

Public Health

9

Introduction

Public Health is a cross-cutting, critical element of this Master Plan, and naturally so, as planning as a practice in the United States originated with a public health purpose – focused on improving environmental quality and supporting reforms in housing (with respect to overcrowding and poor construction) and sanitation.¹ It is a topic whose various aspects are impacted by nearly all of the other chapters discussed in this Plan.

This topic is an important issue for the town, as it strives to embed health and well-being into all its programs and policies, for all residents regardless of age, personal background, or ability. This is emphasized by the vision statement established by its 2018 Strategic Plan:

Westborough – a vibrant, attractive, safe, inclusive, connected, and engaged community – for a lifetime.

Public health includes considerations of safety, inclusivity, and social cohesion, as referenced in this vision. Thus, this chapter encompasses themes of active lifestyles, community health and nutrition, environmental exposures (e.g., pollution and toxicities), mental health, and community cohesion (i.e., integration and having sense of belonging).

1 Ricklin, A. and N. Kushner. (2014). *Healthy Placemaking: Integrating Health into the Comprehensive Planning Process: An analysis of seven case studies and recommendations for change*. Retrieved March 26, 2020, from https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/research/publichealth/pdf/healthyplanningreport.pdf

Planning Context

The following sections discuss public health from the perspectives of past and current planning efforts in Westborough and its larger region. They identify pertinent actions and recommendations, along with their implementation status and current/future applicability.

2003 Master Plan

Though the 2003 Master Plan did not explicitly include public health as chapter, information relevant to various aspects of the community's health and well-being were woven throughout. This is particularly true in the chapters focused on land use, housing, economic development, open space and recreation, and transportation.

The town's accomplishments in implementing the recommendations of the 2003 Master Plan relating to many of the present community health indicators and the town's vision for the future are listed below. Together, they have mitigated health hazards, improved walkability, expanded open space and recreation opportunities, and enhanced transportation and mobility alternatives.

- ▶ Facilitated redevelopment and secured brownfield funding for the Bay State property.
- ▶ Completed downtown streetscape improvements.
- ▶ Explored public transportation and shuttle services in Town, and investigated transportation needs, especially for aging populations.
- ▶ Continued to expand/implement the Charm Bracelet.
- ▶ Explored opportunities to purchase land and easements for conservation and recreation use.

2018 Strategic Plan

This collaborative effort between the Town of Westborough staff and the Board of Selectmen resulted in the establishment of "Critical Success Factors." These factors support the aforementioned vision. Of particular relevance to public health, factors included:

- ▶ Thoughtfully-Planned Built and Natural Environment;
- ▶ Access to Diverse Housing Options;
- ▶ Compassionate Social Services;
- ▶ Proactive Public Safety; and
- ▶ Diverse Cultural and Recreational Opportunities.

Baseline Conditions Analyses

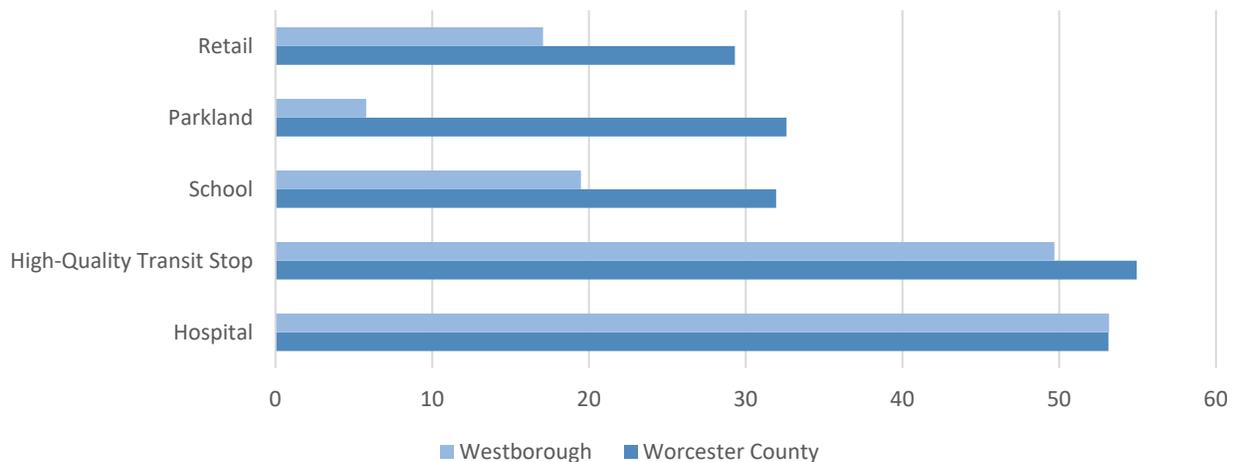
Active Living

Active living is defined by the integration of physical activity and movement into routine activities. The following sections discuss active living in Westborough from the perspectives of the community's walkability and opportunities for other opportunities for non-motorized transport.

Walkability

Walking supports the health of residents through the promotion of physical activity and social connections; it also supports healthy environments by displacing mobile sources of air pollutants, such as automobiles, from local roadways. As an indicator of public health, "walkability" measures the extent to which the physical development of a community promotes or inhibits walking as a mode of transportation or as a social, recreational, or healthy activity. It can be defined quantitatively (e.g., travel time between points of interest, number of amenities that can be reached within a specified amount of time) or qualitatively (e.g., appeal of streetscape). **Figure 9-1** illustrates the average times within Westborough needed to walk to common amenities including retail, parklands, schools, high-quality transit stops, and hospitals; common data are provided for Worcester County for comparison purposes. In all accounts, with exception to hospitals, average walk times are less in Westborough than in the County.

Figure 9-1 Average Walk Time (Minutes) to Nearest Amenities



Source: UrbanFootprint, 2020

Town wide, Westborough performs well with respect to access to parks, retail, and schools; 67.3 percent of residents are within a 10-minute walk to parks, 44.8 percent are within a 10-minute walk to retail, and 37.3 percent are within a 15-minute walk to schools. However,

there is room for improvement with respect to hospital access (4.9 percent within a 20-minute walk) and high-quality transit stops (0.1 percent within a 5-minute walk).²

Walkability in Westborough varies based on geographic location. For example, according to the online neighborhood-rating tool Walk Score (<https://www.walkscore.com/>), walkability in the downtown area is high (Walk Score – 78), whereas, at Westborough Station – the town’s commuter rail station, walkability is low (Walk Score – 4). As noted in the Chapter 3, *Economic Development*, Westborough has focused on certain transit-oriented development (TOD) projects (e.g., Westborough Village, Residences at Westborough Station) to improve access to Westborough Station. An intended co-benefit of this improved access is to relieve local traffic congestion.

In 2019, the town’s Bicycle and Pedestrian Advisory Committee (BPAC) proposed a walkability audit for local routes with the intent of promoting the use of healthy travel options (i.e., walking or biking) for elementary and middle school students. This effort supports the Massachusetts Safe Routes to School (SRTS) Program (<https://www.mass.gov/safe-routes-to-school>). Relatedly, several of Westborough’s Schools, including Armstrong Elementary and the Fales School have celebrated “International Walk to School Day” held annually in October.

Other Mobility Options

Similar to its support for walkability and associated pedestrian needs, the town also supports bicycling to promote active lifestyles. This is exemplified through the work of the BPAC, which aims to work with partners to advance bicycling infrastructure (e.g., bicycle routes, racks, and signage) throughout town and provide associated education. For instance, on its webpage, the BPAC maintains a list of suggested commuter routes for experienced level cyclists.

Additionally, the town is working to advance the Boston Worcester Air Line Trail (BWALT), a regional commuter trail. The proposed route primarily relies on a significant portion of the former Boston and Worcester Air Line Trolley’s private right-of-way that runs along Route 9. As envisioned, the BWALT and its potential branches and spurs, would make connections between the City of Worcester and the City of Framingham.³

Relatedly, the town has issued a letter of intent to the Massachusetts Department of Transportation (MassDOT) to become a complete streets eligible municipality. The Complete Streets Funding Program supports streets that provide safe and accessible options for all travel modes (i.e., walking, biking, transit, and motorized vehicles) for all people of all ages and abilities. As recognized by MassDOT, “the creation of complete streets encourages an active transportation lifestyle and is supported by the United States Centers for Disease Control and the Massachusetts Department of Public Health as a way to

² UrbanFootprint. (2020). Retrieved from <https://urbanfootprint.com/>

³ BPAC. (2016). *Boston Worcester Air Line Trail: A Route 9 Corridor Multi-use Path Concept Plan*. Version 2. Retrieved March 27, 2020, from https://www.town.westborough.ma.us/sites/westboroughma/files/uploads/bwalt_v2.pdf

decrease obesity and reduce risk for chronic diseases (heart disease, arthritis, diabetes, etc.)”⁴

Access to Open Space and Recreation Opportunities

Though there are approximately 0.3 acres of open space per person within the Town of Westborough, the town is continuously investigating opportunities to expand and protect its open space inventory to promote healthy lifestyles and enhance the wellbeing of its residents. Chapter 6, *Open Space and Recreation* provides information on the town’s active and passive recreation resources, including key amenities such as Lake Chauncy and the Westborough Wildlife Management Area.

Community Health and Nutrition

The health status of residents is influenced by many factors. This section addresses factors including residents’ access to health care and healthy foods, as well as disease and illness prevention.

Access to Health Care

When considering health insurance, only 2.6 percent of the population in Westborough is without such coverage. This is much lower than at the national level (10.5 percent) and slightly lower than Worcester County (2.75 percent), but higher than some in neighboring towns (i.e., Grafton, Hopkinton, Northborough, Southborough, and Upton) where less than 2 percent of these populations are without health insurance.⁵ The Massachusetts Health Care Reform Law, enacted in 2006, is a primary reason for the town’s low percentage of uninsured individuals, as it requires that nearly all state residents obtain a minimum level of insurance coverage.

Westborough understands that the health of the community is largely dependent upon the resources available to residents. The town has accordingly dedicated programs to serve the health care needs of different generations in the community, specifically for youth and the elderly. The Department of Youth and Family Services (YFS) connects families with resources concerning health care coverage, referrals, and similar programs. The Council on Aging/Senior Center provides a suite of resources to the senior population, such as transportation for medical appointments, among other errands and activities, medical equipment for borrowing, and health insurance guidance. Notably, a registered nurse is available one-day a week at the Senior Center to assist with health related issues. As part of the public engagement activities conducted during this Master Plan process, many in the community expressed an interest in the town expanding its health care offerings, perhaps through the Board of Health.

There are no general-purpose hospitals in Westborough, though several are close, including UMass Memorial-Marlborough Hospital in Marlborough, and UMass Memorial Medical

4 MassDOT. (2016). *Complete Streets Funding Program Guidance*. Retrieved March 27, 2020, from <https://www.mass.gov/files/documents/2018/08/13/FundingProgramGuidance.pdf>

5 MAPC. (2018). Population with Health Insurance by Gender and Age (Municipal). 2013-2017 American Community Survey 5-Year Estimates. Retrieved March 31, 2020, from <https://datacommon.mapc.org/browser/datasets/204>

Center, UMass Memorial Children’s Medical Center, and St. Vincent Hospital-Worcester in the City of Worcester. Specialty hospitals such as Whitter Rehabilitation Hospital-Westborough in Westborough, and the Worcester Recovery Center and Hospital and Adcare Hospital of Worcester in Worcester also provide local and regional health care services. No urgent care facilities are within the town, but several are located in neighboring communities such as MedPost Urgent Care of Northborough, Carewell Urgent Care Northborough, and AFC Urgent Care Marlborough. Notably, in February 2018, Reliant Medical Group combined local office into a single operation in the Bay State Commons plaza. This facility provides primary and specialty care, including allergy, nutrition, behavioral health, and obstetrics and gynecology, among other services.

In addition to the abovenamed facilities, nursing homes providing health care services to the elderly in Westborough include The Willows at Westborough, White Place at Westborough, Beaumont Rehabilitation and Skilled Nursing Center, and Kindred Transitional Care and Rehabilitation. Local certified home health agencies, which provide home health aides among other services, include Family Lives and Home Care Solutions. Brookhaven Hospice is the only hospice in town.

Access to Healthy Food

Westborough recognizes that a healthy diet can only be maintained if nutritious foods are available and affordable to all residents. Major sources of food for purchase within and proximate to town include Stop & Shop (290 Turnpike Road), Roche Bros. Westborough (Bay State Commons plaza), Target (330 Turnpike Road), Walmart Supercenter (200 Otis Street), and Wegmans (9102 Shops Way in Northborough). Smaller establishments, some of which cater to specific racial and ethnic groups, include Cumberland Farms 45 Lyman Street), India Market (1000 Boston Turnpike in Shrewsbury), and Lil M’s Mart (299 W Main Street in Northborough). Additionally, Nourse Farm, a local food producer located at 80 Jasper Street, offers a farm store as well as a seasonal Community Supported Agriculture (CSA) program, and the Westborough Farmers’ Market – approaching its 10th season - features a range of local food producers on the lawn of the Congregational Church (57 W Main Street) and runs annually from June through September. The provision of nutritious foods to those in need is supported by the Westborough Food Pantry, located in the Forbes Community House (9 E Main Street).

Many of the above sources are located around Route 9 with some located in the downtown area, leaving areas of town to the south with limited food access. Considering Westborough’s aging population, approximately 36 percent of residents that are 65 years and older have poor supermarket access, which is slightly higher than the state estimate at approximately 29 percent.⁶ On a broader scale, as measured by Feeding America, 8.6 percent of the population in Worcester County is food insecure – or has a lack of consistent access to enough food for an active, healthy life, while 11.7 percent of children alone are food insecure.⁷

6 Tufts Health Plan Foundation. (2018). *Massachusetts Healthy Aging Community Profile: Westborough (Worcester)*. Retrieved March 31, 2020, from https://mahealthyagingcollaborative.org/wp-content/themes/mhac/pdf/community_profiles_ci/MA_Towncode_328_Westborough_CI.pdf

7 Feeding America. (2017). 2017 Overall & Child Food Insecurity: Data by County in Each State. Retrieved March 31, 2020, from <https://www.feedingamerica.org/research/map-the-meal-gap/by-county>

With respect to affordability, approximately 3.1 percent of households in town receive food stamps/benefits under the Supplemental Nutrition Assistance Program (SNAP), which is slightly higher than the percent of households in some neighboring towns (i.e., Hopkinton, Northborough, Southborough, Upton) and lower than other neighbors (i.e., Grafton, Shrewsbury). Among these households, 1.6 percent have children under the age of 18.⁸

Illness, Disease, and Prevention

During the planning process for this Master Plan, COVID-19 (or Coronavirus 2019) caused a pandemic of historical proportions that disrupted daily life in Westborough and beyond, and at the time of this writing, infected over XXX,XXX persons globally (including X in Westborough) and resulted in XXXX deaths.⁹ What COVID-19, a respiratory illness, revealed was the critical role municipal governments like Westborough play during a public health crisis to mitigate the impacts of illness and disease. For example, during the COVID-19 pandemic, the town maintained a dedicated website to share information, resources, and best practices. The Board of Health, specifically, monitored and published two weekly reports on residents with confirmed cases, as well as provided similar regional data.

More generally speaking, chronic health conditions such as asthma, diabetes, high blood pressure, and high cholesterol can be indicators of overall community health. According to latest available data from Esri and GfK MRI,¹⁰ the likely demand for prescription drugs treating these conditions among adults in Westborough, along with the county and state, are listed below. For all variables, Westborough has lower rates of likely incidence than the corresponding geographies.

- ▶ Asthma: 4.03 percent (county - 4.24 percent , state – 4.3 percent)
- ▶ Diabetes (non-insulin dependent): 3.24 percent (county – 3.97 percent, 3.84 percent)
- ▶ Diabetes (insulin dependent): 1.58 percent (county -2.13 percent, 1.95 percent)
- ▶ High Blood Pressure: 10.04 percent (county - 12.22 percent, state - 11.62 percent)
- ▶ High Cholesterol: 7.29 percent (county - 8.51 percent, state - 7.97 percent)

Obesity, defined as adults having a body mass index (BMI) greater than or equal to 30 kg/m², is another indicator of community health. For Worcester County, latest available data from the University of Wisconsin Population Health Institute shows the county has a slightly higher obesity rate than the state, 27 percent compared to 25 percent, though this value is lower than the national rate of 29 percent.¹¹ For Westborough specifically, the latest available data derives from the Behavioral Risk Factor Surveillance System (BRFSS) in Massachusetts (2012 - 2014). According to the BRFSS, among adults over 18 years,

8 MAPC. (2018). Foodstamps/SNAP Households by Kids & HH Type (Municipal). 2013-2017 American Community Survey 5-Year Estimates. Retrieved March 31, 2020, from <https://datacommon.mapc.org/browser/datasets/143>

9 [Insert when available.]

10 ESRI and GfK MRI. (2019). 2019 prescription drug use.

11 University of Wisconsin Population Health Institute. (2016). County Health Rankings and Roadmaps: Worcester County. Retrieved March 31, 2020, from <https://www.countyhealthrankings.org/app/massachusetts/2020/rankings/worcester/county/outcomes/overall/snapshot>

Westborough’s obesity rate is 18.2 percent, and a further 39.9 percent are overweight – defined as adults having a BMI greater than 25 kg/m² but less than 30 kg/m².¹²

When considering the youth population in Westborough, the *MetroWest Adolescent Health Survey* for 2018 indicates that 16 percent and 17 percent of students at Gibbons Middle School (Grades 7-8)¹³ and Westborough High School (Grades 9-12),¹⁴ respectively, are overweight or obese. Rates of overweight/obesity have not changed notably among either the middle school or high school students in Westborough since 2008 or 2006, respectively.

Environmental Exposures

All residents of Westborough have a right to live in a healthy environment. **Table 9-1** provides information on key environmental indicators, as supplied by the U.S. Environmental Protection Agency (EPA).¹⁵ Within this table, along with raw values for the town, are average and percentile data for the state, larger EPA region (i.e., Region 1), and the country; percentiles refer to the percentage of the population that has an equal or lower value (i.e., less potential for exposure/risk/proximity to certain facilities).

Table 9-1 Environmental Indicators for Westborough, Massachusetts, EPA Region 1, and the United States

Selected Variable	Westborough	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
PM2.5 levels in air, µg/m ³ annual avg.	6.48	6.24	63	6.34	58	8.3	11
Ozone summer seasonal avg. of daily maximum 8-hour concentration in air in parts per billion (ppb)	41.3	40.7	74	41.1	56	43	35
Diesel particulate matter level in air, µg/m ³	0.273	0.412	30	0.344	<50th	0.479	<50th
Lifetime cancer risk from inhalation of air toxics	26	26	47	25	50-60th	32	<50th
Air toxics respiratory hazard index (ratio of exposure concentration to health-based reference concentration)	0.3	0.33	37	0.31	<50th	0.44	<50th

12 Massachusetts Department of Public Health. (2014). Proportion of Population with Chronic Diseases and Risk Behavior: Westborough. Retrieved March 31, 2020, from <https://www.mass.gov/guides/phit-data-behavioral-risk-factor-surveillance-system-brfss#-explore-these-data->

13 MetroWest Health Foundation. (2018). Highlights from the MetroWest Adolescent HealthSurvey: Gibbons Middle School, Westborough. Retrieved March 31, 2020, from http://westboroughk12.org/UserFiles/Servers/Server_35277/File/PE_Health_Wellness/2018%20MWAHS%20Middle%20School%20Highlight%20Report%20-%20Westborough.pdf

14 MetroWest Health Foundation. (2018). Highlights from the MetroWest Adolescent HealthSurvey: Westborough High School, Westborough. Retrieved March 31, 2020, from http://westboroughk12.org/UserFiles/Servers/Server_35277/File/PE_Health_Wellness/2018%20MWAHS%20High%20School%20Highlight%20Report%20-%20Westborough.pdf

15 EPA. (2019). Environmental Justice Screening and Mapping Tool (Version 2019). Retrieved March 31, 2020, from <https://ejscreen.epa.gov/mapper/>

Table 9-1 Environmental Indicators for Westborough, Massachusetts, EPA Region 1, and the United States (Continued)

Selected Variable	Westborough	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Count of vehicles (average annual daily traffic) at major roads within 500 meters, divided by distance in meters (not km)	1,200	1400	69	930	80	750	84
Percent of housing units built pre-1960, as indicator of potential lead paint exposure	0.27	0.5	25	0.45	31	0.28	60
Count of proposed or listed NPL - also known as superfund - sites within 5 km (or nearest one beyond 5 km), each divided by distance in kilometers	0.38	0.17	90	0.15	91	0.13	93
Count of Risk Management Plan (potential chemical accident management plan) facilities within 5 km (or nearest one beyond 5 km), each divided by distance in kilometers	0.86	0.69	72	0.57	77	0.74	72
Count of hazardous waste facilities (TSDFs and LQGs) within 5 km (or nearest beyond 5 km), each divided by distance in kilometers	1.1	3.3	50	2.4	55	4	66
Risk-Screening Environmental Indicators modeled Toxic Concentrations at stream segments within 500 meters, divided by distance in kilometers	0.012	0.14	90	0.24	87	14	80

Source: EPA, 2019

Based on the information provided in **Table 9-1**, the following is noteworthy. Concerning air quality, it should be reported that Worcester County is currently designated as in "Attainment" in accordance with the Clean Air Act for all criteria pollutants - carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀, PM_{2.5}), and sulfur dioxide (SO₂) – with respect to the National Ambient Air Quality Standards (NAAQS).¹⁶

- ▶ Westborough has higher levels of particulate matter in the air than the state and larger EPA region. Primary and secondary sources of particulate matter involve the combustion of fossil fuels in stationary sources (such as industrial facilities) and mobile sources (such as automobiles and other vehicles with internal combustion engines), among other human activities such as agricultural operations and construction and demolition activities.

¹⁶ EPA. (2020). Current Nonattainment Counties for All Criteria Pollutants. Retrieved March 31, 2020, from <https://www3.epa.gov/airquality/greenbook/andl.html#MA>

- ▶ Westborough has a slightly higher ozone seasonal average of daily maximum 8-hour concentration than the state and larger EPA region. Though not directly emitted into to the air, ozone is influenced by emissions (i.e., oxides of nitrogen and volatile organic compounds) emanating from major sources such as industrial facilities and motor vehicle exhaust, along with gasoline vapors and chemical solvents.
- ▶ Potentially related to variables in the above two bullets, traffic proximity of residents near major roadways in Westborough is much higher that the larger EPA Region and the country, and 69 percent or residents within the state have equal or less proximity to such infrastructure.
- ▶ The town’s Superfund proximity (site count/km distance) is higher than the state, larger EPA region, and the county. The town’s lone Superfund site is Hocomonco Pond (EPA ID MAD980732341). Between 1928 and 1946, the site was home to a wood-treating and preservation facility, whose operations contaminated sediments, surface water, and ground water with creosote. This site, which is owned by the town, is currently being addressed through federal, state, and potential responsible party action. The town has considered several reuse options, including passive recreational use, open space preservation, and utilizing an extant ground water treatment building for the storage of paper copies of municipal documents such as historical plans, permits, etc.¹⁷

Brownfields

Brownfield sites are described by the Massachusetts Department of Environmental Protection (MassDEP) as “a real property whose redevelopment may be complicated by actual or perceived contamination by oil or hazardous materials.”¹⁸ As of December 2018, the MassDEP database of Brownfield sites indicates eleven sites located within Westborough (see **Table 9-2**). At least six of the eleven sites do not appear to have been redeveloped, and may present an opportunity for a strategic land acquisition and/or an economically impactful development.

Table 9-2 MassDEP Brownfield Sites in Westborough, MA

RTN	Site Address	Site Name	Current Owner	Former Use	Current Use
2-0000149	Union St	Bay St Abrasives	Westborough Warehouse LLC	Industrial	
2-0000878	45 East Main St	Sunshine Cleaners	45 East Main Street LLC	Dry Cleaner	Shopping Center
2-0010089	25 Research Dr	Former NE Power Services			
2-0012359	Lyman St	Westboro State Hospital	Commonwealth of Massachusetts		
2-0013004	160 Flanders Rd	Assessors Map 30 Parcels 10A & B	Chapel of The Cross of Southborough Mass	Open Space	Church

17 EPA. (2019). *Fourth Five-Year Review Report for Hocomonco Pond Superfund Site, Westborough, Massachusetts*. Retrieved March 31, 2020, from <https://semspub.epa.gov/work/01/100012246.pdf>

18 MassDEP. (2018). Find Brownfield Sites. Retrieved March 31, 2020, from <https://www.mass.gov/service-details/find-brownfields-sites>

Table 9-2 MassDEP Brownfield Sites in Westborough, MA (Continued)

RTN	Site Address	Site Name	Current Owner	Former Use	Current Use
2-0016312	50 Milk St	Former Vee Arc Building	Town of Westborough		
2-0016451	3 Union St	Former Baystate Abrasives	Aronson & Gordon Linda G & Ida Celia Trsts	Commercial	Repair Gas
2-0015126	87 Adams Rd	Former Quick Farm	Casa Builders and Development	Open Space, Residential	
2-0016877	6 Old Flanders Rd	Rocklawn Realty Corp	Greystone Holdings LLC		Vet Clinic
2-0017637	45 Hopkinton Rd	Webco Engineering	Abend Jay Trustee		Industrial
2-0018474	1 Phillips St	1 Phillips St, Westborough			

Source: MassDEP, 2018

Drinking Water Quality

Access to safe and high-quality drinking water resources is critical to community health and vitality. The Westborough Water Department is committed to monitoring, treating, and distributing a dependable source of potable water to all residents, and the Department issues an annual drinking water quality report to communicate any pertinent information and updates related to the public water system.

According to the *2018 Annual Drinking Water Quality Report*, all water quality contaminant results were found to meet applicable state and federal standards for data collected in the prior calendar year. In November 2018, however, a water sample collected from Chauncy Lake Well #1 tested positive for Total Coliform Bacteria and e-coli bacteria. The appropriate wells were isolated, treated, and re-tested before the system was put back in service.

A Source Water Assessment Program (SWAP) Report was produced for Westborough’s water supply sources by the Massachusetts Department of Environmental Protection (DEP). The Report includes an inventory of land uses within the recharge areas of the public water supply sources for Westborough and evaluates potential risks of these drinking water sources to contamination from the existing land uses. As a result of the recommendations in the report, the Westborough Water Department conducts regular inspections of the drinking water source areas to prevent potential sources of contaminants from entering the supply, and also continues to enhance public education programming to promote awareness of ways the community can help to protect Westborough’s drinking water sources.

Westborough’s Stormwater Management Program includes resources for residents on their website to contribute to this effort, and emphasizes best management practices to help reduce pollutants within the runoff after precipitation events. These include: reducing litter, preventing any dumping into storm drains, minimizing the use of lawn fertilizers, and being responsible with pet waste to dispose properly.

Environmental Vectors for Disease

Eastern equine encephalitis (EEE)

EEE is a rare virus that infects birds, and mosquitos become carriers of the disease, transferring the virus to humans (and other mammals) via their bites. EEE is a serious disease that can cause symptoms of fever, aches, fatigue, and inflammation and swelling of the brain. Though the effects of the virus can be significantly damaging, outbreaks of EEE generally only occur in Massachusetts every 10-20 years, and last about two to three years, according to the Massachusetts Department of Public Health (MDPH). The most recent incidents of EEE in Massachusetts were observed in 2019, when nine cases in humans were confirmed, including in Westborough.¹⁹ In response to EEE, the town – primarily through its Board of Health - has coordinated event scheduling/cancellations, worked closely with MDPH on information sharing, including on disease prevention, and partnered with the Central MA Mosquito Control Project to reduce exposure.

Lyme Disease

According to the Centers for Disease Control and Prevention (2016), Massachusetts is a High Incidence State for Lyme Disease.²⁰ Within the state, however, Worcester County has a relatively low rate of infection. Between 2010 and 2016, the number of case per 1,000 people in the county averaged 0.47; in comparison, Nantucket County averaged 4.11 cases per 1,000 people.²¹

If left untreated, Lyme Disease can cause serious health issues affecting the joints, nervous system, and the heart. Spread by deer ticks, this bacteria can infect humans via tick bite. Activity for young ticks is typically highest in the months of May through July, and activity for adult ticks is highest during the fall and spring (but adults can remain active with temperatures above freezing).²² The town's Board of Health shares information on ticks and tickborne diseases on its website, with links to the MDPH website.

Community Cohesion and Mental Health

Many factors contribute to social cohesion and mental health. The sections below provide information on some of these factors, including building the community connectivity and engagement, substance abuse, and the provision of social services. Other factors, such as housing quality and public safety (e.g., crime, vehicle crashes), are discussed in other elements of this Master Plan.

19 MDPH. (2019). State officials announce 9th human case of EEE in Massachusetts. Retrieved March 31, 2020, from <https://www.mass.gov/news/state-officials-announce-9th-human-case-of-eee-in-massachusetts>

20 CDC. (2018). Map of Lyme disease incidence* categories – United States 2018. Retrieved March 31, 2020, from <https://www.cdc.gov/lyme/datasurveillance/maps-recent.html>

21 News@Northeastern. (2018). How prevalent is Lyme disease where you live? Find out with this interactive map. Retrieved March 31, 2020, from <https://news.northeastern.edu/2018/05/23/how-prevalent-is-lyme-disease-where-you-live-find-out-with-this-interactive-map/>

22 MPDH. (2020). Lyme Disease. Retrieved March 31, 2020, from <https://www.mass.gov/service-details/lyme-disease>

Social Integration and Engagement

As part of this Master Plan process, Westborough residents have applauded the town's strong sense of community and engaging community events. That being said, it is Westborough's priority to continue to increase the community's sense of belonging, reduce isolation and loneliness, and uphold values of equity and inclusion for all residents.

The town's strong sense of community is embodied in its committees, programming and partners. For instance, to promote equity in access and participation in the town's activities and services, Westborough formed the Diversity and Inclusion Committee in 2016. This group is engaged in town events to enhance connections among culturally diverse populations, advocates for language services for non-English speakers, and promotes participation in the U.S. Census, among other duties.

With respect to its departments, the Council on Aging/Senior Center offers programming to bring the aging community together and provide age-friendly access to the town's facilities and services. Additionally, the Recreation Department has a diverse range of programming for both youth and adults, and has expanded its offerings in recent years to engage the town's diverse racial and ethnic backgrounds (e.g., cricket).

Westborough Connects is dedicated to supporting a more-connected town, celebrating the diversity, spirit, and character of Westborough. This organization promotes Kindness Week (held in 2020 between March 29th and April 4th), which looks to spotlight and inspire kind acts to others, oneself, and the earth. Other Westborough Connects programs and activities include, but are not limited to "Chalk the Walks of Westborough Day," "Connect Over Coffee," a speaker series, and a monthly newsletter.

The above efforts are important, particularly as they promote activity among persons living alone and persons identified as minority. According to the *2013-2017 American Community Survey 5-Year Estimates*, 21.2 percent of households in Westborough include persons living alone, and 8.6 percent of households include persons 65 years and older living alone. Amongst the town's total population, as referenced earlier in this Master Plan, 32.6 percent is minority – having a race or ethnicity other than White alone (not Hispanic or Latino).

Substance Abuse

Substance Abuse

Reducing exposures to tobacco and alcohol products, as well as illegal substances, is a key focus of the town, as it looks to reduce dependencies on these substances. Based on BRFSS data from 2012-2014, 9.7 percent of persons 18 and older in Westborough reported habitual smoking and 29.4 percent reported exposure to secondhand smoke.²³ Furthermore, according to data from Esri and GfK MRI (2019), 11.25 percent of adults smoked cigarettes and 3.02 percent smoked electronic cigarettes in the last 12 months, and 2.1 percent used chewing or smokeless tobacco and 2.68 percent used pipe tobacco in the last six months. These values are all smaller than the county, state, and country, with the latter displaying the largest levels of use (17.23 percent for adults who smoked cigarettes, 3.99 percent for adults

23 MDPH. (2014). PHIT Data: Smoking and Secondhand Smoke Exposure. Retrieved March 31, 2020, from <https://www.mass.gov/guides/phit-data-smoking-and-secondhand-smoke-exposure>

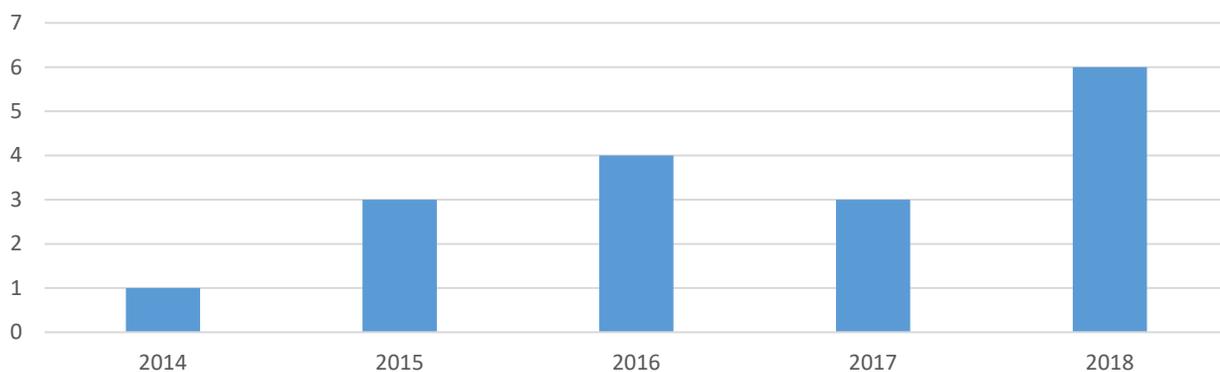
who smoked electronic cigarettes, 2.97 percent for adults who used chewing tobacco, and 3.24 percent for adults who used pipe tobacco).

With respect to the sale and consumption of recreational marijuana – a measure approved by Massachusetts voters in November 2016, Westborough was the first town to “opt out” of hosting the recreational marijuana industry. Resultantly, recreational marijuana shops are banned in the community. Surrounding Westborough, Shrewsbury regulates such establishments with zoning and a retail license cap, Grafton regulates with zoning alone, and Upton regulates with zoning and a retail ban; like Westborough, Northborough, Southborough, and Hopkinton have bans in place. Though towns cannot ban medical cannabis dispensaries, there are no such locations in Westborough; however, several are proximate to the town, including CommCan in Southborough and Garden Remedies, Inc. in Marlborough.

Though no detailed statistics on alcohol consumption are readily available for the town, according to the University of Wisconsin Population Health Institute, among adults in Worcester County, 21 percent of adults drink excessively, compared to 20 percent for the state and 13 percent for the country.²⁴

Across the state of Massachusetts, drug use, specifically opioid use, has been a significant concern for health officials and a top priority for the governmental leaders. The opioid epidemic has hit certain communities harder than others, as exponential increases in unintentional opioid-related overdoses and overdose fatalities, as well as increases in persons seeking substance use treatment, have been evident across the state since the year 2000. Between 2014 and 2018, the number of confirmed opioid-related overdose deaths in the state increased by nearly 48 percent.²⁵ Figure 9-2 represents the number of confirmed opioid-related overdose deaths for Westborough residents between years 2014 and 2018.

Figure 9-2 Opioid-related Overdose Deaths Among Westborough Residents, 2014 - 2018



Source: MDPH, 2020

24 University of Wisconsin Population Health Institute. (2016). County Health Rankings and Roadmaps: Worcester County. Retrieved March 31, 2020, from <https://www.countyhealthrankings.org/app/massachusetts/2020/rankings/worcester/county/outcomes/overall/snapshot>

25 MDPH. (2020). *Number of Opioid-Related Overdose Deaths, All Intents by City/Town 2014-2018*. Retrieved March 31, 2020, from <https://www.mass.gov/doc/opioid-related-overdose-deaths-by-citytown-february-2020/download>

Among the youth in Westborough, the *MetroWest Adolescent Health Survey* for 2018 indicates the following for students at Westborough High School:

- 11.6 percent of students have smoked a cigarette in their lifetime (down from 27 percent in 2006);
- 32 percent have used electronic vapor products (EVPs) in their lifetime (up from 20.5 percent in 2014 – the first year the question was asked);
- 25.4 percent have used marijuana in their lifetime (down from 26.1 percent in 2006);
- 42.1 percent have consumed alcohol in their lifetime (down from 60.4 percent in 2006), with 14.3 percent reporting binge drinking in the last 30 days (down from 24.3 percent in 2006); and
- 4.3 percent have misused prescription drugs in their lifetime (down from 8.4 percent in 2006).²⁶

Mental Health and Social Services

According to the *MetroWest Adolescent Health Survey* for 2018, mental health among students in Westborough is a major concern. Based on responses received, 33.8 percent of students at Westborough High School report that their life was “very stressful” in the past 30 days (up from 24.7 percent in 2006) and 19.9 percent report depressive symptoms in the past 12 months (up from 15.7 percent in 2006). Alarming, 17.2 percent of students performed self-injury in the past 12 month (up from 10.3 percent in 2006) and 15.5 percent considered suicide in the past 12 months (up from 9.1 percent). Mental health is not just a concern for local students, as 31.9 percent and 24.5 percent of persons 65 years and older report depression and anxiety disorders, respectively.²⁷

Westborough recognizes this concern, and accordingly offers related services and programming through YFS. The mission of YFS is to provide counseling and social services to residents and promote behavioral health and wellness for the entire community. Offerings of YFS include, but are not limited to, counseling, depression screening, and the provision of education and prevention resources such as the Youth Diversion Program that provides prevention and intervention services for at-risk youth. Throughout this Master Plan process, the work of YFS was praised and identified as much needed; its services are increasingly in high demand. The department is currently staffed by two full-time and two part-time personnel; additional staffing needs are projected (see Chapter 6, *Public Facilities and Services* for more information).

YFS is affiliated with WestboroughCARES, a group of organizations that offer health and wellness services to residents in need. This coordinated effort also includes the Forbes Kirkside Foundation, In Your Shoes, St. Luke’s Outreach Program, and Westborough Senior Center Outreach. Together, these organizations provide charitable giving, conduct advocacy, manages referrals, and provides education to community members.

26 MetroWest Health Foundation. (2018). Highlights from the MetroWest Adolescent Health Survey: Westborough High School, Westborough. Retrieved March 31, 2020, from http://westboroughk12.org/UserFiles/Servers/Server_35277/File/PE_Health_Wellness/2018%20MWAHS%20High%20School%20Highlight%20Report%20-%20Westborough.pdf

27 Tufts Health Plan Foundation. (2018). *Massachusetts Healthy Aging Community Profile: Westborough (Worcester)*. Retrieved March 31, 2020, from https://mahealthyagingcollaborative.org/wp-content/themes/mhac/pdf/community_profiles_ci/MA_Towncode_328_Westborough_CI.pdf