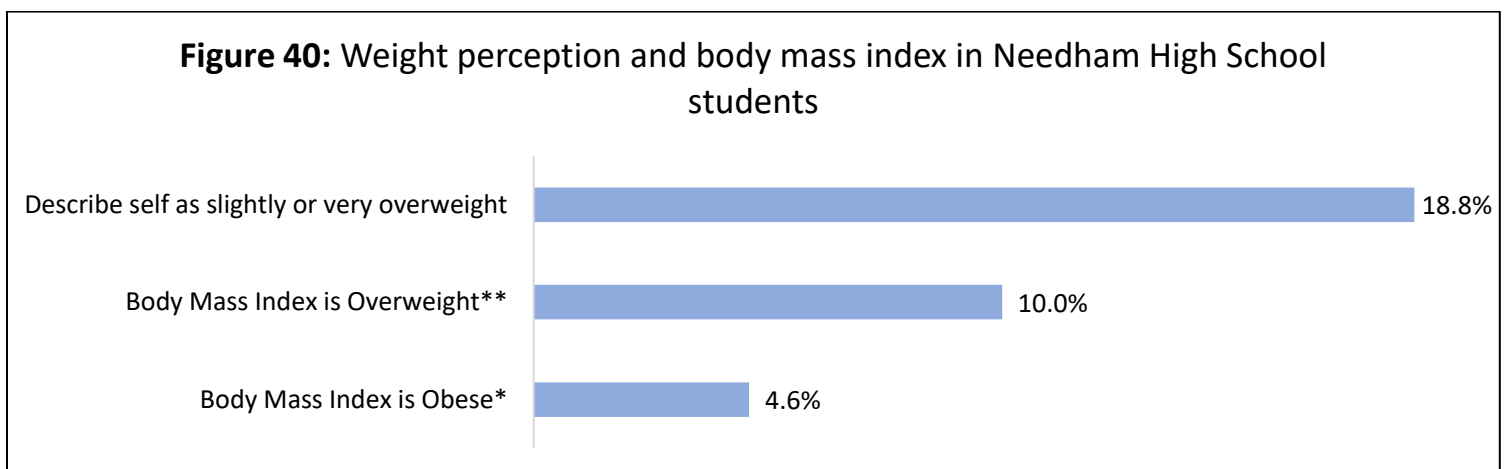
SOURCE: An Assessment of Needham Housing Authority Residents, 2020

Respondents of the *Healthy Aging Assessment* were asked to indicate how they would rate their health in comparison to other people their age. Most respondents felt that their health was good, very good, or excellent. Only about 8% of respondents reported their health was fair or poor when compared to other people their age (**TABLE 25**).

Table 25: Perceived health status for residents 60+ (n=730)	Number	Percentage
Poor	10	1.4%
Fair	51	7.0%
Good	161	22.1%
Very Good	310	42.5%
Excellent	198	27.1%
Missing	8	-

DATA SOURCE: Survey on Healthy Aging in Needham, 2022

FIGURE 40 shows the percent of Needham High School students who have a Body Mass Index (BMI) that is considered overweight or obese or who perceive themselves as overweight. Nearly 1 in 5 high school students reported describing themselves as slightly or very overweight. 1 in 10 high school students reported their Body Mass Index as overweight.

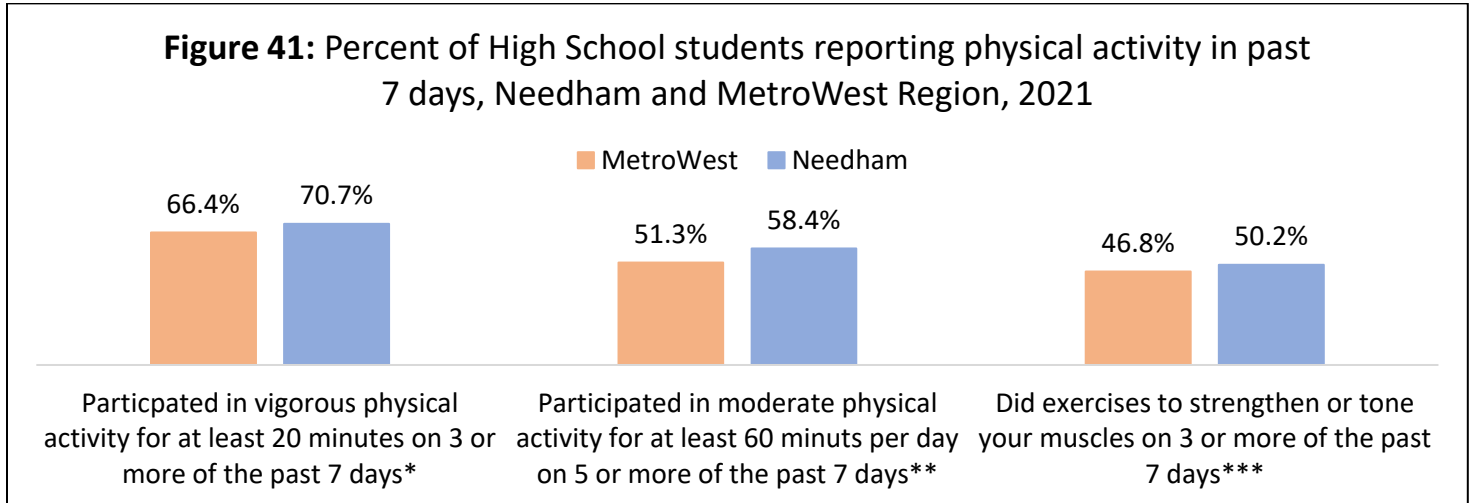


*Students who were ≥ 85 percentile but < 95 percentile for body mass index by age and gender, based on reference data

**Students who were ≥ 95 percentile for body mass index by age and gender, based on reference data

DATA SOURCE: MetroWest Adolescent Health Survey, 2021

FIGURE 41 shows the percent of Needham High School students who reported participating in vigorous physical activity, moderate physical activity, or exercises to strengthen or tone their muscles in the 7 days prior to the survey. A slightly higher proportion of Needham High School students reported participating in such physical activity than did high school students in the overall MetroWest region.



*Includes physical activity that made them sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activities

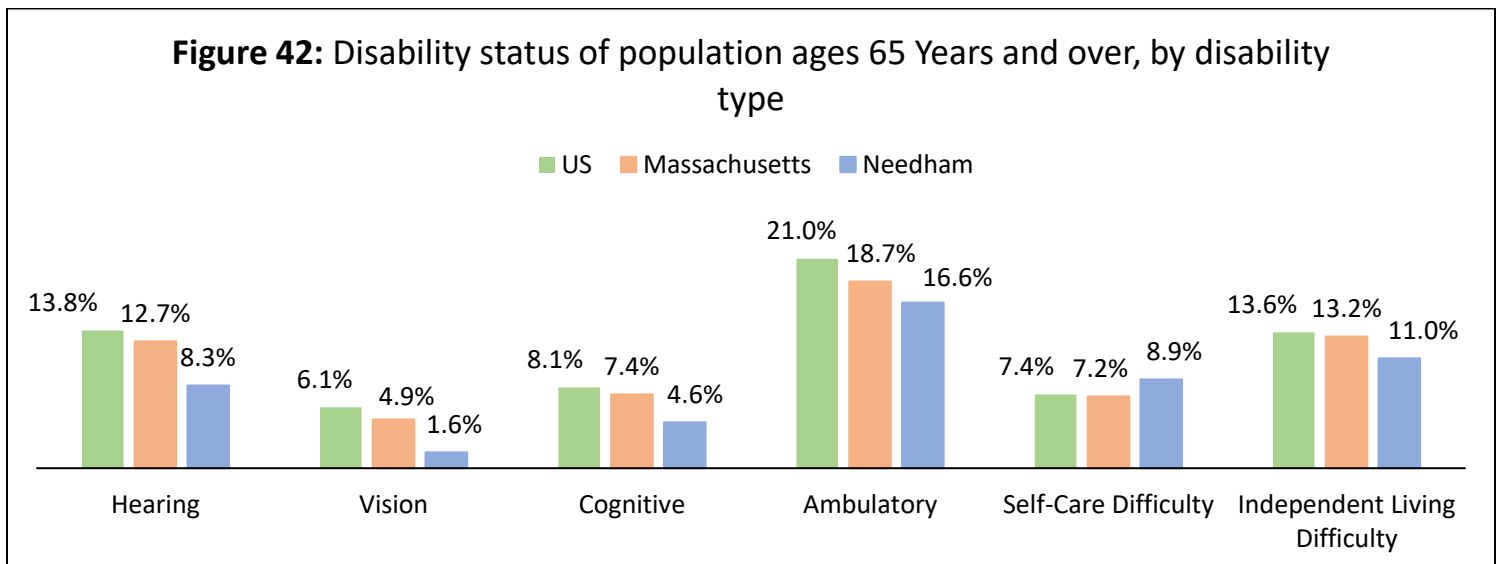
**Includes any physical activity that increases your heart rate and makes you breathe hard some of the time

***Such as push-ups, sit-ups, or weightlifting

DATA SOURCE: MetroWest Adolescent Health Survey, 2021

Disability Status

FIGURE 42 shows the percentage of adults aged 65 years and older with a disability in 2021, per US Census data estimates. Overall, fewer Needham residents had disabilities compared to Massachusetts and the United States. However, more Needham residents had self-care difficulty (8.9%) compared to Massachusetts (7.2%) and the United States (7.4%).



DATA SOURCE: U.S Census Bureau, American Community Survey 5-Year Estimates, 2017-2021

Chronic Diseases

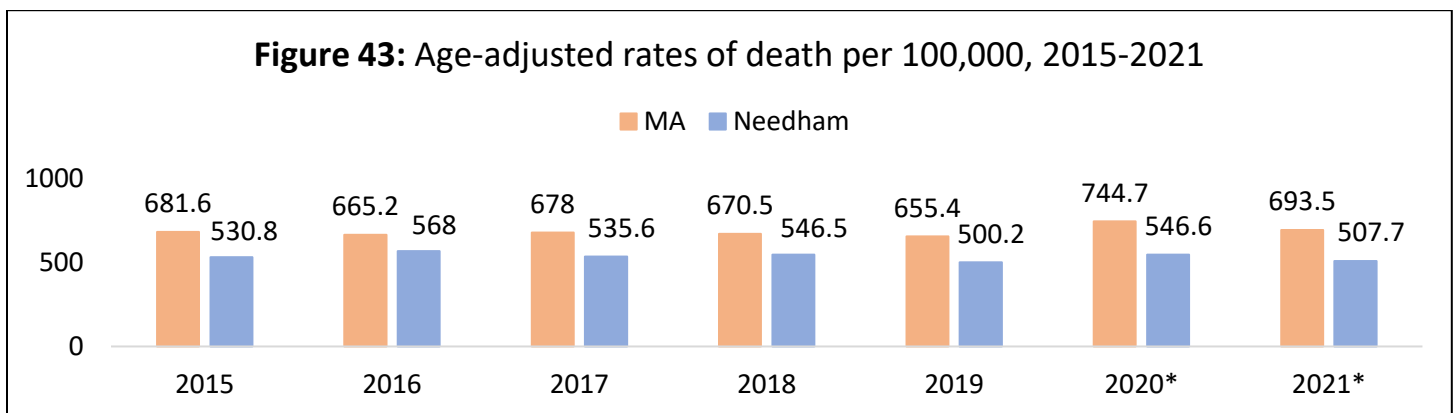
TABLE 27 shows that the prevalence of chronic conditions does not vary greatly by census tract. The most prevalent conditions amongst Needham residents are high cholesterol, high blood pressure, obesity, arthritis and depression.

Table 27: Census Tract	4031	4033	4572	4034	4035
% Arthritis	23.1	23.7	23.8	24.5	23.3
% Asthma	9.5	9.4	9.5	9.7	9.7
% High Blood Pressure	25.9	26.7	26.8	27.6	26.5
% Cancer	8.1	8.4	8.4	8.9	8.0
% High Cholesterol	37.0	37.6	37.3	37.5	36.6
% Kidney Disease	2.5	2.6	2.6	2.8	2.7
% COPD	4.1	4.1	4.4	4.7	4.9
% Heart Disease	4.5	4.7	4.8	5.2	5.1
% Diabetes	6.8	6.9	7.1	7.4	7.4
% Depression	18.7	18.9	18.4	18.6	19.0
% Obesity	23.8	23.5	23.4	22.6	23.9
% Stroke	2.2	2.3	2.4	2.6	2.4

DATA SOURCE: Centers for Disease Control and Prevention, PLACES Local Data for Better Health, 2021

Deaths

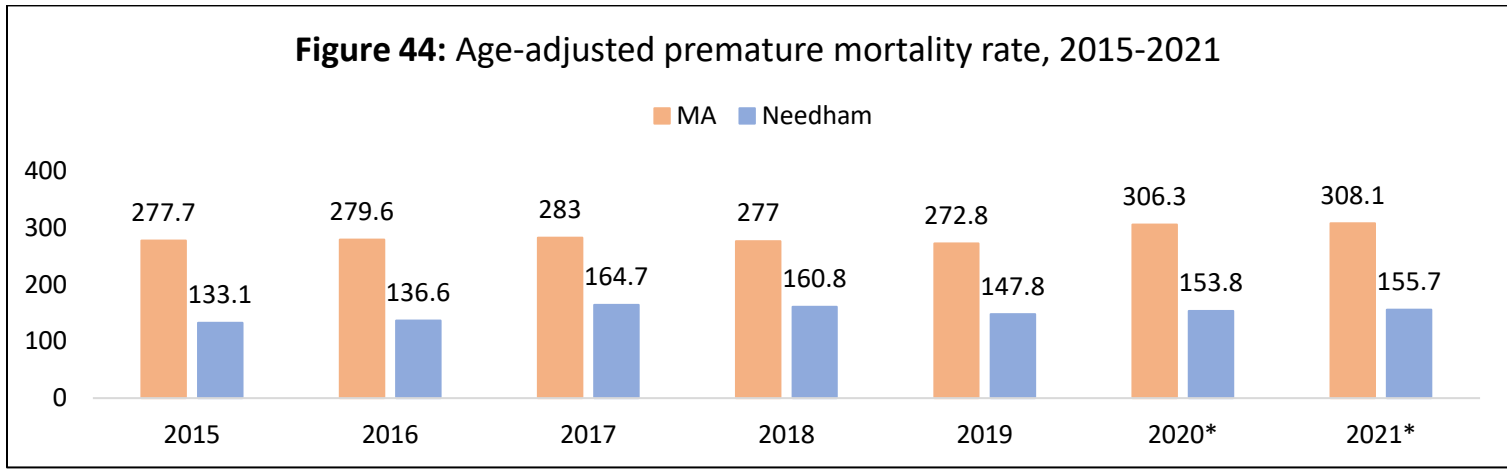
FIGURE 43 shows the age-adjusted mortality rate per 100,000 population in Needham and Massachusetts from 2015-2021. Overall, Needham had lower mortality rates than Massachusetts for each year. Age-adjusted rates are used when comparing groups with different age distributions. For example, Needham may have a higher percentage of elderly residents and thus may have a higher rate of death or hospitalization than a town with a younger population. Additionally, presenting the rates as “rates per 100,000” allows us to compare rates across different geographies with different population sizes.



SOURCE: Massachusetts Department of Public Health, Registry of Vital Records and Statistics¹²

¹² More information on the Massachusetts Registry of Vital Statistics can be found here: <https://www.mass.gov/orgs/registry-of-vital-records-and-statistics> . Data accessed via <https://www.mass.gov/info-details/deaths-of-massachusetts-residents> .

FIGURE 44 shows the age-adjusted premature mortality rate per 100,000 population in Needham and Massachusetts from 2015 to 2021. In 2021, the age-adjusted premature mortality rate in Needham was 155.7, which is half the age-adjusted death rate in MA (308.1).



*2020 and 2021 data are preliminary

Premature Mortality is defined as deaths that occur before the age of 75 years; Rates are age-adjusted per 100,000

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

In 2021, the leading cause of death in Needham was cancer, followed by heart disease and unintentional injuries. **TABLE 28** shows the top 10 leading causes of death in Needham in 2021 and the number of deaths in each of those categories in 2020 and 2019 for comparison.

Table 28: Causes of Death	Needham 2021	Needham 2020	Needham 2019
Overall	271	319	245
Cancer	53	44	52
Heart Disease	52	66	37
Unintentional injuries	14	14	13
Stroke	13	11	7
COVID-19	9	52	-
Alzheimer's Disease	7	12	12
Parkinson's	6	4	7
Pneumonitis	6	4	4
Diabetes Mellitus	5	12	6
Nephritis	5	2	7

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

2021 data are preliminary.

CONCLUSIONS/VISIONS FOR THE FUTURE

Based on the data in this community health assessment and examining further data into the priorities of the BID – Needham Community Health Needs Assessment, Needham Public Health Division has identified the following themes, which will be addressed in more detail in a Community Health Improvement Plan:

1. Access to health care: Transportation is a limiting factor to accessing appropriate healthcare for some Needham residents, particularly seniors and residents of the Needham Housing Authority.
2. Social Determinants of Health: Cost of living is a significant challenge for many Needham residents.
3. Mental Health and Substance Use: Mental health and substance use pose unique challenges for Needham residents, particularly youth.
4. Complex and Chronic Conditions: Heart disease continues to be a leading cause of death in Needham.

Needham Public Health Division will collaborate with community stakeholders to share the findings of the Community Health Assessment and identify strategies to address priority areas of focus.

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