2025 Greater Lowell Community Health Needs Assessment

TuftsMedicine
Lowell General Hospital

Prepared in collaboration with Tufts Medicine Lowell General Hospital by the Greater Lowell Health Alliance.

GLHA
GREATER LOWELL HEALTH ALLIANCE

Acknowledgements

The Greater Lowell Health Alliance extends sincere thanks to the following people and organizations who provided critical assistance and partnership to the completion of the 2025 Greater Lowell Community Health Needs Assessment:

Greater Lowell Health Alliance Executive Director Kerrie D'Entremont and Director of Community Engagement & Education Amanda Clermont for their consistent and unwavering support for this project.

University of Massachusetts Lowell students, who supported data collection and entry, reviewed public health data, and assisted in authorship for portions of this report: Jessica Poulin, Kyle Skerry, Matthew Brady, Jack Callahan, Elizabeth Gacek, Yudaya Nanziri and Hannah Grinsztein.

The Greater Lowell Health Alliance intern, Alice Saraiva, who completed the Resources Appendix and supported focus group note-taking.

Luz Guzman and Amy Lam, students at the University of Massachusetts Lowell who also supported focus groups.

GLHA Community Health Worker Kowith Kret, who distributed surveys throughout Greater Lowell and provided critical Khmer-language support.

Our community partner sites that hosted focus groups and/or surveys, including the Renaissance Club, Eliot Church, the Cambodian Mutual Assistance Association, Lowell Health Department, Older Adult Subcommittee, Tewksbury Health Department, Megan's House, Massachusetts Society for the Prevention of Cruelty to Children, United Methodist Church, Lowell Early Childhood Coalition, University of Massachusetts Lowell, Coalition for a Better Acre, Behavioral Health Task Force, Chelmsford Senior Center, African Community Center, Center for Hope and Healing, Chelmsford Health Department, Wellness and Chronic Disease Taskforce, Partners in Childhood Development, Lowell Community Health Center, and Vinfen, and all participants who completed the community survey, participated in a listening session and/or served as a key informant for interviews to make this report a success.

CONDUCTED ON BEHALF OF:

Tufts Medicine
Lowell General Hospital

Primary authors:

Hannah Tello, PhD

Ella Harris, BSPH

Contributing authors:

Jessica Poulin, MPH

Kyle Skerry, MPH

Matthew Brady, MPH

Jack Callahan

Alice Saraiva

Contents

Executive summary

In collaboration with Tufts Medicine Lowell General Hospital, the Greater Lowell Health Alliance conducted the 2025 Greater Lowell Community Health Needs Assessment in order to determine the most significant community health needs of Billerica, Chelmsford, Dracut, Dunstable, Lowell, Tewksbury, Tyngsborough and Westford. The assessment utilized both primary data collection via surveys and focus groups, as well as secondary analysis of local, state and national public health data sets in order to describe and define the current state of health and wellbeing across the Greater Lowell region.

The 2025 CHNA identifies eight key health priorities:

1. Socioeconomic barriers to health and care
2. Mental health
3. Conditions of aging
4. Chronic conditions and wellbeing
5. Addiction and substance misuse
6. Child and adolescent health
7. Safety and violence
8. Sexual and reproductive health

While each of these categories reflects important clinical and behavioral health concerns, the most powerful and consistent theme expressed by community members is that their health is shaped less by individual behaviors or diagnosed health conditions and more by the conditions in which they live, work and raise families. Across demographic groups and communities, residents emphasized the profound impacts of poverty, housing instability, immigration status, racism, discrimination and political disempowerment on their ability to stay healthy. Many participants expressed that even when they had not experienced any specific decline in their health (for example, no new illnesses or diagnoses), they still felt that their wellbeing was worse compared to previous years due to financial strain, mental health stress or feeling isolated from communities.

Despite these challenges, residents also acknowledge the impact of community and organizational efforts to address previous priorities. Decreases in overdose deaths, increased community access to health screenings and sustained community attention to infection control were noted as major successes over the last three years; these impacts are also reflected in public health data, which capture gains across these domains. As a result of issues like these being perceived as less urgent, new priority areas emerged in their place, allowing populations of focus like elders, youth, LGBTQ+ residents and veterans to garner focus attention.

To address the complex network of interconnected health needs, residents stressed the need for straightforward, navigable, affordable resource and service networks. The ever-changing landscape of temporary or grant-funded programs creates confusion for residents seeking long-term, sustainable plans to address their health needs. Hospitals, community-based organizations, city councils, school systems and public agencies must work together to advocate for meaningful and substantial investments in the social infrastructure that supports health. This includes advocating for affordable housing, livable wages, accessible transportation, culturally and linguistically appropriate services and policies that reduce structural inequities. This kind of upstream intervention is essential for ensuring that our downstream service lines are able to function safely and efficiently, focusing on their areas of clinical expertise.

Thanks to a community-driven, collaborative approach to the design, implementation and development of this report, the next steps for translating data into action are already underway via the network of engagement collaborators across the Greater Lowell community who will turn this data into a Community Health Improvement Plan, as well as a range of implementation plans and strategic vision plans in a variety of settings and organizations. These efforts will continue to be evaluated as they improve the health and well-being of the Greater Lowell community.

Process and methods

Report collaborators

The Greater Lowell Health Alliance (GLHA) is a non-profit organization that brings together more than 250 healthcare providers, business leaders, educators, civic and community leaders with a common goal to help the Greater Lowell community identify and address its health and wellness priorities. The GLHA was founded in 2006 through collaboration with Lowell General Hospital, Saints Medical Center, UMass Lowell, Middlesex Community College, Lowell Community Health Center, VNA of Greater Lowell, City of Lowell and Lowell Public Schools. In 2008, the GLHA merged with the Community Health Network Area 10 (CHNA 10). The GLHA served as the primary author of this report, including in the creation and distribution of data collection tools, data analysis and report authorship. GLHA staff are the primary architects and authors of this needs assessment.

Tufts Medicine Lowell General Hospital: Tufts Medicine is the parent organization of Lowell General Hospital, a 390-bed, not-for-profit community hospital based in Lowell, Mass. Founded in 1891, Lowell General operates two inpatient hospital campuses, a cancer center, four urgent care centers and several physician and outpatient facilities in the Greater Lowell area. Offering state-of-the-art technology and a full range of medical and surgical services, Lowell General serves as the region's primary healthcare provider and is its largest employer. Tufts Medicine is also the parent organization of Tufts Medical Center, MelroseWakefield Hospital, an expansive home care and hospice network, and a large clinically integrated physician network that cares for more than 1 million patients each year. The health system is dedicated to providing patients with the highest quality of care as close to home as possible.

The University of Massachusetts Lowell is a public research university in Lowell, Mass. with a satellite campus in Haverhill, Mass. The GLHA has partnered with various departments and research centers across the UMass Lowell campus to engage student interns in data collection, analysis and various aspects of report writing.

In addition, the 2025 CHNA is supported by dozens of local community organizations and agencies who provided integral support for reviewing data collection tools, distributing surveys, recruiting focus group participants, and facilitating report distribution after completion.

Defining the community

Geographic community

The 2025 Greater Lowell CHNA defines the community served based on the Lowell General Hospital's service area. The service area includes the Greater Lowell communities that comprise CHNA 10; these communities are Billerica, Chelmsford, Dracut, Dunstable, Lowell, Tewksbury, Tyngsborough and Westford. This service area encompasses the primary patient population of Lowell General Hospital, as well as the geographic locations of additional Tufts Medicine resources included under the healthcare system, such as urgent cares. See Community Profiles for detailed demographic information about the region.

Community populations

Greater Lowell is home to a large foreign-born population. Approximately 26.6% of Lowell's residents were born outside of the United States.[1] Just under half of the foreign-born population (48.4%) is Asian, with Lowell being home to the second-largest Cambodian population in the U.S., as well as a significant population of Vietnamese and Laos residents. Lowell has also seen an increase in African immigrants; African and Black community members account for 6.8% of Lowell's total population, but 14.6% of its foreign-born population.

In 2023, Lowell was selected as a location for one of the state's mass shelter programs, resulting in the placement of more than 200 families in Lowell's only hotel. A majority of these families were Haitians who were granted temporary protection by the Biden administration. This new influx of foreign-born residents was just the most recent in what have historically been ebbs and flows of various immigrant and migrant communities that shape the social landscape of the region.

Income inequality in the Greater Lowell region is pronounced, particularly within the city of Lowell itself. The median household income in Lowell is significantly lower than the Massachusetts statewide median of approximately $100,000. About 15% of Lowell residents live below the poverty line, a rate notably higher than the state average. Within the city, income disparities are stark: in some neighborhoods, median household income drops as low as $23,700, with more than 30% of residents living in poverty, while more affluent areas report median incomes exceeding $80,000 and lower poverty levels. The city's Gini index (a measure of income inequality) ranges from 0.45 to 0.59 depending on the source and ZIP code, indicating a moderate to high level of inequality that surpasses both state and national averages in certain areas. Compared to surrounding Middlesex County, which includes some of the wealthiest towns in the state, Lowell's urban core shows concentrated economic hardship. While the broader region (including surrounding towns like Chelmsford, Tewksbury and Westford) appears more economically stable, citywide and even countywide averages can mask deep inequities at the neighborhood level.

Many populations within the community face disproportionate barriers to health, safety and economic stability. Lowell has been deeply affected by the opioid crisis, with persistent rates of overdose and substance use disorder, particularly among residents who also experience poverty, trauma or mental health challenges. To address these issues, Lowell has become a resource hub for substance use services.

Older adults in Greater Lowell also face a range of health and social challenges, including chronic illness, mobility limitations, social isolation, and fixed incomes that may not keep pace with the cost of living. While Lowell benefits from a number of senior-focused services, aging residents, especially those who live alone, speak limited English, or have disabilities, often struggle to access care, maintain housing or find transportation to services. The aging population is growing rapidly, highlighting the need for increased investments in accessible healthcare, housing supports and caregiver resources.

[1] U.S. Census Bureau. (2022). American Community Survey 5-year Estimated Subject Sample: Selected Characteristics of the Native and Foreign-Born Population.

Youth in Greater Lowell are at heightened risk of experiencing mental health issues, violence, educational disruption and limited access to enrichment opportunities. Adolescents are increasingly reporting anxiety, depression and stress related to academic pressure, social dynamics and uncertainty about the future. LGBTQ+ youth face even higher risks, including discrimination, bullying and lack of access to affirming care or family support. Many LGBTQ+ residents of all ages report barriers to safe and inclusive services, particularly in health, housing and behavioral health settings.

Greater Lowell is also home to many veterans who may experience service-related physical or mental health conditions, including PTSD, chronic pain and substance use. Veterans in the area often face difficulties navigating benefits, accessing specialized care, or reintegrating into civilian life, especially those who are unhoused or living with untreated mental health needs. In addition, individuals with disabilities, recent immigrants and refugees, and people with limited English proficiency are all at risk of falling through the cracks in systems that are not fully accessible or culturally responsive.

Together, these overlapping vulnerabilities reflect systemic inequities that cannot be solved through health services alone. Meaningful progress will require cross-sector collaboration, inclusive program design, and sustained attention to the voices and experiences of those most impacted.

Previous needs assessments

Following the publication of the 2022 Greater Lowell CHNA, strategic plans were developed based on the assessment's data. The Greater Lowell Health Alliance published the 2023 Greater Lowell Community Health Improvement Plan, which identifies SMART goals and objectives within each health priority domain area, as well as specific action steps toward achieving those goals, via leveraging relationships with a range of community partners and organizations. Based on community feedback about the need for local metrics that can track progress across priority areas, the 2022 CHNA was designed with the vision of being able to repeat many of the same measurements in 2025. As a result, the 2023 CHIP included goals based on specific CHNA items to measure changes in the community between 2022 and 2025. The forthcoming 2026 CHIP will report on progress toward these metrics. The 2022 CHNA was also a critical document for multiple reports produced by our community partners (for example, the Lowell Health Department 2025 Community Health Assessment and Community Teamwork Inc.'s 2023 Community Needs Assessment).

Methods

This assessment uses a community-activation approach. Community activation refers to the engagement of community stakeholders in every step of the assessment process, from conceptualization to publication. While the steering committee ensures that the assessment meets all judiciary requirements, the community-engaged process is critical to grounding this assessment in the community served.

Data sources

Community health survey

A revised Community Health Survey collected data from several domains: Demographics, Wellbeing and QOL Indicators, Health Issues, Special Populations, Community Resources, Self-report of Health Issues and Access Barriers, Service Utilization and Open Response. The survey was translated from English into Spanish, Portuguese, Khmer, Arabic, French, Haitian-Creole and Swahili. Participants completed the survey digitally on Survey Monkey or via paper copies which were then added to the digital data set.

To promote participation, we:

- Created three short versions of the longer survey so that paper copies could fit on a single front-and-back page. All versions of the survey included key demographic data; each of the three versions also included a random sample of the remaining questions. Versions of the survey were randomized during distribution to ensure accurate sampling occurred. Response rates for each short version were equally distributed across the sample;
- Distributed digital media kits for social media posts and hashtags to our GLHA network of more than 200 agencies;
- Printed 2,600 paper copies of the survey for our community partners who hosted pick-up and drop-off sites at the agency locations;
- Offered live survey administration with a multilingual survey administrator at in-person community events. Live survey administration protected access to the survey for people who have literacy barriers, visual impairments, needed additional language access, or otherwise struggled with interacting with the paper or digital survey formats;
- Offered secure entry in a raffle for one of multiple $50 grocery gift cards at the completion of the survey.

Survey data collection yielded 3,238 responses (Table 1). Because Lowell is the largest municipality in the Greater Lowell region, a demographic summary of survey participants from Lowell is also provided.

Table 1: Selected Community Health Survey Demographics, 2022 to 2025

	2022 survey: All participants		2025 survey: All participants		2025 Lowell participants	
	Count	%	Count	%	Count	%
TOTAL	**2055**		**3075**		**1408**	
Age						
Under 18	95	4.8	24	0.7	12	.9
18–26	100	5.1	278	8.5	169	13.0
27–34	184	9.3	332	10.2	188	14.4
35–44	436	22.1	510	15.7	285	21.9
45–54	419	21.3	435	13.4	182	14.0
55–64	343	17.4	520	16.0	190	14.6
65–74	244	12.4	533	16.4	188	14.4
75–84	126	6.4	240	7.4	80	6.1
85–94	23	1.2	30	0.9	10	.8

Gender						
Woman	1491	76.2	2095	64.7	928	70.4
Man	444	22.7	820	25.3	375	28.5
Non-binary	18	1.0	18	0.5	6	.5
Transgender	2	.05	16	0.4	9	.7
Sexual orientation						
Heterosexual	1654	89.3	2194	82.6	887	78.5
LGBTQ+	166	8.1	262	9.9	147	13.0
Race (n>5)						
White	1475	76.7	2181	67.3	740	60.1
Black	87	4.5	235	7.2	174	14.1
Asian	211	10.9	295	9.1	221	17.9
Indigenous	19	1.0	33	1.0	19	1.5
Native Hawaiian/ Pacific Islander	-	-	-	-	-	-
Middle Eastern/North African	20	1.0	16	0.5	8	.7
Another race	87	4.5	163	5.0	119	9.7
Hispanic/Latino/a						
Yes	217	10.5	353	10.9	259	21.3
Country of origin						
Outside of the U.S.	348	17.7	642	19.8	487	37.4
Veteran status						
Yes	104	5.6	164	6.0	51	4.3
Primary language (n>5)						
English	1622	87.9	2359	84.4	875	70.6
Spanish	95	5.2	118	4.2	99	8.0
Khmer	39	2.1	98	3.5	90	7.3
Portuguese	20	1.1	71	2.5	66	5.3
Haitian/Haitian Creole	NA	NA	52	1.9	43	3.5
Vietnamese	5	.3	10	.4	8	.7
Swahili	7	.4	7	0.2	7	.6

A goal of the 2025 CHNA was to achieve proportional representation (relative to the regional population) across a range of geographic and demographic subpopulations. We achieved proportional representation in the survey in Chelmsford, Dracut, Dunstable, Lowell and Tyngsborough (Figure 1). We also achieved proportional representation in the survey for several key demographic groups, including LGBTQ+ participants, veterans, Black participants, Hispanic participants and foreign-born participants (Figure 2).

Figure 1: Progress to proportional participation in the CHNA survey, by community

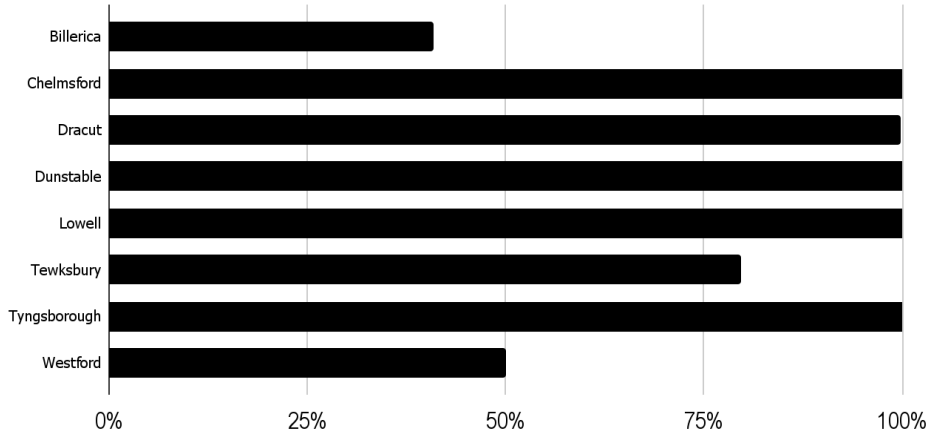
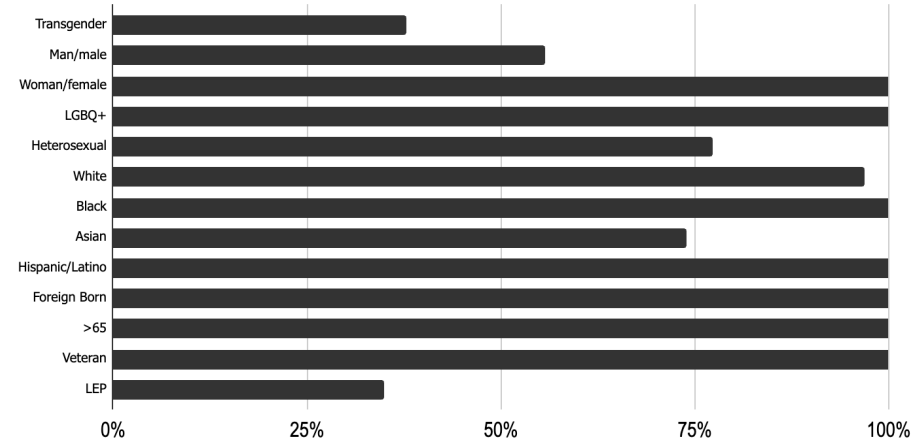


Figure 2: Progress to proportional participation in the CHNA survey, by demographic subgroup



Focus groups

Twenty-seven focus groups were conducted for this assessment. Focus groups were held in or with organizations that served populations of interest (for example, with local senior centers to engage older adults or local cultural organizations that serve primary Latino/a clients). Participants were asked about community health priorities, special populations and barriers to health services. Two to three trained notetakers at each focus group recorded key points made by participants. Notetakers also consulted each other after focus groups to ensure data validity. More than 260 people participated in focus groups.

Public health data

The most recently available public data is used throughout this report. When possible, we have presented city- and town-level data to identify disparate outcomes. In other cases, we present public health data for relevant populations of interest (for example, people born outside the U.S.). A majority of the public health data referenced in this report was accessed via the Massachusetts Department of Public Health Population Health Information Tool (PHIT), which provides community-specific health data across several domains. Data sources for the PHIT directory include the Massachusetts Cancer Registry, Massachusetts

Mortality and Morbidity reports, Behavioral Risk Factor Surveillance System, Massachusetts Center for Health Information and Analysis reports, the Massachusetts Drug Control Prescription Monitoring Program, the Pregnancy Risk Assessment Monitoring System, BSAS Substance Addiction Treatment data and others.

We would also like to highlight the critical role of Community Teamwork, Inc.'s 2023 Community Needs Report, which provides one of the most comprehensive, data-driven summaries of the economic and housing needs in our community. Our needs assessment significantly benefits from their efforts to collect and disseminate this critical local data throughout our community.

Analytical plan

We utilized a mixed-methods analytic process to operationalize data across the three primary data sources so they can be interpreted together.

Survey participants were asked to assign ranks to their top five health priorities, as well as priority populations. Participants could rank the same item multiple times if they felt particularly strongly. During analysis, ranks were converted to weighted scores; highest ranks (i.e., items ranked 1) were assigned the highest weight (i.e., a weight of 3), generating a larger total score (i.e., 430 people ranking an item number 1 generated a score of 1290). Weights decreased in even increments (i.e., items ranked 2 were weighted 2.5, items ranked 3 were weighted 2, etc.) In order to compare ranked items between groups of different sizes (e.g., participants from Dracut versus participants from Billerica), scores were converted into a standardized score by dividing the total score by the number of participants in the group.

Focus group responses were analyzed phenomenologically. All responses were pooled within the question that prompted the response (e.g., responses from question 1 were analyzed independently from responses to question 2). Notetakers as well as two data analysts reviewed notes, identified themes and then grouped individual themes into major categories to describe feedback from focus group participants. In addition, notes also indicated the frequency with which specific themes or ideas were repeated or endorsed. These were then assessed across all groups to generate an estimated density score. Density scores are not intended to replace the qualitative analysis of the focus group data but rather to offer a means by which the focus group analyses could be integrated with survey data to contribute to rank order, rather than assessed as a supplement to the survey data.

Where appropriate, scored items were evaluated together as subcategories of a larger category (e.g., Cancer and Heart/Lung Health were evaluated as items under the larger category "Chronic Disease"). Additional consideration was given to survey items with relevance to major categories; for example, when the major category "Conditions of Aging" was identified, the ranking of "Elders" in the survey item regarding populations of interest was also considered when determining ranking. Public health data was reviewed to identify categories with high rates of health disparities and inequities, particularly for the populations of interest identified in this assessment. A summary of the relevant scores for each priority is listed at the beginning of each chapter under the "Rationale" section.

Addressing social determinants of health

Equity framework

When evaluating their health, most people consider individual factors and health behaviors: their age, diet, activity level, underlying health conditions, etc. But individual health behaviors account for only a small portion of a person's overall wellbeing. Addressing the other approximately 70% of a person's health involves devoting support and resources to those who face additional barriers due to their circumstances and environment so that they have the same opportunities to thrive as those in higher-quality or resource-rich environments.

The County Health Rankings Model demonstrates that approximately 20% of individual health is predicted by your access to quality healthcare services; another 40% of the variability in health outcomes is the result of social and economic factors in your environment: the quality of your education, the type of work you do and how much you are compensated for it, how safe you feel in your community, and so on. Your physical environment, including housing and transportation infrastructure, the quality of the air you breathe, and the types of structures built around you, account for the last 10% in variability of your health. These conditions, and the underlying factors that influence them, are social determinants of health: the set of environmental and social exposures that contribute, in positive and negative ways, to your well-being.[2]

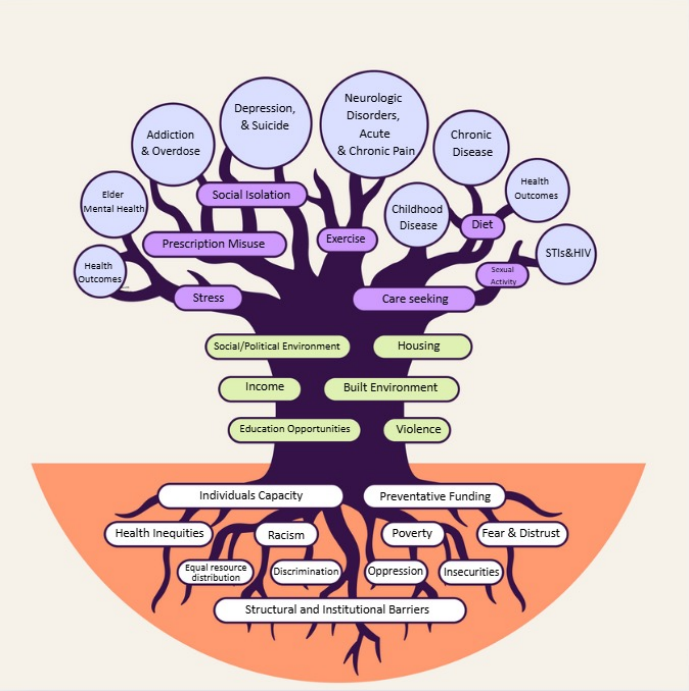
Sometimes, differences in health outcomes are expected; for example, we see a difference in rates of cancer between people under age 5 and people over age 70, and this disparity can't be easily prevented or addressed. However, some differences in health outcomes are avoidable, preventable and unjust; these outcomes are a result of differences in how social determinants affect different groups of people. These kinds of differences are health inequities. Health inequities are measurable variations in quality of life and rates or severity of disease between different groups of people that are the result of social determinants of health.

To improve individual health and community health, health systems must consider the social and structural determinants that influence individual health behaviors. Our CHNA therefore applies a health equity lens to our data collection, analysis and interpretation, and recommendations include both health system recommendations and community system recommendations to address upstream, root causes of inequities.

[2] Healthy People 2020, Social Determinants of Health, 2019

Figure 3 illustrates our conceptualization of how social determinants and environmental conditions influence health outcomes, using the HRiA HealthEquiTREE model and findings from the 2025 Greater Lowell CHNA. In this model, the leaves represent physical and mental health outcomes that affect individuals and communities. The branches symbolize health behaviors that contribute to these outcomes. The trunk represents key social determinants of health, such as education, employment, income and environment, which shape those behaviors. The roots represent intangible drivers of health, such as poverty and systemic inequities, from which health outcomes emerge. Communities that directly address health inequities and the root causes of social determinants, such as inequities in the social, political, and built environment, are more likely to support sustainable changes in health behavior and improve long-term health outcomes.

Figure 3: Rooted in social determinants of health and health equity



Source: Health Resources in Action. The Health Tree Metaphor

Community profiles

Greater Lowell Region

Population: 306,278

The Greater Lowell region is one of the fastest growing regions in Massachusetts. The region includes eight communities in northeastern Massachusetts: Billerica, Chelmsford, Dracut, Dunstable, Lowell, Tewksbury, Tyngsborough and Westford. The total population of the region is approximately 306,000; Lowell is the area's largest city, with a population of just over 120,000, but the region also includes much smaller, more rural communities like Dunstable, with a population of approximately 3,000. Table 2 summarizes key socio-demographic indicators of the Greater Lowell region.[3]

Table 2: Select Demographics of Greater Lowell Communities

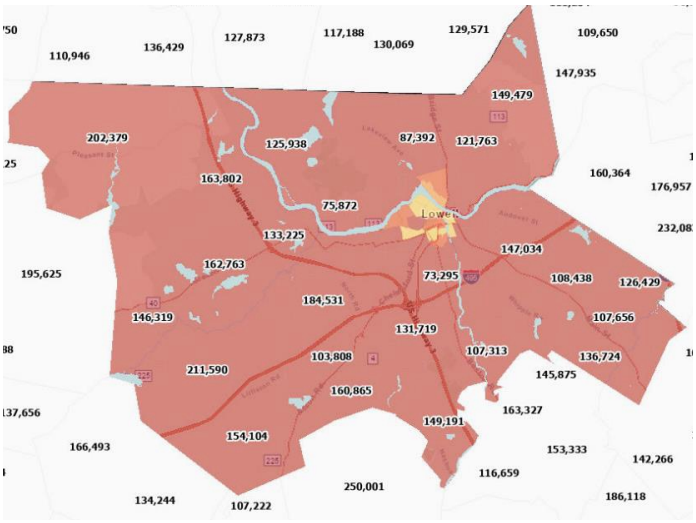
	Population	% White	% Black	% Asian	% Hispanic	Outside	% Aged 0 – 17	% Aged 65and	Median Income	Poverty
Billerica	42,978	78.1	4.7	7.2	5.3	14.9	18.1	17.9	139,706	4.5
Chelmsford	36,953	81.2	1.9	8.5	5.5	12.6	21.2	18.4	140,519	4.3
Dracut	32,972	81.7	3.2	3.7	8.9	10.4	21.4	17.9	111,539	6.6
Dunstable	3,358	90.9	1.2	2.9	5.0	6.0	21.0	14.0	202,379	0.9
Lowell	120,418	50.9	10.8	21.2	19.3	29.5	21.2	12.4	76,205	16.0
Tewksbury	31,796	88.7	2.5	2.8	4.2	8.4	17.4	20.1	125,966	3.0
Tyngsborough	12,779	83.2	1.4	10.6	7.1	12.9	23.8	13.7	144,375	4.8
Westford	25,024	70.8	0.3	23.1	2.6	21.0	26.0	14.3	181,523	2.4
Total/ weighted average	306,278	65.4	5.8	13.3	10.9	19.5	20.8	14.3	133,150	8.7

Greater Lowell is majority white, non-Hispanic (65.4%), though demographic changes over the last several years have seen considerable increases in the region's proportion of Asian (13.3%), Black (5.8%) and Hispanic (10.9%) residents. A considerable portion of Greater Lowell's racial and ethnic diversity is due to its foreign-born population, with nearly one in five residents born outside of the United States. There is, however, significant variation in diversity between Greater Lowell communities, with Lowell being the most diverse (49.1% non-white, 19.3% Hispanic, 29.5% foreign-born) and Dunstable being the most homogenous (90.9% white 5.0% Hispanic and 6.0% foreign-born).

Socioeconomic experiences vary considerably across Greater Lowell. Approximately 8.7% of residents live below the federal poverty line, but the difference between the highest median income ($202,379) and the lowest ($76,205) is more than $125,000. These dramatic gaps in economic stability indicators have significant impacts on health outcomes, as well, because residents experience disparate access to health services, as well as exposure to conditions that exacerbate poor health outcomes (Figure 4).

[3] U.S. Census Bureau, American Community Survey Population Estimates July 2024.

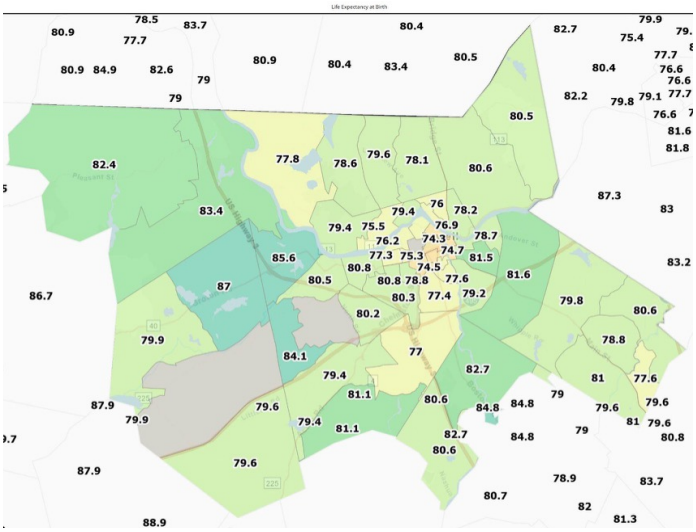
Figure 4: Median household income, by census tract



Source: https://healthdatatool.mass.gov/map-room

Variations in disease incidence and mortality are one of the ways that highlight the impact of these community differences on resident health. Projected life expectancy at birth in Greater Lowell ranges from a low of 73 in Lowell's 3119 Census Tract to a high of 87 in Westford's 3181 Census Tract (Figure 5). These variations are correlated to variations in income, education, resource access and other social determinants of health.

Figure 5: Life expectancy at birth

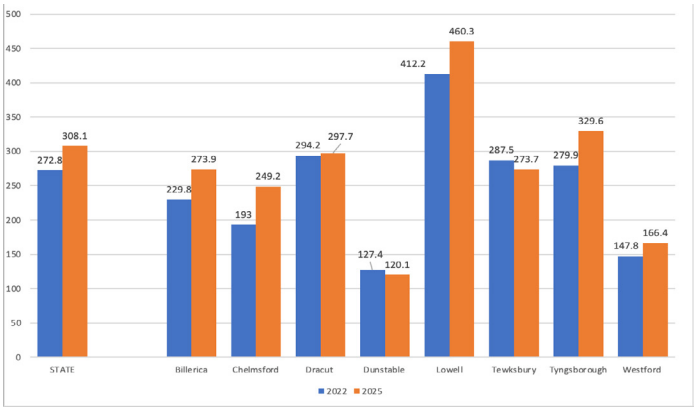


Source: https://healthdatatool.mass.gov/map-room

The premature mortality rate (PMR) is a measure of deaths that occur before age 75, calculated as a rate per 100,000 residents. The PMR for the state of Massachusetts is 308.1, an increase from the PMR reported in the 2022 CHNA (272.8) (Figure 6).

Several Greater Lowell communities likewise saw increases in their PMRs, but only two communities have PMRs that are higher than the state rate: Lowell (460.3) and Tyngsborough (329.6).

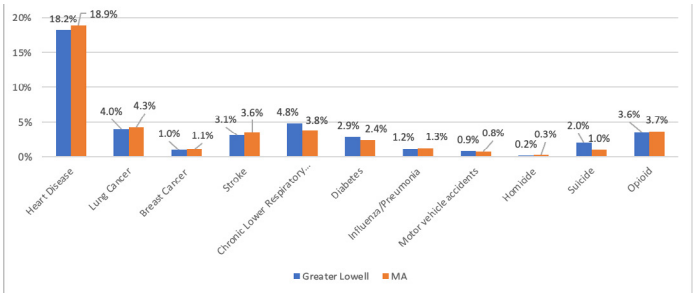
Figure 6: Premature mortality rate (PMR) by town, year-to-year comparison



Source: MA Registry of Vital Records, Death Data, 2022

In 2022 (the most recent data available at the time of publication), there were 2,551 deaths in Greater Lowell. A majority (18.2%) were due to heart disease, though some summaries combine all cancer deaths into a single statistic, which would instead make cancer the leading cause of death, accounting for 19.9% of all deaths in the region (Figure 7). Compared to the rest of the state, the Greater Lowell region experiences a slightly higher percentage of deaths due to chronic lower respiratory diseases (4.8% versus 3.8%), diabetes (2.9% versus 2.4%) and suicide (2.0% versus 1.0%).

Figure 7: Causes of death, Greater Lowell and state, as a percent of total deaths, 2022



Source: MA Registry of Vital Records, Death Data, 2022

Billerica

Population: 42,978

Billerica is the second largest community in the Greater Lowell region. Billerica residents are predominantly White, non-Hispanic (78.1%), though Billerica has the second largest population of Black residents (4.7%) in the region.

Income and housing in Billerica

	2022	2025	Percent change
Total households	15,499	15,468	-0.2%
Average household size	2.7	2.7	-
Owner-occupied units	77.6%	78.2%	+.8%
Renter-occupied units	22.4%	21.7%	-3.1%
Median gross rent	$1,674	$1,988	+18.8%
Median income	$113,329	$139,706	+23.3%
Residents below poverty line	4.3%	4.5%	+4.7%

Approximately 94.9% of Billerica residents aged 25 or older have completed a high school or equivalent degree; 41.1% of residents age 25 or older have a bachelor's degree or higher.

The population of Billerica is aging; in 2022, residents under age 18 accounted for 18.9% of the population, but today, that percentage has declined to 18.1%. During the same time period, residents over age 65 increased from accounting for 15.5% to 17.9% of the population. These changing demographics can be expected to increase demands from the regional healthcare system.

Approximately 184 Billerica residents completed the 2025 Community Health Survey. Selected Billerica participant highlights from the Community Health Survey include:

- 42.6% of Billerica participants reported not being able to afford the medical care they need
- 53.6% reported that Billerica is not accepting or only somewhat accepting of diversity
- 32.2% reported that their physical health is worse today than it was a year ago
- 4.1% reported that their mental health is worse today than it was a year ago
- 21.7% reported that they struggle to understand or navigate the healthcare system

Participants from Billerica were asked to rank the top health issues affecting their community. Table 3 lists Billerica participant's top ranked health issues, as well as each issue's score from all participants for comparison. Compared to the total participant group, Billerica residents assigned top rank to Affording and Accessing Care by a substantial margin and ranked it a higher priority than Mental Health and Cost of Living. Billerica participants also assigned Substance and Alcohol Use and Heart and Lung Health higher rankings than the total participant group overall.

Table 3: Billerica participants ranked health issues

	Billerica participants		All participants	
	Weighted sum	Standard score	Weighted sum	Standard score
Affording and accessing care	144	1.40	1919.5	1.28
Mental health	136	1.32	1994.5	1.33
Cost of living	132	1.28	2058.0	1.38
Housing	102	0.99	1535.5	1.03
Nutrition and food access	85	0.83	1121.0	0.75
Cancer	71	0.69	1036.5	0.69
Substance and alcohol use	64	0.62	738.5	0.45
Heart and lung health	49	0.48	604.0	0.40
Natural environment	45	0.44	565.0	0.49

Chelmsford

Population: 36,953

Chelmsford accounts for approximately 12% of the population of Greater Lowell. Approximately 81.2% of Chelmsford residents are White, 8.5% are Asian and 1.9% are Black. Approximately 5.5% of the population is Hispanic.

Income and housing in Chelmsford

	2022	2025	Percent change
Total households	13,371	13,531	+1.2%
Average household size	2.6	2.7	+3.8%
Owner-occupied units	83%	82.7%	-
Renter-occupied units	17%	17.3%	-
Median gross rent	$1,656	$1,873	+13.1%
Median income	$117,582	$140,519	+13.1%
Residents below poverty line	4.3%	4.7%	+9.3%

Approximately 95.9% of Chelmsford residents aged 25 and older have graduated from high school. Furthermore, 53.6% of residents 25 and older have a bachelor's degree or higher.

Approximately 438 Chelmsford residents completed the 2025 Community Health Survey. Selected Chelmsford participant highlights from the Community Health Survey include:

- 26.5% of Chelmsford participants report spending more than 50% of their income on housing costs
- 32.2% reported not being able to afford the medical care that they need
- 25.2% reported that their financial health is worse now than it was a year ago
- 22.8% reported that their physical health is worse now than it was a year ago
- 35.1% of participants self-reported experiencing mental health issues, with 14.2% reporting suicidal thoughts or previous suicide attempts

Participants from Chelmsford were asked to rank the top health issues affecting their community. Table 4 lists Chelmsford participants' top ranked health issues, as well as each issue's score from all participants for comparison. Compared to the total participant group, Chelmsford residents assigned top rank to Affording and Accessing Care by a substantial margin and ranked it a higher priority than Mental Health and Cost of Living. Chelmsford participants also ranked Nutrition and Food Access, as well as Cancer, particularly high compared to the total group.

Table 4: Chelmsford participants ranked health issues

	Chelmsford participants		All participants	
	Weighted sum	Standard score	Weighted sum	Standard score
Affording and accessing care	379.5	1.40	1919.5	1.28
Cost of living	327.5	1.21	2058.0	1.38
Mental health	317.5	1.17	1994.5	1.33
Housing	249	0.92	1535.5	1.03
Nutrition and food access	225	0.83	1121.0	0.75
Cancer	184.5	0.68	1036.5	0.69
Natural environment	142	565.0	0.49	
Substance and alcohol misuse	122.5	0.45	738.5	0.49
Infant and child health	120	0.44	652.5	0.44

Dracut

Population: 32,972

Dracut accounts for 10.8% of the total population of the Greater Lowell area. Dracut residents are majority White, non-Hispanic (81.7%); Black residents and Asian residents account for 3.2% and 3.7% of the population, respectively. Dracut has seen a recent increase in Hispanic residents, increasing from 6.4% in 2022 to 8.9% currently. Dracut has one of the smallest foreign-born populations in Greater Lowell (10.4%).

Income and housing in Dracut

	2022	2025	Percent change
Total households	11,784	12,212	+3.6%
Average household size	2.7	2.7	-
Owner-occupied units	80.4%	80.3%	-
Renter-occupied units	19.6%	19.7%	-
Median gross rent	$1,398	$1,624	+16.2%
Median income	$92,685	$102,500	+10.6%
Residents below the poverty line	6.3%	6.7%	+6.3%

Approximately 91.9% of Dracut residents aged 25 or older have completed a high school or equivalent degree; 34.4% of residents aged 25 or older have a bachelor's degree or higher.

Approximately 329 Dracut residents completed the 2025 Community Health Survey. Selected Dracut participant highlights from the Community Health Survey include:

- 37.2% of Dracut participants reported not being able to afford the medical care they need
- 42.1% reported that their community is not accepting of diversity
- 21.1% reported that their physical health is worse now than a year ago
- 30.3% self-reported experiencing mental health issues, with 13.3% reporting suicidal thoughts or a previous suicide attempt
- 27.2% cannot access or afford mental health services

Participants from Dracut were asked to rank the top health issues affecting their community. Table 5 lists Dracut participants' top ranked health issues, as well as each issue's score from all participants for comparison. Compared to the total participant group, Dracut residents assigned top rank to Affording and Accessing Care by a substantial margin and ranked it a higher priority than Mental Health and Cost of Living. Dracut participants also ranked Violent Crime higher than both the overall participant group, as well as several of the individual towns.

Table 5: Dracut participants ranked health issues

	Dracut participants		All participants	
	Weighted sum	Standard score	Weighted sum	Standard score
Affording and accessing care	291.5	1.49	1919.5	1.28
Cost of living	286.5	1.46	2058.0	1.38
Mental health	259	1.32	1994.5	1.33
Housing	176	0.90	1535.5	1.03
Cancer	158.0	0.81	1036.5	0.69
Nutrition and food access	134.5	0.69	1121.0	0.75
Violent crime	87.5	0.45	672.0	0.45
Infant and child health	82.5	0.42	652.5	0.44
Substance and alcohol use	81	0.41	738.5	0.49

Dunstable

Population: 3,358

Dunstable accounts for 1.1% of the total population of the Greater Lowell area, making it the smallest of the Greater Lowell communities. Dunstable is mostly White, non-Hispanic (90.9%). In recent years, the Dunstable's racial and ethnic diversity has increased slightly, growing to 1.2% Black, 2.9% Asian and 5.0% Hispanic. Dunstable is the only community in Greater Lowell with a population that has decreased since 2022.

Income and housing in Dunstable

	2022	2025	Percent change
Total households	1,155	1,135	-1.7%
Average household size	2.9	3.0	-
Owner-occupied units	94.5%	95.9%	+1.5%
Renter-occupied units	4.5%	4.1%	-8.9%
Median gross rent	$1,750	$1,575	-10.0%
Median income	$158,523	$202,379	+27.7%
Residents below the poverty line	1.4%	0.9%	-35.7%

Approximately 98.1% of Dunstable residents aged 25 and older have graduated from high school. Furthermore, 59.2% of residents 25 and older have a bachelor's degree or higher.

Approximately 31 Dunstable residents completed the 2025 Community Health Survey. Though this technically meets the threshold for proportional representation in the total survey pool, it does not meet the threshold for being able to assess statistically meaningful indicators. However, a summary of Dunstable participants' top ranked health issues is included below. Mental Health was ranked by Dunstable participants as the top community health priority; Dunstable was also the only community to rank Cancer in the top three, by a considerable margin. Dunstable also assigned particularly high rank to Alzheimer's and Other Dementias as well as Infectious Disease compared to the broader participant group.

Dunstable participants ranked health issues

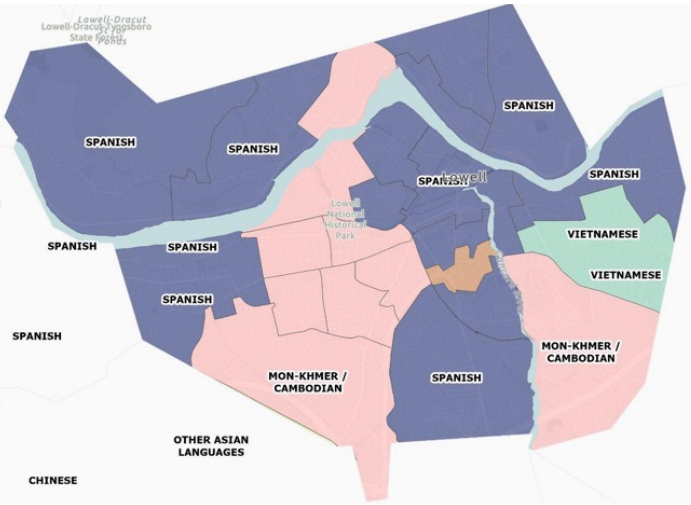
	Dunstable participants		All participants	
	Weighted sum	Standard score	Weighted sum	Standard score
Mental health	28	1.40	1994.5	1.33
Cancer	22.5	1.13	1036.5	0.69
Cost of living	20.5	1.03	2058.0	1.38
Affording and accessing care	18.5	0.93	1919.5	1.28
Substance and alcohol use	15	0.75	738.5	0.49
Alzheimer's and other dementia	14.5	0.73	442.5	0.30
Nutrition and food access	14	0.70	1121.0	0.75
Infectious disease	12	0.60	443.0	0.30
Heart and lung health	11	0.55	604.0	0.40
Infant and child health	10	0.50	652.5	0.44

Lowell

Population: 120,418

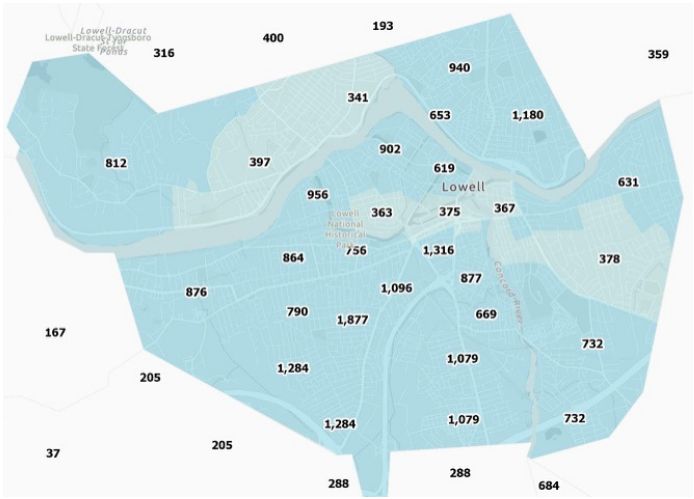
Lowell is the largest community by population in Greater Lowell, as well as the most racially, ethnically, and linguistically diverse. Approximately 50.9% of Lowell residents are White, non-Hispanic, 10.8% are Black and 21.2% are Asian. Approximately 19.3% of the population is Hispanic. Lowell's foreign-born population accounts for nearly one-third (29.5%) of its total population and is a major contributor to Lowell's unique diversity. Compared to the rest of the state, Lowell's Black, Asian and Hispanic populations are much more likely to be born outside the U.S.; this trait not only creates a unique cultural and linguistic landscape (Figures 8 and 9), but also creates challenges for using data to describe or predict the health experiences of Lowell residents. For example, state- or county-level data that disaggregates populations by race is unlikely to capture the within-group diversity of Lowell's Black or Asian populations.

Figure 8: Dominant non-English language, Lowell, by census block



Source: https://healthdatatool.mass.gov/map-room

Figure 9: Lowell population with limited English proficiency, by census tract



Source: https://healthdatatool.mass.gov/map-room

Income and housing in Lowell

	2022	2025	Percent change
Total households	40,260	42,383	+5.3%
Average household size	2.6	2.6	-
Owner-occupied units	43.4%	44.0%	+1.4%
Renter-occupied units	56.6%	56.0%	-1.1%
Median gross rent	$1,229	$1,603	+30.4%
Median income	$62,196	$76,205	+22.5%
Residents below the poverty line	17.3%	16.0%	-7.5%

Approximately 83.3% of Lowell residents aged 25 or older have completed a high school or equivalent degree; 29.9% of residents aged 25 or older have a bachelor's degree or higher.

Approximately 1,408 Lowell residents completed the 2025 Community Health Survey. Selected Lowell participant highlights from the Community Health Survey include:

- 47.7% of Lowell participants reported not being able to afford the medical care they need
- 29.3% reported that their financial health is worse now than it was a year ago

- 21.4% reported that their mental health is worse now than it was a year ago
- 18.9% self-reported experiencing suicidal thoughts or a previous suicide attempt
- 9.3% self-reported problems with substances or drugs
- 20.9% do not have reliable transportation to get to appointments
- 9.3% cannot find a doctor who speaks their language
- 15.7% reported being scared to visit a doctor because of embarrassment or shame

Participants from Lowell were asked to rank the top health issues affecting their community. Table 7 lists Lowell participants' top ranked health issues, as well as each issue's score from all participants for comparison. Compared to the total participant group, Lowell residents more consistently ranked Housing within their top three health issues. Substance and Alcohol Use, as well as Violent Crime, were also comparatively higher ranking when compared to the larger participant group, or to other individual towns. The margin by which Lowell residents ranked Cost of Living as their top health issue was one of the largest of the entire data set, suggesting that Lowell residents feel an increased burden of cost-of-living increases compared to other communities.

Table 7: Lowell participants ranked health issues

	Lowell participants		All participants	
	Weighted sum	Standard score	Weighted sum	Standard score
Cost of living	815.0	1.47	2058.0	1.38
Mental health	778.0	1.40	1994.5	1.33
Housing	665.0	1.20	1535.5	1.03
Affording and accessing care	648.5	1.17	1919.5	1.28
Nutrition and food access	420.0	0.76	1121.0	0.75
Cancer	364.0	0.66	1036.5	0.69
Substance and alcohol use	284.0	0.51	738.5	0.49
Violent crime	277.5	0.50	672.0	0.45
Infant and child health	237.0	0.43	652.5	0.44
Discrimination	185.0	0.33	460.0	0.31

Tewksbury

Population: 31,796

Tewksbury accounts for 10.4% of the population of Greater Lowell. Approximately 88.7% of Tewksbury residents are White, 2.5% are Black and 2.8% are Asian. Approximately 4.2% of the population is Hispanic. Approximately 8.4% of Tewksbury residents were born outside the U.S. At 20.1%, Tewksbury has the largest portion of its community over age 65, as well as the smallest portion of its community under 18 (17.4%). These trends are expected to continue over the next several years in Tewksbury; the health system can expect to see an increased demand for services related to Tewksbury's aging community.

Income and housing in Tewksbury

	2022	2025	Percent change
Total households	11,925	11,933	-
Average household size	2.6	2.5	-
Owner-occupied units	89.6%	85.0%	-5.1%
Renter-occupied units	10.4%	15.0%	+44.2%
Median gross rent	$1,938	$2,248	+15.9%
Median income	$104,610	$125,966	+20.4%
Residents below the poverty line	4.0%	3.0%	-25.0%

Approximately 93% of Tewksbury residents age 25 or older have completed a high school or equivalent degree; 40.3% of residents age 25 or older have a bachelor's degree or higher.

Approximately 263 Tewksbury residents completed the 2025 Community Health Survey. Selected Tewksbury participant highlights from the Community Health Survey include:

- 28.9% of Tewksbury participants reported not being able to afford the medical care they need
- 34.5% reported that their community is not accepting of diversity
- 23.5% reported that their financial health is worse now than it was a year ago
- 18.9% reported that their physical health is worse now than it was a year ago
- 19.2% are not able to afford their medication
- 29.5% self-reported mental health issues
- 13.9% self-reported problems with alcohol

Participants from Tewksbury were asked to rank the top health issues affecting their community. Table 8 lists Tewksbury participants' top ranked health issues, as well as each issue's score from all participants for comparison. Compared to the total participant group, Tewksbury residents assigned an especially high score to Cancer, as well as Heart and Lung Health. This may be driven by Tewksbury's comparatively older population, which may mean more people are likely to have lived experience with health conditions that are associated with aging.

Table 8: Tewksbury participants ranked health issues

	Tewksbury participants		All participants	
	Weighted sum	Standard score	Weighted sum	Standard score
Mental health	145.0	1.32	1994.5	1.33
Cost of living	131.0	1.19	2058.0	1.38
Affording and accessing care	129.5	1.18	1919.5	1.28
Cancer	108.0	0.98	1036.5	0.69
Nutrition and food access	81.5	0.74	1121.0	0.75
Heart and lung health	80.5	0.73	604.0	0.40
Housing	77.5	0.70	1535.5	1.03
Violent crime	61.5	0.56	672.0	0.45
Substance and alcohol use	43.0	0.39	738.5	0.49

Tyngsborough

Population: 12,779

Tyngsborough accounts for 4.2% of the population of Greater Lowell; it is the second smallest community by population after Dunstable. Approximately 83.2% of Tyngsborough residents are White non-Hispanic, 1.4% are Black and 10.6% are Asian. Approximately 7.1% of the population is Hispanic and 12.9% of residents are foreign-born. Tyngsborough is one of the only Greater Lowell communities to see a considerable increase in its portion of residents who are under 18 (from 20.1% to 23.8%), which may influence which health issues are designated as priorities.

Income and housing in Tyngsborough

	2022	2025	Percent change
Total households	4,153	4,171	-
Average household size	2.6	3.0	+15.4%
Owner-occupied units	82.1%	86.5%	+5.4%
Renter-occupied units	17.6%	13.5%	-23.3%
Median gross rent	$1,266	$1,863	+47.2%
Median income	$115,280	$144,375	+25.2%
Residents below the poverty line	6.7%	4.8%	-28.4%

Approximately 96.1% of Tyngsborough residents aged 25 or older have completed a high school or equivalent degree; 49.7% of residents aged 25 or older have a bachelor's degree or higher.

Approximately 170 Tyngsborough residents completed the 2025 Community Health Survey. Selected Tyngsborough participant highlights from the Community Health Survey include:

- 32.6% of Tyngsborough participants reported not being able to afford the medical care they need
- 31.5% reported that their community is not accepting of diversity
- 24.2% reported that their financial health is worse now than it was a year ago
- 15.5% reported that their physical health is worse now than it was a year ago
- 34.8% self-reported mental health issues, with 15.2% reporting thoughts of suicide or previous suicide attempts
- 22.5% cannot afford medication
- 12.2% do not have transportation to get to their appointments

Participants from Tyngsborough were asked to rank the top health issues affecting their community. Table 9 lists Tyngsborough participants' top ranked health issues, as well as each issue's score from all participants for comparison. Compared to the total participant group, Tyngsborough residents assigned Cost of Living the top ranked position by a significant margin, suggesting that there is broad consensus within the community that this is the primary issue affecting their health and wellbeing. Tyngsborough residents also ranked Infant and Child Health particularly high, which may be reflective of the higher proportion of residents under 18 compared to other communities.

Table 9: Tyngsborough participants ranked health issues

	Tyngsborough participants		All participants	
	Weighted sum	Standard score	Weighted sum	Standard score
Cost of living	144.5	1.57	2058.0	1.38
Affording and accessing care	116.0	1.26	1919.5	1.28
Mental health	114.5	1.24	1994.5	1.33
Housing	85.5	0.93	1535.5	1.03
Nutrition and food access	66.0	0.72	1121.0	0.75
Cancer	64.5	0.70	1036.5	0.69
Infant and child health	48.5	0.53	652.5	0.44
Heart and lung health	46.0	0.50	604.0	0.40
Violent crime	45.5	0.49	672.0	0.45

Westford

Population: 25,024

Westford accounts for 8.2% of the total population of the Greater Lowell area. The demographic profile of Westford is approximately 70.8% White, non-Hispanic, 0.3% Black, 23.1% Asian and 2.6% Hispanic. Approximately 21.0% of those living in Westford were born outside of the U.S, with Asian residents accounting for a majority of the foreign-born population. Westford has the youngest population in Greater Lowell, with 26% of residents under age 18.

Income and housing in Westford

	2022	2025	Percent change
Total households	8,544	8,606	-
Average household Size	2.9	2.9	-
Owner-occupied units	88.3%	88.3%	-
Renter-occupied units	11.5%	11.7%	+1.7%
Median gross rent	$2,064	$2,477	+20.0%
Median income	$149,437	$181,523	+21.5%
Residents below the poverty line	1.9%	2.4%	+26.3%

Approximately 98.38% of Westford residents aged 25 and older have graduated from high school. Furthermore, 72.38% of residents 25 and older have a bachelor's degree or higher.

Approximately 120 Westford residents completed the 2025 Community Health Survey. Selected Westford participant highlights from the Community Health Survey include:

- 31.5% of Westford participants reported not being able to afford the medical care they need
- 30.5% reported that their financial health is worse now than it was a year ago
- 26.3% reported that their mental health is worse now than it was a year ago
- 38.8% self-reported mental health issues, with 23.5% reporting thoughts of suicide or previous suicide attempts
- 21.2% self-reported pregnancy health problems, including postpartum depression and infertility
- 29.2% cannot schedule appointments during the times their providers are available
- 20.1% cannot find a provider with expertise in their specific health issue

Participants from Westford were asked to rank the top health issues affecting their community. Table 10 lists Westford participants' top ranked health issues, as well as each issue's score from all participants for comparison. Compared to the total participant group, Westford residents assigned a particular high score to Natural Environment, which is aligned with their geographically more rural landscape. Westford residents also ranked Infant and Child Health comparatively high, which is likely reflective of their overall younger population in general.

Table 10: Westford participants ranked health

	Westford participants		All participants	
	Weighted sum	Standard score	Weighted sum	Standard score
Affording and accessing care	100.5	1.40	1919.5	1.28
Mental health	95.5	1.33	1994.5	1.33
Cost of living	91.0	1.26	2058.0	1.38
Housing	70.0	0.97	1535.5	1.03
Cancer	46.5	0.65	1036.5	0.69
Natural environment	44.5	0.62	565.0	0.38
Infant and child health	40.0	0.56	652.5	0.44
Nutrition and food access	36.0	0.50	1121.0	0.75
Heart and lung health	31.5	0.44	604.0	0.40

Summary of findings

The 2025 CHNA has identified the following health priority areas:

1. **Socioeconomic barriers to health and care**
2. **Mental health**
3. **Conditions of aging**
4. **Chronic disease**
5. **Addiction and substance misuse**
6. **Child and adolescent health**
7. **Safety and violence**
8. **Sexual and reproductive health**

The following sections summarize data relevant to each of these priority areas, including specific trends, disparities and inequities at the local, state and national levels. Recommendations for future actions for both the healthcare system and broader community system are provided. Each section also provides a rationale for determining the order in which items were ranked. The rational sections include tables that summarize the relevant survey and focus group data for each major category.

Table 11: Survey rationale table example

Survey			
Rank	**Item**	**Weighted sum**	**Standard score**
1	Cost of living	2058.0	1.38
3	Affording/ Accessing care	1919.5	1.28

The Item column lists the answer choice, and the Rank column indicates the rank order of the item within that question; in the table above, the item "Cost of Living" was ranked the number 1 issue by participants. The Weighted Sum column states the item's score, after weights have been applied. The weighted sum value is useful for comparing items to each other within that particular subset of data. For example, we can see that the number 1 and number 3 ranked items were fairly close together in score, with a 138-point difference, but the difference between the number 3 and 4 items becomes larger (384 points). The Standard Score takes into account the number of scores in the data set, so that we can compare scores between data sets, even if the data sets are different sizes. For example, Cost of Living has a standard score of 1.38 when we are assessing all participants (over 3000 people), and a standard score of 1.47 when looking at just Lowell participants (1400 people).

Table 12: Focus group rationale table example

Focus groups			
Question: What are the most significant barriers to health in your community?			
Rank	**Item**	**Density**	**Examples**
1	Navigating care access requirements	206.4	Service navigation skills; insurance barriers; language capacity; digital literacy
Question: What are the most significant health issues in your community?			
5	Access to resources	39.0	Housing; service navigation help; food access

The Focus Group table includes the rank of response categories within a particular question that the group was asked. The Density Score is a value used to indicate how frequently an item occurred across all groups (see Methods for more details). The Examples column provides additional specifics that arose within focus groups for each item.

No single data point determines the rank order of needs in this assessment. Additional data from other survey questions, individual focus groups and public health data are also considered to complete this assessment; the rationale provided at the beginning of each section will provide specific details about data considered.

1. Socioeconomic barriers to health and care

Rationale

There was uniform agreement across all populations in all data sets that the most significant health concern Greater Lowell residents are facing is not a specific disease or disorder, but instead the social and economic conditions in which they are currently attempting to improve or maintain their health. This recurring finding persisted even as data collectors attempted to modify specific wording and prompts during data collection to direct participants to consider specific health issues or disorders and instead discuss socioeconomic conditions in the context of barriers rather than as "health issues." The consistency with which participants elevated socioeconomic and systemic issues as their primary concern, as well as the margin by which socioeconomic factors were rated above others, is a resounding endorsement of these items as the primary health issue in the community

Table 13: Survey and focus group results for major category "Socioeconomic barriers to health and care," all participants

Survey			
Rank	**Item**	**Weighted Sum**	**Standard Score**
1	Cost of living	2058.0	1.38
3	Affording/ Accessing care	1919.5	1.28
4	Housing	1535.5	1.03
5	Nutrition/ Food access	1121.0	0.75

Focus groups			
Question: What are the most significant barriers to health in your community?			
Rank	**Item**	**Density**	**Examples**
1	Navigating care access requirements	206.4	Service navigation skills; insurance barriers; language capacity; digital literacy
2	Individual capacity for care seeking	128.7	Mental health stress; time; unpredictable costs/expenses; unmet SDOH needs (housing, childcare)
3	Service/ expertise gaps	57.4	Lack of providers; cultural ignorance; lack of specialization (gender affirming care, elder care)
4	Stigma and distrust	15.9	Fear/ embarrassment; prior mistreatment
Question: What are the most significant health issues in your community			
5	Access to resources	39.0	Housing; service navigation help; food access

Overview

The conditions of a person's environment are significant predictors of that person's health. People who have higher incomes and report more lifelong financial stability are more likely to also experience consistent, positive health outcomes.[4] Communities with more economic resources are also more likely to have robust, resource-rich infrastructures, including transportation, hospitals, schools and community spaces; people who live in these communities tend to live longer, with higher quality of life.

Individual financial security, particularly in the context of exponentially rising healthcare and general living costs, was a primary concern for participants. Since the 2022 CHNA, local and national social and economic conditions have become even more salient predictors of residents' wellbeing. More than 27% of participants indicated that their financial health was worse now compared to a year ago (up from 19% in 2022). In 2022, 70% of participants indicated that they were always able to afford the medical care they need but for 2025, that amount has decreased to only 60.4%. Focus group participants stressed that their ability to maintain their health was inextricably linked to their ability to feel financially secure and socially connected to the resources in their communities. This stress is compounded by participants' experiences trying to navigate what they perceive to be unnecessarily complex and ever-changing healthcare and insurance systems.

Economic insecurity and instability

Lack of reliable employment, adequate income in pace with increases in the cost of living and access to affordable housing generates poor health outcomes. Financial strain has both direct impacts (like limiting access to nutritious food, preventive care, and prescription medications) and indirect impacts (like contributing to chronic stress and placing demands on already-limited individual time) on individual, family and community health outcomes.

Trends and disparities

In Greater Lowell, economic hardship intersects with rising costs of living, underemployment, and persistent racial and ethnic disparities in income and wealth. The gap between the lowest and highest median incomes is more than $125,000 between communities; this kind of variation in wealth generates demand for housing even in areas historically considered affordable. Paired with rising food, utility and healthcare costs, these expenses significantly limit the degree to which residents are able to allocate resources to their health.

Needs assessment data highlights considerable differences in experiences of economic insecurity between communities and populations. Compared to 2022, the portion of participants experiencing economic burdens that impact their health has increased considerably (Table 14). For example, the percent of people reporting not being able to afford their medication has nearly tripled (from 7.7% to 22.5%). But not all populations are experiencing the same strain, with some groups reporting more hardship than others. For example, 25.6% of young adults reported not always having reliable access to food (compared to 14.5% of the total participant pool). BIPOC and Hispanic participants also reported much higher rates of not being able to afford medical care (53.6% and 61.0% respectively, compared to 30.5%). LGBTQ+ participants also reported especially high financial strain, with 40.2% not having reliable access to food and 62.3% not being able to afford necessary medical care.

[4] Massachusetts Department of Public Health. Massachusetts State Health Assessment. Boston, MA; October 2017.

Table 14: Financial strain indicators from CHNA, year-to-year and population comparison

	All participants 2022	All participants 2025	Under age 26	BIPOC	Hispanic	LGBTQ+
I don't always have reliable access to food	10.5%	14.5%	25.6%	29.9%	31.9%	40.2%
I am not always able to pay my bills in full and on time	27.8%	31.1%	31.2%	48.8%	51.2%	49.2%
I am not always able to afford medical care I need	30.5%	39.6%	45.9%	53.6%	61.0%	62.3%
My financial health is worse now compared to a year ago	19.9%	27.0%	27.6%	30.2%	33.5%	31.8%
I can't afford medication	7.7%	22.5%	20.1%	23.6%	30.7%	25.9%

Additionally, compared to participants who said their financial health was better now compared to a year ago, participants who indicated that their financial health was a lot worse were significantly more likely to also indicate that their physical health was a lot worse (17.2% versus 0.7%), and that their mental health was a lot worse (22.5% versus 0.7%). Participants with worse financial health were also significantly more likely to report that their substance use has worsened (15.3% versus 5.1%), and that their relationships with family and friends had worsened (22.9% versus 1.3%).

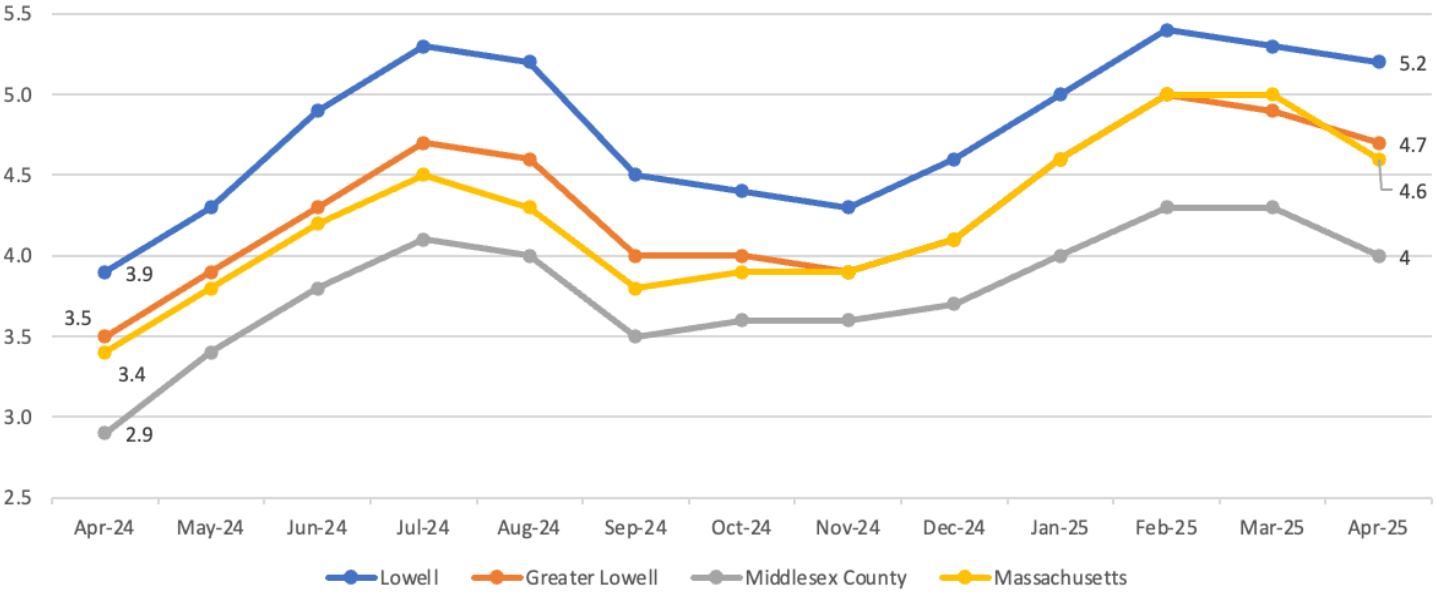
Participants with worse financial health were more likely to self-report poor health outcomes (Table 15). Participants with declining financial health self-reported much higher rates of problems with alcohol (23.1% versus 6.5%) and other substances (11.8% versus 4.5%). They also had more than triple the incidence of mental health issues (57.9% versus 18.1%) and suicidal thoughts (40.8% versus 9.6%). Additional significant differences were noted in incidences of diabetes, heart disease, hearing and vision loss, and pregnancy health problems.

Table 15: Self-reported health issue differences between participants with much better or much worse financial health

	Better financial health	Worse financial health
Problems with alcohol	6.5%	23.1%
Problems with other substances	4.5%	11.8%
Mental health issues	18.1%	57.9%
Suicidal thoughts	9.6%	40.8%
Diabetes	10.3%	33.1%
Heart Disease	7.1%	24.9%
Hearing or vision loss	12.9%	30.9%
Pregnancy health problems	8.4%	25.5%

These findings align with data reported at the regional and state level, as well. Approximately 18.5% of Greater Lowell residents meet the threshold for being classified as low income, higher than the county rate of 15.4%.[5] Approximately 15,740 households in Greater Lowell receive food stamps/SNAP benefits, accounting for nearly 29% of the total households utilizing SNAP benefits in Middlesex County.[6] Nearly one-fourth (23.3%) of Greater Lowell residents receive Medicaid coverage, considerably higher than the country rate (16.8%).[7] Over the last year, growth in unemployment rates in Greater Lowell have outpaced growth in the overall county (Figure 10). Currently, the unemployment rate in Greater Lowell is comparable to the state rate (4.7% and 4.6% respectively), but higher than the country rate (4.0%).[8] Additionally, Lowell's unemployment rate remains above all other comparable rates (5.2%). This geographic disparity is another indicator that financial burdens may feel especially impacted in areas of Greater Lowell where cost of living is increasing, but economic opportunity is not.

Figure 10: Unemployment rate, April 2024 to April 2025, city, regional, county and state comparison



Though highlighting the disparate impacts of financial instability on different populations is important, it is also critical to note that even communities, populations and individuals who are generally regarded as being more or better resourced reported cost of living, housing and healthcare as their priority concerns. This shared experience of concern for socioeconomic accessibility to resources highlights the need for whole-community engagement to address health needs, beyond strict interventions at the healthcare level.

Healthcare system navigation

In 2022, the needs assessment data captured resident experiences of difficulty understanding and navigating the general health care system; focus groups identified Service Navigation as the priority health concern, and the 2025 data has repeated our 2022 finding. "Navigating the healthcare system" includes a range of activities, including: finding and purchasing the correct insurance; securing a primary care doctor; identifying and understanding clinical specializations; scheduling appropriate appointments; utilizing types of care (i.e.,

[5] Direct source: US Census Bureau ACS 5-year 2019-2023
[6] US Census Bureau ACS 5-year 2019-2023, via https://dashboards.mysidewalk.com/community-needs-assessment-masscap-cti-greater-lowell/poverty
[7] US Census Bureau ACS 5-year 2019-2023
[8] U.S. Bureau of Labor Statistics via FRED

primary, urgent, emergency) appropriately; finding a provider who speaks your language or shares your culture; securing transportation to appointments; understanding billing; making payments; managing and understanding referrals; incorporating public healthcare resources like Medicaid; navigating wait times; and any other process that facilitates or inhibits a person's effort to receive appropriate care.

These challenges are not only experienced by community members; providers, too, report that both the cost and labor burden of navigating claims and engaging with insurance providers has increased significantly. In 2023, healthcare providers spent more than $25 billion engaged in claims adjudication, which was an increase of 23% over the previous year.[9] These kinds of administrative burdens, coupled with higher demand for services in an aging population, place significant strain on the health system and people who work within it.

Trends and disparities

Approximately 16% of total participants report not being able to understand or navigate the healthcare system (Table 15); some participant groups reported slightly higher rates (for example, younger people reporting 20.1% or foreign-born residents reporting 18.5%). Concerns about wait times, finding a provider who is accepting new patients or finding a provider who accepts a particular insurance were also elevated in focus groups. One in 10 participants also reported challenges finding a doctor with expertise; in focus groups, participants discussed their challenges having to secure transportation to other communities, like Boston, to receive specialist care they would prefer to receive locally.

Table 15: Percent of CHNA participants reporting specific barriers to navigating the core system

	All participants 2025	Lowell only	Under age 26	BIPOC	Hispanic	Foreign-born
I can't understand or navigate the healthcare system	16.2%	18.7%	20.1%	22.2%	17.9%	18.5%
I can't find a doctor who speaks my language	5.7%	9.3%	3.0%	13.3%	14.5%	15.3%
I can't find a doctor with expertise in my health issue	10.1%	9.5%	12.8%	8.7%	17.3%	6.2%

Though many providers offer an interpreter line or have some multilingual staff on-site, clinicians who are multilingual are rarer, creating a problem for people who don't speak English as a first language. Approximately 29,250 Greater Lowell residents report speaking English less than "very well," representing nearly 10% of the total population.[10] An estimated 40% of the U.S. physician workforce is multilingual[11], but locally the language capacity of the workforce does not always match the language need. In Massachusetts,

[9] Alkire, M., Saha, S., & Ingram, M. (2025). Claims Adjudication Costs Providers $25.7 Billion.
[10] US Census Bureau ACS 5-year 2019-2023 via https://reports.mysidewalk.com/2270c960af
[11] Felida et al; (2023). Language Profile of the United States Physician Workforce: A Descriptive Study. Patient Education and Counseling, 109, 28.

the most commonly reported physician languages are Spanish, French, Hindi, Chinese and German.[12] However, in Lowell, the most common languages spoken by people with limited English proficiency are Spanish, Khmer and Portuguese.[13] Research suggests that the rate of Spanish-speaking physicians in the workforce has actually decreased over the last decade.[14] Though there is no reliable data regarding how many U.S. physicians speak Khmer, in 2024, only 14 out of a total 32 Cambodian/Cambodian American applicants were accepted into medical school in the U.S.[15]

Participant experiences are further validated by state data. One in 10 Massachusetts residents do not have a primary care physician, a variable that likely contributed to the 36.2% of avoidable emergency department visits in the same year.[16] In 2023, 41.2% of all Massachusetts residents reported having difficulty accessing primary care, even if they have a primary care provider. Primary care physicians in Massachusetts are leaving the fields at a rate higher than the rest of the U.S. (5.6% yearly versus 5.2%), suggesting that this challenge will only continue to grow across the region.

Individual capacity for care-seeking

While challenges in the design and functioning of the healthcare system were a primary concern for participants, focus group participants stressed that individual capacity for care-seeking was also a factor undermining their wellbeing. Individual capacity includes considerations like time, mental stress, or disabling conditions that make seeking care or sustaining health especially challenging. Individual and systemic barriers to care have a cyclical relationship: participants emphasized that the challenges they encounter within the system as they attempt to access care only strain their individual capacity to continue seeking care, with many describing months-long processes to schedule appointments, settle a dispute with an insurance company or help an elderly relative access their healthcare benefits.

Trends and disparities

Individual capacity includes both internal (e.g., mental health stress) and external (e.g., no transportation) factors. The proportion of CHNA participants without reliable transportation has increased from 9.6% in 2022 to 15.5% in 2025; for BIPOC (23.3%), Hispanic (29.1%), LGBTQ+ (23.7%) and caregiver participants (19.7%), the percentage is higher (Table 16).

Many participants highlighted the often-overlooked factor of time as a major contributor to their challenges engaging with health-promoting behaviors. Many adult participants noted that they are a “sandwich generation” for caregiving: they are working full time, while also being caregivers to their own children as well as their elderly parents. Young participants felt similar strain, reporting full-time school enrollment as well as employment as non-negotiable priorities for their limited time. System confusion compounds time constraints; participants report spending more time dealing with online portals, paperwork or phone calls between providers, insurers, specials and case coordinators, for themselves or people they are caring for, than they have in the past.

[12] Language Barriers in U.S. Health Care: Understanding communication trends between U.S. physicians and patients (2017)
[13] Limited English Proficiency Plan for Federally Assisted Programs. City of Lowell Department of Planning and Development, 2011.
[14] Mora et al. The National Deficit of Black and Hispanic Physicians in the US and Projected Estimates of Time to Correction. JAMA,. 2022;5(6)
[15] AAMC Matriculant Data: Table A-12: Applicants, First-Time Applicants, Acceptees, and Matriculants to U.S. MD-Granting Medical Schools by Race/Ethnicity (Alone) and Gender, Academic Years 2021-2022 through 2024-2025.
[16] Primary Care in Massachusetts Dashboard, MA Center for Health Informatics and Analytics, 2024

Table 16: Percent of CHNA participants reporting specific capacity barriers to care and health

	All participants 2022	All participants 2025	Under age 26	BIPOC	Hispanic	LGBTQ+	Caregivers
I don't have transportation	9.6%	15.5%	24.4%	23.3%	29.1%	23.7%	19.7%
I can't schedule appointments during times my provider is available	19.5%	22.8%	33.5%	21.0%	27.4%	29.7%	28.2%
I don't have the right technology/ technical skills	5.5%	6.5%	8.5%	8.1%	16.8%	11.4%	9.3%

Understandably, these challenges elevate internal stress, but they are not the only internal factors. Within the CHNA, participants who self-reported experiencing mental health issues reported substantially higher incidences of lacking transportation (26.3%), not being able to schedule appointments during the right times (33.9%) and lacking the right technology for digital care (9.5%) (Table 17). Many mental health issues also impact cognitive function and skills necessary for securing and retaining care, which exacerbates these challenges.

Other physiological conditions also resulted in higher barrier incidences. For example, participants with limited or impaired mobility had three times the incidence of lacking transportation (33.8% versus 9.5%) and lacking the right technology for digital care (16.9% versus 5.5%). Participants with chronic conditions were also disparately burdened; participants with HIV/AIDS reported the highest barrier incidences by all metrics, with 74.3% lacking transportation, 62.9% not being able to schedule necessary appointments, and 20.4% being scared or embarrassed to meet with a doctor at all.

Table 17: Percent of CHNA participants reporting specific barriers to navigating the care system, by specific health

	Mental health issues	Limited or impaired mobility	HIV/AIDS
I don't have transportation	26.3%	33.8%	74.3%
I can't schedule appointments during times my provider is available	33.9%	27.4%	62.9%
I don't have the right technology/technical skills	9.5%	16.9%	62.9%
I cannot afford healthcare	28.9%	23.7%	22.9%
I can't navigate the healthcare system	23.1%	25.9%	20.0%
I'm scared/embarrassed to visit a doctor	27.0%	19.9%	20.4%

Past actions

Since the 2022 CHNA, the following has been done to address socioeconomic barriers to health and care:

- Supported GLHA's creation of the healthcare navigation video series, provided guidance to navigating the local healthcare system in Spanish, Portuguese, Khmer and English.
- Developed The Health Campaign Handbook: A Toolkit of Real-World Strategies for Community Health Campaigns
- Distributed more than $250,000 in GLHA grant funding to support community projects that address socioeconomic barriers to health and care throughout the Greater Lowell region, including: the Casa Esperanza Conexiones Transportation Project, the International Institute of New England Equity in Healthcare Services and Access Initiative, the Lowell Community Health Center, Training Frontline Workers to Improve the Health of Our Community: Northeast Region Community Health Education Center (CHEC) Project, The Center for Hope and Healing, Educating on Social Determinants of Health Impacting LGBTQ+ Youth Project, and many more

Recommendations

Healthcare system recommendations

- Incentivize the recruitment and retention of multilingual and culturally concordant providers through scholarships, pipeline programs (e.g., for Cambodian American youth) and pay differentials for language proficiency.
- Advocate for value-based payment reforms and increased Medicaid reimbursement to incentivize providers to stay in or enter primary care. Co-locate primary care with other essential services (e.g., food pantries, housing supports) to ease access.
- Develop an integrated, regional referral network that allows providers to refer patients directly to housing, food, childcare and transportation resources in real time. Include feedback loops for follow-up and closed-loop referrals.
- Fund and deploy multilingual, culturally competent community health workers (CHWs) and patient navigators across Greater Lowell health centers and hospitals, especially in high-need ZIP codes. CHWs should assist with insurance enrollment, referral management, navigating bills and benefits, and accessing public assistance programs.
- Work with MassHealth to pilot a local "single point of access" model for residents to enroll, re-certify and ask questions about benefits in person or via phone

Community system recommendations

- Partner with workforce development boards, job training programs, and community colleges to expand pathways into stable, living-wage employment, especially targeting BIPOC, LGBTQ+, young adults, and caregivers. Prioritize funding for wraparound supports (e.g., transportation, childcare, housing stabilization) that address structural barriers to economic mobility.
- Advocate for affordable housing development policies at the municipal and regional levels, including zoning reform, rent stabilization and housing-first models. Support the expansion of medical-legal partnerships and tenant advocacy programs to help residents retain housing.
- Use CHNA data to implement equity-focused resource distribution, allocate funding, services and infrastructure investments based on demonstrated need among disproportionately impacted populations.
- Develop a regional health equity dashboard to track disparities in access, outcomes and service use. Use data to inform program funding decisions, hold systems accountable for equity goals and engage residents in solution design.

2. Mental health

Rationale

Mental health was the most commonly mentioned health issue when focus groups were asked to identify which health issue should be a priority in their communities. In the survey, Mental Health (weighted sum 1994.5) was very closely scored behind the number one health issue, Cost of Living (weighted sum 2058.0) (Table 18). Furthermore, 22.1% of participants self-reported that they had experienced not being able to access mental health care, making mental health care access the number three most frequently self-reported barrier. Mental health has consistently been a top priority for Greater Lowell since the first needs assessment was conducted in 2013.

Table 18: Survey and focus group results for major category "Mental health", all participants

Survey			
Rank	**Item**	**Weighted sum**	**Standard score**
2	Mental health	1994.5	1.33

Focus groups			
Question: What are the most significant health issues in your community?			
Rank	**Item**	**Density**	**Examples**
1	Mental health	128.8	Anxiety; depression and suicide; trauma; loneliness

Overview

Mental health refers to the emotional, psychological and social factors that contribute to our general state of mental well-being. Being mentally healthy means that a person has access to all of the internal tools necessary to reach their full potential in spite of potential setbacks.[17] While periods of mental distress are typical, persistent, intense, or overwhelming periods of mental distress can be considered mental illnesses. Mental illness includes many mood and behavioral disorders and is known to be a critical indicator of physiological health. Mental health disorders are associated with increased risk and morbidity of several health conditions, including high blood pressure, heart disease, stroke and cancer.[18]

Depression, isolation and suicide

Depression, and the environmental and physiological circumstances under which depression occurs, is one of the most common mental health disorders. Isolation is when an individual feels disconnected from others or is detached from social interaction. Efforts to effectively prevent and treat depression are critical for suicide prevention, as well as for prevention of a range of correlated diseases, like stroke and high blood pressure.[19]

Trends and disparities

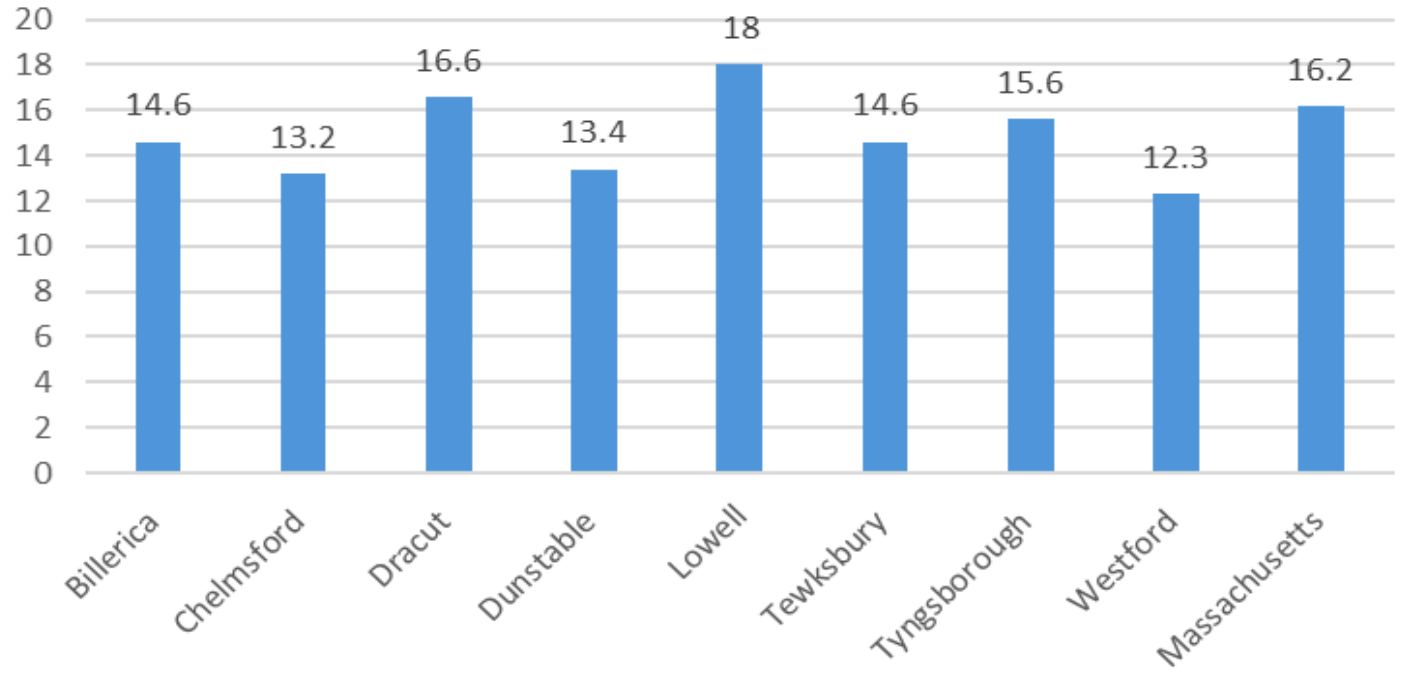
Statewide, 44.6% of Massachusetts adults reported experiencing symptoms of either depressive or anxiety disorder, a significant increase from previous years where approximately 30% reported similar symptoms.[20]

Among towns in Greater Lowell, residents of Lowell reported disproportionately high rates of poor mental health, with 18% indicating frequent poor mental health days (Figure 11). This exceeds both the statewide rate

[17] Mental Health, World Health Organization, 2022
[18] U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion. 2020 Leading Health Indicators: Mental Health.
[19] Mental Health and Mental Disorders, Healthy People 2030.
[20] U.S. Census Bureau. Household Pulse Survey, 2023.

of 16.2% and the national rate of 15.8%. The town with the lowest rates of frequent poor mental health days is Westford (12.3%). Statewide data on adult mental health reflect trends similar to those identified in the Greater Lowell Community Health Survey. Nearly 20% of survey participants reported that their mental health had significantly worsened compared to the previous year. Additionally, 36.5% said they had personally experienced mental health challenges, while 63% reported knowing someone who had been affected. In the 27 focus groups conducted, mental health was mentioned approximately 128 times, with common themes including anxiety, suicide, trauma and loneliness. Participants emphasized that external conditions, such as economic stress, social isolation and systemic barriers are contributing to elevated levels of stress, fear and emotional distress.

Figure 11: Percent of MA adults reporting 15+ days of poor mental health



Source: BFRSS Results via PHIT

Mental health challenges continue to be a growing concern among youth in Massachusetts. In recent statewide data, 36.3% of youth reported feeling sad or hopeless during the past year, a key indicator of depressive symptoms. Additionally, 31.3% reported experiencing poor mental health overall. Statewide data reports show significant disparities in youth mental health trends between 2019 and 2023. Black high school-aged youth experienced the largest increase in reported mental health concerns, rising by 33.7% from 2019 to 2023. In contrast, Asian youth reported the most significant decrease, with rates declining by 26.6%. Additionally, among all high school students, males were consistently less likely than females to report experiences of intentional self-injury, mental health challenges or suicidal thoughts.

Suicidality remains a particularly alarming issue. Among Massachusetts youth, 20.1% reported engaging in self-harming behaviors, 17.1% reported experiencing suicidal ideation, 13.2% had developed a suicide plan and 7.4% had attempted suicide within the past year. The data suggest that a significant proportion of youth are struggling with serious mental health concerns. For more information about adolescent mental health, see the section titled "Adolescent Mental Health and Risk Behaviors" in "Child and Adolescent Health."

In Massachusetts, about 45% of adults report feeling lonely or isolated. According to the 2023 Massachusetts CHES Mental Health Report, social isolation is most prevalent among adults aged 18 to 24, while adults aged 75 and older report the lowest rates. However, findings from the 2025 Community Health Survey reveal that individuals aged 45 to 54 were the most likely to report symptoms of isolation. However, in assessment focus group sessions, participants indicated that older adults were facing an alarming rate of social isolation, see the section titled Elder mental health in the Conditions of aging chapter.

The 2025 survey also highlights significant associations between social isolation and other health concerns. Adults who reported feeling isolated were more likely to struggle with alcohol and substance use (54.4% compared to 21.1%), mental health issues (61.6% vs. 36.5%) and heart disease (24.8% vs. 16.6%). They were also far more likely to report difficulty understanding or navigating the healthcare system (52.6% vs. 16.2%). These findings underscore a strong connection between social connection and mental health. When individuals lack a sense of community, their overall mental health and well-being tend to decline.

At a state level, from 2019 to 2022, people aged 55 to 64 had the highest percentage change in suicide rates in all age groups (+33.3%) (Table 19). High levels of isolation and a lack of social interaction among other social and behavioral determinants of health may impact this increase contributing to suicide rates (For more information on mental health in older adults, see elder mental health in the conditions of aging chapter).

Additionally, Black non-Hispanic people saw the highest change in percentage in death by suicide (+59.1%). People of color face health inequities such as structural, institutional, interpersonal and internalized racism that impact mental health. People of color are more likely to be underdiagnosed and face social stigma or language barriers that prevent them from accessing mental health support which may contribute to a higher rates of suicide.[21]

Table 19: Suicide by selected demographic group

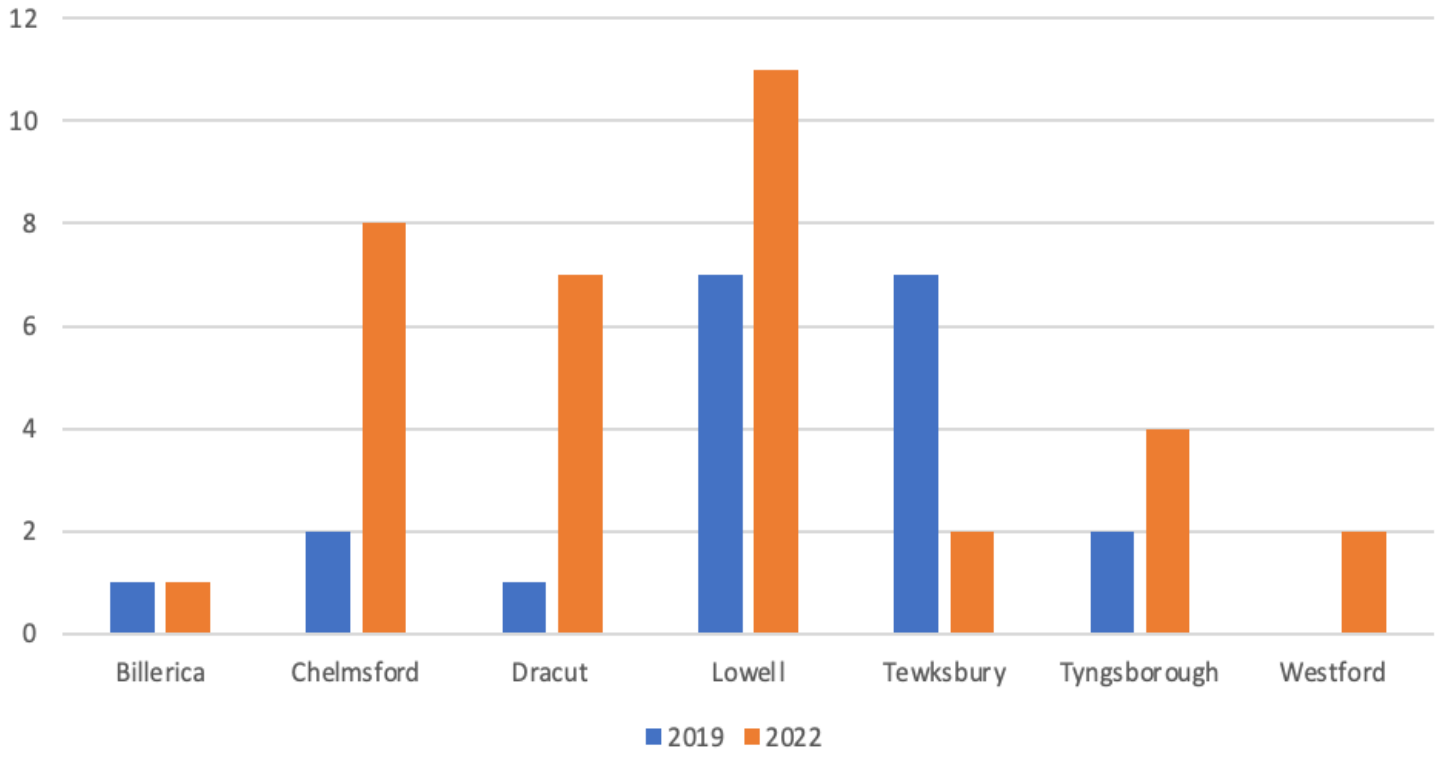
	2020	2022	Percent change
Age			
0–14	4	2	-50%
15–24	66	76	+15.2%
25–34	98	97	-1.0%
35–44	95	97	+2.1%
45–54	126	103	-18.3%
55–64	105	140	+33.3%
65–74	79	54	-31.6%
75–84	25	38	+52%
85+	17	19	+11.8%
Race/Ethnicity			
White, NH	518	507	-2.1%
Black, NH	22	35	+59.1%
Asian, NH	26	19	-26.9%
Hispanic	45	54	+20.0%
Sex			
Male	471	483	+2.5%
Female	144	143	-0.7%

Source: Massachusetts Violent Death Reporting System, Injury Surveillance Program, Massachusetts Department of Public Health

[21] Inequities in Mental Health, Mental Health Report, Community Health Equity Survey, 2023.

In 2022, 33 people died by suicide in Greater Lowell (Figure 12). Chelmsford saw a 300% increase in deaths by suicide from 2019 to 2022. Of 2025 CHNA survey participants, 16.5% have been affected by suicide or suicidal thoughts and 51.4% know someone affected.

Figure 12: Count of Greater Lowell deaths by suicide, by community and year



Source: MA Registry of Vital Records, Death Data, 2022

In our 2025 Community Health Survey, 340 participants (16.5%) self-reported thoughts of suicide or a previous suicide attempt, an increase from 2022 (10.9%) (Table 20). While only 15.7% of survey participants were between the ages of 35 to 44, people in this age range accounted for 21.6% of participants reporting suicidal ideation. Participants reporting suicidal thoughts were more likely to be LGBTQ+, White and Asian. Those who reported suicide attempts or suicidal thoughts are more likely to not be able to pay their bills on time (13.3% versus 6.8%), not able to afford medical care (15% versus 9.1%) and have access to safe clean parks (10% compared to 6.1%).

Table 20: Select demographics comparison of CHNA participants who report suicidal thoughts, 2022 to 2025 (Percent)

	2022 participants with suicidal ideation	2025 participants with suicidal ideation
TOTAL	15.8	16.5
Location		
Billerica	2.7	7.9
Chelmsford	30.1	12.9
Dracut	5.8	8.5
Dunstable	-	-
Lowell	45.6	48.8
Tewksbury	2.2	5.0
Tyngsborough	3.1	5.9
Westford	10.6	5.9
LGBTQ+	27.4	29.7
Race		
White	74.7	83.7
Black/African American	5.8	4.2
Asian/Asian American	16.9	11.5
Foreign-born	18.8	8.6
Veteran	5.3	8.3

Community and clinical care

Participants in this assessment overwhelmingly noted that the most significant health challenge they experience is accessing care, with specific focus on barriers to accessing mental health services. Nearly 32% of 2025 survey participants reported not being able to access mental health services, and 42.2% of survey participants have never met with a therapist or counselor. Access to outpatient mental health services was ranked as the seventh most critical community resource, with 28.8% of participants ranking it among their top five resource priorities.

Trends and disparities

In 2023, 9.2% of adults reported having an unmet mental health need, indicating a substantial gap between those seeking help and those able to access care.[22] The mental health workforce is struggling to meet this growing demand; in 2025, it was estimated that only 26.7% of the need for mental health services could be met by providers.[23]

Youth access to behavioral health services is notably limited. Only 10% of Massachusetts children and adolescents aged 3 to 17 received a consultation or treatment from a behavioral health professional, despite growing mental health concerns in this age group. Among Massachusetts adults diagnosed with any mental illness, just 52.8% received mental health services, leaving nearly half without needed care. The situation is even more concerning for those experiencing acute mental health crises; in 2023, 22% of individuals with suicidal ideation and 64.2% of those experiencing mental distress did not receive the mental health care they needed.[24]

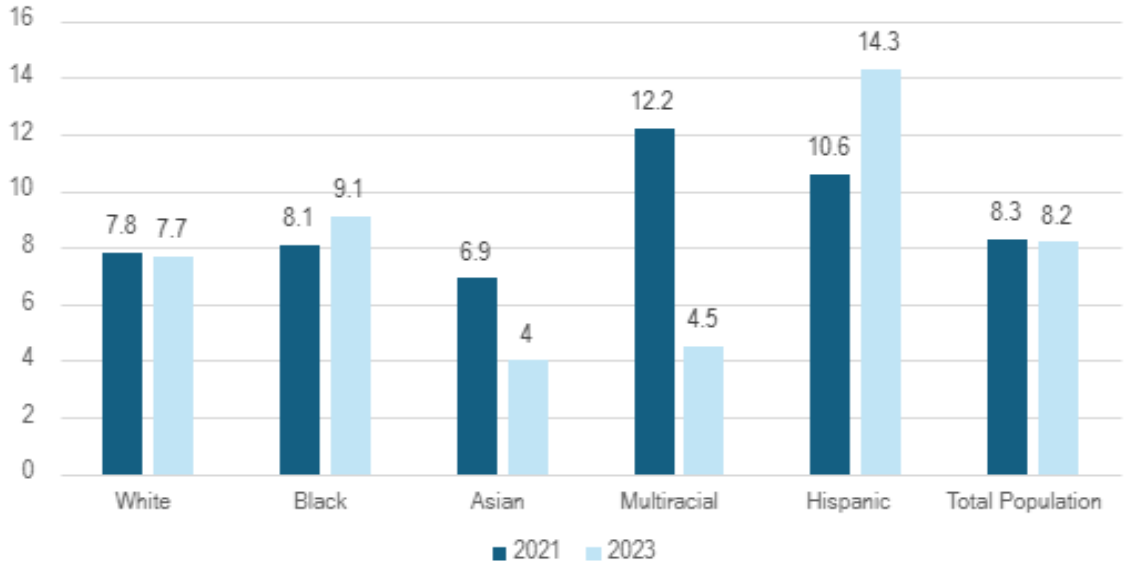
[22]Center for Health Information and Analysis, Massachusetts Health Insurance Survey, 2023.
[23]Bureau of Health Workforce, HRSA, Designated Health Professional Shortage Areas Statistics: Designated HPSA Quarterly Summary, March 31, 2025
[24]Healthcare Access and Mental Health Indicators, Mental Health Report, Community Health Equity Survey, 2023.

Inpatient discharge data serve as a key indicator for understanding patterns of inpatient utilization and the underlying reasons for hospitalization and clinical care.[25] The prevalence of behavioral health conditions among inpatient discharges increased steadily over the six-year period, rising from 38% in 2016 to 42.5% in 2021.[26] Among Massachusetts residents accessing inpatient treatment, the most commonly presenting conditions were mood disorders (20.8%), anxiety (19.7%) and trauma-related conditions (4.3%). Additionally, females were more likely than males to be admitted and discharged for a mental health concern (31.4% compared to 20.4%). People who identified as White (28%), Hispanic (24.2%) or other/multiracial (22.2%) were more likely than individuals of other racial or ethnic backgrounds to be discharged following an inpatient mental health visit.

Patients who were admitted due to a behavioral health concern were most likely to be paying with Medicaid than any other payer type (53%), followed by self-pay (51.6%), Medicare (41.2%).[27] Payer type refers to the hospital-reported primary expected payer at the time of discharge. For this analysis, payer categories were based on standardized payer source codes; it is important to note some patients may have multiple sources of payment for a single inpatient stay. Although data is not available for payer type after 2021, due to anticipated changes in federal Medicaid funding, those who paid with Medicaid in 2021 may face more barriers to receiving clinical or community care in upcoming years.

The cost of care remains a significant barrier to accessing clinic-based mental health services. In Massachusetts in 2023, 8.2% of the population reported that they were unable to receive needed mental health care in the past year due to financial constraints (Figure 13). Statewide data reveals that Black and Hispanic communities have been disproportionately impacted, with a 12.3% increase among Black individuals and a 35% increase among Hispanic individuals who were unable to access mental health care because of cost.

Figure 13: Percentage of Massachusetts families who reported an unmet mental health care need in the past 12 months due to cost, by race/ethnicity, 2021 – 2023.



Source: 2021 and 2023 Massachusetts Health Insurance Survey

[25]Massachusetts Acute Care Hospital Inpatient Discharge Data, FFY, CHIA 2016-2021.
[26]Behavioral Health, Massachusetts Acute Care Hospital Inpatient Discharge Data, CHIA, 2016-2021.
[27]Inpatient Discharges Associated with Behavioral Health Conditions by Expected Primary Payer Type, Massachusetts Acute Hospital Case Mix Hospital Inpatient Discharge Databases (HIDD), 2021.

Another barrier noted was lack of digital literacy; despite the perception that telehealth has made care more accessible, participants countered that perception with concerns about care quality, privacy and dignity. Many participants also noted that the burden of having a mental health concern acts as a barrier itself; many mental health conditions make planning, decision-making, and task execution difficult, which is a major barrier to navigating care. Focus group participants also brought up perceptions about mental health care which act as a barrier, such as fear and distrust in the system or a lack of providers with cultural humility. Participants discussed that individuals don't seek mental health care because of cultural views and stigma associated with mental health, and additional language barriers. Additionally, focus group participants indicated that the general population is finding long wait times to access mental health care.

Participants who were not able to access mental health care when they needed it disproportionately from Lowell (43.7% versus 39.7%), White (80.2% versus 66.2%), Hispanic (14% versus 10.7%), and LGBTQ+ (24.7% versus 7.7%) (Table 21). The top barriers to receiving health care indicated by participants who also said they can't access mental health care are cost of care, cost of medication, feeling embarrassed or ashamed to visit a doctor and navigating the healthcare system.

Table 21: Select demographics of CHNA participants who can and cannot access mental health services

	Participants who can't access MH services	Participants able to access MH access
Residence		
Lowell	43.7%	39.7%
Chelmsford	12.4%	12.5%
Dracut	12.9%	8.9%
Billerica	8.5%	4.8
Tewksbury	6.98%	7.6%
Tyngsborough	5.2%	4.8%
Westford	4.13%	3.3%
Race		
White	80.2%	66.2%
Black	6.9%	7.4%
Asian	11.4%	8.9%
Hispanic	14.0%	10.7%
Sexual orientation		
Heterosexual/straight	70.7%	72.7%
LGBTQ+	24.7%	7.7%

Focus topics and populations

Some populations may face more poor mental health outcomes due to environmental, social and external factors that can have a great impact on mental health, suicide and overall wellbeing. Veterans, LGBTQ+ and people with a dual diagnosis have disproportionately worse mental health outcomes than the general population. Focus group participants and survey participants both indicated that mental health interventions should be a top priority and focus area for these populations.

Veterans

Veterans are at increased risk for mental health concerns and suicide due to trauma, burdens of combat and stressors of reentering society.[28] Veterans in Massachusetts face a range of mental health challenges, including elevated rates of PTSD, anxiety, depression and suicide risk. Female veterans in particular often experience higher rates of PTSD and face unique barriers to care, such as the effects of military sexual trauma and a lack of gender-sensitive mental health services. Despite a robust healthcare infrastructure, stigma, bureaucratic hurdles and limited outreach continue to prevent many veterans from accessing timely and appropriate support.

While the state's veteran suicide rate (approximately 19.1 per 100,000) is lower than the national average, suicide remains a leading cause of death among veterans, with many cases involving prior mental health conditions and access to firearms. One in nine Massachusetts suicide deaths were current or former military personnel. Approximately 47% of veteran suicide deaths involved a firearm, which is twice the rate for all suicides in Massachusetts. Nearly 90% of veteran suicide deaths were among White, non-Hispanic males. In Massachusetts, 35% of military and veterans who died by suicide had an undiagnosed mental health problem.[29]

Of veteran survey participants, 28% reported that their mental health was worse compared to last year and 65.3% said that mental health should be a very important priority (Table 22). Additionally, 30% reported a previous suicide attempt or suicidal thoughts, 44.5% self-reported mental health issues and 35.7% said they can't access mental health services. Only 31.7% of veterans reported that they met with a therapist or counselor within the past year and nearly 40% have never met with a therapist or counselor.

[28] Veteran and Military Mental Health Issues, National Institutes of Health, 2024
[29] Massachusetts Military & Veteran Suicide, Massachusetts Department of Public Health, 2021.

Table 22: Veteran participant demographic and mental health indicators

	Veteran survey participants	Civillian survey participants
Worse MH compared to last year	28.1%	19.5%
Affected by mental health Issues	44.5%	35.2%
Affected by suicide/suicidal thoughts	30.4%	15.5%
Residence		
Lowell	31.1%	44.9%
Billerica	10.9%	5.8%
Dracut	12.2%	10.6%
Chelmsford	14.6%	14.8%
Tyngsborough	4.2%	5.9%
Westford	8.5%	3.6%
Tewksbury	13.4%	8.6%
Race		
White	89.0%	75.2%
Black	4.9%	7.1%
Asian	2.4%	10.5%
Sexual orientation/gender identity		
LGBTQ+	14.7%	10.4%
Transgender	<5	0.6%

Foreign-born residents of Greater Lowell, particularly those who have come to the U.S. as refugees, often carry with them a history of military experience, either through forced conscription, civil conflict or voluntary service in their countries of origin. Despite these experiences, they are not recognized as U.S. veterans and therefore are excluded from the veteran-specific services and mental health supports available through institutions like the VA. This exclusion overlooks the psychological toll of war, displacement and resettlement, which may manifest in complex trauma, PTSD or ongoing stress. Without culturally competent and trauma-informed mental health resources that acknowledge these histories, foreign-born residents with military pasts remain an underserved population, straddling the experiences of both civilian and combat-related trauma, yet fitting into neither category within the current U.S. care systems.

LGBTQ+ individuals

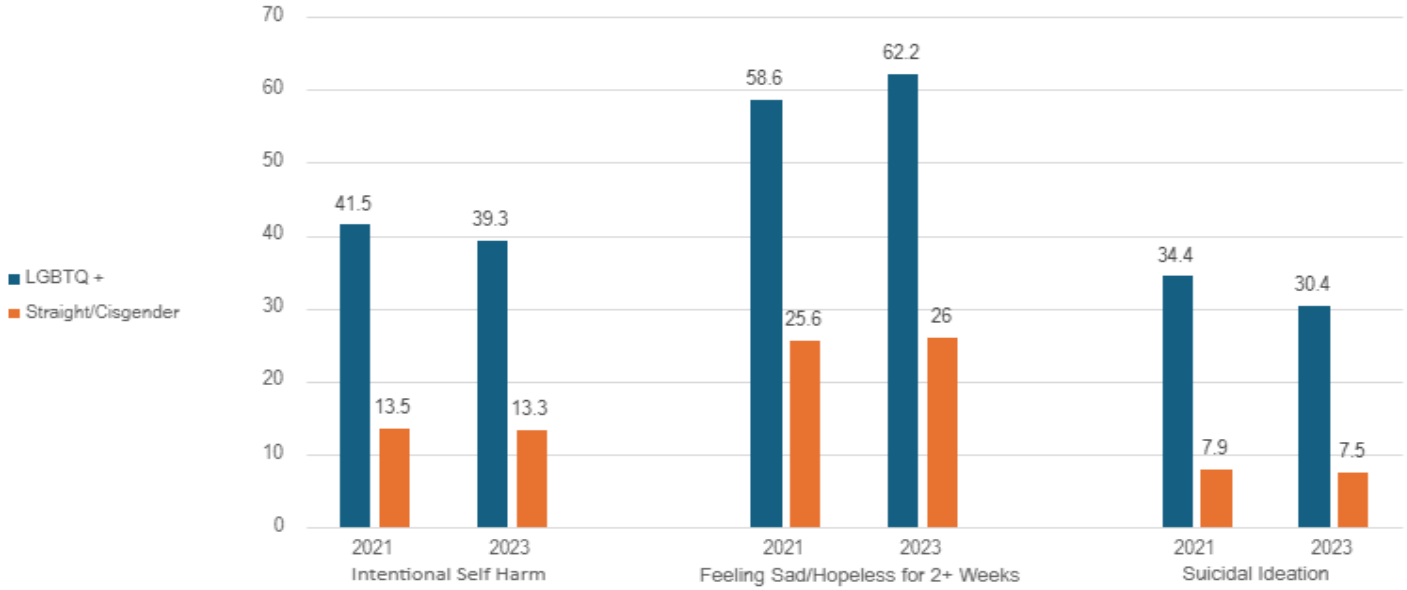
LGBTQ+ people experience interpersonal, organizational and structural exclusion and discrimination that may impact their mental health. Importantly, identifying as LGBTQ+ is not a mental illness, though structural inequities and discrimination may cause mental health concerns. However, people within the LGBTQ+ community often experience life-long differences in the barriers they encounter navigating the world, which can have a significant impact on their wellbeing.

Nationwide, among the general population with poor mental health, transgender, queer and questioning sexual orientation adults were three to five times more likely to seek suicide resources compared to male and straight adults.[30] In Massachusetts, adults who identified as LGBTQ+ had disproportionately higher rates of persistent poor mental health compared to straight/cisgender adults (30.2% vs 11.5%).[31] This discrepancy is equally pronounced in youth populations, with LGBTQ+ youth reporting suicidality at four to five times the frequency of straight/cisgender youth.[32]

[30]COVID-19 Community Impact Survey: Sexual Orientation, Gender Identity, and Transgender Experience, Massachusetts Department of Public Health, 2021.
[31]LGBTQ+ Community, Inequities in Mental Health, CHES Mental Health Report, 2023
[32]Youth Risk Behavioral Survey (YRBS), MA DPH, 2021,2023.

Self-injury is often a predictor of future suicide attempts. In 2022, there were 2,562 nonfatal self-inflicted injury-related hospital visits and 5,140 emergency department visits.[33] Students who identify as LGBTQ+ are more likely to report self-injury, mental health concerns and suicidal ideation compared to those who identify as cisgender and straight.[34] In Massachusetts, 41.5% of LGBTQ+ youth reported intentionally self-inflicting injury, compared to 13.5% of their heterosexual peers (Figure 14).

Figure 14: Massachusetts high school students who reported intentional self-harm, feeling sad or hopeless, and seriously considering suicide in the past year (%)



Source: 2021 and 2023 Massachusetts Health Insurance Survey

Over 60% of LGBTQ+ survey participants reported mental health issues, nearly twice as high as straight/cisgender participants (35%) (Table 23). Additionally, 27.7% reported that their mental health is worse compared to last year, and 38.8% reported a suicide attempt or suicidal thoughts. Participants in the LGBTQ+ community who are White, Asian or Asian American, and Black or African American are more likely to report mental health issues. LGBTQ+ people aged 18 to 26 are also more likely to report mental health issues (24.68%).

Table 23: Mental health indicators, LGBTQ+ participants, 2022 and 2025

	2022 LGBTQ+ participants	2025 LGBTQ+ participants
TOTAL	166	461
Mental health and suicide		
Overall MH is worse	43%	36.6%
Mental health issues	73.2%	73.4%
Suicide thoughts/attempt	44.0%	47.9%

Dual diagnosis

Dual diagnosis refers to the co-occurrence of a mental health disorder and a substance use disorder in the same individual. This combination is especially challenging to treat, as each condition can worsen the other and make recovery more complex. People with dual diagnoses are at higher risk for hospitalization, homelessness, incarceration and suicide, and they often struggle to access coordinated care that addresses both mental health and substance use simultaneously. In Massachusetts, dual diagnosis is a significant public health concern, particularly amid the ongoing opioid crisis and rising rates of anxiety, depression and trauma-

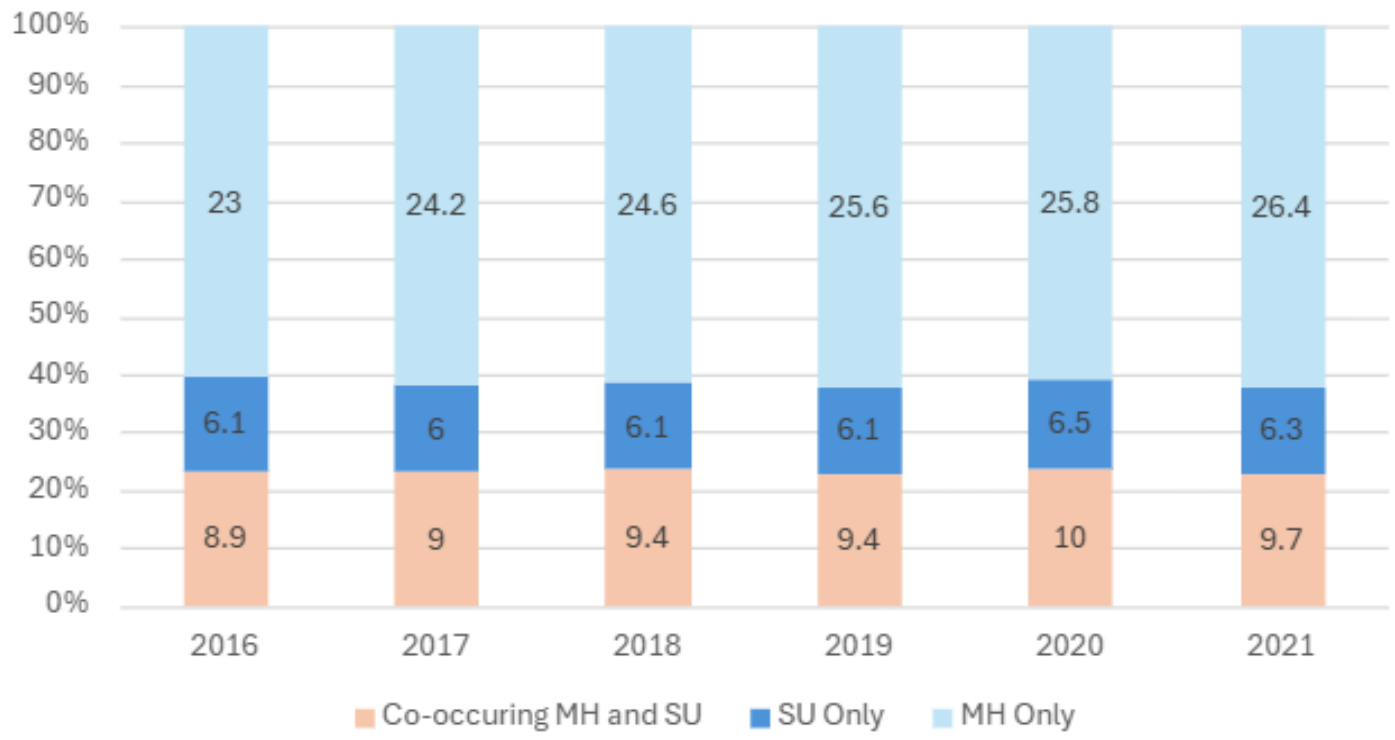
[33]Massachusetts Injury Facts & Highlights, MA DPH, 2022.
[34]Massachusetts Youth Health Survey, MA DPH, 2023.

related disorders. In Greater Lowell and other regions, dual diagnosis often appears in vulnerable populations, including youth, veterans and those experiencing homelessness, highlighting the need for more accessible, comprehensive and culturally responsive care.

In 2022, 21.2% of U.S. adults (about 54.4 million people) had either a serious mental illness (SMI) or a substance use disorder (SUD), with 2.9% (7.4 million) experiencing both.[35] Young adults aged 18 – 25 were most affected: one-third (33.4%) had either SMI or an SUD, and 6.0% had both, the highest rate among all age groups. Adults aged 26 – 49 also had elevated rates compared to those 50 and older. Racial and ethnic disparities were also evident. Multiracial adults had the highest rates of either SMI or SUD (30.1%) and of both (5.4%), while Asian adults had the lowest (12.5% with either condition and 1.1% with both). These patterns underscore the need for targeted, culturally informed interventions, especially for young adults and racially marginalized populations disproportionately affected by dual diagnosis.

Among Massachusetts patient discharges, co-occurring mental health and substance use visits and discharges have remained consistent from 2016 to 2021 with a 9% increase from 2016 to 2021 and a 3% decrease from 2020 to 2021 (Figure 15). People in the age range of 18 to 44 were most likely to have a hospital visit due to a co-occurring mental health and substance use concern (16.1%). Males were also more likely than females to be admitted and discharged due to co-occurring concerns (12.4% compared to females 7.5%). Among co-occurring inpatient discharges, 10.8% were Black, 10.3% were Hispanic, 10% were White, 7.7% were other or multi races, and 2.3% were Asian.

Figure 15: Massachusetts patient discharges associated with behavioral health concerns, 2016 – 2021 (%)



Source: Source: Massachusetts Acute Care Hospital Inpatient Discharge Data, CHIA

[35]National Survey on Drug Use and Health, Substance Abuse and Mental Health Association, 2022.

Statewide data from the Massachusetts Health Policy Commission highlights persistent gaps in care for these individuals and many of these challenges are reflected locally. Middlesex County, home to both urban centers like Lowell and suburban communities, faces significant barriers to timely and integrated treatment. Wait times for behavioral health services are long across the region, particularly for medication-assisted treatment (MAT) and residential mental health care, where more than half of facilities report delays exceeding five to eight weeks. These delays are even more severe for non-English-speaking residents, who are overrepresented in Lowell's immigrant and refugee communities.

Service fragmentation is another major concern. Many local providers offer either mental health or substance use treatment, but not in an integrated fashion. Even when both types of care are offered under one roof, providers often operate in silos, lacking shared treatment plans and coordinated communication. This creates an added burden on individuals with dual diagnoses, who must navigate disjointed systems and manage multiple points of care on their own, which is especially difficult for low-income residents or those with limited English proficiency.

Past Actions

- Since the 2022 CHNA, the following has been done to address mental health:
- Initiated a mental health project in collaboration with the Greater Lowell Technical High School to create little libraries to be distributed across Greater Lowell, providing helpful mental health support information, flyers, pamphlets and other literature that residents can access anonymously.
- Collaborated with the Health Equity Task Force to host a QPR (Suicide Prevention) Training to the GLHA network.
- Supported the development of the Pride Playbook, a GLHA toolkit for prioritizing mental health for the LGBTQ+ population.
- Distribution of more than $117,000 in GLHA grant funding to support community projects that address mental health throughout the Greater Lowell region, including:
  - $30,000 to the NAN Project Mental Health Awareness for Lowell's Youth.
  - $23,371 to the Massachusetts Alliance of Portuguese Speakers (MAPS) Greater Lowell Portuguese-Language Short-Term Mental Health Counseling.
  - $15,000 to the Frederick Abisi Adult Education Center Mental Health Awareness for Adult Learners of English as a Second Language.
  - $15,000 to the International Institute of New England Greater Lowell Refugee Mental Health and Wellness Initiative.
  - $10,000 to The Megan's House Foundation Co-Occurring Disorders Professional Development.
  - $9,240 to the Chelmsford Health Department Let's Talk about Mental Health Initiative.

Recommendations

Healthcare system recommendations

- Integrate screening, early diagnosis and treatment for co-occurring disorders by continuing to connect patients with providers who offer appropriate dual-diagnosis treatment
- Continued recruitment of multilingual mental health clinicians to meet the needs of community members who speak a language other than English
- Enhance emergency department services and general resources specific to individuals experiencing co-occurring mental health and substance use disorders
- Implement evidence-based workplace programs to provide support for doctors, nurses and other healthcare staff to support mental health and prevent suicide (e.g., the Healer Education Assessment and Referral (HEAR) Program)[36]
- Coordinate with local veterans' agents to coordinate care between emergency departments, inpatient mental health facilities and VA facilities to optimize service delivery for veterans in mental health crisis

Community system recommendations

- Expanded access to free/reduced cost transportation options to increase access to healthcare services
- Multilingual implementation of mental health first aid training at free/reduced cost
- Train and deploy community health workers or mental health navigators to connect residents (specifically youth, LGBTQ+ people, veterans and BIPOC) with services, particularly in underserved neighborhoods
- Partner with libraries, senior centers and youth organizations to reduce isolation by offering inclusive, low-barrier programs that address mental health and suicide prevention
- Support workplaces and schools in implementing mental health training and resources (e.g., resilience programs, anti-stigma campaigns and employee assistance programs), with a special focus on youth, working adults and LGBTQ+ populations

[36]American Medical Association, Success Story: HEAR to Identify Care Team Members at Risk of Suicide. https://edhub.ama-assn.org/steps-forward/module/2702612

3. Conditions of aging

Rationale

In all focus groups, elders were frequently referenced as being especially vulnerable to a range of specific health issues, as well as to the social and economic conditions that contribute to those health issues. Though age-related health needs are not specifically ranked in the CHNA survey, the survey does ask participants to identify populations that they feel need to be prioritized for support and intervention; elders were identified as the top priority population by survey participants (Table 24). The margin between the highest and second highest ranked special populations (elders and people who are homeless) was substantial (281.1 versus 163.2), indicating that elders secured the highest ranked position by a considerable degree. Additional consideration was given due to recent federal changes in Medicare and Medicaid, which are expected to have a significant negative impact on elders' ability to afford care and services, especially those who are also low-income.

Table 24: Survey and focus group results for major category "Conditions of aging", all participants

Survey			
Rank	**Item**	**Weighted sum**	**Standard score**
1	Elders	283.1	1.72

Focus groups			
Question: What are the most significant health issues in your community?			
Rank	**Item**	**Density**	**Examples**
3	Conditions of aging	55.9	Elder mental health; neurological disease; disease and pain management; injuries, falls and safety

Overview

The aging population in Greater Lowell is growing rapidly, reflecting both national trends and local demographic shifts. As adults live longer, many do so with complex health needs, chronic conditions, and increased social and economic vulnerability. In Greater Lowell, older residents face a range of interconnected challenges including housing instability, food insecurity, transportation barriers and limited access to culturally responsive care. These conditions, compounded with increased incidence of age-related health disorders, put elders at higher risk for mental health conditions, particularly those that are more prevalent in older adults (like hoarding).

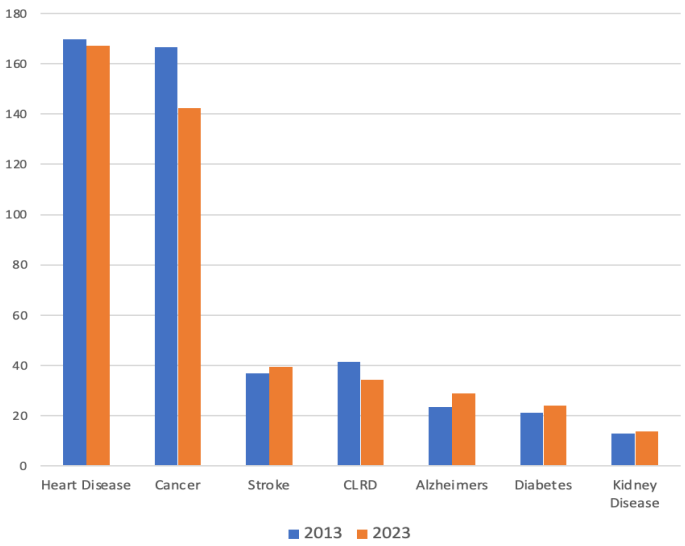
Neurological disorders

Neurological conditions such as Alzheimer's disease, Parkinson's and other forms of dementia are becoming increasingly prevalent among older adults in Greater Lowell, placing significant strain on families, caregivers and the healthcare system. Older adults without access to family caregivers or other social support are at especially high risk, yet community resources for supporting people with neurological disorders, and their caregivers and family, are challenging to access.

Trends and disparities

Alzheimer's is the most common form of dementia. Alzheimer's is a progressive disorder of the brain that erodes memory, cognition and impairs a person's ability to complete simple tasks. An estimated 135,000 older adults in Massachusetts have Alzheimer's disease, approximately 11.5% of the total population of adults in the state over age 65.[37] In 2022, there were four deaths daily from Alzheimer's in Massachusetts.[38] One of the reasons that rates of Alzheimer's are increasing is because general life expectancy is also increasing. From 2013 to 2023, mortality rates for the top causes of death in the U.S. decreased for heart disease (-1.5%), cancer (-14.5%) and CLRD (-17.3%), but the mortality rate for Alzheimer's rose significantly by 22.9% (Figure 16).

Figure 16: Mortality rates, top causes, 2013 and 2023

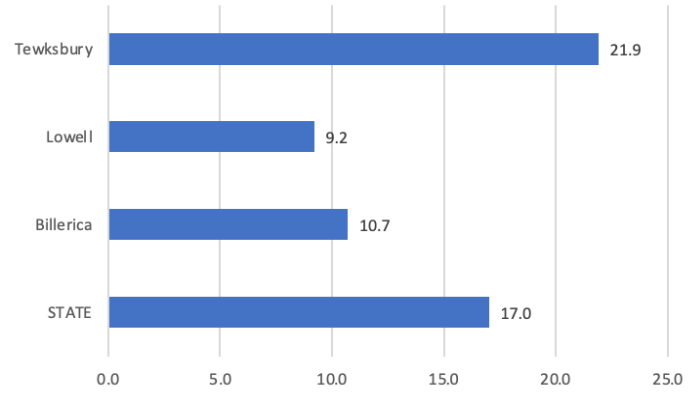


Source: CDC National Center for Health Statistics, Data Briefs 178 & 521

In Middlesex County, approximately 11.8% (more than 19,000 people) of Medicare beneficiaries have Alzheimer's disease; in Greater Lowell, 7.3% of Medicare Part D enrollees receive prescription medication for dementia. In the CHNA survey, 153 participants self-reported have Alzheimer's or other dementia; of them, 108 reported requiring some caregiving.

Alzheimer's prevalence and mortality is not evenly distributed across all populations. Within Greater Lowell, there is a notably disparate rate of Alzheimer's mortality in Tewksbury (21.9 per 100,000) compared to the state, as well as surrounding communities (Figure 17). While some of this may be accounted for by the location of dementia care residential facilities, other factors may include the specific racial and age demographics of Tewksbury compared to the surrounding communities.

Figure 17: Age-adjusted mortality rate for Alzheimer's deaths, by community



Source: MA Registry of Vital Records, Death Data, 2022

[37]Alzheimer's Association. 2025 Alzheimer's Disease Facts and Figures. Alzheimer's Dement 2025;21(5).
[38]MA Deaths 2022
[39]Via MA DPH PHIT, Beneficiaries with Alzheimer's Disease, Percent by County, CMS 2018

Nationally, Black older adults are twice as likely and Hispanic older adults are 1.5 times as likely as White older adults to develop dementia. However, despite their overall lower prevalence rate, White non-Hispanic men and women have a considerably higher mortality rate.[40] In Massachusetts, the mortality rate from Alzheimer's is relatively comparable between Black non-Hispanic (16.4), White non-Hispanic (16.9) and Hispanic residents (15.4).

There are many potential reasons for these geographic and racial discrepancies in prevalence, incidence and mortality rates. Prevalence and incidence data is correlated with several socioeconomic disparities between these racial groups, and mortality data may be impacted by the higher access to diagnosis and residential care among White non-Hispanics.

However, it is also important to consider additional factors that are specific to the population in Greater Lowell, which includes a much higher proportion of foreign-born residents compared to the rest of Massachusetts. There are considerable cultural differences regarding what are perceived to be normal parts of aging. In some cultures, memory loss and physical decline are seen as natural and expected aspects of growing older, rather than symptoms of underlying conditions such as dementia or depression. This can delay diagnosis and reduce engagement with medical or supportive services. In Cambodian, Vietnamese, Latinx and African diaspora communities, language barriers, mistrust of the healthcare system, and culturally rooted beliefs about aging and illness can influence how symptoms are recognized, interpreted and addressed. For instance, dementia may be viewed as a spiritual or moral issue rather than a neurological disorder, leading families to rely on informal care or religious support rather than clinical interventions.

One of the most significant community impacts of neurological disease is the provision of care for elders. As conditions like Alzheimer's and Parkinson's progress, many older adults require constant supervision, assistance with daily activities and emotional support. Often, these needs are met by unpaid family caregivers. In Massachusetts, an estimated 318,000 family caregivers provide an estimated 215 million hours of unpaid care to their loved ones.[41] This $6.6 billion value in unpaid care is in addition to the $2.2 billion dollar cost to the state's Medicaid program.

The physical, emotional and financial toll of caregiving is substantial and often compounded by a lack of accessible respite care, adult day programs, or culturally and linguistically appropriate resources. Current economic and social conditions have compounded the pressures of caregiving; most adults who are currently or approaching caregiving for their parents are also raising their own children. This "sandwich generation" of young and middle-aged adults is also very likely to be working full time, as cost of living continues to rise. For families in communities where formal care is stigmatized or culturally discouraged, the pressure to "do it all" at home can be overwhelming. Approximately 60% of adults caring for a family member with dementia report high stress; 33% report depression.[42]

In the CHNA survey, 37.8% of participants reported knowing someone with Alzheimer's. Of them, 38% were caregivers. A slight majority of caregiver respondents (52.2%) were between ages 18 and 54; 36.1% were between 55 and 74, and 8.4% were between age 75 and 94. Approximately 44.8% of caregiving participants reported mental health issues and 23.8% reported suicidal thoughts, higher than the reporting rate for the total participant group (36.5% and 16.6%). As the population ages, expanding caregiver support, training and mental health services will be critical to protecting the well-being of both elders and those who care for them. See more on caregiving in the community and clinical care section.

[40]U.S. Department of Health and Human Services Assistant Secretary for Planning and Evaluation Office of Disability, Aging and Long-Term Care Policy, RACIAL AND ETHNIC DISPARITIES IN ALZHEIMER'S DISEASE
[41]Alzheimer's Association Massachusetts Fact Sheet
[42]MA Executive Office of Elder Affairs, MA Alzheimer's Disease and Related Disorders State Plan, 2012

Acute and chronic pain

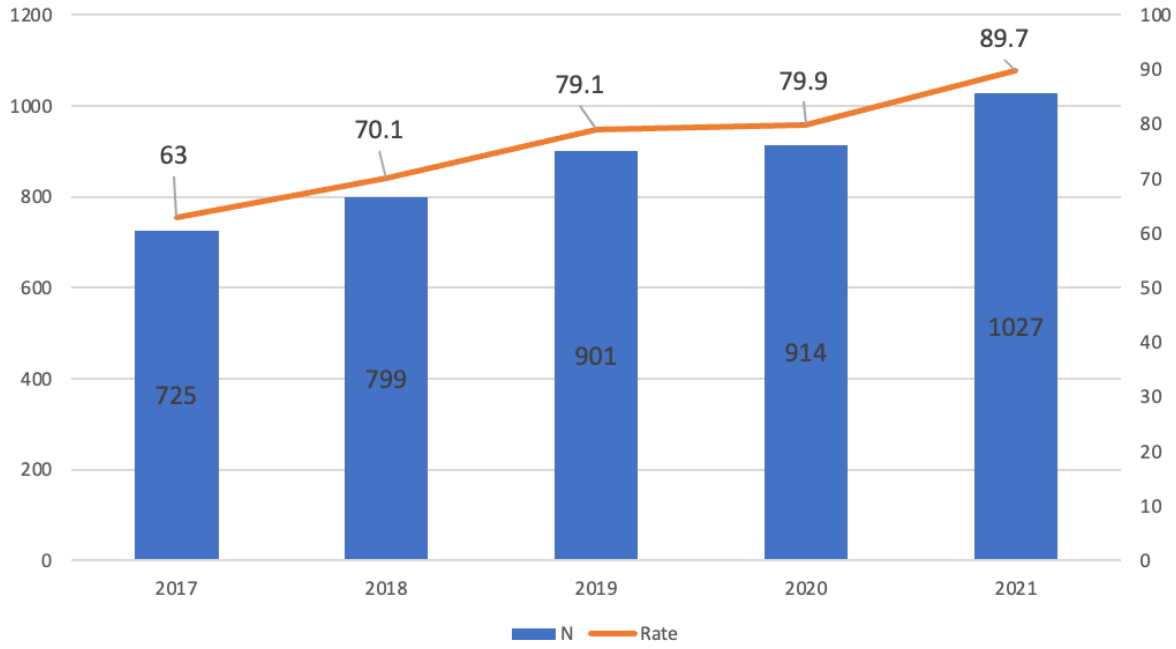
Many older residents experience acute and chronic pain resulting from injury, arthritis or other degenerative conditions, highlighting the need for comprehensive pain management strategies that balance effective treatment with safety concerns.

Trends and disparities

Acute pain in older adults is often the result of an injury; falls are the leading cause of fatal and non-fatal injury in adults over age 65.[43] There are several factors that increase fall risk for older adults, including lower body weakness; vision problems; vitamin D deficiency; medicines that affect balance; home hazards such as uneven steps, throw rugs and clutter; walking and balance difficulty; and foot pain and poor footwear, among others.

Nationally and in Massachusetts, the rate of fall injuries and deaths is increasing significantly (Figure 18). The mortality rate from fall injuries has increased 42%, resulting in $964 million in charges for hospital stays resulting from fall injuries. The fall-related injury rate is highest for White, non-Hispanic older adults (1,696 per 100,000) compared to Hispanic (991 per 100,000), Black (871) and Asian (799) older adults.

Figure 18: Number and age-adjusted fall injury death rate per 100,000 MA adults 65+ years, 2017 – 2021



Source: Massachusetts Department of Public Health, Bureau of Community and Health Prevention, Injury Surveillance Program, Injury Prevention and Control Program, 2022.

Even when a fall is not fatal, injuries sustained can lead to lasting trauma (e.g., a brain injury) and lifelong pain. A Massachusetts study of older adults found that 39% of older adults reported persistent pain. Older adults experiencing chronic pain had a 14% greater risk of significant declines in physical function and well-being in the multi-year follow-up.[44] Chronic pain in older adults also contributes to falls, limited mobility and isolation that deteriorates mental health.

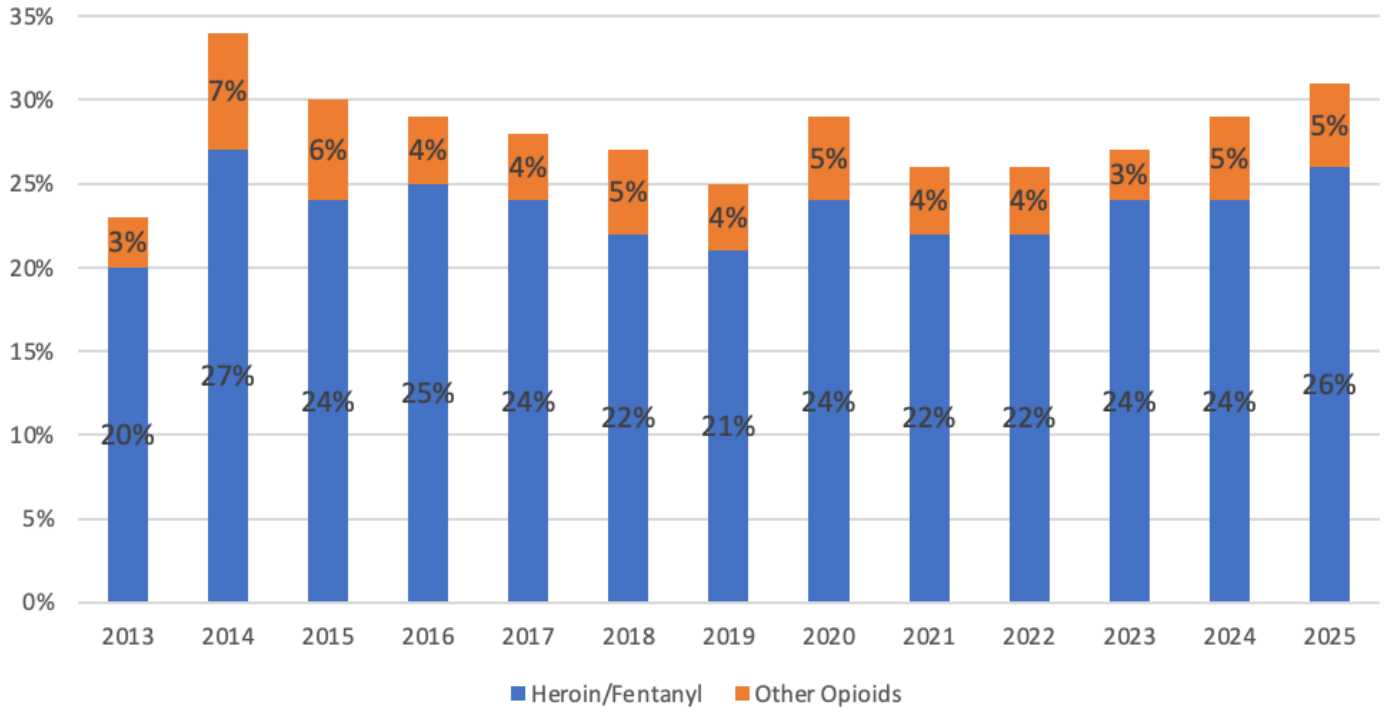
However, managing chronic pain in older adults is fraught with specific challenges. In Greater Lowell, disparities in pain management are shaped by both socioeconomic status and cultural background. Low-income seniors, particularly those who rely on Medicare or MassHealth, face barriers in accessing specialists like rheumatologists or physical therapists. Older adults with limited English proficiency or limited digital literacy may also struggle to navigate referrals, prescription renewals and/or telehealth systems.

[43]Massachusetts Department of Public Health, Bureau of Community and Health Prevention, Injury Surveillance Program, Injury Prevention and Control Program, 2022.
[44]Ritchie CS, Patel K, Boscardin J, et al. Impact of persistent pain on function, cognition, and well-being of older adults. J Am Geriatr Soc. 2023; 71(1): 26-35

Opioid safety concerns have also complicated the landscape of pain management in older adults. Opioids are indicated for the management of pain associated with a range of illnesses and diseases that are associated with aging. As the large "baby boomer" generation approaches older years, they are also more likely than previous generations to be managing chronic conditions that make them candidates for opioids. Approximately 9% of older adults use prescribed opioids for managing chronic pain.[45]

Expanded use of prescription opioids to older adults has had an effect on opiate use disorder. Between 2013 and 2015, the percent of older adults seeking treatment for OUD increased 54%, despite the total population of older adults growing only 6%.[46] In Middlesex County, the proportion of older adults seeking substance use treatment increased more than 200%, from 6% of all admissions in 2006 to 22% of all admissions in 2025.[47] The proportion of admissions to treatment for OUD in older adults has risen from 23% of all older adult admissions in 2013 to 31% of all older adult admissions in 2025(Figure 19).

Figure 19: Percent of total admissions for OUD, older adults, Middlesex County



Source: MA BSAS Dashboard

Following state and national guidelines to reduce opioid prescriptions, some providers have grown hesitant to treat chronic pain pharmacologically, even when clinically appropriate. This shift has left older patients without adequate alternatives, particularly those unable to access non-pharmacological pain management services due to cost, transportation or availability. In addition, older adults are at higher risk for adverse effects from pain medications due to polypharmacy and age-related changes in metabolism, requiring careful clinical oversight and patient education. Many cultures also have specific non-pharmacological approaches to pain management that can provide complementary alternatives or additions to managing chronic pain, but providers who are unfamiliar with those strategies may discourage them as not evidence based, even when there is no contraindication noted. For foreign-born older adults, culturally relevant pain management may be especially valuable because it may also provide psychological comfort that alleviates the mental health stress that often accompanies poorly managed pain.

[45]NIDA. 2020, July 9. Substance Use in Older Adults DrugFacts. Retrieved from https://nida.nih.gov/publications/drugfacts/ substance-use-in-older-adults-drugfacts on 2025, June 28
[46]NIDA
[47]Massachusetts Department of Public Health. Bureau of Substance Addiction Services (BSAS) Dashboard. Accessed June 2025.. https://www.mass.gov/info-details/bureau-of-substance-addiction-services-bsas-

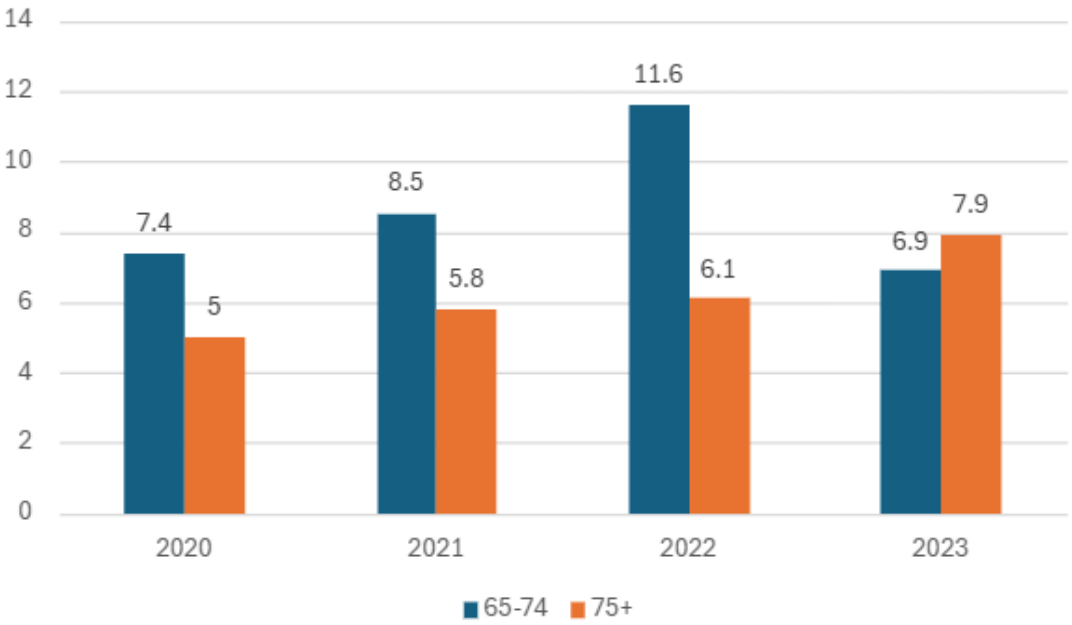
Elder mental health

Mental health challenges, including depression, anxiety and loneliness, affect a significant portion of the older adult population, yet remain underdiagnosed and undertreated due to stigma, provider shortages and limited access to age-appropriate care. Many older adults may be reluctant to seek help because they view mental health concerns as a normal part of aging or fear being labeled or misunderstood. At the same time, healthcare providers may miss signs of mental illness in elders, mistaking symptoms for cognitive decline, chronic illness or medication side effects.

Trends and disparities

In Massachusetts, the number of older adults reporting poor mental health is rising sharply. Between 2020 and 2023, adults aged 75 and older experienced a 58% increase in days of poor mental health (Figure 20). According to the 2025 Massachusetts Healthy Aging Data Report, older adults with higher socioeconomic status are less likely to experience mental health issues, while rates of depression are disproportionately higher among Hispanic older adults and those living in nursing homes.[48] Furthermore, older adults who live alone are more likely to report poor mental health (25%) than older adults living with others (21%). These disparities reflect broader structural barriers to care, including income inequality, cultural stigma and the availability of age-appropriate mental health services.

Figure 20: Percent of Massachusetts older adults reporting 15+ days of poor mental health, 2020 – 2023



Source: MA BRFSS 2020-2023

Compared to 2022, the percent of older adults in the 2025 assessment affected by mental health issues was relatively stable (approximately 18%) (Table 25). A greater proportion of older adults with mental health issues were Asian (8.9% to 15.1%) or Hispanic (1.8% to 3%). There was also a 56% increase in the proportion of older adults with mental health issues who were born outside the U.S. Despite the relative stability in mental health issue prevalence overall, the percent of older adults reporting suicidal thoughts increased over 8%. Additionally, among 2025 Community Health Older Adult participants who self-reported mental health issues, 34.2% are not in a long-term committed relationship and approximately 22.4% don't have friends or family who can help when needed. This kind of social isolation is a major predictor of mental health outcomes in older adults; statewide, one in four older adults report levels of loneliness or social isolation.[49]

[48]Massachusetts Healthy Aging Data Report, 2025
[49]2023 Massachusetts Mental Health Report, MA DPH

Table 25: Mental health demographics and indicators, participants age 65 and older, 2022 and 2025 CHNA

	65+ 2022 CHNA participants %	65+ 2025 CHNA participants %	Percent change (-/+ %)
TOTAL	18.3	24.9	+36.1
Worse MH compared to last year	12.6	11.9	- 5.6
Affected by mental health issues	18.4	18.2	-1.1
Affected by suicide/ suicidal thoughts	5.9	6.4	+8.5
Race/ethnicity			
White	87.5	84.0	-4.0%
Black or African American	1.8	0	-
Asian or Asian American	8.9	15.1	+69.7%
Hispanic/Latino/a	1.8	3	+66.7%
Foreign-born	10.7	16.7	+56.1%

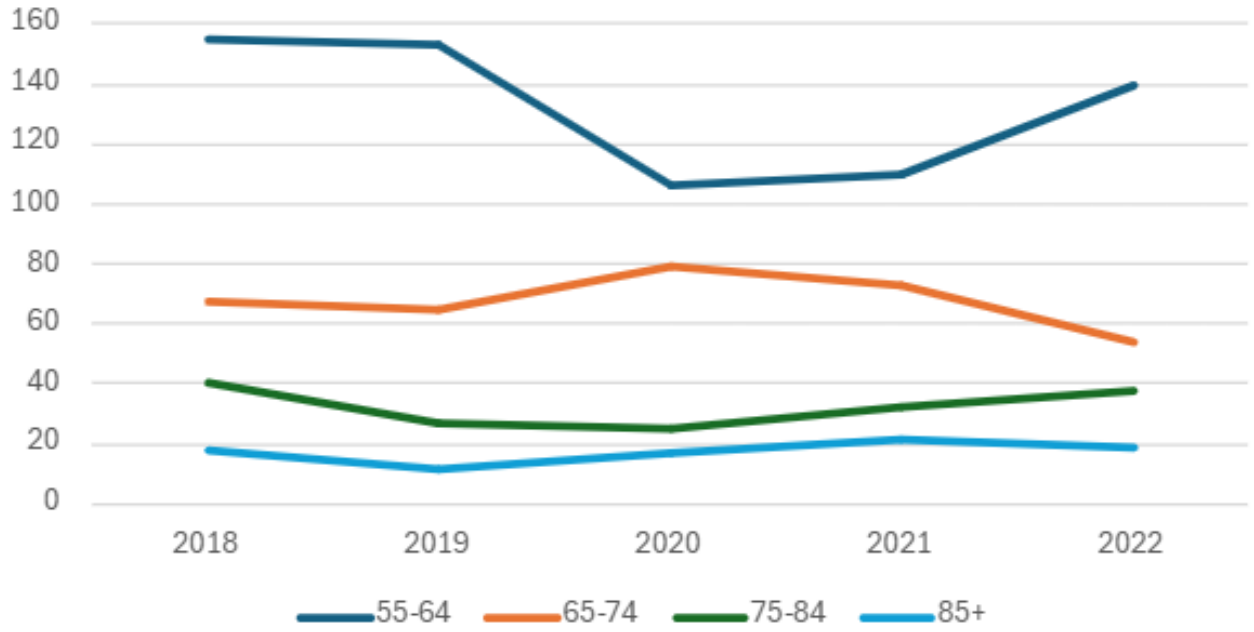
Throughout Massachusetts, older adults with disabilities, older adults who are caregivers, multi-racial older adults and Hispanic/Latinx older adults were three times as likely to report persistent poor mental health. Gay and lesbian older adults were twice as likely to report persistent poor mental health. This phenomenon was also noted in our focus groups. Participants discussed experiencing social discrimination, as well as fear of discrimination from their healthcare providers, which impacted their day-to-day mental wellbeing. Participants also stressed that their fear and isolation had increased in the past year over previous years due to the perception that explicit discrimination was more socially acceptable, and that their age made them especially vulnerable targets. Overall, there was a strong call out for community and connection among LGBTQ+ older adults, as well as with younger LGBTQ+ families to establish intergenerational connection.

Participants also expressed fears about losing autonomy and being mistreated in long-term care settings, highlighting the emotional stress tied to institutional living. Of 2025 CHNA participants over age 65, 18.2% indicated experiencing mental health issues. Of them, 36.1% also have cancer (versus 22.4% of older participants without mental health issues), 38.9% have diabetes (versus 20.1%), and 37% have heart disease (versus 21.5%). Focus group participants stressed the relationship between mental health issues and managing their chronic health needs, indicating that health issues exacerbate their poor mental health and that their mental health can sometimes make it more challenging to maintain their treatment plans for chronic issues.

Statewide, death by suicide rate for older adults is 10.1 per 100,000.[50] In 2022 in Massachusetts, the highest rates of suicide were in the 55 – 64 age group with 140 deaths by suicide (22.4%) (Figure 21). There was a decline in deaths by suicide from 2018 to 2020 followed by a slight increase which could be due to COVID-19 and an increase in social isolation.

[50]Suicide Age 65+ in Massachusetts, America's Health Rankings, United Health Foundation

Figure 21: Count of deaths by suicide per age group in Massachusetts, 2018 – 2022



Source: Massachusetts Violent Death Reporting System, 2018-2022

In the 2025 CHNA, 91 participants over age 55 reported suicidal thoughts or a previous attempt. Of them, 58% were between ages 55 and 64, and 37% were between 65 and 74, which is in alignment with state trend (Table 26). Older adults with suicidal thoughts were more likely than those without to be White, LGBTQ+ and not in a committed relationship, which may provide important insight into designing tailored interventions.

Table 26: 2025 CHNA participants over age 55, with and without suicidal ideations

	2025 CHNA older adults reporting previous suicidal ideation	2025 CHNA older adults without previous suicidal ideation
Age group		
55 – 64	58.2%	35.2%
65 – 74	37.4%	37.6%
75 – 84	<5	17.8%
Sexual orientation		
Heterosexual	72.5%	84.4%
LGBTQ+	16.5%	3.3%
Race		
White	91.2%	82.3%
Black	0	2.3%
Asian	<5	5.8%
Hispanic	<5	5.0%
Not in a committed relationship	40.7%	27.5%
Veteran	8.8%	8.2%

Elder mental health

Since the 2022 CHNA, the following has been done to address conditions of aging:

- Established the Older Adult Subcommittee within the GLHA, which focuses on age-friendly goals. The subcommittee consists of community partners from Age Span, Cambodian Mutual Assistance Association, UMass Lowell, Lowell Senior Center, Lowell YMCA, Community Teamwork Inc. and more.
- Implemented the Older Adult and Youth Pride Pen Pal Initiative at the 2025 Lowell Pride Festival, inspired by the Pride Playbook to create intergenerational connections.
- Hosted a network luncheon with Age Span addressing LGBTQ+ older adult mental health.
- Distribution of more than $80,000 in GLHA grant funding to support community projects that address conditions of aging throughout the Greater Lowell region, including $50,000 to the Chelmsford Senior Center Stay at Home Project, $23,000 to the University of Massachusetts Lowell Age Friendly Lowell and $8,020 to the Lowell Housing Authority LHA Healthy Living Seniors Project.

Recommendations

Healthcare system recommendations

- Adopt standardized cognitive assessments (e.g., MoCA, Mini-Cog) in annual wellness visits for patients over 65, especially in community health centers serving high-risk populations.
- Hire geriatric-trained psychologists or clinical social workers to work within primary care and neurology settings, especially in areas like Lowell and Tewksbury with high dementia rates and older adult mental health needs.
- Offer caregiver health screenings, mental health counseling and medical-legal partnership referrals through local health systems for adults providing unpaid care to elders while working or raising children.
- Embed pharmacy-led reviews for patients over 65, especially those with cognitive decline, multiple chronic conditions or recent falls, to identify opportunities for deprescribing high-risk medications (e.g., benzodiazepines, anticholinergics, opioids).
- Host regular outpatient advanced care planning sessions at the hospital (or satellite clinics) with trained facilitators who offer culturally sensitive guidance on healthcare proxies, goals of care and dementia planning, especially for foreign-born elders.

Community system recommendations

- Coordinate with senior centers, faith-based organizations and councils on aging across Greater Lowell to expand access to adult day health and short-term respite services
- Invest in local intergenerational initiatives that connect older adults with youth and families, such as shared reading programs, community gardens or tech mentorship events (e.g., “Ask a Teen Tech Day”).
- Partner with trusted community groups to train older adult peer ambassadors who can identify and refer socially isolated or distressed elders to mental health resources, especially among LGBTQ+, foreign-born and non-English speaking populations.
- Advocate for zoning changes, state funding and tax incentives to develop more affordable, accessible and culturally appropriate senior housing including multigenerational units.

4. Chronic conditions and wellbeing

Rationale

The Massachusetts State Health Improvement Plan (2024) defines priority subcategories of chronic diseases: asthma, cancer, diabetes, heart disease, COPD and stroke. Our data analysis mirrors the state's categorization to maximize alignment. Cancer, cardiovascular health and lung health were especially high ranked items in both the survey and within focus groups (Table 27). Additionally, populations of focus that were ranked high included people living with disabilities and people who are chronically ill. Importantly, disabilities are not diseases, though diseases may cause disabling symptoms. However, people with disabilities often experience life-long differences in the barriers they encounter navigating the world, which can have a significant impact on their wellbeing. Oftentimes these barriers are the result of failures in system design, rather than inevitable outcomes of differences in ability.

Table 27: Survey and focus group results for major category chronic conditions and wellbeing, all participants

Survey			
Rank	**Item**	**Weighted sum**	**Standard score**
6	Cancer	1036.5	.69
10	Heart and lung health	604.0	.40
16	Autoimmune disease	241.5	.16
Special populations ranking			
3	People with disabilities	140.3	.85
4	People with chronic illness	133.5	.81

Focus groups			
Question: What are the most significant health issues in your community?			
Rank	**Item**	**Density**	**Examples**
4	Cardiovascular health	48.6	Hypertension; broadly 'obesity-related' illness
6	Lung health	16.1	COPD; vaping/ smoking

Overview

Prevention and management of chronic health conditions is a critical community health priority area. Just four chronic diseases account for nearly 60% of mortality in Massachusetts as well as more than half of all state healthcare expenditures: cancer, diabetes, chronic lower respiratory disease and cardiovascular disease.[51] However, the burden of chronic health extends beyond disease-specific diagnoses to include long-term conditions such as physical disabilities, cognitive impairments and chronic pain, which often co-occur and compound health risks. People living with disabilities frequently face additional barriers to prevention and treatment, including inaccessible healthcare environments, provider bias, and lack of integration between physical and behavioral health services.

[51]Massachusetts Department of Public Health. Massachusetts State Health Improvement Plan. Boston, MA, 2024.

Cardiovascular health

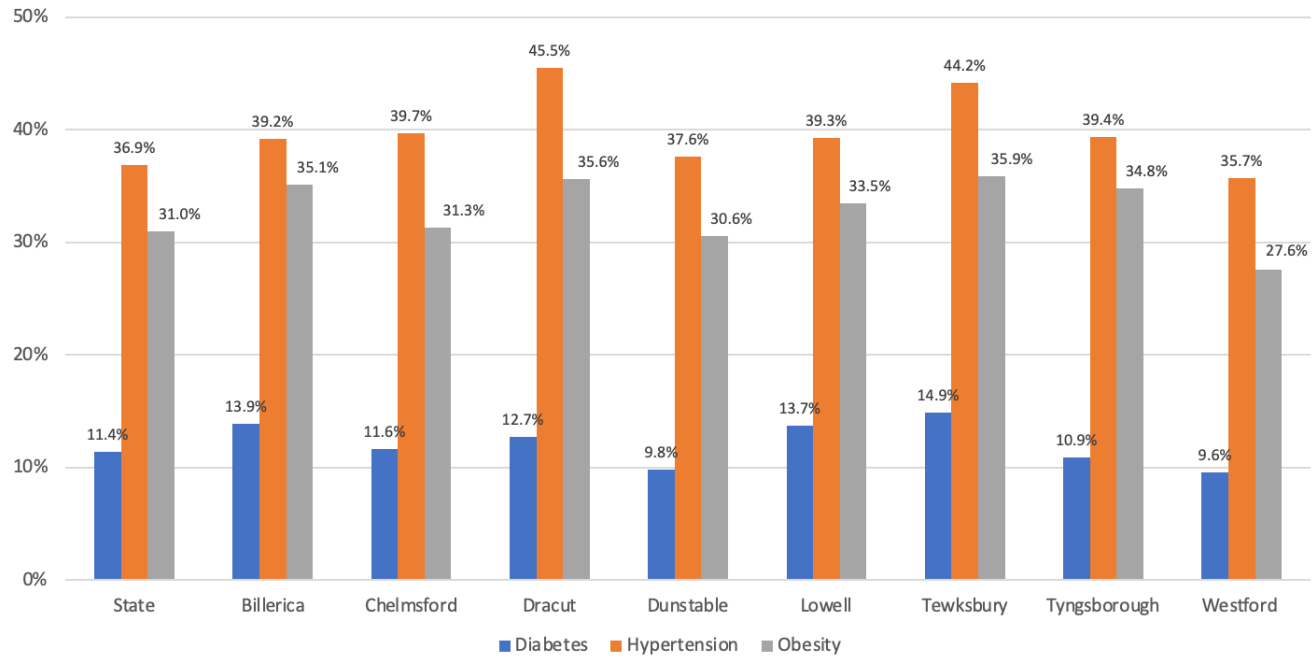
Cardiovascular disease (CVD) includes coronary heart disease, peripheral arterial disease and stroke; some of these chronic conditions, like stroke, can lead to catastrophic acute events. One of the most significant risk factors for CVD is hypertension, or high blood pressure, along with diabetes and high cholesterol.

Trends and disparities

Hypertension, diabetes and high cholesterol are the most significant predictors of heart attack, stroke and heart failure. Statewide in 2023, 36.9% of Massachusetts adults were diagnosed with high blood pressure.[52] Prevalence is highest among White residents (43.4%) and lowest among Asian residents (31.3%). Diabetes prevalence has similarly increased overall, from a prevalence of 11.9% of Massachusetts adults in 2018 to 13.1% in 2023. However, the highest prevalence for diabetes is among Black residents (16.3%) and Asian residents have the second highest prevalence (15.8%). Hispanic residents saw the largest single year increase in diabetes prevalence, increasing 29% from 2022 (11.2%) to 2023 (14.3%).

Compared to the state, the Greater Lowell region has higher prevalence of diabetes (13.1% regional prevalence), hypertension (40.2%) and obesity (33.6%) (Figure 22). Tewksbury (14.9%), Billerica (13.9%) and Lowell (13.7%) have the three highest prevalence rates of diabetes. Dracut (45.9%) and Tewksbury (44.2%) have particularly high prevalence of hypertension compared to the rest of the region and state.

Figure 22: Prevalence of diabetes, hypertension and obesity, by city, 2023



Source: MA DPH, 2023, via PHIT

One of the challenges in identifying inequities in chronic disease rates for Greater Lowell's Asian and Black populations is that a significant portion of those populations are foreign-born; state-level data does not disaggregate based on nativity, so in some cases, inequities seen in state data are not replicated in our regional population. For example, state-level data identifies the lowest rates of hypertension among the Asian population (31.4%). However, rates of hypertension in Cambodian refugee and immigrant populations are significantly higher than the general U.S. population, with studies identifying age- and gender-adjusted rates

[52]MA Dept of Public Health, 2023, via PHIT

of hypertension between 47.9% to 63.6% in the Cambodian refugee population.[53] Likewise, though the diabetes rate for Asians in Massachusetts is 15.8%, some studies report a rate of diabetes among Cambodian Americans as high as 27.4%.[54]

There is a similar need for disaggregation by nativity for the region's Black population. Overall, foreign-born Black residents are significantly less likely than U.S.-born Black residents and White residents to have diabetes, yet state data lists the highest diabetes prevalence among the state's Black population.[55] However, additional studies found that Afro-Caribbean Black residents with diabetes have lower, even healthy, BMIs compared to U.S.-born Black residents, suggesting that weight and waist circumference are not reliable predictors of diabetes in these populations.[56] These examples illustrate the critical need for careful consideration of the unique risk and protective factors that are relevant to the population of Greater Lowell when designing health interventions.

Data from the 2025 survey captures some indicators of these disaggregation needs (Table 28). Of participants with diabetes, 4.1% were Black, compared to 7.7% of participants without diabetes. On the other hand, of participants with diabetes, 10.5% were Asian, whereas Asians made up 9.0% of participants without diabetes. These rates are misaligned with expectations in most state and national datasets but may reflect the uniqueness of Greater Lowell's population in terms of nativity and ancestry.

Table 28: CHNA participants with and without diabetes, demographics

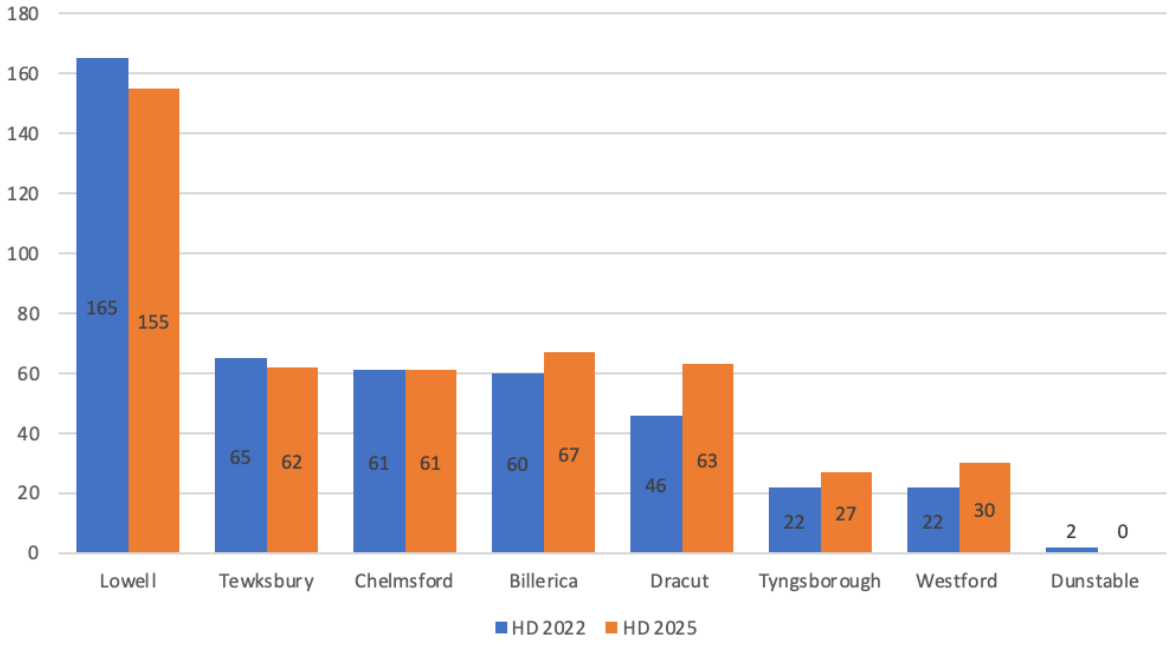
	Participants with diabetes	Participants without diabetes
Residence		
Lowell	45.2%	39.5%
Chelmsford	13.8%	12.3%
Dracut	10.4%	9.3%
Billerica	10.2%	4.6%
Tewksbury	7.3%	7.4%
Tyngsborough	5.2%	4.8%
Westford	3.9%	3.3%
Race		
White	82.2%	66.1%
Black	4.1%	7.7%
Asian	10.5%	9.0%
Hispanic	12.6%	10.9%

Approximately 547 participants in the 2025 Community Health Survey reported living with a chronic health condition (like diabetes). A higher proportion of people with chronic conditions were veterans (11.4% versus 6%). Compared to participants without chronic conditions, participants with chronic conditions were more likely to report worsening physical (28.6% versus 20.8%), mental (24.2% versus 19.5%) and financial health (34.6% versus 27%). Participants with chronic health issues also reported higher incidence of problems with alcohol (21.9% versus 13.1%) and other substances (13.2% versus 8%).

Heart disease and stroke are leading causes of death in Massachusetts. Compared to 2022, the number of heart disease deaths has remained stable in Lowell, Tewksbury and Chelmsford, but has risen in Billerica, Dracut, Tyngsborough and Westford (Figure 23). In comparison, the number of deaths caused by stroke has remained stable or decreased in Lowell, Tewksbury, Billerica, Dracut and Westford, but increased in Chelmsford and Tyngsborough.

[53]Marshall et al; (2016). Diabetes and Cardiovascular Disease Risk in Cambodian Refugees. Journal of immigrant and minority health, 18(1), 110–117
[54]Sharif et al. A Health Profile and Overview of Healthcare Experiences of Cambodian American Refugees and Immigrants Residing in Southern California. J Immigrant Minority Health. 2019;21(2):346-355.
[55]Ford et al; Diabetes among US- and foreign-born blacks in the USA. Ethn Health. 2016;21(1):71-84
[56]Horlyck-Romanovsky, et al; Black New Yorkers with Type 2 Diabetes: Afro-Caribbean Immigrants Have Lower BMI and Lower Waist Circumference than African Americans. J Racial Ethn Health Disparities. 2023 Aug;10(4):1933-1946

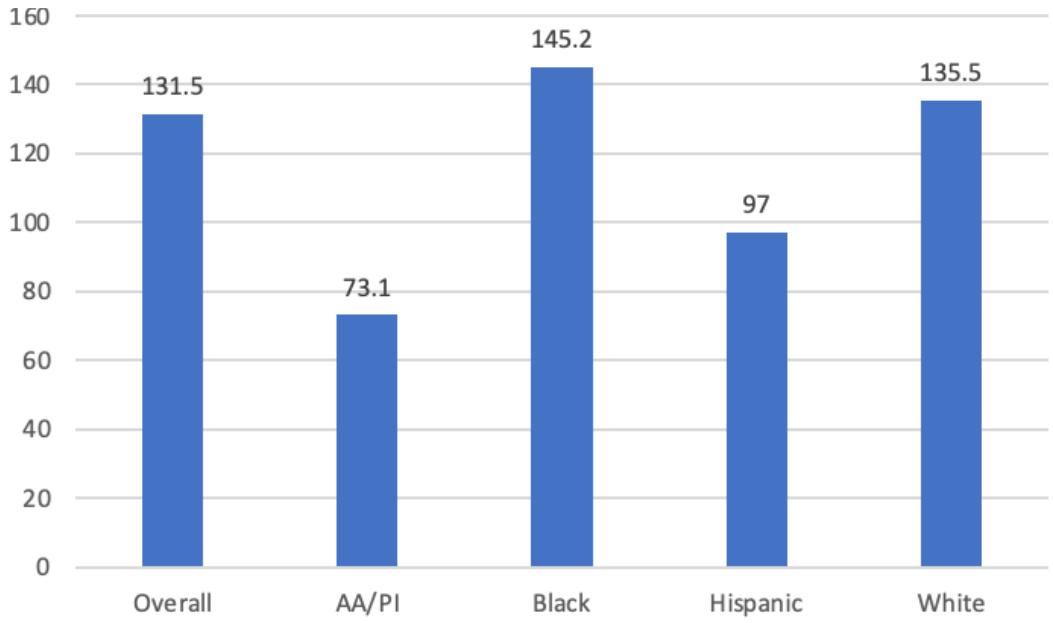
Figure 23: Heart disease deaths, by town, 2022 – 2025



Source: Registry of Vital Records and Statistics (RVRS) 2022-2025

At the state level, variations in mortality rates for both heart disease and stroke are observable by race and ethnicity, with Asian and Hispanic residents reporting the lowest rates of mortality by heart disease (Figure 24).

Figure 24: Age-adjusted heart disease mortality, by race/ethnicity

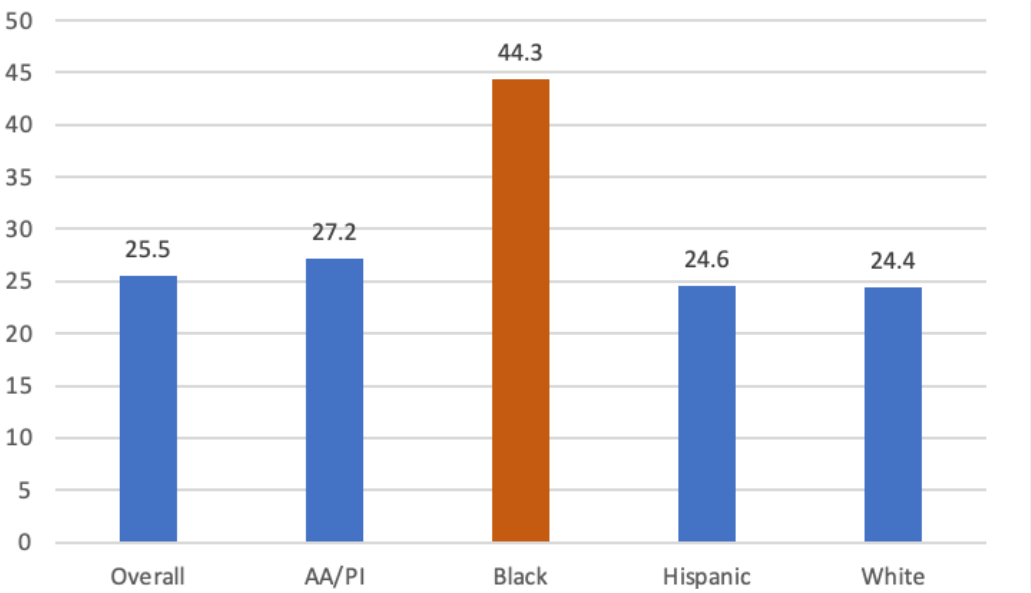


Source: Registry of Vital Records and Statistics 2022

Inequities are observable in both stroke prevalence and mortality. In 2023, Hispanic and Black residents (302.9/100,000 and 399.9/100,000, respectively) had statistically significant higher rates of stroke compared to the White population (228.5/100,000). Though the overall age-adjusted stroke rates have remained stable since 2019 at the state level, rates in Black populations are higher than their White counterparts; there was also a statistically significant increase for Hispanic populations (5.8% annual

percent change).[57] Similarly, the age-adjusted mortality rate for stroke was significantly higher for non-Hispanic Black residents compared to any other race and ethnicity group (Figure 25).

Figure 25: Age adjusted stroke mortality rate, by race/ethnicity, 2022



Source: Registry of Vital Records and Statistics 2022

However, similar to diabetes and hypertension data, state-level data regarding stroke and heart disease mortality may not accurately represent the specific racial and ethnic community in Greater Lowell. For example, cardiovascular disease accounts for the greatest proportion of deaths among Cambodians in Cambodia and the second greatest proportion of deaths among Cambodian Americans.[58] Stroke is the leading cause of death in Cambodia, excluding communicable diseases.[59] One study found that Cambodian Americans have a stroke rate four times higher than White Americans.[60] Disaggregation by nativity is critical for assessing risk for stroke and CVD among Greater Lowell's local Asian, Black and Hispanic populations.

Respiratory health

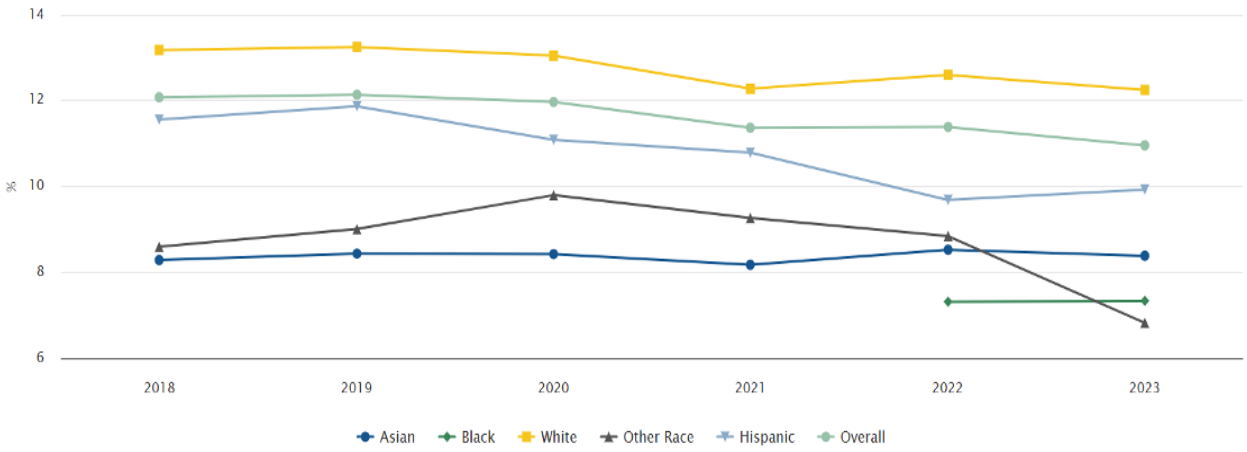
Respiratory health includes a range of conditions such as asthma, chronic lower respiratory disease (CLRD), chronic obstructive pulmonary disease (COPD) and lung cancer, as well as the health behaviors and environmental exposures that affect breathing and lung function. These conditions are influenced by multiple factors, including air quality, tobacco use, occupational hazards, indoor pollutants (like mold or dust) and exposure to environmental toxins. Smoking and vaping continue to be leading contributors to respiratory illness, but secondhand smoke and wildfire smoke are also growing concerns.

Trends and disparities

Approximately 9.4% of the Massachusetts population lives with asthma. The prevalence of asthma in the Greater Lowell area exceeds the state rate at 10.9%.[61] Specifically, Tewksbury (12.1%), Lowell (11.3%) and Dracut (11.5%) have the highest prevalence of asthma. At the state level, White, non-Hispanic and Hispanic residents report the highest rates of asthma (Figure 26). However, in the 2025 Community Health Survey, the highest self-reported asthma prevalence was among Hispanic participants (26%).

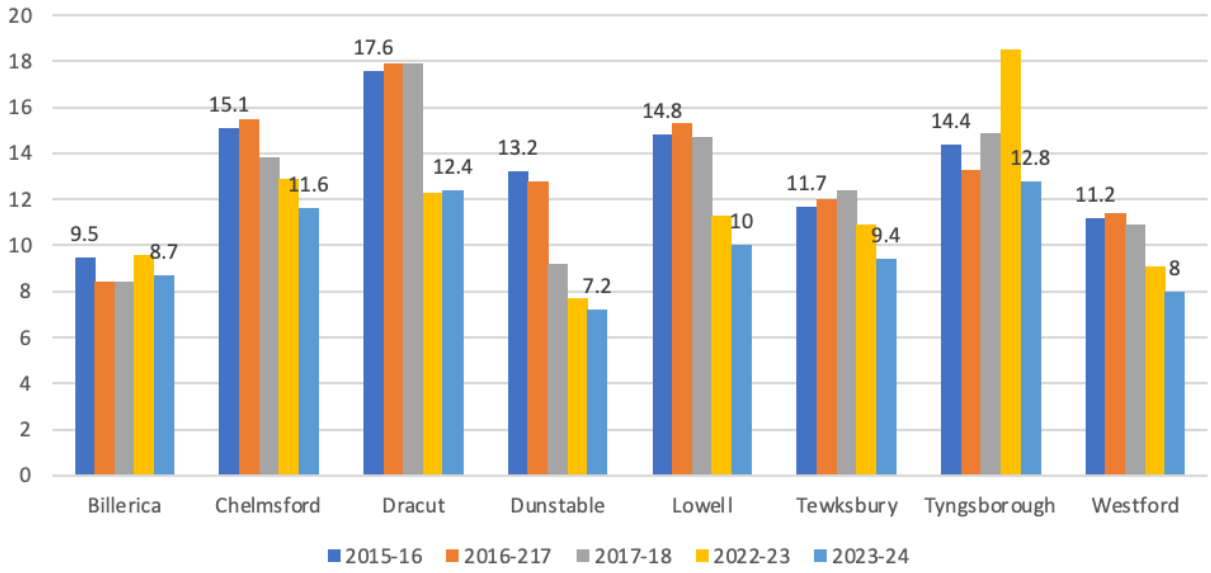
[57]MA DPH Data Brief, Primary Stroke Service, CY2023.
[58]CARE Data Brief No. 4, Cambodian and Cambodian American Health Statistics, 2021.
[59]GBD 2019 Diseases and Injuries Collaborators: A systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020
[60]McCullough JA, Sutocky JW, Dumbauld S. Analysis of Health Indicators for California's Minority Populations. DIANE Publishing; 1994.
[61]MEPHT Asthma Hospitalization Data via CHIA

Figure 26: Asthma prevalence, by race and ethnicity, 2018 – 2023



Rates of pediatric asthma have decreased at the state level from 11.5 in 2009 to 9.6 in 2023.[63] Pediatric asthma rates have been improving in every Greater Lowell community compared to previous years, though asthma rates remain above the state rate in Chelmsford (11.6), Dracut (12.4), Lowell (10.0) and Tyngsborough (12.8) (Figure 27). Importantly, the current higher rates of pediatric asthma in Chelmsford, Dracut and Tyngsborough are statistically significant compared to the state rate (Figure 27).

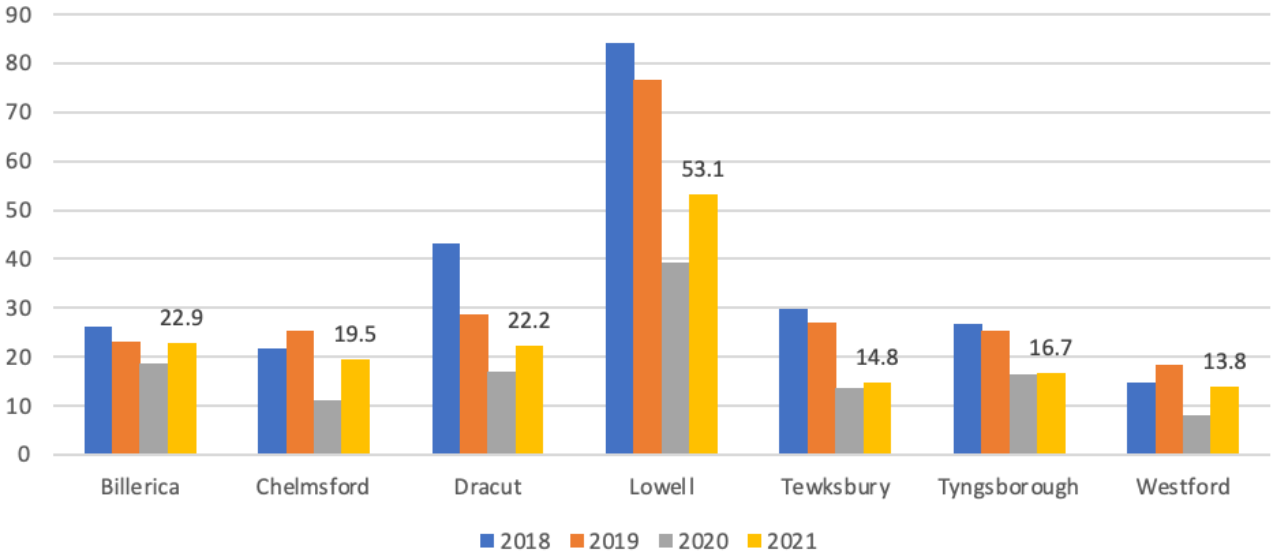
Figure 27: Pediatric asthma prevalence per 100 Students, by town, 2015 – 2024



Asthma complications can be life threatening and require emergency care. In 2021, the Massachusetts age-adjusted average rate of emergency department visits due to asthma was 43.9 per 10,000 people.[63] In the same year, the average rate for Lowell was 53.1. While overall rates of emergency department visits for asthma are decreasing since 2018, data beyond 2021 is not available, and the 2020 and 2021 data reflects emergency department access during COVID. Since a low point in 2020, each community saw an increase in emergency department visits due to asthma in 2021; more current data is likely a more accurate depiction of changes in emergency room utilization over time.

[62]Bureau of Climate and Environmental Change, via MA Environmental Public Health Tracking
[63]Center for Health Information and Analysis (CHIA) via MA Environmental Public Health Tracking

Figure 28: Annual average age adjusted rates of emergency department visits for asthma, by town, 2018 – 2021

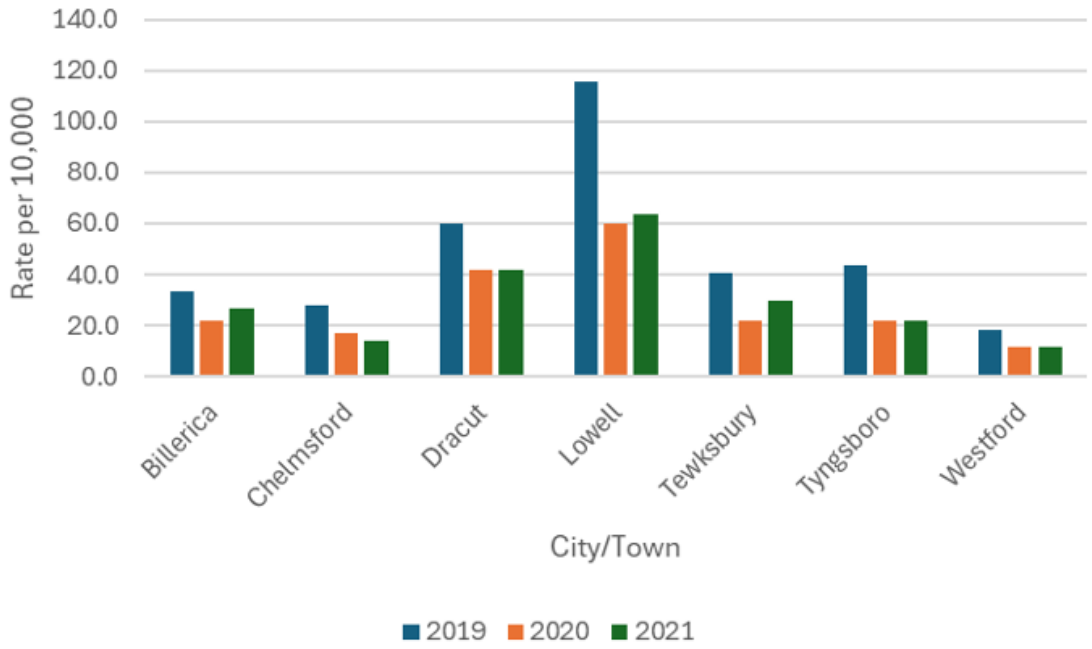


Source: MEPHT Asthma Hospitalization Data via CHIA

The sixth most common cause of death in the U.S. is chronic lower respiratory diseases, including COPD.[64] CLRDs, including emphysema and chronic bronchitis, are the fourth leading cause of death in Massachusetts.[65] In 2023, 5.9% of Massachusetts residents were diagnosed with COPD, compared to 6.2% nationwide.[66] COPD-related emergency department visits require a significant portion of hospital resources and expenditures. In Massachusetts, the age-adjusted emergency department visit rate per 10,000 residents has increased from 26.3 in 2019 to 34.3, a figure that includes increases related to COVID hospitalizations.

Across Greater Lowell, the emergency department visit rate varies significantly, with the highest rates of hospitalizations for Lowell (63.8 per 10,000) and Dracut (59.9) residents (Figure 29).

Figure 29: Age-adjusted COPD-related hospital admission rate per 10,000, by city/town

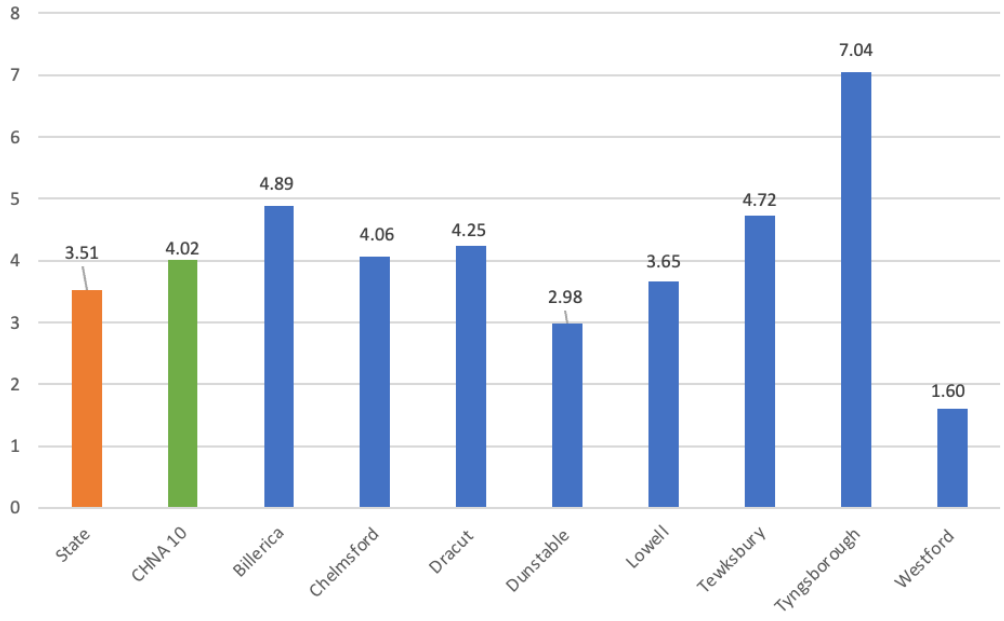


Source: MEPHT COPD Emergency Department Data via CHIA

[64]CDC, Behavioral Risk Factor Surveillance System via America's Health Rankings
[65]Massachusetts Department of Public Health, Massachusetts Death 2019.
[66]MA DPH, BRFSS Statewide Report, 2023

In 2021, the state CLRD mortality rate was approximately 3.5 per 10,000 residents; the Greater Lowell regional mortality rate is slightly higher (4.02) (Figure 30). CLRD mortality was especially high in Tyngsborough (7.04 per 10,000), followed by Billerica (4.89), Tewksbury (4.72) and Dracut (4.25).

Figure 30: CLRD mortality rate per 10,000 by city/town, 2021



Source: Registry of Vital Records and Statistics, Massachusetts Deaths 2021, via PHIT Dashboard

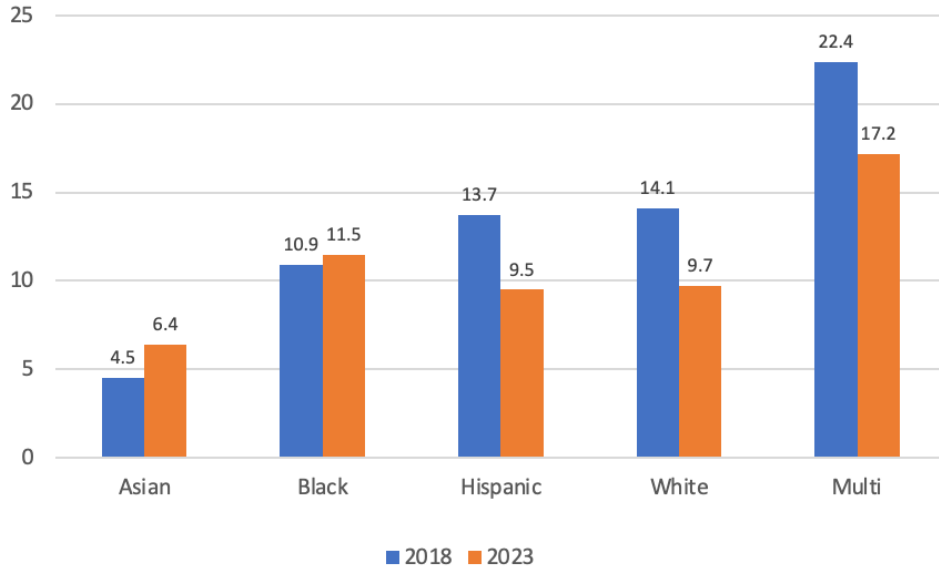
Respiratory syncytial virus (RSV) and other common childhood respiratory viruses, such as influenza and rhinovirus, pose serious health risks not only to infants and young children but also to individuals with underlying lung-related conditions like asthma and COPD. These viruses can trigger severe respiratory flare-ups, lead to hospitalization, and in some cases, result in life-threatening complications. The inflammation caused by viral infections can exacerbate existing respiratory symptoms, reduce lung function and make it more difficult for the body to recover. Immunocompromised individuals are especially vulnerable, as their bodies may be less able to fight off infection. As these viruses circulate seasonally and sometimes overlap in waves, their impact extends beyond pediatric care and becomes a significant concern for adult and geriatric populations with chronic respiratory conditions.

Furthermore, hospitalizations and treatment for RSV and other respiratory viruses place a considerable burden on the healthcare system, particularly during peak viral seasons. These infections often lead to surges in emergency department visits and inpatient admissions, straining hospital capacity and staffing. Patients with chronic lung conditions, such as asthma, COPD or lung cancer, frequently require more intensive care when infected, including oxygen therapy, respiratory support or prolonged hospital stays. This increased demand not only drives up healthcare costs but also diverts resources from other critical services. In pediatric and adult units alike, overlapping outbreaks of RSV, influenza and COVID-19 have led to shortages of hospital beds, delayed elective procedures and longer wait times for care. The cumulative impact of these seasonal viral surges underscores the importance of prevention, timely treatment, and health system preparedness to reduce both individual risk and system-wide strain. For more information on respiratory infections, see child and adolescent health section.

In Greater Lowell, emerging concerns about the ongoing impact of cigarette smoking and vaping are priorities for this assessment. In 2023, 12.6% of Massachusetts adults reported current smoking, slightly lower than 15.5% of adults at the national level. Since 2018, the state rate has continued to decline. The most recently available prevalence data found the highest rates of adult smoking in Lowell (16.0%) followed by Dracut (11.3%); Westford reports the lowest rate of adult smoking (5.7%).

Crude rates of adult smoking and changes in rates of smoking vary by race and ethnicity at the state level. The overall decline in adult smoking rates is driven largely by decreases in smoking among White (31% decrease from 2018 to 2023), multiracial (23% decrease) and Hispanic residents (30% decrease) (Figure 31). During the same time period, smoking among Black residents increased 5.5%; while overall smoking rates among Asians remain comparatively low, between 2018 and 2023, their rate of smoking increased by 42%. Data suggests that more strategic interventions among Black and Asian residents may be warranted.

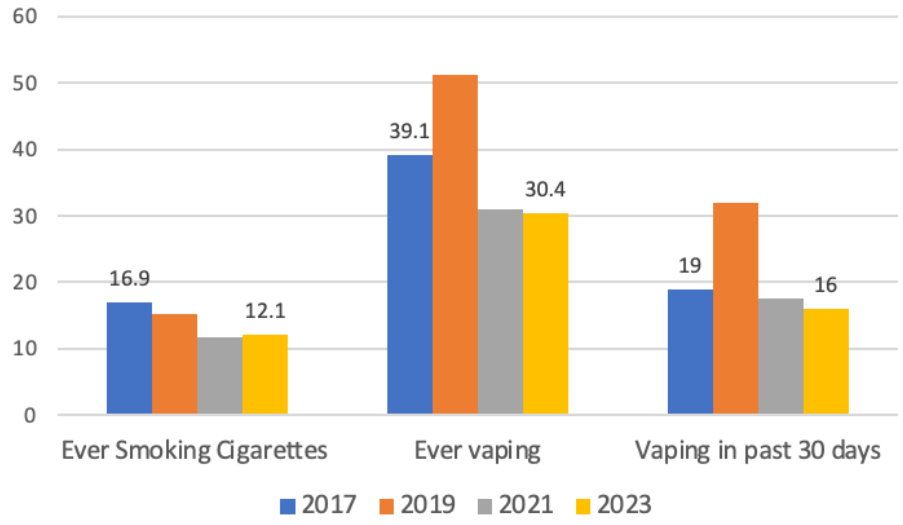
Figure 31: Smoking rates among MA residents, by race, 2018 and 2023



Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2023

An increase in local and federal regulations since 2017 has had significant impacts in vaping prevalence, especially for flavored tobacco vaping products. However, a simultaneous increase in the availability of disposable vapes and THC vapes has also occurred. Overall, youth smoking and vaping has decreased since peak use in 2019 (Figure 32). Currently approximately 12.1% of Massachusetts high schoolers have ever smoked cigarettes, compared to 30.4% who have ever used a vape. Female students were more likely to report having used a vape compared to male students, and Hispanic students were the most likely to report smoking cigarettes. Additional information about youth risk behavior can be found in the child and adolescent health chapter of this report.

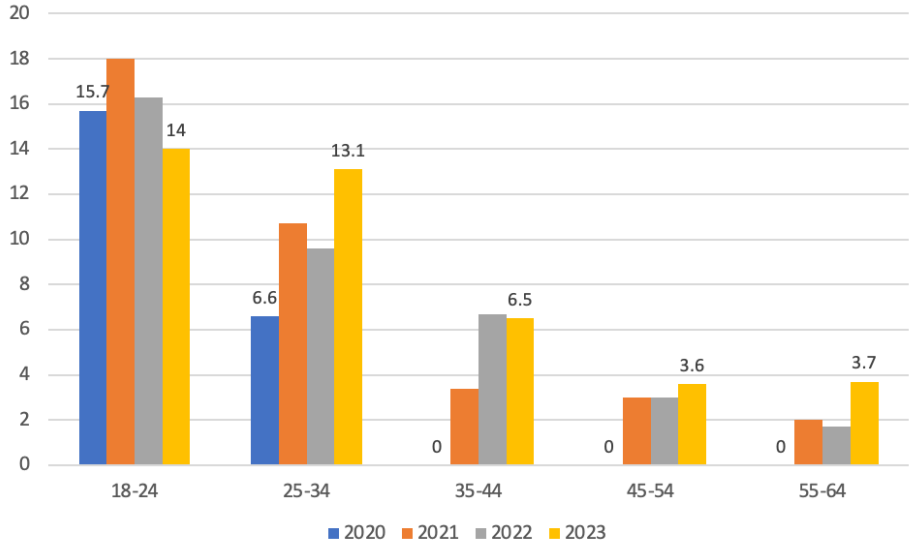
Figure 32: MA high schooler smoking and vaping prevalence, 2017 – 2023



Source: MA Youth Health Survey 2023

Vaping and the use of electronic cigarettes is most prevalent among Massachusetts young adults. While the overall prevalence of vaping among Massachusetts adults is 6.2%, the rate among 18 - 24-year-olds and 25 - 34-year-olds is 14.0% and 13.1% respectively (Figure 33). However, vaping among 18 - 24-year-olds has decreased by 22.2% from a peak prevalence rate in 2021, while use among 25 - 34-year-olds has increased by 98.1% from 2020 to 2023.

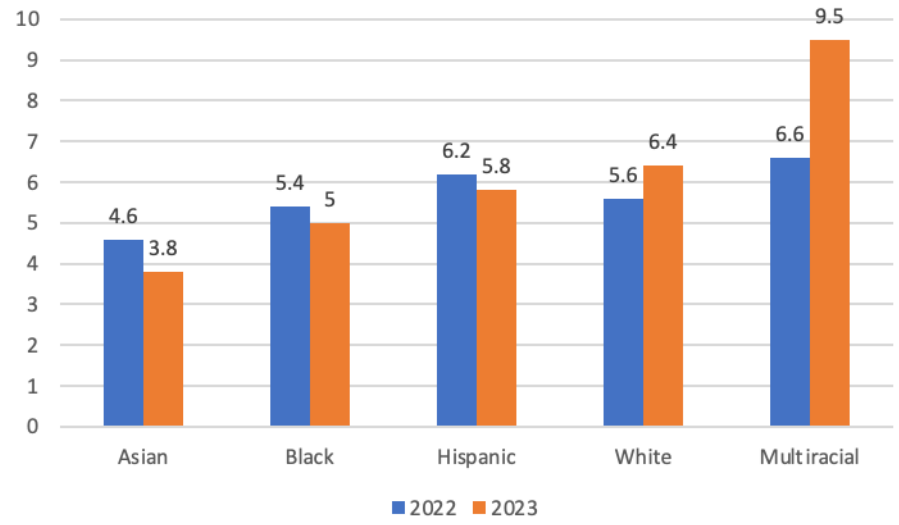
Figure 33: Use of e-cigarettes/vapes among MA adults by age, 2020 – 2023



Source: A Profile of Health of MA Adults, BRFSS Statewide Reports, 2020-2023

While the use of e-cigarettes among Asian, Black and Hispanic adults has declined between 2022 and 2023, use among White (5.6% to 6.4%) and multiracial (6.6% to 9.5%) residents has increased (Figure 34).

Figure 34: Use of e-cigarettes/vapes by MA adults, by race/ethnicity, 2022 – 2023



Source: A Profile of Health of MA Adults, BRFSS Statewide Reports, 2020-2023

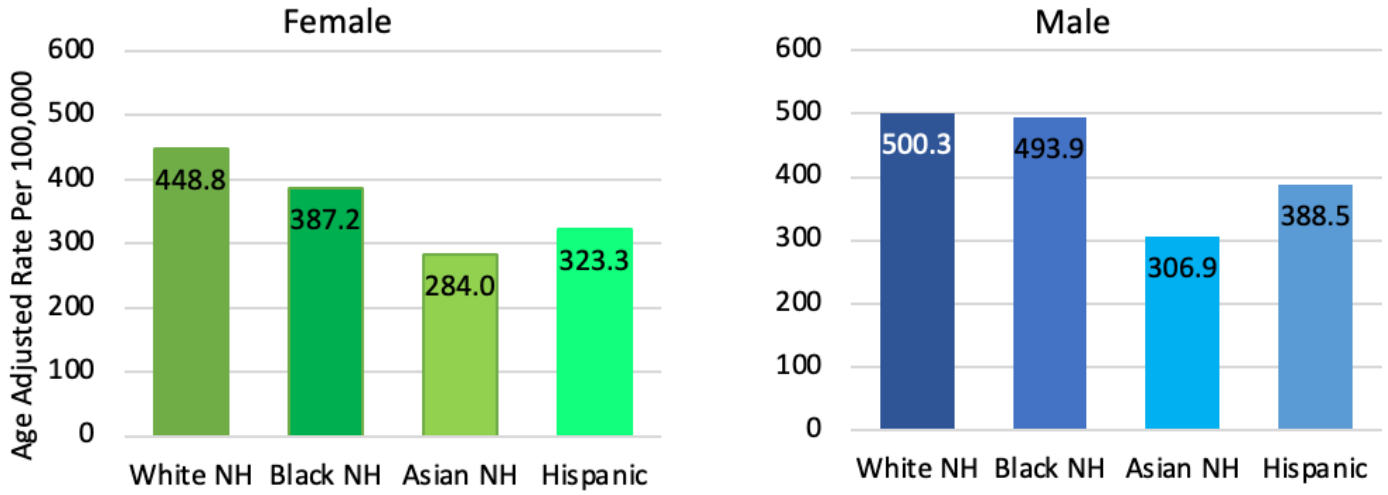
Cancer

Cancer is a group of disorders in which abnormal cells have limitless replicative potential and metastasize, invading other tissues. Longer lifespans are a significant factor contributing to an overall increase in cancer risk. Other risks include hereditary factors, sun exposure and ionizing radiation, exposure to carcinogens, some viruses like HPV, obesity, smoking and alcohol.

Trends and disparities

Age-adjusted cancer incidence rates in Massachusetts vary by both sex and race/ethnicity. From 2016 to 2020, the age-adjusted incidence rate for all cancers was highest among White and Black males (500.3 and 493.9, respectively) (Figure 35). Among women, White non-Hispanic women have the highest incidence rate (448.8).

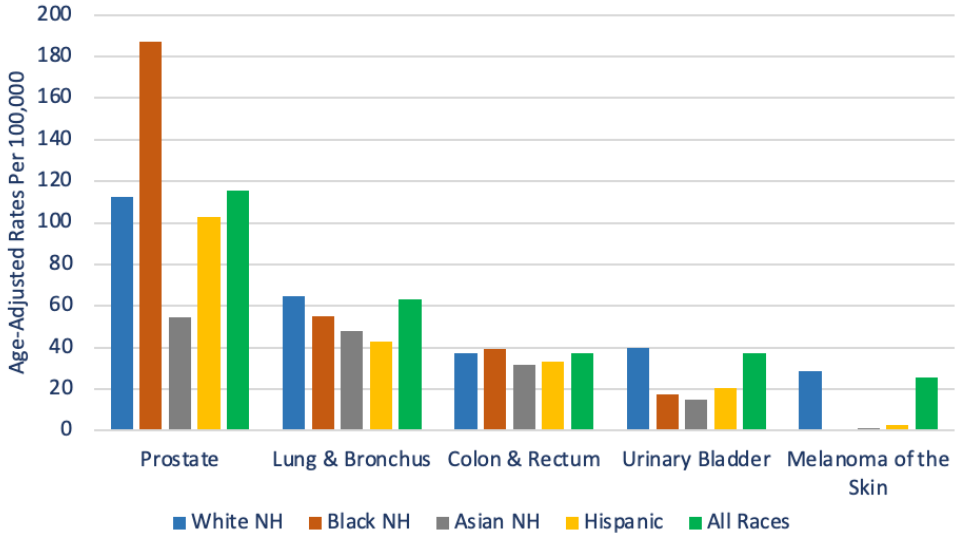
Figure 35: Age-adjusted cancer incidence rates in MA, by sex and race/ethnicity, 2016 – 2020



Source: MA DPH Cancer Incidence & Mortality in MA 2016-2020 Statewide Report

However, there is considerable variation in incidence rates of types of cancer by race/ethnicity and sex. Black men have significantly higher rates of prostate cancer (187.0 per 100,000) than other race/ethnic groups (Figure 36). White, non-Hispanic men have the highest rates of lung (64.9), urinary (39.9), and skin cancer 28.8) compared to other groups.

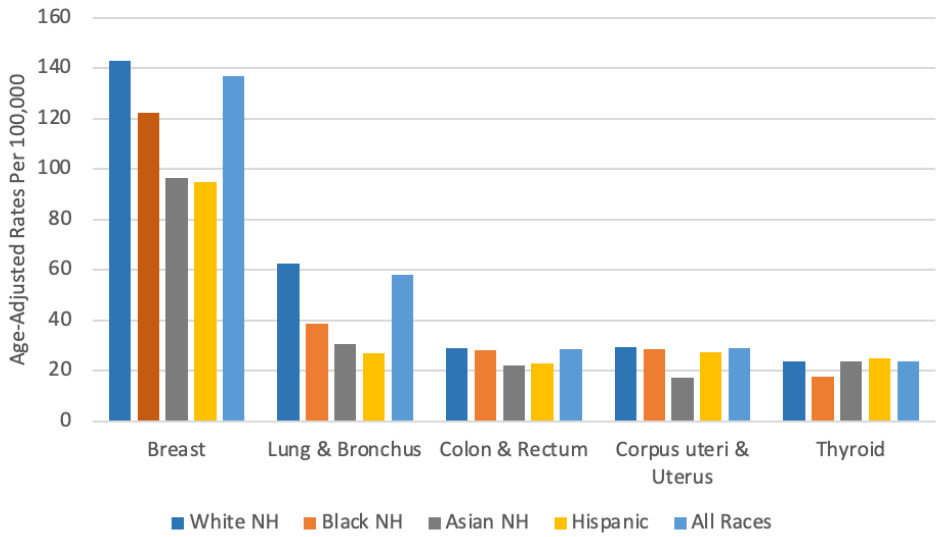
Figure 36: Five most common cancers, incidence rates among MA men, by race/ethnicity, 2016 – 2020



Source: MA DPH Cancer Incidence & Mortality in MA 2016-2020 Statewide Report

For Massachusetts women, White, non-Hispanic women have a higher incidence of breast (142.8 per 100,000) and lung cancer (63.7) compared to other groups (Figure 37). Both White and Black women had higher rates of colon cancer (29.0 and 28.2, respectively) and uterine cancer (29.3 and 28.6, respectively) compared to Asian and Hispanic women.

Figure 37: Five most common cancers, incidence rates among MA women, by race/ethnicity, 2016 – 2020



Source: MA DPH Cancer Incidence & Mortality in MA 2016-2020 Statewide Report

Cancer mortality rates similarly vary by sex and race/ethnicity. For example, lung cancer was the most common cause of cancer deaths in all male racial/ethnic groups, except in Black non-Hispanics (NH), who die most often from prostate cancer (Table 29). Likewise, all women are most likely to experience death from lung cancer, except Black, non-Hispanic women for whom breast cancer is the most common type of death from cancer.

Table 29: Most common causes of cancer deaths to MA men and women, by race/ethnicity, 2016 – 2020

			Rank				
			1	2	3	4	5
Men	White, NH	Type	Lung	Prostate	Pancreas	Colorectal	Liver
		Rate	40.2	18	14	13.4	8.8
	Black, NH	Type	Prostate	Lung	Pancreas	Colorectal	Liver
		Rate	35.2	30.5	15.9	15.6	12.2
	Asian, NH	Type	Lung	Liver	Colorectal	Prostate	Stomach
		Rate	31.7	14.1	8.1	7.2	7.1
	Hispanic	Type	Lung	Prostate	Liver	Colorectal	Stomach
		Rate	19.3	17.5	13	8.5	6
Women	White, NH	Type	Lung	Breast	Pancreas	Colon	Ovary
		Rate	32.6	16.8	10	9.6	6.7
	Black, NH	Type	Breast	Lung	Pancreas	Colon	Uterus
		Rate	17.8	17.7	11	8.7	7.8
	Asian, NH	Type	Lung	Breast	Pancreas	Colon	Liver
		Rate	17.3	8.9	6.5	5.8	5
	Hispanic	Type	Lung	Breast	Pancreas	Colon	Liver
		Rate	12.1	11.7	7.7	6	5.3

Source: MA DPH Cancer Incidence & Mortality in MA 2016-2020 Statewide Report

In the absence of disaggregated local data, it is important to consider the demographic and social factors that may uniquely impact the risk factors for our local population. One such critical factor is nativity. State data aggregates populations by racial category to report cancer risk, prevalence and mortality, but there is significant within-group variation in each category, especially when comparing U.S- and foreign-born individuals within groups. Not only does nativity impact the resource allocation and access (e.g., cancer screenings covered by insurance), but there are also potential cultural and genetic protective risk factors influencing cancer risk and mortality.

A 2024 study revealed several points of disparity in cancer mortality rates among U.S. and foreign-born individuals within standard race and ethnicity categories (Table 30). For example, U.S.-born Black, non-Hispanic men had overall cancer mortality rates nearly twice as high as foreign-born Black, non-Hispanic men (233 vs. 129.9). In comparison, overall cancer mortality rates between U.S- and foreign-born Asian men were nearly identical (114.1 vs. 115.5), except when considering liver cancer, where mortality rates were higher for both Asian men and women who were foreign-born (8.9 vs. 13.6 for men, 3.2 vs. 5.5 for women).

Table 30: Age-adjusted mortality per 100,000, U.S.-born and foreign-born, by sex, cancer site, race and ethnicity, 2016 – 2018

Sex	Cancer	Race/ethnicity	Age-adjusted mortality	
			US-born	Foreign-born
Men	All cancer	White, NH	187.1	158.6
		Black, NH	233	129.9
		Asian/PI, NH	114.1	115.5
		Hispanic	143.7	125.2
	Prostate	White, NH	18.1	16.5
		Black, NH	39.5	30.3
		Asian/PI, NH	10.8	8.9
		Hispanic	15.3	16.3
	Lung	White, NH	47.4	33.8
		Black, NH	58	16.8
		Asian/PI, NH	26.6	27.7
		Hispanic	22.5	21.3
	Colon	White, NH	15.7	15.5
		Black, NH	24	13.7
		Asian/PI, NH	11.4	11.2
		Hispanic	16.5	11.9
	Pancreas	White, NH	13.1	12.8
		Black, NH	16.1	10.4
		Asian/PI, NH	10.4	7.9
		Hispanic	9.8	9.5
	Liver	White, NH	8.4	7.6
		Black, NH	13.6	8.3
		Asian/PI, NH	8.9	13.6
		Hispanic	18.4	9.8
Women	All Cancer	White, NH	135.9	117.9
		Black, NH	157.7	102.7
		Asian/PI, NH	84.8	82.2
		Hispanic	96.9	90.5
	Breast	White, NH	19.8	19.7
		Black, NH	28.7	20.3
		Asian/PI, NH	13.4	11.2
		Hispanic	14.8	12.6
	Lung	White, NH	34.7	21.1
		Black, NH	31.6	8.6
		Asian/PI, NH	17.4	15.3
		Hispanic	13.2	10.5
	Colon	White, NH	11.3	10.8
		Black, NH	15.5	9.8
		Asian/PI, NH	7.4	7.7
		Hispanic	9.6	7.7
	Pancreas	White, NH	9.6	9.6
		Black, NH	12.8	8
		Asian/PI, NH	8.2	6.7
		Hispanic	7.9	7.9
	Liver	White, NH	3.6	3.6
		Black, NH	5.1	4.3
		Asian/PI, NH	3.2	5.5
		Hispanic	5.9	6.1

Source: Mandi et al; Assessing racial, ethnic, and nativity disparities in US cancer mortality using a new integrated platform, JNCI: Journal of the National Cancer Institute, Volume 116, Issue 7, July 2024

The specific drivers of these disparities are not fully understood. Recent arrivals to the U.S. may experience the "healthy migrant" effect, which refers to the tendency for first-generation immigrants to exhibit better health outcomes than their native-born counterparts in the host country; over time, this effect diminishes, so those who have been in the U.S. longer may see similar health outcomes as their native-born peers.

Additional cultural factors could also be a consideration. For example, screening for certain cancers occurs at different rates between different populations (Table 31). Generally, U.S. white residents report the highest utilization of cancer screening services, while Asian residents report the lowest (except in the case of colorectal cancer in which Hispanic residents have the lowest screen rates). Additional SDOH factors, like income and insurance status, are also predictive of screening frequency.

Table 31: Cancer screening rates among select U.S. populations

	Breast cancer		Cervical cancer		Colorectal cancer		Prostate cancer	
	2017	2021	2017	2021	2017	2021	2017	2021
Race/ethnicity								
White	75.7	75.7	83.2	78.1	63.7	74.0	37.1	40.2
Black/African American	81.6	81.6	85.3	73.3	59.3	71.3	30.7	32.5
Asian	66.1	66.6	75.8	63.6	52.1	60.9	17.4	17.6
Hispanic	72.1	73.8	78.6	68.7	47.4	62.1	25.5	26.7
Income								
<139% of federal poverty threshold	58.7	64.8	75.2	67.4	46.9	60.3	NA	8.9
>400% of federal poverty threshold	78.8	81.4	89.7	83.4	70.0	78.6	NA	76.8

Source: American Association for Cancer Research, Cancer Disparities Report 2024

Living with long-term conditions

Living with a long-term condition, whether a chronic illness or a disability, is a daily reality for thousands of Greater Lowell residents. These conditions may include the diseases summarized above in this chapter, but also include developmental, sensory or mobility-related disabilities that are not necessarily accurately framed in medical terms. While diverse in nature, long-term conditions often share common challenges: navigating fragmented healthcare systems, accessing appropriate supports, managing stigma, and maintaining independence and quality of life.

Chronic and autoimmune disease

Approximately 10.4% of Massachusetts residents are living with a chronic health condition.[67] The most common diseases are hypertension (32.5%), arthritis (28.6%), obesity (27.4%), mental illness (12%), diabetes (7.7%) and cardiovascular disease (6.3%). The burden of chronic conditions varies by a number of factors. For example, 53% of Massachusetts residents over age 65 are living with three or more chronic conditions, compounding their impacts on health and wellbeing. Though overall Massachusetts ranks well compared to other states in terms of chronic illness burden, the state is ranked 32 for our proportion of women with three or more chronic conditions; 5.4% of Massachusetts women aged 18 – 44 report at least three chronic conditions. Similarly, the state is ranked 42 in terms of veterans with three or more chronic conditions (20.5%, compared to the U.S. average of 16.5%).

Autoimmune diseases are another type of chronic condition that is often overlooked in chronic disease data. Autoimmune diseases share the common trait of conditions in which the body's immune system attacks healthy cells, but there are more than 100 specific autoimmune diseases that meet that criteria.

[67]U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System

The overall prevalence of autoimmune diseases has only recently been estimated. A 2024 Mayo Clinic study reported that an estimated 15 million Americans are diagnosed with at least one autoimmune condition; one in three of that total are diagnosed with more than one.[68] Prevalence of autoimmune conditions is twice as high in women compared to men (6% versus 3%). The most common condition is rheumatoid arthritis (744.2 per 100,000), followed by psoriasis (621.6) and Type 1 Diabetes (562.9) (Table 32).

Table 32: Estimated prevalence rate per 100,000 US residents of most common autoimmune diseases

Rank	Autoimmune disease	Rate per 100,000
1	Rheumatoid arthritis	744.2
2	Psoriasis	621.6
3	Type 1 diabetes	562.9
4	Graves' disease	512.6
5	Autoimmune thyroiditis	373.7
6	Crohn's disease	359.3
7	Multiple sclerosis	340.4
8	Lupus	297.6
9	Ulcerative colitis	284.6
10	Sjogren's disease	187.3
11	Celiac disease	170.3
12	Polymyalgia rheumatica	152.1
13	Autoimmune gastritis	81.5
14	Vitiligo	75.2
15	Autoimmune thrombocytopenic purpura	74.4

Source: Abend, et al. (2024)

Variations in the prevalence of autoimmune diseases are influenced by many factors. For example, the prevalence rate of systemic lupus in Black, non-Hispanic women is 230.9 per 100,000 compared to 26.7 for Black, non-Hispanic men, and 84.7 for White, non-Hispanic women (Table 33). Conversely, multiple sclerosis disproportionately impacts both White, non-Hispanic and Black, non-Hispanic women (352.6 and 337.4 per 100,000, respectively) compared to White, non-Hispanic and Black, non-Hispanic men (116 and 109.2 per 100,000).

Table 33: Prevalence per 100,000 US residents of multiple sclerosis and systemic Lupus, by sex and race/ethnicity[69] [70]

	Multiple sclerosis		Systemic lupus	
	Men	Women	Men	Women
White	116.0	352.6	8.9	84.7
Black	109.2	337.4	26.7	230.9
Asian/PI	9.0	35.8	11.2	84.4
Hispanic	38.7	99.9	18.0	120.7

There is also evidence that data aggregation may mask inequities in some racial groups. For example, the prevalence of inflammatory bowel disease, ulcerative colitis and Crohn's disease is higher in White adults than in Asian adults overall, but disaggregated Asian data shows significant variation in disease prevalence (Table 34). For example, while the overall prevalence of ulcerative colitis in Asian residents is 79 per 100,000, for South Asian residents the rate is 418 per 100,000, which is nearly double the rate of White, non-Hispanic residents (234.0).

[68]Abend et al.; Estimation of prevalence of autoimmune diseases in the United States using electronic health record data. J Clin Invest. 2024 Dec

[69]Langer-Gould, et al; (2022). Racial and Ethnic Disparities in Multiple Sclerosis Prevalence. Neurology, 98(18)

[70]Izmirly et al; (2021). Prevalence of Systemic Lupus Erythematosus in the United States: Estimates From a Meta-Analysis of the Centers for Disease Control and Prevention National Lupus Registries. Arthritis & rheumatology (Hoboken, N.J.), 73(6), 991–996

Table 34: Prevalence per 100,000 US residents of inflammatory bowel disease, ulcerative colitis and Crohn's disease, by race/ethnicity with "Asian" disaggregation[71]

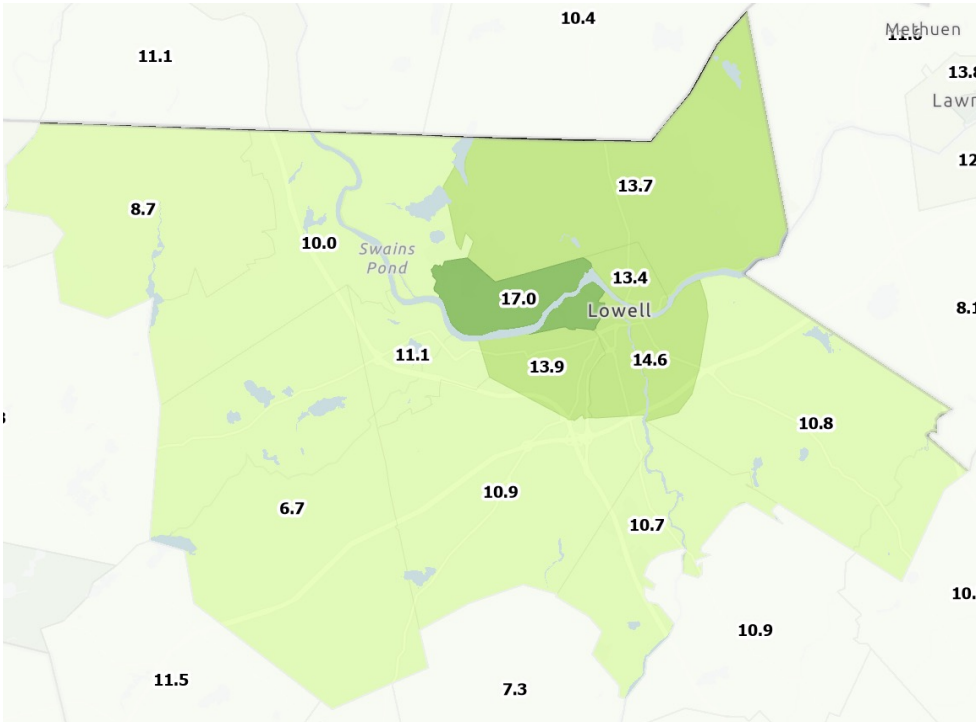
	IBD	UC	CD
Asian	119	79	40
Chinese	46	26	20
Filipino	69	34	34
Japanese	127	102	25
South Asian	488	418	70
Other/unknown	136	92	44
Black	222	104	118
Hispanic	175	122	54
White, NH	415	234	181

Mobility, sensory and developmental conditions

Conditions that impact a person's ability to seamlessly interact with and navigate their environment also impact their ability to fully engage with resources to support their wellbeing. Some of these conditions are present since birth (e.g., congenital limb differences or cerebral palsy) while others develop later in life (e.g., some types of vision loss or a spinal cord injury), but all of them share the same trait of creating lifelong impact.

An estimated 12.7% of Massachusetts residents are living with a hearing, visual, cognitive or ambulatory disability.[72] Disability prevalence is highest among Native American residents (20.5%), followed by Black residents (15.0%), White residents (13.2%) and Asian residents (6.7%). There is considerable variation in prevalence of any disability across the Greater Lowell Communities. The overall disability prevalence in the region is 12.3% but is higher in Lowell (14.8%) and Dracut (13.6%) (Figure 38).

Figure 38: Any disability prevalence, by ZIP code, 2023



Source: ACS 2023

[72] Erickson, W., Lee, C., von Schrader, S. (2025). Disability Statistics from the American Community Survey (ACS). Ithaca, NY: Cornell University Yang-Tan Institute (YTI). Retrieved from Cornell University Disability Statistics website: www.disabilitystatistics.org

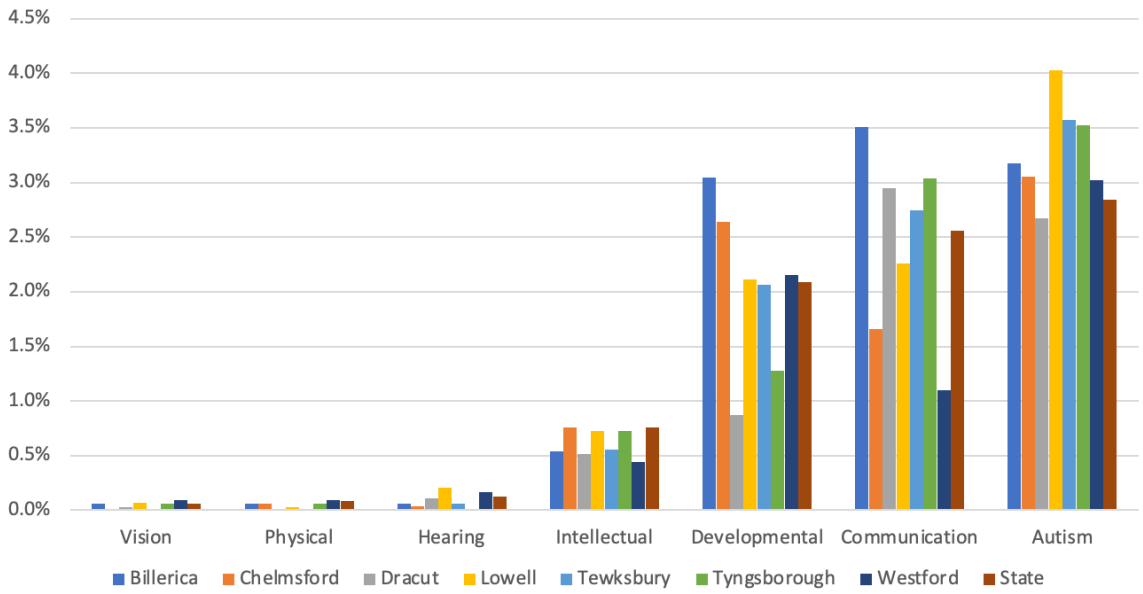
Disability prevalence also varies by race across each community in Greater Lowell, highlighting some instances of deviation from state prevalence. For example, the disability prevalence for Asian residents at the state level is 6.4%, but the prevalence rate is approximately double the state rate in Tewksbury (11.2%), Lowell (13.1%) and Dunstable (13.9%). On the other hand, the prevalence of disability in Black residents at the state level is 13.6%, but every Greater Lowell community except Dunstable reports a prevalence much lower, with Lowell's prevalence at only 8.1%. The greatest variation in prevalence is among people who are multi-racial, with prevalence ranging from a low of 6.9% to a high of 37.8%.

Developmental and cognitive conditions such as autism spectrum disorder (ASD) or intellectual disability often begin early in life and may affect cognitive, communication, behavioral or physical development in ways that persist across the lifespan. These conditions may require ongoing support to navigate daily activities, learning environments, social relationships or employment.

Approximately 54% of people with disabilities in Massachusetts report a cognitive disability.[73] From 2003 to 2021, the number of students with ASD enrolled in Massachusetts schools climbed from 4,000 to 26,000.[74] Autism is nearly four times as prevalent in boys compared to girls, though some studies suggest this is due to failures in screening tools to accurately capture how autism symptoms present between genders. From 2014 to 2017, diagnoses of ASD doubled in Black children, from one in 72 to one in 36, and Hispanic children, from one in 80 to one in 40, though diagnosis in White children remained stable (1 in 69).[75]

The total number of students with disabilities enrolled in Greater Lowell schools is approximately 6,700, though rates of specific disability vary by community and disability type. Students with autism account for the largest portions of students with disabilities overall, followed by communication and developmental disabilities (Figure 39). Billerica has a comparatively high proportion of enrolled students with developmental and communication disabilities compared to other communities as well as to the state.

Figure 39: Student enrollment by community and disability type, as a percent of total enrollment



Source: DESE Special Education Enrollment by Type, 2021-2022

From the Community Health Survey, 567 participants reported either a hearing, vision or mobility issue. Black participants had the lowest incidence of mobility impairment (6.8%) or hearing or vision impairment (10.2%), while White, Asian and Hispanic participants had relatively similar prevalence (approximately 16% for mobility and between 17% and 22% for vision and hearing). Participants reporting mobility or sensory issues were also more likely to report not having reliable access to food (5.3% vs. 2.4%) and not having friends or family who can provide support as needed (13% vs. 8%). They also reported higher prevalence of worsening physical health (32.5% vs. 20.8%), mental health (27.2% vs. 19.5%) and financial health (37.7% vs. 27%). People with mobility or sensory issues also reported higher rates of discrimination from their providers (15.7% vs. 9.3%), and more difficulty finding doctors with expertise in their health issues (19.9% vs. 10.1%).

[73]ACS 2023 via MA Disability Equity Dashboard
[74]MA Autism Commission Biannual Report 2023
[75]MA Autism and ASD Report, 2020

Past actions

Since the 2022 CHNA, the following has been done to address chronic conditions and wellbeing:

- Implementation of the Transit to Treatment program via Lowell General Hospital, which reduced barriers to accessing treatment for chronic diseases by increasing access to a ride service program
- Raised $664,371 during the 2024 Lowell General Hospital TeamWalk for CancerCare
- Distribution of more than $196,824 in GLHA grant funding to support community projects that address chronic illness, nutrition and physical activity throughout Greater Lowell, including:
- More than $50,000 to Mill City Grows, Inc. for the Local Foods, Greener Meals Initiative, the Lowell Community Food Assessment, Food Policy Council, and Expanding Nutritious Food Access for Lower-Income Lowell Residents
- $45,000 to the Ellie Fund for Equitable Pathways to Breast Cancer Care and Basic Support for Breast Cancer Patients in Lowell and Surrounding Towns
- $25,000 to the Merrimack Valley Food Bank for Operation Nourish and Gryphon Market After-School Culinary Program at GLTHS
- Other community organizations funded by the GLHA include Greater Lowell Community Foundation, International Institute of New England, YWCA, Clarendon Early Education Services, Lowell Housing Authority, Dwelling House of Hope, and the Town of Chelmsford

Recommendations

Healthcare system recommendations

- Mandate ongoing training for providers and front-line staff on accessible communication, implicit bias, physical accessibility and person-centered care for patients with disabilities
- Co-locate or virtually integrate behavioral health providers within primary care and specialty clinics treating chronic illness, especially oncology, cardiology and pain management
- Coordinator community distribution of materials raising awareness and understanding of invisible illnesses, including options for health resources for people living with these conditions
- Expand cancer care via community screening events, ride share programs to increase treatment access and community support groups for people living with cancer and their families

Community system recommendations

- Deploy mobile health units to priority neighborhoods identified through mapping of chronic disease hotspots and access barriers, offering free screenings for blood pressure, cancer and respiratory health
- Create a program for peer-led support initiatives (e.g., for people with chronic pain, autoimmune diseases) that prioritize disability justice frameworks and community leadership
- Recruit and train community members with lived experience of chronic illness or disability to serve as peer navigators, connecting others to services, care and emotional support
- Provide culturally tailored education materials about the importance of cancer screenings, especially screenings that may be associated with stigma or fear of the procedures, via community groups or trusted community leaders and advocates

5. Addiction and substance misuse

Rationale

Alcohol and substance use have remained high-ranking health concerns in Greater Lowell for several years. Substance use was the second most commonly mentioned health issue when focus groups were asked to identify which health issue should be a priority in their communities, specifically overdose/death and dual diagnosis (see dual diagnosis in the mental health chapter). In the survey, Substance and Alcohol Use (weighted sum 738.5) also aligns with a special population category, People with SUD/AUD (weighted sum 66.2), which was in the top 10 most important groups of people that survey participants were especially concerned about. Additionally, substance use intervention resources held a weighted average of 36.3 (Table 35). Among 2025 CHNA participants, 13.1% reported problems with alcohol and 8% indicated problems with other drugs.

Table 35: Survey and focus group results for major category addictions and substance misuse, all participants

Survey			
Rank	**Item**	**Weighted sum**	**Standard score**
7	Substance and alcohol use	738.5	.49
8	People with SUD/AUD	66.2	.40
16	Autoimmune disease	241.5	.16

Focus groups			
Question: What are the most significant health issues in your community?			
Rank	**Item**	**Density**	**Examples**
2	Substance use	60.4	Overdose/death, dual diagnosis

Overview

In 2022, more than one in six Americans aged 12 or older reported having an SUD.[76] While often used interchangeably, substance misuse and SUD are distinct: misuse refers to using substances in high doses or in inappropriate situations that may lead to health or social problems, whereas SUD involves a more persistent pattern of problematic use.[77] Though addiction is most frequently associated with the use of illegal drugs, other behaviors like gambling, also have addictive potential. Problem gambling or gambling disorder can have catastrophic effects on individual and familial wellbeing.

Opioids

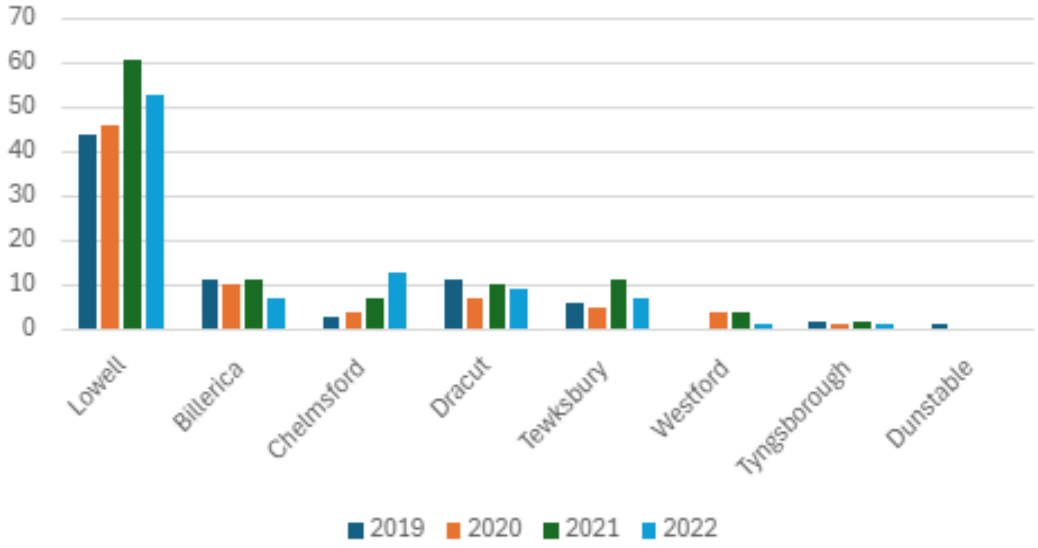
Opioids are a highly addictive, natural, semi-synthetic and synthetic drug which include both prescription medication used for treatment and illegal drugs such as heroin. When misused, opioids can lead to overdose, cardiovascular issues, impairment of the immune system, and mental disorders like depression and anxiety. Opioids are a driving force in the drug overdose crisis in the U.S., with a large number of overdose deaths involving illegally manufactured synthetic opioids like fentanyl.[78]

[76]2022 National Survey on Drug Use and Health, Substance Abuse and Mental Health Service Administration, 2023.
[77]Substance Misuse and Substance Use Disorders: Why Do They Matter in Healthcare?, Transactions of the American Clinical and Climatological Association, 2017.
[78]Opioids, National Institute on Drug Abuse.

Trends and disparities

From 2023 to 2024 in Massachusetts, there were 1,840 opioid-related deaths, of which 1,763 were deaths from overdose (Figure 40). According to the most recent Massachusetts Death Report, there were 91 opioid-related deaths in Greater Lowell in 2022, an increase from 2021 (61 deaths). Lowell has consistently had the highest number of opioid-related deaths among the towns in Greater Lowell, with a rise from 46 in 2020 to 61 in 2021, followed by a decline to 53 in 2022. In contrast, Dunstable has reported the lowest numbers, with only one opioid-related death in 2019. Chelmsford has experienced a steady increase in opioid-related deaths from 2019 through 2022.

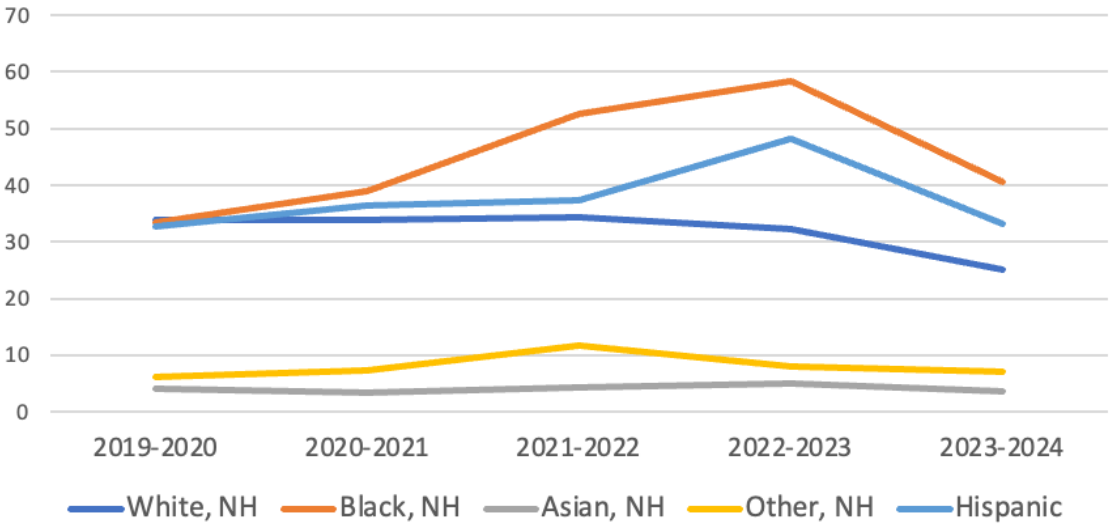
Figure 40: Count of opioid related deaths by community, 2019 – 2022



Source: Massachusetts Death Report, 2019-2022

Opioid-related death rates are heavily correlated with race and ethnicity, with Black, non-Hispanic residents having the highest death rate and Asian, non-Hispanic residents reporting the lowest, at the state level (Figure 41).

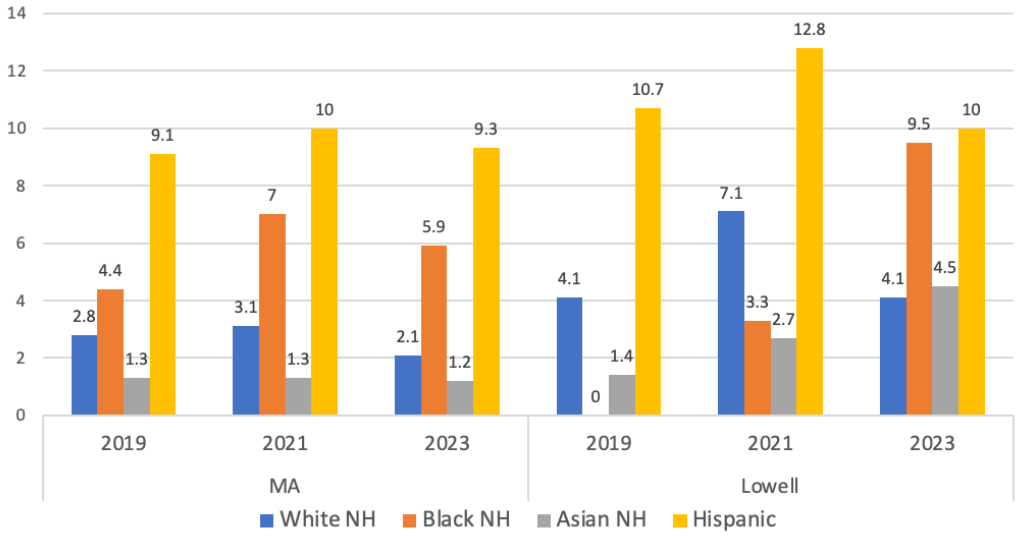
Figure 41: Opioid-related death rate, by race/ethnicity, 2021 – 2024, MA



Source: Massachusetts Bureau of Substance Addiction Services

Local data differs from state data, however, in terms of the relation between race and opioid death. Due to sustained impacts of the opioid epidemic in Lowell, overall death rates remain higher than state rates. For example, in 2023, 2.1% of all deaths of White, non-Hispanic state residents were due to opioids, but in Lowell, 4.1% of deaths of White, non-Hispanic residents were attributable to opioids (Figure 42). Lowell also shows considerably more variation in opioid-related deaths among Black residents, ranging from 0% of deaths of Black residents in 2019 to 9.5% of deaths of Black residents in 2023. One of the biggest deviations is among Asian residents; at the state, opioid deaths account for approximately 1.3% of all deaths among Asian residents, but in Lowell, they accounted for as much as 4.5% of deaths among Asians.

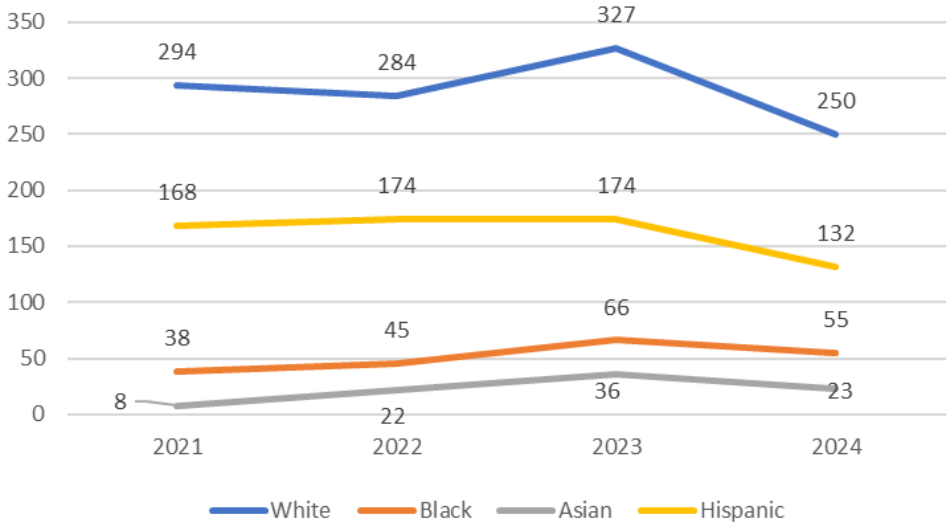
Figure 42: Opioid-related deaths, as a percent of all deaths, by race/ethnicity



Source: MA BSAS Dashboard

These disparities in race and ethnicity are evident across other datasets as well. PrideStar/Trinity EMS, which serves a majority of regional 911 calls, has reported an overall decrease in opiate-related incident (ORI) calls since 2021 (Figure 43). This downward trend has also aligned with an overall local decrease in overdose death.

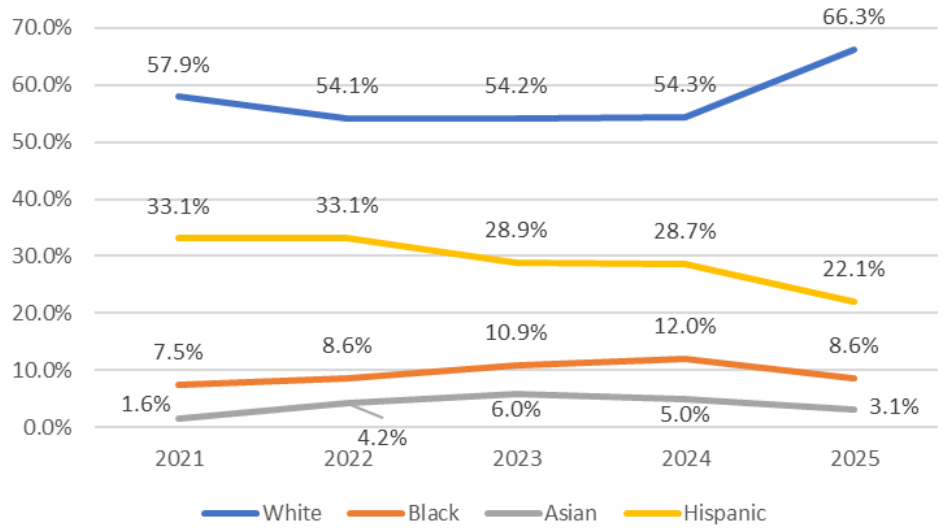
Figure 43: Opiate-related EMS calls, 2021 – 2024, by race/ethnicity



Source: Trinity/PrideStar EMS Categorized Opiate Monthly Reports, 2021-2024

State data has suggested important inequities in rates of ORIs. Local data suggests areas of alignment and misalignment with state trends. Of all ORI calls, a majority are to White residents (54.3% in 2024; data from 2025 is through June 1, 2025) (Figure 44). The proportion of calls from Hispanic residents has decreased steadily since 2021 as well. Calls to Black and Asian residents are the lowest proportion, though trends through 2024 suggest a slight increase.

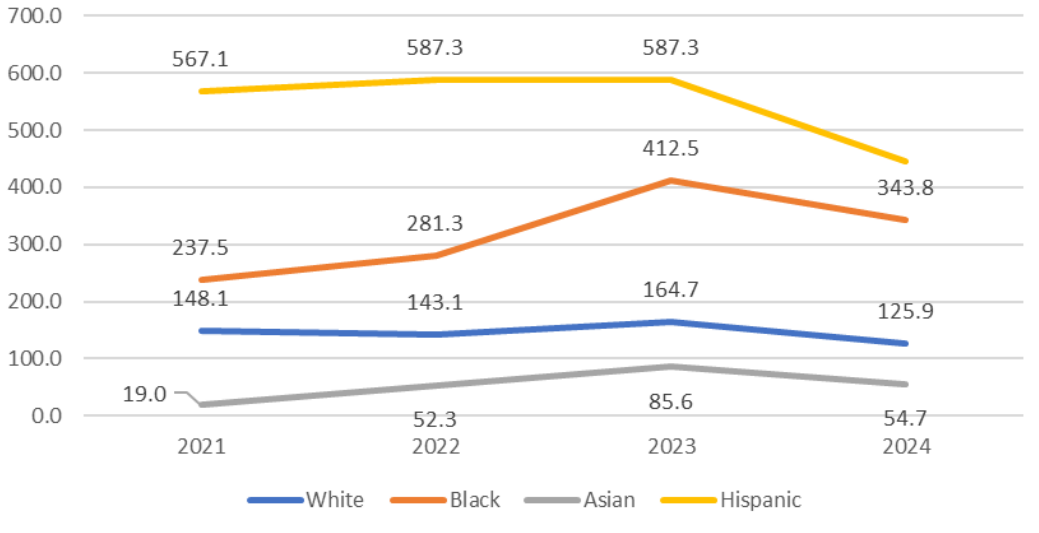
Figure 44: Distribution of all ORI calls by race/ethnicity, as a percent of all calls



Source: Trinity/PrideStar EMS Categorized Opiate Monthly Reports, 2021-2024

However, when calculated as a rate, Hispanic residents have had the highest ORI call rate since 2021, though there was a considerable decline in 2024 to 445.4 per 100,000 from a high of 587.3 per 100,000 (Figure 45). Black residents have had a low number of total calls, but those calls represent the second highest ORI call rate at 343.8 per 100,000, though notably this rate reversed an upward trend that had been climbing since 2021.

Figure 45: ORI calls, by race/ethnicity, as rate per 100,000, 2021 – 2024



Source: Trinity/PrideStar EMS Categorized Opiate Monthly Reports, 2021-2024

Unpredictable changes in the drug supply are a major contributor to opioid overdose and death, since people who are using may accidentally use more than they intended to due to concentrations or ingest a substance unwittingly. Over the last several years, toxicology reports from people who died from opioid overdose have captured trends in the presence of other substances (Table 36). Overall, the presence of fentanyl has decreased slightly, from being present in 93% of all opioid overdose deaths to 85%. There has been a more substantial decrease in the presence of alcohol (34% decrease), benzos (52% decrease), prescription opiates (23% decrease) and heroin (48% decrease). However, there have been substantial increases in the presence of amphetamines (104% increase) and xylazine (769% increase). Additionally, cocaine was present in 52% of all opioid deaths in Lowell in 2023.

Table 36: Presence of other substances in opioid-related deaths, percent

	MA			Lowell		
	2019	2023	Percent change	2019	2023	Percent change
Fentanyl	93	91.6	-1.5%	92.7	85	-8.3%
Cocaine	44.6	55.8	25.1%	51.2	52.5	2.5%
Alcohol	30	27.3	-9.0%	34.1	22.5	-34.0%
Benzos	30.9	27.1	-12.3%	36.6	17.5	-52.2%
Prescribed opioids	14.5	7.1	-51.0%	9.8	7.5	-23.5%
Amphetamine	7	10.6	51.4%	4.9	10	104.1%
Heroin	17.4	4.9	-71.8%	4.9	2.5	-48.9%
Xylazine	1.2	16.3	1258.5%	2.3	20	769.6%

Participants in the 2025 needs assessment with substance use problems were disproportionately from Lowell (50% of participants with substance use problems vs. 42.5% without), Billerica (8.5% vs. 5.4%) and Westford (6.1% vs. 3.5%) (Table 37). Participants with substance use problems were also disproportionately White (86.9% vs. 71.9%) and LGBTQ+ (19.2% vs. 9.4%). Additionally, substance use was overrepresented in the 18 – 26 age group and 35 – 44 age group.

Table 37: 2025 CHNA participants, with and without problems with substance, demographics

	Participants with substance use problems	Participants without substance use problems
Residence		
Lowell	50.0%	42.5%
Chelmsford	13.4%	13.3%
Billerica	8.5%	5.4%
Dracut	6.1%	10.2%
Tewksbury	4.9%	8.2%
Tyngsborough	5.5%	5.2%
Westford	6.1%	3.5%
Race		
White	86.9%	71.9%
Black	4.4%	8.0%
Asian	7.5%	9.9%
Hispanic	7.7%	12.2%
Sexual orientation		
LGBTQ+	19.2%	9.4%
Age		
18 – 26	13.5%	8.8%
27 – 34	10.4%	10.8%
35 – 44	23.9%	16.2%
45 – 54	12.9%	14.3%
55 – 64	18.4%	16.8%
65+	20.8%	26.6%

Alcohol

Alcohol Use Disorder (AUD) is a medical condition characterized by the inability to control or stop alcohol consumption despite negative consequences. It exists on a spectrum from mild to severe.[79] Alcohol misuse, including binge drinking and heavy drinking, increases the risk of developing AUD and poses serious health threats. Over time, excessive alcohol use can lead to lasting damage to the cardiovascular, immune and endocrine systems, as well as negatively impact mental health.[80]

Trends and disparities

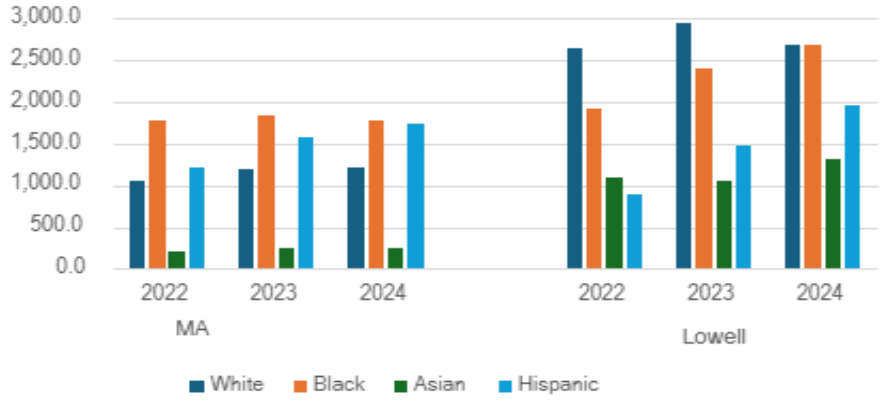
Overall, local death rates from alcohol remain higher than state rates across all racial and ethnic backgrounds. For example, in 2023, 2.9% of all deaths of White, non-Hispanic state residents were due to alcohol, but in Lowell, 4.4% of deaths of White, non-Hispanic residents were attributable to alcohol. Lowell also shows considerably more variation in alcohol-related deaths among Black residents, ranging from 2.3% of deaths of Black residents in 2019 to 9.5% of deaths of Black residents in 2023. One of the biggest deviations is among Asian residents; at the state, alcohol deaths account for approximately 1.5% of all deaths among Asian residents, but in Lowell, they accounted for as much as 7.1% of deaths among Asians.

Similarly to alcohol-related deaths, local data differs from state data in terms of the relationship between race and alcohol emergency room visits. Overall, local alcohol-related emergency room visit rates remain higher

[79]Alcohol's Effects on Health, National Institute on Alcohol Abuse and Alcoholism, 2025.
[80]Alcohol Misuse, National Institute on Alcohol Abuse and Alcoholism, 2025.

than state rates across all racial and ethnic backgrounds. For example, in 2024, there were 2,692.1 alcohol-related emergency room visits per 100,000 residents among White, non-Hispanic local residents. Statewide, there were 1,216.7 alcohol- related emergency room visits per 100,000 residents among White, non-Hispanic residents (Figure 46). Lowell also shows considerably more variation in alcohol-related emergency room visits among Black residents, ranging from 1,919.4 per 100,000 Black residents in 2022 to 2,691.2 per 100,000 Black residents in 2024. One of the most significant differences is seen among Asian residents. At the state level, there were 259.4 alcohol-related emergency room visits per 100,000 residents in 2024, while locally there were 1,317.3 visits per 100,000 Asian residents.

Figure 46: Alcohol-related ER visits, rate per 100,000 residents, by race/ethnicity



Source: MA BSAS Dashboard

Statewide, 16.4% of adults reported binge drinking, which is defined as consuming five or more drinks in one sitting for men, and four or more for women. Among those who reported binge drinking, 21.8% were men and 11.7% were women (Table 38). Binge drinking rates are relatively consistent across different age groups, with the highest prevalence seen among adults aged 25 to 34, and the lowest among those aged 75 and older. Members of the LGBTQ+ community report higher rates of binge drinking (20.9%) compared to heterosexual and cisgender individuals (15.4%). The data also indicates that individuals with higher incomes are more likely to binge drink than those with lower incomes. In addition, 6.4% of adults are classified as heavy drinkers, defined as consuming 14 or more drinks per week for men and 7 or more for women. The rates of heavy drinking are nearly equal between genders, with 6.5% of men and 6.2% of women reporting heavy alcohol use. In Massachusetts, rates of heavy drinking are generally consistent across age groups and demographic categories.

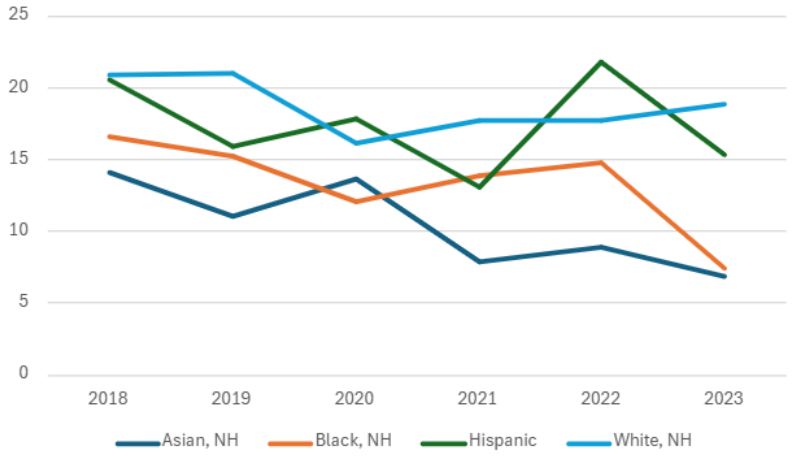
Table 38: Alcohol use among Massachusetts adults, 2023

	2023 MA residents binge drinking	2023 MA residents heavy drinking
Overall	16.4%	6.4%
Sex		
Female	11.7%	6.2%
Male	21.8%	6.5%
Age group		
18 – 24	23.5%	6.3%
25 – 34	25.7%	6.6%
35 – 44	19.9%	6.3%
45 – 54	19.9%	8.3%
55 – 64	12.4%	6.0%
65 – 74	8.1%	8.0%
75 and older	3.3%	3.3%
Education		
< High school	12.5%	4.1%
High school	15.5%	6.4%
College 1 – 3 Years	17.9%	6.9%
College 4 + Years	16.9%	6.6%
Sexual orientation		
LGBTQ+	20.9%	6.6%
Straight/cisgender	15.4%	6.3%
Disabled	13.8%	5.3%

Source: BRFSS 2023

At the state level, White non-Hispanic and Hispanic populations were more likely to engage in binge drinking compared to Asian non-Hispanic and Black non-Hispanic residents (Figure 47). In 2022, the Hispanic population had the highest overall rate of binge drinking at 21.8%. White residents were the most likely to binge drink, with a rate of 18.8%, while Asian residents had the lowest rate at 6.9%.

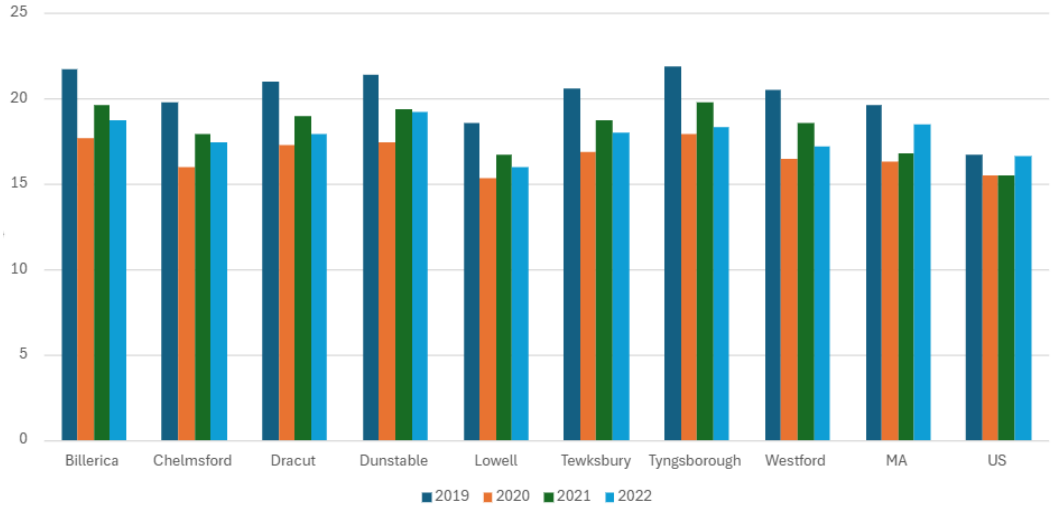
Figure 47: Percent of Massachusetts adults reporting binge drinking, by race, 2018 – 2023



Source: BRFSS, 2018-2023

From a national level to a local level, rates of binge drinking have dropped overall from 2018 – 2022. The lowest rates of binge drinking are in Lowell (18% in 2019 to 16% in 2022) (Figure 48). In 2022, the rates of binge drinking in Greater Lowell align with the overall Massachusetts rates, although rates of binge drinking at a national level are lower than both Massachusetts and Greater Lowell from 2020 to 2021.

Figure 48: Percent of adults reporting binge drinking, by community, 2019 – 2022



Source: MA DPH PHIT

In the 2025 CHNA, 268 individuals (13.1%) reported experiencing problems with alcohol (Table 39). Lowell had the highest share of these respondents (45.2%), marking a 17.9% increase from 2022. In contrast, Chelmsford saw the largest decrease, with alcohol-related reports down 48.7%. Among those reporting alcohol issues, 71.3% also reported mental health struggles and 47.4% reported suicidal thoughts or attempts.

Table 39: CHNA participants affected by problems with alcohol 2022 – 2025

	2022 community assessment N (%)	2025 community assessment N (%)
Overall	8.4	13.1
Lowell	37	45.2
Billerica	5.1	9.7
Dracut	7.9	5.2
Chelmsford	29.8	15.3
Tyngsborough	7.3	6.3
Tewksbury	4.5	9
Westford	8.4	5.2
Dunstable	0	0.4
Race/ethnicity		
White	83	86.5
Black or African American	6.8	3.9
Asian or Asian American	8	5.8
Another race	1.1	5.4
Hispanic	11.4	14.1
Gender		
Male	30.3	38.5
Female	68.5	60.1
Transgender	0.5	1.9

Stimulants

Stimulants are a class of drugs that increase activity in the body's central nervous system, leading to heightened alertness, energy and attention. While prescription stimulants are commonly used to treat conditions such as attention-deficit/hyperactivity disorder (ADHD) and narcolepsy, misuse of these medications poses significant health risks. Prescription stimulant misuse includes taking medication without a prescription, in higher doses, more frequently or for non-medical reasons. Such misuse can result in serious physical and mental health consequences, including the development of substance use disorders.[81]

Trends and disparities

Nationwide, misuse of prescription stimulants is a major public health concern. In 2022, the NSDUH survey found that among people aged 12 or older, 1.5% (4.3 million people) misused prescription stimulants. Young adults aged 18 to 25 are more likely to misuse (3.7% or 1.3 million people), followed by adults aged 26 or older (1.3% or 1.3 million people), and then by youth aged 12 to 17 (0.9% or 226,000 people).[82]

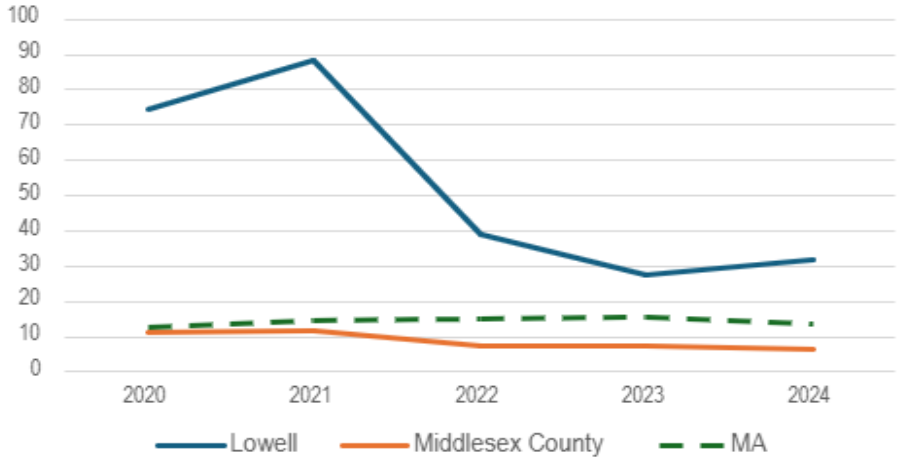
Youth and young adults are more likely to misuse stimulants if they have a diagnosis of ADHD, have a family member or friend with prescription stimulants and have pressure on academic achievements. Amphetamine-type stimulants are most commonly reported stimulant use among middle school and

[81]Prescription Stimulant Misuse and Prevention, Substance Abuse and Mental Health Services Administration.
[82]Any Substance Use and Mental Health Indicators in the United States, Results from the 2022 National Survey on Drug Use and Health, Substance Abuse and Mental Health Service Administration, 2022.

highschoolers. Young adults who attend college are more likely to misuse prescriptions than their non-college attending peers.[83] Older adults also face higher rates of prescription stimulant misuse as more elders are being prescribed stimulants.[84]

Local rates of stimulant-related emergency room visits differ significantly from state and county level data. Lowell's rates are much higher than both the county and state averages. The city experienced its highest rates in 2020 and 2021, with 74.4 visits per 100,000 residents in 2020 and 88.3 visits per 100,000 residents in 2021, far exceeding both state and county levels (Figure 49). Although the overall rate of stimulant-related emergency room visits has dropped sharply since 2021, Lowell's rates have consistently remained above those of the county and the state. In 2024, Lowell recorded 32 stimulant-related emergency room visits per 100,000 residents, compared to 13.5 in the state and 6.3 in the county.

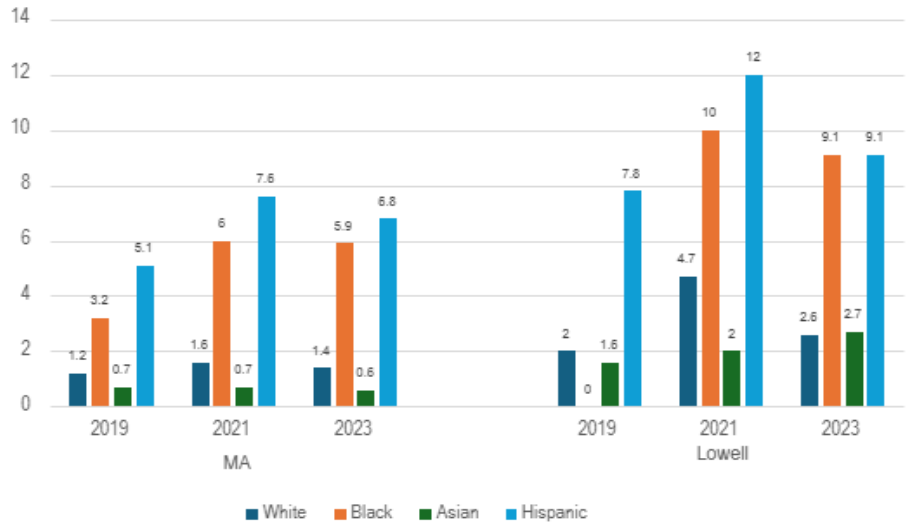
Figure 49: Rate of stimulant-related ER visits, per 100,000 residents, 2020 – 2024



Source: MA BSAS Dashboard

Local data differs from state data in the relationship between cocaine-related deaths and race. Overall, local death rates remain higher than state rates across all racial and ethnic groups. For example, in 2023, 1.4% of all deaths among White non-Hispanic state residents were due to cocaine, while in Lowell, 2.6% of deaths among White non-Hispanic residents were attributable to cocaine (Figure 50). Lowell also shows considerably more variation in cocaine-related deaths among Black residents, ranging from 0% of deaths in 2019 to 9.1% in 2023. Among Asian residents, alcohol-related deaths account for approximately 0.6% of all deaths at the state level, but in Lowell, they accounted for 2.7% of deaths among Asians.

Figure 50: Cocaine related deaths, percent of any deaths, by race/ethnicity



Source: MA BSAS Dashboard

[83]Data Brief: Stimulant-Related Data among Massachusetts Residents, Massachusetts Department of Public Health
[84]Stimulant Prescriptions for Older Adults Are on Rise, Psychiatry Online, 2023.

Gambling

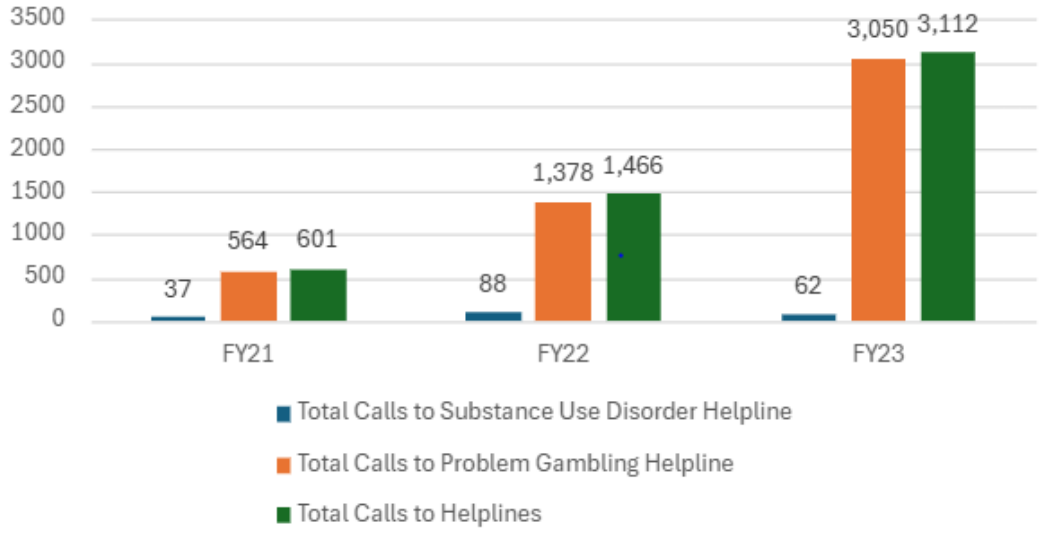
Gambling involves risking money or something of value on an event with an uncertain outcome, with the potential for financial gain. Common forms include betting, slot machines, casino games, lotteries and bingo, many of which are now widely accessible online. Electronic gambling machines (EGMs) and online casino games are particularly associated with high risk of harm. While legalized and normalized in many regions, gambling can have severe health and social consequences, including financial hardship, mental health issues, relationship breakdown, family violence and increased risk of suicide. Research indicates that people with gambling disorders are significantly more likely to die by suicide, and the impacts of gambling harm can extend to family members and communities, often across generations.

Trends and disparities

Although data on gambling is currently limited at the local level, recent statewide assessments reveal that problem gambling is a growing behavioral health concern in Massachusetts, particularly following the legalization of sports betting. A baseline population survey commissioned by the Massachusetts Gaming Commission found that prior to casino gaming, 2% of adults met criteria for problem gambling, while an additional 8.4% were at risk of developing a gambling problem.[85] Among monthly gamblers, problem gambling prevalence rose from 6.4% in 2014 to 11.2% in 2022 and 14.5% in 2023, with significant increases in sports betting and online gambling behavior over the past decade.[86]

According to the FY23 Problem Gambling Helpline Report, calls to the Massachusetts helpline increased 121% from the previous year with a 1,117% increase in referrals for sports betting issues (Figure 51). Calls from individuals in recovery rose by 230%, suggesting heightened risks for relapse in populations with prior behavioral health conditions.

Figure 51: Massachusetts total gambling calls to helplines, FY21 – FY23

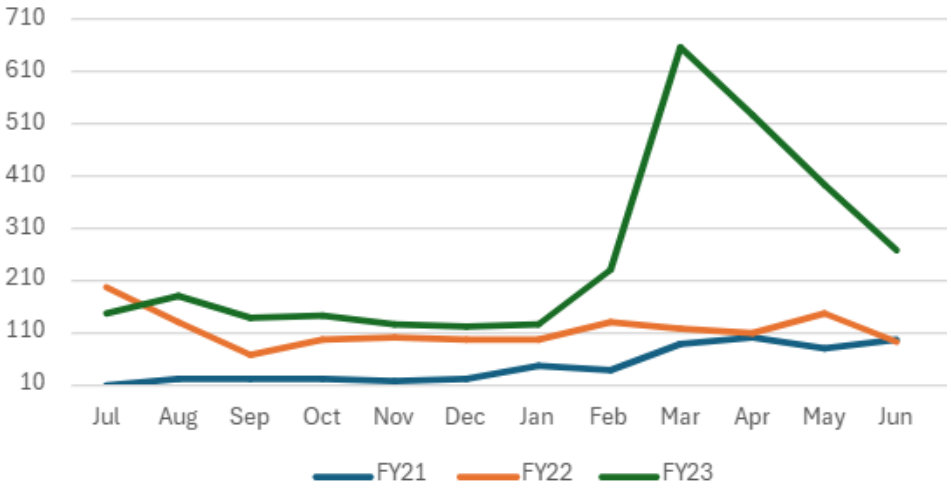


Source: FY23 Massachusetts Problem Gambling Helpline Data Report

[85]Results of a Baseline Population Survey, Massachusetts Gaming Commission, 2024.
[86]Let's Talk Risk, A Guide to Discussing Gambling with Your Child, MA DPH.

Sports wagering in Massachusetts launched in casinos on Jan. 31, 2023. The month with the highest volume of calls is June; specifically in 2023 there were a total of 266 calls (Figure 52). The highest volume of calls occurred between February and June 2023, following the launch. Similarly, online sports wagering went live on March 10, 2023, with that month seeing the highest number of overall monthly calls.

Figure 52: Massachusetts total calls to problem gambling by month, FY21 – FY23



Source: FY23 Massachusetts Problem Gambling Helpline Data Report

Nationwide, the number of children with gambling problems has quadrupled in two years. The 2023 Massachusetts Youth Health Survey found that 48.4% of middle schoolers and 43.6% of high schoolers reported gambling in the past year (Table 40). Based on statewide findings from 2021, youth engaging in any forms of gambling are more likely to be in 9th or 10th grade, male, and White or multiracial. Gambling is a less recognized risk that impacts teens' brain development that should be taken as seriously as any other childhood addiction.[89]

[89]Teen Gambling. It's a risk., MA DPH.

Table 40: Percentage of Massachusetts high school students who reported forms of gambling in 2021

	Playing lottery/ scratch tickets	Gambling at a casino	Participating in fantasy sports	Engaging in other forms of gambling	Engaging in any forms of gambling
Overall	27.8	2.5	18.3	22.6	42.4
Grade					
9th Grade	30.4	NA	18.2	24.7	44.8
10th Grade	30.6	2.0	17.8	21.3	43.3
11th Grade	21.3	3.0	18.4	21.7	37.6
12th Grade	28.3	4.0	18.8	22.3	43.2
Sex					
Female	28.4	1.9	8.0	16.2	36.0
Male	27.1	3.2	28.9	29.0	48.9
Race/ethnicity					
White	31.2	2.6	23.4	25.2	47.2
Black	15.6	NA	10.6	15.8	28.1
Hispanic/Latinx	24.6	NA	10.9	19.1	35.5
Asian	19.2	NA	9.9	18.1	38.0
Other/multiracial	32.2	NA	NA	22.0	44.7

Source: Health & Risk Behaviors of Massachusetts Youth, 2021

Existing data about gambling trends and disparities is still emerging; it should be a community priority to contribute to existing assessments of problem gambling, or to launch local efforts to describe the nature of problem gambling in Greater Lowell.

Past actions

Since the 2022 CHNA, the following has been done to address addiction and substance misuse:

- Implementation of an in-patient Addiction Consult Service at Lowell General Hospital via the NIH-funded HEALing Communities study
- Initiation of a multi-lingual street outreach team at Lowell House, including an outreach nurse, to engage with community members who experience substance use issues and housing issues
- Launched the annual Merrimack Valley Substance Use Disorder Symposium, a free forum for service providers to receive training and education with approximately 170 attendees at each event
- Disbursement of more than $213,000 in GLHA grant funding to address substance and alcohol use to the following community organizations and projects: Riverbend, Megan's House, Place of Promise, The Phoenix, African Community Center, Casa Esperanza, and Irone Stone Farm
- Increased community distribution of Naloxone through Naloxboxes, pharmacies and non-traditional settings like bars, restaurants and laundromats
- Developed a robust Greater Lowell Substance Use Resource Guide, including a wide variety of substance use and behavioral health resources throughout Greater Lowell and the Merrimack Valley

Recommendations

Healthcare system recommendations

- Increase capacity of Lowell General Hospital's Bridge Clinic to incorporate SUD/AUD services during night/weekend hours, as well as replicate their model into additional Tufts Medicine sites or community-based satellite sites
- Increase the number of gambling support services throughout the Greater Lowell region
- Encourage providers to follow prescribing guidelines, use PDMPs to monitor for misuse, consider non-stimulant ADHD treatments when appropriate, and educate patients on safe storage and disposal of stimulants
- Incorporate routine screening for problem gambling into primary care, emergency departments and mental health intakes using validated tools (like the Brief Biosocial Gambling Screen)
- Collaborate with academic or public health partners (e.g., UMass Lowell, Middlesex Community College, Riverbend, etc.) to collect data on the prevalence of gambling addiction in Greater Lowell and identify high-risk populations and track outcomes of intervention strategies over time

Community system recommendations

- Increase participation from agencies providing SUD/AUD services throughout Greater Lowell into existing coalitions to streamline care and advocate for services
- Increase the number of peer specialists offering support and case management to residents interested in reducing or stopping their substance or alcohol use
- Increase local data collection for problem gambling in youth, adults and special populations.
- Implement curriculums, services or programs (e.g., Youth + Risk: A Problem Gambling Toolkit) into youth-serving organizations, schools and universities
- Educate students on the risks of non-prescribed stimulant use and integrate this topic into health curricula. Train school staff to recognize misuse and provide early support.

6. Child and adolescent health

Rationale

Survey participants ranked both infants/toddlers and school age/adolescent children as priority populations of focus. Infant and child health was also ranked ninth in priority when assessed as a health issue rather than a population. The need for services for teens was also a frequent topic within focus groups, particularly in the context of a decrease in services for teens due to budget and funding changes, locally and federally. Infant health is also inextricably linked to perinatal health, especially in regard to concerns about immediate postpartum needs (i.e., vaccination and breastfeeding) (Table 41). Participants also highlighted the increasingly untenable cost of childcare, especially for infants and toddlers, with several mentioning that childcare costs are forcing parents out of the workforce, or placing pressure on grandparents, to provide years of childcare.

Table 41: Survey and focus group results for major category child and adolescent health, all participants

Survey			
Rank	**Item (Population)**	**Weighted sum**	**Standard score**
5	Infants/ toddlers	117.8	.71
7	School age/ adolescent	103.3	.63
	Issue		
9	Infant and child health	652.5	.44

Overview

The well-being of children and adolescents in Greater Lowell is shaped by social, economic and cultural factors that begin before birth and extend into early adulthood. Families face complex decisions and barriers around infant feeding, including access to lactation support, formula affordability and culturally responsive guidance. Preventable childhood illnesses often disproportionately impact low-income and immigrant communities. In adolescence, young people in Greater Lowell confront increased exposure to risk behaviors, including vaping, substance use and unsafe sexual activity, alongside rising rates of anxiety, depression and social isolation. Mental health challenges are especially pronounced among LGBTQ+ youth, youth of color and those experiencing trauma or housing instability.

Infant feeding

The American Academy of Pediatrics affirms that providing human milk to infants exclusively for the first six months of life and continuing to provide human milk through and beyond the first two years of life supports optimum health.[90] While some parents choose an alternative feeding method, like formula feeding, as their preferred method of infant feeding, other parents experience barriers to achieving breastfeeding goals, including lack of access to evidence-based support and education, lack of access to protected parental leave or medical conditions that interfere with breastfeeding.

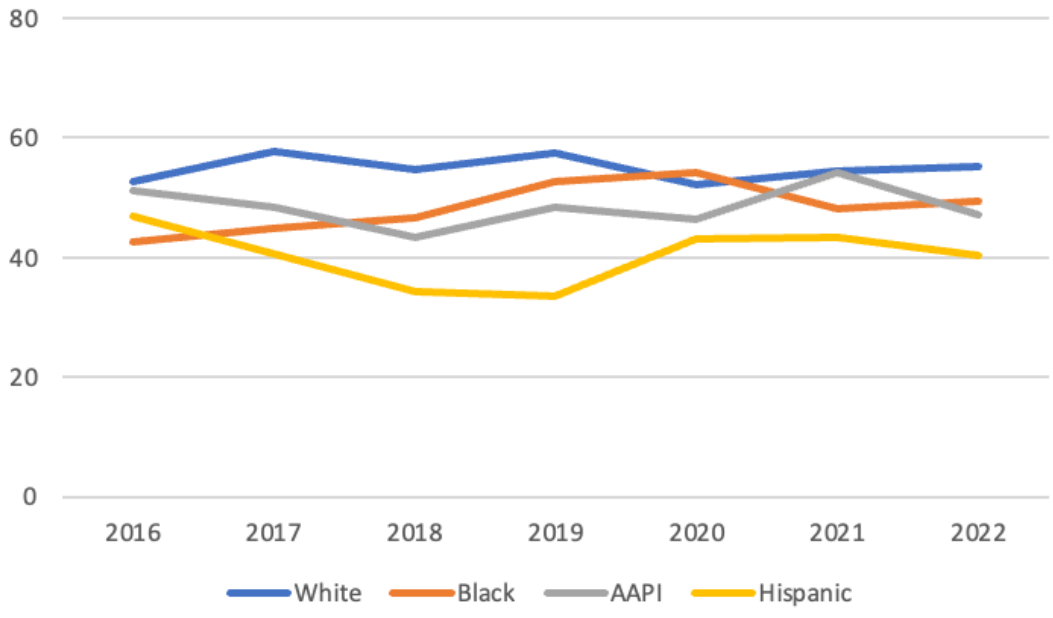
Trends and disparities

Historically, rates of breastfeeding in Massachusetts have outperformed U.S. trends. However, the state's success margin is slowly shrinking. The national rate of breastfeeding is 86.2% compared to the Massachusetts rate of 90.1%.[91] By six months, the state's lead is only 2 percentage points (57.5% vs. 55.5% national rate. For exclusivity, Massachusetts is on par with the national rate by 6 months (34.4% vs. 34.1%).

State-level disparities in breastfeeding are driven by many factors. For residents living above 100% of the federal poverty level (FPL), rates of exclusive breastfeeding at eight weeks were 54.1% in 2022, but for families below 100% FPL, the rate was only 45.9%. Similarly, breastfeeding duration and exclusivity rates among WIC participants are much lower than state averages, with only 18.5% of WIC participants exclusively breastfeeding for three months and only 15.8% exclusively breastfeeding for six months (compared to 59.8% and 34.4% at the state level, respectively).[92]

Statewide disparities in breastfeeding duration and exclusivity also exist by race and ethnicity (Figure 53). White, non-Hispanic residents are exclusively breastfeeding at eight-weeks postpartum at the highest rate (55.3% of infants in 2022). The rate of exclusive breastfeeding for Black residents briefly surpassed the rate of White residents in 2020 but then has declined since. Consistently the lowest rates of exclusive breastfeeding are among Hispanic residents (40.4% in 2022).

Figure 53: Percent of Massachusetts infants exclusively breastfeeding at eight weeks postpartum, by race/ethnicity



Source: Pregnancy Risk Monitoring System via PHIT

[90] American Academy of Pediatrics, Breastfeeding and the Use of Human Milk, Policy Statement, June 27, 2022.
[91] State of Breastfeeding MA Report 2024
[92] State of Breastfeeding in Massachusetts Report 2024

Importantly, there is far less variation in rates of initiating breastfeeding. In 2022, 92% of White mothers, 88% of Black mothers, 97% of Asian mothers and 93% of Hispanic mothers initiated breastfeeding but sustaining breastfeeding over time results in significant disparities by race, ethnicity and other factors. Some of this variation may be illuminated by additional data about nativity, which shows that the state breastfeeding rate for U.S.-born mothers is consistently higher (48.8% in 2022) than mothers born outside the U.S. (44.3%). Data that explores the cultural backgrounds and countries of origins for mothers may reveal useful influences that may be stifling success or interest in breastfeeding.

However, some data suggests that cultural backgrounds and individual beliefs may not be the most significant factor predicting breastfeeding success. A 2024 Massachusetts Department of Public Health report included an infant feeding family survey that asked participants to share their reasons for not breastfeeding.[93] Participants were able to provide answers to open-ended questions. For families who did not have any interest or plan to breastfeeding, less than 8% of responses included individual or community beliefs as the primary reason to not want to breastfeed. More participants referenced painful feeding (10%), medical contraindicators (15%) and general fear of breastfeeding (31%). However, the most frequently shared responses shared the theme of demands for the participants' time and labor being the biggest factor (35%). Workplaces, school requirements and family obligations to provide care to others were the most common response type for people not interested in breastfeeding This suggests that the "cultural influences" often cited as primary factors in breastfeeding disparities may be less so background cultures and instead the current, local economic and social climate that depletes individual capacity and time.

The state outlined prenatal and infant health goals as part of its partnership with the Health Resources and Services Title V State Action Plan for 2020 to 2025.[94] Massachusetts aimed to increase the percentage of infants who are ever breastfed from 84.3% to 86% and the percentage of infants who are breastfed exclusively through six months from 23.2% to 25% by 2025. In the 2024 progress report, several successful interventions were noted. For example, among WIC participants who delivered singletons in 2022, participants with a breastfeeding peer counselor (BFPC) service had 55% increased odds of breastfeeding for six weeks, 37% increased odds of exclusive breastfeeding for six weeks, 43% increased odds of any breastfeeding for 13 weeks and 23% increased odds for exclusive breastfeeding for 13 weeks, compared to WIC participants eligible for but without a BFPC service recorded. Similarly, Welcome Family nurses offer breastfeeding support to new parents. Among the nearly 1,500 families served by Welcome Family in FY22, 72% breastfed their infants all or some of the time at the time of assessment. These interventions suggest that peer support and home visiting services may be crucial supports to families interested in sustaining breastfeeding.

Data on feeding practices of parents who formula feed is less robust. Safe preparation of infant formula (e.g., proper washing and sanitizing of bottle parts, the use of boiled cooled water, etc.) is essential to protect infants from harmful bacteria and ensure proper nutrition, but data suggests that typical formula preparation often does not adhere to recommended guidelines. One study found that only 27% of new mothers reported receiving guidance about safe formula preparation and storage from a health professional and 30% of participants did not read the safe-use guidelines on the formula packaging.[95] During observations, 32% of parents did not properly clean bottle nipples and 35% heated bottles in the microwave. Additional information about safe formula feeding, especially for families with unreliable access to the means to safely prepare formula (i.e., families at risk of having utilities shut off, families who are homeless, etc.) is essential for optimizing health for formula-fed babies.

[93]State of Breastfeeding in Massachusetts Report 2025, p. 14
[94]III.E.2.c. State Action Plan, Perinatal/Infant Health : Annual Report Massachusetts 2024 from https://mchb.tvisdata.hrsa.gov/Narratives/AnnualReport2/e3652ad0-8dc2-4939-b515-dd37975d91fc
[95]Labiner-Wolfe, J., Fein, S. B., & Shealy, K. R. (2008). Infant formula-handling education and safety. Pediatrics, 122 Suppl 2, S85–S90.

Childhood disease and vaccination

Routine childhood vaccinations dramatically reduce rates of individual illness (like measles and varicella) while simultaneously offering community-level protection to vulnerable people. Preventable childhood diseases can lead to long-term complications including paralysis, liver damage or neurological impairment. Local public health efforts in Greater Lowell aim to improve vaccine access and confidence, especially in communities where misinformation, language barriers or limited healthcare access contribute to lower vaccination rates.

Trends and disparities

Respiratory illnesses are among the most common causes of childhood doctor visits and hospitalizations. Respiratory syncytial virus (RSV) is a leading cause of lower respiratory tract infections in infants and young children. Nearly all children are exposed to RSV by the age of two, but for premature infants or those with heart or lung conditions, it can lead to bronchiolitis or pneumonia requiring hospitalization.

RSV is highly contagious and typically spreads through coughing, sneezing or touching contaminated surfaces. Each year, RSV infections surge during the fall and winter months, contributing to seasonal strains on pediatric healthcare services in Greater Lowell. In 2023, a preventive antibody injection was made available for certain infants at higher risk. However, access remains inconsistent due to supply chain disruptions, though access in the 2024 – 2025 season was more streamlined.

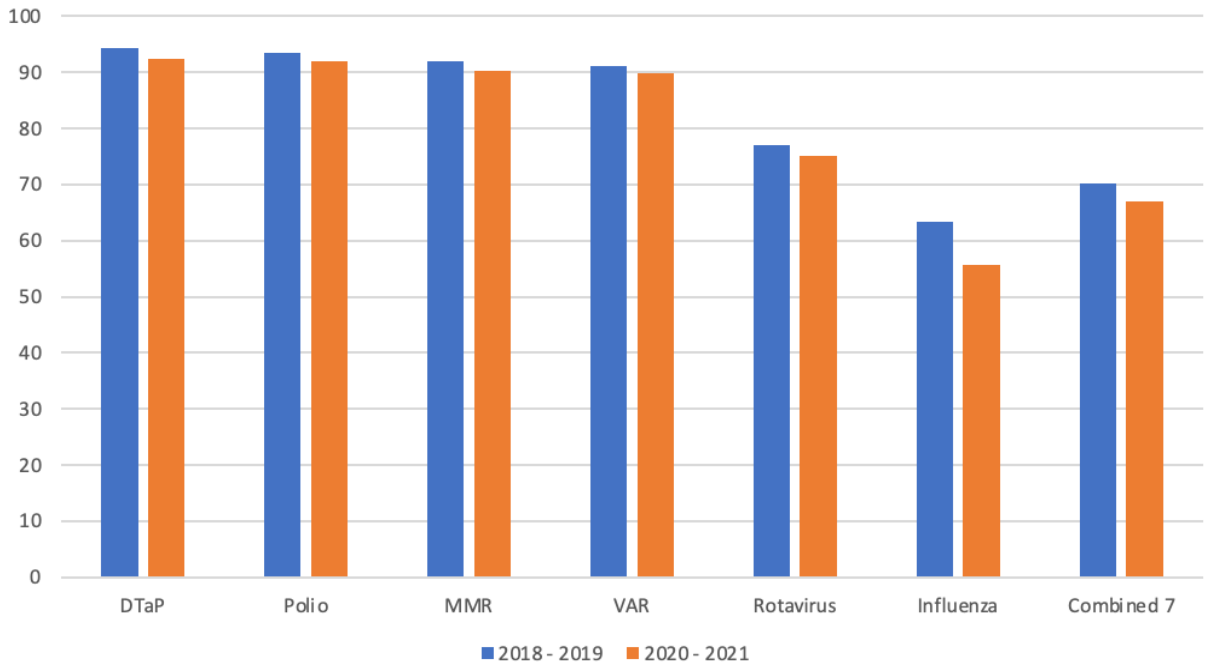
RSV is just one of several acute respiratory infections (ARIs), many of which are not preventable with vaccination. A recent study found that children experience an average of 9.4 respiratory infections per year, but only about 37% of those infections are symptomatic.[96] Rhinovirus was the most common, but RSV B, parainfluenza and RSV A were the most likely to present symptoms. Though less than 20% of infections resulted in medical attention in the study, children who have other underlying health conditions, like asthma, are at much greater risk for complications from routine infections that require medical care or hospitalization.

A 2025 review of a decade of childhood RSV infection data found consistently higher prevalence in Black children compared to White children (2,135 cases per 1,000,000 vs. 723 cases per 1,000,000 in 2022).[97] Environmental exposures likely play a role in this disparity. RSV and other common illnesses (like ear infections, strep throat, hand-foot-and-mouth disease, norovirus or rotavirus) are highly contagious and often spread in group settings such as childcare centers and schools. Children in lower-income households or crowded housing situations may be more frequently exposed to contagious illnesses, and families with limited paid leave or access to primary care may delay treatment, increasing the risk of complications.

Vaccines remain the most effective tool to mitigate the effects of preventable childhood illnesses. Childhood vaccination rates in Massachusetts are consistently at or above comparable U.S. rates. Massachusetts children have much higher completion rates of recommended childhood vaccines than the U.S. rate (94.2% of Massachusetts children vs. 69.7% nationally).[98] Nationally, vaccination rates are seeing an overall decline unlike previous years (Figure 54). Coverage with nearly all vaccines was lower among children born in 2020 and 2021 than it was among those born in 2018 and 2019, with declines ranging from 1.3 to 7.8 percentage points.

[96]Teoh et al. (2023). Burden of Respiratory Viruses in Children Less Than 2 Years Old in a Community-based Longitudinal US Birth Cohort. Clinical infectious diseases : an official publication of the Infectious Diseases Society of America, 77(6), 901–909.
[97]Wang, et al. (2022). Disruption in seasonality, patient characteristics and disparities of respiratory syncytial virus infection among young children in the US during and before the COVID-19 pandemic: 2010-2022
[98]Immunization Levels of Children Greater Than Two Years of Age Enrolled in Group Childcare/Preschool Percent Up-to-Date Childcare/Preschool Immunization Survey, MA 1975-2025

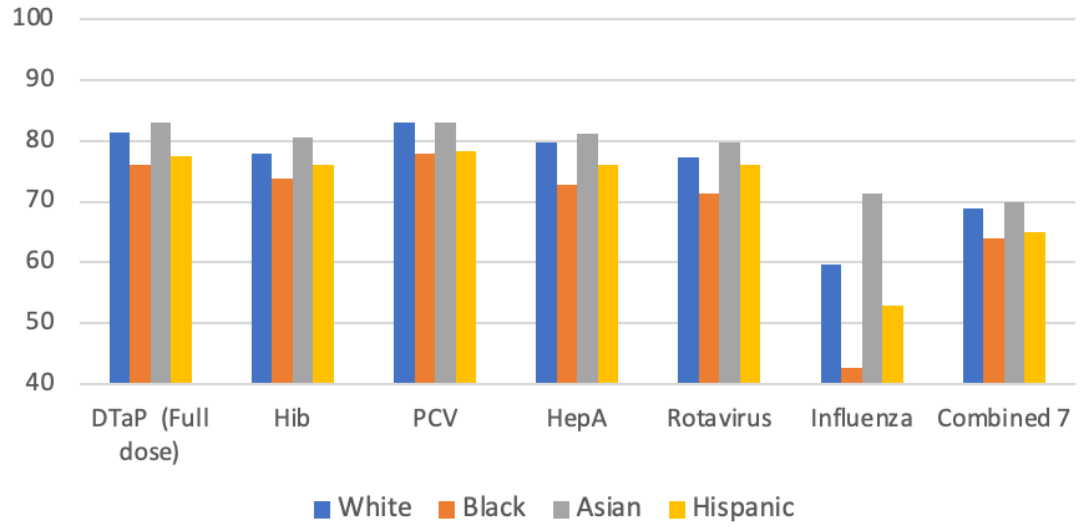
Figure 54: Vaccination coverage by age 2 among U.S. children born in 2018 – 2019 and 2020 – 2021



Source: Vaccination Coverage by Age 24 Months Among Children Born in 2018/19 and 2020/21— National Immunization Survey-Child, United States

Vaccine rates also vary by race and ethnicity. For children born in 2020 and 2021, vaccine coverage is highest among non-Hispanic White children, compared to non-Hispanic Black children as well as Hispanic children (Figure 55).

Figure 55: Vaccination coverage by age 2 among U.S. children born in 2020 – 2021 by race and ethnicity



Source: Vaccination Coverage by Age 24 Months Among Children Born in 2018/19 and 2020/21, National Immunization Survey-Child, United States

At the time of publication, there is uncertainty about federal changes to CDC vaccine recommendations and how they may impact vaccine cost and accessibility. As new public health threats emerge and vaccine misinformation and disinformation spreads, continued investment in accessible, culturally responsive vaccination efforts is critical to protecting children, families and the broader Greater Lowell community.

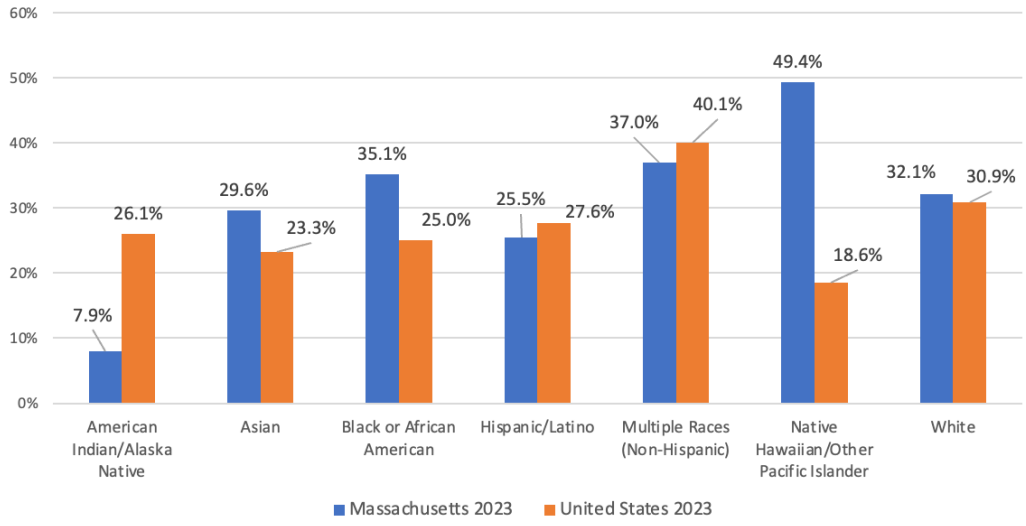
Adolescent mental health and risk behavior

Adolescence is a critical period of development marked by rapid physical, emotional and social change due to increasing exposure to stressors like academic pressure, social media, identity exploration and family conflict. Mental health challenges, especially those that were exacerbated by the stress, grief and isolation of the pandemic, are on the rise, with disparities affecting LGBTQ+ youth, youth of color and those facing housing or economic instability. Maladaptive coping strategies include risk behaviors like vaping, substance use or unsafe sexual activity, which can increase mental health risks in the short- and long-term.

Trends and disparities

In Massachusetts in 2023, approximately 30.9% of youth reported frequent mental distress, higher than the national prevalence of 28.9%.[99] Reported rates varied by race and ethnicity (Figure 56). The highest rates of poor mental health were reported by Native Hawaiian/other Pacific Islander youth (48.4%). Multiracial youth reported the second highest rate (37%), though that prevalence is lower than the national prevalence for the same group (40.1%). The state prevalence of poor mental health is higher than the national prevalence among Asian (29.6% versus 23.3%) and Black (35.1% versus 25.0%) youth.

Figure 56: Poor mental health, high school age youth, by race/ethnicity

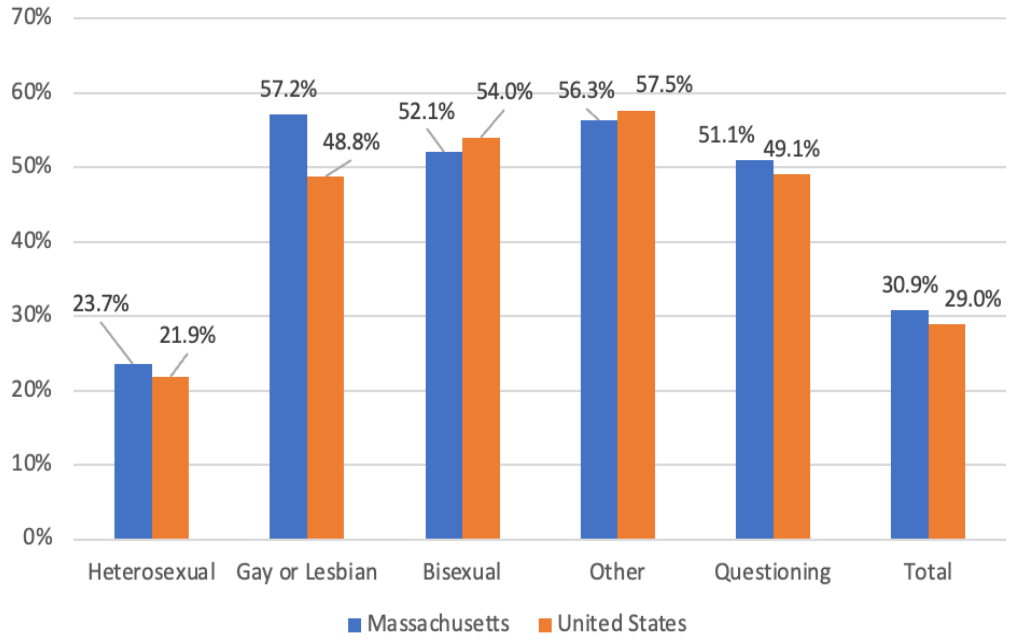


Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System. 2023 via PHIT

Similar disparities are observable by sexuality, with LGBTQ+ youth reporting much higher prevalence of poor mental health compared to their heterosexual peers (Figure 57). Perhaps counterintuitively to assumptions that might infer better mental health in an area like Massachusetts, with more civil protections for LGBTQ+ than other areas of the U.S., the prevalence of poor mental health for gay or lesbian youth (57.2%) and youth who are questioning (51.1%) is higher than the national prevalence (48.8% and 49.1% respectively).

[99]Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System. 2023 via PHIT

Figure 57: Youth reporting poor mental health, by sexuality, MA and US



Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System. 2023 via PHIT

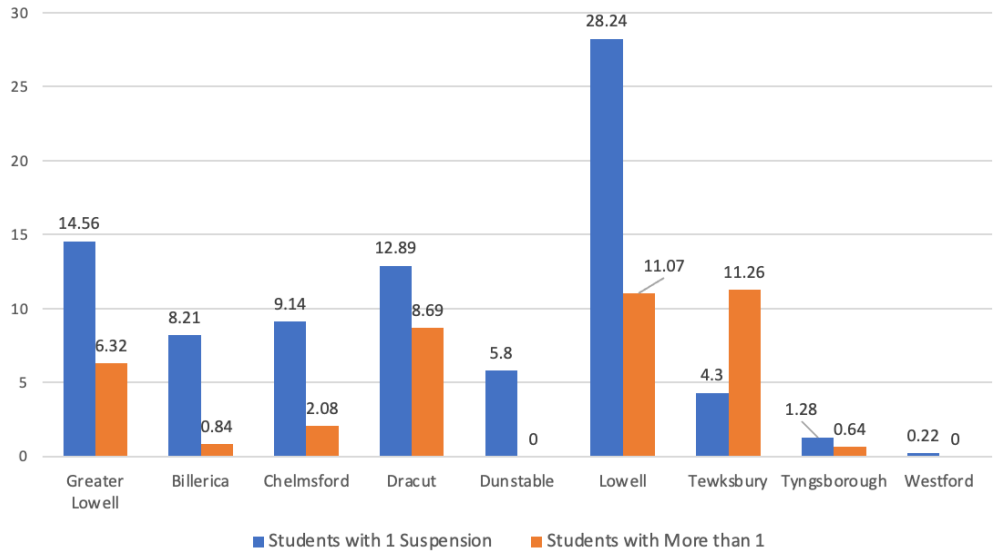
Adolescent mental health is influenced by a range of environmental risk and protective factors. For example, youth living in a household with an adult who works hard to meet their basic needs are at a lower risk for mental health problems. Overall, most Massachusetts youth (87.6%) live in such a household, but there are lower rates among Black (79.4%) and Hispanic (77.8%) youth.[100]

Similarly housing stability is a significant predictor of adolescent mental wellbeing. In Massachusetts, about 2.5% of students experience homelessness, but the rate of youth homelessness in Greater Lowell is more than double the state rate (5.5%).[101] Of the approximately 2,000 total students experiencing unstable housing, approximately 80.1% of them are in temporary shared housing (i.e., a relative or friend), 14.8% are in shelters, 4.3% are living in hotels, and 1.0% are unhoused or living outside, in cars, etc.

Education and in-school experiences are also contributors to, and are impacted by, adolescent mental health and well-being. The total suspension and expulsion rate in Greater Lowell is lower than the state rate (25.5 per 1,000 vs. 31.1 per 1,000).[102] However, rates vary significantly by community (Figure 58). Single suspension rates are highest in Lowell (28.2 per 1,000), but the rate of multiple suspensions is highest in Tewksbury (11.2), followed by Lowell (11); Dracut also has a multiple suspension rate higher than the regional rate (8.69 vs. 6.32).

[100]Low rates among Native Hawaiian/Other PI are likely due to low volume of participants overall in the original data set
[101]US Department of Education, ED Data Express. Additional data analysis by CARES. 2021-2022, via PHIT
[102]US Department of Education, ED Data Express. Additional data analysis by CARES. 2021-2022, via PHIT

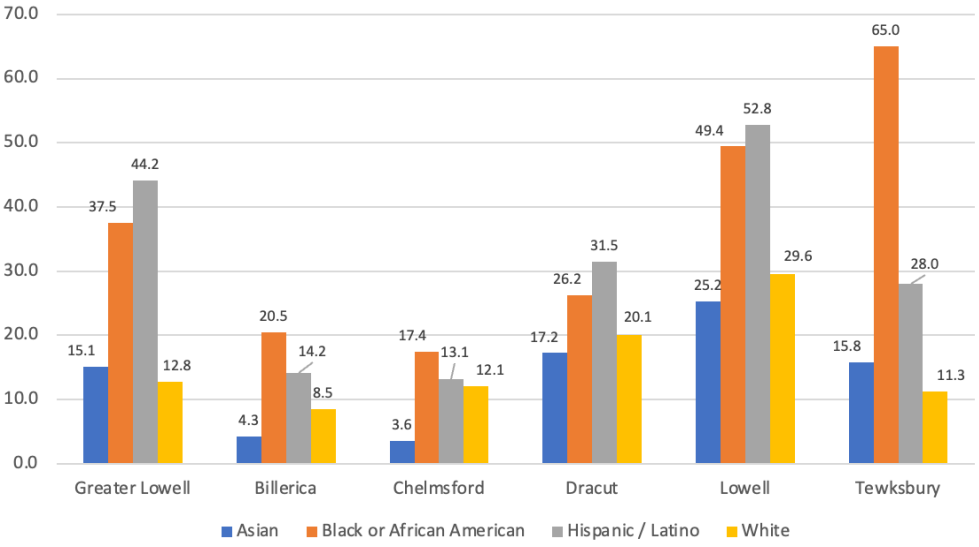
Figure 58: Suspension rates per 1,000 students, by community, 2022



Source: U.S. Department of Education, US Department of Education - Civil Rights Data Collection. 2021-22.

Disparities in suspension rates by race and ethnicity also vary by community (Figure 59). The regional suspension rate is highest for Hispanic students (44.2 per 1,000), with the Lowell suspension rate for Hispanic students being higher (52.8). The suspension rate for Black students is 37.5 regionally, but in Tewksbury, Black students are suspended at a rate of 65 per 1,000. Regionally and nationally, the suspension rate is lowest among Asian students (6.22 and 9.15 respectively), but that is not true in Greater Lowell, where suspensions of Asian students are more frequent than White students (15.1 vs. 12.8). Particularly in Lowell, Asian students are suspended at more than four times the state rate (25.2 per 1,000).

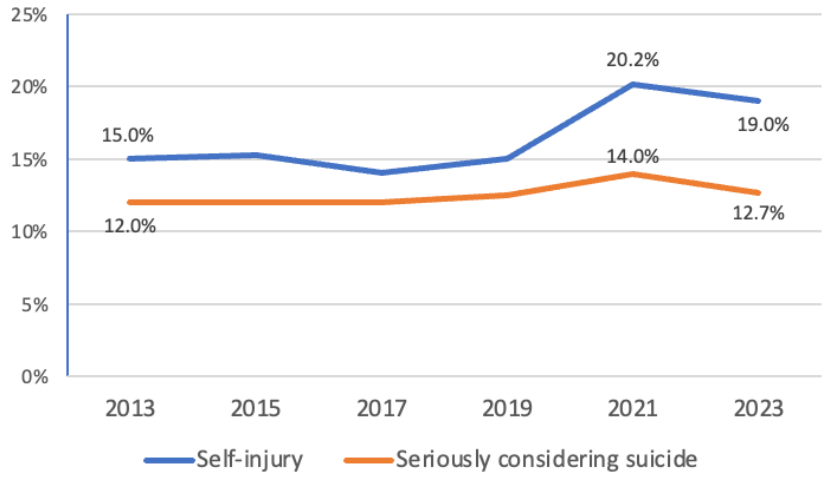
Figure 59: Suspension rates, by race/ethnicity and community



Source: U.S. Department of Education, US Department of Education - Civil Rights Data Collection. 2021-22.

Mental health issues in adolescence are associated with a range of risk behaviors that compound negative health outcomes. The number of high school youth who reported self-injury has decreased from its peak prevalence in 2021 (20.2%) but currently remains considerably higher than previous years (19% vs. 15% in 2013) (Figure 60). In comparison, the prevalence of high school youth seriously considering suicide has remained relatively stable after a peak in 2021.

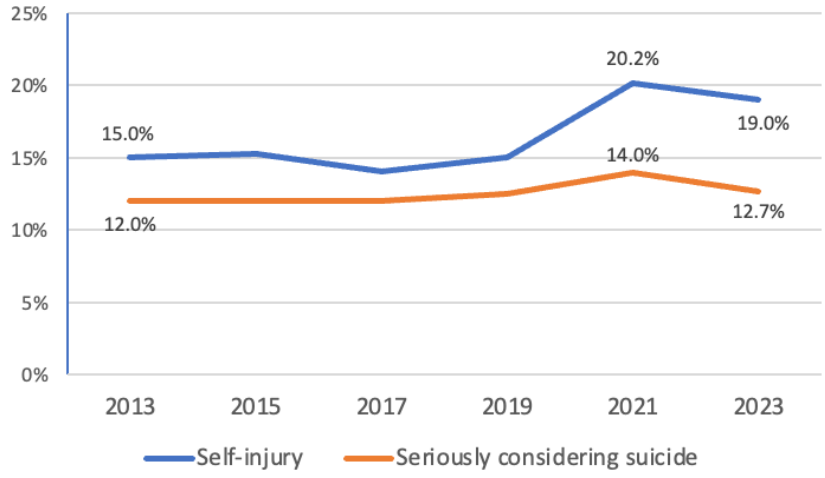
Figure 60: Percent of MA high school youth reporting self-injury and suicidal ideation, 2013 – 2023



Source: MA Youth Health Survey 2023

Significant variation in prevalence of severe mental health distress is reported by gender, race and sexual orientation (Figure 61). The prevalence of severe depression, self-injury and suicidality is twice as high in high school girls compared to high school boys. Hispanic high school students report the highest prevalence of depression (38.4%), but multiracial/other and Black students have the highest self-injury prevalence (26% and 24.2% respectively). LGBTQ+ students report severe depression 2.5 times as frequently as straight/cisgender students and are three times as likely to report self-injury behavior. LGBTQ+ students also have the highest prevalence of seriously considering suicide (30.4%).

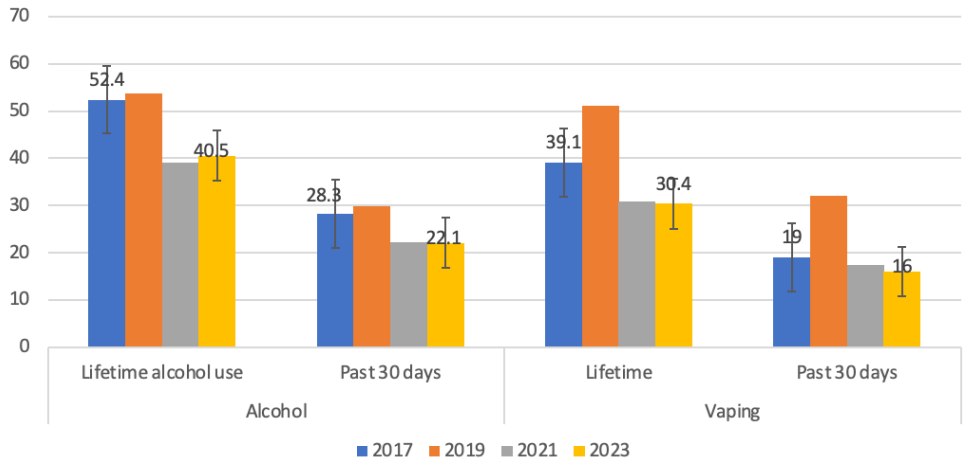
Figure 61: Massachusetts high school students reporting serious mental health concerns, by gender, race and sexual orientation, 2023



Source: MA Youth Health Survey 2023

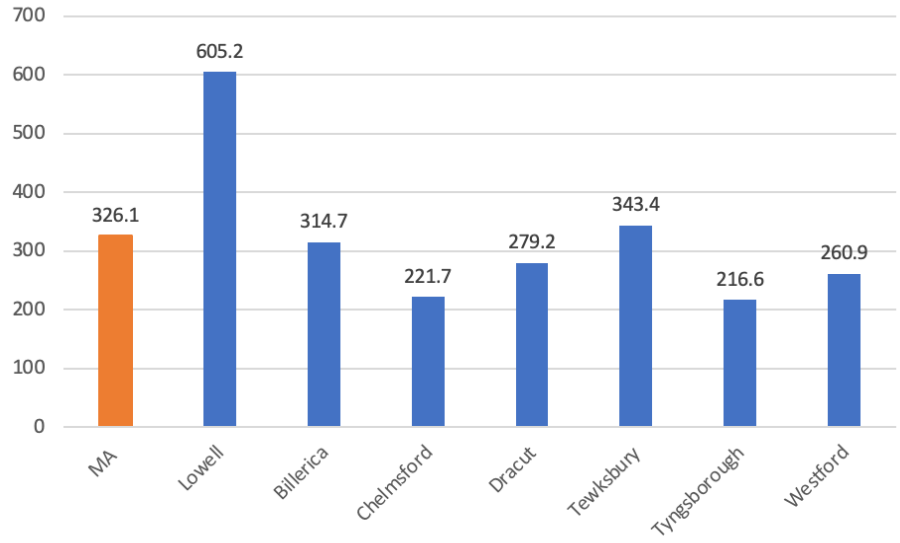
Adolescent substance use, including nicotine, alcohol and illegal drugs, has been generally stable or declining for the last few years (Figure 62).

Figure 62: MA high school students alcohol and vaping, 2017 – 2023



In 2024, there were 5,105 emergency department visits related to substance use in Massachusetts residents under age 20, representing a rate of 326.1 per 100,000. Locally, substance-related emergency department visits among residents under age 20 was twice as high in Lowell compared to the state (605.2 per 100,000) (Figure 63). Tewksbury also had a rate higher than the state (343.4 per 100,000).

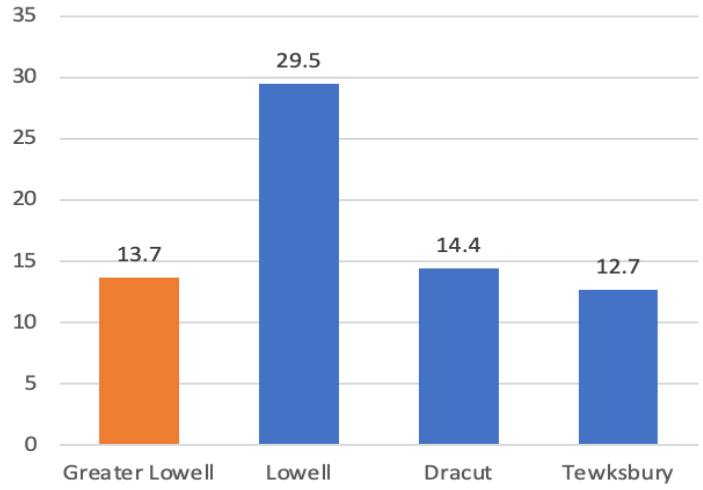
Figure 63: Emergency department visits as rate per 100,000, any substance, under age 20, by community



Source: MA BSAS Services Dashboard

The overall enrollment rate for youth into substance abuse services is predictably low, with residents under 18 representing just 2% of all BSAS enrollments. However, Greater Lowell communities have enrolled youth in BSAS services; since 2022, approximately 85 youth from Greater Lowell have been enrolled in substance use treatment. Though exact figures are not available due to confidentiality reasons, estimates demonstrate highest enrollment rates in Lowell (29.5 youth enrollments per 10,000) (Figure 64). However, Dracut and Tewksbury have also enrolled youth in the last three years, yielding enrollment rates of 14.4 per 10,000 and 12.7 per 10,000 respectively.

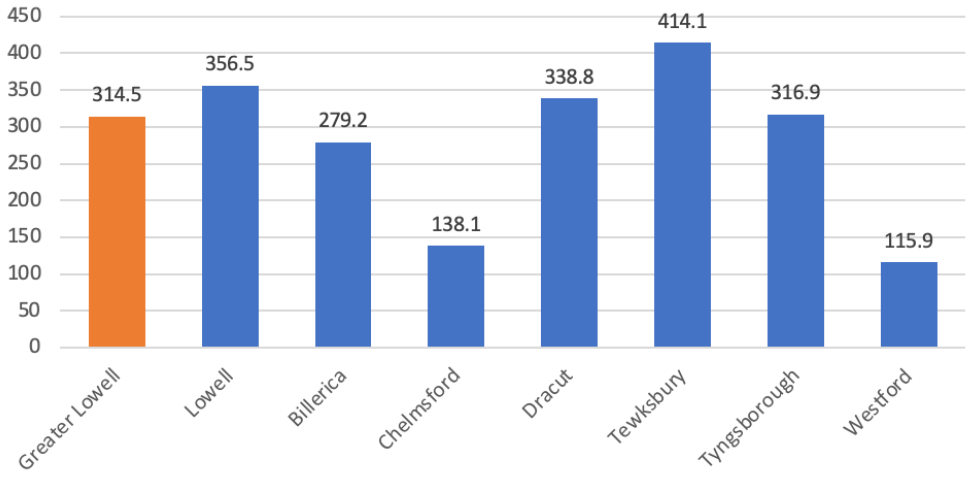
Figure 64: Youth (under 18) enrollments in BSAS services, 2022 – 2025, rate per 10,000



Source: MA BSAS Services Dashboard

Though beyond adolescent age, young adult enrollments highlight the critical need for early intervention services, as the enrollment rates for residents ages 18 – 26 are dramatically higher than under 18. The enrollment rate for the region is 314.5 young adults per 10,000 (Figure 65). The highest enrollment rates are Tewksbury (414.1), Lowell (356.5) and Dracut (338.8).

Figure 65: Young adult enrollment rate per 10,000, any substance, by community



Source: MA BSAS Services Dashboard

Teens experiencing mental health stress are also at risk for engaging in risky sexual behavior, which increases the risk of unplanned pregnancy and sexually transmitted diseases. State data shows that one of the effects of COVID-19 was improvement in nearly every metric of risky sexual behavior, but more recent data shows a return to more consistent trends (Table 42). Overall, there has been a 15% decrease in Massachusetts high school students reporting recent sexual intercourse (from 26.9% in 2019 to 22.8% in 2023). There have also been substantial decreases in the percent of teens reporting more than four lifetime sexual partners (-32.1%), using substances at last sexual contact (-18.4%) and not using any method of preventing pregnancy (-20.6%). However, only 51.6% of teens used a condom at last intercourse and only 5.6% of teens have ever been tested for sexually transmitted diseases.

Table 42: MA high school youth sexual behavior, 2019 – 2023

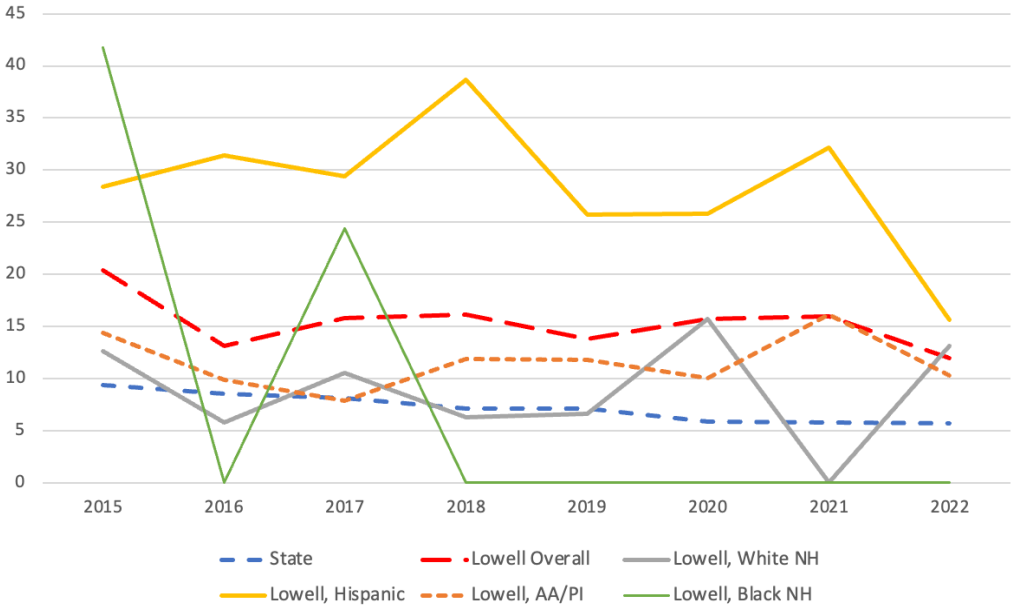
	2019	2021	2023	2019 – 2023 change
Intercourse past 3 months	26.9	18.6	22.8	-15.2%
Intercourse before age 13	2.5	2.7	3	+20%
Condom used at last intercourse	51.4	58	51.6	+0.4%
More than 4 partners	7.8	4.3	5.3	-32.1%
Substance use at last intercourse	23.4	20.7	19.1	-18.4%
No pregnancy prevention	12.6	7	10	-20.6%
Tested for other STDs	12.7	5.3	5.6	-55.9%
Ever taught condom skills	49.7	43.8	68.3	+37.4%

Source: MA YRBS Data Tables, 2019-2023

Teen births have consistently declined in Massachusetts over the last several decades, from 35.4 per 1,000 in 1990 to 5.7 per 1,000 in 2022.[103] In 2022, Westford and Dunstable reported zero teen births. Billerica, Dracut, Chelmsford, Tewksbury and Tyngsborough all reported between one to three teen births. Lowell was the only Greater Lowell community to report more than four teen births, reporting a total of 45.[104] Since 2015, Lowell's overall teen birth rate has declined from 20.4 per 1,000 to 12.0 per 1,000.

There are significant, unique variations in teen birth rates by race/ethnicity in Lowell (Figure 66). Hispanic teens have consistently had the highest birth rate, in Lowell and in Massachusetts (15.6 per 1,000 in Lowell and 20.3 per 1,000 in Massachusetts). While many of the other communities with higher-than-average teen birth rates observe particularly high rates of teen births among Black, non-Hispanic teens, Lowell's teen birth rate in this population has been inconsistent. In 2015, the teen birth rate in Lowell to Black, non-Hispanic teens was 41.8, the highest of any race or ethnic group in the city. However, since 2018, there have been fewer than four births to Black teens in Lowell every year, and therefore not reported in the birth report. In contrast, Lowell is an outlier for births to Asian teens. While the overall birth rate to Asian teens is so low that it is not reported at the state level, Lowell is the only community in the state where the Asian teen birth rate is higher than the state rate. Most recently, the state rate of teen births to Asian teens was 1.2, compared to the Lowell rate of 10.3.

Figure 66: Teen birth rates per 1,000, by race/ethnicity, 2015 – 2022, Lowell



Source: MA Birth Reports, 2015-2022

[103]Massachusetts Birth Report 2022.
[104]Refers to births to residents, not location of births. Communities with fewer than four births do not report specific numbers, for privacy reasons

Past actions

Since the 2022 CHNA, efforts to address child and adolescent health have included the following:

- Hosting the annual World Breastfeeding Week community event to provide education and resources to families who are breastfeeding
- Distributed over $250,000 of grant funding to the following community organizations and projects to address child and adolescent health:
  - $30,000 to The Center for Hope and Healing for The Educating on Social Determinants of Health Impacting LGBTQ+ Youth Project
  - $25,000 to the Boys and Girls Club of Greater Lowell to address race, discrimination and health in youth
  - $20,300 to Lowell Public Schools' Crisis Training & Support Initiative
  - $20,000 to the Greater Lowell Community Foundation for asthma spacers for school kids
  - $20,000 to Community Teamwork Inc. Youth Services Family Foundations Program
- Other organizations who received GLHA funding include: Clarendon Early Education Services, the NAN Project, Greater Lowell Technical High School, Riverbend, Merrimack Valley Food Bank, Chelmsford Health Department, and Tufts Medicine Lowell General Hospital

Recommendations

Healthcare system recommendations

- Develop and disseminate clear, accessible educational materials and training for healthcare providers and parents on safe formula preparation and storage practices, with targeted outreach to families facing housing or utility instability
- Integrate breastfeeding promotion throughout all sites through environmental interventions like designated breastfeeding and pumping rooms, "breastfeeding-friendly" signage and using images of breastfeeding infants in hospital promotional materials
- Implement culturally tailored vaccination campaigns to address misinformation and language barriers, focusing on communities with lower vaccination rates
- Regularly screen children and adolescents for mental health issues during healthcare visits, with special attention to LGBTQ+, youth of color and those experiencing housing instability
- Engage with community organizations to deliver evidence-based education to youth regarding substance use, mental health and pregnancy prevention, especially in regard to accessing health resources for youth in need

Community system recommendations

- Increase funding and outreach for peer counseling and home visiting programs that provide breastfeeding education and support, especially targeting low-income, immigrant, and communities of color to reduce disparities in breastfeeding duration and exclusivity
- Expand accessible, culturally responsive mental health resources for youth, especially LGBTQ+, youth of color and those experiencing housing instability, including school-based counseling and peer support programs
- Support programs that address economic barriers, such as job training, financial assistance and housing stability services, that directly impact parental capacity and adolescent well-being
- Enhance sexual health education in schools that includes condom skills, STI testing awareness and healthy relationship skills, tailored to meet the needs of diverse youth populations to reduce risky behaviors and teen pregnancy
- Become Breastfeeding-Friendly Certified using the GLHA's It Takes a Village: A Toolkit for Creating Breastfeeding-friendly Communities.

7. Safety and violence

Rationale

Survey participants ranked violent crime as a top 10 health priority, with discrimination ranked closely behind. In previous assessments, issues of safety were assessed distinctly from health issues, which made them challenging to integrate into the final ranked item list. This year's assessment includes categories related to violence and safety in the same items as other health issues. However, participants often struggle to determine how to weigh and compare specific health items, like cancer, against safety issues, like violent crime. Focus group data provides essential context and insight to the role safety plays in their health and day-to-day life (Table 43). Participants specifically described feeling more at risk for discrimination-driven harassment now compared to three years ago; they described ways they've changed their appearance or removed decorations from their home or car that may make them targets for crime. This increased self-surveillance contributed to the burden of mental stress participants report feeling daily.

Table 43: Survey and focus group results for major category safety and violence, all participants

Survey			
Rank	**Item**	**Weighted sum**	**Standard score**
8	Violent crime	672.0	.45
12	Discrimination	480.0	.31

Overview

Safety is a critical component of community health, influencing everything from physical well-being to mental health, social connection and trust in local institutions. In Greater Lowell, concerns about violent crime, neighborhood safety and public spaces continue to affect how residents move through their communities and access resources. Beyond physical violence, many community members experience harm through racism, discrimination and systemic oppression, which can manifest in schools, workplaces, housing and healthcare settings.

Violent crime

Violent crime includes offenses like homicide, assault and sexual violence.[105] Rates of violent crime are a key indicator of levels of community safety and public health. Exposure to violence can cause adverse effects on quality of life such as poor physical health outcomes, increased levels of chronic stress and anxiety, mental health concerns like PTSD, injuries, reduced physical activity and impaired child development.[106] Addressing high exposure to crime and violence enhances and improves community health and wellbeing.

Trends and disparities

Certain populations are more likely to be exposed to violent crime than others; for example the national homicide rate has been consistently higher for Black youth than their White peers.[107] Gun violence disproportionately affects Black and Hispanic/Latino communities.[108] Neighborhoods with higher rates of violent crime may face lower rates of physical activity due to fear.[109]

[105]Crime in the United States, U.S. Department of Justice Federal Bureau of Investigation.
[106]Violence Prevention, Centers for Disease Prevention and Control, 2021.
[107]Violence-related disparities experienced by black youth and young adults, American Journal of Preventive Medicine, 2018
[108]Firearm Violence Prevention, Centers for Disease Control, 2021.
[109]Violent Crime & Park Use in Low Income Urban Neighborhoods, American Journal of Preventive Medicine, 2018.

Overall rates of violent crime in Massachusetts have decreased slightly (-4.4%) from 2023 to 2024 (Figure 67). The most frequent incidents of crime are larceny/theft (60,153); the lowest rates of crime are murder/non-negligent homicide (132). The largest decrease between 2023 and 2024 was in motor-vehicle theft (-16.1%) while the smallest decrease occurred in forcible rape (-1.8%).

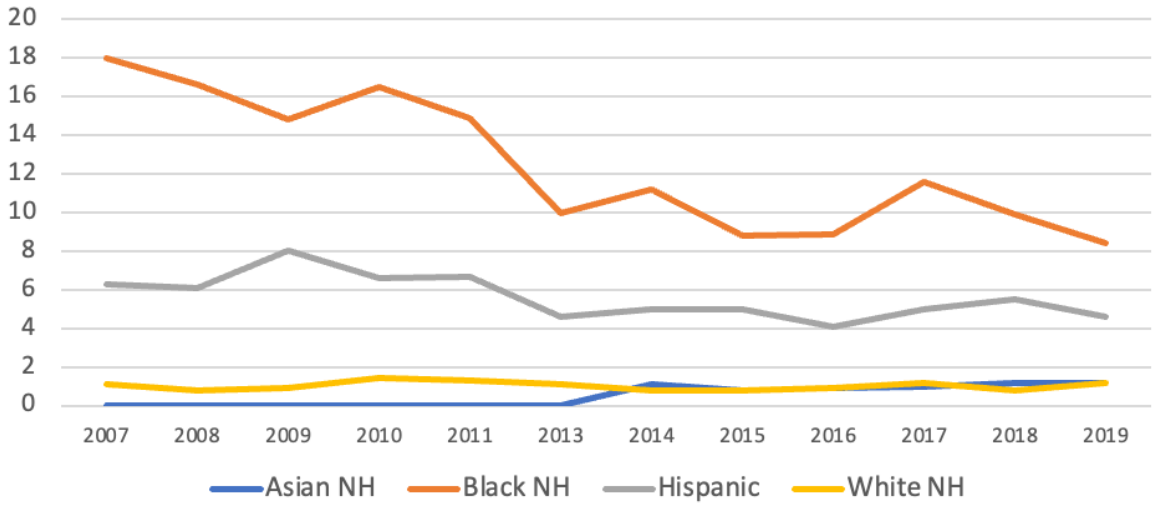
Figure 67: Massachusetts number of reported violent offenses, 2023 – 2024

	2023	2024	Change	% Change
Reported Offense				
Homicide	149	132	-17	-11.4%
Forcible rape	1,956	1,920	-36	-1.8%
Robbery	2,631	2,406	-225	-8.6%
Aggravated assault	17,835	16,813	-1,022	-5.7%
Burglary	9,506	8,688	-818	-8.6%
Larceny-theft	61,806	60,153	-933	-1.5%
Motor vehicle theft	8,558	7,182	-1,376	-16.1%
Total crime	101,721	97,294	-4,427	-4.4%

Source: Press Release Massachusetts Crime Rates via MA DPH, 2024

People of color have historically seen higher rates of violent crime; from 2007-2019 homicide rates were the highest among the Black non-Hispanic population and the Hispanic population, though there have been consistent decreases in both populations since 2007. (Figure 68).

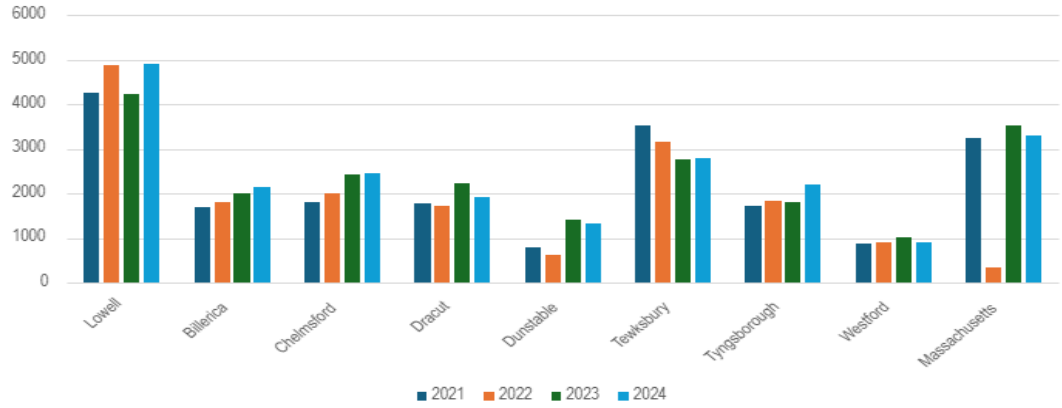
Figure 68: Age-adjusted annual homicide rate per 100,000 by race/ethnicity, 2007 – 2019



Source: Injury and Exposure to Violence, MA DPH

While overall rates of violent crime in Massachusetts have decreased from 2023 to 2024, some towns within Greater Lowell have seen the opposite change (Figure 69). Tyngsborough has seen the highest percent increase of violent crime from 2023 to 2024 (+22.3%), followed by Lowell (+16%) and Billerica (+7.6%). Lowell has seen the highest rates of violent crime compared to Massachusetts and other towns in Greater Lowell from 2021 to 2024 (4,265.6 in 2021 and 4,906.1 in 2024 per 100,000 residents).

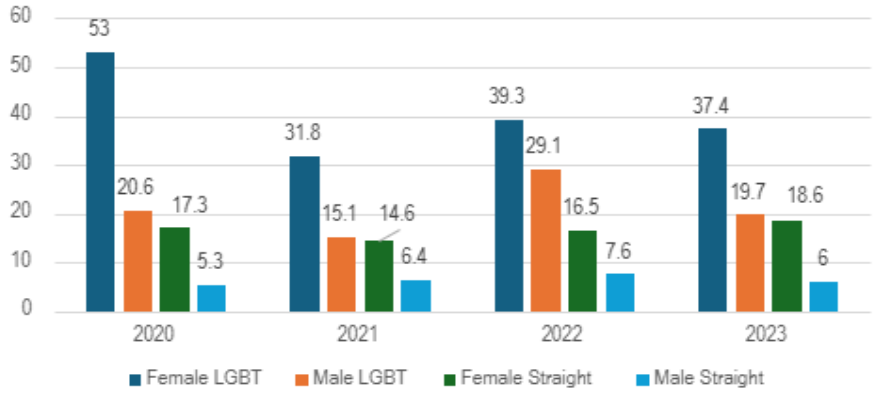
Figure 69: Crime rates per 100,000 residents, by city/town and state, 2021 – 2024



Source: Massachusetts Crime Statistics via MA DPH

LGBTQ+ Massachusetts residents are disproportionately affected by sexual violence compared to their heterosexual counterparts, especially female LGBTQ+ people. Although there was a drastic decrease in sexual violence incidents among LGBTQ+ females from 2020 to 2023, 37.4% of all sexual violence incidents are among LGBTQ+ female (Figure 70). From 2020 to 2023, 5-7% of sexual violence crimes have been committed against straight men while 15-29% have been against LGBTQ+ men in Massachusetts. Of 2025 Community Health Survey participants, 34.7% of LGBTQ+ responders self-reported they do not feel safe in their neighborhoods.

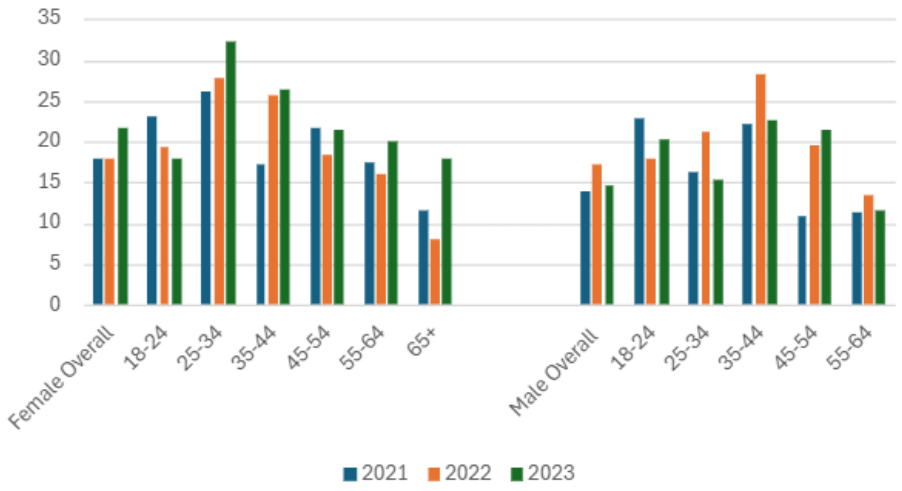
Figure 70: Sexual violence among Massachusetts adults, by gender and sexuality, 2020 – 2023



Source: MA BRFSS, 2020-2023

Among Massachusetts female adults, from 2021 to 2023 there was a 21.9% increase in intimate partner violence (IPV) incidents (Figure 71). Among Massachusetts male adults, from 2021 to 2022, there was a 22.1% increase followed by a 14.6% decrease the subsequent year. In 2023, the highest rates of IPV victimization were in women aged 25 – 34 years (32.3%). The highest rates among men were in 18 – 24-year-olds (20.3%). Overall, women are more likely reported being victimized by IPV than men (21.7% versus 14.6%). Concerns of domestic violence were discussed among 2025 CHNA focus group participants, indicating that domestic violence should be a priority.

Figure 71: Percent of MA adults reporting intimate partner violence, by sex and age, 2021 – 2023



Source: BRFSS

Public safety

Public safety is a vital indicator of a community's health and overall wellbeing, encompassing not only crime prevention and emergency response but also the quality of the physical and social environment. High-quality, well-maintained roads, sidewalks, lighting and housing play a key role in preventing injuries and fostering a sense of security. Access to safe parks, green spaces and recreational areas encourages physical activity, reduces stress and supports mental health.

Trends and disparities

In the 2025 CHNA, approximately 20% of participants reported feeling unsafe in their neighborhoods (Table 44). Participants who felt unsafe were disproportionately from Lowell (69% of participants who feel unsafe vs. 30.5% of participants who felt safe), Black (11% vs. 5.5%), Asian (12.9% vs. 6.2%), foreign-born (18.9% vs. 12.6%) and LGBTQ+ (25% versus 8.3%).

Table 44: 2025 CHNA participants who indicated feeling unsafe in their neighborhood

	Participants who do not feel safe in their neighborhoods	Participants who do feel safe in their neighborhoods
Overall	19.9%	79.9%
By town/city		
Lowell	69.7%	30.5%
Billerica	5.8%	6.7%
Dracut	9.0%	13.0%
Chelmsford	5.6%	19.6%
Tyngsborough	1.1%	7.1%
Westford	2.1%	4.8%
Tewksbury	3.2%	9.3%
Race/ethnicity		
White	71.9%	85.0%
Black	11.0%	5.5%
Asian	12.9%	6.2%
Indigenous/Native American	1.7%	1.2%
Another race	7.4%	4.1%
Foreign born		
Yes	18.9%	12.6%
Sexuality		
LGBTQ+	25.0%	8.3%

Furthermore, participants who reported feeling unsafe in their neighborhoods also reported a higher frequency of worsening physical health compared to participants feeling safe in their neighborhoods (25.2% vs. 19.3%) (Table 45). They also reported higher frequency of problems with alcohol (19.4% vs. 12.1%), problems with other substances or drugs (12% vs. 6.9%), mental health issues (54.4% vs. 32.9%) and suicidal ideation (30.5% vs. 14.1%). Physical health conditions were also more prevalent among this group, with 27.4% reporting asthma (vs. 20.9%), 20.8% reporting diabetes (vs. 17.9%) and 19.7% reporting heart disease (vs. 15.9%). Because feeling unsafe in your neighborhood reduces your ability to engage in activities and resources that promote physical and mental wellbeing, these findings are important to consider when designing interventions.

Table 45: Participants who feel and don't feel safe in their neighborhoods, indicator frequency

	Participants feeling unsafe	Participants feeling safe
My overall physical health is worse	25.2%	19.3%
Problems with alcohol	19.4%	12.1%
Problems with other substances	12.0%	6.9%
Mental health issues	54.4%	32.9%
Suicidal ideation	30.5%	14.1%
Asthma	27.4%	20.9%
Diabetes	20.8%	17.9%
Heart disease	19.7%	15.9%

Transportation infrastructure and urban design, like the structure of roads and crosswalks, contributes significantly to levels of public safety within a community. In 2023, there were 60,038 transportation-related injuries reported in Massachusetts (Table 46). Vulnerable road users represented a smaller but significant portion: 2,185 injuries involved pedestrians (approximately 3.6%), 2,179 involved motorcyclists (about 4.2%) and 1,522 involved pedal cyclists (around 2.9%). These figures underscore the importance of safe, inclusive infrastructure that protects all users of the road.

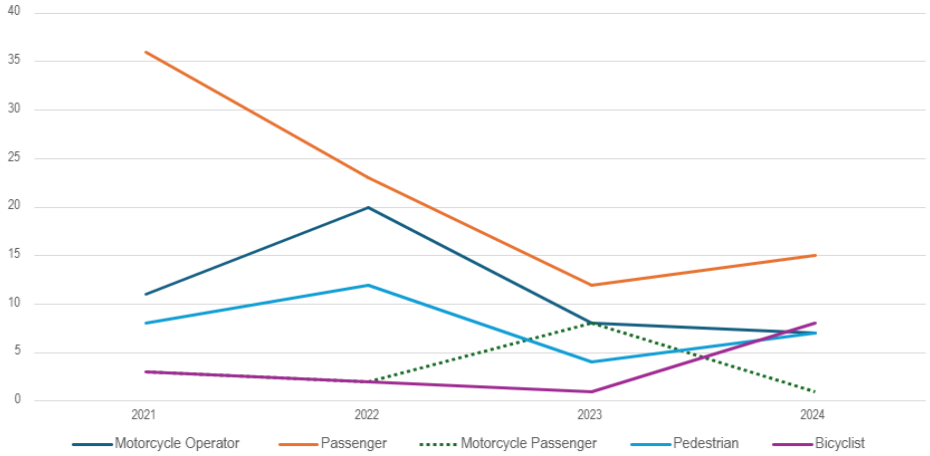
Table 46: Injury-related emergency dept. visits among MA residents, 2021

Injury mechanism	2021	2022	2023
Transportation	55,651	59,529	60,038
Motor vehicle - traffic (MVT)	47,280	51,239	51,818
MVT - occupant	41,888	45,466	45,936
MVT - motorcyclist	2,449	2,484	2,179
MVT - cyclist	1,307	1,377	1,522
MVT - pedestrian	1,644	1,915	2,185
Cyclist, other	3,903	3,757	3,373
Pedestrian, other	491	643	606
Other land transport	1,130	1,047	976
Other transport	286	267	285

Source: Injury Surveillance Program, MA DPH

While Massachusetts shows an increase in transportation injuries over 2021 – 2023, Greater Lowell shows a substantial decrease of nearly 50% (Figure 72). Bicyclist injuries in Greater Lowell jumped in 2024 (from one to eight). There is a less stable pattern on pedestrian injuries, but from 2023 to 2024 pedestrian injuries have nearly doubled. Of focus group participants, transportation and infrastructure was identified as a barrier to receiving care and a gap identified within the web of Greater Lowell resources. Addressing safe infrastructure will contribute to improving community health, by increasing access and eliminating barriers to health care appointments, nutrition and social events.

Figure 72: Count of Greater Lowell serious injuries by type (excluding MV operator injuries), 2021 – 2024



Source: MassDOT Crash Data Portal, 2021-2024

Recent expansions in immigration enforcement (e.g., increased ICE presence, renewed partnerships between local law enforcement and federal immigration agencies, etc.) have also affected how residents, particularly immigrant and refugee communities, perceive public safety. In neighborhoods where people already face language barriers, discrimination or trauma from past displacement, the presence of immigration authorities can create a climate of fear. Even individuals with legal status or U.S.-born family members may avoid calling emergency services, reporting crimes or seeking medical care due to fear of detention, deportation or family separation. This erodes trust not only in immigration authorities, but in the broader public safety infrastructure meant to protect everyone. When people feel safe engaging with police, seeking help and moving freely in their communities without fear of surveillance or retribution, they are more likely to contribute to a culture of safety for all. Without that foundation of trust, even well-intentioned policies risk undermining the collective wellbeing of the communities they aim to serve.

Discrimination and oppression

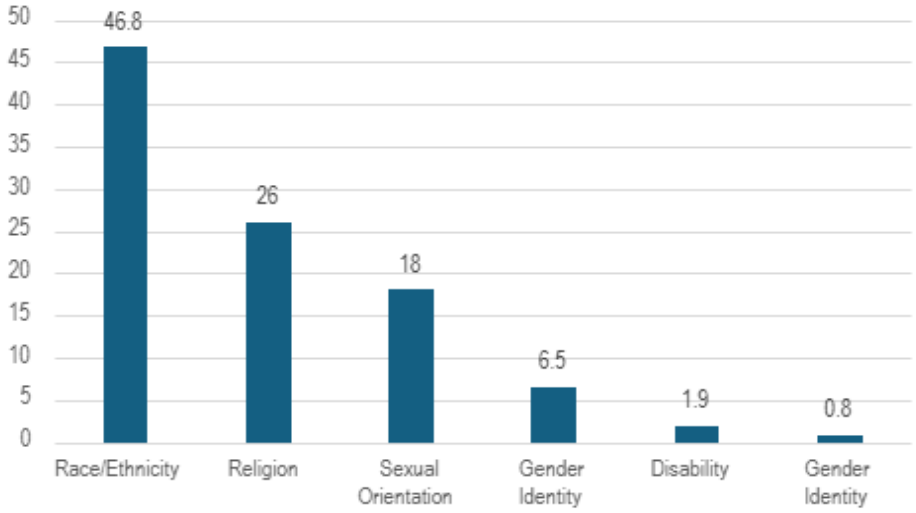
Discrimination is an emerging risk factor for disease and a key driver of racial disparities and health inequities. Research identifies multiple pathways through which racism and discrimination impact health. Exposure to racism can lead to a range of negative outcomes, including adverse psychological responses, harmful biological and behavioral effects, reduced access to healthcare and a lower overall quality of life.[110]

Trends and disparities

Nationally, the total number of hate crimes rose from 2020 to 2023, from 8,052 single incidents to 11,862 single incidents.[111] The proportion of hate crimes attributable to discrimination based on race, ethnicity or ancestry slightly decreased during the same timeframe, accounting for 59.1% of hate crimes in 2022 compared to 52.5% in 2023 (Figure 73). In the U.S., there were 16,616 reported hate crimes targeting Black or African American individuals, the highest number among race or ethnicity-based hate crimes. The largest share of religion-based hate crimes were anti-Jewish incidents, totaling 6,399. Anti-gay male hate crimes ranked third overall, with 5,069 reported cases.

[110]Understanding How Discrimination Can Affect Health, Health Services Research, 2019
[111]U.S. Department of Justice, 2023 Hate Crimes Statistics, https://www.justice.gov/hatecrimes/hate-crime-statistics

Figure 73: Proportion of U.S. hate crimes by motivation, 2022 – 2023 (%)



Source: FBI's Uniform Crime Reporting (UCR) Program

Between 2022 and 2023, eight hate crimes incidents were recorded with law enforcement in Greater Lowell, a drastic decrease from 2019 to 2020 where 16 total hate crimes were recorded.[112] A majority (50%) were filed in Chelmsford. Of all hate crimes, a majority (62.5%) were racially motivated, followed by crimes motivated by anti-gay bias (25.0%) and religious bias (12.5%).

A 2021 survey of Massachusetts residents reported that Black, non-Hispanic residents were 12 times more likely to report experiencing discrimination in the previous year compared to White, non-Hispanic residents (24% versus 2%).[113] Hispanic residents (12%) were six times as likely to report discrimination compared to White, non-Hispanic residents, followed by American Indian/Alaskan Native residents (13%), multiracial residents (23%) and Asian residents (23%). The report also found that people experiencing discrimination were more likely to have health problems than those who were not experiencing discrimination, including obesity, kidney disease, high blood pressure, heart disease, diabetes, asthma and COPD.

Among the towns in Greater Lowell, the city of Lowell reports the highest rates of youth discriminatory harassment or bullying, with incidents spanning all categories of discrimination. Lowell's rates are significantly higher than those of Massachusetts as a whole and the national average, with nearly four times the rate of the state average in disability harassment or bullying and the highest rates of racial harassment or bullying (Table 47).

Table 47: Youth experiences of harassment or bullying by allegation type, Rate per 1,000, 2021 – 2022

	Sex	Race	Disability	Sexual orientation	Religion
Billerica	0.63	0.63	0	0	0
Chelmsford	0	0.42	0	0	0
Dracut	0	0	0	0.56	0
Dunstable	0.45	0	0	0.89	0
Lowell	3.79	4.31	1.04	0.52	0.07
Tewksbury	1.32	0	0	0	0
MA	1.26	1.04	0.27	0.30	0.05
US	1.22	0.87	0.33	0.48	0.06

Source: Civil Rights Data Collection, U.S. Department of Education, via MA DPH PHIT

[112]NIBRS 2019-2021 Data
[113]CCIS: Race Population Spotlights and Discrimination, June 8, 2021.

In the 2025 CHNA, 162 participants reported experiencing discrimination from a healthcare provider (Table 48). Of participants reporting discrimination, they were disproportionately from Billerica (11.7% of participants reporting discrimination vs. 5.3% of participants who have not experienced discrimination) and Westford (8.0% vs. 3.4%). They were also disproportionately Hispanic (19.1% vs. 11.5%); LGBTQ+ participants and transgender/gender non-conforming participants were also much more likely to report discrimination (37% vs. 8.2% and 9.9% vs. 1.2%, respectively). People who lived in subsidized housing also had a higher frequency of discrimination compared to participants who did not live in subsidized housing (19.8% vs. 6.8%). Participants who were disabled similarly had much higher frequency of provider discrimination (42.6% vs. 20.7%).

Table 48: Demographics and indicators of participants who did and did not experience provider discrimination

	Participants who experienced provider discrimination	Participants who did not experience provider discrimination
Overall	5.4%	94.6%
By town/city		
Lowell	48.7%	42.6%
Billerica	11.7%	5.3%
Dracut	7.4%	10.2%
Chelmsford	12.4%	13.4%
Tyngsborough	4.9%	5.2%
Westford	8.0%	3.4%
Tewksbury	3.1%	8.3%
Race/ethnicity		
White	75.9%	72.6%
Black	10.8%	7.7%
Asian	11.4%	9.8%
Another race	5.1%	5.5%
Hispanic	19.1%	11.5%
Foreign born		
Yes	16.9%	21.0%
Sexuality		
LGBTQ+	37.0%	8.2%
Transgender/gender non-conforming	9.9%	1.2%
Live in subsidized housing	19.8%	6.8%
Disabled	42.6%	20.7%

Past actions

Since the 2022 CHNA, efforts to address violence and safety have included the following:

- Distribution of more than $170,000 of grant funding to support community organizations and projects that address safety and violence, including:
  - $50,000 to the Lowell Community Health Center Let's Talk about Healthy Relationships Project
  - $25,000 to the Boys & Girls Club of Greater Lowell to address race, discrimination and health
  - $25,000 to The Center for Hope and Healing Capacity Building for Schools to Support LGBTQ+ Youth of Color
  - $25,000 to the THRIVE Communities Reentry Housing Services
  - $10,000 to the International Institute of New England and Greater Lowell Refugee Domestic Violence Prevention/ Support

Recommendations

Healthcare system recommendations

- Strengthen healthcare-based intimate partner violence (IPV) and sexual violence screening, counseling and referral networks, especially targeted at young adults and LGBTQ+ populations who experience disproportionate rates
- Integrate management of chronic conditions (e.g., asthma, heart disease, diabetes) with interventions to reduce stress and anxiety caused by unsafe environments, discrimination and social isolation through multidisciplinary care teams
- Increase access to resources for staff who are exposed to violence or discrimination
- Provide site-wide training and education about internal policies and rights as well as responsibilities of staff during interactions with various enforcement agencies (e.g., Homeland Security, Immigrations & Custom Enforcement, etc.); when possible, engage agency representatives as well

Community system recommendations

- Prioritize pedestrian and cyclist safety improvements (e.g., crosswalks, bike lanes, traffic calming) in Greater Lowell to reduce injury disparities and improve access to health, education and social services.
- Establish clear "safe zone" policies that limit cooperation between local law enforcement and immigration authorities to reduce fear and barriers to reporting crimes or accessing services among immigrant residents.
- Implement cross-sector partnerships to increase affordable housing, prevent displacement and improve job opportunities in high-crime neighborhoods to address systemic inequities fueling violence.

8. Sexual and reproductive health

Rationale

Sexual and reproductive health emerged as priority in three places in the CHNA data (Table 49). First, it was identified in focus groups as a health issue of concern, with specific emphasis on maternal health conditions and sexually transmitted infections. Second, survey participants identified people who are pregnant or postpartum as a priority population. Survey participants ranked reproductive and sexual health relatively low in comparison to other items; however, this may be a function of lack of clarity about what sexual or reproductive health specifically includes, or stigma around discussing topics related to sexual and reproductive health may influence rankings. Nevertheless, the Massachusetts State Assessment notes several priority areas related to sexual and reproductive health, further emphasizing the need to include these topics as priorities.

Table 49: Survey and focus group results for major category sexual and reproductive health, all participants

Survey			
Rank	**Item (Population)**	**Weighted Sum**	**Standard Score**
10	Pregnant/ postpartum	48.5	.30
	Issue		
15	Reproductive and sexual health	336.5	.23

Focus groups			
Question: What are the most significant health issues in your community?			
Rank	**Item**	**Density**	**Examples**
8	Sexual/ reproductive health	11	Maternal health, STDs

Overview

Sexual and reproductive health includes a range of health behaviors and conditions that impact health outcomes. Of particular importance is the ability to make informed choices about one's reproductive health and decision-making. For many, pregnancy intention is shaped by access to care, financial stability, partner support and cultural or religious beliefs, yet many individuals report limited access to comprehensive reproductive health services. In Greater Lowell, community members face a variety of reproductive health challenges, including high rates of sexually transmitted infections, gaps in contraceptive access, and disparities in diagnosis and treatment of reproductive disorders such as endometriosis and polycystic ovary syndrome (PCOS).

Pregnancy intention

Access to comprehensive family planning (including education, contraception and abortion services) is essential for ensuring that individuals can make informed decisions about if and when to have children. Reproductive autonomy is closely tied to broader opportunities in education, employment, and long-term health and well-being. When pregnancies are unintended or unwanted, there can be a range of consequences, including increased risk of maternal mental health challenges, higher rates of substance use

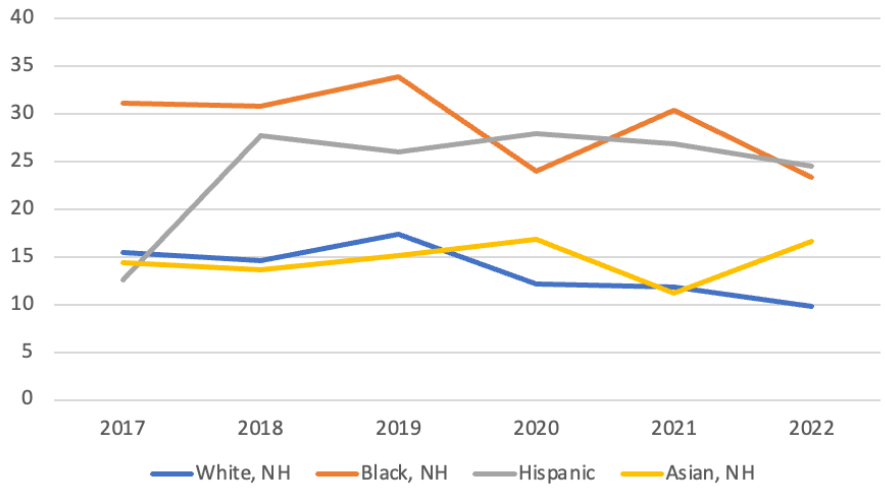
and adverse outcomes for infants such as low birth weight. These outcomes also carry broader societal costs, placing additional strain on healthcare systems and social support networks.[114]

While recent federal policy shifts have tightened controls on telehealth abortion access, reinforced Hyde Amendment funding restrictions, and endorsed legal frameworks that could expose providers to prosecution, Massachusetts' robust legal and policy infrastructure largely shields residents from the immediate impact. Nonetheless, ongoing national shifts, including the legal uncertainty surrounding medication abortion, telehealth and Medicaid funding, require vigilance and proactive advocacy to maintain equitable access to reproductive healthcare.

Trends and disparities

Rates of unintended pregnancy vary significantly by race and ethnicity in Massachusetts (Figure 74). White, non-Hispanic residents and Asian residents report the lowest rates of unintended pregnancy (9.8% and 16.6% in 2022, respectively), while Black, non-Hispanic residents and Hispanic residents report higher rates of unintended pregnancy (23.4% and 24.5% in 2022, respectively).[115] Since 2018, all race and ethnicity groups have seen a decrease in unintended pregnancy rates except for Asian residents, who saw an increase of 21.2%.

Figure 74: Unintended pregnancy, as percent of all pregnancies, by race/ethnicity, MA



Source: PRMS via PHIT

Unintended pregnancies are more common for residents who are foreign-born (21.1% of pregnancies vs. 12.8% of pregnancies), not married (26.7% vs. 10.5%), living in poverty (26.4% vs. 12.1%), and/or disabled (27.7% vs. 13.6%) (Table 50).

[114]Massachusetts Department of Public Health. Massachusetts State Health Assessment. Boston, MA; October 2017.
[115]Pregnancy Risk Monitoring System via PHIT

Table 50: Percent of pregnancies that are unintended, by maternal characteristics, MA

		2020	2021	2022
Maternal nativity	Foreign-born	19.1	24.9	21.1
	US born	15.9	13.7	12.8
Marital status	Not married	32.3	30.4	26.7
	Married	10.2	11.1	10.5
Poverty	Above 100% FPL	12.2	31.1	12.1
	Below 100% FPL	33.1	13.6	27.4
Disability status	Yes	35.3	27.7	27.7
	No	16	15.6	13.6

Source: PRMS via PHIT

Teen births have consistently declined in Massachusetts over the last several decades, from 35.4 per 1,000 in 1990 to 5.7 per 1,000 in 2022.[116] Lowell has consistently reported one of the highest teen birth rates in the state, though it has been declining for several years. Since 2015, Lowell's overall teen birth rate has declined from 20.4 per 1,000 to 12 per 1,000. For more detailed information about teen pregnancies, see section adolescent mental health and risk behavior.

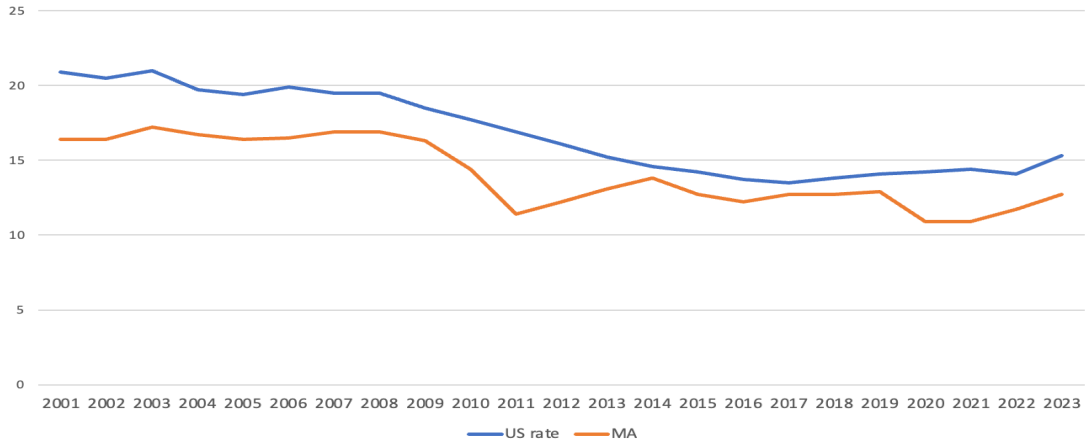
Access to both contraception and pregnancy termination services are crucial for ensuring autonomous family planning. Massachusetts consistently has one of the highest reported rates of contraceptive use, with 77% of women reported using a method of contraception at last intercourse.[117] Approximately 27.2% of women are using a permanent (i.e., sterilization) or highly effective (i.e., LARC) method of contraception; an additional 21.5% are using a moderately effective method (i.e., hormone injection, birth control pills) and 23.9% are using a less effective method (i.e., barrier methods, withdrawal).

In July 2022, Massachusetts enacted a statewide standing order under Chapter 127 of the Acts of 2022, empowering pharmacists to dispense over-the-counter levonorgestrel (Plan B) and prescription-only ulipristal (Ella) without an individual doctor's prescription. This policy simplified access by designating the state itself as the prescriber, removing training requirements for pharmacists and enabling insurance coverage for FDA-approved medications without cost-sharing. Pharmacies in Massachusetts saw a 32% rise in emergency contraception fills compared to similar states, with prescription ulipristal use more than doubling.

Despite having some of the lowest-barrier access to abortion in the country, the abortion rate in Massachusetts has remained below the national rate for the last two decades (Figure 75). In 2023, the abortion rate for women ages 15-44 was 12.7 per 1,000 in Massachusetts, compared to 15.3 in the U.S.

[116]Massachusetts Birth Report 2022.
[117]Douglas-Hall A, Li NW and Kavanaugh ML, State-Level Estimates of Contraceptive Use in the United States, 2019, New York: Guttmacher Institute, 2020

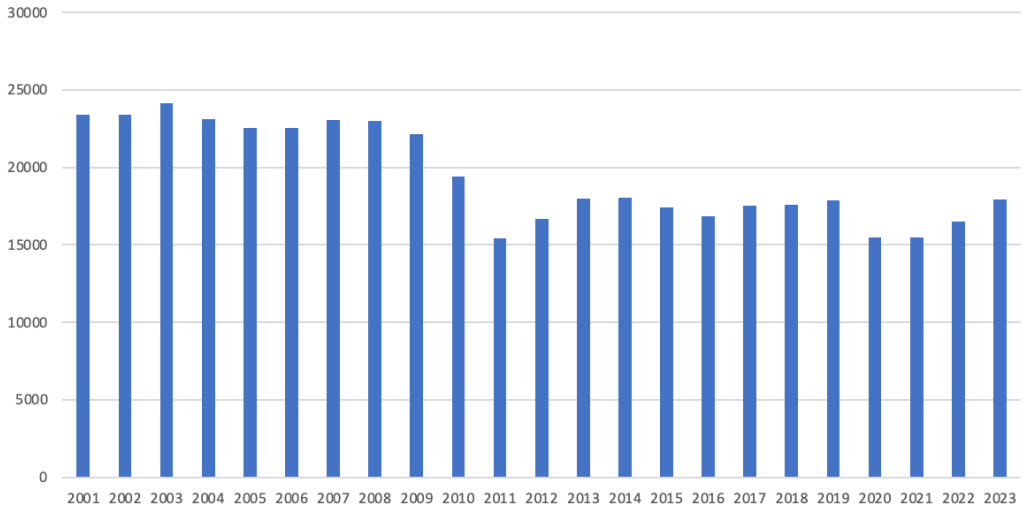
Figure 75: Abortion rate Per 1,000 Women Age 15 to 44, US and MA, 2001 – 2023



Source: Guttmacher Institute https://www.guttmacher.org/fact-sheet/induced-abortion-united-states

During the same time period, the total number of abortions to Massachusetts residents has also declined by approximately 23% (Figure 76).

Figure 76: Total abortions in MA residents, 2001 – 2023



In 2023, 61.3% of abortions performed in Massachusetts were to women who already had at least one child. Approximately 52% of women seeking abortions in 2023 were not married. The distribution of abortions by age has been fairly consistent over time. Between 6.6% and 7.4% of all abortions in the state are to residents between ages 15 – 19, approximately 25% to residents between 20 – 24 and 27% to residents between age 25 – 29.[118]

One of the major changes in data reported in 2023 was the addition of telehealth services in which providers could prescribe medication abortion via telehealth appointments. Coupled with increasingly prohibitive policies restricting abortion access in other states, the number of non-Massachusetts residents receiving abortion care via providers increased by more than 470%, from 920 abortions to non-residents in 2022 to 5,288 in 2023. This demand is likely to be sustained, if not increase, over the next three years, suggesting a need to support and expand prescribing services.

STIs and HIV

Sexually transmitted infections (STIs) include bacterial, viral and parasitic infections that are primarily spread through sexual or intimate contact, often, but not exclusively, involving bodily fluids. While all STIs are preventable through strategies like vaccination (for HPV, hepatitis A and hepatitis B) and consistent use of

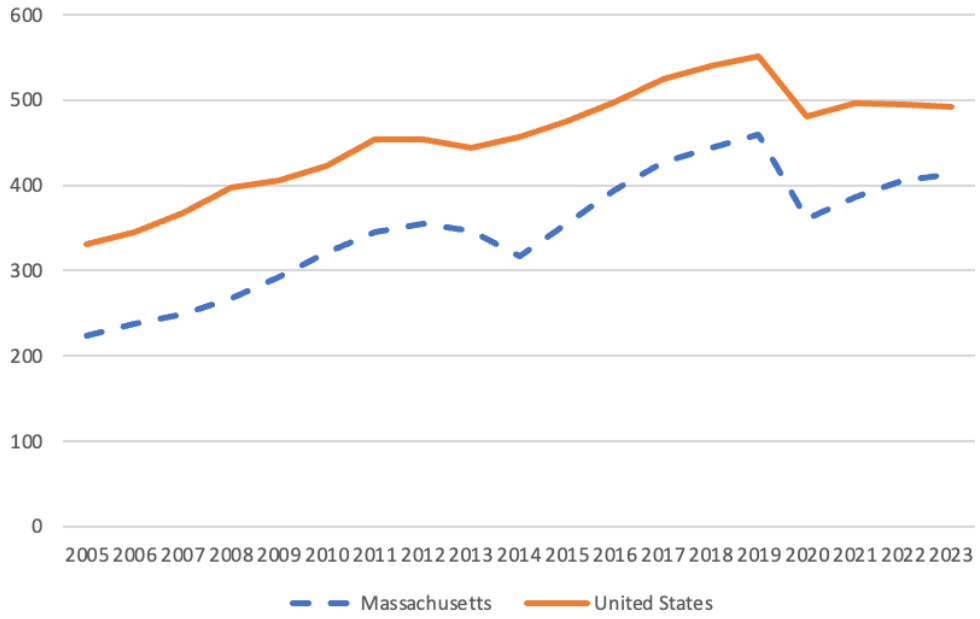
[118]MA ITOP Report, 2021-2023

barrier protection such as condoms, effective prevention and treatment can be difficult to achieve. Stigma, discomfort in discussing sexual health and lack of routine screening often create barriers that contribute to delayed diagnosis and ongoing transmission.

Trends and disparities

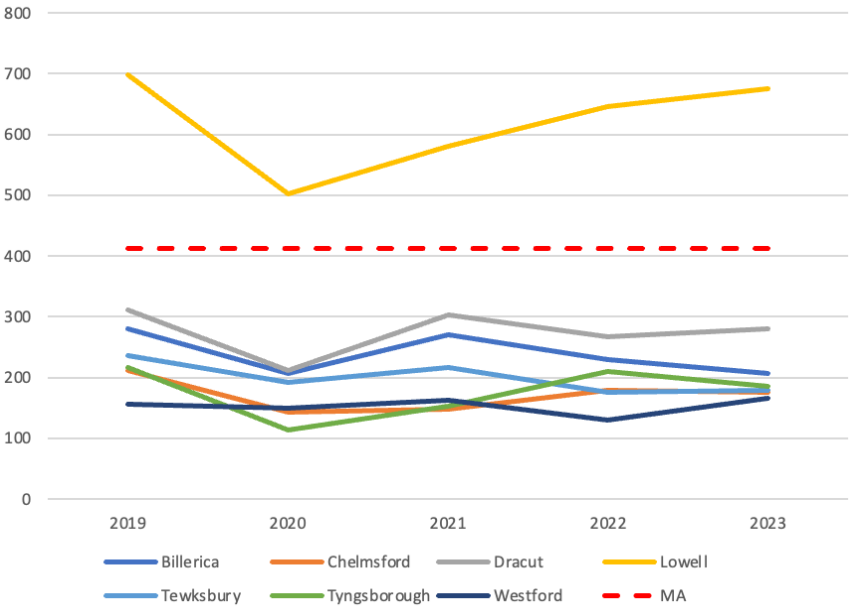
Chlamydia is the most frequently reported STIs in Massachusetts, with more than 28,000 cases reported in 2023.[119] The rate of chlamydia cases has been steadily climbing in Massachusetts, from a rate of 223.3 per 100,000 in 2005 to 412.7 in 2023. (Figure 77).

Figure 77: Chlamydia incidence per year, per 100,000



The incidence rate is lower in Greater Lowell compared to the state (317.6 in Greater Lowell), but the incidence rate for Lowell has consistently been nearly 1.5 times higher than the state rate (675.0 per 100,000 in 2023) (Figure 78).

Figure 78: Chlamydia incidence rate per 100,000, by community, 2019 – 2023

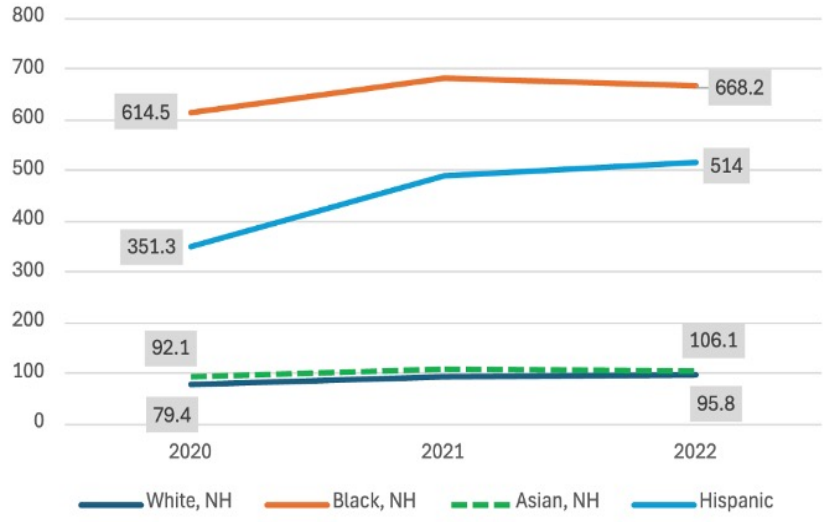


Source: MA DPH BIDLS Number and Rate per 100,000 of Reported Laboratory Confirmed Chlamydia Cases by City/Towns in Massachusetts, 2019-2023

[119]Massachusetts Department of Public Health/Bureau of Infectious Disease and Laboratory Sciences/ Division of STD Prevention, 2023 MA Integrated HIV, STI and Viral Hepatitis Surveillance Report

Racial and ethnic disparities in rates of chlamydia infection are significant at the state level. In 2022, the rate of chlamydia among Black, non-Hispanic residents was nearly seven times higher than the rate of White, non-Hispanic residents; the rate for Hispanic residents was five times higher (Figure 79).

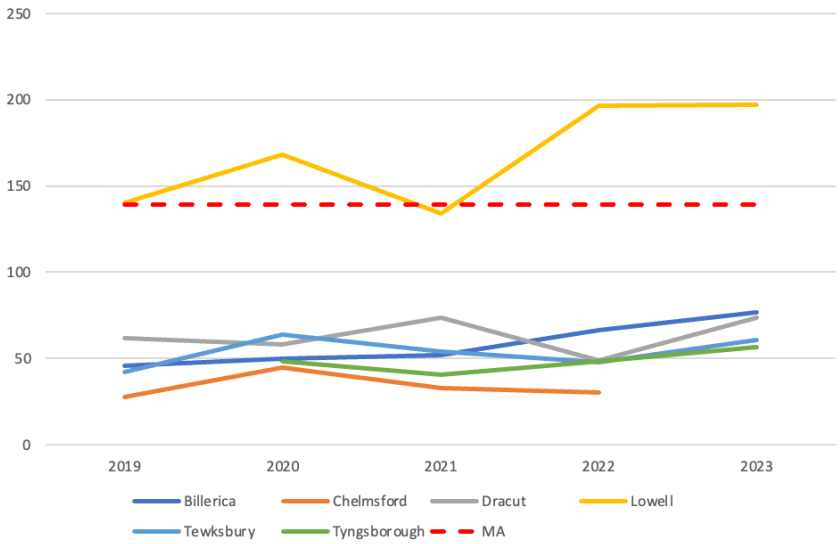
Figure 79: Rates of chlamydia per 100,000 Residents, by race/ethnicity, Massachusetts, 2020 – 2022



Source: CDC, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Atlas

Gonorrhea is a bacterial STI that, if untreated, can cause pelvic inflammatory disease, infertility and ectopic pregnancy. Gonorrhea is especially concerning because the bacteria that causes the infection is resistant to the medications used to treat it. Rates of gonorrhea have been increasing at the state level, from a rate of 67.6 per 100,000 in 2016 to 139.8 per 100,000 in 2023.[120] Local rates of gonorrhea have slightly more variability compared to chlamydia, though Lowell again is the only community with a rate above the state rate (197.3 in 2023) (Figure 80). However, gonorrhea rates have increased by 68% in Billerica and 43% in Tewksbury since 2019, a pace considerably higher than the 24% increase seen at the state level during the same time frame.

Figure 80: Gonorrhea rate per 100,000, by community, 2019 – 2023



Source: MA DPH BIDLS Number and Rate per 100,000 of Reported Laboratory Confirmed Gonorrhea Cases by City/Towns in Massachusetts, 2019-2023

[120]Select Reportable Infectious Disease Data in Massachusetts via PHIT

Gonorrhea rates are increasing more quickly among Massachusetts men compared to women. Since 2010, men have seen a 310% increase in rates of gonorrhea (46.8 to 195.6), while women have seen a 184% increase (29.9 to 85.0).[121] A similar disparity in gender is observable in syphilis infections, with the case rate for men being nearly five times higher than for women (34.7 versus 7.3).

Human papillomavirus (HPV) is a viral infection that can be spread through contact with bodily fluids as well as through skin-to-skin contact. There are many types of HPV, with varying levels of severity. HPV can cause genital warts, as well as several types of cancer. Every year, HPV is responsible for an estimated 36,000 new cancer diagnoses. The HPV vaccine protects against the types of HPV that cause the most significant health outcomes, including cancer.

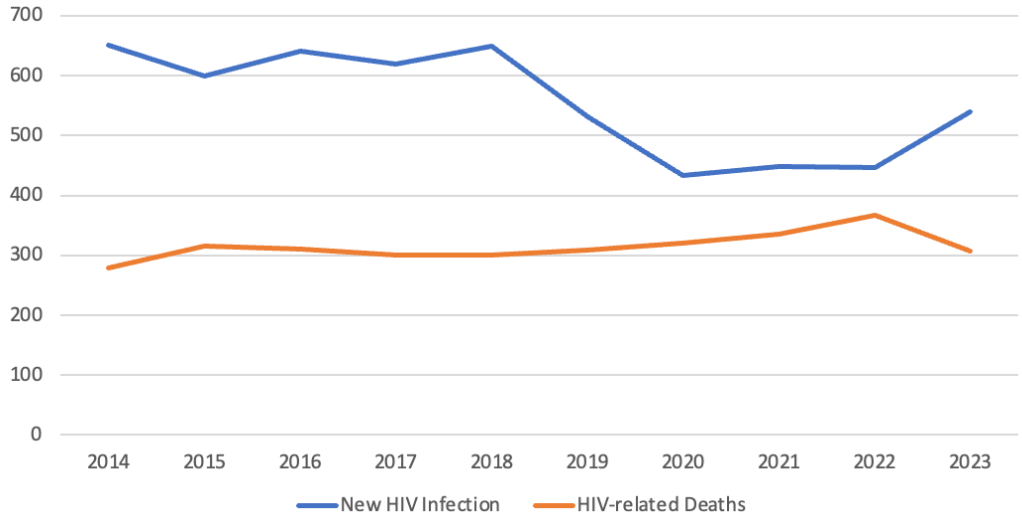
Thanks to high rates of HPV vaccination, the Massachusetts incidence rate of HPV-associated cancers is much lower than the U.S. rate. For example, the 2023 rate of cervical cancer in Massachusetts is 4.8 per 100,000, compared to 7.5 per 100,000 nationally.[122] Massachusetts has the second highest percent of adolescents who have received the HPV vaccine at 82.3%, compared to only 62% nationally.[123]

HIV/AIDS

Human Immunodeficiency Virus (HIV) is a viral infection that weakens the immune system, making it harder for the body to fight off illnesses. HIV is transmitted through contact with certain bodily fluids from a person who has the virus, most commonly during sexual activity or through sharing syringes. Without treatment, HIV can progress to its most advanced stage: acquired immunodeficiency syndrome (AIDS), which severely compromises immune function and increases vulnerability to life-threatening infections and cancers.

In 2023, there were approximately 24,119 people living with HIV in Massachusetts.[124] From 2014 to 2018, the five-year average for new HIV infections was 636 until a sudden decline to 532 in 2019 (Figure 81). In 2020, the number of new HIV infection diagnoses further declined to 434, though this decline was likely also a result of limited access to HIV testing during COVID-19. Most recently, HIV infection diagnoses returned to pre-pandemic levels. During the same time period, the number of HIV-related deaths has remained relatively stable, decreasing by 16% in 2023 after three years of slow increases.

Figure 81: New HIV infections and HIV-related deaths, MA, 2014 – 2023



Source: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences. Massachusetts HIV Epidemiologic Profile, Statewide Report Data as of 7/1/2024

While trends of new infections by sex assigned at birth and transmission method remained relatively stable, notable shifts occurred across race, age and place of birth. Diagnoses declined more sharply among individuals assigned male at birth (18%) than female (13%). By race and ethnicity, the largest decreases were

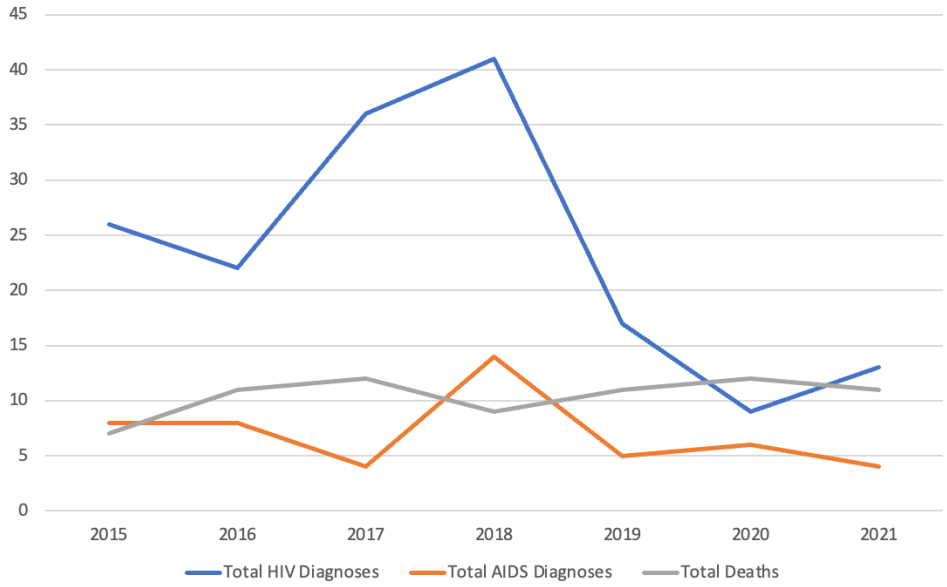
[121]Massachusetts Department of Public Health/Bureau of Infectious Disease and Laboratory Sciences/ Division of STD Prevention and STD-HIV Surveillance
[122]NIH National Cancer Institute State Cancer Profiles https://statecancerprofiles.cancer.gov/incidencerates
[123]U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases, National Immunization Survey-Teen
[124]Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. 2022 via PHIT

seen among Asian/Pacific Islander (53%) and White non-Hispanic individuals (36%). In contrast, rates remained relatively stable among Hispanic/Latinx and Black non-Hispanic populations, who now make up a growing proportion of new cases (32% and 37% respectively, compared to 27% for White individuals).

Age-based trends show a concentration of new HIV cases among younger and middle-aged adults. Diagnoses dropped in most age groups, including those 13 – 29 and 40+, but rose significantly (18%) among adults aged 30 – 39, who now account for 35% of new cases. While transmission via heterosexual and male-to-male sexual contact declined, cases associated with injection drug use (IDU) increased sharply (up 39% from 2019 to 2021) primarily due to a Boston-based cluster among people who inject drugs.

Lowell is one of the Massachusetts communities with higher-than-average rates of HIV infection. After an outbreak cluster associated with injection drug use in 2018, rates of new diagnoses have decreased, and HIV-related deaths have remained steady (Figure 82).

Figure 82: HIV/AIDS trends in Lowell, 2015 – 2021



Source: MDPH Bureau of Infectious Disease and Laboratory Sciences

Of the most recent available data (through December 2021), of the 39 new HIV diagnoses in Lowell, 72% were to people assigned male at birth and 28% were to people assigned female at birth. A majority (53.8%) were people born outside the U.S. Approximately 36% were Black and 18% were Hispanic (numbers less than five in each category are not reported). The primary exposure mode for males was same-sex sexual contact (36%), followed by injection drug use (25%); for females, primary exposure mode, of known risks, was heterosexual sex (83%). Of the 689 Lowell residents living with HIV, 61% are people assigned male at birth. Approximately 64% were born in the U.S. Most are White (29.5%), followed by Black (27.7%), and then Asian (8.4%); approximately one third are Hispanic. A majority of those living in Lowell with HIV are between age 50 and 59 (31.6%), with an additional 28.4% over age 60.

Reproductive disorders

Reproductive disorders encompass a wide range of conditions that affect the reproductive organs, endocrine system and fertility of individuals of all genders. These may include endometriosis, polycystic ovary syndrome (PCOS), uterine fibroids, premature ovarian failure, and disorders of the testes or prostate, among others. While these conditions can impact sexual and reproductive function, they also often cause chronic pain, hormonal imbalances, mental health challenges and barriers to family planning. In Greater Lowell and across Massachusetts, disparities in diagnosis, treatment and access to reproductive healthcare are shaped by factors such as gender, race and ethnicity, income and insurance coverage.

Trends and disparities

Endometriosis is a chronic gynecologic condition in which tissue similar to the uterine lining grows outside the uterus, often on ovaries, fallopian tubes or abdominal organs. It causes symptoms such as chronic pelvic pain, heavy menstrual bleeding, painful intercourse, bowel or urinary symptoms, fatigue and infertility. Roughly 10% of reproductive-aged people with a uterus in the U.S. are affected by endometriosis, translating to around 6.5 million individuals nationally. Among subgroups, prevalence estimates vary: up to 45% in people with chronic pelvic pain, up to 40% in those with infertility, and 2 – 22% even in asymptomatic populations.

Black and Hispanic women are significantly less likely to be diagnosed with endometriosis than White women, even when reporting similar symptoms.[125] Meta-analyses suggest Black women are about 50% less likely, and Hispanic women similarly 40 – 50% less likely, to receive a diagnosis compared with Whites. Despite lower diagnosis rates, true prevalence may be similar across groups; disparities reflect systemic underdiagnosis due to implicit bias, stereotyped narratives, and assumptions around pain tolerance and disease prevalence. Additionally, Black women experience diagnostic delays and are more likely to have perioperative complications, more invasive surgeries (e.g., oophorectomy or hysterectomy) and less access to minimally invasive procedures. Prescription patterns also differ: Black patients with endometriosis are less likely to receive hormonal therapies and adequate pain management medications, even after diagnosis.

Polycystic ovary syndrome (PCOS) is the most common endocrine disorder among women between 18 – 44, affecting between 6 – 12% of the U.S. population.[126] It is characterized by irregular or absent ovulation, elevated androgen and the presence of small, fluid-filled sacs on the ovaries. PCOS causes menstrual irregularities, acne, excessive hair growth, weight gain and fertility challenges.

Prevalence is comparable across most ethnic groups, though the symptoms that PCOS presents varies across races and ethnicities. For example, Black women with PCOS often have increased fasting insulin levels and systolic blood pressure when compared with White women, which suggests that Black women with PCOS have an increased risk of metabolic dysfunction associated with the disorder.[127]

Studies on Asian women often fail to disaggregate between Asian subgroups, creating an incomplete picture of the disorder in this population. For example, a recent study found that the prevalence of PCOS was 15.1%, higher among White and multiracial women compared to Asians (16.0% and 21.8% vs 10.8%, respectively).[128] However, other evidence suggests differing PCOS-related symptoms and disease prevalence between East Asians and South Asians.[129] Data that does not disaggregate between Asian subgroups may fail to capture these distinctions in prevalence. Disparities in prevalence are also influenced by inconsistencies in diagnostic criteria, a challenge that current research is attempting to resolve. This lack of scientific consensus can lead to frustration for patients who are struggling to obtain an accurate diagnosis and subsequent treatment.

Gynecologic and reproductive cancers include cancers of the cervix, uterus, ovaries, fallopian tubes, vulva, vagina, prostate and testis. Together, gynecologic and reproductive cancers make up nearly 40% of all cancer cases and more than 30% of cancer-related deaths among women globally.[130] Cervical cancer is currently the second most common gynecological cancer, with about 600,000 new cases and 342,000 deaths reported worldwide in 2020. Ovarian cancer, while less common, is one of the deadliest, causing more than 200,000 deaths that same year. In the U.S., uterine cancer is on the rise, with more than 66,000 new cases and more than 13,000 deaths expected in 2023.

[125]Bougie et al; Influence of race/ethnicity on prevalence and presentation of endometriosis: a systematic review and meta-analysis. BJOG 2019;126(9):1104-15.
[126]Wolf et al. (2018). Geographical Prevalence of Polycystic Ovary Syndrome as Determined by Region and Race/Ethnicity. International journal of environmental research and public health, 15(11), 2589.
[127]M. Kazemi et al; Disparities in cardio metabolic risk between Black and White women with polycystic ovary syndrome. Am J Obstet Gynecol, 224 (2021), pp. 428-444.e8
[128]Ethnicity and the Prevalence of Polycystic Ovary Syndrome; The Journal of Clinical Endocrinology & Metabolism, Volume 110, Issue 1, January 2025, Pages e32–e43
[129]N. Chahal, et al; Comparison of metabolic syndrome elements in White and Asian women with polycystic ovary syndrome; F S Rep, 1 (2020), pp. 305-315
[130]Ferlay J, Colombet M, Soerjomataram I, et al. Cancer statistics for the year 2020: an overview. Int J Cancer. 2021;149(4):778-789. doi: 10.1002/ijc.33588

Rates of reproductive cancers in Massachusetts are aligned with or lower than national prevalence rates, though disparities by race and ethnicities are present (Table 51). For example, Black residents in Massachusetts experience higher mortality rates than White residents when diagnosed with uterine cancer (7.7 per 100,000 versus 4.5) and prostate cancer (36.3 versus 17.7). Reproductive cancers are especially challenging to diagnose and treat due to embarrassment, fear and stigma associated with discussing symptoms or consenting to screenings.

Table 51: MA incidence and mortality, selected reproductive cancers, by race/ethnicity

		Incidence	Mortality
Corpus and uterine	Total	28.8	4.7
	White, NH	29.5	4.5
	Black, NH	26.2	7.7
	Asian, NH	15.9	2.1
	Hispanic	26.1	3.9
Cervix	Total	5.2	1.1
	White, NH	5	1.3
	Black, NH	8.7	2.3
	Asian, NH	6.6	1.3
	Hispanic	8.1	1.4
Ovary	Total	10.8	6.7
	White, NH	11.2	7.1
	Black, NH	8.3	5
	Asian, NH	8.6	3.4
	Hispanic	7.7	3
Prostate	Total	99.3	18.3
	White, NH	93	17.7
	Black, NH	169.6	36.3
	Asian, NH	51.6	7.1
	Hispanic	111.8	18
Testis	Total	5.7	0.2
	White, NH	6.6	0.3
	Black, NH	1.4	0.2
	Asian, NH	1.9	0.1
	Hispanic	4.8	0.4

Past actions

Since the 2022 CHNA, efforts to address reproductive, sexuality and pregnancy health have included the following:

- Distributed more than $24,000 in funding for community projects related to reproductive, sexuality and pregnancy health via GLHA grants including a $10,000 grant to Girls Inc. for a healthy sexuality project
- Supported the annual GLHA Merrimack Valley Perinatal Health Summit in 2024 and 2025, welcoming more than 170 attendees, speakers and vendors at each event
- Supported the Lowell Doula Academy through the GLHA, which trained 13 multilingual postpartum and full-spectrum doulas

Recommendations

Healthcare system recommendations

- Expand availability of youth-friendly clinics that provide confidential, non-judgmental access to contraception, STI testing and counseling
- Support pharmacies in maximizing use of standing orders to provide over-the-counter emergency contraception and other contraceptive methods without prescription barriers
- Integrate mental health screening and substance use support into prenatal and postpartum care, addressing the increased risk of maternal mental health challenges with unintended pregnancy
- Strengthen linkage to care, retention and adherence support programs to reduce new infections and HIV-related mortality
- Develop provider education initiatives to reduce implicit bias and diagnostic delays for conditions such as endometriosis and PCOS, especially for Black and Hispanic women

Community system recommendations

- Develop culturally responsive, age-appropriate and evidence-based sexual health education programs in schools and community settings that cover contraception, STI prevention, reproductive autonomy, pregnancy intention and reproductive disorders
- Expand home visiting and community health worker programs to provide culturally tailored support for pregnant and postpartum individuals, with special attention to those at higher risk (e.g., unmarried, low-income, disabled)
- Advocate for policies that preserve Massachusetts' robust abortion access, including protection against federal policy shifts and legal uncertainty

Resources

Centralized resource hub	Website	Address (if applicable)
WellConnected	https://wellconnected.net/	
Local health departments		
Billerica Board of Health	https://www.town.billerica.ma.us/169/Board-of-Health	365 Boston Rd., #G03 Billerica, MA 01821
Chelmsford Board of Health	https://www.chelmsfordma.gov/1047/Board-of-Health	50 Billerica Rd., #11 Chelmsford, MA 01824
Dracut Health Department	https://dracutma.gov/204/Health-Department	62 Arlington St. Dracut, MA 01826
Dunstable Board of Health	https://www.dunstable-ma.gov/board-health	511 Main St., PO Box 268 Dunstable, MA 01827
Lowell Health and Human Services Department	https://www.lowellma.gov/274/Health-Human-Services	107 Merrimack St., 4th Floor Lowell, MA 01852
Tewksbury Police Department	https://tewksburypolice.com/	918 Main St. Tewksbury, MA 01876
Tyngsboro Health Department	https://www.tyngsboroughma.gov/189/Health-Department	25 Bryant Ln. Tyngsborough, MA 01879
Westford Health Department	https://www.westfordma.gov/215/Health-Department	55 Main St. Westford, MA 01886
Early childhood services		
Acre Family Child Care	https://acrefamily.org/	327 Gorham St. Lowell, MA 01852
Community Teamwork Inc.	https://www.commteam.org/	155 Merrimack St. Lowell, MA 01852
Healthy Families	https://www.mspcc.org/healthyfamilies/	151 Warren St. Lowell, MA 01852
Lowell Women, Infants and Children (WIC)	https://www.commteam.org/program/women-infants-and-children-wic/	45-47 Kirk St., 1st Floor Lowell, MA 01852
March of Dimes	https://www.marchofdimes.org/	
Maternal Child Health Task Force-Greater Lowell Health Alliance	https://www.greaterlowellhealthalliance.org/health-priorities/task-forces/	55 Technology Dr. Lowell, MA 01851
Project BEAM Early Intervention	https://mypcd.org/early-intervention/	7 Technology Dr., Suite 201 Chelmsford, MA 01863
South Bay Community Services	https://www.southbaycommunityservices.com/	148 Warren St. Lowell, MA 01852
Thom Anne Sullivan Center	https://www.thomchild.org/locations/lowell-anne-sullivan-center/	126 Phoenix Ave. Lowell, MA 01852
Elder services		
Active Day of Lowell	https://www.activeday.com/	345 Chelmsford St. Lowell, MA 01851
AgeSpan	https://agespan.org/	280 Merrimack St., #400 Lawrence, MA 01843
A Place at Home - Merrimack Valley	https://aplaceathome.com/merrimack-valley/	73 Princeton St., #308 North Chelmsford, MA 01863
Atrius Health-Chelmsford	https://www.atriushealth.org/locations/chelmsford	228 Billerica Rd. Chelmsford, MA 01824
Benchmark Senior Living - The Atrium at Drum Hill	https://www.benchmarkseniorliving.com/	2 Technology Dr. North Chelmsford, MA 01863
Billerica Council on Aging	https://www.billericacoa.org/	25 Concord Rd. Billerica, MA 01821

Caregiver Homes		
Chelmsford Senior Center	https://www.chelmsfordma.gov/223/Council-on-Aging-Senior-Center	
Circle Home		
Dracut Council on Aging	https://www.dracutma.gov/522/Council-on-Aging	951 Mammoth Rd. Dracut, MA 01826
D'Youville Life and Wellness Community	https://www.dyouville.org/contact-us/	981 Varnum Ave. Lowell, MA 01854
Element Care	https://elementcare.org/	166 Central St. Lowell, MA 01852
Glenwood Care and Rehab		
Greater Lowell Elder Mental Health Collaborative	https://npalowell.org/npa-members/greater-lowell-elder-mental-health-collaborative-glemhc/	391 Varnum Ave. Lowell, MA 01852
Home Away from Home		150 Industrial Ave. E Lowell, MA 01852
Lowell Senior Center	https://lowellma.gov/373/Senior-Center	276 Broadway St. Lowell, MA 01854
Massachusetts Elder Abuse Hotline	https://seniorcareinc.org/protective-services/	800.922.2275
Senior Helpers of Westford	https://www.seniorhelpers.com/ma/westford/	66 Tadmuck Rd., Suite #2 Westford, 01886
Senior Whole Health	https://www.molinahealthcare.com/members/ma/en-US/pages/home.aspx	1075 Main St. Waltham, MA 02451
Summit Elder Care-Lowell	https://www.summiteldercare.org/	1081 Varnum Ave. Lowell, MA 01854
Tewksbury Council on Aging	https://www.tewksbury-ma.gov/459/Council-on-Aging	175 Chandler St. Tewksbury, MA 01876
Town and Country Healthcare Center		
Tyngsborough Senior Center	https://www.tyngsboroughma.gov/335/Council-on-Aging	169 Westford Rd. Tyngsborough, MA 01879
Visiting Angels Senior Home Care Chelmsford	https://www.visitingangels.com/chelmsford/home?utm_source=gmb&utm_medium=organic&utm_campaign=local	111 Chelmsford St. Chelmsford, MA 01824
Westford Council on Aging	https://westfordma.gov/593/Council-on-Aging	20 Pleasant St. Westford, MA 01886
Employment services		
Greater Lowell Workforce Board	https://masshiregreaterlowell.com/	107 Merrimack St. Lowell, MA 01852
Merrimack Valley Workforce Investment Board	https://www.masshiremvwb.org/	1 Union St. Lawrence, MA 01840
Faith-based organizations		
Bethany Christian Services	https://bethany.org/	2 Mt. Royal Ave., Suite 360 Marlborough, MA 01752
Chelmsford Unitarian Church	https://www.uuchelmsford.org/	2 Westford St. Chelmsford, MA 01824
Christ Jubilee International Ministries	https://christjubilee.com/	101 Smith St., #2613 Lowell MA 01851
Merrimack Valley Catholic Charities	https://www.ccab.org/	70 Lawrence St. Lowell, MA 01852
Salvation Army	https://easternusa.salvationarmy.org/massachusetts/lowell/	150 Appleton St. Lowell, MA 01852
Community garden programs		
Mill City Grows	https://www.millcitygrows.org/	650 Suffolk St., G10 Lowell, MA 01854

Food bank		
Merrimack Valley Food Bank	https://mvfb.org/	1703 Middlesex St. Lowell, MA 01851
Food pantries		
Central Food Ministry	https://www.cfministry.org/	370 W. 6th St. Lowell, MA 01850
Chelmsford Community Exchange		
Christ Church United	https://www.ccudracut.org/	10 Arlington St. Dracut, MA 01826
Christ Jubilee Food Pantry	https://ampleharvest.org/food-pantries/christ-jubilee-food-pantry-10569/	101 Smith St. Lowell, MA
Community Christian Fellowship	https://www.ccflowell.org/	105 Princeton Blvd. Lowell, MA 01851
Dharma Food Pantry		144 Merrimack St., Suite 401, Lowell, MA
Dracut Food Pantry	https://dracutfoodpantry.com/	1934 Lakeview Ave. Dracut, MA 01826
Dwelling House of Hope	https://www.dwellinghouseofhope.org/	125 Mt Hope St. Lowell, MA 01854
Hope Dove	https://hopedoveinc.org/lander	10 Kirk St. Lowell, MA 01852
Lowell Public Schools Pantry-Rogers Street	https://www.lowell.k12.ma.us/	155 Merrimack St. Lowell, MA 01852
Merrimack Valley Catholic Charities	https://www.nmcog.org/merrimack-valley-catholic-charities	672 Suffolk St., Suite 100 Lowell, MA 01854
Open Pantry Greater Lowell	https://theopenpantry.org/	13 Hurd St. Lowell, MA 01852
Tewksbury Community Food Pantry	https://tewksburypantry.org/	999 Whipple Rd. Tewksbury, MA 01876
Westford Food Pantry	https://westfordpantry.org/	20 Pleasant St. Westford, MA 01886
Legal aid services		
Justice Resource Institute CBS	https://jri.org/	160 Gould St., Suite 300 Needham, MA 02494
Merrimack Valley Legal Services, Inc.	https://lawyers.justia.com/legalservice/merrimack-valley-legal-services-inc-9336	35 John St., #302 Lowell, MA 01852
Northeast Legal Aid	https://www.northeastlegalaid.org/	35 John St., #302 Lowell, MA 01852
Multi-service cultural agencies		
African Center of the Merrimack Valley		
African Community Center of Lowell	https://www.acclowell.org/about-us	99 Church St. Lowell, MA 01852
Cambodian Mutual Assistance Association (CMAA)	https://www.cmaalowell.org/	465 School St. Lowell, MA 01851
International Institute of New England-Lowell	https://iine.org/	101 Jackson St., Suite 2 Lowell, MA 01852
Latin American Health Institute		95 Berkeley St., Ste 600 Boston, MA 02116
Massachusetts Alliance of Portuguese Speakers (MAPS)	https://maps-inc.org/	490 Central St. Lowell, MA 01852
PFLAG	https://www.gbpflag.org/	
Recreational services		
Chelmsford Wellness Center		
Greater Lowell YMCA	https://greaterlowellymca.org/	35 YMCA Dr. Lowell, MA 01852
Living My Dream Yoga	www.livingmydreamyoga.com	978.551.4628
Lowell National Historical Parks	https://www.lowellma.gov/1066/Lowell-NHP-Preservation-District	
Lowell Parks and Conservation Trust, Inc.	https://lowelllandtrust.org/	660 Suffolk St., #335 Lowell, MA 01854
Lowell Parks and Recreation		
SLS Fitness	https://www.slsfitness.com/	345 Chelmsford St. Lowell, MA 01851

Shelter and domestic violence services		
Alternative House	www.alternative-house.org	978.937.5777 or 1.888.291.6228 (hotline)
Brigid's Crossing	https://www.findhelp.org/catholic-charities-archdiocese-of-boston--lowell-ma--brigid's-crossing,-lowell/5987792696377344?postal=02130	48 Lawrence St. Lowell, MA 01852 221 Pawtucket Blvd. Lowell, MA 01954
Crescent House Transitional Residence Program	https://www.bedford.va.gov/services/Crescent_Building_Transitional_Residence_Program.asp	15 Veterans Way Lowell, MA 01852
House of Hope	https://houseofhopelowell.org/	812 Merrimack St. Lowell, MA 01854 520 Fletcher St. Lowell, MA 01854
Living Waters, Center of Hope	https://www.livingwaterslowell.org/	10 Kirk St. Lowell, MA 01852
Lowell Transitional Living Center	https://smoc.org/service/lowell-transitional-living-center/	193 Middlesex St. Lowell, MA 01852
Transportation		
LRTA	https://lrta.com/	100 Hale St. Lowell, MA 01851
Youth and adolescents		
Boys and Girls Club of Greater Lowell	https://lbgc.org/	657 Middlesex St. Lowell, MA 01851
Girls, Inc.	https://girlsinclowell.org/	220 Worthen St. Lowell, MA 01852
Greater Lowell Pediatrics	https://www.greaterlowellpediatrics.com/	33 Bartlett St., Suite 305 Lowell, MA 01852 506 Groton Rd., #2 Westford, MA 01886
Healthy Futures		
History UnErased	https://unerased.org/	PO Box 8421 Lowell, MA 01854
Middlesex Partnership for Youth	https://massachusettspartnershipsforyouth.com/	467 Main St. Wakefield, MA 01880
Safe Families for Children	https://safe-families.org/	
Safe Routes to School	https://www.mass.gov/safe-routes-to-school	
Tewksbury Cares		
United Teen Equality Center (UTEC)	https://utecinc.org/	35 Warren St. Lowell, MA 01852
Wayside Youth and Family Support Network	https://www.waysideyouth.org/	1 Frederick Abbott Way Framingham, MA 01701
The NAN Project	https://www.thenanproject.org/	125 Hartwell Ave. Lexington, MA 02421
YWCA of Lowell		
Youth Build	https://www.commteam.org/program/youthbuild/	167 Dutton St. Lowell, MA 01852 417 Canal St. Lawrence, MA 01840
Healthcare services		
Hospital services/primary care and medical specialty care services		
Blue Cross Blue Shield of Massachusetts	https://www.bluecrossma.org/	101 Huntington Ave., Suite 1300 Boston, MA 02199 (corporate address)
Boston Medical Center HealthNet Plan	https://www.bmc.org/boston-healthnet-community-health-centers	529 Main St., Suite 500 Charlestown, MA 02129
CHC Nursing	https://chcnursing.com/	147 Pelham St. Methuen, MA 01844

Circle Health	https://www.tuftsmedicine.org/get-care/locations/lowell-general-hospital/circle-health-tewksbury?utm_source=Yext&utm_medium=Listings%20Management	
Damien Folch Family Practice	https://www.drfolch.com/	35 Village Square Chelmsford, MA 01824
Lowell Community Health Center	https://www.lchealth.org/	161 Jackson St. Lowell, MA 01854
Lowell Crisis Team		
Lowell General Hospital	https://www.tuftsmedicine.org/get-care/locations/lowell-general-hospital	295 Varnum Ave. Lowell, MA 01854
Mass Health	https://www.mass.gov/orgs/masshealth	367 East St. Tewksbury, MA 01876 (enrollment center)
Metta Health Center	https://www.lchealth.org/health-wellness/medical-services/metta-health-center/	161 Jackson St. Lowell, MA 01854
Network Health		101 Station Landing, Medford, MA 02155
Pawtucket Pharmacy		65 School St. Lowell, MA 01854
Tewksbury Hospital	https://www.mass.gov/locations/tewksbury-hospital	365 East St. Tewksbury, MA 01876
Tufts Medicine	https://www.tuftsmedicine.org/?utm_source=Yext&utm_medium=Listings%20Management	800 District Ave., Suite 520 Burlington, MA 01803 (business office)
United Health Care	https://www.uhc.com/	10 Cabot Rd. Medford, MA 02155
Walgreens Pharmacy	https://www.walgreens.com/locator/walgreens-1161+bridge+st-lowell-ma-01850/id=13642	276 Broadway St. Lowell, MA 01854 54 Plain St. Lowell, MA 01851 1161 Bridge St. Lowell, MA 01850
Behavioral health (mental health and substance use)		
Adcare		
Arbour Counseling Services Haverhill	https://arbourhealth.com/	116 Summer St. Haverhill, MA 01830
Baystate Counseling		
Beth Israel-Lahey Behavioral Health Services Jail Diversion Program	www.nebhealth.org	918 Main St. Tewksbury, MA 01876
Billerica Substance Abuse Program		
Bridgewell/Pathfinder	https://bridgewell.org/homeless-housing-services/pathfinder-residential-program/	94 Rock St. Lowell, MA 01854
Brightview	https://www.brightviewhealth.com/	888.502.4571
Bournewood Health Systems		59 Lowes Way, Suite 200 Lowell, MA 01851
Casa Esperanza	https://www.casaesperanza.org/	365 East St., C-2 Saunders Building Tewksbury, MA 01876
Center for Hope and Healing	https://chhinc.org/	15 Hurd St. Lowell, MA 01852
Clean Slate Centers	https://www.cleanslatecenters.com/	360 Merrimack St., Building 9, 3rd floor Lawrence, MA 01843 170 Main St., #G4-G8 Tewksbury, MA 01876
Community Crisis Stabilization Program	https://vinfem.org/services/cbhc/	391 Varnum Ave. Lowell, MA 01854

Column Health	https://recovered.org/rehabs/column-health-3-lowell-ma	77 E Merrimack St., Ste. 22 Lowell, MA 01852
Elmtree Clinic	https://elmtreeclinic.com/page/lowell?utm_source=google&utm_medium=organic&utm_campaign=GBP+lowell	12 Wood St., #2 Lowell, MA 01851
Farnum Center	https://farnumcenter.org/	140 Queen City Ave. Manchester, NH 03103 (mailing address)
Ferreras Counseling and Wellness Center	www.ferrerascounselingwellness.com	Heritage Place - Building 2 439 South Union St., Suite 104 Lawrence, MA 01840
Front-line Community Services	https://frontlinesvs.com/	
Greater Lowell Psychiatric Associates	https://www.greaterlowellpsychassoc.com/	73 Princeton St., Suite 203 North Chelmsford, MA 01863
Habit Opco, Inc.	https://yourfirststep.org/treatment-center/habit-opco-lowell-lowell-ma/	22 Old Canal Dr. Lowell, MA 01851
Institute for Health and Recovery	https://www.healthrecovery.org/	105 Chauncy St., #602 Boston, MA 02111
Into Action Recovery, Inc.	www.intoactionrecovery.org	978.455.4869
Learn to Cope	https://learn2cope.org/	
Life Connection Center		
Riverbend	https://riverbendmv.org/lowell-house-transforms-into-riverbend-as-organization-rebrands/	101 Jackson St., 4th floor Lowell, MA 01852
Lowell Community Justice Support Center Office of Community Corrections - Massachusetts Trial Court	https://www.mass.gov/orgs/office-of-community-corrections	33 E. Merrimack St. Lowell, MA 01852
Lowell Community Opioid Outreach Program (CO-OP)		107 Merrimack St. Lowell, MA 01854 291 Summer St.Lowell, MA 01852 (CO-OP office)
Lowell Emergency Psychiatric Assessments & Services	https://nebhealth.org	391 Varnum Ave. Lowell, MA 01876
Lowell & Lawrence Drug Courts		
Lowell Tobacco Control	https://www.lowellma.gov/350/Tobacco-Control-Division	107 Merrimack St., 4th floor Lowell, MA 01852
MassCALL3	www.drugfreegreaterlowell.org	1009 Main St.
Massachusetts Department of Mental Health	https://www.mass.gov/orgs/massachusetts-department-of-mental-health	Tewksbury, MA 01876 25 Staniford St. Boston, MA 02114
Megan's House	https://themeganhouse.org/	2100 Lakeview Ave., #9 Dracut, MA 01826
Mental Health Association of Greater Lowell	https://nhhealthcost.nh.gov/provider/mental-health-associates-of-greater-lowell/costs/medical	99 Church St. Lowell, MA 01852
Merrimack Valley Sober Living, LLC	https://www.facebook.com/MerrimackValleySoberLiving/	68 Elm St. Lowell, MA 01852
Merrimack Valley Trauma Services	https://mvtraumaservices.com	7 Technology Dr., Suite 204 North Chelmsford, MA 01863
Middlesex Recovery - MAT, Chelmsford	www.middlesexrecovery.com	2 Courthouse Ln. Chelmsford, MA 10824
Northeast Behavioral Health	https://nehs.transformationsnetwork.com/	59 Lowes Way, #400 Lowell, MA 01851 or 280 Merrimack St., Suite 141 Lawrence, MA 01843

Northeast Tobacco Free Partnership	https://makesmokinghistory.org/my-community/community-partnerships/	
Northeast Recovery Learning Community	https://www.nilp.org/nerlc/	20 Ballard Rd. Lawrence, MA 01843
North West Public Health Coalition	https://www.nwcoalition.com/	978.399.2564
Partnerships for Success	www.drugfreegreaterlowell.org	918 Main St. Tewksbury, MA 01876
Place of Promise	https://www.placeofpromise.org/	PO Box 1132 Lowell, MA 01853
Prevention Partners of Northern Middlesex	www.drugfreegreaterlowell.org	1009 Main St. Tewksbury, MA 01876
Recovery Cafe Lowell	www.facebook.com/recoverycafelowell	20 Williams St. Lowell, MA 01852
Samaritans of the Merrimack Valley	https://fsmv.org/programs-overview/mental-health-wellness/samaritans/	430 N. Canal St. Lawrence, MA 01840
Solomon Mental Health Center		391 Varnum Ave. Lowell, MA 01854
Southbay Outpatient and Community Behavioral Health Clinic	https://www.southbaycommunityservices.com/	22 Old Canal Dr. Lowell, MA 01851 Ent. H, 360 Merrimack St., Building 9 Lawrence, MA 01843
Stepping Stones Sober House	www.transitionalhousing.org/li/stepping-stones-sober-house	233 Appleton St. Lowell, MA 01852
Stoney Brook Counseling Center	https://chstherapy.net/	2 Courthouse Ln. Chelmsford, MA 01824
Supporting Moms, Strengthening Families		161 Jackson St. Lowell, MA 01852
Syringe Collection Program (Lowell Health Department)	www.lowellma.gov/1166/Sharps-Needles-Disposal	107 Merrimack St., 4th Floor Lowell, MA 01852
Tewksbury Detox Center	https://bilhbehavioral.org/locations/tewksbury-treatment-center	365 East St., PO Box 728 Tewksbury, MA 01876
Tewksbury Treatment Center	https://bilhbehavioral.org/locations/tewksbury-treatment-center	365 East St., PO Box 728 Tewksbury, MA 01876
The Bridge Club of Greater Lowell	https://www.bridgecluboflowell.org/	33 E. Merrimack St. Lowell, MA 01852
The New England Consortium	www.uml.edu/tnec	600 Suffolk St., Suite 513 Lowell, MA 01854
Transitions Residential Recovery for Adult Men (Beth Israel-Lahey Behavioral Health Services)	https://www.bilhbehavioral.org	291 Summer St. Lowell, MA 01852
Tobacco Free Mass	https://tobaccofreemass.wildapricot.org/	30 Speen St. Framingham, MA 01701
The Phoenix		
Vinfen	https://vinfen.org/	950 Cambridge St. Cambridge, MA 02141
Wayside Lowell	www.waysideyouth.org	73 E. Merrimack St. Lowell, MA 01852
Zack's Team Foundation	www.zacksteam.org	21 Eastview Ave.Billerica, MA 01821
Mental health and substance use hotlines		
Alcoholics Anonymous	978.957.4690	
Narcotics Anonymous	866.624.3578	
Disaster Distress	800.985.5990	
Drug Free Workplace	1.800.WORKPLACE (1.800.9675752)	
Massachusetts Poison Control Center	800.222.1222	
Massachusetts Substance Abuse Information & Education	800.327.5050	
SAMHSA National Helpline	1.800.662.HELP (1.800.662.4357) TTY: 1.800.487.4889	

Suicide Prevention Lifeline	1.800.273.TALK (1.800.273.8255) TTY: 1.800.799.4889 988	
Ambulance services		
Lowell General Hospital-Paramedics		
PRIDEStar EMS	https://pridestartrinity.com/	
Education, advocacy, research and planning organizations		
Academic		
Billerica Public Schools	https://www.billericak12.com/	365 Boston Rd. Billerica, MA 01821
Chelmsford Public Schools	https://chelmsfordschools.org/	230 North Rd. Chelmsford, MA 01824
Dracut Public Schools	https://www.dracutps.org/	2063 Lakeview Ave. Dracut, MA 01826
Greater Lowell Technical High School	https://www.gltech.org/	250 Pawtucket Blvd. Tyngsborough, MA 01879
Innovation Academy Charter School	https://www.innovationcharter.org/	72 Tyng Rd. Tyngsborough, MA 01879
Lowell Adult Education Center	https://www.lowell.k12.ma.us/adulted	408 Merrimack St. Lowell, MA 01854
Lowell Middlesex Academy Charter School	https://www.lmacs.org/	67 Middle St. Lowell, MA 01852
Lowell Public Schools	https://www.lowell.k12.ma.us/	155 Merrimack St. Lowell, MA 01852
Middlesex Community College	https://www.middlesex.edu/index.html	33 Kearney Sq. Lowell, MA 01852
Merrimack Valley Area Health Education Center(AHEC)	https://glfhc.org/ahec-3/	Greater Lawrence Family Health Center 34 Haverhill St. Lawrence, MA 01841
Salem State University	https://www.salemstate.edu/	352 Lafayette St. Salem, MA 01970
Tewksbury Public Schools	https://www.tewksbury.k12.ma.us/	139 Pleasant St. Tewksbury, MA 01876
Tyngsboro Public Schools	https://www.tyngsboroughps.org/en-US	50 Norris Rd. Tyngsborough, MA 01879
University of Massachusetts Lowell	https://www.uml.edu/	220 Pawtucket St. Lowell, MA 01854
Westford Public Schools	https://www.westfordk12.us/	23 Depot St. Westford, MA 01886
Wilmington Public Schools	https://www.wpsk12.com/	161 Church St. Wilmington, MA 01887
Business and community development		
Aramark	https://www.aramark.com/home	110 Glenn St. Lawrence, MA 01843; 45 Dunham Rd. Billerica, MA 01821 300 Martin Luther King Jr. Way Lowell, MA 01852
Coalition for a Better Acre	https://www.coalitionforabetteracre.org/	517 Moody St., 3rd Floor Lowell, MA 01854
Entrepreneurship for All (E for All)- Lowell	https://eforall.org/	175 Cabot St., Suite 310 Lowell, MA 01854
Eastern Bank	https://www.easternbank.com/	50 Central St. Lowell, MA 01852 291 Chelmsford St. Chelmsford, MA 01824 45 Broadway Rd. Dracut, MA 01826
Enterprise Bank	https://www.enterprisebanking.com/Drum-Hill	222 Merrimack St. Lowell, MA 01852 430 Gorham St. Lowell, MA 01852 20 Drum Hill Rd. Chelmsford, MA 01854
Gallagher & Cavanaugh, LLP	http://www.gcattorneys.com/	The Gaslight Building 22 Shattuck St. Lowell, MA 01852
Greater Lowell Chamber of Commerce	https://greaterlowellcc.org/	100 Merrimack St., Suite 410 Lowell, MA 01852
Lowell Telecommunications Corporation	https://www.ltc.org/	246 Market St. Lowell, MA 01852
Marcia Cassidy Communications		
Project Learn	https://projectlearninc.org/	58 Prescott St., C1 Lowell, MA 01852

Philanthropy		
Greater Lowell Community Foundation	https://www.glcfoundation.org/	100 Merrimack St., #202 Lowell, MA 01852
Gambling resources		
National Problem Gambling Helpline	https://www.ncpgambling.org/help-treatment/help-by-state/massachusetts/	1.800.GAMBLER; Text: 800GAM; Chat: 1800gamblerchat.org
Massachusetts Problem Gambling Helpline	https://www.ncpgambling.org/help-treatment/help-by-state/massachusetts/	1.800.327.5050; Text: GAMB to 800327; Chat: gamblinghelplinema.org
Massachusetts Council on Gaming and Health	https://www.ncpgambling.org/help-treatment/help-by-state/massachusetts/	120 Washington St., Suite 202 Salem, MA 01970 617.426.4554
Gamblers Anonymous meetings (faith based)	https://recovery.org/support-groups/gamblers-anonymous/	
American Addiction Center	https://recovery.org/providers/adcare-hospital-2084165452/	107 Lincoln St. Worcester, MA, 01605
Substance Abuse and Addiction Hotline	https://drughelpline.org/	844.289.0879

Tufts Medicine
Lowell General Hospital