Community Health Needs Assessment

2021 FINAL REPORT

Milford Regional Medical Center

SUBMITTED BY

HOLLERAN
COMMUNITY ENGAGEMENT RESEARCH & CONSULTING

July 2021

TABLE OF CONTENTS

EXECUTIVE SUMMARY

STUDY BACKGROUND

Beginning in October 2020, Milford Regional Medical Center (MRMC) initiated a comprehensive Community Health Needs Assessment (CHNA) to evaluate the health needs of individuals living in its eighteen-town service area in Massachusetts. The aim of the assessment is to reinforce Milford Regional Medical Center's commitment to the health of residents and align its health prevention efforts with the community's greatest needs. The assessments examined a variety of health indicators, focusing on various health issues affecting the community's different population groups. Milford Regional Medical Center contracted with Holleran Consulting, a research firm based in Wrightsville, Pennsylvania, to execute the CHNA.

Milford Regional Medical Center's Mission Statement:

Milford Regional Medical Center is committed to providing exceptional healthcare services to our community with dignity, compassion and respect.

The completion of the CHNA enabled Milford Regional Medical Center to begin to take an in-depth look at the health of its community. The findings from the assessment were utilized by MRMC to prioritize public health issues and develop a strategic implementation plan focused on meeting community needs. Healthy communities lead to lower health care costs, robust community partnerships, and an overall enhanced quality of life. The Community Health Needs Assessment consisted of several components. The first was a Community Health Profile which included key findings and research complied from secondary data and key informant surveys. Focused research interviews were then held with community experts to uncover additional insights into the health of the community. Finally, community prioritization sessions with members representing the service area were held. This CHNA Final Summary Report is a compilation of the overall findings of each research component.

CHNA Components

- Secondary Data Assessment
- Key Informant Survey
- Focused Research Interviews

Key Community Health Issues

Milford Regional Medical Center, in conjunction with community partners, examined the findings of the Secondary Data, Key Informant Survey, and the Focused Research Interviews to select Key Community Health Issues. The following issues were identified (presented in alphabetical order):

- Dental Care
- Health Care Access/Health Insurance
- Health Outcomes in Worcester County
- Mental Health and Substance Abuse

Prioritized Community Health Issues

Based on feedback from community partners, including health care providers, public health experts, health and human service agencies, and other community representatives, Milford Regional Medical Center plans to focus community health improvement efforts on the following health priorities over the next three-year cycle:

- Health Care Access/Health Insurance
- Health Outcomes in Worcester County
- Homelessness/Food Insecurity
- Mental Health and Substance Use

Previous CHNA and Prioritized Health Issues

MRMC previously conducted a comprehensive CHNA in 2018 and a Community Health Assessment in 2015 to evaluate the health needs of individuals living in the service area. The purpose of the assessment was to gather information about local health needs and health behaviors. The assessment helped MRMC to identify health issues and develop community health implementation plans to improve the health of the surrounding community. The prioritized health issues that were originally identified in the 2015 CHNA were the continued focused in 2018.

Prioritized Health Issues in 2015 and 2018:

- Behavioral Health and Substance Abuse Prevention
- Health Care Access
- Health Promotion and Chronic Disease Prevention
- Violence Prevention

Major Outcomes from the 2018 CHNA Priorities:

- The Dementia Experience: Milford Regional Medical Center worked jointly with Cornerstone at Milford Senior Living to plan and present The Dementia Experience, a program that uses sensory modifications and role-playing activities to depict real-life situations that a person living with mild cognitive impairment or dementia would face. The Dementia Experience thrusts you into the daily life of someone with dementia by simulating the physical ailments afflicting many seniors and created the frustration, confusion and anxiety that accompany cognitive impairment. The program was free to the community and held at the Milford Senior Center.
- Working with Community Health Network Area Region 6 (CHNA 6), a grant was awarded to Riverside Community Care Outpatient Center for a yoga and self-awareness training program to help high school students manage stress and anxiety.
- Milford Regional entered a partnership with Spectrum Health Systems to establish a bridge clinic. The partnership allows for rapid access to medication assisted treatment to patients of the Emergency Department and other Milford Regional affiliated patient care sites. The partnership helps bridge the gap between emergency care and primary care for patients with substance abuse disorder and longer-term addiction treatment.
- Milford Regional Medical Center has established a Recruitment Committee to work on increasing access to primary care physicians and specialists.
    - Since FY2018, Milford Regional has added a total of 83 new primary care physicians and specialists.
- The Steering Committee of CHNA 6 – on which Milford Regional serves – decided to offer Emergency Grants related to COVID-19. These grants were offered monthly in an effort to be responsive in a timely manner to emerging community health needs. From June through September, $122,227.40 was awarded to 14 agencies to fund various programs to address increased food insecurity, to support telehealth services – especially for mental health providers and social service agencies, and many other COVID related needs.
- Milford Regional had planned a program in conjunction with New Hope, Inc. called "In Their Shoes," an immersive program that explored bullying, sexting and dating violence among teens. The program was to be facilitated by New Hope and was designed to immerse participants in various real scenarios to help gain insight about teen interactions with their dating partner, family, friends, teachers, counselors, police and others. The program was scheduled for April, but was unfortunately canceled due to COVID-19.

A full description of outcomes can be found in Appendix J.

Major Outcomes from the 2015 CHA Priorities:

A summary of major outcomes from the 2015 priority areas are included below. Few outcomes were cited by MRMC in the Violence Prevention priority area since 2015. While Violence Prevention was a focus in the broader community, MRMC played more of a direct role over the past three years in the other three priority areas. However, MRMC plans to play bigger role in the Violence Prevention priority area over the next three years.

Behavioral Health and Substance Abuse Prevention

- The Substance Abuse Task Force is following MHA recommendations for opioid prescribing practices and requirements for hospital Emergency Departments (EDs) and implementing prevention and education to help combat the opioid epidemic. Standing orders have been written by the ED physicians for Narcan at the local pharmacies. The Task Force is examining resources in the ED and addressing the need for treatment, recovery, and support for patients and their families.
- A Mental Health Roundtable to discuss barriers to mental health parity was organized by the Office of Joseph Kennedy III and was hosted by MRMC on May 3, 2016. The discussion included key community leaders from Riverside Community Care, Health Care for All, Wayside Inc., Edward M. Kennedy Community Health Center, and Community Impact, Inc.
- Staff has been expanded in the ED to include Behavioral Health Nurses, Patient Safety Assistants, and Clinical Social Workers.
- Behavioral Health has been integrated at area primary care practices. Five Tri-County Medical Associates (TCMA), now known as Milford Regional Physician Group, are integrating/co-locating behavioral health. TCMA also hired its first 2 social workers.
- An average of 423 students receive mental health services annually at the school-based health center at Blackstone Valley Regional Technical High School. This included 551 in school year 2013-2014, 223 in 2014-2015, and 496 in 2015-2016.
- Yourteen.org, a resource for parents in the Greater Milford area, had 3,291 users in FY 2016. Between Sept. 2014 and Oct. 2015 there were 2,665 users and 5,484 page views of the website.

Health Care Access

- The insurance enrollment target was 220 per year according to the last Strategic Implementation Plan (SIP).
  - In FY 2015, 800 patients received enrollment assistance from MRMC Patient Accounts.
  - In FY 2016, 479 applications were processed by CACs at Milford Regional Medical Center.
- Outreach is being conducted in the ED.
  - Between March 2014 and December 2015, 3,961 patients were referred from the ED to Edward M. Kennedy Community Health Center.
  - In FY 2016, 2,579 referrals were made to primary care providers
- Through work with CHNA 6, a Transportation Bus Loop was established. This is a fixed loop bus route with stops strategically placed near doctor's offices, medical clinics, and MRMC, as well as grocery stores and business districts.
- The Blackstone Valley Free Medical Clinic saw a decline in patients needing free care from 747 patients in 2002 to approximately 12 patients before closing in 2014.

Health Promotion and Chronic Disease Prevention

- More than 30 community educational programs were held in FY 2016. Some of these included wellness programs, nutrition programs, cancer prevention and support, educational lectures, diabetes education, and various support groups.
- Living Well Luncheons were held at the Milford Senior Center 5 times a year.
- MRMC has been working with Dana Farber Cancer Committee to introduce a tobacco education program (smoking cessation) to fulfill hospital accreditation requirements and requirements for

the Lung Screening Program. In addition, inpatient Mass Health reimbursement requires counseling in tobacco cessation. Two clinical staff members at Dana Farber have been trained in tobacco education with support from the Oliva Fund through the MRMC Foundation Office.

- A youth fitness program was launched at the Milford Youth Center in spring 2017 starting with a free CrossFit for Kids program. The program is free to all middle-school and high school students enrolled in the After School program at the Milford Youth Center. A six-week CrossFit session was followed by a six-week yoga class. The pilot program was so successful that Kids Zumba was added in spring 2018.
- The Rethink Your Drink campaign was established to decrease the consumption of sugared beverages between 2012 and 2015.
- In summer 2016, more than 70 volunteer hours were provided by 28 MRMC employees at the Summer Food Service Program in Milford for children and their caregivers. This program targets the 44% of kids in Milford eligible for free and reduced lunch during the school year.

A full description of outcomes can be found in Appendix K.

Community Served

For purposes of this assessment, "community" is defined as the city and geographical area in which the medical center is located and the community it serves. Specifically, the service area includes the towns of Bellingham, Blackstone, Douglas, Franklin, Grafton, Holliston, Hopedale, Hopkinton, Medway, Mendon, Milford, Millis, Millville, Norfolk, Northbridge (including Whitinsville), Upton, Uxbridge, and Wrentham.

Previous Studies

In 2018, Milford Regional Medical Center also completed a Community Health Needs Assessment. In 2015, Milford Regional Medical Center completed a Community Health Assessment.

Methodology/Reading the Results

Demographic and health indicator statistics have been collated to portray the current health status of the community in Middlesex, Norfolk, and Worcester Counties, Massachusetts. For all of the statistics provided, the most recently published data at the county level are utilized. For example, if 2020 data are available at the national and state levels, but only 2018 data are available at the county level, 2018 data are utilized at all levels unless otherwise indicated.

For all demographic and health indicator statistics, data from the service area was incorporated as local-level data unless otherwise noted. Due to the availability of data, some of the health indicator statistics represent counts or crude rates only. Crude rates are generally defined as the total number of cases or deaths divided by the total population at risk. A crude rate is generally presented as per populations of 1,000, 10,000 or 100,000 (which will be noted on each table). It is based on raw data and does not account for characteristics such as age, race, and gender.

When available, state and national comparisons are provided as benchmarks for the regional statistics. A national comparison includes United States data when available. The primary data sources used consist of data from the U.S. Census Bureau, Centers for Disease Control and Prevention, Massachusetts

Department of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), and County Health Rankings.

The Community Profile offers a broad, but rich overview of the current health status of the local service area, and is a compilation of secondary data and key informant testimony. Secondary data are comprised of data obtained from existing reputable resources, including the U.S. Census Bureau and Centers for Disease Control and Prevention (CDC). For all demographic and health indicator statistics, data from Middlesex, Norfolk, and Worcester Counties were incorporated. Sources for secondary data are included in a full reference in Appendix A. In addition, definitions for statistical terms used in the report are included in Appendix B. Secondary data represent a point in time study using the most recent data possible. When available, state and national comparisons are provided as benchmarks.

Key informant feedback was gathered from 98 individuals living in and/or working within Milford Regional's service area. Their responses will be found under "Key Informant Perspective" within the report. The table on the following page is a detailed summary of the community sectors represented by key informants. It is important to note that key informant testimony reflects the perceptions of some community leaders, but may not necessarily represent all community leaders within the service area. "Other" responses included several key informants that serve towns and communities surrounding the MRMC's service area. A full list of key informants and the organizations they represent can be found in Appendix C.

Table 1. Key Informant Community Affiliation

	Count	Percent
Health Care/Public Health Organization	22	24.2%
Non-Profit/Social Services/Aging Services	21	23.1%
Government/Housing/Transportation Sector	11	12.1%
Other	11	12.1%
Mental/Behavioral Health Organization	10	11.0%
Education/Youth Services	8	8.8%
Faith-Based/Cultural Organization	6	6.6%
Business Sector	1	1.1%
Community Member	1	1.1%
State/Federal Legislator	0	0.0%

Following the completion of the Community Profile, Holleran conducted Focused Research with 14 local community experts via phone and virtual interviews over a two-week period in February 2021. These individuals have specific knowledge and perspective on the health needs of the community and offered valuable insights into the services available to residents. These individuals represented the local community in a variety of health and human services. The full list of these individuals and the agencies they represent can be found in Appendix E.

The Focused Research portion of the Community Health Needs Assessment allowed the Milford Regional Medical Center to determine which resources were already in existence supporting the needs in the community, as well as those which might enhance and/or supplement the current offerings.

Research Partner

Milford Regional Medical Center contracted with Holleran Consulting (Holleran), an independent research and consulting firm located in Wrightsville, Pennsylvania, to conduct research in support of the CHNA. Holleran has over 25 years of experience in conducting public health research and community health assessments. The firm provided the following assistance:

- Collected and interpreted data from secondary data sources
- Collected, analyzed, and interpreted data from key informant interviews
- Conducted focused research interviews and synthesized findings
- Facilitated prioritization sessions with community leaders
- Prepared all reports

Community Representation

Community engagement and feedback were an integral part of the CHNA process. MRMC sought community input through key informant interviews with community leaders and partners and inclusion of community leaders in the implementation planning process. Public health and health care professionals shared knowledge and expertise about health issues, and leaders and representatives of non-profit and community-based organizations provided insight on the community, including the medically underserved, low income, and minority populations.

MRMC also conducted community information meetings to discuss the findings of the research components. On March 31, 2021 a presentation of the results was made to the Community Benefits Leadership and Advisory Committees via Zoom. The participants were given an abbreviated overview of the results and an opportunity to ask questions and provide further insights. A full list of the participants for that meeting is available in Appendix G.

Additionally, a presentation was made to The Greater Milford Community Health Network (CHNA 6) on May 14, 2021, also via Zoom. The participants were given an abbreviated overview of the results and an opportunity to ask questions and provide further insights. A full list of the participants for that meeting is available in Appendix H.

Prioritization of Needs

Following the completion of the CHNA research, Milford Regional Medical Center prioritized community health issues in collaboration with community leaders and partners, and developed an implementation plan to address prioritized community needs.

KEY FINDINGS

The following section provides key takeaways derived from data highlights found throughout the Community Profile as noted by the Holleran consulting team. While many opportunities exist throughout the report to improve the lives of those in the community, or more specifically in MRMC's service area, several key areas of need have risen to the forefront. Another point of reference in reviewing the key findings can be found in the Community Health Report Card immediately following the Key Findings. This Community Health Report Card highlights statistics that vary between the medical center's service area, counties, Massachusetts and the United States. To be classified as an area of strength, the local figure (either county or service area) must exceed the state and national figure. Consequentially, to be classified as an area of need, the local figure must be unfavorable compared to the state and national figure. It is important to note that not all figures on the Community Health Report Card will have appropriate state and national comparisons because these factors were only asked of the local key informants. Depending on the database, a factor may only have a county-level comparison or a calculated service area comparison. When a comparison is unavailable the cell is omitted.

Mental Health and Substance Abuse

Mental health has been a rising topic in the national dialogue for over the last decade. In a study conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) in 2019, there were an estimated 51.5 million adults aged 18 or older in the United States with a mental illness. This number represented 20.6% of all U.S. adults. In fact, mental health and suicide was selected by key informants as a top health issue in in all age categories, except 0-10 years. In addition, mental health services were chosen, by key informants, as the most needed resource in the community. However, the ratio of population to mental health providers in Middlesex and Norfolk County is similar to Massachusetts and the United States. The ratio in Worcester is unfavorable compared to Massachusetts but better than the national benchmark.

Nationally, the second leading cause of death among young adults (those aged 21 – 40) is suicide. This population makes up over a fifth of Milford Regional Medical Center's total service area population. For young adults, Norfolk County (13.9) and Worcester County (12.6) each have a higher suicide death rate than Massachusetts (11.9). One key informant, expanded on this issue within their comment, "Mental health/Suicide is a serious issue. The health provider's community gets an 'F' for their lack of attention and understanding and most importantly their handling of our youth when it comes to mental health. "

In Worcester County, 14% of adults have experienced 15 or more days of poor mental health in the last month. This exceeds the figures from Middlesex County (11.5%) and Norfolk County (11.7%) as well as the state and national statistics. In addition, nearly a quarter of Medicare beneficiaries told they have a depressive disorder in Worcester County. This is higher than in Middlesex and Norfolk Counties.

According to SAMHSA, in 2019, 3 out of 4 adults with a substance abuse disorder struggled with alcohol use. Binge drinking among adults in the service area is higher than the national average, but similar to the state's figure. In addition, substance abuse was also selected as a top health issue in the community

by key informants, specifically among those aged 21-40. A third of key informants also stated that substance abuse services were missing or lacking in the community.

Over 5% of Medicare beneficiaries struggle with drug or substance abuse in Worcester County. This is higher when compared to Middlesex County (3.4%) and Norfolk County (3.5%). Extrapolated out to MRMC's service area, this is estimated to be about 11,000 people struggling with this issue.

Health Care Access/Health Insurance

It is estimated that 13% of adults in the United States do not have health insurance. In Massachusetts, this number is lower – 3.8%. Uninsured rates in Middlesex, Norfolk, and Worcester Counties average between 7% and 9%. In MRMC's service area there is estimated to be over 20,000 adults without health insurance. Forty percent of key informants state this specific population is underserved.

Over half of key informants state the top barrier for accessing health care is an inability to pay out of pocket expenses. Almost a quarter of key informants state that lack of health insurance is the top barrier. Between 17% and 23% of key informants determine that access to care/uninsured is a top health issue, depending on the age category.

Additionally, nearly a third of key informants state that the availability of providers/appointments is the top health care barrier. Population to provider ratios in Middlesex and Norfolk Counties are favorable when compared to the state and nation. The same ratio in Worcester County is comparable to the state and nation. Around three-quarters of the population in each county have received a routine health check-up in the past year. These figures are similar or higher than the national average.

Dental Care

In 2016, The Centers for Disease Control and Prevention (CDC) estimated that 17% of children and almost a third of adults (31.6%) have untreated dental caries (tooth decay). In each of the counties within the service area, three-quarters of the population have had a routine dental exam within the past year. Fifty percent (50%) of key informants felt free or low cost dental care was a resource that is missing within the community.

Ratios of population to dentists in Middlesex and Worcester County are unfavorable when compared to Norfolk County and Massachusetts.

Health Outcomes in Worcester County

Health outcomes in Worcester County are poor, compared to Middlesex County and Norfolk County. For instance, in Worcester County, the multiple cause of death rate per 100,000 is 908.8 compared to Middlesex County (729.8) and Norfolk County (833.9). This higher death rate corresponds to 6,500 years of lost life per 100,000 people due to death before age 75.

In addition, Worcester County has higher rates of total cancer mortality, as well as bladder, Colon and rectal, esophageal, lung and bronchus, and prostate cancer mortality. Influenza and pneumonia, accidental, perinatal period, and Alzheimer's deaths are also higher in Worcester County, compared to Middlesex and Norfolk Counties.

There is a higher rate of asthma diagnoses in Worcester County, compared to that of Middlesex and Norfolk Counties. In addition, Worcester County also has a higher mortality rate for chronic lower respiratory diseases.

Only 73% of adults in Worcester County have received a routine health check-up in the last year. This is lower than Middlesex and Norfolk Counties. Nearly 10% of adults in Worcester County do not have health insurance.

Worcester County also has a higher percentage of adults reporting poor physical and mental health, as well as Medicare beneficiaries with a depressive disorder. In addition, there are higher percentages of obese adults, current smokers, and diabetics in Worcester County.

Worcester County has a lower Food Environment Index than Middlesex and Norfolk Counties. Relatedly, adults there have a lower exercise rare in Worcester County.

2020 Community Health Report Card
Middlesex, Norfolk, and Worcester Counties, Massachusetts

DOMAIN	INDICATOR	MEASURE	MRMC SERVICE AREA	MIDDLESEX COUNTY	NORFOLK COUNTY	WORCESTER COUNTY	MA	U.S.
Socio-Economic Factors	Language	Population who speak English less than very well	3.4%				9.2%	8.4%
	Income	Population living below 100% the poverty level	4.2%				10.3%	13.4%
		% of unemployed older adults (65-74 years)	6.3%				3.3%	3.3%
	Education	Adults with a bachelor's degree or higher (35-64 years)	51.8%				44.2%	32.7%
	Affordable Housing	Renters spending more than 30% of their income on housing	44.2%				49.5%	49.6%
		Home owners spending more than 30% of their income on housing	23.7%				30.1%	27.8%
	Social Support	Householders living alone	20.3%				28.5%	27.9%
		Most needed resources in the community cited by key informants: *Mental Health Services* *Free/Low Cost Dental Care* *Bilingual Services*	 71.9% 50.0% 43.8%					
	Health Care Access	% of adults without health insurance coverage		7.6%	7.5%	9.6%	3.8%	13.1%
		Adults having received a routine checkup within the past year		75.4%	76.8%	72.7%	74.4%	67.6%
		Population to physician ratio		800:1	790:1	1,010:1	970:1	1,030:1
		Population to mental health providers ratio		170:1	160:1	200:1	160:1	290:1
		Population to dentist ratio		1,020:1	820:1	1,350:1	970:1	1,240:1
		Most prevalent barrier to accessing care cited by key informants: *Inability to pay out of pocket expenses*[a]	51.6%					
		Most prevalent barrier to staying healthy cited by key informants: *Cost of Healthy Foods and/or Gym Memberships*[b]	55.2%					
	Built Environment	Key informants that agree there is sufficient transportation for medical appointments	18.7%					
		Food access and insecurity (Ranking from 1 (worst) to 10 (best))		9.0	9.0	8.6	9.3	8.6
		No exercise in past month		19.0%	19.9%	24.7%	22.4%	23.8%

= Areas of Strength = Areas of Need

[a] Additional barriers included the lack of the lack of transportation, availability of providers/appointments, and a lack of understanding the health care system.
[b] Additional barriers included the lack of a difficulty meeting basic needs, lack of knowledge and skills, and a lack of motivation.

2020 Community Health Report Card
Middlesex, Norfolk, and Worcester Counties, Massachusetts

DOMAIN	INDICATOR	MEASURE	MRMC SERVICE AREA	MIDDLESEX COUNTY	NORFOLK COUNTY	WORCESTER COUNTY	MA	U.S.
Health Behaviors	Physical and Mental Health	Adults reporting poor physical health		9.6%	9.3%	11.5%	9.8%	11.1%
		Adults reporting poor mental health		11.5%	11.7%	14.0%	12.0%	11.8%
		Medicare beneficiaries told they have a Depressive Disorder		21.9%	21.0%	23.9%	22.7%	17.9%
		Obese adults (BMI ≥ 30)		21.1%	23.7%	31.2%	25.7%	30.9%
	Tobacco and Alcohol Use	Adults who currently smoke		12.3%	13.2%	17.6%	13.4%	16.1%
		Adults who binge drink		20.1%	19.0%	19.8%	19.9%	16.2%
	Preventative Screenings	Older adults up to date of a core set of clinical preventatives: *Men*[c] *Women*[d]		24.3% 24.2%	26.9% 23.3%	25.3% 22.9%		
		Older adult women who had a mammogram in the past 2 years		79.2%	80.3%	80.1%	86.7%	78.2%
		Adult women who had a Pap test in the past 3 years		88.2%	87.5%	87.9%	83.2%	80.1%
		Older adults who had a sigmoid/colonoscopy in the past 10 years		71.3%	71.3%	68.6%	77.1%	69.6%
Health Outcomes	Chronic Conditions	Total cancer incidence rate per 100,000		441.1	474.6	470.8	452.7	448.7
		Adults with diabetes		7.0%	7.1%	8.3%	8.6%	11.0%
		Adults with coronary heart disease		4.7%	4.7%	5.4%	4.7%	5.8%
		Adults diagnosed ever with asthma		9.3%	9.4%	10.1%	10.2%	9.4%
		Adults with COPD		4.5%	4.3%	5.4%	5.1%	6.4%
	Premature Death	Years of potential life lost (death before age 75) per 100,000 people		4,400	4,700	6,500	5,700	5,500
	Death Rates	Multiple Cause of Death Rate per 100,000		729.8	833.9	908.8	857.0	867.8
		Total cancer mortality rates per 100,000		140.3	144.6	161.9	149.8	155.5
		Lung and Bronchus cancer mortality rates per 100,000		33.3	36.0	41.7	37.1	38.5
		Prostate cancer mortality rates per 100,000		16.8	17.7	19.8	18.3	19.0
		Influenza and pneumonia death rate per 100,000		15.4	24.8	25.2	20.9	18.1
		Accidents (unintentional injuries) death rate per 100,000		43.8	53.3	62.6	57.5	51.1
		Alzheimer's death rate per 100,000		19.8	28.4	30.8	26.4	37.3

= Areas of Strength = Areas of Need

[c] Flu shot within past year, PPV Shot Ever, Colorectal cancer screening
[d] Flu shot within past year, PPV shot ever, Colorectal cancer screening, and Mammogram past 2 years

COMMUNITY AND HOUSEHOLD DEMOGRAPHICS

In this section:

- Overall Population
- Population Estimates
- Racial Composition
- Veteran and Disability Status
- Housing Tenure and Value
- Household Status
- Key Informant Perspective

Overall Population

Milford Regional Medical Center is located in Worcester County, Massachusetts, near the borders of Middlesex County and Norfolk County. These counties comprise 3 of the 14 counties within the state. With an estimated population of 1,611,699, Middlesex County is the 22nd most populous county in the United States, and the most populous county in both Massachusetts and New England. As of 2019, Worcester County is the second most populated in the state with a population of 830,622, and Norfolk County is the 4th with a population of 706,775.

Figure 1. Map of Massachusetts

Table 2. Milford Regional Medical Center's Service Area

Town	County	Town	County
Bellingham	Norfolk	Mendon	Worcester
Blackstone	Worcester	Milford	Worcester
Douglas	Worcester	Millis	Norfolk
Franklin	Norfolk	Millville	Worcester
Grafton	Worcester	Norfolk	Norfolk
Holliston	Middlesex	Northbridge	Worcester
Hopedale	Worcester	Upton	Worcester
Hopkinton	Middlesex	Uxbridge	Worcester
Medway	Norfolk	Wrentham	Norfolk

Source: Secretary of the Commonwealth of Massachusetts

Population Estimates

The estimated adult population in Milford Regional Medical Center's service area was 247,388. The town of Franklin, in Norfolk County, accounted for 13.4% of the service area, the largest of the eighteen (18) towns that MRMC serves.

Table 3. Total Population (2015-2019)

	Total Population	% of Service Area	Male Population	Female Population
United States	324,697,795	-	49.2%	50.8%
Massachusetts	6,850,553	-	48.5%	51.5%
Bellingham	17,108	6.9%	50.8%	49.2%
Blackstone	9,263	3.7%	49.1%	50.9%
Douglas	8,859	3.6%	51.9%	48.1%
Franklin	33,256	13.4%	48.2%	51.8%
Grafton	18,743	7.6%	48.3%	51.7%
Holliston	14,724	6.0%	48.1%	51.9%
Hopkinton	5,947	2.4%	48.9%	51.1%
Hopedale	17,598	7.1%	48.6%	51.4%
Medway	13,325	5.4%	46.5%	53.5%
Mendon	6,115	2.5%	49.0%	51.0%
Milford	28,883	11.7%	49.7%	50.3%
Millville	8,233	3.3%	48.5%	51.5%
Millis	3,256	1.3%	46.4%	53.6%
Norfolk	11,786	4.8%	60.1%	39.9%
Northbridge	16,582	6.7%	47.3%	52.7%
Upton	7,894	3.2%	50.4%	49.6%
Uxbridge	13,993	5.7%	51.5%	48.5%
Wrentham	11,823	4.8%	51.5%	48.5%
Total MRMC Service Area	**247,388**	**100.0%**	**49.6%**	**50.4%**

Source: U.S. Census Bureau

Table 4. Milford Regional Medical Center's Service Area Population by County

County	MRMC Service Area Population	Percentage of Service Area
Middlesex	32,322	13.1%
Norfolk	95,531	38.6%
Worcester	119,535	48.3%

Source: U.S. Census Bureau

Table 5. Population by Age (2015-2019^; 2014-2018)

	Total Population^	Ages 0 – 9	Ages 10 – 19	Ages 20 – 39	Ages 40 – 69	Ages 70+
United States	324,697,795	12.4%	13.0%	27.1%	37.3%	10.2%
Massachusetts	6,850,553	10.7%	12.5%	27.4%	38.7%	10.7%
Bellingham	17,108	12.2%	11.7%	24.5%	44.2%	7.4%
Blackstone	9,263	8.6%	14.8%	23.4%	45.8%	7.4%
Douglas	8,859	8.7%	20.2%	17.9%	44.4%	8.8%
Franklin	33,256	11.3%	17.3%	20.5%	42.9%	8.0%
Grafton	18,743	11.2%	14.7%	22.6%	43.5%	8.1%
Holliston	14,724	12.0%	15.1%	19.4%	44.5%	8.9%
Hopedale	5,947	8.7%	17.2%	17.8%	44.7%	11.6%
Hopkinton	17,598	13.0%	16.0%	18.1%	45.2%	7.8%
Medway	13,325	11.3%	16.0%	20.2%	42.7%	9.8%
Mendon	6,115	7.4%	18.1%	17.8%	50.1%	6.6%
Milford	28,883	13.9%	11.1%	25.3%	40.3%	9.4%
Millis	8,233	9.2%	14.8%	20.0%	47.4%	8.6%
Millville	3,256	11.9%	13.6%	21.8%	44.9%	7.8%
Norfolk	11,786	11.4%	12.6%	21.4%	46.9%	7.7%
Northbridge	16,582	14.0%	11.0%	25.0%	39.6%	10.4%
Upton	7,894	11.4%	16.5%	20.8%	44.9%	6.4%
Uxbridge	13,993	10.6%	15.2%	23.3%	42.0%	8.9%
Wrentham	11,823	12.8%	15.3%	19.8%	43.3%	8.8%
Total MRMC Service Area	**247,388**	**11.5%**	**14.6%**	**21.5%**	**43.2%**	**8.5%**

Source: U.S. Census Bureau

Racial Composition

The population in Milford Regional's service area is predominantly White (89.4%). As noted below in Table 6, all racial demographics, except White, comprise less than 5% of the population in the service area. The racial profile in the service area is not as diverse as Massachusetts or the nation.

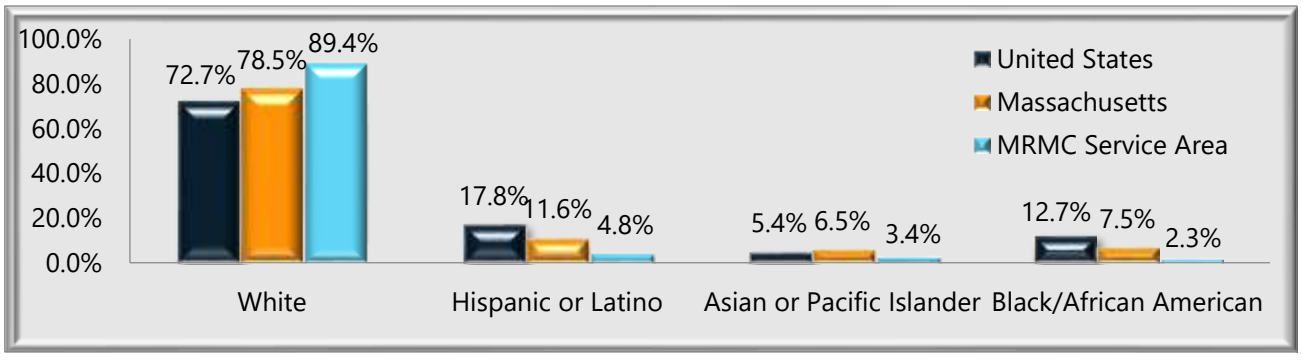
Table 6. Race Alone, Population (2015-2019^; 2014-2018)

	Total Population ^	White	Black/ African American	American Indian/ Alaska Native	Asian or Pacific Islander	Native Hawaiian and Pacific Islander	Some Other Race	Hispanic or Latino (of any race)[a]
United States	324,697,795	72.7%	12.7%	0.8%	5.4%	0.2%	4.9%	17.8%
Massachusetts	6,850,553	78.5%	7.5%	0.2%	6.5%	0.0%	4.2%	11.6%
Bellingham	17,108	93.5%	1.7%	0.0%	1.1%	0.0%	1.3%	2.7%
Blackstone	9,263	95.2%	2.0%	0.4%	0.3%	0.0%	0.6%	2.8%
Douglas	8,859	95.3%	0.3%	0.0%	1.3%	0.0%	0.2%	7.6%
Franklin	33,256	90.4%	1.0%	0.0%	5.6%	0.0%	0.3%	2.3%
Grafton	18,743	82.6%	4.6%	0.0%	7.8%	0.0%	1.6%	6.7%
Holliston	14,724	91.8%	1.3%	0.0%	4.4%	0.0%	0.5%	4.0%
Hopedale	5,947	97.6%	0.6%	0.0%	0.4%	0.0%	0.6%	2.2%
Hopkinton	17,598	86.0%	1.8%	0.2%	9.7%	0.0%	0.5%	2.6%
Medway	13,325	92.3%	2.9%	0.0%	3.0%	0.0%	0.3%	1.2%
Mendon	6,115	93.0%	0.1%	0.0%	1.6%	0.0%	1.2%	1.0%
Milford	28,883	83.0%	2.4%	0.1%	2.8%	0.1%	9.7%	13.5%
Millis	8,233	94.1%	2.1%	0.0%	1.4%	0.0%	2.5%	4.7%
Millville	3,256	97.5%	0.5%	0.0%	0.0%	0.0%	0.2%	1.1%
Norfolk	11,786	85.9%	7.5%	0.4%	1.7%	0.0%	3.0%	8.0%
Northbridge	16,582	91.7%	2.0%	0.2%	1.4%	0.0%	1.2%	6.2%
Upton	7,894	84.2%	6.3%	0.0%	3.1%	0.0%	0.7%	4.4%
Uxbridge	13,993	94.3%	2.1%	0.0%	2.2%	0.0%	0.6%	1.5%
Wrentham	11,823	96.5%	2.6%	0.0%	0.6%	0.0%	0.2%	2.8%
Total MRMC Service Area	**247,388**	**89.4%**	**2.3%**	**0.1%**	**3.4%**	**0.0%**	**1.9%**	**4.8%**

Source: U.S. Census Bureau

[a] Hispanic/Latino residents can be of any race, for example, White Hispanic or Black/African American Hispanic

Figure 2. Racial breakdown of the four major races (2015-2019^; 2014-2018)



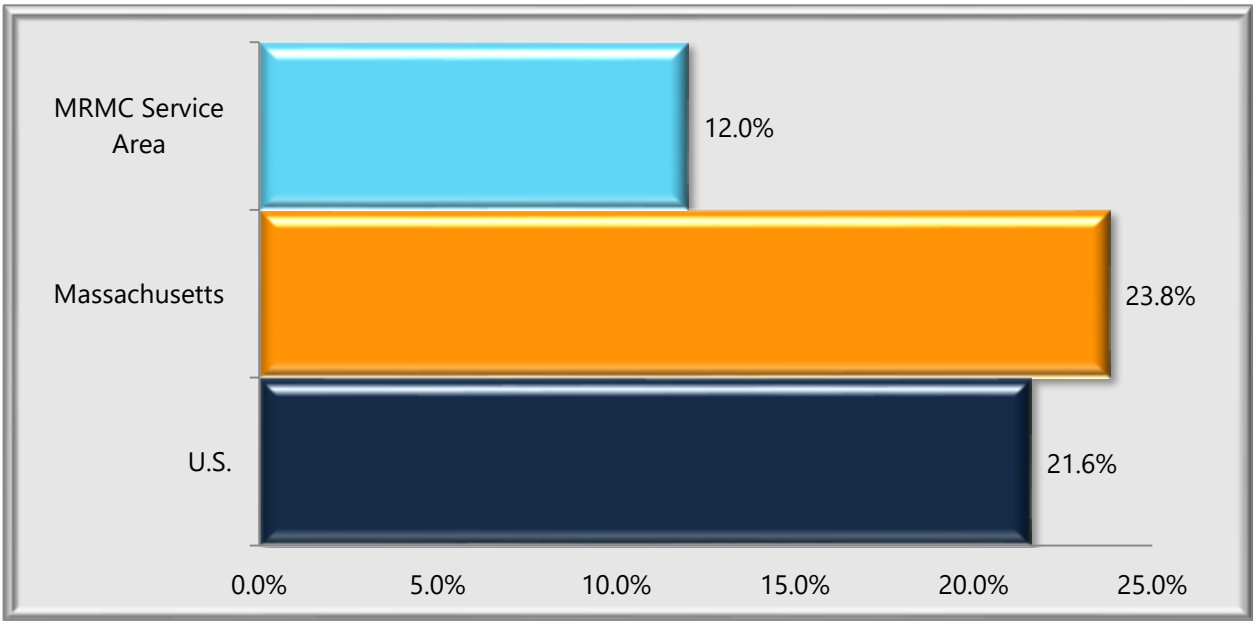
Additionally, in the service area, there tends to be a lower percentage of the population that speaks a language other than English, compared to the state and nation.

Table 7. Language Other than English Spoken at Home, Population 5 Years and Over (2015 - 2019)

	U.S.	Massachusetts	MRMC Service Area
Spoken language other than English	21.6%	23.8%	12.0%
Speak English less than "very well"	8.4%	9.2%	3.4%

Source: U.S. Census Bureau

Figure 3. Percentage of population speaking language other than English (2015 - 2019)



Veteran and Disability Status

The area surrounding Milford Regional tends to have fewer veterans aged 18 to 34 compared to the state and nation. However, figures from those aged 35 years or older are similar to the figures from Massachusetts and the nation. Regardless of age, those in the service area have a slightly lower chance of being disabled, compared to the state and nation. ***Those aged 75 years of older are more likely to have a hearing disability when compared to the state and nation.***

Table 8. Veteran Population (2015 - 2019)

	Veteran Population Total	Veteran Population 18 to 34 Years	Veteran Population 35 to 54 Years	Veteran Population 55 to 64 Years	Veteran Population 65 to 74 Years	Veteran Population 75 Years and Over
United States	7.3%	8.8%	23.5%	17.8%	26.4%	23.5%
Massachusetts	5.5%	7.1%	19.0%	16.5%	26.6%	30.6%
Bellingham	8.5%	9.9%	23.7%	22.1%	26.0%	18.3%
Blackstone	7.8%	1.8%	27.5%	28.6%	31.6%	10.5%
Douglas	6.6%	3.8%	39.6%	21.4%	22.7%	12.5%
Franklin	5.2%	4.1%	25.3%	18.5%	21.9%	30.3%
Grafton	6.1%	5.2%	21.2%	13.6%	23.7%	36.3%
Holliston	5.0%	9.0%	18.1%	1.4%	44.1%	27.3%
Hopedale	7.8%	2.8%	27.0%	19.9%	18.5%	31.8%
Hopkinton	5.3%	2.0%	22.1%	16.5%	31.0%	28.4%
Medway	3.8%	0.0%	9.7%	28.0%	16.2%	46.1%
Mendon	5.7%	0.0%	25.4%	16.7%	36.7%	21.2%
Milford	5.5%	10.2%	21.5%	11.9%	29.8%	26.6%
Millis	4.5%	0.0%	11.1%	20.8%	47.2%	20.8%
Millville	5.8%	4.2%	26.4%	27.8%	15.3%	26.4%
Norfolk	5.8%	8.9%	31.2%	16.0%	30.2%	13.7%
Northbridge	7.5%	7.5%	23.9%	15.4%	27.4%	25.8%
Upton	5.6%	5.1%	10.2%	12.7%	47.0%	25.0%
Uxbridge	6.9%	4.5%	35.9%	20.4%	19.1%	20.1%
Wrentham	6.4%	6.4%	20.9%	23.2%	25.4%	24.0%
Total MRMC Service Area	**6.0%**	**5.7%**	**23.9%**	**17.8%**	**27.6%**	**25.0%**

Source: U.S. Census Bureau

Table 9. Disability Status, Population 18 years and Under (2015 - 2019)

	Any Disability	Hearing Disability	Vision Disability	Cognitive Disability	Ambulatory Disability	Self-Care Disability	Independent Care Disability
United States	**4.2%**	0.6 %	0.8%	4.2%	0.6%	1.0%	N/A
Massachusetts	**4.5%**	0.5%	0.6%	4.6%	0.6%	1.0%	N/A
Total MRMC Service Area	**3.9%**	0.6%	0.6%	3.6%	0.7%	1.1%	N/A

Source: U.S. Census Bureau

Table 10. Disability Status, Population 18 years to 34 years (2015 - 2019)

	Any Disability	Hearing Disability	Vision Disability	Cognitive Disability	Ambulatory Disability	Self-Care Disability	Independent Care Disability
United States	**6.3%**	0.9%	1.2%	4.0%	1.3%	0.9%	2.5%
Massachusetts	**6.0%**	0.7%	0.9%	4.2%	1.0%	0.7%	2.4%
Total MRMC Service Area	**5.1%**	1.1%	0.8%	3.1%	0.4%	0.4%	1.9%

Source: U.S. Census Bureau

Table 11. Disability Status, Population 35 years to 64 years (2015 - 2019)

	Any Disability	Hearing Disability	Vision Disability	Cognitive Disability	Ambulatory Disability	Self-Care Disability	Independent Care Disability
United States	**12.6%**	2.7%	2.4%	4.7%	7.0%	2.3%	4.4%
Massachusetts	**10.6%**	2.0%	1.7%	4.5%	5.4%	2.0%	3.8%
Total MRMC Service Area	**6.9%**	1.9%	1.2%	2.6%	3.1%	1.2%	2.3%

Source: U.S. Census Bureau

Table 12. Disability Status, Population 65 years to 74 years (2015 - 2019)

	Any Disability	Hearing Disability	Vision Disability	Cognitive Disability	Ambulatory Disability	Self-Care Disability	Independent Care Disability
United States	**24.8%**	9.0%	4.2%	5.2%	15.1%	4.2%	7.4%
Massachusetts	**21.3%**	7.8%	3.1%	4.7%	12.2%	3.6%	6.5%
Total MRMC Service Area	**16.4%**	6.9%	2.7%	3.2%	8.9%	2.4%	5.2%

Source: U.S. Census Bureau

Table 13. Disability Status, Population 75 years and Over (2015 - 2019)

	Any Disability	Hearing Disability	Vision Disability	Cognitive Disability	Ambulatory Disability	Self-Care Disability	Independent Care Disability
United States	**48.4%**	22.0%	9.3%	13.4%	31.7%	13.1%	24.0%
Massachusetts	**46.5%**	21.4%	8.0%	11.9%	29.4%	13.0%	23.4%
Total MRMC Service Area	**46.4%**	23.7%	8.5%	11.3%	29.0%	11.7%	21.9%

Source: U.S. Census Bureau

Housing Tenure and Value

The majority of residences in the service area are occupied by the owner. The percentage of those that own their residence in the service area (80.1%) is higher than the state and national figures. Owner costs with and without a mortgage are similar to the state but higher than the nation. In addition, ***the percentage of homeowners spending more than 30% of their income on their mortgage/owner costs (2.7%) and rent (44.2%) is lower in the services area than the state and nation.*** Thirty percent (30%) of a household's total income is considered the cut off for housing-cost burden and avoiding financial hardship.

The median rent in the service area is $1,177, which is 8.2% lower than Massachusetts ($1,282). Both are higher than the nation ($1,062). Adults spending 30% or more of their income on a mortgage or rent are considerable lower in the service area, when compared to the state and nation.

Table 14. Housing Tenure (2015 - 2019)

	United States	Massachusetts	MRMC Service Area
Owner-occupied Residences	64.0%	62.4%	80.1%
Renter-occupied Residences	36.0%	37.6%	19.9%

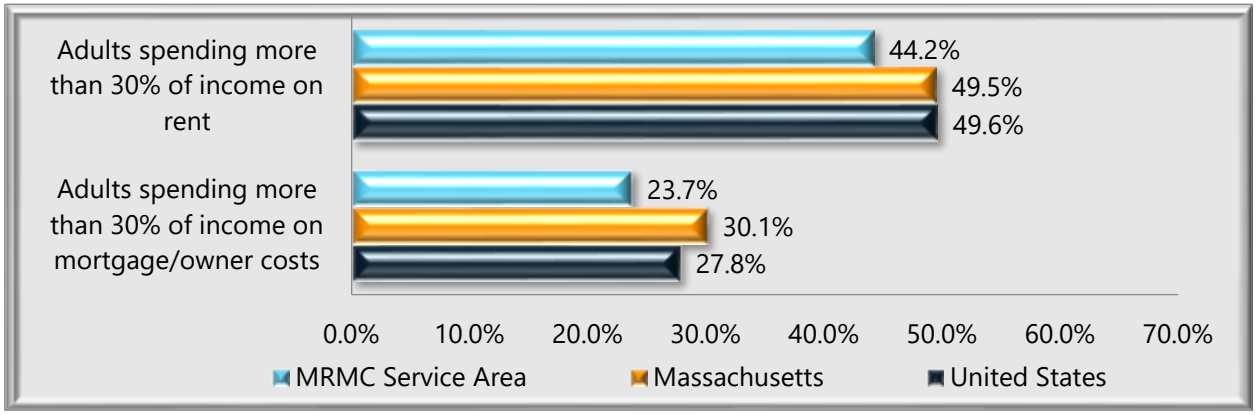
Source: U.S. Census Bureau

Table 15. Housing Value and Costs (2015 - 2019)

	United States	Massachusetts	MRMC Service Area
Median Home Value	$217,500	$381,600	$378,850
Median Monthly Owner Costs With a Mortgage	$1,595	$2,225	$2,345
Median Monthly Owner Costs Without a Mortgage	$500	$812	$852
Median Rent	$1,062	$1,282	$1,177
Adults spending more than 30% of income on mortgage/owner costs	27.8%	30.1%	23.7%
Adults spending more than 30% of income on rent	49.6%	49.5%	44.2%

Source: U.S. Census Bureau

Figure 4. Adult Housing costs greater than or equal to 30% of income (2015 – 2019)



Household Status

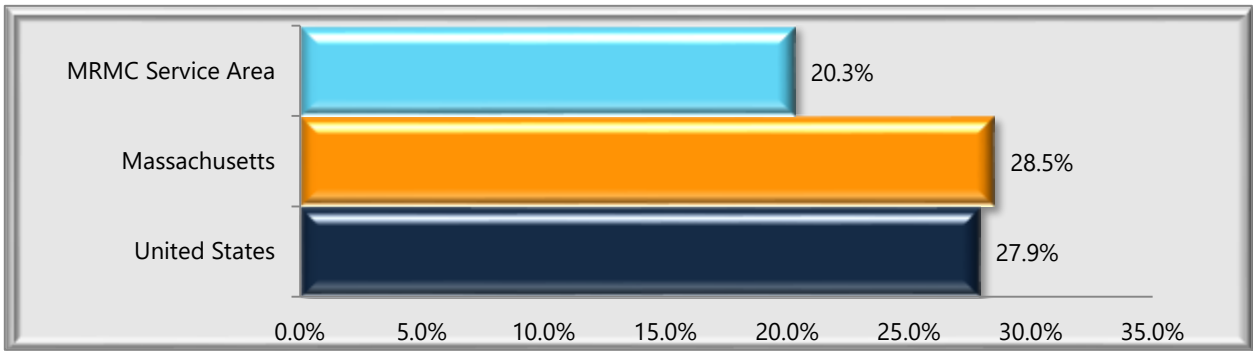
Households are identified as either family households or non-family households. In the service area, 74.5% live in family households. This percentage is higher when compared to Massachusetts (63.4%), and the nation's figure of 65.5%. ***Furthermore, of those living in a non-family home, 20.3% are living alone.*** The service area figure is notably lower when compared to the percentage of those who live alone in the state (28.5%) and across the nation (27.9%). Living alone generally results in a higher risk for social isolation.

Table 16. Households by Type (2015 - 2019)

	United States	Massachusetts	MRMC Service Area
Family Households	65.5%	63.4%	74.5%
Non-family Households	34.5%	36.6%	25.5%
Householder Living Alone	27.9%	28.5%	20.3%

Source: U.S. Census Bureau

Figure 5. Householders living alone (2015 – 2019)



In regard to marital status, over 50% of adults in the service area are currently married, which is higher than adults in the state (46.6%) and nation (48.1%). ***Divorce rates, as well as those widowed or separated, are lower when compared to the state and nation.*** Adults in the service area also have a lower percentage of those who were never married.

Table 17. Marital Status (2015 - 2019)

	United States	Massachusetts	MRMC Service Area
Now Married, except separated	48.1%	46.6%	57.6%
Widowed	5.8%	5.5%	5.1%
Divorced	10.9%	9.5%	8.5%
Separated	1.9%	1.6%	1.4%
Never Married	33.4%	36.8%	27.5%

Source: U.S. Census Bureau

Less than 1% of grandparents in the service area live with 1 or more grandchild(ren) under 18 years. Of those that live with grandchildren, over 16% are solely responsible for them. This figure is higher than the state and nation.

Table 18. Responsible for Grandchildren Under 18 Years (2015 - 2019)

	United States	Massachusetts	MRMC Service Area
Living with Grandchild(ren)	0.9%	0.8%	0.6%
Responsible for Grandchild(ren)	14.5%	15.2%	16.4%

Source: U.S. Census Bureau

Key Informant Perspective

Health Care Access

Key informants were asked to comment on the community's ability to access to certain types of health care. According to the majority of key informants, residents are able to access a primary care providers and medical specialists when needed but, ***over 71% of key informants disagree that there is a sufficient number of mental/behavioral health providers in the area***. Only 48% of key informants agree residents are able to access a dentist when needed. In addition, transportation for medical appointments and a sufficient number of multilingual providers is lacking, according to over 50% of key informants. Respondents are split on if there are a sufficient number of providers accepting Medicaid and Medical Assistance in the area

Table 19. Health Care Access Statements According to Key Informants

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Residents in the area are able to access a primary care provider when needed (Family Doctor, Pediatrician, General Practitioner)	5.3%	13.7%	16.8%	57.9%	6.3%
Residents in the area are able to access a medical specialist when needed (Cardiologist, Dermatologist, Neurologist, etc.)	3.1%	18.8%	18.8%	54.2%	5.2%
Residents in the area are able to access a dentist when needed	6.4%	18.1%	27.7%	44.7%	3.2%
There are a sufficient number of providers accepting Medicaid and Medical Assistance in the area	12.5%	24.0%	32.3%	28.1%	3.1%
There are a sufficient number of multilingual providers in the area	16.7%	33.3%	38.5%	10.4%	1.0%
There are a sufficient number of mental/behavioral health providers in the area	27.4%	44.2%	21.1%	6.3%	1.1%
Transportation for local medical appointments is available to area residents when needed	7.3%	42.7%	31.3%	15.6%	3.1%

ECONOMY AND EDUCATION

In this section:

- Income and Poverty Status
- Employment
- Education

Income and Poverty Status

The following table (Table 19) depicts the households earning an income for each location in the service area and the entire service area. ***Those in the service area are earning more than the state and national averages.***

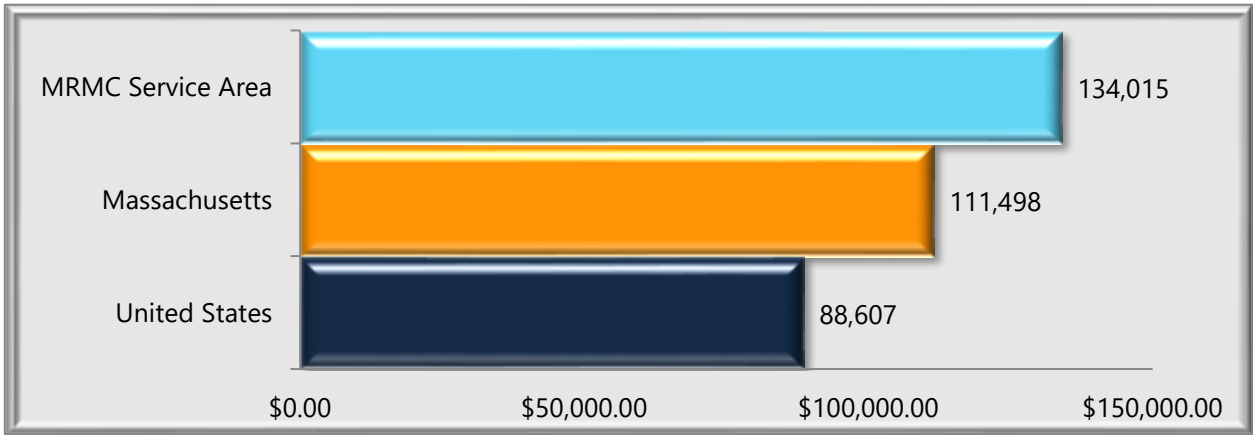
In general, those in the MRMC service area are less likely to live in poverty when compared across the nation. The federal poverty level represents the dollar amount below which a household has insufficient income to meet minimal basic needs. The federal poverty level may also be reported as a percentage. Households that are below 100% of the poverty level have an income less than the amount deemed necessary to sustain basic needs ($12,760/year). Households at 100% to 149% of the poverty level have an income 1.0 to 1.49 times the necessary amount. ***In the service area, approximately 4% of the population has an income below 100% of the federal poverty level.*** This figure is below the national and state metrics. However, 10% of those in Milford town are living in poverty. This is the highest percentage among locations within MRMC's service area. Over 10,000 people are estimated to be living in poverty within Milford Regional's service area.

Table 20. Household Earnings and Poverty Status (2015 - 2019)

	Mean Household Income (in dollars)	Median Household Income (in dollars)	Population Below Poverty Level
United States	88,607	62,843	13.4%
Massachusetts	111,498	81,215	10.3%
Bellingham	118,155	101,477	3.2%
Blackstone	105,004	95,375	3.8%
Douglas	117,784	99,943	3.5%
Franklin	148,748	122,607	4.0%
Grafton	125,226	106,250	5.3%
Holliston	166,861	135,340	2.1%
Hopedale	114,492	108,294	4.0%
Hopkinton	190,745	157,353	3.6%
Medway	156,809	132,823	4.8%
Mendon	150,514	125,945	1.2%
Milford	96,858	32,243	10.1%
Millis	120,195	106,164	1.5%
Millville	99,252	79,129	7.2%
Norfolk	175,072	151,279	1.1%
Northbridge	100,281	81,504	5.9%
Upton	163,835	128,796	2.5%
Uxbridge	113,427	108,060	7.7%
Wrentham	149,015	126,613	3.8%
Total MRMC Service Area	**134,015**	**108,177**	**4.2%**

Source: U.S. Census Bureau

Figure 6. Population mean household earnings (2015 – 2019)



Employment

The following tables depict the employment status of adults in MRMC's service area, as well as individual townships and boroughs for comparison. ***Among adults who are actively seeking employment, there is a higher unemployment rate for those aged 65 to 74 compared to the state and nation.*** Those aged 20 to 64 years old and 75 years or older have unemployment rates similar to the state and the nation.

Table 21. Employment Status (2015 - 2019)

	20 to 64 Years		65 to 74 Years		75 Years and Older	
	Employed	Unemployment Rate	Employed	Unemployment Rate	Employed	Unemployment Rate
United States	71.8%	5.1%	25.1%	3.3%	6.6%	3.3%
Massachusetts	76.6%	4.6%	31.8%	3.3%	7.8%	3.1%
Bellingham	83.7%	3.5%	45.8%	2.0%	7.6%	0.0%
Blackstone	83.8%	5.5%	42.2%	5.8%	1.4%	0.0%
Douglas	83.6%	4.9%	36.1%	0.0%	5.9%	0.0%
Franklin	83.0%	3.5%	27.9%	6.2%	7.3%	24.8%
Grafton	80.8%	4.7%	28.5%	5.3%	6.6%	9.3%
Holliston	83.1%	4.4%	35.7%	3.5%	3.9%	0.0%
Hopedale	79.6%	6.8%	19.9%	0.0%	2.8%	0.0%
Hopkinton	75.8%	4.5%	37.4%	2.9%	2.6%	0.0%
Medway	86.7%	3.5%	26.8%	0.0%	6.0%	0.0%
Mendon	87.1%	1.0%	34.9%	0.0%	19.3%	0.0%
Milford	79.2%	4.4%	39.7%	2.1%	11.8%	6.1%
Millis	83.2%	3.1%	20.3%	8.8%	3.5%	0.0%
Millville	80.9%	4.6%	10.6%	47.5%	2.5%	0.0%
Norfolk	58.4%	3.7%	40.2%	4.1%	1.5%	22.2%
Northbridge	77.1%	5.0%	28.2%	1.1%	2.8%	0.0%
Upton	82.8%	9.7%	25.1%	17.7%	0.0%	-
Uxbridge	80.7%	6.3%	27.2%	4.3%	2.8%	0.0%
Wrentham	82.2%	5.5%	31.2%	2.8%	7.9%	0.0%
Total MRMC Service Area	**80.6%**	**4.7%**	**31.0%**	**6.3%**	**5.3%**	**3.7%**

Source: U.S. Census Bureau

Education

Those living within Milford Regional's service area are more likely to have a high school diploma or bachelor's degree when compared to the state and nation. ***Over half of those aged 35 to 64 have a bachelor's degree or higher.*** The only demographic in which the service area does not exceed the state and national statistics is within the 65 and older group. Massachusetts has a higher percentage of those with a bachelor's degree or higher.

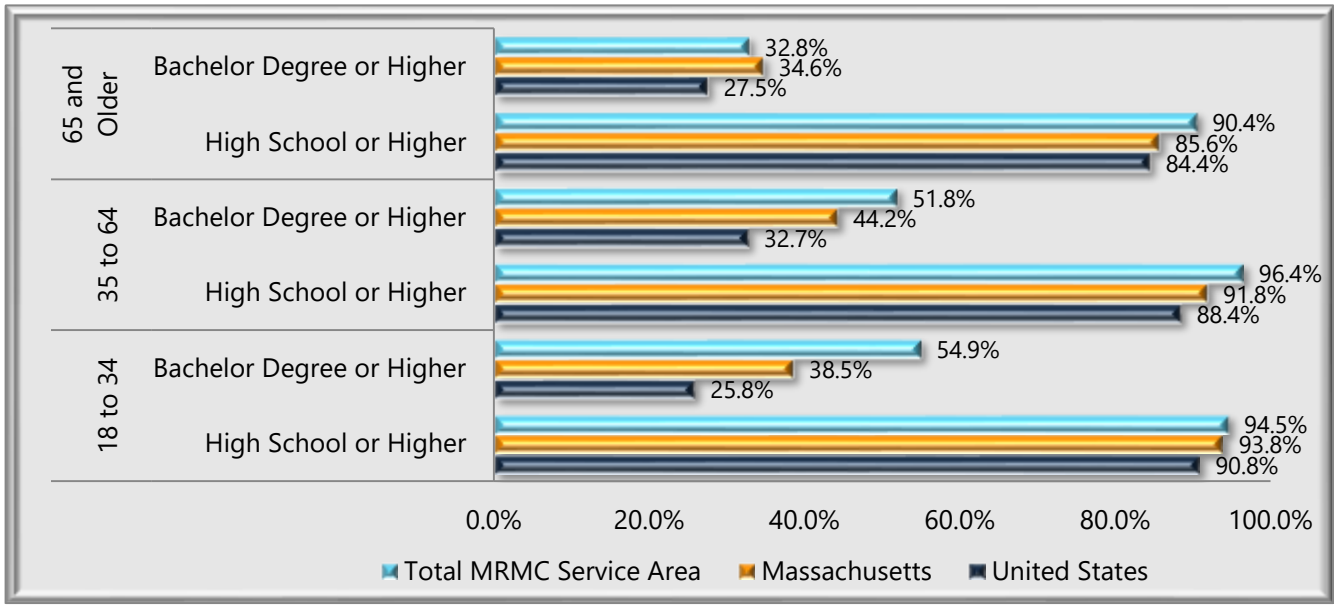
Table 22. Educational Attainment (2015 - 2019)

	18 to 34 Years		35 to 64 Years		65 Years and Older	
	High School or Higher*	Bachelor Degree or Higher	High School or Higher	Bachelor Degree or Higher	High School or Higher	Bachelor Degree or Higher
United States	90.8%	25.8%	88.4%	32.7%	84.4%	27.5%
Massachusetts	93.8%	38.5%	91.8%	44.2%	85.6%	34.6%
Bellingham	98.5%	50.1%	96.2%	35.7%	87.3%	21.4%
Blackstone	97.0%	49.0%	96.7%	37.1%	90.6%	19.7%
Douglas	100.0%	19.9%	98.5%	42.3%	88.5%	21.9%
Franklin	97.8%	70.0%	98.6%	60.1%	92.6%	31.6%
Grafton	99.1%	58.7%	96.2%	52.9%	87.9%	34.4%
Holliston	98.7%	73.2%	98.7%	70.8%	93.9%	47.8%
Hopedale	93.7%	59.1%	95.9%	47.7%	91.7%	23.2%
Hopkinton	94.0%	82.1%	97.4%	75.3%	96.7%	54.2%
Medway	94.2%	66.3%	98.5%	63.6%	87.6%	38.5%
Mendon	98.3%	49.5%	99.6%	45.9%	97.1%	45.4%
Milford	81.2%	41.7%	91.1%	37.0%	85.6%	29.3%
Millis	94.2%	55.0%	98.8%	55.5%	95.0%	43.3%
Millville	98.8%	33.6%	94.2%	29.5%	76.0%	15.9%
Norfolk	87.6%	37.1%	91.6%	55.9%	93.3%	44.5%
Northbridge	97.8%	44.5%	93.8%	39.7%	88.6%	21.6%
Upton	100.0%	61.9%	98.1%	69.7%	95.4%	27.6%
Uxbridge	97.2%	49.3%	97.7%	35.1%	83.6%	22.1%
Wrentham	99.8%	58.5%	97.5%	54.3%	94.7%	37.0%
Total MRMC Service Area	**94.5%**	**54.9%**	**96.4%**	**51.8%**	**90.4%**	**32.8%**

Source: U.S. Census Bureau

*Data only available for population aged 25 to 34 years

Figure 7. Educational attainment (2015 – 2019)



HEALTH INDICATORS & HEALTH STATISTICS

In this section:

- General Health Status: Physical & Mental
- Health Care Provider Access
- Food Environment
- Body Mass Index
- Smoking
- Substance Abuse
- Preventative Health
- Key Informant Perspective

General Health Status

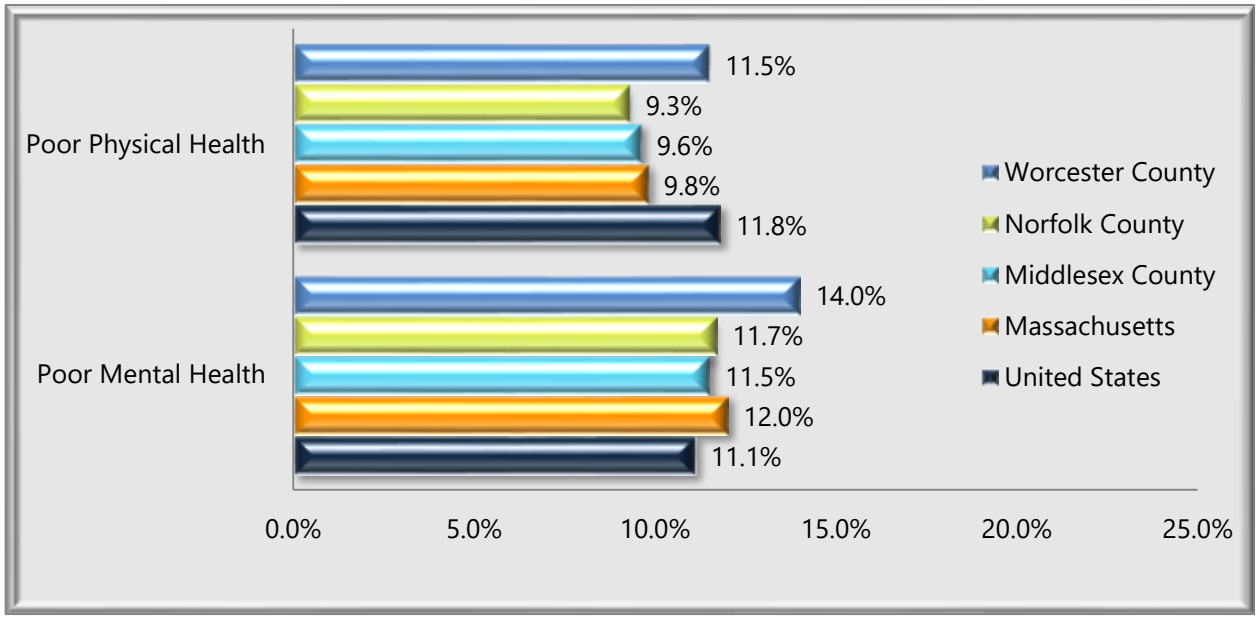
Poor physical or mental health are defined as having reported 15 or more days for which their mental or physical health was "not good" within the past 30 days. On average, adults in ***Middlesex County and Norfolk County report experiencing less days of poor physical and mental health than those in Worcester County.*** These rates are similar to those of the state and nation, however Worcester County's rates are higher.

Table 23. Adults with more than 15 days or more of poor Physical/Mental Health in the Past Month (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Poor Physical Health	11.1%	9.8%	9.6%	9.3%	11.5%
Poor Mental Health	11.8%	12.0%	11.5%	11.7%	14.0%

Source: BRFSS

Figure 8. Adult Population with 14 or More Days of Poor Physical Health and Mental Health in the Past Month (2018)



Health Care Provider Access

Health care provider density or the provider to population ratio is a measure of overall health care access. ***In Middlesex County and Worcester County, the ratio of primary care providers, dentists, and mental health providers to residents is worse than Norfolk County and the state, but similar to the nation.*** In Norfolk County, the ration of dentists and mental health providers is similar to the state but better than the nation. Norfolk County's ratio of primary care providers to population is worse than the state but better than the nation. The National Benchmark represents the 90th percentile (i.e., only 10% of states are better).

On average, those living in Middlesex, Norfolk, and Worcester Counties are less likely to have current health insurance, compared to the state, but more likely when compared to the nation. ***Those people living in the MRMC's service area are less likely to have a disability but those with disabilities, are more likely to have insurance.***

Around three-quarters of adults in the service area have had a routine medical and physical check-up within the last year. These figures are similar to the state and nation.

Table 24. Health Care Provider Density (2020)

	National Benchmark (90th Percentile)	Massachusetts	Middlesex County	Norfolk County	Worcester County
Population to Physician Ratio	1,030:1	970:1	800:1	790:1	1,010:1
Population to Dentist Ratio	1,240:1	970:1	1,020:1	820:1	1,350:1
Population to Mental Health Providers Ratio	290:1	160:1	170:1	160:1	200:1

Source: County Health Rankings

Table 25. Adult Population 18 Years and Over Without Current Health Insurance (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Current lack of health insurance	13.1%	3.8%	7.6%	7.5%	9.6%

Source: BRFSS

Table 26. Health Insurance Coverage by Disability Status (2015 - 2019)

	United States	Massachusetts	MRMC Service Area
Population With a Disability	12.6%	11.6%	9.1%
With Health Insurance	94.5%	98.3%	99.3%
Without Health Insurance	5.5%	1.7%	0.7%

Source: U.S. Census Bureau

Table 27. Adult Population 18 Years and Over Population Receiving a Routine Checkup in the Past Year (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Medical Checkup	77.0%	79.7%	76.8%	77.2%	77.2%
Dental Checkup	67.6%	74.4%	75.4%	76.8%	72.7%

Source: BRFSS

Food Environment

The ability to maintain a healthy weight through diet and physical activity is influenced by both behavioral and environmental indicators. Environmental indicators include, but are not limited to, access to healthy foods and access to exercise opportunities.

The food environment index measures overall food access based on 2 indicators, limited access to healthy foods and food insecurity. The index is based on a score of 0 (worst) to 10 (best). The first factor, limited access to healthy foods, measures the proportion of the population that is low income and does not live close to a grocery store. The second factor, food insecurity, measures the percentage of the population that did not have access to a reliable source of food during the past year. ***The food environment index in Middlesex County (9.0), Norfolk County (9.0), and Worcester County is (8.6) is worse when compared to the index for Massachusetts (9.3).***

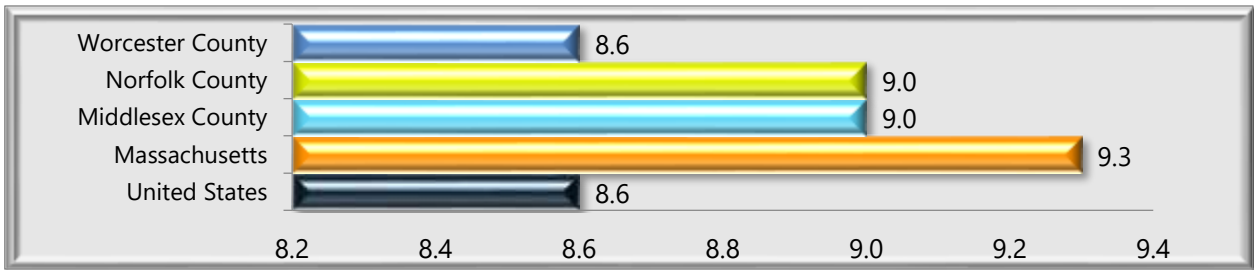
Nine percent of those in Worcester County did not have a reliable source of food during the last year.

Table 28. Food Environment Index (2020)

	National Benchmark	Massachusetts	Middlesex County	Norfolk County	Worcester County
Food Environment Index	8.6	9.3	9.0	9.0	8.6
Limited access to healthy foods	2.0%	4.0%	3.0%	3.0%	5.0%
Food insecurity	9.0%	9.0%	8.0%	7.0%	9.0%

Source: County Health Rankings

Figure 9. Food Environment Index (2020)



Body Mass Index

Body Mass Index (BMI) is a factor of diet and physical activity and is correlated with chronic health conditions. It is calculated based on the height and weight of an individual. The following table depicts the percentage of adults who are overweight or obese***. Adults in Middlesex and Norfolk Counties are less likely to be obese than their counterparts in the state, nation, and Worcester County.*** Those in Worcester County are more likely to be obese as those in the state and the nation and less likely to have exercised in the past month.

Table 29. Overweight or Obese, Adult Population 18 Years and Over (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Overweight (BMI ≤ 25)	66.5%	61.6%	--	--	--
Obese (BMI ≥ 30)	30.9%	25.7%	21.1%	23.7%	31.2%

Source: BRFSS
(--) Data unavailable due to suppressions constraints.

Figure 10. Obese adult population (2018)

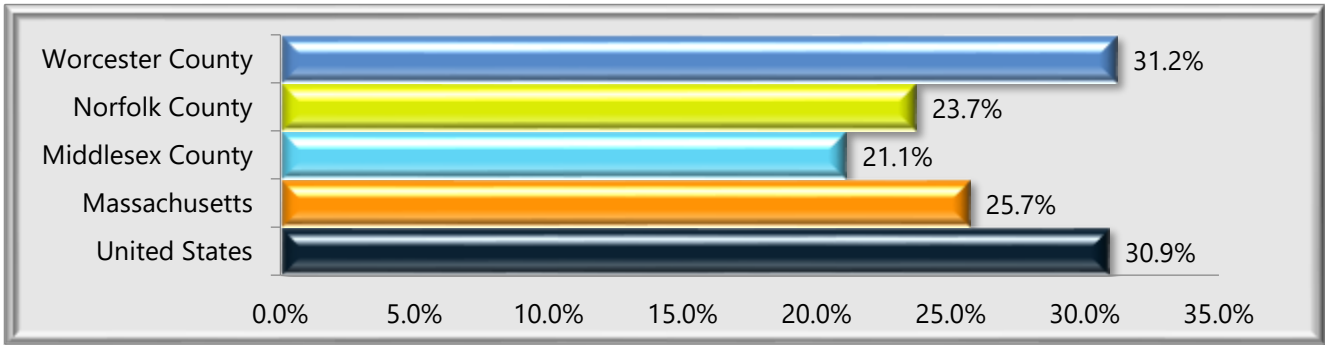
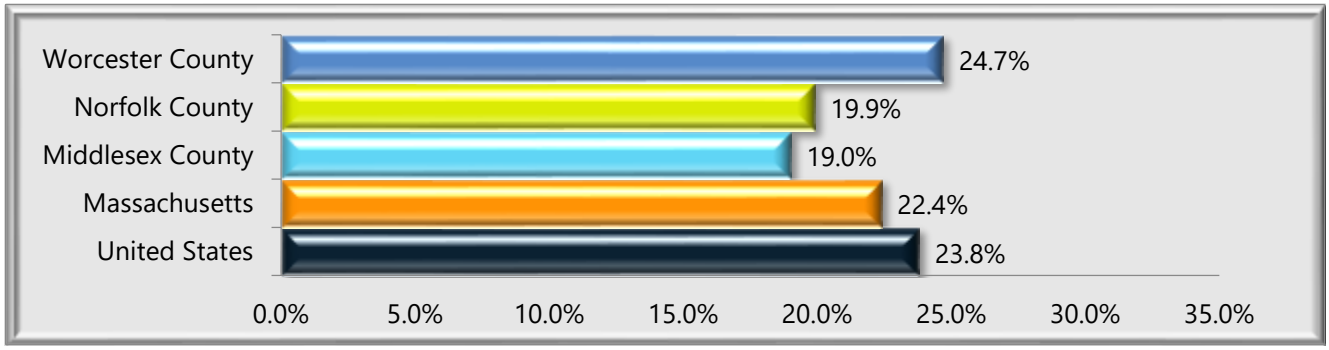


Table 30. Population 18 years and over that have not exercised in the past month (2018)

United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
23.8%	22.4%	19.0%	19.9%	24.7%

Source: BRFSS

Figure 11. Adults that have not exercised in the past month (2018)



Smoking

Smoking is detrimental to nearly every organ in the body and is often correlated with poorer health outcomes and chronic health conditions such as lung cancer, stroke and heart disease. ***Those in Middlesex County and Norfolk County are less likely to currently smoke when compared to adults in Worcester County, the state, and the nation.*** Nearly 1 in 5 adults in Worcester County currently smokes.

Table 31. Smoking Status, Population 18 Years and Over (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Current Smoker**	16.1%	13.4%	12.3%	13.2%	17.6%
Former Smoker	24.8%	25.1%	--	--	--

Source: BRFSS

**Every day or some days a week.

(--) Data unavailable due to suppressions constraints.

Substance Abuse

Binge drinking is defined as males having 5 or more alcoholic drinks and females having 4 or more drinks on 1 occasion. Heavy drinking is defined as males having more than 2 alcoholic drinks and females having more than 1 drink per day. ***Generally, adults engaging in binge drinking, in Middlesex, Norfolk, and Worcester Counties is consistent with the state, but more the nation.***

Table 32. Binge or Heavy Alcohol Consumption, Population 18 Years and Over (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Binge Drinkers†	16.2%	19.9%	20.1%	19.0%	19.8%
Heavy Drinkers††	6.4%	8.0%	--	--	--

Source: BRFSS

† Males having 5 or more and females having 4 or more drinks per occasion.

†† Males having 2 or more and females having 1 or more drinks per day.

(--) Data unavailable due to suppressions constraints.

Preventative Health

A variety of preventative health measures are used to determine the overall health of older adults. These preventative measures include the flu vaccine, the pneumonia vaccine, and colon and breast cancer screenings.

The flu vaccine is recommended as an annual prevention measure, particularly for older adults. The pneumonia vaccine is typically recommended for older adults as a means to prevent more serious illness. Sigmoidoscopies/Colonoscopies are used to detect the presence of colorectal cancer. Cancer screenings are important for the early detection and treatment of cancer.

A quarter of the older adults in Middlesex, Norfolk, and Worcester Counties are up to date on these set of preventative health measures.

Table 33. Population 65 years and over who are up to date on a core set of clinical preventive services (2018)

	Middlesex County	Norfolk County	Worcester County
Men*	24.3%	26.9%	25.3%
Women**	24.2%	23.3%	22.9%

Source: BRFSS
*Flu shot within past year, PPV Shot Ever, Colorectal cancer screening
**Flu shot within past year, PPV shot ever, Colorectal cancer screening, and Mammogram past 2 years

Key Informant Perspective

Key informants were asked to identify the most significant barriers from a list of 15. Nearly three-quarters of key informants feel that the inability to pay out of pocket expenses is a barrier. A lack of transportation and a lack of understanding the health care system were the other barriers that the majority agreed were issues to accessing health care. When asked which of the barriers they chose were the most significant, the inability to pay out of pocket expenses was chosen by over 50% of key informants.

Key informants were also asked which resources and services were missing in the community. The top three responses were mental health services, free/low cost dental care, and bilingual services. Mental health services and free/low cost dental care were the only services selected as missing by 50% of respondents.

Maintaining a healthy lifestyle was a discussed by key informants. Financial restraints were the top reason why people struggle with staying healthy. Over 50% of key informants determined the high cost of healthy foods and gym memberships prevents people from pursuing these activities.

Table 34. Most Significant Barriers Accessing Health Care According to Key Informants

	Barriers		Most significant	
	Count	Percent*	Count	Percent*
Inability to Pay Out of Pocket Expenses (Co-pays, Prescriptions, etc.)	69	71.9%	49	51.6%
Lack of Transportation	60	62.5%	35	36.8%
Availability of Providers/Appointments	40	41.7%	29	30.5%
Lack of Understanding the Health Care System	55	57.3%	28	29.5%
Lack of Health Insurance Coverage	41	42.7%	23	24.2%
Time Limitations (Long Wait Times, Limited Office Hours, Time off Work)	34	35.4%	21	22.1%
Ability to use Telehealth Services	37	38.5%	20	21.1%
Basic Needs Not Met (Food/Shelter)	31	32.3%	16	16.8%
Language/Cultural Barriers	42	43.8%	15	15.8%
Access to Telehealth Services	22	22.9%	8	8.4%
Homelessness	16	16.7%	6	6.3%
Lack of Trust	14	14.6%	6	6.3%
Lack of Child Care	21	21.9%	4	4.2%
Other (specify):	3	3.1%	2	2.1%
None/No Barriers	0	0.0%	0	0.0%

*****Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.*

Table 35. Missing or Lacking Resources/Services Related to Health According to Key Informants*

	Count	Percent
Mental Health Services	69	71.9%
Free/Low Cost Dental Care	48	50.0%
Bilingual Services	42	43.8%
Free/Low Cost Medical Care	38	39.6%
Substance Abuse Services	36	37.5%
Health Education/Information/Outreach	34	35.4%
Transportation	34	35.4%
Prescription Assistance	30	31.3%
Basic Needs Not Met (Food/Shelter)	29	30.2%
Primary Care Providers	25	26.0%
Health Screenings	20	20.8%
Lack of Health Insurance Coverage	17	17.7%
Lack of Child Care	13	13.5%
Medical Specialists	13	13.5%
Other	3	3.1%
None	1	1.0%

*****Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.*

Table 36. Top Three Barriers to Staying Healthy*

	Count	Percent
Cost of Healthy Foods and/or Gym Memberships	53	55.2%
Difficulty Meeting Basic Needs	43	44.8%
Lack of Knowledge and Skills	37	38.5%
Lack of Motivation	32	33.3%
Lack of Support	28	29.2%
Lack of Time	18	18.8%
Lack of Access to Fresh Fruits and Vegetables	17	17.7%
Lack of Available Information	16	16.7%
Lack of Safe Opportunities for Physical Activity	10	10.4%
Other	3	3.1%

*****Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.*

CHRONIC CONDITIONS

In this section:

- Arthritis
- Cancer
- Diabetes
- Heart Disease
- Respiratory Disease
- Asthma

Arthritis

Arthritis is defined as inflammation of the joints. ***The percentage of arthritis patients is lower in Middlesex County (19.1%) than in Norfolk County (20.1%), Worcester County (23.5%), the state (21.6%), and nation (26.1%).***

Table 37. Population 18 Years and Over Diagnosed with Arthritis [a] (2018)

United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
26.1%	21.6%	19.1%	20.1%	23.5%

Source: BRFSS

[a] Arthritis diagnoses includes: rheumatism, polymyalgia rheumatica; osteoarthritis (not osteoporosis); tendonitis, bursitis, bunion, tennis elbow; carpal tunnel syndrome, tarsal tunnel syndrome; joint infection, etc.

Cancer

The overall cancer incidence rate in Norfolk County is higher when compared to Massachusetts and the nation. However, the different counties are burdened by different cancer types. For example, Middlesex County has a higher cancer incidence rate for breast (in situ) (female). Norfolk County, has a higher cancer incidence rate for breast (female), melanoma, Non-Hodgkin Lymphoma, prostate (male), and thyroid. Worcester County, has a higher cancer incidence rate for bladder, childhood (all sites, under 20 years of age), esophageal, kidney, liver, lung, oral, and uterine (female).

When comparing different racial and ethnicity groups, Norfolk County has a higher overall cancer incidence rate for White (includes Hispanic), Black (includes Hispanic), Asian or Pacific Islander (includes Hispanic), when only compared to Middlesex and Worcester Counties.

Table 38. Population Cancer Incidence Rates per Age-Adjusted 100,000 by Site (2013 - 2017)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Bladder	20.0	22.6	21.9	21.0	25.1
Brain & ONS	6.5	6.6	6.9	6.6	6.7
Breast (Female)	125.9	137.9	142.6	153.2	137.0
Breast (in situ) (Female)	29.8	39.6	47.1	46.3	31.0
Cervix (Female)	7.6	5.2	4.8	4.2	6.4
Childhood (Ages <15, All Sites)	17.4	17.2	18.0	18.1	19.3
Childhood (Ages <20, All Sites)	18.9	18.4	19.0	20.6	21.0
Colon & Rectum	38.4	35.2	34.6	35.9	33.3
Esophagus	4.5	5.3	4.7	5.8	6.3
Kidney & Renal Pelvis	16.8	15.9	14.6	15.9	18.1
Leukemia	14.2	11.9	11.7	11.7	13.2
Liver & Bile Duct	8.4	8.0	7.7	7.6	9.1
Lung & Bronchus	58.3	61.2	55.4	61.5	67.0
Melanoma of the Skin	22.3	22.2	20.7	28.7	22.5
Non-Hodgkin Lymphoma	19.3	18.0	18.3	19.7	17.7
Oral Cavity & Pharynx	11.8	11.9	11.4	11.8	12.7
Ovary (Female)	10.9	10.3	10.9	10.5	10.9
Pancreas	12.9	13.1	12.8	12.8	12.9
Prostate (Male)	104.5	102.4	102.1	109.7	99.5
Stomach	6.5	6.7	6.3	6.4	5.8
Thyroid	14.3	19.2	20.8	21.1	20.6
Uterus (Female)	27.0	28.9	28.6	30.5	32.3
Total Cancer Incidence	448.7	452.7	441.1	474.6	470.8

Source: National Cancer Institute

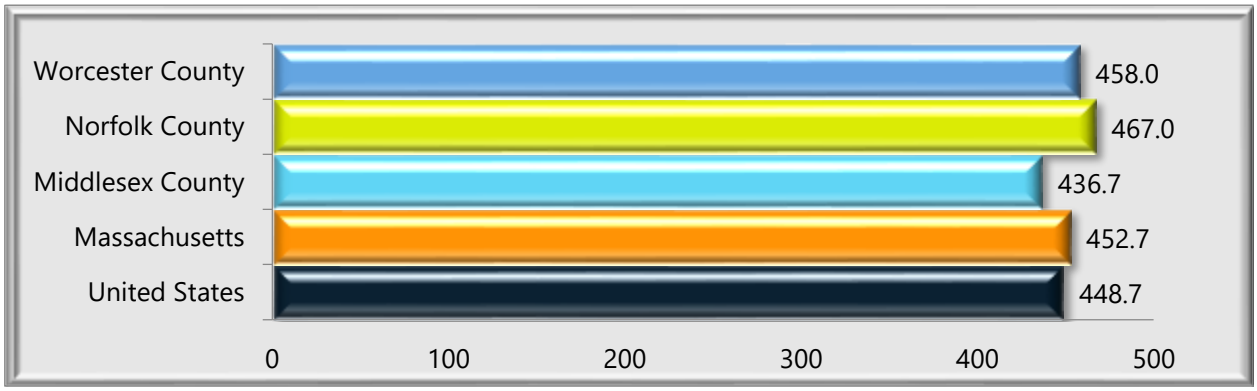
Table 39. Population Cancer Incidence Rates per Age-Adjusted 100,000 by Site and Race/Ethnicity (2013 - 2017)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
White (includes Hispanic)	451.0	453.4	446.9	481.5	467.5
White Hispanic	344.1	N/A	N/A	N/A	N/A
White Non-Hispanic	465.7	N/A	N/A	N/A	N/A
Black (includes Hispanic)	447.6	398.5	364.5	395.5	390.4
Hispanic (any race)	344.8	N/A	N/A	N/A	N/A
Amer. Indian/Alaskan Native (includes Hispanic)	288.8	111.1	94.1	--	188.9
Asian or Pacific Islander (includes Hispanic)	290.6	291.8	279.2	326.2	280.5
Total Cancer Incidence (All Races)	448.7	452.7	441.1	474.6	470.8

Source: National Cancer Institute

(--) Data unavailable due to suppressions constraints.

Figure 12. Total cancer incidence rate (2013 – 2017)



Women in Norfolk and Middlesex Counties are more likely to be diagnosed with breast cancer. Cancer screenings are important for the early detection and treatment of cancer. For women, clinical breast exams, mammograms, and Pap smears are recommended***. Women in Middlesex, Norfolk, and Worcester Counties are more likely to have ever received a breast cancer screening compared to the nation but less likely when compared to the state. However, women in these three counties are more likely to have cervical cancer screenings when compared to adult women in the state and the nation.***

Table 40. Breast Cancer Screening among Population 50 to 74 years (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
In the Past 2 Years	78.2%	86.7%	79.2%	80.3%	80.1%

Source: BRFSS

Table 41. Cervical Cancer Screening among Population 21 Years and Over (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
In the Past 3 Years	80.1%	83.2%	88.2%	87.5%	87.9%

Source: BRFSS

Sigmoidoscopies/Colonoscopies are used to detect the presence of colorectal cancer. Older adults in Middlesex, Norfolk, and Worcester Counties are more likely to receive a sigmoidoscopy or colonoscopy screening in their lifetime or in the last 10 years compared to the nation but not the state.

Table 42. Colorectal Cancer Screening among Population 50 to 74 years (2018)

United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
69.6%	77.1%	71.3%	71.3%	68.6%

Source: BRFSS

Diabetes

Diabetes is caused either by the body's inability to produce insulin or effectively use the insulin that is produced. ***Adults in Middlesex, Norfolk, and Worcester Counties are less likely to be diagnosed with diabetes when compared to adults in Massachusetts and the nation.***

Table 43. Adults aged 18 years or older Diagnosed with Diabetes, Excluding Gestational Diabetes (2018)

United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
11.0%	8.6%	7.0%	7.1%	8.3%

Source: BRFSS

Heart Disease

In general, adults in Middlesex, Norfolk, and Worcester Counties are as likely to have heart disease or experience a stroke. Around 5% of adults in Middlesex, Norfolk, and Worcester Counties are diagnosed with COPD or heart disease.

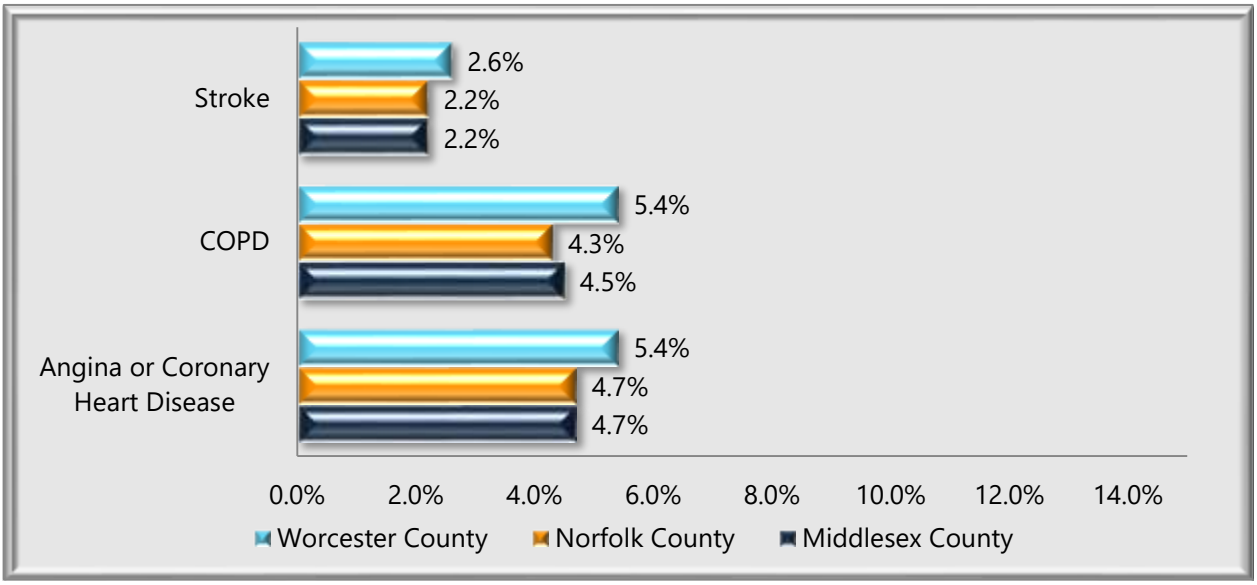
Table 44. Population 18 Years and Over Diagnosed with Heart Disease, COPD, or Stroke (2018; 2019)

	United States*	Massachusetts*	Middlesex County	Norfolk County	Worcester County
Angina or Coronary Heart Disease	5.8%	4.7%	4.7%	4.7%	5.4%
COPD	6.4%	5.1%	4.5%	4.3%	5.4%
Stroke	4.4%	3.4%	2.2%	2.2%	2.6%

Source: BRFSS

* Data based on those ages 35 and older.

Figure 13. Adults Diagnosed with Heart Disease, COPD, or Stroke (2018; 2019)



Respiratory Disease

Air pollution is often associated with higher rates of respiratory diseases like asthma and COPD. Fine particulate matter is a form of air pollution and is a measure of the overall outdoor air quality. It is measured as an average daily amount in micrograms per cubic meter. The National Benchmark for daily fine particulate matter is 6.1. **The particulate matter is much higher in each of the service area counties than the national benchmark.** Massachusetts also shows elevated levels.

Table 45. Daily Fine Particulate Matter (2020)

National Benchmark (90th Percentile)	Massachusetts	Middlesex County	Norfolk County	Worcester County
6.1	7.7	8.5	8.1	7.9

Source: County Health Rankings

Asthma

Asthma is reported as the percentage of individuals who currently have asthma. Those in ***Middlesex, Norfolk, and Worcester Counties are equally as likely to have asthma compared to Massachusetts and the nation.***

Table 46. Population 18 Years and Over Diagnosed with Asthma (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Currently have asthma	9.4%	10.2%	9.3%	9.4%	10.1%

Source: BRFSS

MORTALITY

In this section:

- Overall Mortality and Premature Death
- Leading Causes of Mortality
- Cancer Mortality

Overall Mortality and Premature Death

The following table depicts the overall mortality rate for various age brackets. ***Worcester County has the highest death rate for 0-10 years, 21-40 years, older than 70 years, and the overall population. Worcester County's death rate for the 0-10 years age bracket is double Norfolk and Middlesex Counties'. Middlesex and Norfolk Counties have lower or similar rates of death compared to Massachusetts and the nation.*** The data corresponds to the higher number of premature deaths that is reported in Worcester County when compared to the state and the National Benchmark.

Table 47. Multiple Cause of Death Rate per 100,000 (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
0 – 10 years	63.6	46.7	31.4	31.5	63.8
11 – 20 years	38.8	20.0	16.2	23.6	18.3
21 – 40 years	136.0	125.1	83.4	109.9	149.0
41– 70 years	737.7	589.5	460.3	485.8	640.7
Older than 70 years	5,558.6	5,794.8	5,577.0	5,735.5	6,384.9
All Ages	**867.8**	**857.0**	**729.8**	**833.9**	**908.8**

Source: CDC WONDER

Figure 14. Mortality rate among population (2018)

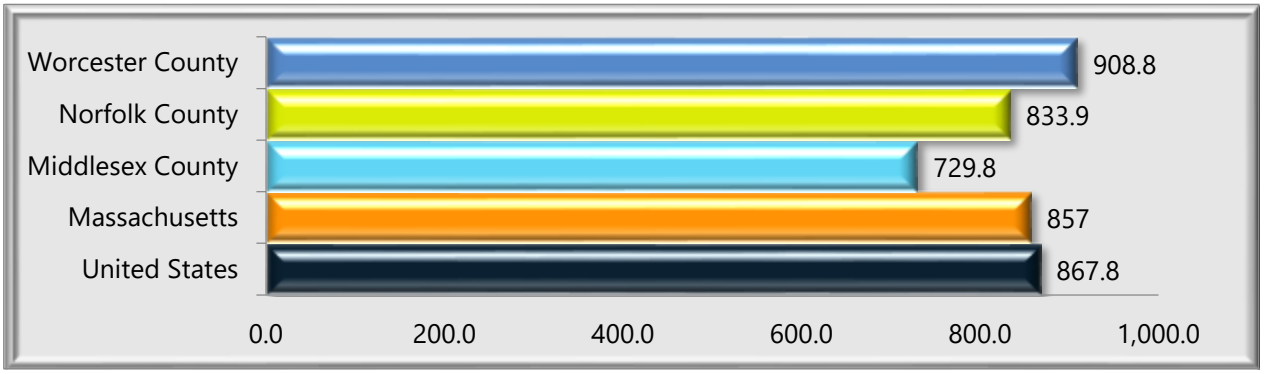


Table 48. Premature Mortality: Years of Potential Life Lost Before Age 75 per 100,000 (2020)

National Benchmark (90th Percentile)	Massachusetts	Middlesex County	Norfolk County	Worcester County
5,500	5,700	4,400	4,700	6,500

Source: County Health Rankings

Leading Causes of Mortality

The following table depicts age-adjusted mortality rates for the 15 leading causes of death in the nation. In general, Middlesex County has lower mortality rates compared to the Norfolk and Worcester Counties, as well as the state and nation. ***Worcester County has higher mortality rates for the top five leading causes (i.e., heart disease, cancer, accidents, cancer, accidents, chronic lower respiratory diseases, and cerebrovascular diseases) compared to Norfolk and Middlesex.***

Table 49. Population Mortality Rate per 100,000 by Leading Cause of Death (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Diseases of heart	200.3	174.4	147.8	171.0	180.5
Malignant neoplasms	183.2	183.1	161.8	176.5	189.1
Accidents (unintentional injuries)	51.1	57.5	43.8	53.3	62.6
Chronic lower respiratory diseases	48.7	40.0	32.9	35.2	49.0
Cerebrovascular diseases	45.2	35.7	31.6	38.8	39.6
Alzheimer's disease	37.3	26.4	19.8	28.4	30.8
Diabetes mellitus	26.0	20.2	18.3	17.7	19.4
Influenza and pneumonia	18.1	20.9	15.4	24.8	25.2
Nephritis, nephrotic syndrome and nephrosis	15.7	17.0	15.1	17.2	16.2
Intentional self-harm (suicide)	14.8	10.7	9.4	10.6	10.1
Chronic liver disease and cirrhosis	13.1	11.5	9.5	11.6	11.3
Septicemia	12.4	14.1	11.5	15.3	12.4
Essential hypertension and hypertensive renal disease	11.0	9.7	7.0	7.8	9.9
Parkinson disease	10.3	10.3	11.4	10.6	8.8
Pneumonitis due to solids and liquids	5.9	9.1	7.6	8.4	7.1

Source: CDC WONDER

Table 50. Population Aged 0 – 10 Years Mortality Rate per 100,000 by Leading Cause of Death (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Certain conditions originating in the perinatal period	24.1	21.6	16.2	Unreliable	31.4
Congenital malformations, deformations and chromosomal abnormalities	11.5	8.7	N/A	N/A	Unreliable
Accidents (unintentional injuries)	7.4	Unreliable	N/A	N/A	N/A
Malignant neoplasms	1.9	Unreliable	N/A	N/A	N/A
Assault (homicide)	1.7	N/A	N/A	N/A	N/A

Source: CDC WONDER

Table 51. Population Aged 11 – 20 Years Mortality Rate per 100,000 by Leading Cause of Death (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Accidents (unintentional injuries)	13.1	7.0	N/A	Unreliable	N/A
Intentional self-harm (suicide)	8.6	3.6	Unreliable	N/A	N/A
Assault (homicide)	5.8	Unreliable	N/A	N/A	N/A
Malignant neoplasms	2.7	2.3	N/A	N/A	N/A
Diseases of heart	1.1	N/A	N/A	N/A	N/A

Source: CDC WONDER

Table 52. Population Aged 21 – 40 Years Mortality Rate per 100,000 by Leading Cause of Death (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Accidents (unintentional injuries)	52.0	69.2	47.6	62.2	91.6
Intentional self-harm (suicide)	17.8	11.9	8.6	13.9	12.6
Assault (homicide)	11.0	4.9	N/A	N/A	Unreliable
Malignant neoplasms	10.7	9.2	7.6	Unreliable	10.3
Diseases of heart	10.4	6.5	Unreliable	N/A	Unreliable

Source: CDC WONDER

Table 53. Population Aged 41 – 70 Years Mortality Rate per 100,000 by Leading Cause of Death (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Malignant neoplasms	213.2	184.9	160.5	160.3	194.9
Diseases of heart	156.0	100.0	73.9	79.4	106.5
Accidents (unintentional injuries)	54.2	56.6	35.4	46.4	60.0
Chronic lower respiratory diseases	36.4	23.5	17.0	13.8	32.1
Diabetes mellitus	29.5	20.3	16.9	17.8	17.1

Source: CDC WONDER

Table 54. Population Aged 70 Years and Older Mortality Rate per 100,000 by Leading Cause of Death (2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Diseases of heart	1,423.20	1,318.5	1,260.1	1,303.0	1,434.2
Malignant neoplasms	1,032.10	1,078.0	1,049.9	1,050.7	**1,146.1**
Alzheimer's disease	365.6	248.4	201.1	253.7	307.1
Chronic lower respiratory diseases	356.7	302.8	276.8	280.4	**381.6**
Cerebrovascular diseases	356.3	289.5	274.2	312.4	357.6

Source: CDC WONDER

Cancer Mortality

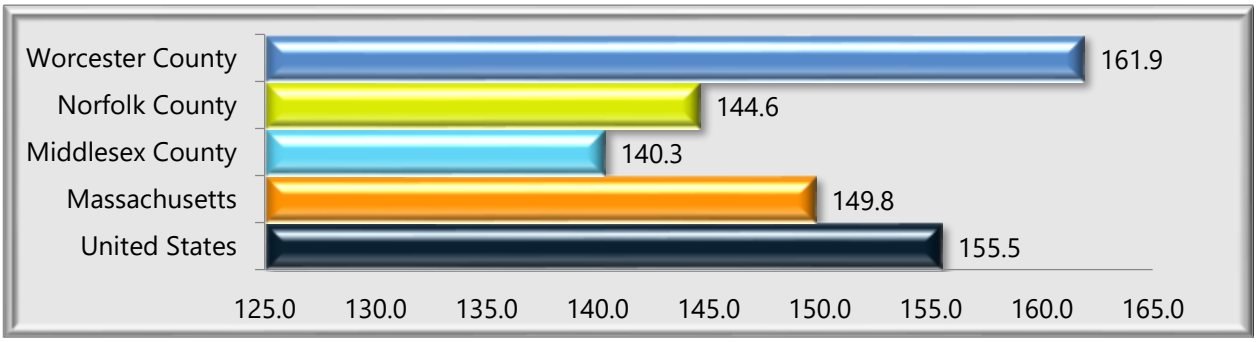
The following table depicts mortality rates for each of these types for adults in the counties, state, and nation. ***The overall cancer mortality rate in the Worcester County service areas is higher than both the state and nation and Middlesex and Norfolk Counties.***

Table 55. Population Cancer Mortality Rates per Age-Adjusted 100,000 by Site (2014 - 2018)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Bladder	4.3	4.7	4.4	4.0	5.2
Brain & ONS	4.4	4.6	4.8	4.1	4.7
Breast (Female)	20.1	17.3	16.1	17.9	16.8
Cervix (Female)	2.2	1.1	1.1	0.8	1.2
Colon & Rectum	13.7	11.6	11.3	11.0	12.1
Esophagus	3.9	4.6	4.0	4.4	5.5
Kidney & Renal Pelvis	3.6	3.1	3.0	3.1	3.6
Leukemia	6.3	5.9	5.7	5.6	5.8
Liver & Bile Duct	6.6	6.4	5.9	5.7	7.1
Lung & Bronchus	38.5	37.1	33.3	36.0	41.7
Melanoma of the Skin	2.3	2.3	2.1	2.4	2.3
Non-Hodgkin Lymphoma	5.4	5.3	5.5	5.1	5.6
Oral Cavity & Pharynx	2.5	2.3	2.2	2.0	2.6
Ovary (Female)	6.7	6.7	6.7	7.1	6.6
Pancreas	11.0	11.3	11.3	10.6	11.7
Prostate (Male)	19.0	18.3	16.8	17.7	19.8
Stomach	3.0	3.0	3.0	2.9	2.6
Thyroid	0.5	0.5	0.5	0.4	0.8
Uterus (Female)	4.9	4.7	4.4	4.8	5.3
Total Cancer Mortality	**155.5**	**149.8**	**140.3**	**144.6**	**161.9**

Source: National Cancer Institute

Figure 15. Cancer mortality rate among adults (2014 – 2018)



MEDICARE BENEFICIARIES

In this section:

- Common Chronic Conditions
- Presence of Multiple Chronic Conditions
- Hospital Readmissions
- Emergency Department Visits and Per Capita Costs

Common Chronic Conditions

The following table depicts the percentage of Medicare beneficiaries aged affected by chronic conditions. The percentage of Medicare beneficiaries in Middlesex and Worcester Counties with a given chronic condition is consistent with what is being reported across the state and nation. ***However, Worcester County does have higher rates of COPD, diabetes, hyperlipidemia, and drug abuse/substance abuse. Norfolk County has a higher incidence rate of atrial fibrillation, chronic kidney disease, hypertension, and ischemic heart disease compared to Middlesex and Worcester Counties.***

Table 56. Chronic Conditions among Medicare Beneficiaries (2017)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
Alzheimer's Disease/Dementia	10.8%	11.2%	11.9%	13.0%	10.1%
Arthritis	33.1%	30.5%	29.8%	30.6%	28.9%
Asthma	5.1%	6.7%	5.8%	6.0%	6.6%
Atrial Fibrillation	8.4%	9.7%	9.8%	10.4%	9.1%
Cancer	8.2%	9.3%	9.7%	10.4%	7.9%
Chronic Kidney Disease	24.0%	23.6%	23.5%	23.8%	22.8%
COPD	11.7%	10.8%	9.3%	10.5%	10.9%
Depression	17.9%	22.7%	21.9%	21.0%	23.9%
Diabetes	27.2%	23.5%	22.2%	21.6%	24.2%
Drug Abuse/Substance Abuse	3.4%	4.3%	3.4%	3.5%	5.5%
Heart Failure	13.9%	12.8%	13.1%	13.9%	12.2%
Hyperlipidemia	40.7%	36.5%	33.3%	34.8%	37.7%
Hypertension	57.1%	55.8%	53.9%	56.0%	53.5%
Ischemic Heart Disease	26.9%	23.7%	24.1%	24.5%	23.6%
Osteoporosis	6.4%	7.3%	8%	7.8%	5.6%
Schizophrenia/Other Psychotic Disorders	3.1%	4.1%	4.3%	4.1%	4.4%
Stroke	3.8%	3.6%	3.5%	3.8%	3.2%

Source: Centers for Medicare & Medicaid Services (CMS)

Presence of Multiple Chronic Conditions

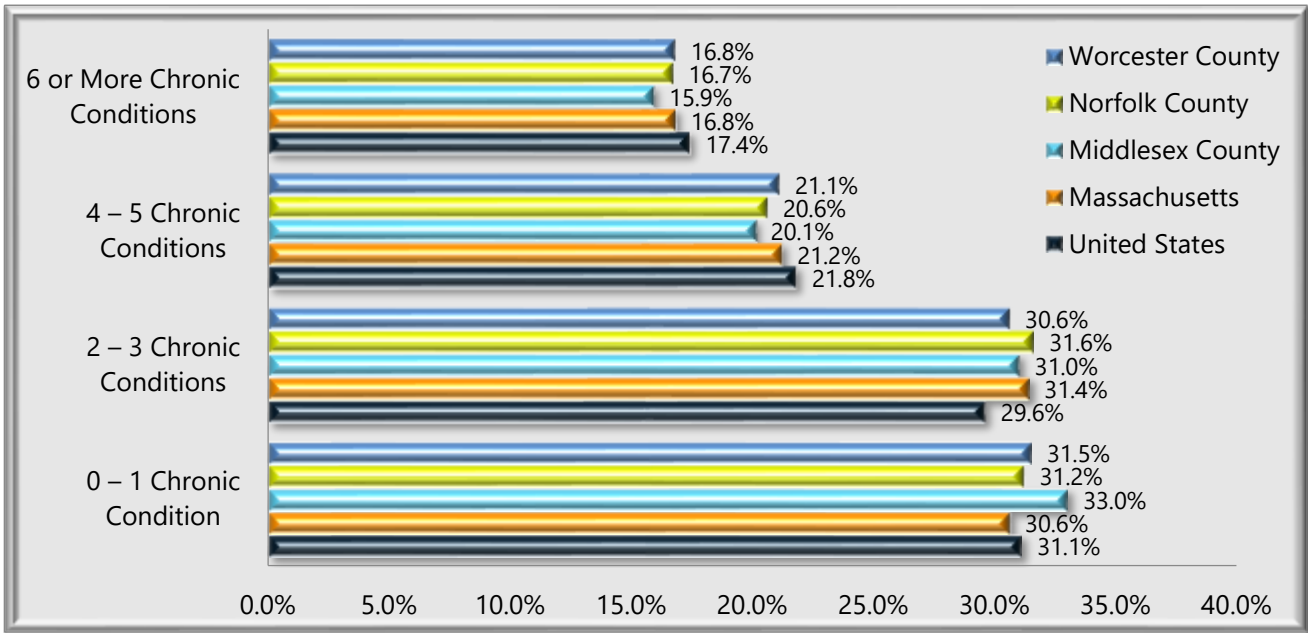
In general, there are no notable differences in chronic condition prevalence among Medicare beneficiaries when comparing Middlesex, Norfolk, Worcester Counties, the state, and the nation.

Table 57. Chronic Conditions per 100,000 Medicare Beneficiaries, 65 Years and Over (2017)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
0 – 1 Chronic Condition	31.1%	30.6%	33.0%	31.2%	31.5%
2 – 3 Chronic Conditions	29.6%	31.4%	31.0%	31.6%	30.6%
4 – 5 Chronic Conditions	21.8%	21.2%	20.1%	20.6%	21.1%
6 or More Chronic Conditions	17.4%	16.8%	15.9%	16.7%	16.8%

Source: Centers for Medicare & Medicaid Services (CMS)

Figure 16. Chronic conditions among Medicare beneficiary population, 65 Years and Over (2017)



Hospital Readmissions

Similar to the Presence of Multiple Chronic Conditions section mentioned previously, there are only slight differences in hospital readmissions for chronic conditions. However, in the 6 or more chronic conditions Norfolk County is notably higher than the state and nation. In the 2-3 chronic conditions grouping, the percentage of hospital readmissions in Middlesex County is notably higher than counterparts in the services areas and nation, but similar to the state.

Table 58. Hospital Readmissions for Chronic Conditions (2017)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
0 – 1 Chronic Condition	5.7%	5.9%	5.3%	6.8%	6.2%
2 – 3 Chronic Conditions	7.5%	8.1%	8.1%	7.8%	7.3%
4 – 5 Chronic Conditions	10.8%	11.7%	11.5%	12.0%	12.1%
6 or More Chronic Conditions	22.9%	24.7%	24.3%	25.4%	24.2%

Source: Centers for Medicare & Medicaid Services (CMS)

Emergency Department Visits and Per Capita Cost

The rate of Emergency Department visits for Medicare beneficiaries in Worcester County for all chronic conditions (except 6 or more) are notably higher compared to Middlesex County, Norfolk County, Massachusetts, and the nation. The rates in Middlesex and Norfolk Counties are similar to the rates across the nation but lower, on average than the state. ***As expected, the highest per capita cost in each service area is among those with 6 or more chronic conditions.*** In addition, the per capita cost in each county is generally higher than the state and nation.

Table 59. Emergency Department Visits for Chronic Conditions per 1,000 Beneficiaries 65 Years and Over (2017)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
0 – 1 Chronic Condition	181.2	213.1	180.5	184.0	218.5
2 – 3 Chronic Conditions	420.4	461.1	433.1	416.4	477.2
4 – 5 Chronic Conditions	768.6	851.1	838.5	835.7	864.8
6 or More Chronic Conditions	2,001.2	2,202.6	2,153.1	2,205.3	2,218.7

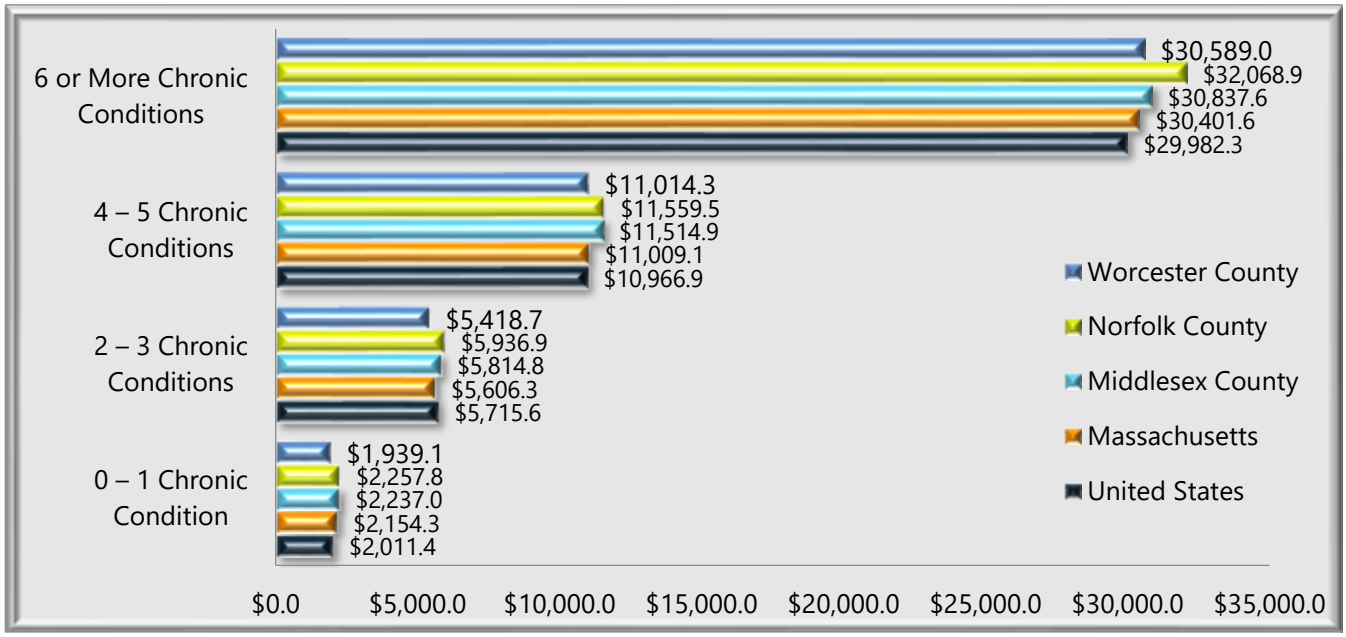
Source: Centers for Medicare & Medicaid Services (CMS)

Table 60. Per Capita Cost for Chronic Conditions (Standardized) (2017)

	United States	Massachusetts	Middlesex County	Norfolk County	Worcester County
0 – 1 Chronic Condition	$2,011.4	$2,154.3	$2,237.0	$2,257.8	$1,939.1
2 – 3 Chronic Conditions	$5,715.6	$5,606.3	$5,814.8	$5,936.9	$5,418.7
4 – 5 Chronic Conditions	$10,966.9	$11,009.1	$11,514.9	$11,559.5	$11,014.3
6 or More Chronic Conditions	$29,982.3	$30,401.6	$30,837.6	$32,068.9	$30,589.0

Source: Centers for Medicare & Medicaid Services (CMS)

Figure 17. Per capita costs for beneficiaries (2017)



KEY INFORMANT ADDITIONAL INFORMATION

In this section:

- Top Health Issues
- Underserved populations
- Open-Ended Feedback

Top Health Issues

Key informants were asked to identify the top health issues facing the community, as well as health issues facing specific age groups. ***The top health issues identified for the entire communities were mental health/suicide, substance abuse/alcohol abuse, and behavioral health. These issues were selected by over half of key informants.*** When asked about specific age groups, behavioral health was a top health issue in all except the 70 years and older bracket. ***In all age groups, except for 0 to 10 years and 70 years and older, the issues mimicked the top health issues for the entire community.***

Within the 0 to 10 years age bracket, behavioral health was selected as the top health issue, however food insecurity and nutrition were chosen to round out the top three. The entire chart of top health issues for each age category can be viewed in its entirely on Table 63.

Underserved Populations

Key informants were then asked to identify if there were specific populations that were underserved in the community. Responses were split, however ***nearly half of key informants selected low-income/poor as being underserved.***

Table 62. Underserved Populations According to Key Informants*

	Count	Percent
Low-income/Poor	38	44.7%
Uninsured/Underinsured	34	40.0%
Homeless	32	37.6%
LGBTQ	23	27.1%
Seniors/Elderly	22	25.9%
Immigrant/Refugee	21	24.7%
Hispanic/Latino	19	22.4%
Young Adults	14	16.5%
None/No	12	14.1%
Arabic	11	12.9%
Children/Youth	11	12.9%
Disabled	9	10.6%
Black/African American	8	9.4%
Other	4	4.7%

Table 61. Top Health Issues According to Key Informants*

	Overall Population		Ages 0 - 10		Ages 11 - 21		Ages 21 - 40		Ages 41 - 70		Ages 70 & over	
	#	%	#	%	#	%	#	%	#	%	#	%
Access to Care/Uninsured	28	28.6%	20	21.5%	16	17.4%	22	23.2%	20	20.8%	**20**	**21.1%**
Arthritis	4	4.1%	0	0.0%	0	0.0%	0	0.0%	1	1.0%	8	8.4%
Behavioral Health	**52**	**53.1%**	**39**	**41.9%**	**40**	**43.5%**	**29**	**30.5%**	**24**	**25.0%**	18	18.9%
Cancer	19	19.4%	4	4.3%	3	3.3%	4	4.2%	19	19.8%	**20**	**21.1%**
Cognitive Disorders/Alzheimer's	23	23.5%	3	3.2%	1	1.1%	0	0.0%	9	9.4%	**42**	**44.2%**
Dental Health	8	8.2%	10	10.8%	4	4.3%	5	5.3%	6	6.3%	4	4.2%
Diabetes	20	20.4%	9	9.7%	6	6.5%	9	9.5%	17	17.7%	**20**	**21.1%**
Food Insecurity	36	36.7%	**30**	**32.3%**	17	18.5%	15	15.8%	13	13.5%	17	17.9%
Heart Disease	17	17.3%	0	0.0%	0	0.0%	2	2.1%	22	22.9%	**26**	**27.4%**
Homelessness	26	26.5%	10	10.8%	11	12.0%	10	10.5%	13	13.5%	5	5.3%
Infectious Diseases/COVID-19	40	40.8%	15	16.1%	19	20.7%	21	22.1%	19	19.8%	**20**	**21.1%**
Maternal/Infant Health	3	3.1%	14	15.1%	3	3.3%	3	3.2%	1	1.0%	1	1.1%
Mental Health/Suicide	**59**	**60.2%**	20	21.5%	**49**	**53.3%**	**49**	**51.6%**	**38**	**39.6%**	**20**	**21.1%**
Nutrition	15	15.3%	**24**	**25.8%**	9	9.8%	5	5.3%	13	13.5%	12	12.6%
Overweight/Obesity	25	25.5%	13	14.0%	10	10.9%	17	17.9%	17	17.7%	3	3.2%
Respiratory Disease	8	8.2%	2	2.2%	1	1.1%	1	1.1%	5	5.2%	7	7.4%
Sexually Transmitted Diseases	1	1.0%	0	0.0%	3	3.3%	2	2.1%	1	1.0%	0	0.0%
Stroke	2	2.0%	0	0.0%	0	0.0%	0	0.0%	2	2.1%	9	9.5%
Substance Abuse/Alcohol Abuse	**56**	**57.1%**	4	4.3%	**37**	**40.2%**	**51**	**53.7%**	**34**	**35.4%**	7	7.4%
Tobacco	7	7.1%	1	1.1%	7	7.6%	7	7.4%	5	5.2%	0	0.0%
Vaccinations	4	4.1%	10	10.8%	1	1.1%	0	0.0%	0	0.0%	0	0.0%
Vaping	15	15.3%	1	1.1%	19	20.7%	8	8.4%	0	0.0%	0	0.0%
Violence	5	5.1%	3	3.2%	2	2.2%	3	3.2%	1	1.0%	1	1.1%
Other	3	3.1%	2	2.2%	2	2.2%	1	1.1%	2	2.1%	4	4.2%
None/Not Applicable	1	1.0%	12	12.9%	6	6.5%	10	10.5%	5	5.2%	7	7.4%

*****Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.*

***Bolding** indicates the top three (3) selections in each age bracket (including ties)*

Key informants were also asked to provide additional information regarding the top health issues facing their community and their reasons for ranking the aforementioned issues the way they did. Many comments focused on the same issues mentioned previously, including behavioral health, mental health, and access to health care and services. The following textbox summarizes several select comments.

Select comments regarding the top health issues:

- *"Access to care is still a problem in Milford. Even though we have a CHC in town the demand is higher than the offer* [sic]. *No access to dental care for uninsured people is another problem. BH for all kind of ages is a night mare with no openings for BH counseling and psychiatric."*
- *"I work primarily with older adults. Access to care is a huge issue especially for those in their 80's and above as they limit or give up driving. Those with cognitive issues are especially concerning as those living alone oftentimes don't follow instructions or even attend appointments due to memory issues."*
- *"Mental health/Suicide is a serious issue. The health providers community gets an 'F' for their lack of attention and understanding and most importantly their handling of our youth when it comes to mental health. They SHIP THEM AWAY TO CLOSEST 'BED'....like Arbor Fuller - which is basically sending them to HELL and ultimately their DEATH."*
- *"With the Covid-19 pandemic, food insecurity has become more prevalent in the area. In addition, homelessness is rising as some are unable to pay their rent or mortgage. In addition, the social isolation of the elderly due to the pandemic has caused the detriment of mental health due to the inability to socialize and often lacking computer skills to reach out to others."*

Open-Ended Feedback

Key informants were asked to provide open-ended feedback on what is being done well in the community in terms of quality of life. Several comments referenced how active Milford Regional Medical Center is throughout the community. In addition, several comments mentioned how the community, at large, works together. Select comments that were provided by key informants are listed below.

In your opinion, what is being done well in the community in terms of meeting the health needs of the community? (Community Assets/Strengths/Successes)

- *"Ability to screen the community for basic needs (food and housing) is done regularly by the primary care providers/ social workers. So identifying the needs is easy finding the support is difficult. Access to staff that can help residents sign up for Medicare or Medicaid is available."*
- *"For those seniors that have medical connections in place, they are being served well. The senior center provides transportation but even this service is limited due to the lack of funding and the availability of drivers. The center also provides nutritious meals but we are not able to serve the entire senior population due to limited funding and logistics of space and staffing."*
- *"In the Milford/Blackstone Valley area, our agency supports individuals with developmental and psychiatric disabilities. We utilize the hospital and the surrounding area health care providers frequently. As we have provided services for decades in this area, most providers and hospitals are familiar and responsive to our needs. Clients receive care in a timely manner and well treated with dignity and respect. Milford Hospital has provided training and education to our staff and are always willing open to collaborate on community projects and improving services for people with disabilities. During COVID, car side service to complete tests, drop off samples and pharmacies sending nurses to do flu shots has been helpful as this reduces anxiety for our clients and also assists with our chronic staffing shortages."*
- *"MRMC is active in the community supporting multiple groups in the greater Milford area including the Milford Youth Center and the Milford Senior Center. The medical center supports exercise in multiple settings. It is an active member of CHNA 6 and definitely listens to community leaders. Many of those who I have spoken with recently have told me how awesome the hospital has been when family members have entered hospice or had surgery in the midst of the pandemic."*
- *"The community is great to rally around a cause. I have not seen a community like this elsewhere. If the community becomes aware of an issue, they will rally behind the organization(s) that seek to tackle the problem. This is great for when issues become aware and addressed, but hidden problems do not get addressed."*
- *"Transportation around Milford Expansion of Mental Health by Riverside, especially for children, teenagers Efforts to increase outpatient healthcare access for uninsured, low income at Kennedy Center"*

What improvements can be made to better meet the health needs of the community and improve quality of life?

- *"Access to more mental/behavioral health services for school aged children."*
- *"Getting creative in providing health care especially immunizations (e.g., drive through immunization clinics), support of homeless population, continued support of exercise and providing health information throughout their entire town base."*
- *"I definitely think we need more behavioral and mental health services available for children, youth, and parents that are easily accessible and affordable. We need more partnerships and programs that encourage the families, early education, youth activities and sports, and the public schools to enable them to more effectively address the increasing number of children and youth with behavioral and mental health issues."*
- *" Improvements can be made on providing more health information and resources/services for nutritious food and adequate shelter. The availability of low cost health and dental care needs to be addressed. Improvements also need to be made on providing dependable and reliable home health aide services to provide respite for caregivers of those with cognitive impairments."*
- *"In-home services and supports are optimal as they provide a more comfortable, less stressful experience for our clients. We often utilize the ER for chronic conditions that if treated at home could avoid lengthy and expensive ER care. Increasing in home nursing/physician assistant visits would be helpful, in addition to virtual team appointments. Ideally being able to treat the whole person with multiple disciplines at the same meeting provides better overall care as many of our clients have multiple medical and mental health challenges. Urgent care centers having longer hours to avoid having to go to the ER. Emergency nurses/physicians our staff could remotely assess prior to transporting clients to the ER. Dental care for clients with disabilities and MassHealth is very limited. More counseling and psych services especially for younger individuals with autism and developmental disabilities."*
- *"Provide more mobile food markets for those that can't find transport. Offering vaccinations in a public forum rather than relying on the pcp office to administer them. more covid 19 testing in the community since most underinsured and non-insured residents cannot go to the pharmacy or urgent care settings without paying out of pocket expenses."*
- *"The quality of mental and behavioral health care can be strengthened. The feedback about therapists is mediocre for those receiving care with Massachusetts health benefits. More also can be done to deal with people that are homeless, especially families to give them a safe place where they can deal with their mental needs as well as medical needs."*

What effect has COVID-19 had on the health needs of the community? Did COVD-19 highlight any specific gaps/barriers in community health services?

- *"As someone who works with seniors, we have seen a huge impact on our population. As a group they are less likely to have access or ability to use technology for telehealth visits. We have seen both cognitive and physical declines in our population as they have been the most isolated of all groups. Many remain fearful to leave their homes even for health care, so there needs to be better ways to reach out to these members of our society."*
- *"Biggest concern is social isolation of elders/seniors. Groups have come together within Hopkinton to reach out to anyone in need which has been a blessing. However, there are still gaps. The biggest concern is how to help those safely. Everyone is interested in helping but how to do it safely is of great concern."*
- *"Certainly, there's a large increase of mental health needs since the start of COVID19 (depression/anxiety/isolation). One 'silver lining' to COVID is the increase in agencies providing services through telehealth, however, many of our community members don't have access to the right equipment or know-how to effectively use technology to obtain services."*
- *"COVID has highlighted the food insecurity, but the needs are being addressed, presumably adequately. The disinformation rampant on social media has revealed a lack of trust in official or governmental information. This is a huge barrier to public health (NPI's) as well as to the promotion and funding of any preventative programs mentioned above."*
- *"It has been a nightmare. So many things have changed. The emotional toll is great, not having access to visit family in hospitals, nursing homes, or just out of state. People, especially in some cultures not taking it seriously. Fear is another big issue, the fear of the unknown especially as we face the next surge. Lack of common sense. The inability to provide enough services for the homeless."*
- *"It has exacerbated all the underlying health issues: 1) older adults are even more isolated than before 2) mental health issues are growing among all age groups as school is disrupted and adults are losing their jobs and incomes 3) domestic violence and child abuse/neglect are growing concerns that have been hidden by the shutdown of schools and lack of mandatory reporters 4) residents of all ages have postponed treatment, vaccinations and diagnostic services, making conditions worse 5) food insecurity has grown exponentially, resulting in families not eating as nutritious food and/or not having enough to eat 6) using substances as a method of coping during the shutdown and beyond has increased, leading to relapse by some and initiation of troubling behaviors in others"*
- *"Major issues exposed include difficulty with food accessibility (food chain issues, food delivery, food insecurity, poor eating habits), decrease in preventative care treatments (routine and well visits to doctors and dentists avoided will cause more severe health issues in future), and mental health inaccessibility."*
- *"The effects of the COVID-19 pandemic is insurmountable. Social isolation, food insecurity, lack of transportation, lack of health care testing sites/resources, mental health declines, cognitive declines, and the increase of ETOH, to name a few. The gaps of the community health include lack of COVID testing sites in this area. The inability to reach out to our homebound seniors since most community agencies are now working remotely and not doing home visits. The senior center had to shut down our transportation program temporarily. Our nutrition program is now doing home delivered meals."*

IDENTIFICATION OF COMMUNITY HEALTH NEEDS

Prioritization Session

Milford Regional Medical Center held a prioritization sessions on May 26 and June 2, 2021, that included representatives from community organizations as well as steering committee members to review the results of the 2021 Community Health Needs Assessment. The goal of the meetings was to discuss and prioritize the health needs identified in the CHNA and to set the stage for community health improvement initiatives.

Process

The meetings were held virtually due to social distancing requirements imposed by the COVID-19 pandemic. They were facilitated by Holleran Consulting and began with an abbreviated research overview. The overview entailed the highlighted results of the secondary data research, key findings from the online key informant survey, summarized excerpts from the focused research interviews.

Following the overview, participants were asked to consider, based on their expertise within the community, if anything was missing from the report that needed to be discussed. Conversation flowed as the community experts added their experience regarding social determinants of health and other challenges residents in Worcester, Middlesex, and Norfolk counties experience while trying to maintain their health. Throughout the discussion, a list of needs identified in both the CHNA findings, as well as the feedback received during the meeting, helped to create a "master list" of community priorities. Those priorities are listed below in alphabetical order:

Key Community Health Issues

Approved by a Board of Directors' vote on April 26, 2021, Milford Regional Medical Center selected the following priorities for the 2021 – 2024 CHNA cycle:

- Health Care Access/Health Insurance
- Health Outcomes in Worcester County
- Homelessness/Food Insecurity
- Mental Health and Substance Use

Rationale for needs not address

Although dental care was identified as a key finding throughout the research, MRMC did not choose it as a priority area. However, several strategies and metrics were established to indirectly influence this finding under Priority Area #2: Health Care Access/Health Insurance.

COMMUNITY HEALTH IMPLEMENTATION PLAN

Strategies to Address Community Health Needs

Milford Regional Medical Center developed an Implementation Strategy to illustrate the hospital's specific programs and resources that support ongoing efforts to address the identified community health priorities. This work is supported by community-wide efforts and leadership from the Community Benefits Leadership & Advisory Committee and Board of Trustees. The goal statements, suggested strategies, metrics and inventory of existing community assets for each of the priority areas are listed in the grid below. Session participants can be found in Appendix I.

Priority Area #1: Mental Health & Substance Use

Overarching Goal: Reduce substance use across the region and increase access to mental health services for all ages.

Mental Health and Substance Use		
Strategies	**Metrics**	**Resources/Potential Partner Organization**
Increase collaboration between hospital, advocates and community organizations to assist patients with mental health and/or substance use issues upon discharge.	• Number of community collaborations • Data from CIMS • Reduced admissions/discharged	• Chris' Corner • No One Walks Alone (NOWA) • Riverside Community Care • Family Continuity
Collaborate with schools and after school programs to address behavioral/mental health issues with school-aged children.	• Number of collaborations formed • Number of programs held	• Milford Youth Center • Local schools • Chris' Corner • No One Walks Alone (NOWA) • Riverside Community Care • Family Continuity • Whitin Community Center • Hockomock Area YMCA • Community Impact

Increase access to low cost parenting classes to help families manage mental health issues in children and adults.	• Number of parenting resources available	• Chris' Corner • No One Walks Alone (NOWA) • Riverside Community Care • Family Continuity • New Hope • Worcester Country District Attorney
Increase bilingual resources and cultural sensitivity awareness for immigrant populations.	• Number and types of resources available	• Edward M. Kennedy Community Health Center (EMK) • Community Outreach Worker • MRMC Interpreter Services • Milford Youth Center • Whitin Community Center • Worcester County District Attorney • Chris' Corner • NOWA • Riverside Community Care • Family Continuity Churches/Places of Worship
Increase networking opportunities for community organizations to foster collaboration and efficient use of resources, as well as share best practices.	• Number of networking events • Number of new collaborations formed	• MRPG • MRMC Case Management • MRMC Substance Use Task Force • EMK • Milford Youth Center • Whitin Community Center • Worcester County District Attorney • Chris' Corner • NOWA • Riverside Community Care • Family Continuity Local police departments

Increase access to telehealth for mental health and substance use patients.	• Number of telehealth visits	• Riverside Community Care • Family Continuity • New Hope • Tri-Valley Elder Services
Continue to support jail diversion programs in the service area.	• Number of programs	• Local Police Departments • School Resource Officers • Chris' Corner • Worcester/Norfolk/Middlesex County District Attorneys • Family Continuity
Increase collaboration with domestic violence resources.	• Number of referrals	• New Hope • Local police departments • Chris' Corner

Priority Area #2: Health Care Access/Health Insurance

Overarching Goal: Reduce health disparities by improving health care access and health insurance access for vulnerable populations in the MRMC service area.

Health Care Access/Health Insurance		
Strategies	**Metrics**	**Resources/Potential Partner Organization**
Increase access to dental care by supporting, where appropriate, the opening new dental clinics for low-income residents.	• Number of dentists providing screening to low-income residents	• EMK

Provide dental screening and oral hygiene education to local youth.	• Number of children participating in dental outreach programs	• Blackstone Valley Regional Vocational Technical High School Dentistry Program • Tri-County Regional Vocational Technical High School • Local dental offices • Hockomock YMCA Whitin Community Center
Assist in vaccination efforts in the Town of Milford where appropriate to address the needs of the school-aged immigrant population.	• Number of school-aged children who receive necessary school vaccinations	• EMK • St. Anne's Free Medical Clinic • Milford Public Schools • Milford Health Department
Increase the number of providers and advanced practitioners through recruitment and retention.	• Number of new primary care physicians • Number of new specialty physicians • Number of new advanced practitioners	• MRMC • Milford Regional Physician Group
Continue to facilitate enrollment of uninsured/underinsured for health benefits and connect Emergency Department patients with primary care providers.	• Number of residents who receive insurance enrollment assistance • Number of patients connected to PCPS	• MRMC Benefits Enrollment Counselors • EMK • MRMC Community Health Workers • MRMC Care Management • TriValley Elder Services SHINE counselors

Work in partnership with community leaders to provide local immigrants with healthcare and insurance resources.	• Number of residents enrolled	• Milford Health Department • Community Outreach Worker • EMK • Local religious leaders • Trusted business contacts, i.e. hairdressers, barbers • Catholic Charities • MRMC Interpreter Services Churches/Places of Worship

Priority Area #3: Health Outcomes in Worcester County

Overarching Goal: Improve health outcomes in Worcester County by analyzing data specific to Worcester County communities within the MRMC service area to first understand the major health issues and then to plan necessary steps to improve health outcomes in those identified areas.

Health Outcomes in Worcester County		
Strategies	**Metrics**	**Resources/Potential Partner Organization**
Track hospital data to identify health issues specific to service area towns located in Worcester County.	• Specific data on health issues such as asthma, cancer, diabetes, obesity, chronic illness, respiratory diseases, cardiac disease, etc. to determine which areas to focus future planning.	• MRMC Quality Department • MRMC Emergency Department • Town specific census and health data • UMass hospital system

Facilitate networking and collaboration among external organizations to help improve health outcomes.	• Hold annual networking meeting discuss areas of need and resources available • Number of new collaborations and partnerships	• Non-profit organizations in the community such as, but not limited to, New Hope, Tri-Valley Elder Services, Central Mass YMCA, Catholic Charities, Salvation Army, UMass, local municipalities and health department, senior centers Whitin Community Center
Provide educational opportunities in the community on the importance of screenings and preventative health measures.	• Number of patients in the lung cancer screening program • Number of colonoscopies • Number of prostate screenings • Number of rectal cancer screenings	• MRMC • MRPG • UMass • Tri-River Family Medical
Research high number of accidents in an effort to determine driving factors that may need to be addressed	• Define "accidents" • Reduction of accidents	• Town Health Data • MRMC Quality Department • MRMC ED UMass

Priority Area #4: Food Insecurity & Homelessness

Overarching Goal: Increase communication and collaboration with community organizations to prevent homelessness, assist those facing a housing crisis and help reduce food insecurity in the service region.

Food Insecurity & Homelessness		
Strategies	**Metrics**	**Resources/Potential Partner Organization**
Collaborate with community churches and other local non-profits to communicate resources to immigrant and non-English speaking community.	• Number of people requesting assistance from local organizations	• Catholic Charities • Whitin Community Center • Salvation Army • Local food pantries • Tri-Valley Elder Services • Pathway to a Better Life and other local coalition community groups • Milford Health Department • Milford Humanitarian Coalition • CHNA 6 • St. Vincent de Paul • Local churches • Hockomock YMCA • Local Police Departments
Support local organizations providing temporary shelter to those experiencing a housing crisis or homelessness.	• Number of people in temporary shelters • Number of people provided assistance	• Tri-Valley Elder Services • Pathway to a Better Life • Blackstone Valley Emergency Shelter • Catholic Charities • Salvation Army • Milford Area Humanitarian Coalition • Milford Health Department • CHNA 6

Establish a network of organizations that can pool resources and streamline assistance in a collaborative effort to increase resources in the service area.	• Number of organizations in network • Number of those assisted	• Tri-Valley Elder Services • Hockomock YMCA • Whitin Community Center • Catholic Charities • Local food pantries • Pathway to a Better Life and other local coalition community groups • Senior Centers • Local churches
Partner with local police departments to provide assistance with community meals and grocery services, which will help those with transportation deficits and improve relationships with local law enforcement.	• Number of people helped • Number of community meals provided	• Local police departments • Whitin Community Center • Catholic Charities • Hockomock Area YMCA • Senior Centers • Local food panties • Local grocery stores
Support local efforts to increase affordable housing in the service area.	• Number of affordable units available in the service region	• MetroWest Collaborative Development • Milford Area Humanitarian Coalition • Catholic Charities
Establish a connection between community organizations and local farms, markets and grocery stores to increase local food donations of "unsellable" food.	• Increased inventory at local food pantries and food service programs • Number of partnering markets/stores	• Local grocery stores • Hockomock Area YMCA • CHNA 6 • Local food pantries • Milford Area Humanitarian Coalition • Milford Health Department • Franklin Area Non-Profit Network • Whitin Community Center

Continue to support food assistance programs and local farmers markets.	• Number of people served • Number of events held/assistance programs annually	• Hockomock Area YMCA • CHNA 6 • Local food pantries • Milford Health Department • Local churches • Milford Area Humanitarian Coalition • Franklin Area Non-Profit Network

APPENDIX A. REFERENCES

Centers for Disease Control and Prevention. (2018). *Behavioral Risk Factor Surveillance System*. Retrieved from https://www.mass.gov/lists/brfss-statewide-reports-and-publications

Centers for Disease Control and Prevention. (2017; 2018). *Behavioral Risk Factor Surveillance System*. Retrieved from https://www.cdc.gov/places/

Centers for Disease Control and Prevention. (2019). *CDC wonder*. Retrieved from http://wonder.cdc.gov/

Milford Regional Medical Center. (n.d.). *About MRMC*. Retrieved from https://www.milfordregional.org/about-us/

National Cancer Institute. *State Cancer Profiles*. Retrieved from http://statecancerprofiles.cancer.gov/index.html

Robert Wood Johnson Foundation. (2020). *County Health Rankings & Roadmaps*. Retrieved from http://www.countyhealthrankings.org

SAMHSA. (2019). *National Survey of Drug Use and Health*. Retrieved from https://www.samhsa.gov/data

Secretary of the Commonwealth of Massachusetts. (n.d.). *A Listing of Counties and the Cities and Towns Within*. Retrieved from https://www.sec.state.ma.us/cis/cisctlist/ctlistcoun.htm

U.S. Census Bureau. (2014 – 2018; 2015-2019). *Explore Census Data*. Retrieved from https://data.census.gov/cedsci/U.S.

U.S. Department of Health and Human Services. (2019). *The 2019 HHS Poverty Guidelines*. Retrieved from https://aspe.hhs.gov/poverty-guidelines

APPENDIX B. SECONDARY DATA DEFINITIONS

Age-Adjusted Rate: Age-adjustment is a statistical process applied to rates of disease, death, injuries or other health outcomes, which allows populations with different age structures to be compared.

Behavioral Risk Factor Surveillance System (BRFSS): Ongoing surveillance system with the objective to collect uniform, state-specific data from surveys on adults' health-related risk behaviors, chronic health conditions, and use of preventive services.

Crude Rate: Expresses the frequency in which a disease or condition occurs in a defined population in a specified period of time, without regard to age or sex.

Determinants of Health: The personal, social, cultural, economic and environmental factors that influence the health status of individuals or populations.

Family: Defined as a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption.

Frequency: Often denoted by the symbol "n," and referred to the number of occurrences of an event.

Health: A state of complete physical, mental, and social well-being and not just the absence of disease or infirmity.

Health Disparities: Indicate the difference in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exists among specific population groups.

Health Outcomes: A medical condition or health status that directly affects the length or quality of a person's life. These are indicators of health status, risk reduction, and quality of life enhancement.

Housing Unit: A house, an apartment, a mobile home, a group of rooms, or a single room occupied (or if vacant, intended for occupancy) as separate living quarters.

Household: All the people who occupy a housing unit, including related family members and all the unrelated people who may be residing there. Examples include college students sharing an apartment or a single male living alone.

Householder: One person in each household is designated as the householder. In most cases, the householder is the person, or one of the people, in whose name the housing unit is owned or rented (maintained). The two major categories of householders are "family" and "nonfamily."

Incidence: Refers to the number of individuals who develop a specific disease or experience a specific health-related event during a particular time period.

Morbidity: Refers to the state of being diseased or unhealthy within a population.

Mortality: Number of deaths occurring in a given period in a specified population.

APPENDIX B. SECONDARY DATA DEFINITIONS (CONT'D.)

Poverty: When a person or group of individuals lack human needs because they cannot afford them. Human needs include clean water, nutrition, health care, education, clothing, and shelter.

Prevalence: The total number of individuals in a population who have a disease or health condition at a specific period of time, usually expressed as a percentage of the population.

Quality of Life: Degree to which individuals perceive themselves as able to function physically, emotionally, and socially.

Rate: A measure of the intensity of the occurrence or frequency with which an event occurs in a defined population. Rates are generally expressed using a standard denominator such as per populations of 1,000, 10,000 or 100,000.

Size of Household: Includes all the people occupying a housing unit.

Size of Family: Includes the family householder and all other people in the living quarters that are related to the householder by birth, marriage, or adoption.

Socioeconomic Status (SES): A composite measure that typically incorporates economic, social, and work status. Examinations of socioeconomic status often reveal inequalities in access to resources.

Years of Potential Life Lost (YPLL): A measure of premature mortality or death on a population, calculated as deaths that occur before some predetermined minimum or desired life span (usually age 75, which is the average life span).

APPENDIX C. KEY INFORMANT PARTICIPANTS

Name	Agency
Patricia A.	Blackstone Housing Authority
Joanna Anderson	Tri-Valley Inc.
Janet Angelico	Wrentham Senior Center Director
Candace Avery	Millis Housing Authority
Magaly Barbato	Milford Regional Medical Center
Maria Barbosa	New Hope Inc.
Lauren Barry	Wayside Inc.
Brendan Bartlett	Family Continuity
Amy Beck	Hopkinton Senior Center Director
Erica Bedard	Department of Children and Families
Trish Benoit	Police Department
Marykate Bergen	Hockomock Area YMCA
Lisa Bernard	Uxbridge Senior Center Director
Laura Black-Silver	Tri-Valley Inc.
Reverend Bob	Valley Chapel
Kelly Bol	Northbridge Senior Center Director
Donmarie Boutilette-Smith	Seven Hills Child Care Resource & Referral
Michael Bradley	Upton Chief of Police
Joni Brown	Milford Regional Rehabilitation & Sports Medicine
Lynn Calling	Franklin Food Pantry
Jake Cavanaugh	The NAN Project
Sue Clark	Milford Senior Center
Michael Constantine	Dana Farber/ Brigham and Women'sCancer Center
Tina Cook	Millville Outreach Coorinator Senior Center
Karen Crebase	Hopedale Superintentent
Gerard Daigle	Bellingham Chief of Police
Maria DaSilva	Milford Regional Medical Center
Phillip Davies	Salvation Army
Marcel Descheneaux	Riverside Community Care
Marianne DeVries	Greater Grafton Medical Reserve Corp Coordinator
Kim DiMarino	Franklin Food Pantry
Rebecca Donham	MetroWest Health Foundation
Josie Dutil	Bellingham Senior Center Director
Bruce Dykstra	The River Church
Heather Elster	Whitin Community Center
Brenda Feeley	Milford Regional Medical Center
Luisa Fundora	Department of Public Health
Kelley Gamble	Open Sky Community Services

APPENDIX C. KEY INFORMANT PARTICIPANTS (CONT'D.)

Name	Agency
Malerie Germain	New Hope Inc.
Ana Guilarducci	Milford Regional Medical Center
Greg Handel	Thriveworks
Jeannie Hebert	Blackstone Valley Chamber of Commerce
Alyssa Henry	You Inc.
Arika Henry	Blackstone Valley Technical Regional Vocational HS
Dawn Hobill	Healthcentric Advisors
Lori Hout	Family Continuity
Susan Jacobson	Norfolk Affordable Housing
Peter Joyce	St Mary of Assumption
Nick Kane	Wayside Inc.
Patty Kayo	Millis Senior Center Director
Laurie Keefe	Blackstone Senior Center Director
Kevin Kent	Milford Regional Medical Center
Molly Kilborn	Franklin Food Pantry
Tracy Kuck	The Breast Center at Milford Regional
Brett Lambert	Northbridge Affordable Housing
Karen Levy	Catholic Charities
Jocelyn Lucier	St Vincent DePaul Society at St Mary of Assumption
Tina M.	Milford Regional Medical Center
Donna Macomber-Cassidy	Central Mass RLC & Kiva Center
Linda Marshall	Holliston Senior Center Director
Jaclyn Martin	Milford Housing Authority
Joseph Maruszczak	Mendon Upton Regional School Superintendent
Craig Maxim	Family Continuity
Shaun McAuliffe	Hopkinton Board of Health Director
Jean McCoy	Milford Regional Medical Center
Jenny McDonnell	WIC
John McVeigh	Millis Director of Public Health
Maureen Menard	Blakcstone Valley Technical Regional Vocational HS
Scott Moles	Holliston Health Director
Marc Montminy	Uxbridge Chief of Police
Kim Mu-Chow	New England Chapel
Amy Muehlberger	Beacon ABA Services
Carol Mullen	Hopedale Director of Senior Center
Emily Murray	Beginning Bridges CFCE
Christine Nadeau	Milford Regional Medical Center
Alyssa Nazereno	Healthy Families Framingham/Milford

APPENDIX C. KEY INFORMANT PARTICIPANTS (CONT'D.)

Name	Agency
Frank Nosek	St. Vincent dePaul
Ana Paulino	Michael's Mission 97 Inc.
Martha Pellegrino	Blackstone Valley Technical Regional Vocational HS
Patricia Pighetti-Parent	Upton Town Nurse
Janice Read	Upton Director of Senior Center
Joan Remillard	St Vincent DePaul
Candice Richardson	Edward M. Kennedy Health Center
Patrice Rousseau	Douglas Senior Center Director
Laurie Sabourin	Peace of Bread Community Kitchen
Sue Salisbury	Tri-Valley Inc.
Ryan Sherman	Medway Public Schools
Elizabeth Siraco	Blackstone Valley Family Physicians
Al Spittler	First Uniterian Universalist Church
Claudia Tamisky	Edward M. Kennedy Health Center
Jamie Terry	Uxbridge Interim Health Director
Lisa Trusas	Recovery Coach Milford Police Department
Jen Ward	Milford Youth Center
Ann Wilkins	Milford Regional Medical Center
Elaine Willey	Milford Regional Medical Center
Amy Wilson	Mendon Director of Senior Center
Janice Yost	The Health Foundation of Central Massachusetts
Michelle Zale	Milford Area Humanitarian Coalition

APPENDIX D. KEY INFORMANT SURVEY TOOL

Key Informant Online Questionnaire

INTRODUCTION: As part of its ongoing commitment to improving the health of the communities it serves, Milford Regional Medical Center is spearheading a comprehensive Community Health Needs Assessment.

You have been identified as an individual with valuable knowledge and opinions regarding community health needs, and we appreciate your willingness to participate in this survey.

The survey should take about 10-15 minutes to complete. Please be assured that all of your responses will go directly to our research consultant, Holleran Consulting, and will be kept strictly confidential. Please note that while your responses, including specific quotations, may be included in a report of this study, your identity will not be directly associated with any quotations.

When answering the questions, please consider the community and area of interest to be the 20-town service area of Bellingham, Blackstone, Douglas, Franklin, Grafton, Holliston, Hopkinton, Hopedale, Medway, Mendon, Milford, Millville, Millis, Norfolk, Northbridge (including Whitinsville), Upton, Uxbridge, and Wrentham.

KEY HEALTH ISSUES

1. What are the top **5** health issues you see in your community? (CHOOSE 5)

☐ Access to Care/Uninsured	☐ Nutrition
☐ Arthritis	☐ Overweight/Obesity
☐ Behavioral Health	☐ Respiratory Disease
☐ Cancer	☐ Sexually Transmitted Diseases
☐ Cognitive Disorders/Alzheimer's	☐ Stroke
☐ Dental Health	☐ Substance Abuse/Alcohol Abuse
☐ Diabetes	☐ Tobacco
☐ Food Insecurity	☐ Vaccinations
☐ Heart Disease	☐ Vaping
☐ Homelessness	☐ Violence
☐ Infectious Diseases/COVID-19	☐ Other (specify):
☐ Maternal/Infant Health	☐ None/Not Applicable
☐ Mental Health/Suicide	

2. Of those health issues mentioned, which **3 are most significant for those ages 0-10?**

☐ Access to Care/Uninsured	☐ Nutrition
☐ Arthritis	☐ Overweight/Obesity
☐ Behavioral Health	☐ Respiratory Disease
☐ Cancer	☐ Sexually Transmitted Diseases
☐ Cognitive Disorders/Alzheimer's	☐ Stroke
☐ Dental Health	☐ Substance Abuse/Alcohol Abuse
☐ Diabetes	☐ Tobacco

☐ Food Insecurity	☐ Vaccinations
☐ Heart Disease	☐ Vaping
☐ Homelessness	☐ Violence
☐ Infectious Diseases/COVID-19	☐ Other (specify):
☐ Maternal/Infant Health	☐ None/Not Applicable
☐ Mental Health/Suicide	

3. Of those health issues mentioned, which **3 are most significant for those ages 11-21?**

☐ Access to Care/Uninsured	☐ Nutrition
☐ Arthritis	☐ Overweight/Obesity
☐ Behavioral Health	☐ Respiratory Disease
☐ Cancer	☐ Sexually Transmitted Diseases
☐ Cognitive Disorders/Alzheimer's	☐ Stroke
☐ Dental Health	☐ Substance Abuse/Alcohol Abuse
☐ Diabetes	☐ Tobacco
☐ Food Insecurity	☐ Vaccinations
☐ Heart Disease	☐ Vaping
☐ Homelessness	☐ Violence
☐ Infectious Diseases/COVID-19	☐ Other (specify):
☐ Maternal/Infant Health	☐ None/Not Applicable
☐ Mental Health/Suicide	

4. Of those health issues mentioned, which **3 are most significant for those ages 21 -40?**

☐ Access to Care/Uninsured	☐ Nutrition
☐ Arthritis	☐ Overweight/Obesity
☐ Behavioral Health	☐ Respiratory Disease
☐ Cancer	☐ Sexually Transmitted Diseases
☐ Cognitive Disorders/Alzheimer's	☐ Stroke
☐ Dental Health	☐ Substance Abuse/Alcohol Abuse
☐ Diabetes	☐ Tobacco
☐ Food Insecurity	☐ Vaccinations
☐ Heart Disease	☐ Vaping
☐ Homelessness	☐ Violence
☐ Infectious Diseases/COVID-19	☐ Other (specify):
☐ Maternal/Infant Health	☐ None/Not Applicable
☐ Mental Health/Suicide	

5. Of those health issues mentioned, which **3 are most significant for those ages 40-70?**

☐ Access to Care/Uninsured	☐ Nutrition
☐ Arthritis	☐ Overweight/Obesity
☐ Behavioral Health	☐ Respiratory Disease

☐ Cancer	☐ Sexually Transmitted Diseases
☐ Cognitive Disorders/Alzheimer's	☐ Stroke
☐ Dental Health	☐ Substance Abuse/Alcohol Abuse
☐ Diabetes	☐ Tobacco
☐ Food Insecurity	☐ Vaccinations
☐ Heart Disease	☐ Vaping
☐ Homelessness	☐ Violence
☐ Infectious Diseases/COVID-19	☐ Other (specify):
☐ Maternal/Infant Health	☐ None/Not Applicable
☐ Mental Health/Suicide	

6. Of those health issues mentioned, which **3 are most significant for those ages 70+?**

☐ Access to Care/Uninsured	☐ Nutrition
☐ Arthritis	☐ Overweight/Obesity
☐ Behavioral Health	☐ Respiratory Disease
☐ Cancer	☐ Sexually Transmitted Diseases
☐ Cognitive Disorders/Alzheimer's	☐ Stroke
☐ Dental Health	☐ Substance Abuse/Alcohol Abuse
☐ Diabetes	☐ Tobacco
☐ Food Insecurity	☐ Vaccinations
☐ Heart Disease	☐ Vaping
☐ Homelessness	☐ Violence
☐ Infectious Diseases/COVID-19	☐ Other (specify):
☐ Maternal/Infant Health	☐ None/Not Applicable
☐ Mental Health/Suicide	

7. Please share any additional information regarding these health issues and your reasons for ranking them this way in the box below:

HEALTH CARE ACCESS

8. On a scale of 1 (strongly disagree) through 5 (strongly agree), please rate each of the following statements about **Health Care Access** in the area.

Strongly Disagree←→Strongly Agree

Residents in the area are able to access a primary care provider when needed. (Family Doctor, Pediatrician, General Practitioner)	☐1	☐2	☐3	☐4	☐5
Residents in the area are able to access a medical specialist when needed. (Cardiologist, Dermatologist, Neurologist,	☐1	☐2	☐3	☐4	☐5

etc.)	
Residents in the area are able to access a dentist when needed.	☐1 ☐2 ☐3 ☐4 ☐5
There are a sufficient number of providers accepting Medicaid and Medical Assistance in the area.	☐1 ☐2 ☐3 ☐4 ☐5
There are a sufficient number of multilingual providers in the area.	☐1 ☐2 ☐3 ☐4 ☐5
There are a sufficient number of mental/behavioral health providers in the area.	☐1 ☐2 ☐3 ☐4 ☐5
Transportation for local medical appointments is available to area residents when needed.	☐1 ☐2 ☐3 ☐4 ☐5

9. What are the most significant barriers that keep people in the community from accessing health care when they need it? **(Select all that apply)**

☐ Access to Telehealth Services
☐ Ability to use Telehealth Services
☐ Availability of Providers/Appointments
☐ Basic Needs Not Met (Food/Shelter)
☐ Homelessness
☐ Inability to Pay Out of Pocket Expenses (Co-pays, Prescriptions, etc.)
☐ Lack of Child Care
☐ Lack of Health Insurance Coverage
☐ Lack of Transportation
☐ Lack of Trust
☐ Lack of Understanding the Health Care System
☐ Language/Cultural Barriers
☐ Time Limitations (Long Wait Times, Limited Office Hours, Time off Work)
☐ Other (specify):
☐ None/No Barriers

10. Of those barriers selected, which **3** are the most significant? (CHOOSE 3)

☐ Access to Telehealth Services
☐ Ability to use Telehealth Services
☐ Availability of Providers/Appointments
☐ Basic Needs Not Met (Food/Shelter)
☐ Homelessness
☐ Inability to Pay Out of Pocket Expenses (Co-pays, Prescriptions, etc.)
☐ Lack of Child Care
☐ Lack of Health Insurance Coverage
☐ Lack of Transportation
☐ Lack of Trust
☐ Lack of Understanding the Health Care System

☐ Language/Cultural Barriers
☐ Time Limitations (Long Wait Times, Limited Office Hours, Time off Work)
☐ Other (specify):
☐ None/No Barriers

11. Related to health and quality of life, what resources or services do you think are missing in the community? (Check all that apply)

☐ Bilingual Services
☐ Free/Low Cost Dental Care
☐ Free/Low Cost Medical Care
☐ Health Education/Information/Outreach
☐ Health Screenings
☐ Medical Specialists
☐ Mental Health Services
☐ Prescription Assistance
☐ Primary Care Providers
☐ Substance Abuse Services
☐ Transportation
☐ None
☐ Other (specify):

12. Are there specific populations in this community that you think are not being adequately served by local health services? If yes, please identify: (Select all that apply)

☐ Arabic
☐ Black/African American
☐ Children/Youth
☐ Disabled
☐ Hispanic/Latino
☐ Homeless
☐ Immigrant/Refugee
☐ LGBTQ
☐ Low-income/Poor
☐ Seniors/Elderly
☐ Uninsured/Underinsured
☐ Young Adults
☐ Other (specify):
☐ None

13. What are the top 3 barriers people in the community face in trying to get and stay healthy? **(CHOOSE 3)**

☐ Cost of Healthy Foods and/or Gym Memberships	☐ Lack of Motivation
☐ Difficulty Meeting Basic Needs	☐ Lack of Safe Opportunities for

	Physical Activity
☐ Lack of Access to Fresh Fruits and Vegetables	☐ Lack of Support
☐ Lack of Available Information	☐ Lack of Time
☐ Lack of Knowledge and Skills	☐ Other (specify):

14. In your opinion, what is being done ***well*** in the community in terms of meeting the health needs of the community (Community Assets/Strengths/Successes)

15. What improvements can be made to better meet the health needs of the community and improve quality of life?

16. What effect has COVID-19 had on the health needs of the community? Did COVD-19 highlight any specific gaps/barriers in community health services?

17. Please provide the name and contact information of anyone who would be an appropriate source for focused research interview.

CLOSING

1. Which one of these categories would you say <u>BEST</u> represents your community affiliation? (CHOOSE 1)

☐ Business Sector
☐ Community Member

☐ Education/Youth Services
☐ Faith-Based/Cultural Organization
☐ Government/Housing/Transportation Sector
☐ Health Care/Public Health Organization
☐ Mental/Behavioral Health Organization
☐ Non-Profit/Social Services/Aging Services
☐ State/Federal Legislator
☐ Other (specify):

2. Milford Regional Medical Center and its partners will use the information gathered through this survey in guiding their community health improvement activities. Please share any other feedback you may have for them below. Your identity will not be associated with your comments.

Thank you! That concludes the survey.

APPENDIX E. FOCUSED RESEARCH INTERVIEW PARTICIPANTS

Name	Agency
Brendan Bartlett	Family Continuity
Joanna Braley	Tri-Valley, Inc.
Lynn Calling	Franklin Food Pantry
Phillip Davies	Salvation Army - Milford
Marcel Descheneaux	Riverside Community Care
Rebecca Donham	MetroWest Health Foundation
Kelley Gamble	Open Sky Community Services
Greg Handel	Thriveworks
Karen Levy	Catholic Charities
Jacquelyn Murphy	Milford Board of Health
Shannon Nesbitt	Hockomock Area YMCA
Candice Richardson	Kennedy Community Health Center
Erin Rodgers	Franklin Senior Center
Lisa Trusas	Town of Milford

APPENDIX F. FOCUSED RESEARCH DISCUSSION GUIDE

1. The preliminary research shows a large number of key informants feel that that mental health and substance abuse continue to be issues within the community. Can you speak to these issues? What are you seeing in your position/organization? What resources already exist within the community?

    a. Has there been a change in the last few years? Are there different/new substances that are being abused?

2. Another area that has risen to the top is Access to Care. We know that there are about 20,000 adults in the service area without health insurance. Forty percent of key informants state this specific population is underserved. In what ways could access to care be increased for this population? Are there specific locations/populations that should be focused on?

    a. Has telehealth been used successfully in increase access? Do you feel it has a continued presence in a post-COVID world?

3. Food insecurity and homelessness were also identified are key health issues. What have you seen regarding these issues? Have there been increases in these issues recently? What are some ways to these issues could be addressed?

4. We know that health outcomes differ depending on where you live. For instance, health outcomes in Worcester County tend to be poorer than Middlesex and Norfolk. Knowing that nearly half of MRMC's service area lives in Worcester, what could be done to reach this specific population in hopes of increasing their health outcomes?

5. Are there other issues/populations that we should be aware of/focusing on?

6. What have we missed in our initial research? Who or what organizations should be talking to or connecting with?

APPENDIX G. COMMUNITY BENEFITS LEADERSHIP AND ADVISORY COMMITTEES MEETING PARTICIPANTS – MARCH 31, 2021

Name	Agency
Donna Boynton	Milford Regional Medical Center
Kori Brousseau	New Hope
Heather Elster	Whitin Community Center
Rose Galimi-Hayes	Milford Regional Medical Center
Caitlin Gibbs	Hockomock YMCA
Judy Kelly	Milford Regional Medical Center
Kim Knox	Milford Regional Medical Center
Laura Mann	Milford Regional Medical Center
Derek Mattson	EMK Community Health Center
Christina Morrison	Milford Regional Medical Center
Kim Mu-Chow	New England Chapel
Alyssa Nazareno	Criterion Child
Ann Wilkins	Milford Regional Medical Center

APPENDIX H. CHNA6 COMMUNITY MEETING PARTICIPANTS

Name	Agency
Denise Barry	Wayside Inc.
Brendan Bartlett	Family Continuity
Ethan Belding	Central Massachusetts Agency on Aging
Donna Boynton	Milford Regional Medical Center
Joanna Braley	Tri-Valley Inc.
Kori Brousseau	New Hope Inc.
Alison Ciccone	Uxbridge Public Schools
Sue Clark	Milford Senior Center
Rebecca Donham	MetroWest Health Foundation
Heather Elster	Whitin Community Center
Malerie Germain	New Hope Inc.
Caitlin Gibbs	Hockomock Area YMCA
Sara Humiston	Milford Family & Community Network
Nick Kane	Wayside Inc.
Donna Kausek	The NAN Project
Milly Kilborn	Franklin Food Pantry
Lisa Kingkade	Milford Public Schools
Adam Kurtz	Holleran Consulting
Rev. Judith Lee	Trinity Episcopal Church
Cathleen Liberty	Town of Franklin - Board of Health
Jenny McDonnell	South Central WIC
Maydee Morales	Catholic Charities
Kim Mu-Chow	New England Chapel
Shannon Nisbett	Hockomock Area YMCA
Ryan Sherman	Medway Public Schools
Maddie Sirois	Catholic Charities
Marcia Szymanski	New Hope Inc.
Ana Maia Talma	Edward M. Kennedy Health Center
Jennifer Van Campen	MetroWest Collaborative Development
Jen Ward	Milford Youth Center

APPENDIX I. IMPLEMENTATION STRATEGY GROUP PARTICIPANTS

Mental Health & Substance Use – May 26, 2021

Name	Agency
Donna Boynton	Milford Regional Medical Center
Joanna Braley	Tri-Valley, Inc.
Heather Elster	Whitin Community Center
Kim Mu-Chow	New England Chapel
Lisa Trusas	Milford Police Department, Chris' Corner

Health Care Access/Health Insurance – May 26, 2021

Name	Agency
Joanna Braley	Tri-Valley, Inc.
Donna Boynton	Milford Regional Medical Center
Heather Elster	Whitin Community Center
Derek Matteson	EMK Community Health Center
Kim Mu-Chow	New England Chapel

Health Outcomes in Worcester County – June 2, 2021

Name	Agency
Joanna Braley	Tri-Valley, Inc.
Donna Boynton	Milford Regional Medical Center
Heather Elster	Whitin Community Center
Caitlin Gibbs	Hockomock YMCA
Kim Mu-Chow	New England Chapel
Jackie Murphy	Milford Board of Health
Amie Shie	The Health Foundation of Central Massachusetts

Food Insecurity & Homelessness – June 2, 2021

Name	Agency
Patty Berthiaume	Tri-Valley, Inc.
Donna Boynton	Milford Regional Medical Center
Heather Elster	Whitin Community Center
Caitlin Gibbs	Hockomock YMCA
Karen Levy	Catholic Charities
Renee Masiello	Chris' Corner
Kim Mu-Chow	New England Chapel
Jackie Murphy	Milford Board of Health
Tina Powderly	Franklin Food Pantry
Candace Richardson	EMK Community Health Center
Lisa Trusas	Milford Police Department, Chris' Corner, Pathway to a Better Life
Jennifer Van Campen	MetroWest Collaborative Development

APPENDIX J. 2018 IMPLEMENTATION STRATEGY OUTCOMES

The following is an overview of the outcomes from each priority area from the 2018 Community Health Needs Assessment.

Behavioral Health/Substance Abuse

Objective 1.1: By September 2021, increase community linkages to connect and advocate for families/individuals to access behavioral health and substance abuse prevention services

- The Dementia Experience: Milford Regional Medical Center worked jointly with Cornerstone at Milford Senior Living to plan and present The Dementia Experience, a program that uses sensory modifications and role-playing activities to depict real-life situations that a person living with mild cognitive impairment or dementia would face. The Dementia Experience thrusts you into the daily life of someone with dementia by simulating the physical ailments afflicting many seniors and created the frustration, confusion and anxiety that accompany cognitive impairment. The program was free to the community and held at the Milford Senior Center. ***Planned in FY2019, held in FY 2020 with plans to host a second one in Northbridge. The second program was canceled due to COVID-19.***
- Working with Community Health Network Area Region 6 (CHNA 6), a grant was awarded to Riverside Community Care Outpatient Center for a yoga and self-awareness training program to help high school students manage stress and anxiety.
- Working with CHNA 6, a grant was awarded to Wayside Youth & Family Support Network, Inc. to embed a clinician at Stacy Middle School in Milford to provide mental health counseling during school hours.
- Case Management Department continues to work to connect youth and families to mental health providers through referral service.
- Working with CHNA 6, Milford Regional supported a jail diversion program with Juvenile Advocacy Group (JAG) and the Milford Police Department.
- Supported the Blackstone Valley Connector with Family Continuity through CHNA 6.
- Milford Regional entered a partnership with Spectrum Health Systems to establish a bridge clinic. The partnership allows for rapid access to medication assisted treatment to patients of the Emergency Department and other Milford Regional affiliated patient care sites. The partnership helps bridge the gap between emergency care and primary care for patients with substance abuse disorder and longer-term addiction treatment.

Health Care Access

Objective 2.1: by September 2021, increase the number of residents/patients from vulnerable populations who have access to health care.

- Milford Regional Medical Center has established a Recruitment Committee to work on increasing access to primary care physicians and specialists.
- Since FY2018, Milford Regional has added a total of 83 new primary care physicians and specialists.

Objective 2.2: By September 2021, provide education on programs, services, and resources to improve health and increase access to care for vulnerable populations.

- Working with CHNA 6, a grant was awarded to Abundant Care Inc. to provide personal products for the underserved and immigrant populations.

Health Promotion and Chronic Disease Prevention

Objective 3.1: By September 2021, improve health outcomes related to chronic disease through health promotion and prevention strategies/programs.

- Milford Regional Medical Center trained two facilitators in the American Lung Association's Freedom from Smoking program. The smoking cessation program launched in April 2019.
  - **In FY 2020, the program was offered free to the community, however the program was suspended due to COVID-19.**
- Milford Regional worked with the Central Massachusetts Tobacco Free Community Partnership, school districts within our service area and Valley Chapel to offer a program to address the need for more information and education on the health effects of vaping, and what signs to look for to know if a teen is using electronic vaping products. Central Massachusetts Tobacco Free Community Partnership also met with the hospital's Substance Abuse Task Force to provide appropriate training.
- Continued to offer the Baby Steps Program within the Maternity Department.
- Working with CHNA 6, Milford Regional helped support the expansion of the Hockomock YMCA's Summer Food Service Program and implement the Healthy Weight & Your Child program.
- Milford Regional has a partnership with the Milford Senior Center through which the hospital offers Healthy Living Lunches at the senior center five times a year. The partnership includes funding the lunch program and providing speakers to educate attendees on relevant health topics. ***This program was suspended in 2020 due to COVID-19. Instead, two presentations were taped at Milford Community Television – COVID vs. the Flu, and Medication Safety.***

Objective 3.2: By September 2021, increase physical fitness and healthy eating across the lifespan in the Greater Milford Area

- Milford Regional Medical Center provides funding for CrossFit, Yoga, Pound®, Zumba®, Cardio Dance Jam and Fit Camp to be held at the Youth Center's After School Program throughout the school year. Each class ends with a healthy snack. More than 200 local youth have been served by this program.
- Milford Regional continues to work with CHNA 6 and agencies within that organization to provide needed services. Grants through CHNA 6 – largely funded by money from Milford Regional through the state's Determination of Need process – have been awarded to address food insecurity and to create community gardens. Examples include grants to Hockomock Area YMCA for a Centralized Model for School Food Pantries in Milford and a community garden for the Franklin Food Pantry.
- The Steering Committee of CHNA 6 – on which Milford Regional serves – decided to offer Emergency Grants related to COVID-19. These grants were offered monthly in an effort to be responsive in a timely manner to emerging community health needs. From June through September, $122,227.40 was awarded to 14 agencies to fund various programs to address increased food insecurity, to support telehealth services – especially for mental health providers and social service agencies, and many other COVID related needs.

Priority Area: Violence Prevention

Objective 4.1: By 2021, increase awareness and education around bullying and domestic violence and promote available resources

- Milford Regional had planned a program in conjunction with New Hope, Inc. called "In Their Shoes," an immersive program that explored bullying, sexting and dating violence among teens. The program was to be facilitated by New Hope and was designed to immerse participants in various real scenarios to help gain insight about teen interactions with their dating partner, family, friends, teachers, counselors, police and others. ***The program was scheduled for April, but was unfortunately canceled due to COVID-19.***
- Milford Regional had also planned a comprehensive Coaches Training Program in partnership with Whitin Community Center. This pilot program was aimed at providing access to training for volunteer coaches within town recreation departments. This training included CPR, behavior management, abuse awareness and concussion training. The goal of the program was to help promote a pure love of sport and physical activity while equipping coaches with the proper skill set to ensure a child's safety on the field, with a recognition that sometimes outside forces can affect a child's ability to interact with teammates and others on the field. ***This, too, was postponed due to COVID-19.***

APPENDIX K. 2015 IMPLEMENTATION STRATEGY OUTCOMES

The following is an overview of the outcomes from each priority area from the 2015 Community Health Assessment.

Behavioral Health/Substance Abuse

- Substance Abuse Task Force is led by Drs. Soderstrom and Kent. The Task Force includes representation from the hospital pharmacy department, maternity, care management, the Emergency Department (ED), Milford Regional Physician Group, as well as the Patient Family Advisory Council and outside community agencies. The Task Force is following MHA recommendations for opioid prescribing practices and requirements for hospital EDs, and implementing prevention and education to help combat the opioid epidemic. Standing orders have been written by the ED physicians for Narcan at the local pharmacies. The Task Force is examining resources in the ED and addressing the need for treatment, recovery, and support for patients and their families.
- A Mental Health Roundtable to discuss barriers to mental health parity was organized by the Office of Joseph Kennedy III and was hosted by MRMC on May 3, 2016. The discussion included key community leaders from Riverside Community Care, Health Care for All, Wayside Inc., Edward M. Kennedy Community Health Center, and Community Impact, Inc.
- Staff has been expanded in the ED to include Behavioral Health Nurses, Patient Safety Assistants and Clinical Social Workers.
- Behavioral Health has been integrated at area primary care practices. Five Tri-County Medical Associates (TCMA), now known as Milford Regional Physician Group, are integrating/co-locating behavioral health. TCMA also hired its first 2 social workers.
- An average of 423 students receive mental health services annually at the school-based health center at Blackstone Valley Regional Technical High School. This included 551 in school year 2013-2014, 223 in 2014-2015, and 496 in 2015-2016.
- 100 providers attended the annual JAG (Juvenile Advocacy Group) Mental Health Networking Breakfast from 2012-2015.
- The Road to Recovery Support Group was established.
- Yourteen.org, a resource for parents in the Greater Milford area, had 3,291 users in FY 2016. Between Sept. 2014 and Oct. 31, 2015, there were 2,665 users and 5,484 page views of the website.
- From February 2014 – January 2016, there were 122 referrals to Interface Referral Service for Milford Residents of all ages that required a mental health referral.
- The Babysteps Program in the Maternity Department was established.
- The Neonatal Abstinence/Snuggle Squad was created.

Health Care Access

- The insurance enrollment target was 220 per year according to the last Strategic Implementation Plan (SIP).
  - In FY 2015, 800 patients received enrollment assistance from MRMC Patient Accounts.
  - In FY 2016, 479 applications were processed by CACs at Milford Regional.
- Outreach is being conducted in the ED.
  - Between March 2014 and December 2015, 3,961 patients were referred from the ED to Edward M. Kennedy Community Health Center.
  - In FY 2016, 2,579 referrals were made to primary care providers
- Through work with CHNA 6, a Transportation Bus Loop was established. This is a fixed loop bus route with stops strategically placed near doctor's offices, medical clinics, MRMC, as well as grocery stores and business districts.
- In FY 2016, a free oral cancer screening was held in partnership with Dr. Goodman and his staff.
- As part of a collaboration with Milford Public Schools to ensure that newly arrived students receive immunizations and primary care, 138 newly arrived Milford Public School students were connected to primary care for immunizations and physicals at the Edward M. Kennedy Community Health Center in order to start school on time in 2014.
- The Blackstone Valley Free Medical Clinic saw a decline in patients needing free care from 747 patients in 2002 to approximately 12 patients before closing in 2014.

Health Promotion and Chronic Disease Prevention

- More than 30 community educational programs were held in FY 2016. Some of these included wellness programs, nutrition programs, cancer prevention and support, educational lectures, diabetes education and various support groups.
- Living Well Luncheons were held at the Milford Senior Center 5 times a year.
- Free Skin Cancer Screenings were provided between FY 2015 – FY 2017.
- An Elder Wellness Program was established
- Senior Wellness Fair
- The Food Access Project was started with local YMCA. In FY 2016, 6,200 meals were served during summer lunch program.
- MRMC has been working with Dana Farber Cancer Committee to introduce a tobacco education program (smoking cessation) to fulfill hospital accreditation requirements and requirements for the Lung Screening Program. In addition, inpatient Mass Health reimbursement requires counseling in tobacco cessation. Two clinical staff members at Dana Farber have been trained in tobacco education with support from the Oliva Fund through the MRMC Foundation Office.
- The Patient Family Advisory Council (PFAC) held a community forum on palliative care in 2016 and 2017 with the support of the New England Chapel. Panelists included Dr. William Muller, Dr. Anthony Wilson, Chaplain Fr. Larry Esposito, and members of the CHART high risk mobile team.
- PFAC's Subcommittee on Palliative Care has also worked with members of Stephens Ministry to support training of lay ministers in end-of-life conversations.
- The TB Clinic Contract was reviewed in 2016 with the hospital. The clinic is overseen by Laurie Mosher-Murphy. Outreach and follow-up increased through collaboration with the Milford

Board of Health, Milford Public Schools, VNA, St. Mary's Church, Welcoming Milford and Edward M. Kennedy Community Health Center.

- More than 35 community health programs are provided annually by MRMC, including nutrition, diabetes, senior living/healthy aging, and medical lectures.

Healthy Weight for Youth

- A youth fitness program was launched at the Milford Youth Center in spring 2017 starting with a free CrossFit for Kids program. The program is free to all middle-school and high school students enrolled in the After School program at the Milford Youth Center. A six-week CrossFit session was followed by a six-week yoga class. The pilot program was so successful that Kids Zumba was added in spring 2018.
- The Rethink Your Drink campaign was established to decrease the consumption of sugared beverages between 2012 and 2015.
- In summer 2016, more than 70 volunteer hours were provided by 28 MRMC employees at the Summer Food Service Program in Milford for children and their caregivers. This program targets the 44% of kids in Milford eligible for free and reduced lunch during the school year.
- In 2015, there were more than 2,000 free summer lunches provided and more than 6,200 in 2016 for Milford Students who qualified to receive free and reduced lunch.
- The healthy food options were increased at 3 local food pantries.