Morton Hospital
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Community Health Needs Assessment 2018


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Acknowledgements

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For more information about this report and our process, as well as our community health program, please visit our website https://www.mortonhospital.org/about-us/community-health-outreach or contact Julie Masci, Director of Marketing, Public Affairs and Community Health Programs, at Julie.masci@steward.org.

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Executive Summary

This report is a comprehensive analysis of health outcomes and perspectives in the Morton Hospital primary service area which encompasses Taunton, E. Taunton, Raynham, Berkley, Dighton, N. Dighton, Middleboro, and Lakeville. Data was gathered by analyzing publicly available information, by reviewing community feedback gathered through focus groups, by conducting an extensive review of published literature on the health of the population residing in the region and in the Commonwealth of Massachusetts, and by surveying local health professionals and community members. This data-driven methodology allowed Morton Hospital to investigate the resource requirements of the community in order to better streamline resources and inform community-based initiatives. The information contained herein highlights some of the public health needs identified within the community and may be used to develop targeted community health improvement strategies as well inform the hospital in the development of its subsequent Implementation Strategy and other Community Benefits programming.

The goal has been to engage and learn from community members, particularly those most at-risk for experiencing health disparities as well as organizations who work directly with these populations and develop recommendations for Community Benefits programming that bring about improved health outcomes in high priority populations. For the purpose of this Community Health Needs Assessment (CHNA), high priority populations may be defined as, members of the community that have been historically marginalized due to racism, poverty and/or have had limited access to health care services, as well as members of the community who are at highest risk for developing the various chronic diseases and behaviors outlined in this report. As noted in the *Attorney General's Community Benefits Guidelines for Non-Profit Hospitals*, released February 2018, "*It is well understood that racism – in all of its forms – and institutional bias impact health outcomes, both through their influence on the social determinants of health and also as an independent factor affecting health. The health equity framework illustrates how racism has an independent influence on all the social determinants of health and that racism in and of itself has a harmful impact on health"*. Through the development and implementation of evidence-based best practices in Community Benefits programming, Morton Hospital seeks to respond to the guidance offered by the Office of the Attorney General and the health equity framework. We accomplish this by:

- Assessing and addressing the unmet health needs of our community
- Participating in local action committees/task forces
- Providing accessible, high-quality care and services to everyone in our community, regardless of their ability to pay
- Collaborating with staff, providers and community representatives to deliver meaningful programs that address statewide health priorities and local health issues
- Encouraging the community to engage in healthy lifestyles, be active participants in their health care, and to learn the risks associated with unhealthy behaviors and poor lifestyle choices

Social determinants of health, including social, behavioral and environmental influences, have become increasingly prevalent factors in addressing population health. The literature recommends linking health care and social service agencies in addressing social determinants of health to increase the efficacy of health promotion and chronic disease prevention programs. In particular, services related to housing, nutritional assistance, education, public safety, and income supports are areas for cross-sector collaboration with health services in the community. Multicultural communities face particularly complex issues when accessing and receiving treatment in their daily lives.

Maintaining and strengthening community engagement on health promotion, chronic disease prevention, substance abuse prevention and mental illness among other critical areas for collaboration, is key to the success of population health improvement strategies. From promoting access to affordable health care, creating a stable positive economic environment in the region, ensuring that those most at-risk have access to basic needs for better health outcomes such as stable affordable housing, low-cost nutritional

food choices, and a healthy environment, Morton Hospital is well positioned to implement community benefits programs that support a healthy and thriving community. The information and recommendations herein are presented as a starting point for discussions and planning within the hospital and with community-based partners to develop truly comprehensive, actionable and measurable Community Benefits programming.

Introduction

Morton Hospital, founded in 1889, is part of Steward Health Care System. Steward Health Care, the largest private, for-profit hospital operator in the United States, is a physician-led health care services organization committed to providing the highest quality of care in the communities where patients live. Headquartered in Boston, Massachusetts, Steward operates 38 community hospitals in the United States and the country of Malta, which regularly receive top awards for quality and safety. The company employs approximately 40,000 health care professionals. The Steward network includes more than 25 urgent care centers, 42 preferred skilled nursing facilities, substantial behavioral health services, over 7,300 beds under management, and approximately 1.5 million full risk covered lives through the company's managed care and health insurance services. The total number of paneled lives within Steward's integrated care network is projected to reach 3 million in 2018. Steward's unique health care service delivery model leverages technology, innovation, and care coordination to keep patients healthier. With a culture that prioritizes agility, resourcefulness, and continuous improvement, Steward is recognized as one of the world's leading accountable care organizations. The Steward Health Care Network includes thousands of physicians who help to provide more than 12 million patient encounters per year. Steward Medical Group, the company's employed physician group, provides more than 4 million patient encounters per year. The Steward Hospital Group operates hospitals in Malta and states across the U.S. including Arizona, Arkansas, Florida, Louisiana, Massachusetts, Ohio, Pennsylvania, Texas, and Utah.

Morton Hospital is a 112-bed acute care hospital providing comprehensive inpatient, outpatient, and 24/7 emergency services to Taunton and the communities of southeastern Massachusetts. The hospital is a Joint Commission-accredited healthcare facility, offering state-of-the-art technology and innovative procedures in a local community setting. The hospital's strengths include emergency medicine, diabetes care, imaging services, orthopedics, rehabilitation services, surgical care, and wound healing.

Through continuous assessment of unmet community health needs, participation on local committees and task forces, and funding of community health and wellness initiatives, Morton Hospital is able to respond to low-income, under or uninsured populations, providing access to comprehensive care across Southeastern Massachusetts - primarily Taunton, E. Taunton, Raynham, Berkley, Dighton, N. Dighton, Middleboro and Lakeville.

Community Benefits Mission Statement

The Morton Hospital's community benefits mission and the guiding philosophy of our community initiatives are to establish a data-driven, evidence-based Community Benefits Program that improves the status of our community and provides access to comprehensive, high quality, compassionate, and efficient health services in the community setting. We accomplish this by:

- Assessing and addressing the unmet health needs of our community
- Participating in local action committees/task forces
- Providing accessible, high-quality care and services to everyone in our community, regardless of their ability to pay
- Collaborating with staff, providers, and community representatives to deliver meaningful programs that address statewide health priorities and local health issues
- Encouraging the community to engage in healthy lifestyles, be active participants in their health care, and to learn about the risks associated with unhealthy behaviors and poor lifestyle choices

This community benefits philosophy expands upon the mission of Morton Hospital to identify and address community needs; particularly those that affect the health and wellness of residents throughout the greater Taunton area. Morton Hospital aims to provide culturally-sensitive, linguistically-appropriate, accessible health care services to the communities it serves. The Hospital also works to address barriers

to health care access and maintains a school-based clinic in the community to provide primary health care services to under-insured or uninsured children.

The Hospital fosters an internal environment that encourages involvement in community benefit activities and includes in its mission and goals the development of organization-wide cultural diversity programming, addressing the cultural needs of our community.

Methods

The 2018 Morton Hospital Community Health Needs Assessment (CHNA) was developed in full compliance with the Commonwealth of Massachusetts Office of Attorney General-*The Attorney General's Community Benefits Guidelines for Non-Profit Hospitals* released in February 2018. To conduct this needs assessment, Morton Hospital engaged various community organizations and members to ensure that varying perspectives on health and social topics were considered. Below is a brief description of the data collection process.

Health Indicators and Demographics – Data Analysis

In order to get a broader view of the health and sociodemographic trends in the Morton Hospital primary service area, extensive public data was collected to enable key findings to be derived from the research of online data sources, in partnership with the Massachusetts Department of Public Health (MDPH). Data sources used by the team included U.S. Census Bureau, Department of Early and Secondary Education (DESE), Uniform Crime Reporting (UCR) Program of the Federal Bureau of Investigation and the Center for Disease Control and Prevention (CDC). Health indicator data, such as mortality, disease prevalence, hospitalizations and admissions to substance abuse programs was provided by the MDPH Office of the Commissioner and MassCHIP staff.

Key Informant Survey

A Key Informant Survey was developed and distributed electronically to all Morton Hospital staff, affiliated medical providers, community partner organizations, area health and human service organizations, as well as to the general public via the hospital's social media platforms. The survey was also shared within our local partner organizations, some of which also provided paper copies of the survey to their general community members.

A total of 91 individuals who live and/or work in our service area submitted responses via this survey. A copy of the survey may be found in Appendix B.

Focus Groups

Two focus groups were conducted in Taunton and included residents living within the Morton Hospital service area. Each focus group was conducted in collaboration with the Old Colony YMCA of Taunton and the Prevention & Wellness Network. Approximately 20 community members took part in the focus groups. The goal was to collect views and opinions of participants that could be used to inform community health improvement strategies recommended in this report. A copy of the focus group questions can be found in Appendix C.

Literature Review

A literature review of recent governmental, public policy, and scholarly works was conducted. The public health information was analyzed and a summary report which included common themes and public health trends among high-priority populations in the Morton Hospital service area was created to inform this Community Health Needs Assessment.

Findings

Chronic Disease

Taunton, East Taunton, Raynham, North Dighton, Middleboro, Lakeville, and Norton maintained a higher than state average incidence rate of mortalities due to chronic diseases in 2015, with Lakeville at the highest level, followed by Taunton. Cancer-related deaths accounted for the highest mortality rate, followed by heart disease-related deaths, chronic lower respiratory disease and diabetes-related deaths at the lowest percentage.

Data indicates that respiratory disease continues to be a public health concern for the hospital's service area. Looking at COPD-related hospital visits alone, Taunton's rate of hospitalization (169.66) was nearly triple that of the average state rate of 62.28. All other towns in the hospital's service area also maintained higher than state average COPD-related hospitalization rates.

Obesity

Obesity and overweight rates among youth in the hospital's service area also were above or the same as the state level. Taunton has the highest level of overweight or obese youth at (38.5%).

In the Key Informant Survey, the following question was asked: *"What do you think are the top 3 health issues in this community?"* Obesity was ranked the 3rd most significant concern among those who completed the survey. Obesity was also the most frequent response to the question *"Are you or someone in your household in need of assistance or services related to any of the following?"*

Survey results demonstrated that community members agree that there are barriers to being physically active, such as time, cost of recreational activities and access to recreational activities. Barriers to eating healthy included affordability and lack of education about how to prepare healthy meals.

Focus group participants noted the need for increased education within the community regarding nutrition and healthy eating on a budget. Focus group participants also felt that community sidewalks are not well-maintained and that more walking paths and recreational areas are needed to promote fitness.

Mental Illness

Mental health intersects with many areas of public health, including addiction, cancer, cardiovascular disease, and HIV/AIDS, therefore requiring common services and resource mobilization effort. Integrated treatment is critical for treating people with co-occurring disorders and can ultimately achieve better health outcomes and reduce costs. Increasing awareness and building capacity in service systems are important in helping identify and treat co-occurring disorders. Treatment planning should be client-centered, addressing clients' goals and using treatment strategies that are acceptable to them (MDPH, 2017).

Data shows that Taunton had the highest suicide death count within the Morton Hospital service area; however, that rate is lower than the state average.

With regard to Emergency Department hospitalizations related to mental health disorders, Taunton had the lowest percentage of residents who were hospitalized, compared with the other cities and towns within the hospital service area. Dighton maintained the highest percentage, followed by Berkley, Lakeville, and Raynham.

Key Informant Survey participants ranked "Mental Health Issues" as the 2nd most significant issue within the community.

Focus group and survey participants both strongly felt that there is a major need for change in mental health services, including a need to offer more beds to psychiatric patients and better mental health training for medical and first responder staff. Participants felt that patients with mental health issues were not given the level of services they required in order to be truly helped. Although local support systems are available, participants felt like the community was not aware of how to access them, and that long wait times and insurance barriers prevent those who need services from getting help.

Substance Abuse Disorder

Based on the available data, within the Morton service area, Taunton has the highest count of alcohol/substance-related hospitalizations, while Lakeville has the lowest. Taunton had the highest number of alcohol-related deaths within the hospital's service area in 2015, but that figure was below the statewide rate.

With regard to opioid-related injuries resulting in hospitalization, all cities and towns within the hospital service area had a higher than state incidence rate in 2014. And while Taunton had the highest number of opioid-related deaths within the area in 2015, that rate was lower than the statewide death rate. Taunton also had the largest number of individuals attending DPH-funded substance and alcohol abuse programs within the service area from 2013-2017.

Substance abuse was rated the most significant community health issue among Key Informant Survey participants. Both survey and focus group participants agreed that there was a severe lack of knowledge on how to obtain resources and that there needs to be a better system in place for prescribing opioids.

The coexistence of both a mental disorder and a substance use disorder (SUD) is known as co-occurring disorders. People with mental health disorders are more likely to experience a SUD. Often, people receive treatment for one disorder while the other disorder remains untreated. Undiagnosed, untreated, or undertreated co-occurring disorders can lead to a higher likelihood of experiencing negative outcomes, such as homelessness, incarceration, medical illnesses, suicide, or even early death (SAMHSA, 2016).

Massachusetts offers a variety of treatment approaches to address the needs of individuals with substance use disorders. However, there are important disparities in the outcomes and effectiveness of substance use treatment for different populations. Treatment needs can differ across populations, suggesting that treatment interventions should be individually tailored and incorporate culturally competent and linguistically appropriate practices relevant to specific populations and subpopulation groups (MDPH, 2017).

Access to Care

Key Informant Survey participated felt that access to health care and lack of preventative care services were concerns within our community. While the majority of survey participants noted that they had a primary care provider, nearly 40% felt there were barriers to accessing primary and preventative care within the community such as lack of awareness of local providers, especially multilingual providers, issues with insurance coverage and convenience of getting an appointment. Transportation was also noted as a major concern, noting that many people in the community may not be aware of available resources to get to appointments. Participants also felt there needed to be more general health education, and more support groups and programs.

Demographics

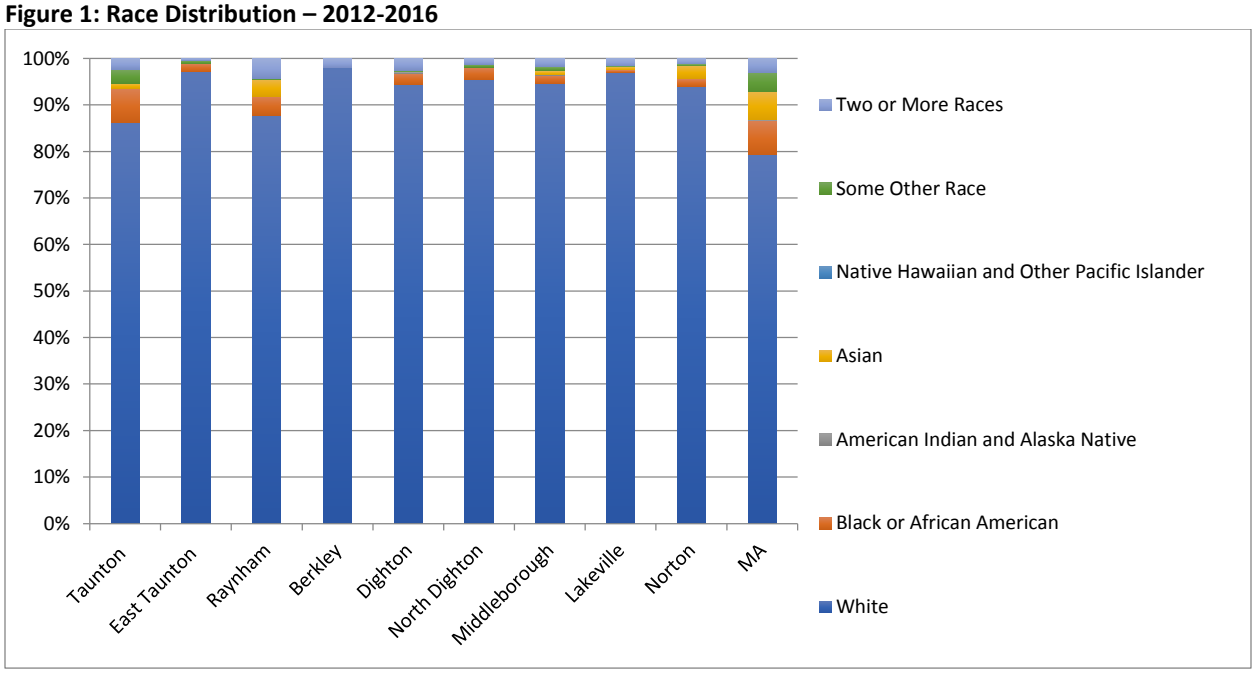
Who we are directly impacts how we interact with our community and society. Our race, gender identity, age, disability status, etc. influence the social environment that we experience. Our social environment impacts many mental and physical health outcomes, including: mental health, violence, risk behaviors (tobacco and drug use), physical health and well-being, and disease morbidity and mortality. We are influenced by the social environment on three levels: interpersonal, community, and society (MDPH, 2017).

Across all three levels, systems of oppression such as structural racism and gender bias lead to social isolation, social exclusion, poor mental health, increased risk of violence, increased rates of poverty, higher hospitalizations, longer recovery times, and higher mortality rates for many conditions. Social isolation, social exclusion, racism, discrimination, and poverty disproportionately affect low-income communities and communities of color and all negatively impact many aspects of health. Communities of color are more likely to have lower levels of resources and connectedness with other neighborhoods and higher levels of racial segregation. They also face more challenges when engaging in group action in neighborhoods to shift these conditions (Hobson-Prater T, 2012).

Underserved Populations

Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) identify geographic areas and populations with a lack of access to primary care services. MUPs are specific sub-groups of people living in a defined geographic area with a shortage of primary care health services. These groups may face economic, cultural, or linguistic barriers to health care. Examples include, but are not limited to, those who are: homeless; low-income; Medicaid-eligible; Native American; or migrant farmworkers (HRSA, 2018).

Figure 1: Race Distribution – 2012-2016

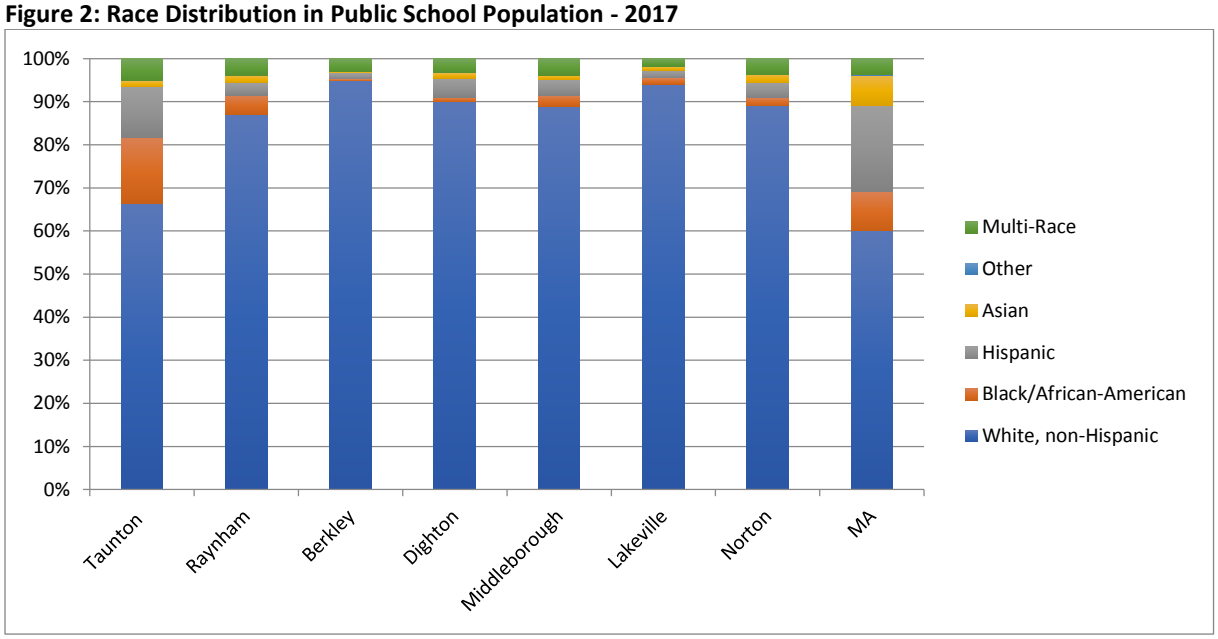


(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

Race distribution within the Morton Hospital primary service area is distinctly different than the average distribution statewide. While Taunton and Raynham maintain a higher level of diversity which is more aligned with the statewide population, significantly smaller percentages of black or African American, Asian, and individuals of other races made up the towns of E. Taunton, Berkley, Dighton, N. Dighton, Middleboro, Lakeville, and Norton compared with the statewide population. Berkley and Lakeville had the lowest percentage of its population identifying as Black or African American, Berkley with (0.0%) and Lakeville with (0.5%), compared with the state population estimate of (7.3%). Raynham reported the highest estimated percentage of its population identifying as two or more races, with (4.3%) compared to the state estimate of (3.0%).

The U.S Census data shows that overall the state of Massachusetts is largely constructed of a white population at (79.3%). Specifically, MA is (10.9%) Hispanic, (7.3%) Black, (6.1%) Asian, (4.1%) some other race, (3.0%) two or more races, and (0.2%) American Indian or Alaska Native. All of the nine towns and cities in this report have a white population above the MA state average, with a maximum of (98%) in Berkley. Additionally, Taunton has a Black population at (7.3%), equal to the MA state average. A note, (6%) of Taunton residents identify as Hispanic, as well as (4%) of East Taunton residents.

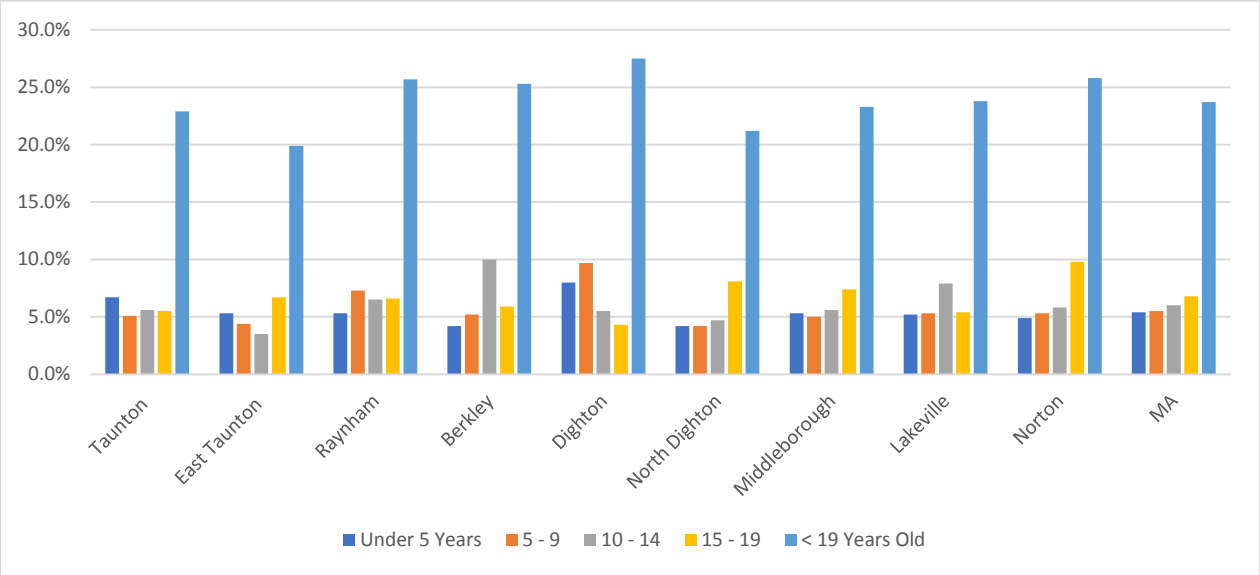
Figure 2: Race Distribution in Public School Population - 2017



(Source: MA Dept. of Elementary and Secondary Education, 2018) Note: At the time of data collection, data for East Taunton and North Dighton were unavailable.

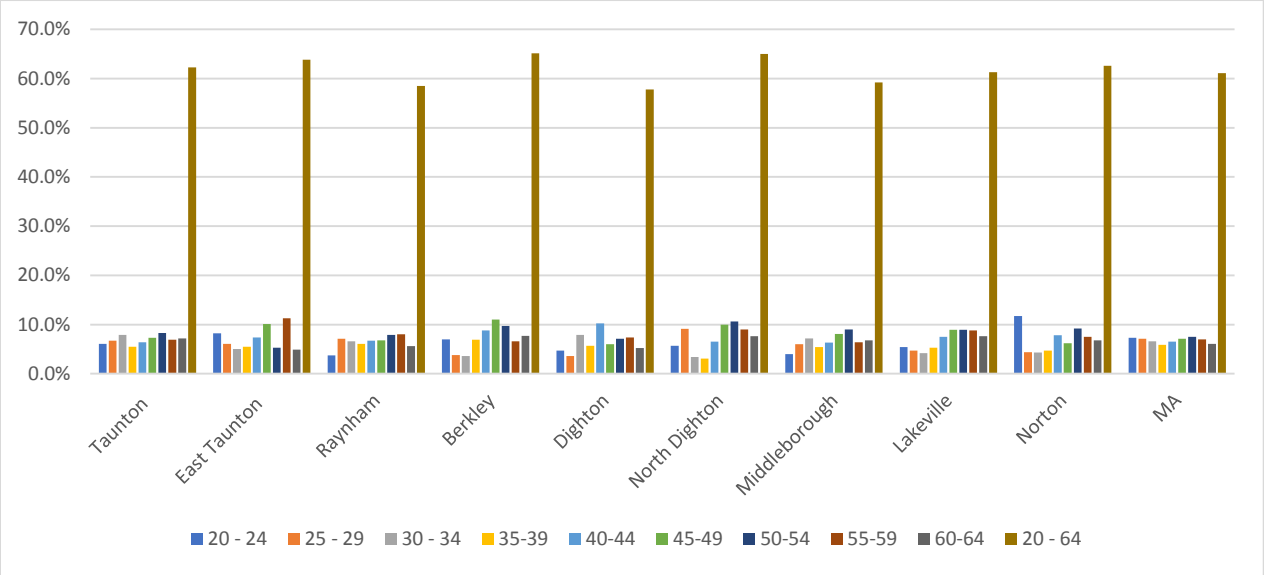
In 2017, the Massachusetts public school population was (60.1%) White, (20%) Hispanic, (9%) Black/African American, (6.9%) Asian and (3.6%) multi-race. Public-school districts within the Morton Hospital service area exhibited lower levels of racial diversity than the state average. Every public-school district in the Morton Hospital service area had a greater percentage of White students than the state average. Taunton had the lowest percentage of White students at (66.1%) are largely White non-Hispanic, with the exception of Taunton at (66.1%), in the remaining service area cities/towns had (88%-95%) of the public-school population was White. Taunton had the highest proportion of the public-school population that identified as Black (15.2%) or Hispanic (11.8%). No other service area city/town had more than 5% of the public-school population that identified as Black or Hispanic.

Figure 3: Age Distribution (<19 Years Old) – 2012-2016



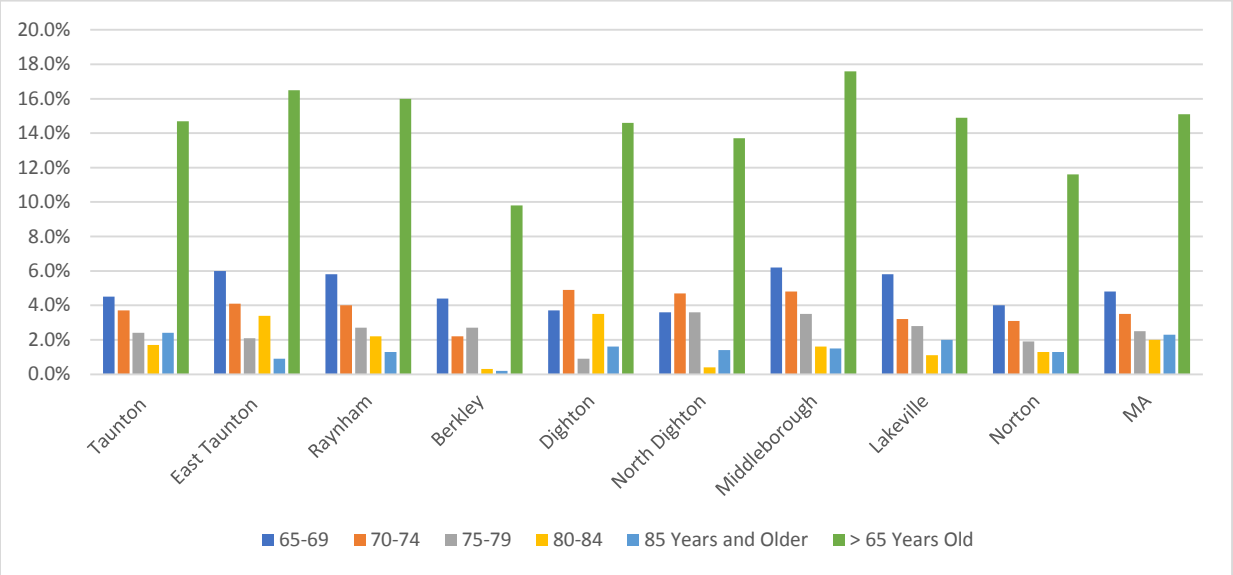
(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

Figure 4: Age Distribution (20-64 Years Old) – 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

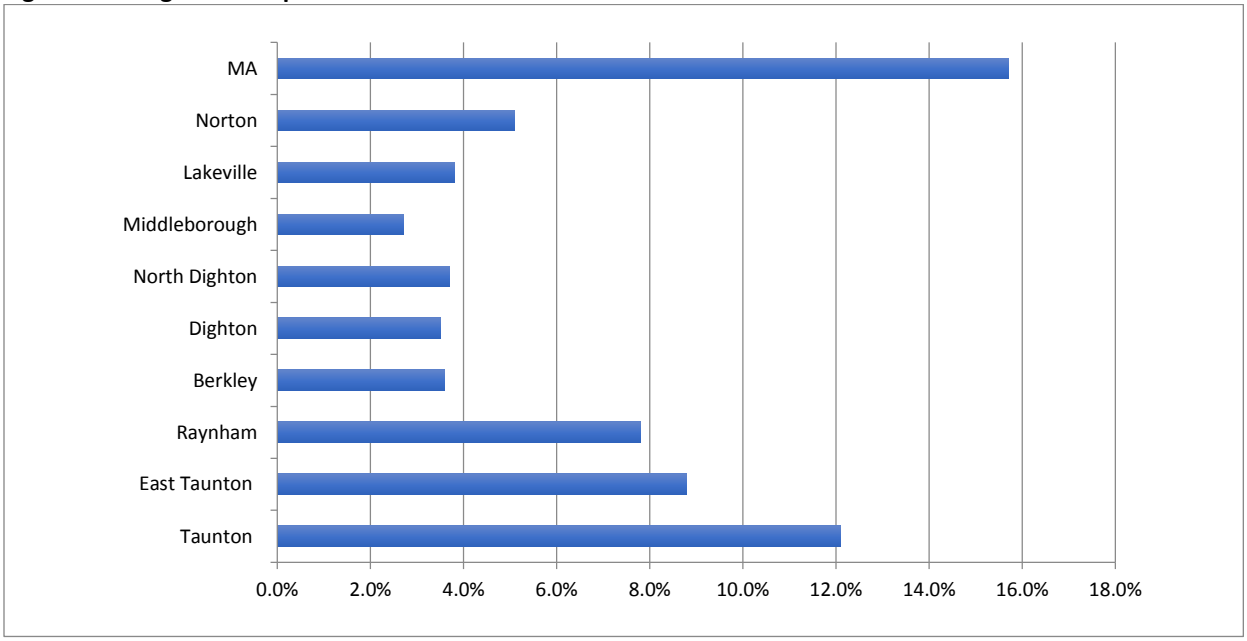
Figure 5: Age Distribution (>65 Years Old) – 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, cities/towns in the Morton Hospital service area generally followed the age distribution seen at the state level. At the state level, (23.7%) of the population is under the age of 19, (61.1%) of the population is between the ages of 20 and 64, and (15.1%) of the population is over the age of 65. For these cumulative age categories, every city/town in the Morton service area is within a 5% range of the state value. The only exception to this is seen in the over 65 years old category in Berkley where (9.8%) of the population was over the age of 65 compared to (15.1%) of the population at the state level.

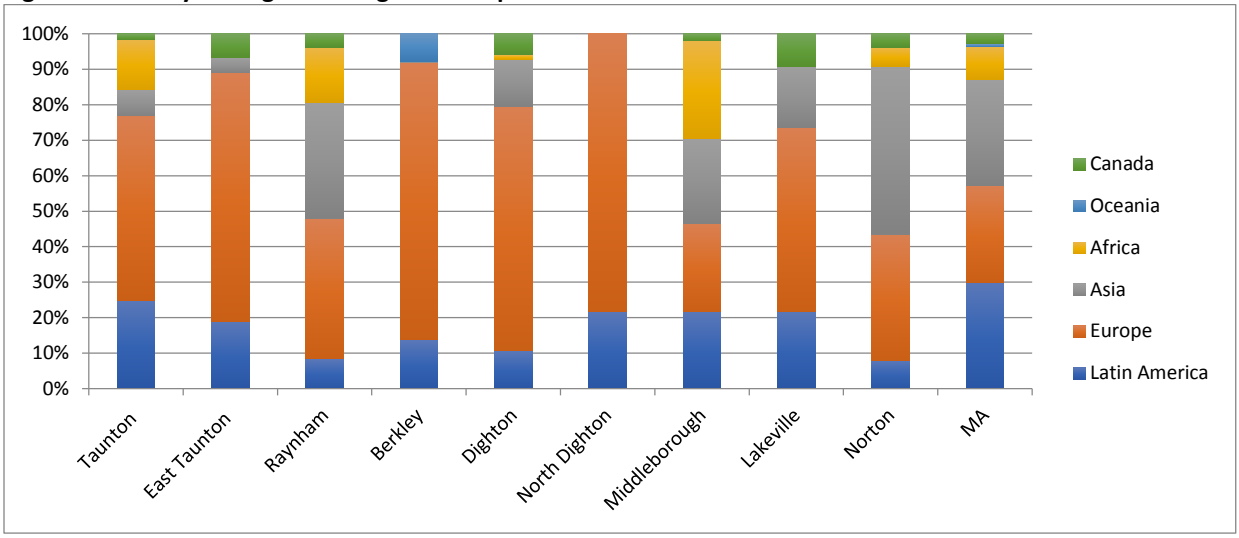
Figure 6: Foreign-Born Population - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (15.7%) of the Massachusetts population was born in a foreign country. Every service area city/town within the Morton Hospital service area had a lower percentage of the population born in a foreign country than the state average. Taunton had the highest percentage of foreign-born residents at (12.1%), followed by East Taunton at (8.8%). The lowest percentage of foreign-born residents in the service area is seen in Middleborough at (2.7%). Lakeville, North Dighton, Dighton, and Berkley each had percentages less than (4%).

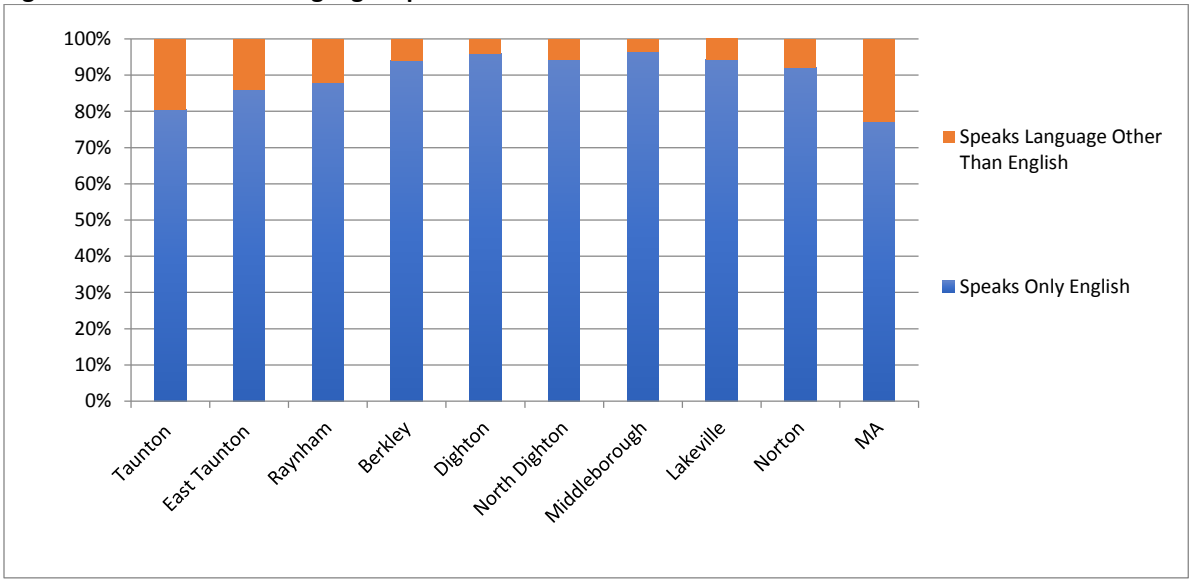
Figure 7: Country of Origin – Foreign Born Population – 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (31.4%) of the Massachusetts foreign-born population originated in Latin America, (28.8%) originated in Europe, (31.4%) originated in Asia, (9.8%) originated in Africa, and (3%) originated in Canada. Every Morton Hospital service area city/town had a lower percentage of foreign-born residents originating in Latin America than the state average. With the exception of Middleborough, cities/towns in the Morton Hospital service area have a greater percentage of the foreign-born population originating in Europe than the state average, East Taunton, Berkley, Dighton, and North Dighton each had more than (69%) of their foreign-born population originating in Europe. In Norton, there was a higher than average percentage of foreign-born residents originating in Asia (47.5%). Middleborough also had a higher than average percentage of foreign-born residents originating in Africa than the state level (27.5%).

Figure 8: Distribution of Languages Spoken at Home - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012-2016, all nine service area cities/towns had a greater percentage of the population that spoke only English at home than the state average of (77.3%). Taunton had the lowest percentage of the population that spoke only English at home with (80.6%). Middleborough had the highest percentage of the population that spoke only English at home at (96.5%), followed by Dighton (95.6%), and North Dighton (94.3%).

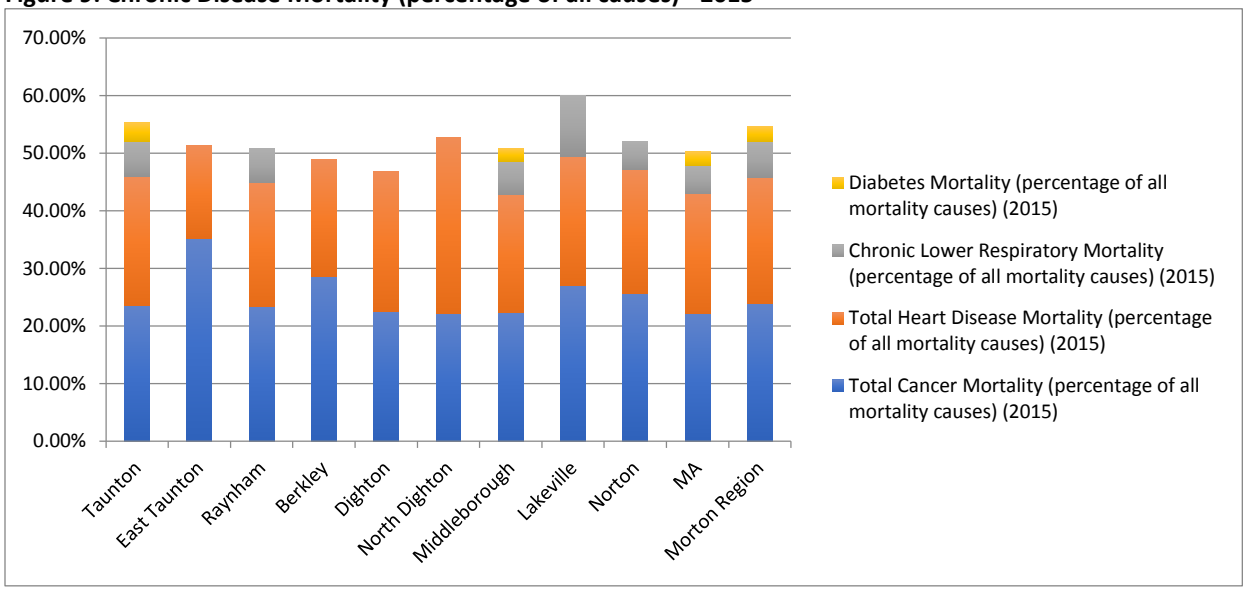
Chronic Disease

Prevention and treatment of chronic disease is a public health concern. Risks factors such as nutrition, the lack of physical activity, and tobacco use and exposure directly impact cancer, diabetes, chronic lower respiratory disease, and cardiovascular disease rates. These chronic conditions together contribute to (56%) of all mortality in Massachusetts and over (53%) of all health care expenses ($30.9 billion a year). Although the three leading risk factors are modifiable, the inequality of financial resources and the history of policies rooted in structural racism have resulted in environments that restrict individuals and family's access to healthy foods, safe spaces for physical activity, walkable communities, quality education, housing, employment, and health care services (MDPH, 2014).

The health implications of this are evident in the fact that Black and Hispanic residents of Massachusetts are consistently and disproportionately impacted by the high prevalence of all chronic diseases, as well as the related deaths and high acute care service utilization. Healthy people cannot exist in unhealthy environments. Because of this, MDPH frames its chronic disease prevention and wellness efforts around addressing the social determinants of health and focusing on policies that ensure that all individuals have the ability to make healthy choices (MDPH, 2017).

By their very definition, chronic diseases are "managed" since cures are not available. Management practices extend life; therefore, chronic diseases continue to rise. The methods of chronic disease management include medications, medical procedures, and lifestyle changes. Prevention is the key to reducing the burden of these diseases. To prevent chronic disease, people need opportunities to live a healthy lifestyle which includes, among other things, participating in adequate physical activity, eating a balanced diet, managing stress and limiting exposure to chronic stressors, refraining from tobacco use, and limiting alcohol consumption (Adler NE, 2002).

Figure 9: Chronic Disease Mortality (percentage of all causes) - 2015



(Source: Massachusetts Department of Public Health, 2015) Note: At the time of data collection, diabetes mortality data was unavailable for East Taunton, Raynham, Berkley, Dighton, North Dighton, Lakeville and Norton. Chronic Lower Respiratory disease mortality data was unavailable for East Taunton, Berkley, Dighton, and North Dighton.

In 2015, (50.3%) of mortality in Massachusetts was due to Diabetes, Chronic Lower Respiratory Disease, Heart Disease, and Cancer. In the Morton Hospital service area, (54.73%) of total mortality was due to the same causes. Every city/town in the Morton Hospital service area exceeded the state level of mortality due to these causes (Berkley and Dighton are missing Diabetes and Chronic Lower Respiratory Disease mortality rates but would exceed the state level if average mortality due to those conditions was added.

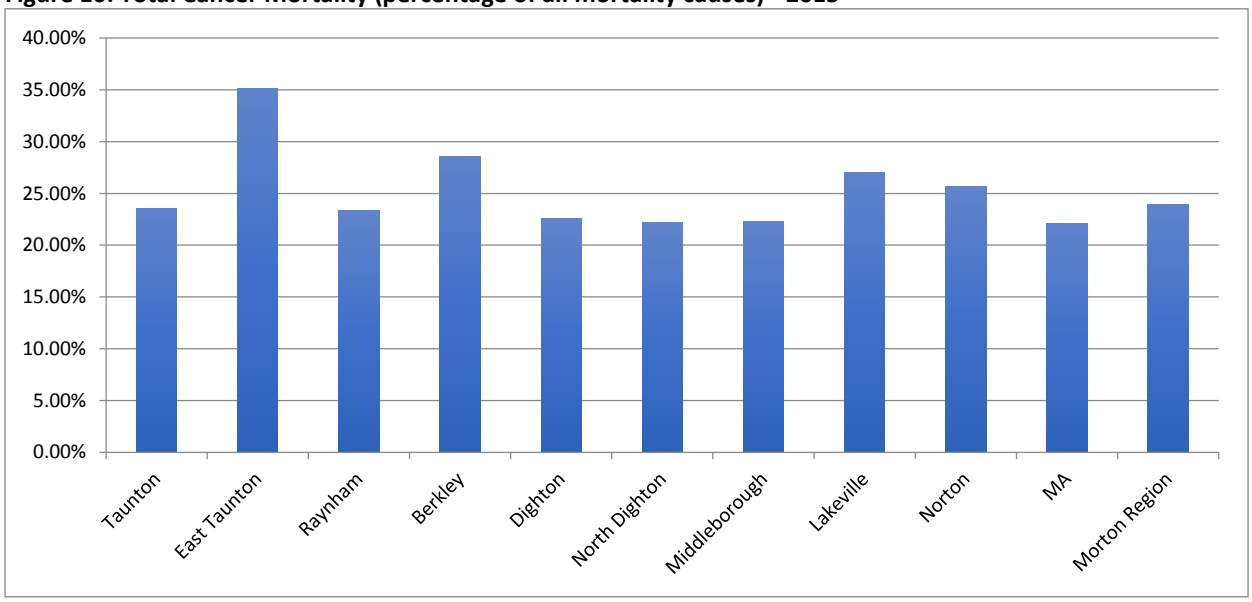
Cancer

Although cancer incidence and mortality rates decreased in Massachusetts from 2010 to 2014, there were still more than 36,000 new cancer cases diagnosed annually during this period. The age-adjusted cancer incidence rate in Massachusetts was (471.1 per 100,000 population) with men having a higher cancer incidence rate than women (505.7 versus 450.4 per 100,000 population). From 2010 to 2014, cancer incidence decreased (3.2%) annually among men (MDPH, 2017).

Black non-Hispanic men and White non-Hispanic women had the highest incidence rate of all cancer types during this period. Across the Commonwealth, breast cancer among women and prostate cancer among men is most common. Lung cancer, colon cancer, and melanoma are also among the leading types of cancer among both women and men. Together, these five cancers account for more than half of all cancer cases across the Commonwealth (MDPH, 2017).

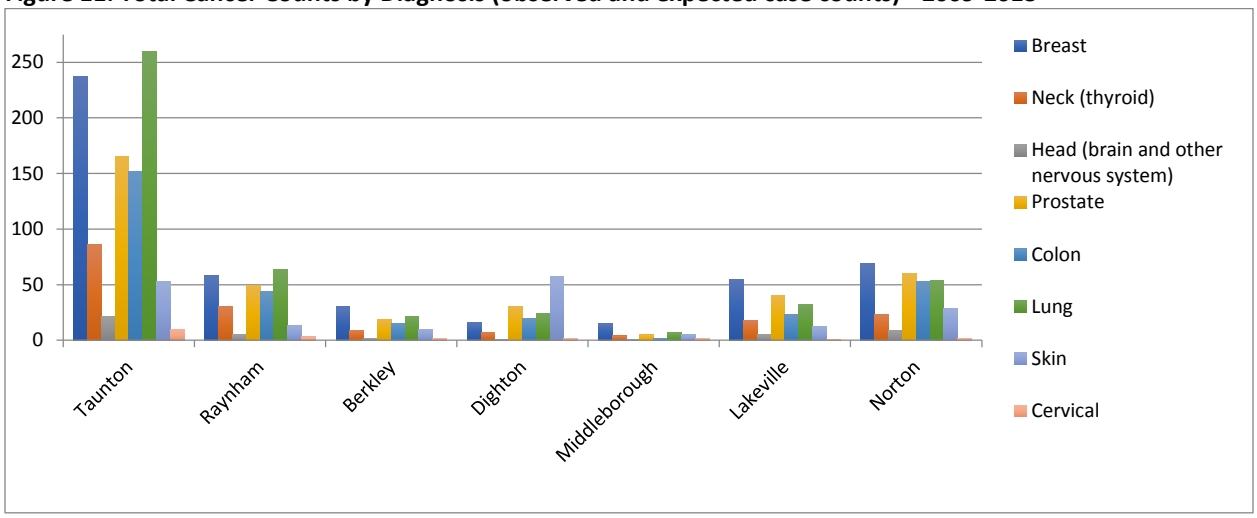
Several socioeconomic factors contribute to the prevalence of cancer and/or late-stage cancer diagnoses. Obesity, tobacco use, and tobacco exposure are leading risk factors for many cancers including colorectal and breast cancer. Additionally, lack of access to healthy foods, limited physical activity, and lack of access to smoking cessation services are also risk factors. Gaps in health care coverage represent a barrier to covering the costs of diagnostic testing. For examples, individuals with high deductibles, low premiums, or high co-pays must pay for diagnostic tests to confirm a cancer diagnosis, contributing to delays in diagnosis (MDPH, 2017).

Figure 10: Total Cancer Mortality (percentage of all mortality causes) - 2015



(Source: Massachusetts Department of Public Health, 2015)

Figure 11: Total Cancer Counts by Diagnosis (observed and expected case counts) - 2009-2013



(Source: Massachusetts Department of Public Health 2015)

In 2015, (22.1%) of total mortality in Massachusetts was due to cancer, the percentage of total mortality due to cancer was higher in the Morton Hospital service area at (23.96%). Every Morton Hospital service area city/town had a higher percentage of total mortality due to cancer than the state average. The highest percentage of total mortality due to cancer was seen in East Taunton at (35.14%), followed by Berkley at (28.57%). The lowest level of mortality due to cancer was seen in North Dighton (22.22%), followed by Middleborough at (22.32%). Lung cancer, breast cancer, and prostate cancer were the most prevalent forms of cancer in each service area city/town. The only exception to this was in Dighton where skin cancer was the most prevalent form of cancer.

When asked "*What do you think are the top three health issues in this community?"* (12.22%) or 11 out of 90 survey respondents selected cancer as a top three health issue in the Morton Hospital community. Cancer was not mentioned by participants in either of the focus groups.

Heart Disease

Cardiovascular disease is a broad term that encompasses a number of adverse health outcomes, including congestive heart failure, myocardial infarction, and stroke. In Massachusetts, cardiovascular disease is the second leading cause of death after cancer. Hypertension is a critical risk factor for adverse cardiovascular and cerebrovascular outcomes including stroke, heart attacks, and congestive heart failure. In 2014, hypertension contributed to $19 million in total hospitalization costs in Massachusetts. Studies have shown that hypertension disproportionately impacts people of color. These disparities are grounded in social and economic inequities such as access to health care and poverty (MDPH, 2017).

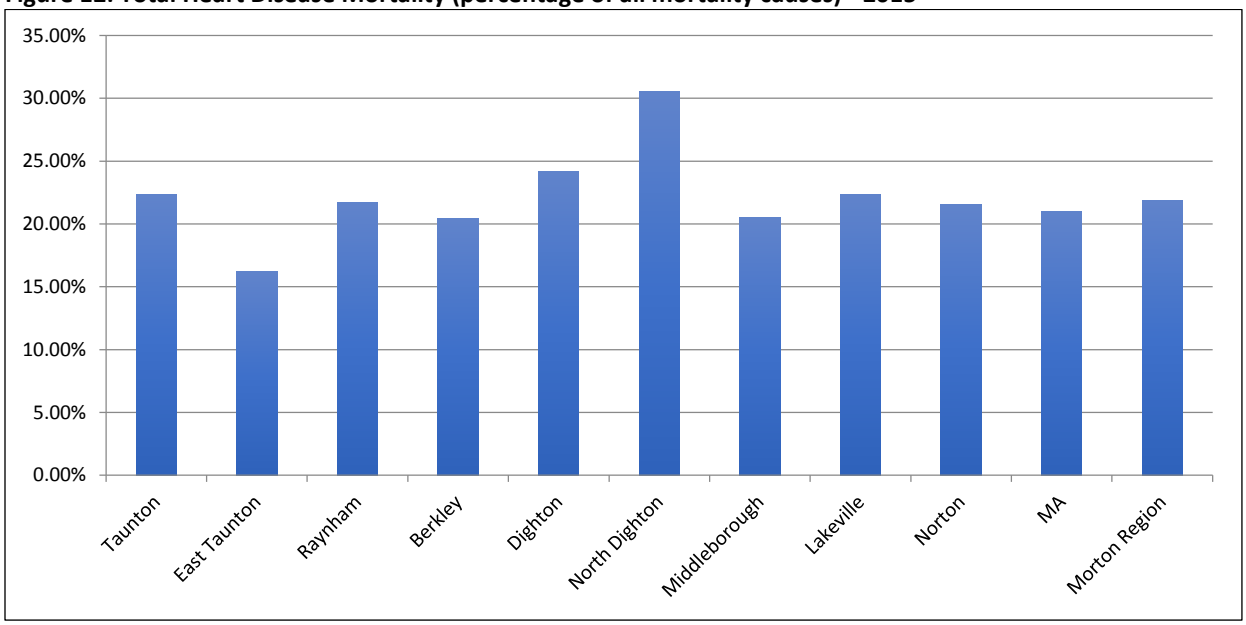
In 2015, (29.6%) of Massachusetts adults said they had been diagnosed with hypertension, similar to previous years. A larger percentage of Black non-Hispanic adults were diagnosed with hypertension (39.4%) compared to White non-Hispanic adults (30.7%). Racial/ethnic disparities in hypertension are likely an important contributing factor to hospitalizations for congestive heart failure, myocardial infarction, and stroke (MDPH, 2017).

The rate of myocardial infarction-related hospitalizations declined (9.5%) from 2010 (169.9 per 100,000 population) to 2014 (153.7 per 100,000 population). In 2014, the myocardial infarction hospitalization rate for Hispanic residents in Massachusetts (182.5 per 100,000 population) and Black non-Hispanic residents (159.0 per 100,000 population) exceeded the state average (153.7 per 100,000 population) and the average for White non-Hispanic residents (145.6 per 100,000 population) (MDPH, 2017).

Strokes were responsible for $613 million in total hospitalization costs in Massachusetts in 2014 (Center for Health Information and Analysis, 2014). These hospitalization costs do not include other economic costs of stroke, such as lost productivity or outpatient health care expenditures, nor loss of life, reduced quality of life, and increased disability (MDPH, 2017).

Racial/ethnic disparities continue to exist in stroke-related hospitalizations. In 2014, Black non-Hispanic residents (368.1 per 100,000 population) experienced stroke-related hospitalization at a rate that was nearly twice as high as that for White non-Hispanic residents (201.5 per 100,000 population). Similarly, Hispanic residents (264.9 per 100,000 population) had a stroke hospitalization rate that was 1.3 times that for White non-Hispanic residents (201.5 per 100,000 population) (MDPH, 2017).

Figure 12: Total Heart Disease Mortality (percentage of all mortality causes) - 2015



(Source: Massachusetts Department of Public Health 2016)

In 2015, (21%) of all mortality in Massachusetts was due to heart disease, this percentage was slightly higher in the Morton Hospital service area at (21.88%). East Taunton (16.22%), Berkley (20.41%), and Middleborough (20.54%) had lower percentages of total mortality due to heart disease than the state level. The highest percentage of total mortality due to heart disease was seen in North Dighton (30.56%), followed by Dighton at (24.19%).

When asked "*What do you think are the top three health issues in this community?"* (15.55%) or 14 out of 90 participants selected heart disease or high blood pressure as one of three responses. Heart disease was not mentioned in either focus group. However, participants in both groups cited the need for more nutritional and fitness related initiatives which could positively impact heart disease prevalence within the Morton Hospital service area.

Respiratory Disease

Chronic lower respiratory diseases are diseases of the airways and other structures of the lung. Chronic lower respiratory diseases include asthma, chronic obstructive pulmonary disease (COPD), emphysema, and bronchitis. In 2014, chronic lower respiratory disease was the third leading cause of death in the United States and the fourth leading cause of death in Massachusetts. Among adults aged 65 to 84, chronic lower respiratory disease is the third leading cause of death, after cancer and cardiovascular disease (MDPH, 2017).

Risk factors for chronic lower respiratory disease include, but are not limited to, exposure to tobacco smoke, air pollution, occupational chemicals, and dust. The development and management of chronic

lower respiratory disease is strongly linked with the social determinants of health, such as housing, tobacco exposure, and workplace exposures such as chemicals, smoke, dust, fumes or mold (MDPH, 2017).

Asthma

Asthma is a chronic inflammation of the airways that affects people of all ages and is a significant public health problem both in Massachusetts and the United States. Asthma is exacerbated when airways become constricted with swelling and excessive mucus production, making it difficult to breathe.
Symptoms of asthma include wheezing, coughing, and chest tightness. Sometimes asthma symptoms become so severe that they result in an asthma attack that requires immediate medical treatment. Asthma attacks can be triggered by certain environmental factors such as air pollution, mold, pet dander or saliva, pests such as rodents and cockroaches, and dust mites in the environment. Asthma affects individuals differently, resulting in differing severity, presentation of symptoms and responsiveness to treatment. Asthma is among the top seven conditions that contribute to high costs and emergency room expenditures in the Commonwealth. On average, asthma patients in Massachusetts incur $58,600 in medical expenditures per person annually (MDPH, 2017).

Although the percentage of adults who have ever been told that they have asthma does not differ significantly by race/ethnicity, stark racial/ethnic disparities in emergency department visits and hospitalizations strongly suggest the role that the social determinants of health play in asthma outcomes. Trends/Disparities The percentage of adults reporting that they have ever been told by a health provider that they have asthma (lifetime asthma) as well as the percentage reporting that they still have asthma (current asthma) were consistently higher in Massachusetts than in the US as a whole from 2000 through 2013. In 2015, the overall prevalence was (10.2%) (MDPH, 2017).

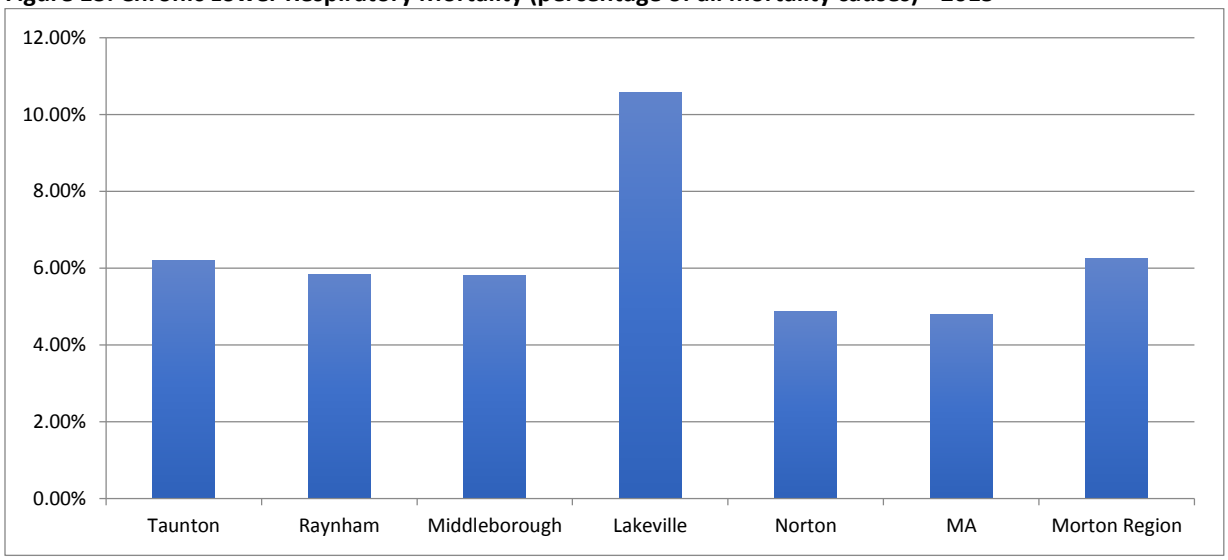
Following national patterns, lifetime and current asthma prevalence in Massachusetts increased significantly from 2000 through 2010 (28.6% and 22.4% increase, respectively). While both lifetime and current asthma prevalence also appear to be increasing in more recent years, additional years of data are needed to estimate the magnitude of this increase. Current asthma prevalence among Massachusetts adults differs based on demographic and socioeconomic factors and by geographic location. Statistically, significant disparities exist by gender, age, education, income, disability status, and weight (MDPH, 2017).

Chronic Obstructive Pulmonary Disorder

Chronic Obstructive Pulmonary Disease (COPD) refers to a group of diseases that cause airflow blockage and breathing-related problems. COPD includes emphysema, chronic bronchitis, and in some cases asthma. In the US, exposure to tobacco smoke is a key risk factor for COPD. Exposure to air pollutants in the home and workplace, genetic factors, and respiratory infections are also risk factors (MDPH, 2017).

In 2015, the prevalence of COPD among Massachusetts adults was (5.7%). Those with prevalence exceeding the state average include women (6.2%); adults older than 75 years of age (14.2%); white non-Hispanic adults (6.3%); adults with less than a high school (11.5%); persons with lower household incomes (e.g., household income less than $25,000 (11.5%), and persons with a disability (14.5%). COPD is consistently among the top ten reasons for hospital admission in Massachusetts and the rate of potentially preventable hospitalizations due to COPD in Massachusetts exceeds the national average (MDPH, 2017).

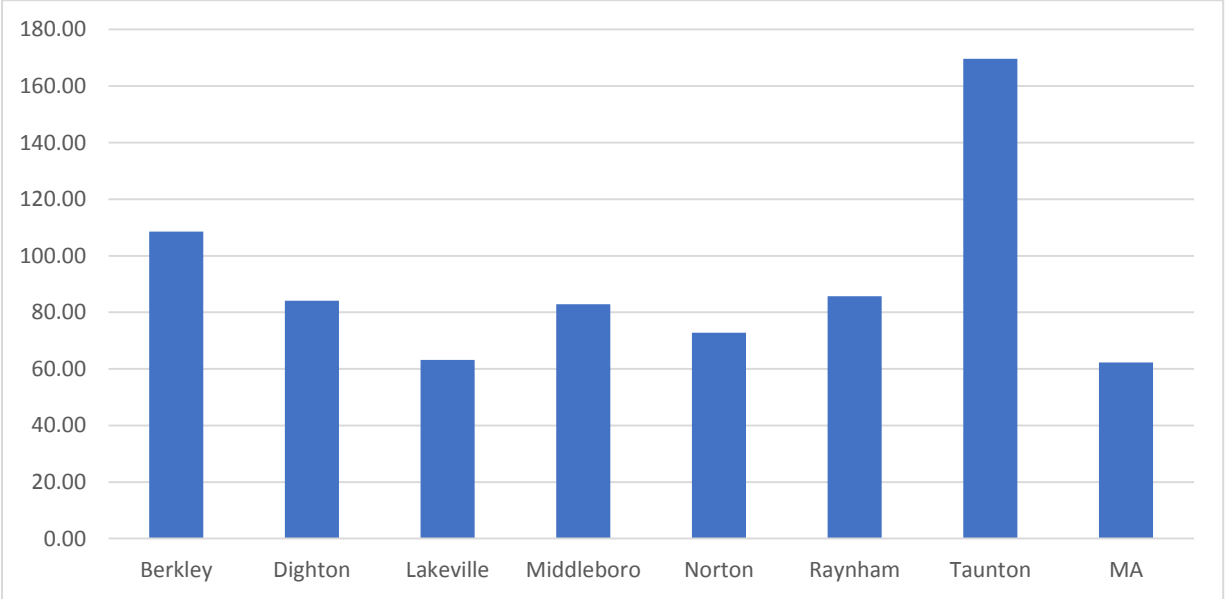
Figure 13: Chronic Lower Respiratory Mortality (percentage of all mortality causes) - 2015



(Source: Massachusetts Department of Public Health 2016) Note: At the time of data collection Chronic Lower Respiratory disease mortality data was unavailable for East Taunton, Berkley, Dighton, and North Dighton.

In 2015, (4.8%) of total mortality in Massachusetts was due to chronic lower respiratory disease, this percentage was higher for the Morton Hospital service area (6.25%), and for each individual service area city/town. The highest percentage of mortality due to chronic lower respiratory disease was seen in Lakeville at (10.59%), followed by Taunton at (6.21%). The lowest percentage of mortality due to chronic lower respiratory disease was seen in Norton at (4.86%).

Figure 14: Emergency Department Visit for COPD (age-adjusted rates, per 10,000 Population) - 2014



(Source: Massachusetts Department of Public Health, Bureau of Environmental Health 2015) Note: at the time of data collection, data was unavailable for East Taunton and North Dighton.

In 2014, the age-adjusted rate of emergency department visits for COPD was (62.28 per 10,000 population). This rate was higher for each Morton Hospital service area city/town. The highest rate of COPD related emergency department visits was seen in Taunton where the rate was nearly 3 times the state level at (169.66 per 10,000 population). Berkley exhibited the second highest rate of COPD related emergency department visits at (108.55 per 10,000 population).

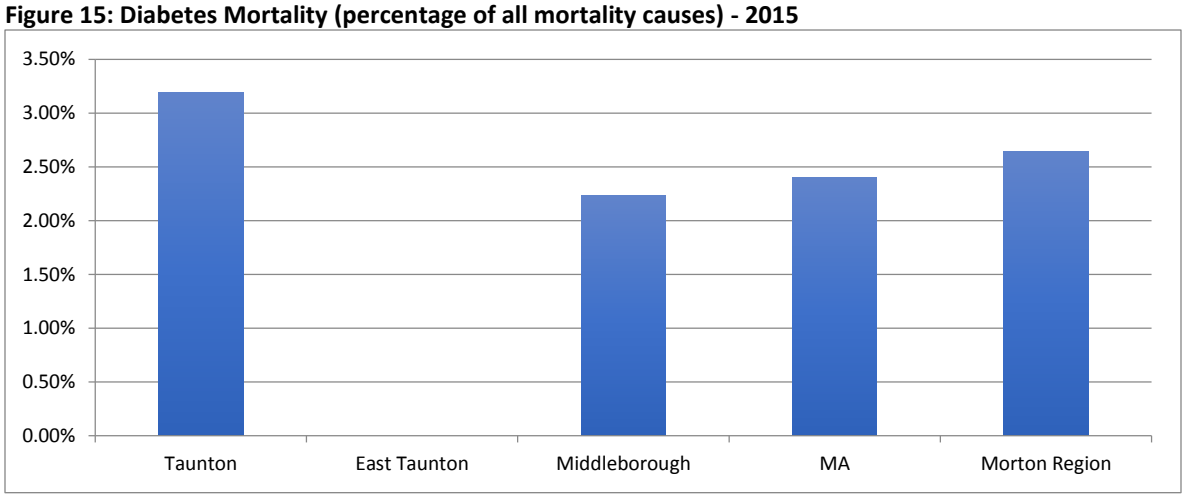
When asked "*What do you think are the top three health issues in this community?"* only one out of 90 survey respondents selected lung disease/asthma as a top health concern within the Morton Hospital community. Lung disease/asthma was not mentioned by participants in either focus group. These conditions are more prevalent in the Morton community than in the rest of the state, especially in Taunton where the rate of emergency department visits for COPD was nearly three times the state level.

Diabetes

Nationwide, the prevalence of diabetes is projected to increase dramatically. The prevalence of type 1 and type 2 diabetes is anticipated to increase (54%) by 2030, affecting 54.9 million Americans. In Massachusetts, the prevalence of diagnosed diabetes has more than doubled over a 22-year period. For example, in 1993, an estimated (3.9%) of Massachusetts residents were told by a provider that they had diabetes. By 2015, an estimated (8.9%) of Massachusetts residents were told they had diabetes (MDPH, 2017).

Socioeconomic disparities exist in diabetes prevalence. In Massachusetts, adults with an annual household income of less than $25,000 (15.6%) have three times the prevalence of diabetes as compared to those with an annual household income of more than $75,000. The prevalence of diabetes also decreases as educational attainment increases. A total of (14.5%) of adults without a high school degree were diagnosed with diabetes compared to (5%) of adults with four or more years of post-high school education. Diabetes prevalence and mortality in Massachusetts also differs by race/ethnicity. In 2015, a greater proportion of Black non-Hispanic (12.3%) and Hispanic (11.7%) adults reported being diagnosed with diabetes compared to White non-Hispanic adults (8.7%). In 2014, Black non-Hispanic residents were more than 2.1 times more likely to die from diabetes than White non-Hispanic residents (29.5 versus 13.8 per 100,000 population) (MDPH, 2017).

Figure 15: Diabetes Mortality (percentage of all mortality causes) - 2015



(Source: Massachusetts Department of Public Health 2016) Note: At the time of data collection, diabetes mortality data was unavailable for East Taunton, Raynham, Berkley, Dighton, North Dighton, Lakeville and Norton.

In 2015, (2.4%) of total mortality in Massachusetts was due to diabetes, this percentage was slightly higher in the Morton Hospital service area at (2.64%). The highest rate of mortality due to diabetes was seen Taunton where (3.19%) of all mortality was attributable to diabetes. The lowest percentage of mortality due to diabetes was seen in East Taunton where (0%) of all mortality was due to diabetes.

When asked "*What do you think are the top three health issues in this community?"* (5.56%) or 5 out of 90 survey respondents selected diabetes as a top three health concern. Diabetes was not mentioned by participants in either focus group.

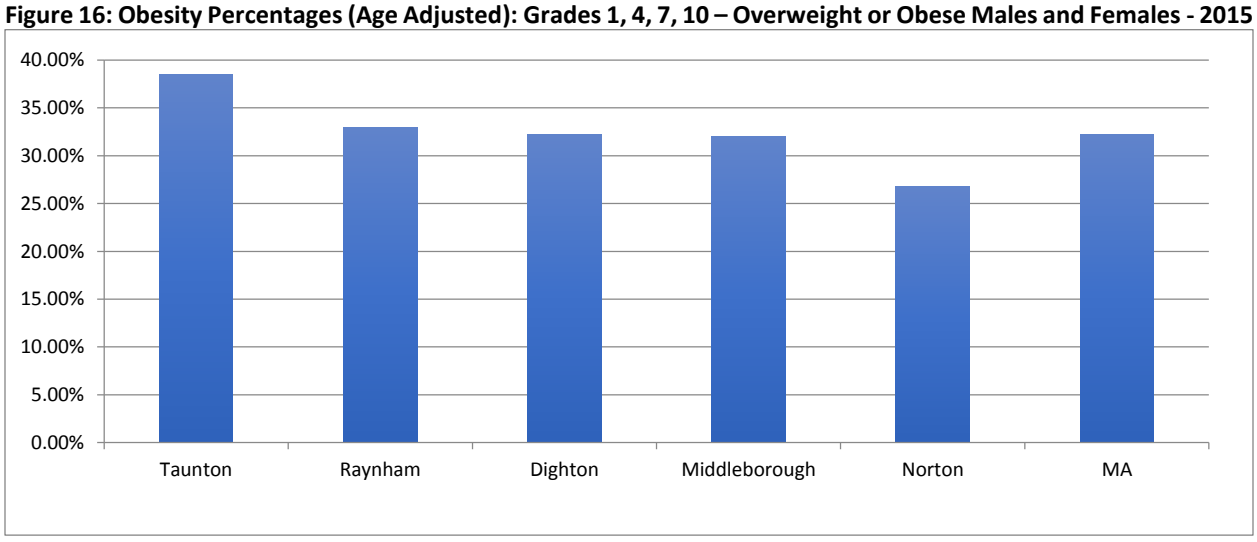
Obesity

Obesity is both a chronic disease and a risk factor for other chronic conditions. Overweight or obese people are more likely to have type 2 diabetes, cardiovascular disease, gall bladder disease, and musculoskeletal disorders. In addition, overweight and obesity are associated with asthma, some forms of cancer, and many other health problems that interfere with daily living and reduce the quality of life. Engaging in physical activity and maintaining a healthy diet have been proven to lower the incidence of obesity, however structural barriers to accessing healthy foods and beverages and opportunities to be physically active disproportionately affect people of color in the Commonwealth. As a result, not all Massachusetts residents have the same opportunities to prevent obesity (MDPH, 2017).

In 2015, nearly (60%) of Massachusetts adults met the criteria for being overweight or obese and (24.3%) were obese. Overweight is defined as having a body mass index (BMI) of 25.0 to 29.9 kg/m^2. Obesity is defined as a BMI greater than or equal to 30.0kg/m^2. Both conditions are linked to poor nutrition and inadequate physical activity. There has been a shift in the leading cause of death over the past 50 years from acute conditions to chronic diseases. Given the tie between obesity and so many other chronic diseases, the need to address obesity is a public health imperative to control morbidity and mortality as well as ballooning health care costs in an aging population (MDPH, 2017).

Massachusetts has the fifth highest prevalence of obesity among children enrolled in the Women, Infant and Children (WIC) program who are two to four years old. Childhood overweight is defined as a body mass index (BMI) at or above the 85th percentile for age. Childhood obesity is defined as BMI at or above the 95th percentile of expected for age. Childhood obesity is linked to poor nutrition and inadequate physical activity, and inequities persist across socioeconomic status and race/ethnicity. BMI screening reports conducted by school districts indicate that the prevalence of overweight and obesity decreased from 2009 (34.3%) to 2015 (31.3%). However, this reduction in overweight and obesity was not shared evenly across all school districts. Between 2009 and 2014, school districts with median household incomes greater than $37,000 experienced significant improvements. However, the prevalence of overweight and obesity for the poorest school districts (less than $37,000 median household income) did not change and remained the highest across the state with approximately (40%) of students being overweight or obese (MDPH, 2017).

Figure 16: Obesity Percentages (Age Adjusted): Grades 1, 4, 7, 10 – Overweight or Obese Males and Females - 2015



(Source: Massachusetts Department of Public Health 2016) Note: at the time of data collection, data was unavailable for East Taunton, Berkley, and North Dighton.

In 2015, the percentage of overweight or obese youth in Massachusetts was (32.2%). Three of the five cities/towns in the Morton service reported percentages at or above the state level. Taunton had the highest percentage with (38.5%) of youth being classified as overweight or obese, followed by Raynham at (33%). Norton had the lowest level at (26.80%).

When asked "*What do you think are the top three health issues in this community?"* (42.22%) or 38 out of 90 survey respondents selected overweight/obesity as a top health concern in the Morton Hospital community. Focus group participants supported this by bringing up numerous ways that they felt overweight/obesity could be combatted in the Morton Hospital community. These ideas included, low/no cost nutritional education classes, low/no cost exercise opportunities, and expanding healthy food options within the community.

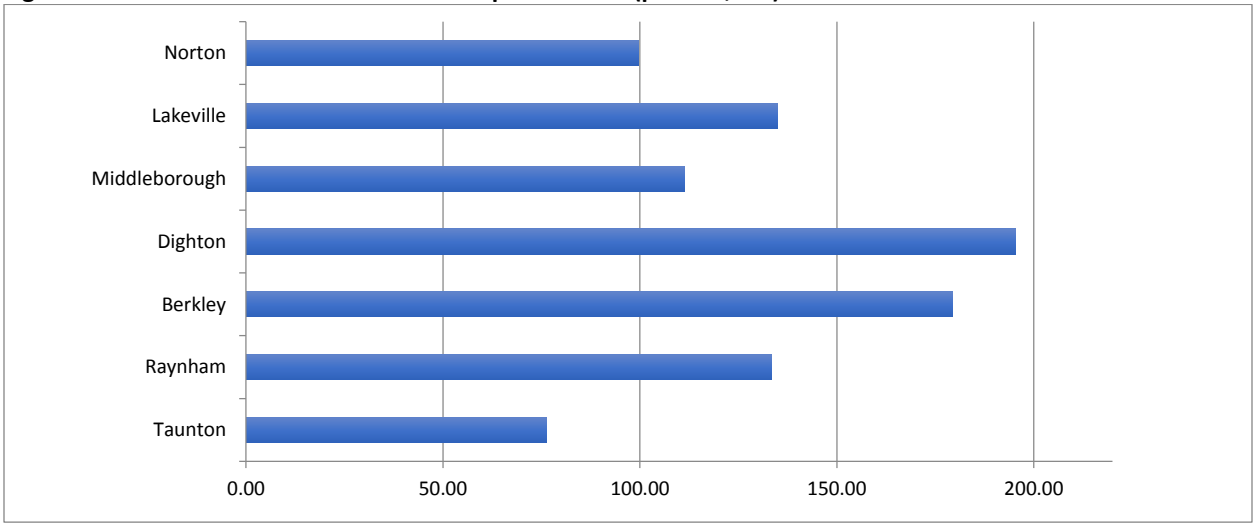
Mental Health

Impaired mental health is common in the United States general population. In 2015, nearly one in five adults suffered from a diagnosable mental illness such as depression or anxiety, and about 1 in 7 will have a major depressive episode in their lifetime. In 2015, (12%) of children ages, 12-17 reported having a major depressive episode in the past year, higher than the percentages from 2004-2014. Between 1999 and 2014, the overall suicide rate in the U.S. rose by (24%) to (13.0 per 100,000 population) and then grew to (13.3 per 100,000) in 2015. In 2014, suicide was the tenth leading cause of death in the U.S. and more than (90%) of patients who died because of suicide also had mental illness (BPHC, 2017).

The coexistence of both a mental disorder and a substance use disorder (SUD) is known as co-occurring disorders. People with mental health disorders are more likely to experience a SUD. Often, people receive treatment for one disorder while the other disorder remains untreated. Undiagnosed, untreated, or undertreated co-occurring disorders can lead to a higher likelihood of experiencing negative outcomes, such as homelessness, incarceration, medical illnesses, suicide, or even early death (SAMHSA, 2016).

Mental health intersects with many areas of public health, including addiction, cancer, cardiovascular disease, and HIV/AIDS, therefore requiring common services and resource mobilization effort. Integrated treatment is critical for treating people with co-occurring disorders and can ultimately achieve better health outcomes and reduce costs. Increasing awareness and building capacity in service systems are important in helping identify and treat co-occurring disorders. Treatment planning should be client-centered, addressing clients' goals and using treatment strategies that are acceptable to them (MDPH, 2017).

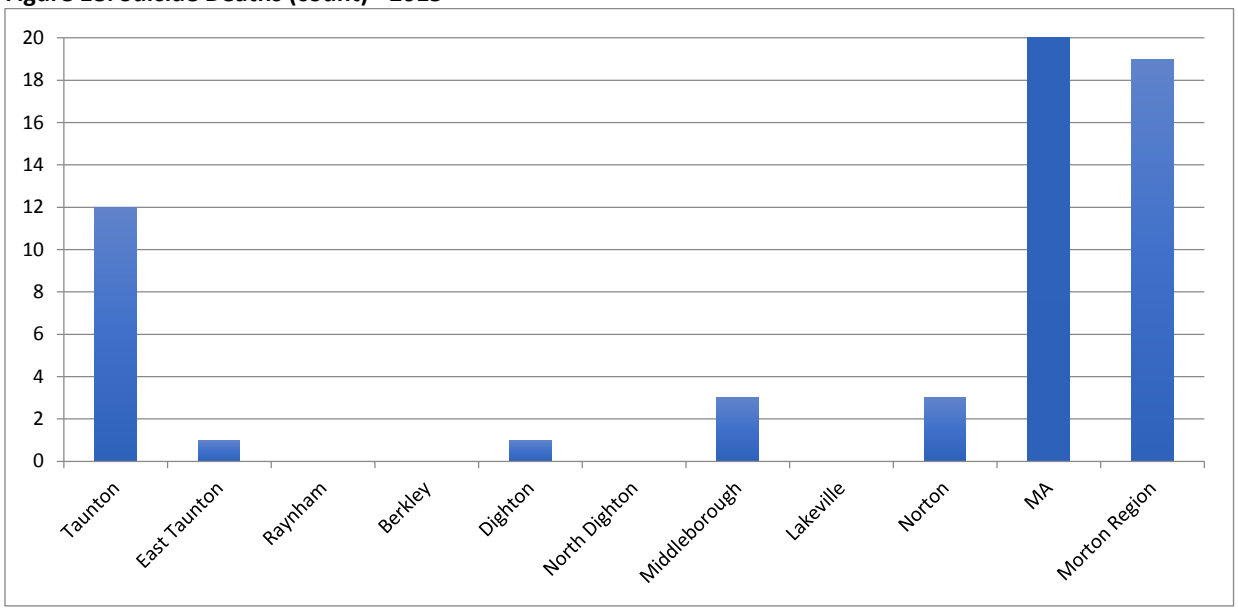
Figure 17: Mental Disorders: All Related Hospitalizations (per 100,000) - 2013



(Source: Massachusetts Department of Public Health 2015)

In 2013, the highest rate of mental health-related hospitalizations within the Morton Hospital service area was observed in Dighton where the rate was (195.36 per 100,000). The second highest rate was seen in Berkley at (179.44 per 100,000). The lowest rate in the service area was seen in Taunton where the rate was just (76.32 per 100,000).

Figure 18: Suicide Deaths (count) - 2015



(Source: Massachusetts Department of Public Health 2016)

In 2015 there were 647 suicide deaths in Massachusetts, 19 of these occurred within the Morton Hospital service area. The highest count of suicide deaths was seen in Taunton at 12, followed by Middleborough and Norton at 3 each. Raynham, Berkley, North Dighton, and Lakeville each reported no suicide deaths in 2015.

When asked "*What do you think are the top three health issues in this community?"* mental health conditions were the second most selected health issue by survey respondents. Of the 90 respondents, 67 selected mental health conditions as a top health concern in the community. Survey respondents and focus group participants felt that more needed to be done to address mental health conditions in the Morton Hospital community. When asked *"What improvements/services should be made/added for a healthier community?"* (79.07%) mentioned a need for expanded mental health services. Focus group participants brought up numerous potential improvements regarding mental health. These included more inpatient beds for mental health patients, better mental health training for staff, expansion of mental health staff in order to reduce wait times, and stress management offerings.

Substance Use Disorder

In 2014, there were 2,200 overdoses from alcohol, 17,465 overdoses from illicit drugs, and 25,760 overdoses from prescription drugs in the US. This number increased in 2015, as total overdose deaths totaled 52,404, including 33,091 (63.1%) that involved an opioid (CDC, 2016). Among those under the age of 45, Massachusetts ranked highest among all states for rate of opioid-related emergency department visits and second highest for the rate of opioid-related inpatient stays. The CDC reported that Massachusetts had the nation's second highest rate of fentanyl seizures among all states in 2014 (MDPH, 2017).

The National Survey on Drug Use and Health (NSDUH) in 2015 estimated 27.1 million people in the US aged 12 and older had used illicit drugs in the past month. Of these, a majority (22.2 million) reported using marijuana and 3.8 million misused prescription opioids (SAMSHA, 2015). According to 2013-2014 NSDUH estimates, the prevalence of past month binge drinking, past month illicit drug use and past month marijuana use among Massachusetts residents age 12 and older exceeded the national averages (binge drinking: (24.2% vs. 22.9%); illicit drug use: (13.2% vs 9.8%(and marijuana use: (11.8% vs 8%) (MDPH, 2017). During the same survey period, an estimated 20.8 million, approximately 1 in 10 people needed substance use treatment (i.e., treatment for problems related to the use of alcohol or illicit drugs). Of this population, (10.8%) received treatment (SAMSHA, 2016).

Rates of substance use and misuse vary by demographics and geographic factors. Variations across population groups are shaped by several factors, including biological, genetic, psychological, familial, religious, cultural, and historical circumstances. Massachusetts offers a variety of treatment approaches to address the needs of individuals with substance use disorders. However, there are important disparities in the outcomes and effectiveness of substance use treatment for different populations. Treatment interventions should be individually tailored and incorporate culturally competent and linguistically appropriate practices relevant to specific populations and subpopulation groups (MDPH, 2017).

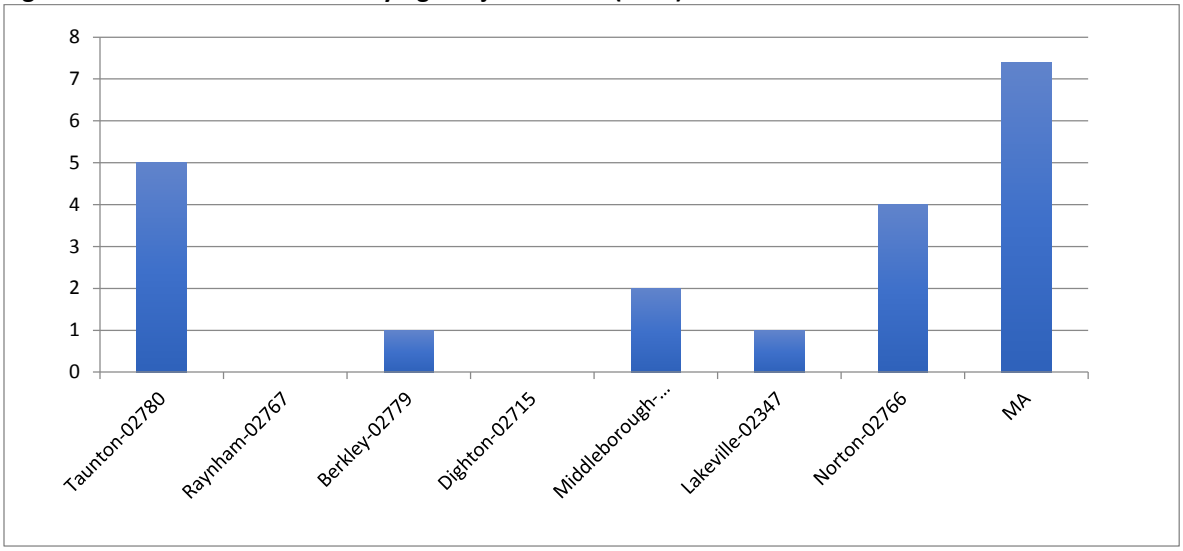
Alcohol

Alcohol is also the most prevalent substance used in the past month by Massachusetts residents 18 to 25 years of age. In 2013-2014, (70.2%) of Massachusetts young adults reported using alcohol in the past month and (43.9%) reported binge drinking in the past month, exceeding national averages for alcohol use among this population (past month alcohol use: 59.6%; past month binge drinking: 37.8%) (MDPH, 2017).

Despite the legal drinking age of 21, alcohol is the primary substance used by youth. According to NSDUH (2013-2014), there has been a decrease in past month alcohol use and binge drinking in the US among individuals 12 to 17 years of age. In 2015, (61%) of Massachusetts high school students reported using alcohol in their lifetime: (34%) reported past month use; (18%) reported binge drinking in the past month (MDESE & MDPH, 2015).

The proportion of BSAS clients who identified as veterans increased (12.1%) from Fiscal Year 2011 (5,095 clients) to Fiscal Year 2016 (5,713 clients). In Fiscal Year 2016, (4%) of the BSAS treatment population identified as veterans. Also, in Fiscal Year 2016, alcohol was the primary drug reported among the BSAS veteran population (48%) (MDPH, 2017).

Figure 19: Alcohol Related Morality Age-Adjusted Rate (2015)



(Source: Massachusetts Department of Public Health - Bureau of Substance Abuse Services 2015)

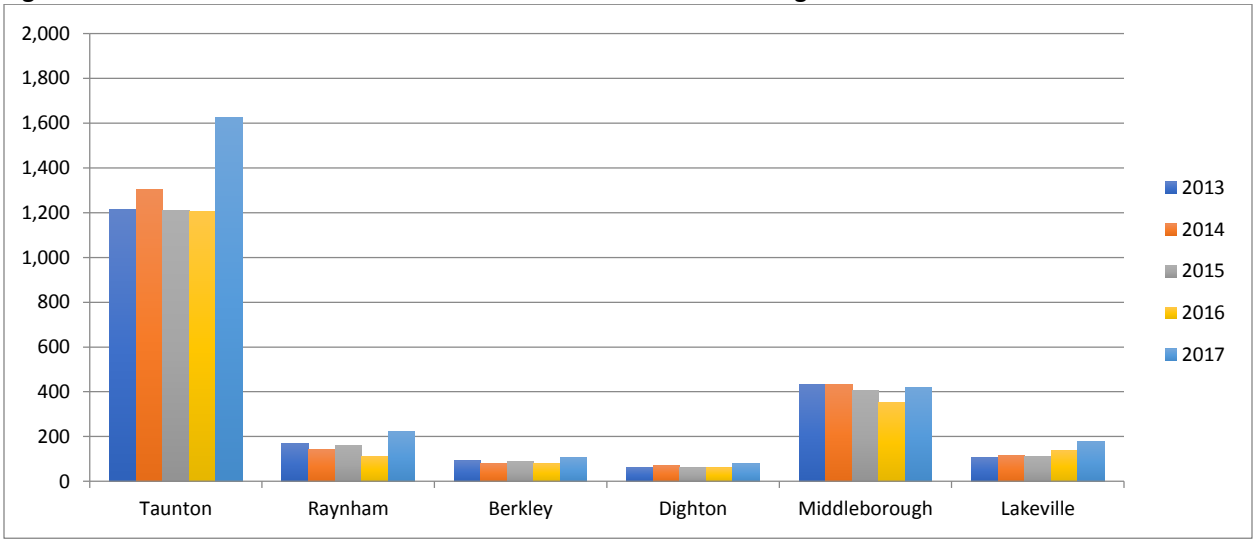
Across the Morton Hospital primary service area Taunton recorded the highest age-adjusted rate of mortality, followed by Norton. However, both were below the Commonwealth's age-adjusted rate of alcohol mortality. Both Raynham and Dighton reported having had no mortality due to alcohol.

Marijuana

According to the National Survey on Drug Use and Health (NSDUH) in 2015, an estimated 27.1 million people in the US aged 12 and older used illicit drugs in the past month. Of these, a majority (22.2 million) reported using marijuana and 3.8 million misused prescription opioids (SAMSHA, 2015). During the same survey period, an estimated 20.8 million, approximately 1 in 10 people needed substance use treatment (i.e., treatment for problems related to the use of alcohol or illicit drugs). Of this population, (10.8%) received treatment (SAMSHA, 2015).

In Fiscal Year 2016, among BSAS treatment program enrollments, (59.9%) of those 13 to 17 years of age reported marijuana as their primary drug, and (16.2%) reported opioid as their primary drug of choice. Of enrollees that were 18 to 25 years of age, (68.3%) reported opioids as their primary drug (MDPH, 2017).

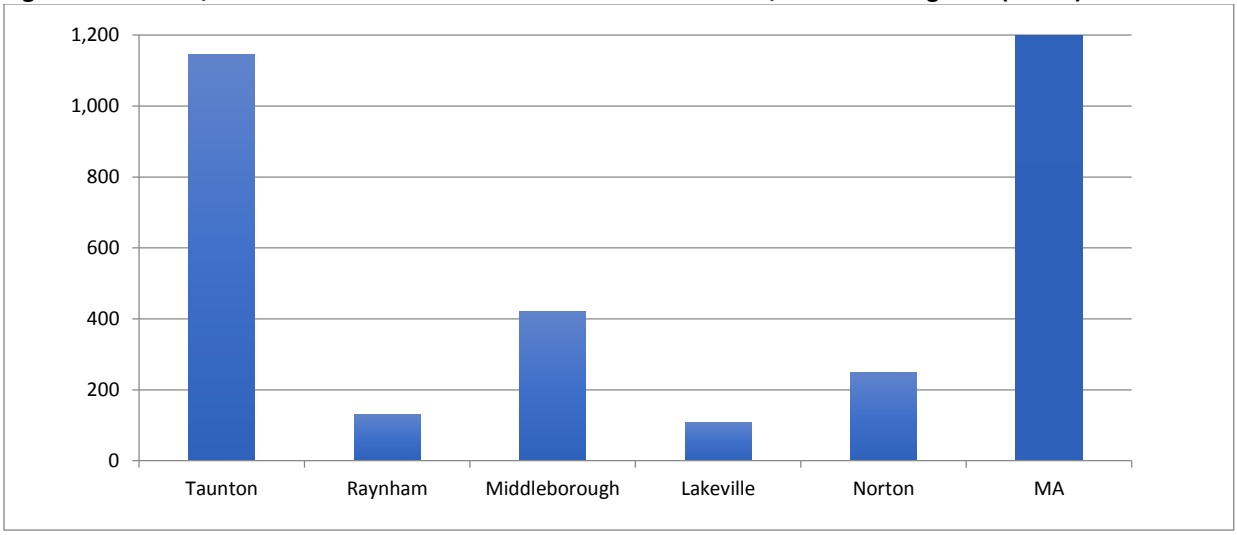
Figure 20: Admissions to DPH-Funded Substance and Alcohol Abuse Programs - 2017



(Source: Massachusetts Department of Public Health, Bureau of Substance Abuse Services 2017)

From 2013 to 2017, Taunton had the highest number of admissions to DPH funded substance and alcohol abuse programs each year. This count peaked in 2017 at 1,626 admissions to a DPH funded substance and alcohol abuse program. Middleborough exhibited the second highest admission counts during the same period. Admissions in Middleborough ranged between 434 and 354 between 2013 and 2017. Dighton had the lowest counts over this five-year period. Admission counts to DPH funded alcohol and substance abuse programs ranged from 60 to 78.

Figure 21: Alcohol/Substance Related Admissions to BSAS Contracted/ Licensed Programs (Count) - FY 2014



(Source: Massachusetts Department of Public Health, Bureau of Substance Abuse Services 2015)

In the 2014 fiscal year, there were 107,358 alcohol or substance-related admissions to BSAS contracted/licensed programs in Massachusetts. The total count within the Morton Hospital service area was unavailable. Of the Service area towns with available data, Taunton exhibited the highest number of alcohol/substance related admissions at 1,144. Middleborough followed with 420 admissions. Lakeville had the lowest count of admissions at just 109.

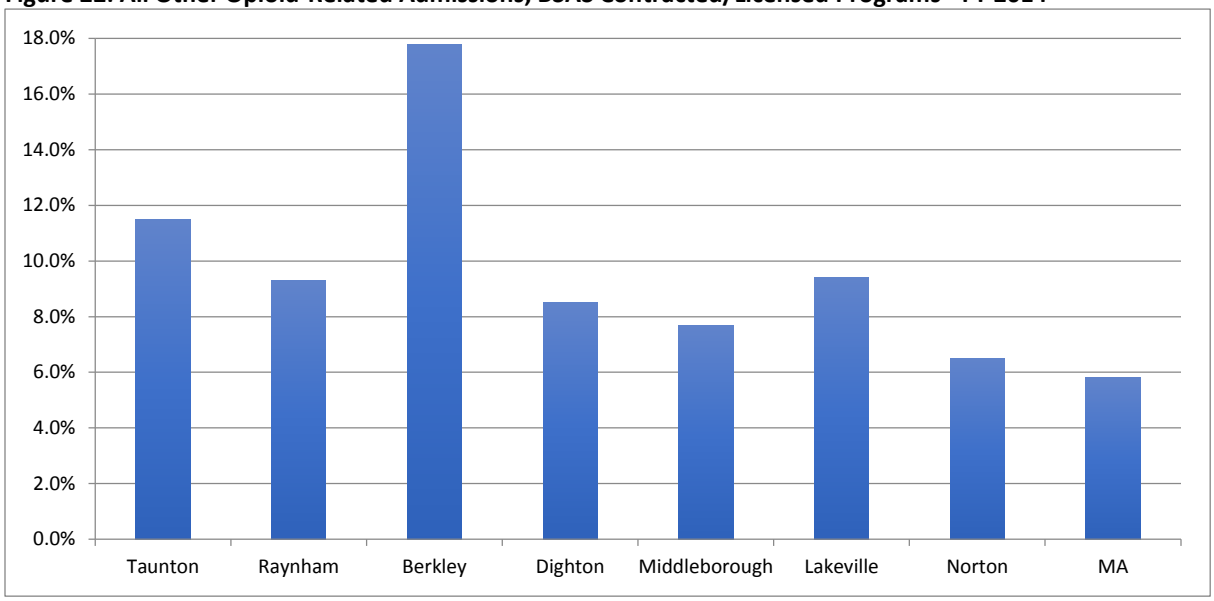
Opioids

In Massachusetts, there has been a dramatic increase in opioid-related deaths. The number of opioid-related deaths in 2016 represents a (17%) increase over 2015 and a (450%) increase since 2000. Almost every community in Massachusetts is affected by the opioid epidemic. A key strategy for understanding the opioid epidemic is to improve the timely analysis and dissemination of data on opioid overdoses (MDPH, 2017).

Increasingly, there is evidence suggesting that fentanyl is fueling the current opioid epidemic. A Massachusetts-CDC collaborative epidemiologic investigation identified that the proportion of opioid overdose deaths in the state involving fentanyl, a synthetic, short-acting opioid with 50-100 times the potency of morphine, increased from (32% to 74%) from 2013 to 2016 (MDPH, 2017).

Intervention is an important component in the continuum of services to address substance use disorder (SUD) in a community. Secondary prevention targets individuals who have low levels of alcohol and/or drug use and would benefit from prevention and safety messages. Tertiary prevention targets individuals who exhibit a greater degree of SUD and experience problems associated with their alcohol or drug use. These individuals would benefit from prevention and harm reduction messages, as well as referrals to treatment. Individuals may experience a range of alcohol and drug use from no use to addiction. Depending on usage level, individuals may benefit from different levels of service. A person-centered approach includes prevention, safety and harm reduction messages tailored to what the individual is ready to receive (MDPH, 2017).

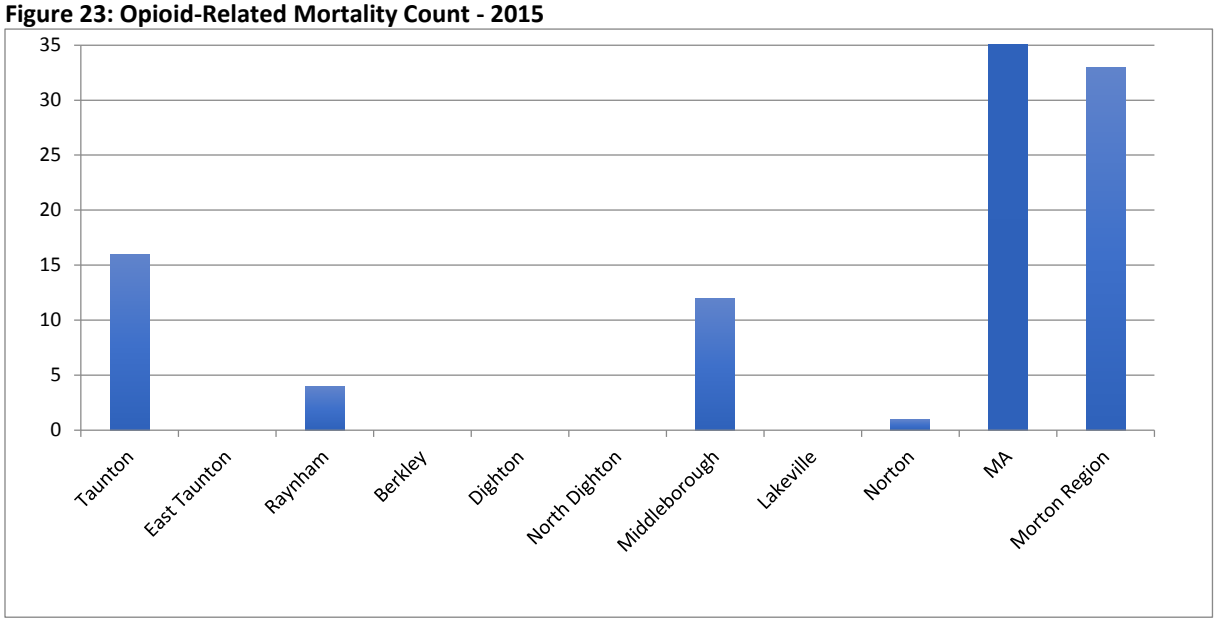
Figure 22: All Other Opioid-Related Admissions, BSAS Contracted/Licensed Programs - FY 2014



(Source: Massachusetts Department of Public Health 2015)

In 2014, (5.8%) of all admissions to BSAS contracted/licensed programs in Massachusetts were related to opioids. Every Morton Hospital service area city/town exceeded this percentage. The highest percentage was seen in Berkley at (17.8%), followed by Taunton at (11.5%). The lowest percentage was seen in Norton where (6.5%) of admissions to BSAS contracted/licensed programs were related to opioids.

Figure 23: Opioid-Related Mortality Count - 2015



(Source: Massachusetts Department of Public Health 2015)

In 2015 there were 1,637 opioid-related deaths in Massachusetts. Of the cities/towns in the Morton Hospital service area, Taunton had the highest number of opioid-related deaths at 16. Middleborough followed with 12. East Taunton, Berkley, Dighton, North Dighton, and Lakeville each had no deaths related to opioids in 2015.

Intervention is an important component of a continuum of services to address substance use disorder. Individuals who have low levels of alcohol and/or drug use and would benefit from prevention and safety messages. Individuals who exhibit a greater degree of SUD and experience problems associated with their

alcohol or drug use and would benefit from prevention and harm reduction messages as well as referrals to treatment. Individuals may experience a range of alcohol and drug use from no use to addiction and can benefit from different levels of service depending on what they are ready to receive at any given time. A person-centered approach includes prevention, safety and harm reduction messages tailored to what the individual is ready to receive (MDPH, 2017).

Substance use disorder was the number one health concern of survey respondents. "*What do you think are the top three health issues in this community?"* (76.67%) or 69 out of 90 respondents selected substance use disorder as a top health concern. Numerous comments on other survey questions brought up the fact that overdoses were on the rise in the Morton service area and that more needed to be done to prevent this. When asked "*What improvements/services should be made/added for a healthier community?"* (67.44%) of survey respondents brought up a need for more improvements regarding substance use disorder. Focus group participants brought up the need for substance abuse initiatives in schools and more AA and AI Anon meetings. The participants also stressed the need to expand resources available to substance abuse for patients and families, as well as the need to improve awareness of these resources.

Housing Stability

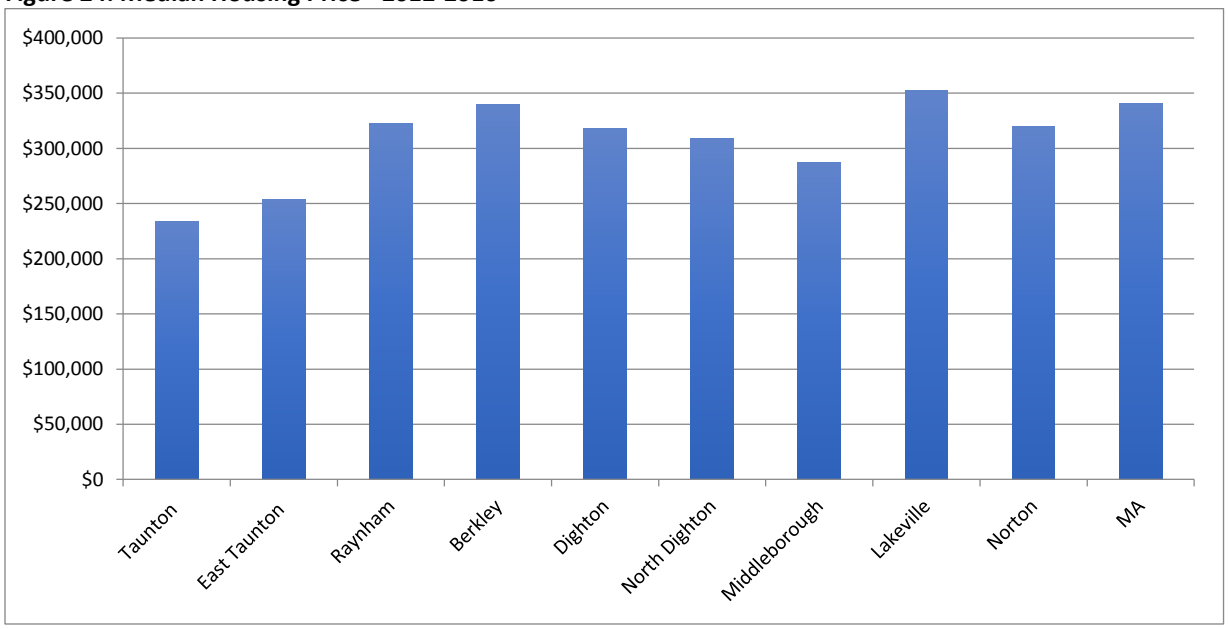
Massachusetts is currently dealing with a severe housing crisis due in large part to a low rate of housing production which has not kept pace with population growth and needs. Increasing rents have outpaced wages, and the lingering effects of the foreclosure crisis still have an impact. As a result, there is a shortage of suitable and affordable units for young workers, growing families, and the increasing senior population. Overcoming these barriers will require addressing a variety of causes, including high development costs and exclusionary and restrictive zoning laws, which have made it difficult to keep up with the housing demand (MA Legislature, 2016).

The Massachusetts population is growing older, and our world-class educational institutions and thriving technology companies continue to attract young professionals at a high rate. The state is ill-prepared to meet the housing needs of this rapidly changing demographics. Baby Boomers (those born between 1946 and 1964) made up (50%) of the state's labor force in 2010. In coming decades, 1.4 million boomers are expected to retire or move away by 2030, this will reduce the size of the skilled workforce significantly. Thus, housing production is an economic imperative for the Commonwealth (MA Legislature, 2016).

There is a high demand for homes in Massachusetts' historically working-class communities. As more middle-income and working-class households move to these lower cost communities in hopes of finding more affordable housing. This demand is driving up prices. Home prices are still more affordable the further one moves away from the urban core (The Boston Foundation, 2017).

Average monthly rents have not fallen further despite the increase in housing construction. This is likely because a disproportionate amount of the new rental units are priced at luxury levels and are not attainable by the majority of Massachusetts' population. The prices of these units have declined enough to bring the overall average rent down without much affecting median rent or rents in the lower end of the price spectrum. Hence, even as average rents have fallen, the proportion of renters who are housing cost–burdened continued to rise in 2017 (The Boston Foundation, 2017).

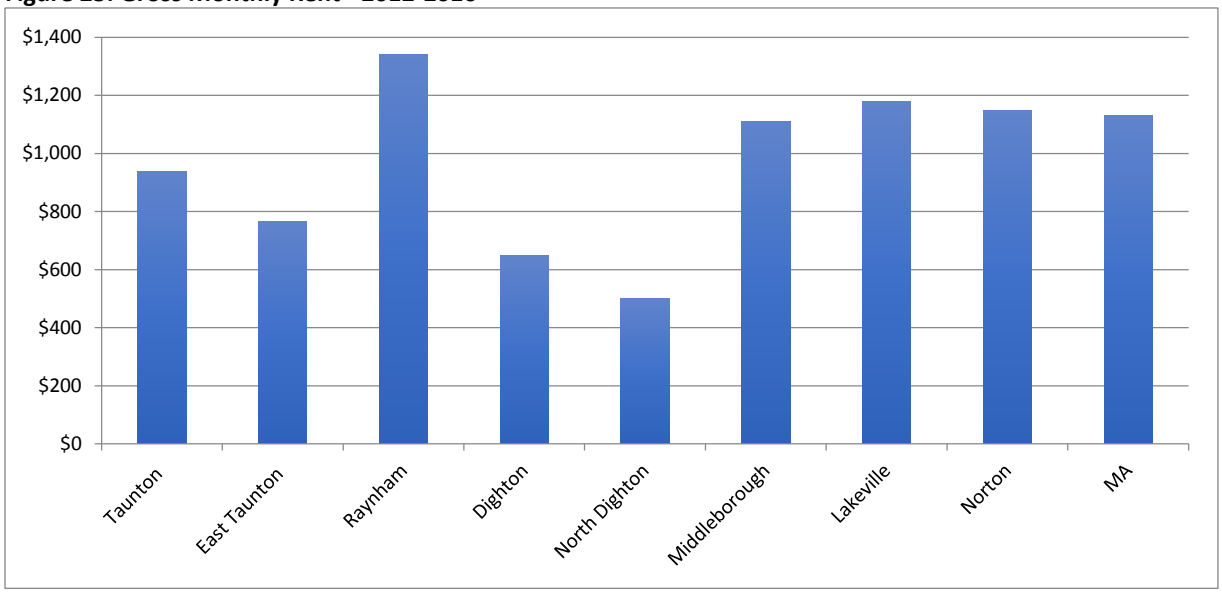
Figure 24: Median Housing Price - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, the median housing price in Massachusetts was $341,000. Of the cities/towns within the Morton Hospital service area, only Lakeville exceeded this level with a median housing value of $352,400. The lowest median housing prices were found in Taunton and East Taunton where the median price of a home was $233,800 and $253,700 respectively.

Figure 25: Gross Monthly Rent - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, the median gross monthly rent in Massachusetts was $1,129, three of the nine service area cities/towns exceed this rate. The highest gross monthly rent was found in Raynham at $1,342, followed by Lakeville at $1,180. The lowest gross monthly rent was seen in North Dighton at $499, followed by Dighton at $647.

Homelessness

In FY 2018, the Commonwealth will spend a total of $432 million on a series of housing programs as well as initiatives aimed at combatting homelessness. Of this sum, $183 million goes to the former with the larger share $249 million going to homeless programs. However, this amount represents the second consecutive annual funding cut. The state budget for housing-related spending is now $71 million below the amount in the FY 2016 budget, a (14%) reduction. What makes this cut in state funding even more serious is that it is coming on top of a sharp reduction in federal funding for housing in the Commonwealth. FY 2018 estimated funds for federal housing programs in Massachusetts are expected to be $71 million less than in FY 2017. Together, the state and federal cuts in the current fiscal year alone amount to more than $100 million (The Boston Foundation, 2017).

As of August 31, 2018, there were 3,636 families with children and pregnant individuals in Massachusetts' Emergency Assistance (EA) shelter program. 36 of these families with children were being sheltered in motels. (The number rose to 37 families in motels as of November 2, 2018.) This number does not count families who are sharing living spaces, living in unsafe conditions, or sleeping in their cars. During state FY 2018, 8,145 families completed applications for assistance, of these families 4,895 families were assisted with emergency shelter and/or HomeBASE diversion assistance. 3,250 families were denied assistance (40% denial rate, as reported by DHCD). Citizens' Housing and Planning Association (CHAPA) estimates a shortage of 158,769 affordable rental homes for extremely low-income households in Massachusetts as of November 2017.

A report by the *National Low-Income Housing Coalition* details how low wages and high rents lock renters out in Massachusetts and all across the country. For 2017, the Massachusetts statewide housing wage is $27.39/hour, meaning that a worker would have to earn that amount per hour in order to afford the fair market rent for a 2-bedroom apartment ($1,424/month), without having to pay more than 30% of their income toward rent. The housing wage is based on a worker working 40 hours/week, 52 weeks/year. For

2016, it was $25.91 and for 2015, it was $24.64/hour. Massachusetts ranked as the 6th least affordable state in the country when looking at the 50 states and Washington, D.C. (MCH, 2018).

Poverty contributes heavily to homelessness. According to the U.S. Census Bureau's 2015 American Community Survey report (released in October 2016), the overall poverty rate in Massachusetts was just under (11.5%) in 2015. This includes an estimated 752,071 people in Massachusetts living in households that fell below the poverty threshold. This estimate includes 202,513 children under the age of 18 and 92,468 elders age 65 and older. 355,730 people were living in households with incomes under (50%) of the federal poverty guidelines (MCH, 2018).

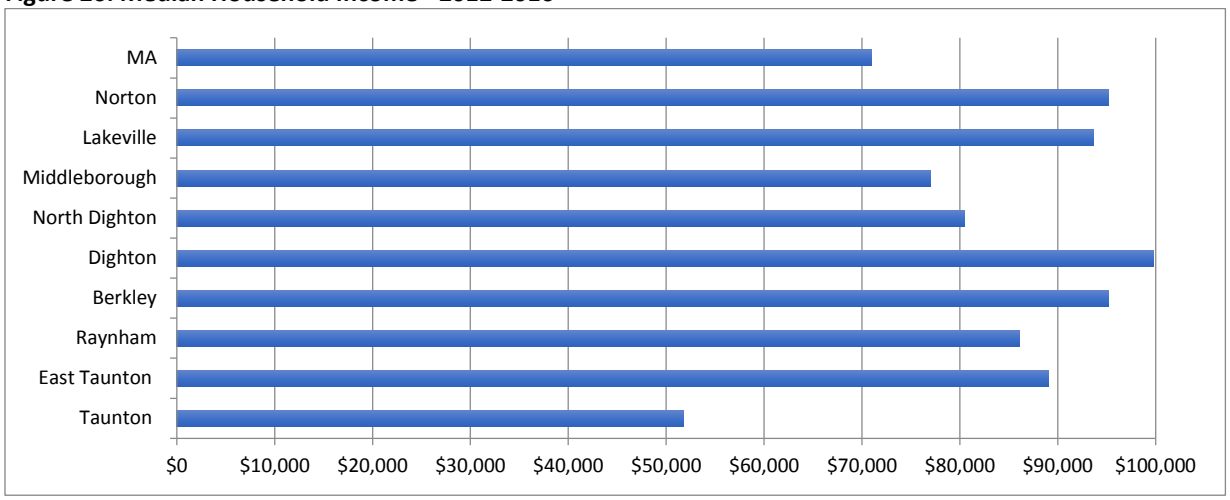
Poverty

Income, poverty, and unemployment are each profoundly linked with health (Braveman, Cubbin, Egerter, Williams, & Pamuk, 2010). Income influences where people choose to live, the ability to purchase healthy foods, the opportunity to participate in physical and leisure activities, and to access health care and screening services. Having a job and job-related income provide individuals the opportunities to make healthy choices, engage in healthy behaviors, access necessary health care services, and enjoy a long life (MDPH, 2017). Unemployment is also associated with poor health, including increased stress, hypertension, heart disease, stroke, arthritis, substance use, and depression; and the unemployed population experiences higher mortality rates than the employed (Henkel D., 2011) (Robert Wood Johnson Foundation, 2013).

While being employed is important for economic stability, employment affects our health through more than just economic drivers. Physical workspace, employer policies, and employee benefits all, directly and indirectly, impact an individual's health. Job benefits such as health insurance, sick and personal leave, child and elder services and wellness programs can impact the ability of both the worker and their family to achieve good health (MDPH, 2017).

Stark racial disparities exist in poverty rates across Massachusetts. From 2011-2015, approximately one in three (29.3%) Hispanic residents and one in five Black non-Hispanic (22%), American Indian or Alaska Native (22.9%), or Native Hawaiian or other Pacific Islander (22.4%) residents recorded incomes below the federal poverty level. These patterns stand in dramatic contrast to less than one in 10 (7.8%) White non-Hispanic and one in seven (14.6%) Asian non-Hispanic residents with incomes below the federal poverty level. Some people's housing costs exceed 30% of their income, leaving less money to cover other necessities (MDPH, 2017).

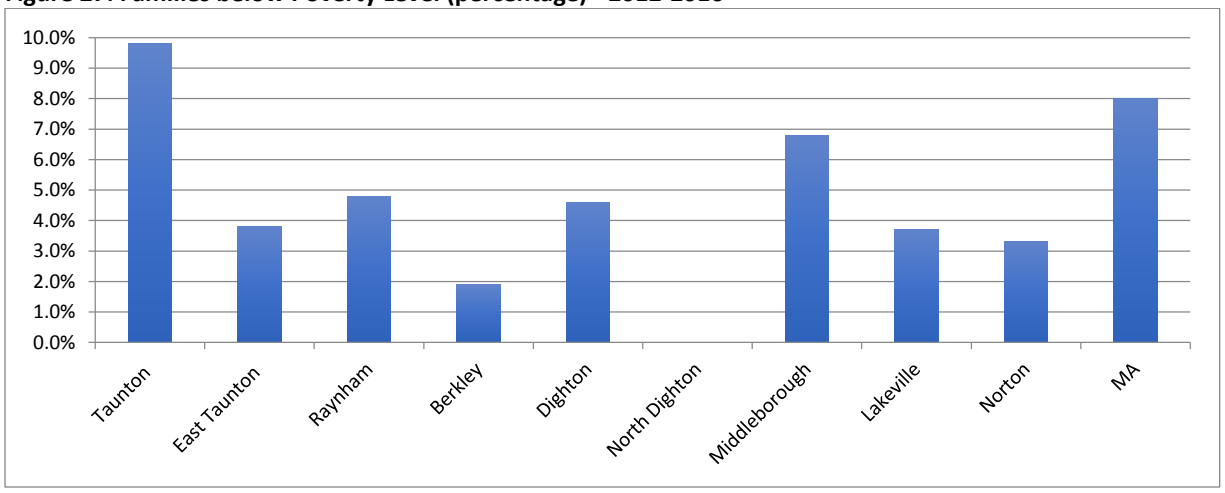
Figure 26: Median Household Income - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016 the median household income in Massachusetts was $70,954. Of the cities/towns in the Morton Hospital service area, only Taunton had a lower median household income than the state level at $51,820. The highest median household income within the Morton Hospital service area was seen in Dighton at $99,830, followed by Norton at $95,221 and Berkley at $95,186.

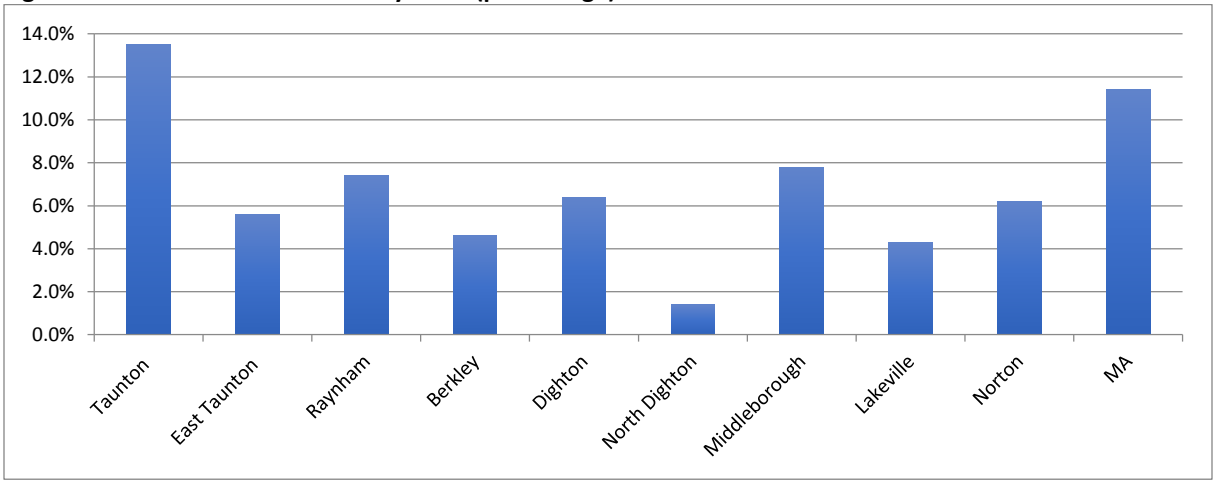
Figure 27: Families below Poverty Level (percentage) - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (8%) of families in Massachusetts were below poverty level. Every city/town within the Morton Hospital service area had a lower percentage of families below the poverty level with the exception of Taunton where (9.8%) of families were below the poverty level. North Dighton reported (0%) of families below poverty level. The second lowest percentage was observed in Berkley where just (1.9%) of families were below the poverty level during this period.

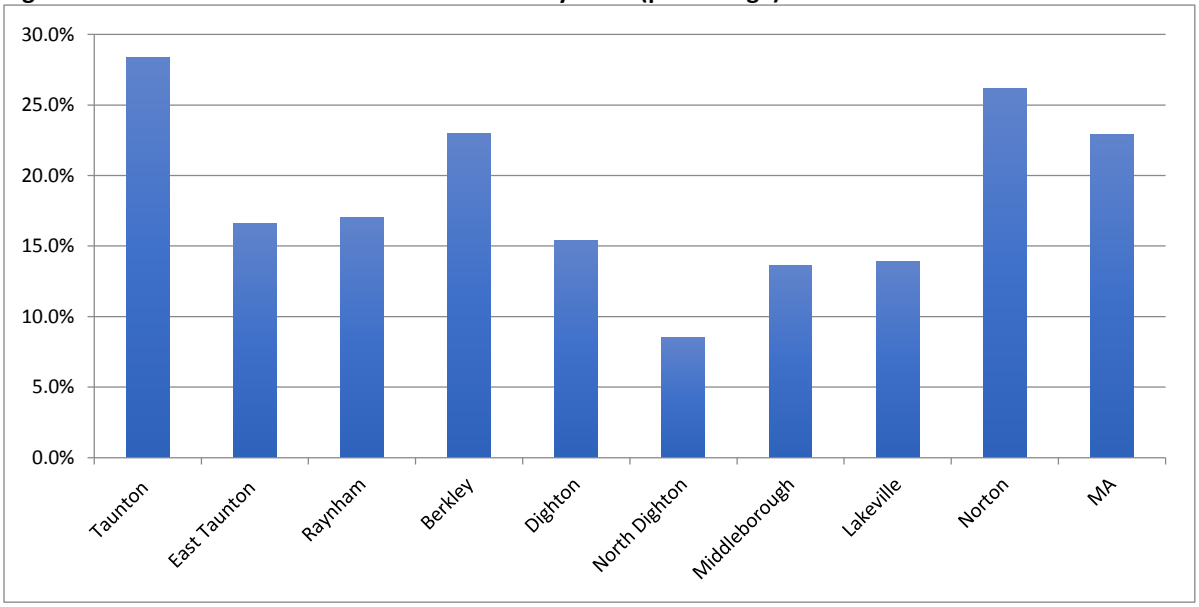
Figure 28: Individuals below Poverty Level (percentage) - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (11.4%) of individuals in Massachusetts were below poverty level. Only Taunton exceeded this percentage at (13.5%). The remaining cities and towns in the Morton Hospital service area each exhibited less than (8%) of individuals below the poverty level. The lowest percentage was seen in North Dighton where just (1.4%) of individuals were below the poverty level.

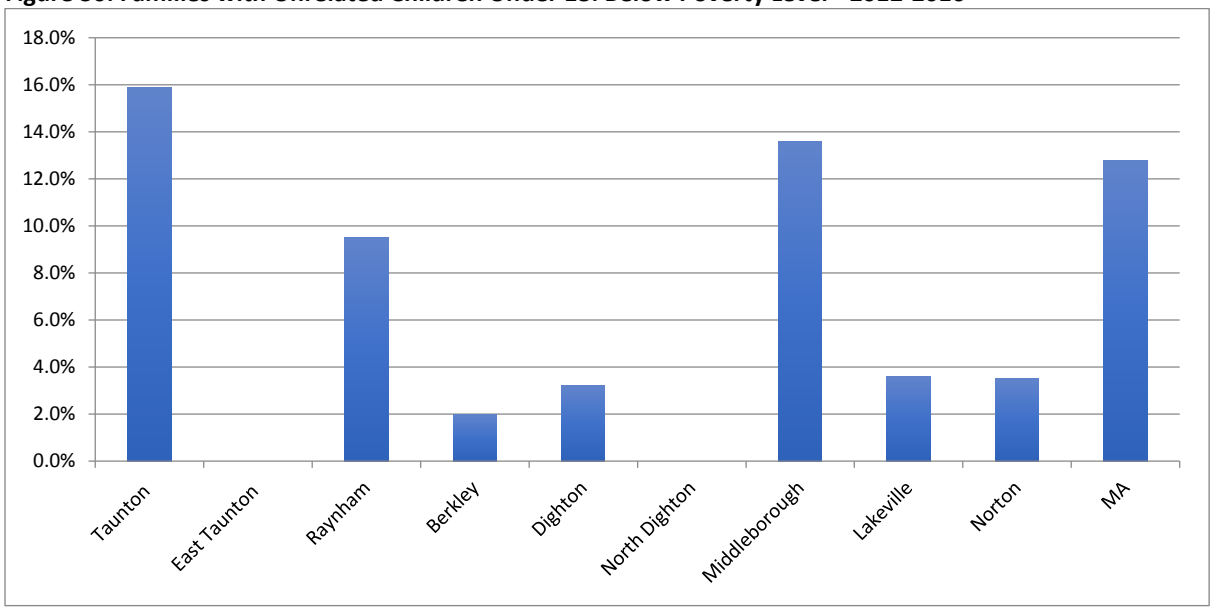
Figure 29: Unrelated Individuals 15+ Below Poverty Level (percentage) - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (22.9%) of unrelated individuals over the age of 15 were below poverty level throughout the Commonwealth. Taunton and Norton exceeded this percentage with (28.4%) and (26.2%) of unrelated Individuals 15+ below the poverty level. Berkley reported a percentage equal to that of Massachusetts. The lowest percentage of unrelated individuals over the age of 15 below the poverty level was seen in North Dighton where the percentage was just (8.5%).

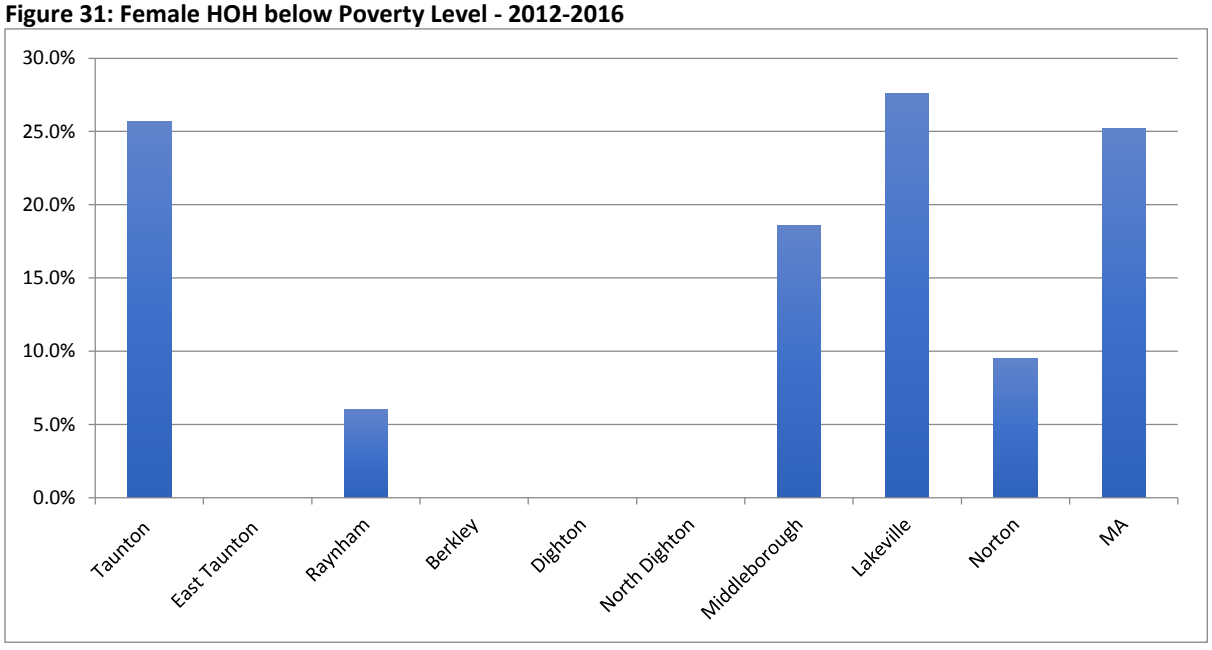
Figure 30: Families with Unrelated Children Under 18: Below Poverty Level - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (12.8%) of families with unrelated children under the age of 18 were below the poverty level. Taunton and Middleborough reported percentages higher than the state level at (15.9%) and (13.9%) respectively. Both East Taunton and North Dighton reported (0%) of families with unrelated children under the age of 18 below the poverty level. The remaining cities/towns each had percentages less than (4%).

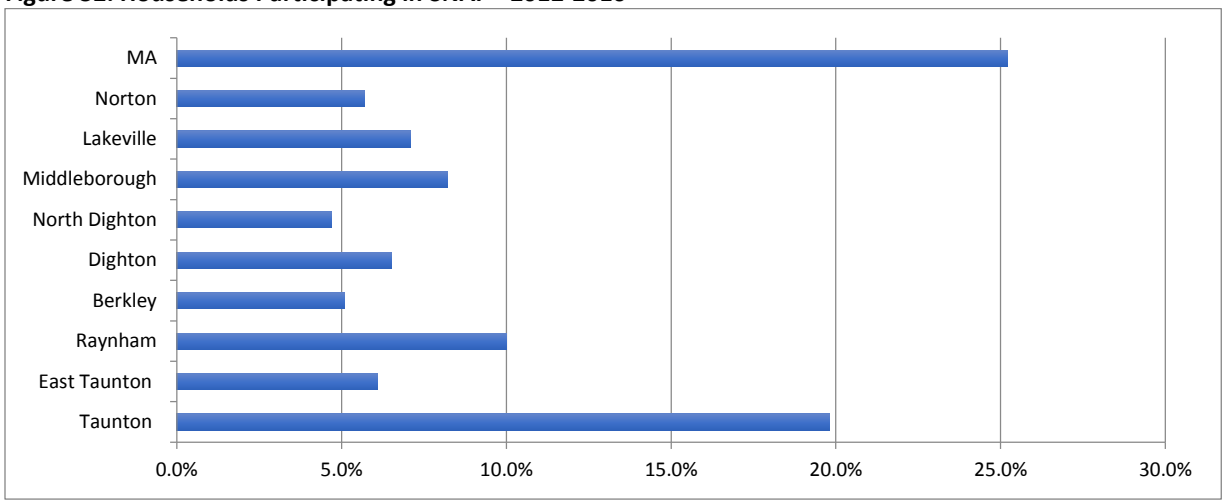
Figure 31: Female HOH below Poverty Level - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (25.2%) of female HOH households in Massachusetts were below poverty level. Both Taunton and Lakeville exhibited percentages higher than the state level. Lakeville had the highest percentage of (27.6%). East Taunton, Berkley, Dighton, and North Dighton each had (0%) of female HOH households below the poverty level.

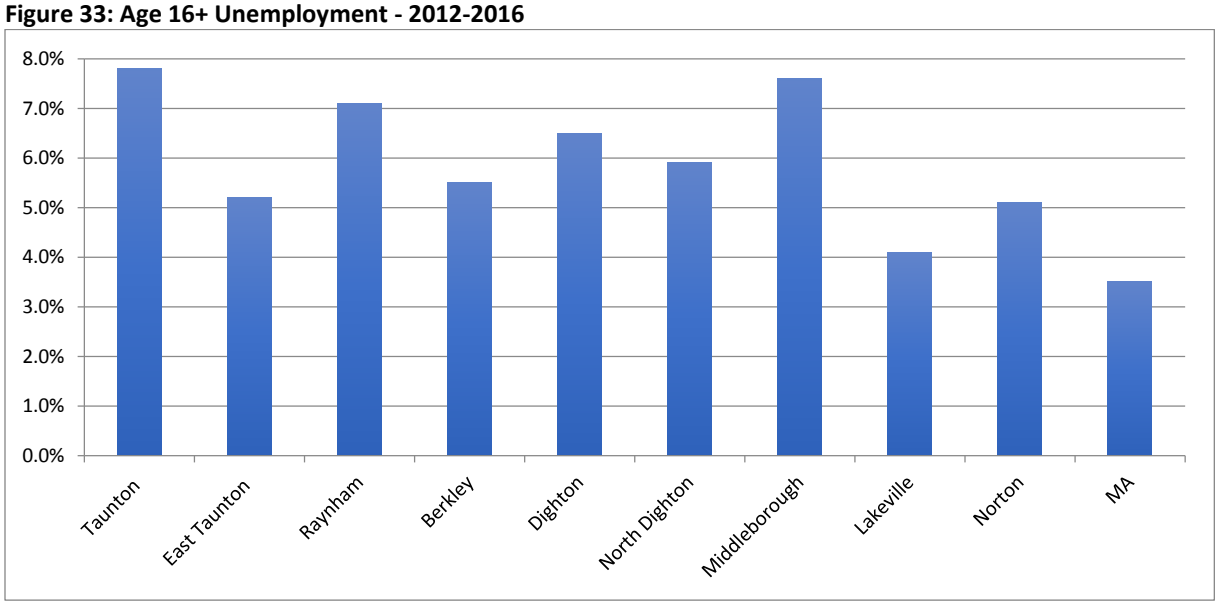
Figure 32: Households Participating in SNAP - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (25.2%) of Massachusetts households participated in SNAP. Every Morton Hospital service area city/town had a lower percentage of households participating in SNAP than the state level. The highest percentage of households participating in SNAP was seen in Taunton at (19.8%). The lowest percentage was seen in North Dighton where only (4.7%) of households participated in SNAP during this period of time. Except for Taunton, all Morton Hospital service area cities/towns exhibited a percentage at or below (10%).

Figure 33: Age 16+ Unemployment - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

From 2012 to 2016, (3.5%) of Massachusetts individuals over the age of 16 were unemployed. Every service area city/town in the Morton service area had a greater percentage than the state level. The highest unemployment percentage was seen in Taunton at (7.8%), followed by Middleborough at (7.6%). The lowest unemployment percentage in the Morton service area was observed in Lakeville where (4.1%) of individuals over the age of 16 were unemployed.

When asked “Are there any other issues in your community that you want to identify?” several individuals mentioned the rising homeless population in the Morton Hospital community. The mentioned that something needed to be done as homelessness can lead to numerous negative health conditions. Homelessness was not brought up in either focus group.

Access to Care

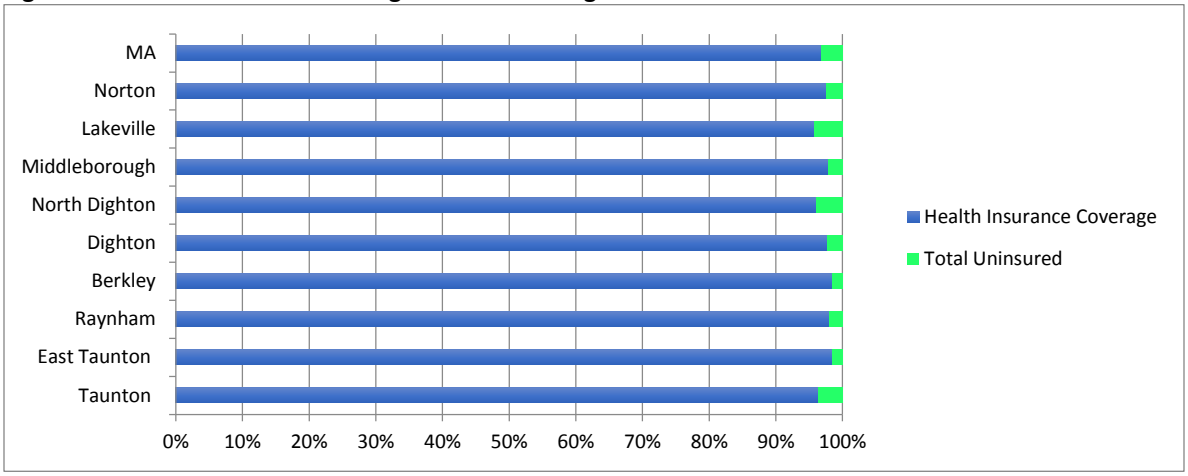
Massachusetts has long been recognized as a national leader in providing health care for its citizens. The focus includes continuously improving capacity and capabilities to allow Massachusetts public health and health care systems to prevent, protect against, quickly respond to, and recover from a variety of emergencies. People who cannot access health care are more likely to have poor overall health and chronic conditions. Accessing services such as preventive care, primary care, dental and mental health care, and emergency care without delay are necessary to a person's overall health (MDPH, 2017).

The overall trends in health care in Massachusetts are among the most positive in the nation:

- Massachusetts has the fewest uninsured residents in the nation. Only four percent were uninsured due to legislation enacted in 2006 to provide improved access to health care coverage in the Commonwealth.
- Only 7.5% of Massachusetts adults say they do not have a "usual place" of medical care compared to a national rate of 17.3%.
- Additionally, Massachusetts ranks first in the number of primary care physicians per 100,000 residents.

Although metrics like health insurance and the availability of providers and facilities are important for assessing access to care, it is vital to consider barriers to health care that disproportionately affect vulnerable populations. These barriers, for some residents of the Commonwealth, may lead to unmet health care needs, delays in receiving care, financial burden, and preventable hospitalizations. Assessing and improving the quality of health systems is important for improving population health. A key Commonwealth goal is a health system that provides quality care that is safe, effective, timely, equitable, and patient-centered. This means working to reduce and prevent adverse events and ensuring timely and accessible evidence-based care for all in the right place and at the right amount (MDPH, 2017).

Figure 34: Health Insurance Coverage and No Coverage - 2012-2016



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

While health insurance coverage rates are high in Massachusetts compared to other states across the country, many individuals remain uninsured and without access to key health care services. According to the U.S. Census data, from 2012 to 2016, Lakeville, North Dighton, and Taunton all maintained a higher percentage of uninsured residents than the Commonwealth.

Community survey results and focus group discussions also highlighted an apparent lack of awareness of available primary and preventive care services within the community. This notion highlights a need for better promotion of available health care resources.

Recommendations

Morton Hospital is well positioned to partner with other community-based organizations and coalitions to address the following key strategic priorities to improve health outcomes and wellness in the region:

1. **Chronic Diseases**
    a. Cancer
    b. Heart Disease
    c. Respiratory Disease
    d. Diabetes

2. **Obesity**

3. **Mental Health**

4. **Substance Use Disorders**

5. **Access to Care**

In recognition of the need for further investments in the social determinants of health, as noted in *The Attorney General's Community Benefits Guidelines for Non-Profit Hospitals* released February 2018, Morton Hospital will also consider these six priorities in Community Benefits planning:

- **Built Environment**
    - The built environment encompasses the physical parts of where we live, work, travel, and play, including transportation, buildings, streets, and open spaces.
- **Social Environment**
    - The social environment consists of a community's social conditions and cultural dynamics.
- **Housing**
    - Housing includes the development and maintenance of safe, quality, affordable living accommodations for all people.
- **Violence**
    - Violence is the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, with the behavior likely to cause physical or psychological harm.
- **Education**
    - Education refers to a person's educational attainment – the years or level of overall schooling a person has**.**
- **Employment**
    - Employment refers to the availability of safe, stable, quality, well-compensated work for all people.

Morton Hospital will continue to foster collaborative partnerships with other community-based organizations whose services align with the aforementioned priorities and focus issues. Particular consideration will be given to how strategies impact the lives of the underserved populations identified within the Morton Hospital service area. Morton Hospital recognizes the effectiveness of working together towards the common goal of improving health outcomes among all community members, particularly for underserved populations. Where it is deemed appropriate, Morton Hospital will coordinate with regional public health organizations to ensure our success in addressing community health issues.

Chronic Diseases

Cancer

Several socioeconomic factors contribute to the prevalence of cancer and/or late-stage cancer diagnoses. Obesity, tobacco use, and tobacco exposure are leading risk factors for many cancers including colorectal and breast cancer. Additionally, lack of access to healthy foods, limited physical activity, and lack of access to smoking cessation services are also risk factors. Gaps in health care coverage represent a barrier to covering the costs of diagnostic testing. For examples, individuals with high deductibles, low premiums, or high co-pays must pay for diagnostic tests to confirm a cancer diagnosis, contributing to delays in diagnosis (MDPH, 2017).

The Morton Hospital service area as a whole, with the exception of a few towns, maintains a higher than state average rate of cancer-related deaths. With regard to types of cancer-based on the total number of diagnoses, lung cancer was the most prevalent type of cancer in the hospital's service area, followed by breast, prostate and colon cancer respectively.

Community-Wide Recommendations

- Pursue partnerships with the American Cancer Society and/or other cancer education and prevention organizations in the community to advance disease prevention and management.

- Partner with civic and/or faith-based community organizations to reach underserved populations and provide appropriate screenings and prevention education.

Health System Recommendations

- Provide free cancer screening programs in communities more susceptible to cancer and with higher disease burden and mortality rates in order to increase early diagnosis of cancers and treatment with particular attention to Lung, Prostate and Breast Cancer.
- Offer smoking cessation program support groups within the community.
- Offer cancer prevention education and/or informational materials to high priority populations.
- Participate in community-based cancer awareness campaigns in the region.

Cardiovascular Disease

In 2015, (29.6%) of Massachusetts adults said they had been diagnosed with hypertension, similar to previous years. A larger percentage of Black non-Hispanic adults were diagnosed with hypertension (39.4%) compared to White non-Hispanic adults (30.7%). Racial/ethnic disparities in hypertension are likely an important contributing factor to hospitalizations for congestive heart failure, myocardial infarction, and stroke. Racial/ethnic disparities continue to exist in stroke-related hospitalizations. In 2014, Black non-Hispanic residents (368.1 per 100,000 population) experienced stroke-related hospitalization at a rate that was nearly twice as high as that for White non-Hispanic residents (201.5 per 100,000 population). Similarly, Hispanic residents (264.9 per 100,000 population) had a stroke hospitalization rate that was 1.3 times that for White non-Hispanic residents (201.5 per 100,000 population) (MDPH, 2017).

As of 2015, the Morton Hospital service area maintains a slightly higher than state average incidence rate of heart disease-related mortality. North Dighton and Dighton maintained the highest rates, followed by Taunton and Lakeville. East Taunton, Berkley, and Middleboro maintained a rate lower than the state average.

Community-Wide Recommendations

- Pursue partnerships with the American Heart Association and/or other cardiovascular disease education and prevention organizations in the community to advance disease prevention and management.
- Partner with civic and/or faith-based community organizations to reach high priority populations and provide appropriate screenings and prevention education.
- Sponsor sports teams, health fairs and events promoting physical activity within the community.

Health System Recommendations

- Provide free blood pressure screening programs in communities more susceptible to heart disease and with higher disease burden and mortality rates in order to increase early diagnosis and treatment.
- Offer heart attack and stroke prevention education and/or informational materials in target communities.
- Participate in community-based heart health and stroke awareness campaigns in the region.
- Serve as a Community Training Center using American Heart Association standards for employees, physicians, and community professional healthcare workers for cardiac education and CPR certification.

Respiratory Disease

Data indicates that respiratory disease continues to be a public health concern for the hospital's service area. Looking at COPD-related hospital visits alone, Taunton's rate of hospitalization (169.66) was nearly triple that of the average state rate of 62.28. All other towns in the hospital's service area also maintained higher than state average COPD-related hospitalization rates.

Community-Wide Recommendations

- Pursue partnerships with the American Lung Association and/or other lung and respiratory disease education and prevention organizations in the community to advance disease prevention and management.
- Partner with civic and/or faith-based community organizations to reach high priority populations and provide appropriate screenings and prevention education.
- Create smoke-free environments within the community and within work environments and offer smoking cessation resources to employees and members of organizations.

Health System Recommendations

- Offer smoking cessation programs within the community.
- Educate the community about lung cancer screening services available at the hospital and eligibility criteria.
- Participate in community-wide campaigns such as National Smoke-Out Day.
- Provide educational programs within the community related to the effects of smoking and management or diseases such as COPD.

Diabetes

Socioeconomic disparities exist in diabetes prevalence. In Massachusetts, adults with an annual household income of less than $25,000 (15.6%) have three times the prevalence of diabetes as compared to those with an annual household income of more than $75,000. The prevalence of diabetes also decreases as educational attainment increases. A total of (14.5%) of adults without a high school degree were diagnosed with diabetes compared to (5%) of adults with four or more years of post-high school education. Diabetes prevalence and mortality in Massachusetts also differs by race/ethnicity. In 2015, a greater proportion of Black non-Hispanic (12.3%) and Hispanic (11.7%) adults reported being diagnosed with diabetes compared to White non-Hispanic adults (8.7%). In 2014, Black non-Hispanic residents were more than 2.1 times more likely to die from diabetes than White non-Hispanic residents (29.5 versus 13.8 per 100,000 population) (MDPH, 2017).

Within the hospital's service area, both Taunton and Middleboro reported diabetes-related deaths in 2015, with Taunton's rate above state average.

Community-Wide Recommendations

- Pursue partnerships with the American Diabetes Association (ADA) and/or other diabetes education and prevention organizations in the community to advance disease prevention and management.
- Partner with civic and/or faith-based community organizations to reach high priority populations and provide appropriate screenings and prevention education.

Health System Recommendations

- Promote use of the ADA and/or CDC diabetes type 2 and prediabetes screening tools within high priority populations.
- Offer diabetes type 2 prevention and self-management programs in communities more susceptible to diabetes type 2 and with higher disease burden and mortality rates in order to increase early diagnosis and management.
- Participate in community-based diabetes awareness campaigns in the region.
  Offer diabetes support groups, educational programs and prevention programs within the community.

Obesity

In the Key Informant Survey, the following question was asked: “What do you think are the top 3 health issues in this community?” Obesity was ranked the 3rd most significant concern among those who completed the survey. Obesity was also the highest response to the question "Are you or someone in your household in need of assistance or services related to any of the following?"

Survey results demonstrated that community members agree there are barriers to being physically active, such as time, cost of recreational activities and access to recreational activities. Barriers to eating healthy included affordability and lack of education about how to prepare healthy meals.

Focus group participants noted the need for increased education within the community regarding nutrition and healthy eating on a budget. Focus group participants also felt that community sidewalks are not well-maintained and that more walking paths and recreational areas are needed to promote fitness.

Community-Wide Recommendations

- Continue to support Mass in Motion Taunton programming, specifically programs that create walking paths and vegetable gardens.
- Sponsor and promote participation in community events such as runs and walks to generate greater physical activity.
- Develop walking programs/clubs within workplaces to promote physical activity within the workplace.
- Work with school systems, housing authorities to develop nutrition and healthy eating programs.

Health System Recommendations

- Continue to collaborate with “Walk with a Doc” program to offer scheduled walks with a provider in the community.
- Sponsor and promote community programs such as runs and walks.
- Provide nutrition and healthy eating education programs at the hospital and within the community.

Mental Health

Mental health intersects with many areas of public health, including addiction, cancer, cardiovascular disease, and HIV/AIDS, therefore requiring common services and resource mobilization effort. Integrated treatment is critical for treating people with co-occurring disorders and can ultimately achieve better health outcomes and reduce costs. Increasing awareness and building capacity in service systems are important in helping identify and treat co-occurring disorders. Treatment planning should be client-centered, addressing clients' goals and using treatment strategies that are acceptable to them (MDPH, 2017).

Focus group and survey participants felt strongly that there is a major need for change in mental health services, including a need to offer more beds to psychiatric patients and better mental health training for medical and first responder staff. Although local support systems are available, many don't know how to access them, and long wait times and insurance barriers prevent those who need the services from getting help.

Community-Wide Recommendations

- Disseminate educational materials outlining signs of mental health issues (particularly depression and anxiety) at strategic locations targeting high priority populations.
- Provide family members and/or caregivers with educational information on mental health so as to assist caregivers to understand warning signs of mental illness.
- Advocate for inclusion of screenings for mental illness within the school systems to foster early intervention and access to treatment.
- Promote awareness of mental illness and work to decrease stigma surrounding seeking support.
- Support and promote mental health resources within the community to generate greater awareness of available resources and programs.
- Pursue collaboration with the National Alliance on Mental Illness, health insurers, and/or other mental health education organizations in the community to advance disease management.

Health System Recommendations

- Collaborate with health and human service organizations to develop a comprehensive care plan that would be accessible to providers at all points of care.
- Implement strategic partnerships with community organizations that are able to provide services to community members, particularly high priority populations.
- Maintain Behavioral Health Navigator program in the Emergency Department.
- Engage community-based service providers to learn of and promote services that may be available to community members in need of services.
- Implement strategic partnerships with community organizations that are able to provide services to community members, particularly high priority populations.
- Offer training programs to staff in the Emergency Department and throughout the hospital, providing education on screening patients for mental illnesses and promoting suicide prevention.

Substance Use

Misuse of alcohol or other drugs over time can lead to physical and/or psychological dependence on these substances, despite negative consequences. Substance misuse alters judgment, perception, attention, and physical control, which can lead to repeated failure to fulfill responsibilities and can increase social and interpersonal problems. There is a substantially increased risk of morbidity and death associated with alcohol and drug misuse. The effects of substance misuse are cumulative, significantly contributing to costly social, physical, mental, and public health challenges. Examples of these include domestic violence, child abuse, motor vehicle crashes, physical fights, crime, homicide, suicide, human immunodeficiency virus/ acquired immunodeficiency syndrome (HIV/AIDS), and other sexually transmitted infections (6). Substance misuse can also impact one's social determinants of health, such as employment, income, social network, and housing (BPHC, 2017).

Taunton leads with the largest number of individuals attending DPH funded substance and alcohol abuse programs, followed by Middleboro. Taunton also maintained the highest level of alcohol/substance use related hospitalizations.

Community-Wide Recommendations

- Advocate for increasing availability of detox and long-term treatment facilities, particularly to high priority populations in the region.
- Implement a marketing campaign to increase the perception of harm of adolescent substance use.
- Collaborate with schools and other organizations to incorporate an evidence-based curriculum that addresses substance use and mental health.
- Implement and promote substance use prevention and harm reduction programs.
- Support community-based substance abuse prevention coalitions.

Health System Recommendations

- Provide support resources for patients for whom illness can cause significant stress and anxiety.
- Promote evidence-based best practices in substance use disorder treatment across the continuum of care.
- Engage community-based service providers to learn of and promote services that may be available to community members in need of services.
- Continue collaborations and expand access to support programs for patients and caregivers.
- Participate in prescription monitoring programs across the hospital and among prescribing providers.

Access to Care

Key Informant Survey participants felt that access to health care and lack of preventative care services were concerns within our community. While the majority of survey participants noted that they had a primary care provider, nearly (40%) felt there were barriers to accessing primary and preventative care within the community such as lack of awareness of local providers, especially multilingual providers, issues with insurance coverage and convenience of getting an appointment. Transportation was also noted as a major concern, noting that many people in the community may not be aware of available resources to get to appointments. Participants also felt there needed to be more general health education, and more support groups and programs.

Community-Wide Recommendations

- Collaborate on a community-wide resource directory to ensure residents have access to and are aware of all available resources and programs.
- Advocate for, support and help to fund initiatives that would improve and expand transportation services within the community.
- Promote and encourage participation in health fairs and other health and wellness programs offered within the community.

Health System Recommendations

- Continue to recruit primary care providers to the community to reduce wait times for appointments and ensure residents have access to a provider when needed.
- Maintain a focus on recruiting multilingual providers to best meet the needs of the diverse community we serve.
- Implement programs to connect patients who do not have an established primary care provider with a provider while they are in the hospital.
- Continue to enroll residents in health insurance programs via community health advocate and financial counselor programs.

Underserved Populations

As it may be observed, who we are directly impacts how we interact with our community and society. Our race, gender identity, age, disability status, etc. influence the social environment that we experience. Our social environment impacts many mental and physical health outcomes, including mental health, violence, risk behaviors (tobacco and drug use), physical health and well-being, and disease morbidity and mortality. We are influenced by the social environment on three levels: interpersonal, community, and society (MDPH, 2017).

Across all three levels, systems of oppression such as structural racism and gender bias lead to social isolation, social exclusion, poor mental health, increased risk of violence, increased rates of poverty, higher hospitalizations, longer recovery times, and higher mortality rates for many conditions. Social isolation, social exclusion, racism, discrimination, and poverty disproportionately affect low-income communities and communities of color and all negatively impact many aspects of health. Communities of color are more likely to have lower levels of resources and connectedness with other neighborhoods and higher levels of racial segregation. They also face more challenges when engaging in group action in neighborhoods to shift these conditions (Hobson-Prater T, 2012).

Community-Wide Recommendations

- Support efforts to improve the health care delivery system through reform.
- Collaborate with organizations working to remove barriers to care for underserved populations.

Health System Recommendations

- Engage members of high priority populations such as low-income individuals, immigrants, and minorities to identify needs and priorities for improved service delivery.
- Provide assistance to community members seeking to apply for public health insurance coverage provided through public health plans.
- Screen individuals for primary care provider, where appropriate, assist community members to enroll with primary care provider of their choice.

Limitations

Data collected for analysis were derived from publicly accessible, governmental sources. Some data sources lacked information on certain towns. Data presented in this report is the most recently available at the time of the creation of this report. As such, some of the relative changes, though classified as increases or decreases, are qualitative valuations relative to state values. Though it would have been preferable to have more recent data with statistical evaluation for significance (p-value) and correlation (r-value), we were limited to currently available datasets.

In previous versions of this CHNA, data had been collected through the use of the Massachusetts Community Health Information Profile (MassCHIP). However, at the time of data collection, this resource was unavailable to researchers. Researchers instead relied on datasets provided by the Accreditation Coordinator/Director MassCHIP, Office of the Commissioner, Massachusetts Department of Public Health and guidance provided by the same in order to collect data used to compile this CHNA.

Although the community focus group provide valuable information, serving as important tools for data collection and community engagement, there are some limitations to consider. Focus group data is qualitative in nature and reflect only the views and opinions of a small sample. Focus groups are limited to the views and opinions of the participants and are not all-inclusive of the various perspectives of the larger populations; they do not constitute complete data for the communities in which focus groups were held. It would have been advantageous to have conducted focus groups in more communities so as to engage a larger segment of the population within the hospital service area, as this may have garnered more diversified data unique to other communities.

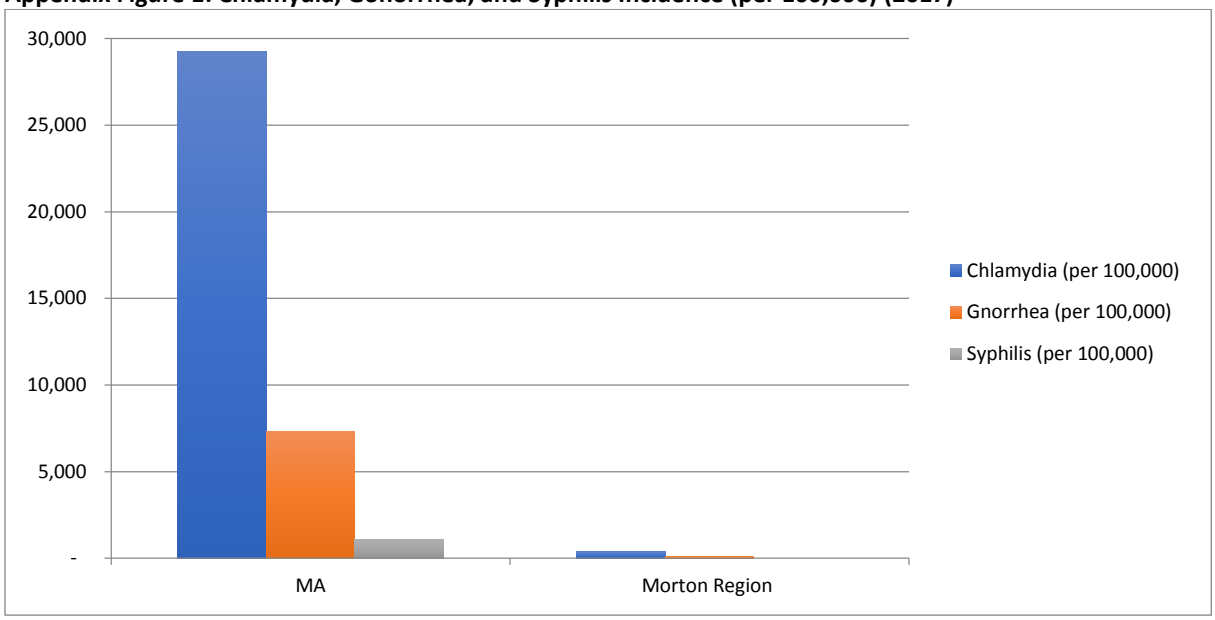
Though the intent of this project was to capture the views and opinions of all or most health and human service providers within the Morton Hospital service area, there were also limitations to the survey distribution. The survey was distributed via email by Morton Hospital staff and members of the Prevention & Wellness Network (CHNA 24) that encompass cities and towns in the Morton Hospital service area, to be circulated to its local affiliates. Not all health and human service providers within the service area are members of CHNAs, some may have been excluded due to a lack of access to computer-based technology. Some providers had a longer period of time to access and respond to the survey as the survey distribution was ultimately at the control and discretion of the Morton Hospital staff and the respective CHNA leadership.

Appendix A.
Supplemental Health Indicators and Demographic Data

Health Indicators

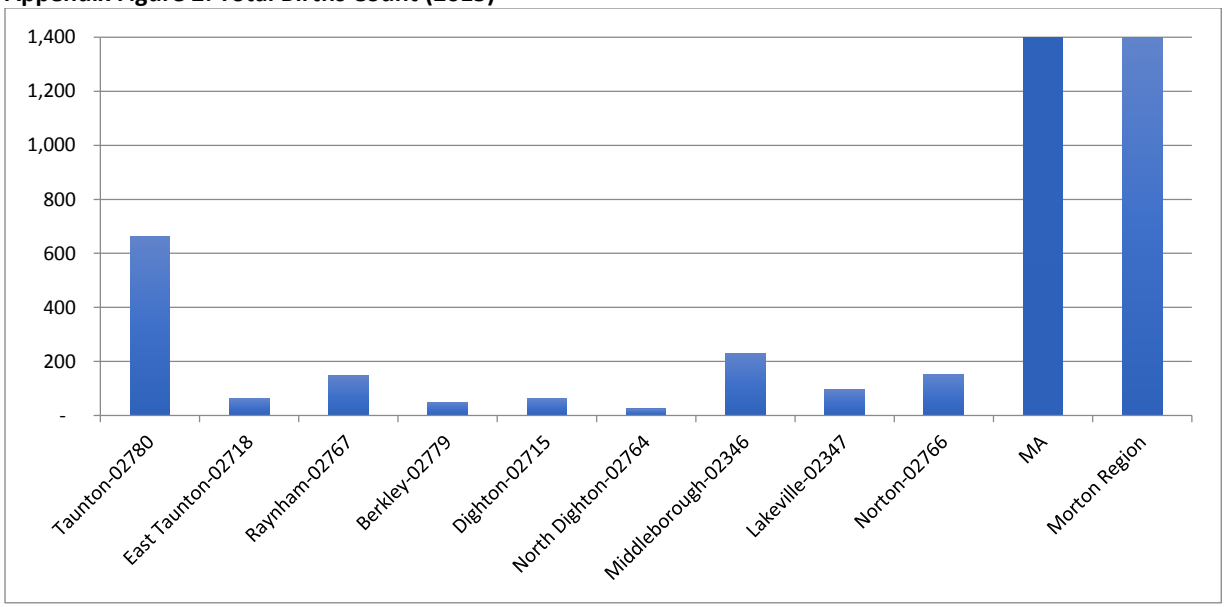
Reproductive and Sexual Health

Appendix Figure 1: Chlamydia, Gonorrhea, and Syphilis Incidence (per 100,000) (2017)



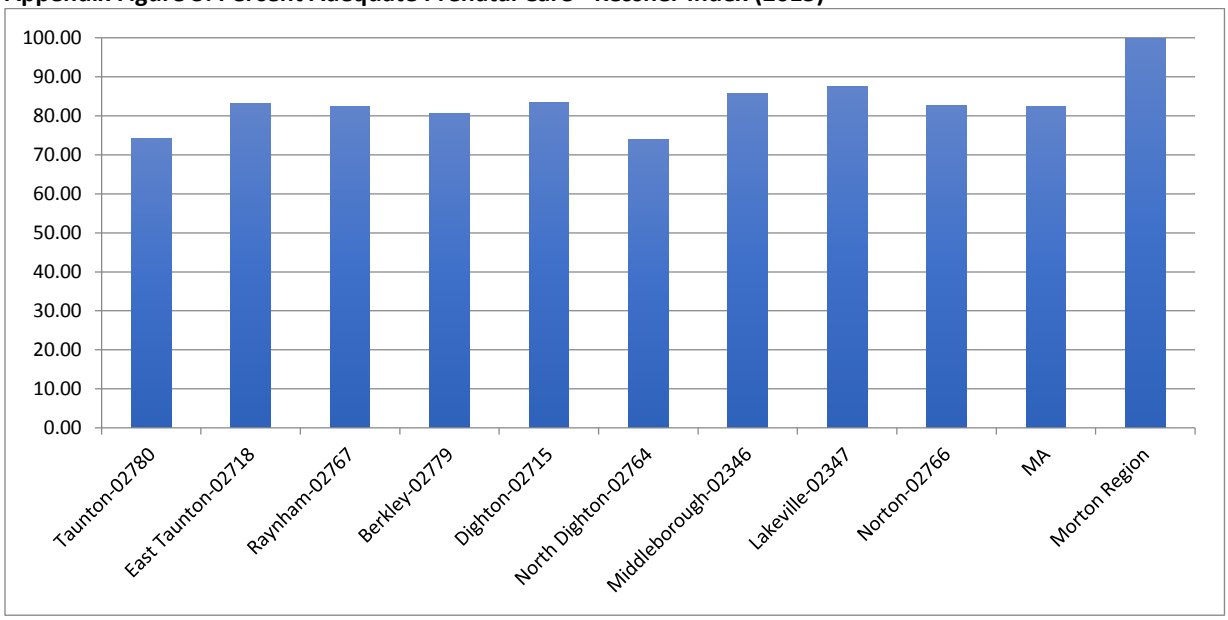
(Source: MDPH Bureau of Infectious Disease and Laboratory Sciences 2015)

Appendix Figure 2: Total Births Count (2015)



(Source: Massachusetts Department of Public Health 2015)

Appendix Figure 3: Percent Adequate Prenatal Care - Kessner Index (2015)

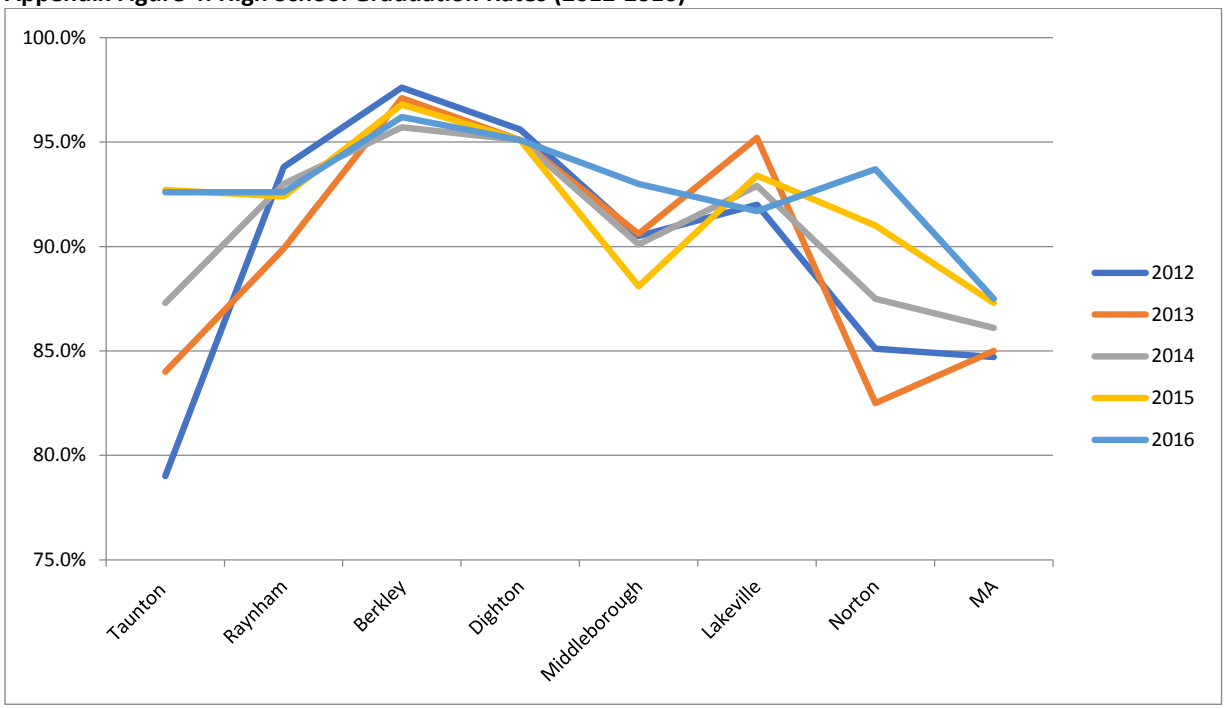


(Source: Kessner Index)

Demographic Data

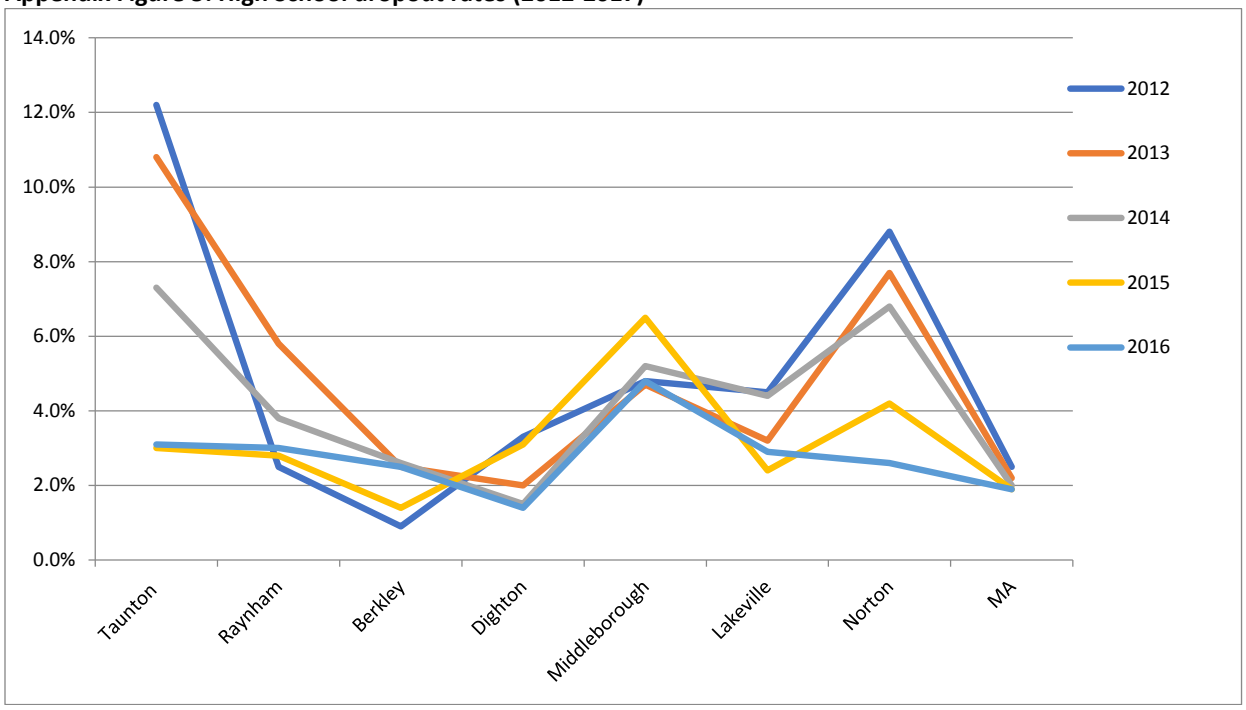
Education

Appendix Figure 4: High School Graduation Rates (2012-2016)



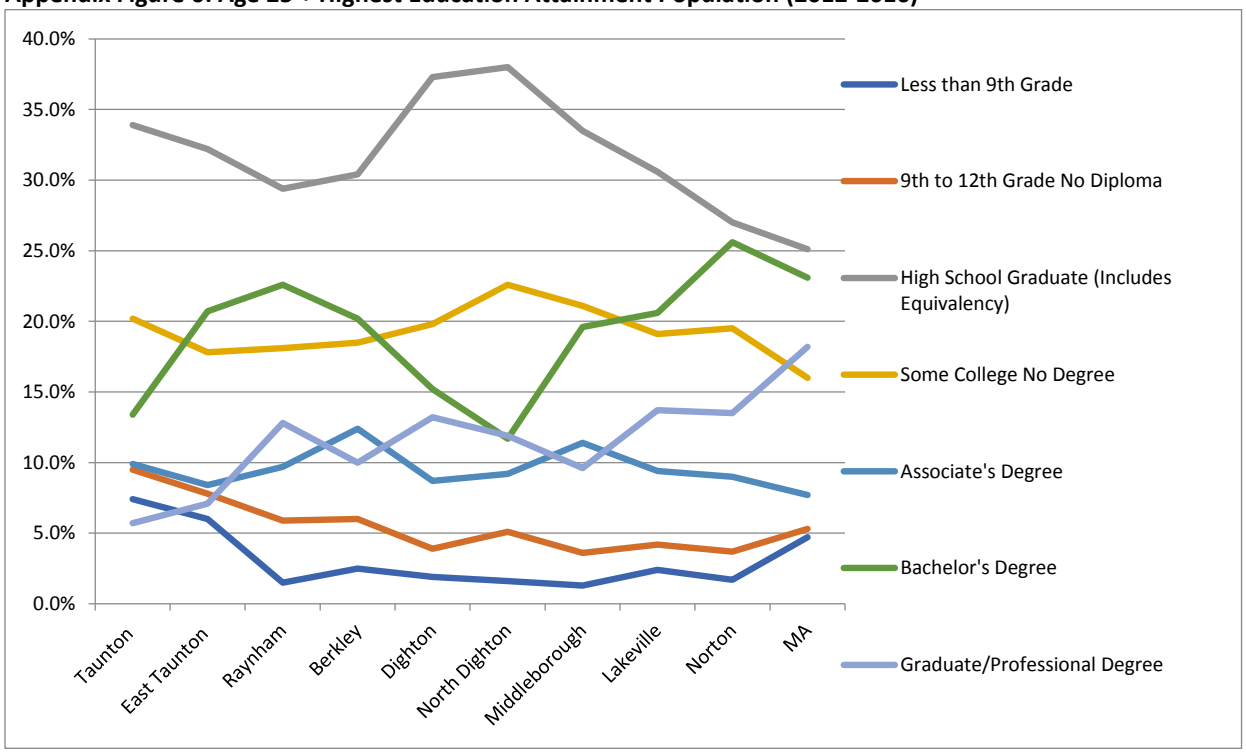
(Source: MA Dept. of Elementary and Secondary Education 2017)

Appendix Figure 5: High School dropout rates (2012-2017)



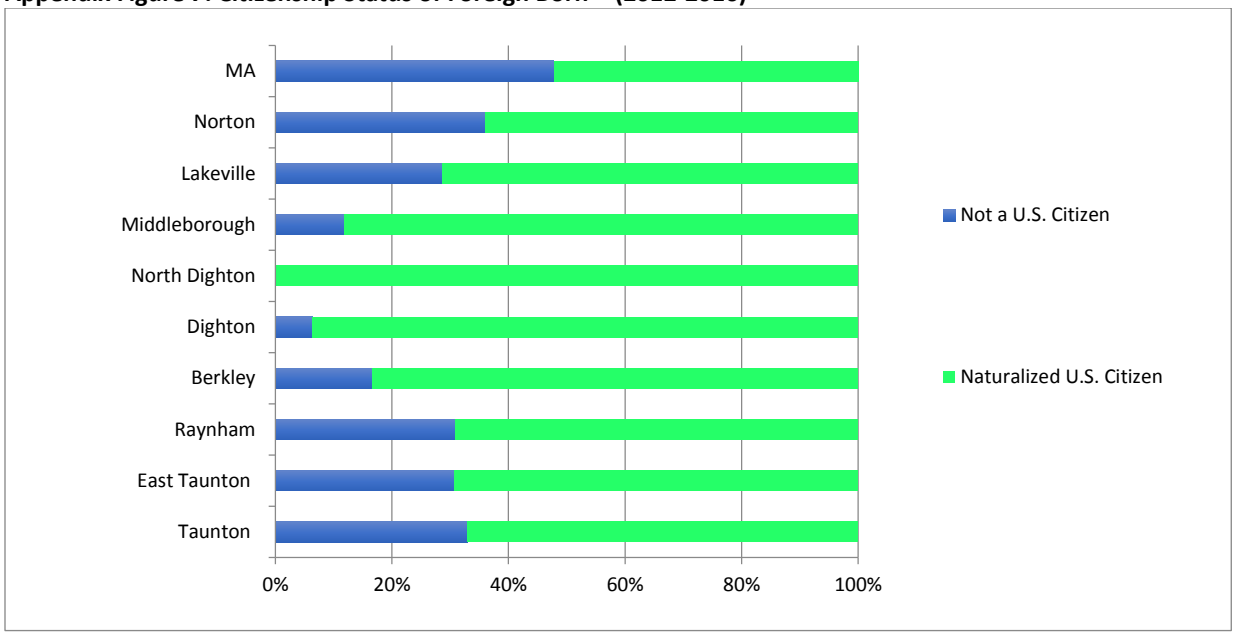
(Source: MA Dept. of Elementary and Secondary Education 2017)

Appendix Figure 6: Age 25 + Highest Education Attainment Population (2012-2016)



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates 2017)

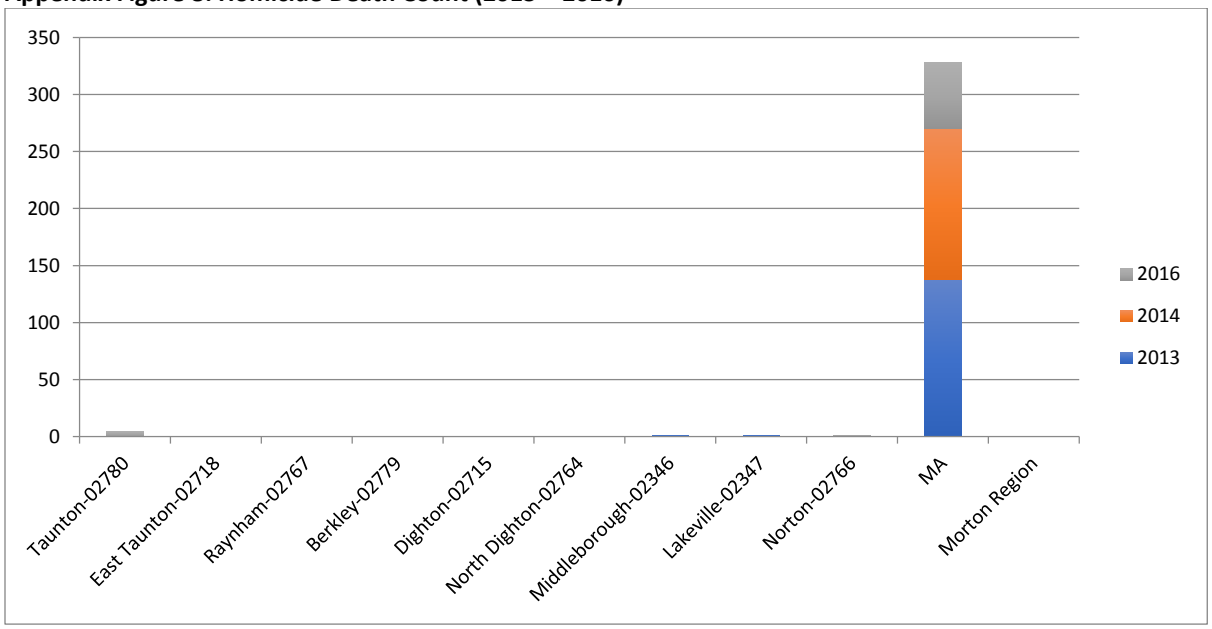
Appendix Figure 7: Citizenship Status of Foreign Born – (2012-2016)



(Source: US Census Bureau, 2012-2016 American Community Survey 5-Year Estimates)

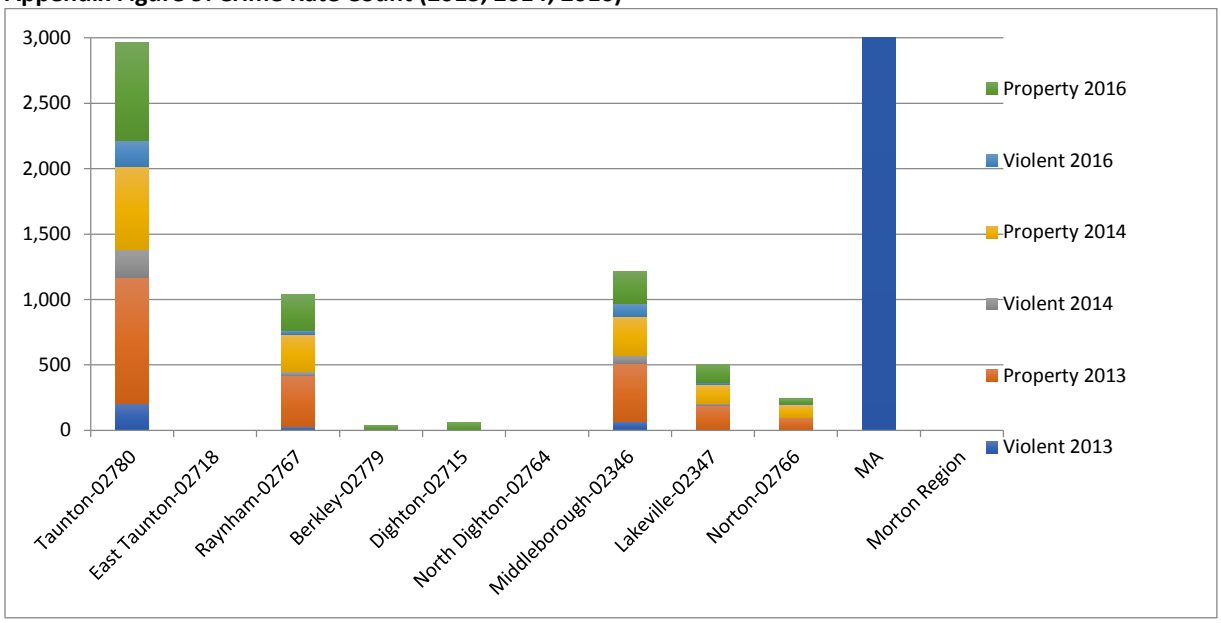
Crime

Appendix Figure 8: Homicide Death Count (2013 – 2016)



(U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting)

Appendix Figure 9: Crime Rate Count (2013, 2014, 2016)



(U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting)

Appendix B.
Key Informant Survey

*Community Health Needs Assessment- Key Informant Survey**

2018 Community Health Needs Assessment

We want your feedback!

Morton Hospital is partnering with Mass in Motion Taunton to conduct this Community Health Needs Assessment to determine how organizations within our community can work together to help improve the health and wellness of our residents. Your answers will be kept confidential. We appreciate your feedback!

1. Gender

- ○ Male
- ○ Female
- ○ Other
- ○ Prefer Not to Answer

2. Age

- ○ <18
- ○ 18-25
- ○ 26-35
- ○ 36-45
- ○ 46-55
- ○ 56-65
- ○ 66+

3. Language(s) spoken at home (check all that apply)

- ☐ English
- ☐ Spanish
- ☐ Portuguese
- ☐ Haitian Creole
- ☐ Other (please specify)
- ☐ Cape Verdean Creole
- ☐ French
- ☐ American Sign Language

4. Race (select all that apply)

- ☐ White
- ☐ Black or African American
- ☐ Asian
- ☐ Other (please specify)
- ☐ American Indian or Alaska Native
- ☐ Native Hawaiian or Other Pacific Islander

5. What is your zip code?

6. What do you think are the top 3 health issues in this community (please select 3 only)?

- ☐ Access to Health Care
- ☐ Cancer
- ☐ Diabetes
- ☐ Heart Disease
- ☐ High Blood Pressure
- ☐ Lack of Preventative Care
- ☐ Other (please specify)
- ☐ Lung Disease/Asthma
- ☐ Mental Health Issues
- ☐ Oral/Dental Health
- ☐ Overweight/Obesity
- ☐ Smoking/Tobacco Use
- ☐ Substance Abuse

7. What can Morton Hospital do specifically to help address these top concerns?

8. Are there any other issues in your community that you want to identify?

9. Are you or someone in your household in need of assistance or services related to any of the following (check all that apply)?

- [ ] Adult Diagnosed with Disability
- [ ] AIDS/HIV Risk
- [ ] Child Diagnosed with Disability
- [ ] Diabetes
- [ ] Heart Disease
- [ ] Hypertension
- [ ] Mental health
- [ ] Obesity/Overweight
- [ ] Other (please specify)
- [ ] Prosthesis
- [ ] Pulmonary Disease (COPD, Asthma, etc.)
- [ ] Sexually Transmitted Diseases
- [ ] Substance Abuse
- [ ] Teen Pregnancy
- [ ] Sleep Problems
- [ ] None

10. Do you have a primary care physician?

- ( ) Yes
- ( ) No
- ( ) Not sure

11. Are there barriers to accessing primary and preventative care in this community?

- ( ) Yes
- ( ) No
- ( ) Not Sure

If yes, what are they and how might they be addressed?

12. What improvements/services should be made/added for a healthier community? (check all that apply)

- [ ] Access to healthier food
- [ ] Increased disability services
- [ ] Mental health services
- [ ] More health education
- [ ] More support groups and classes
- [ ] Safe places to work and play
- [ ] Substance abuse services
- [ ] Transportation

Other (please specify)

13. From where do you get your health information?

- [ ] Church groups
- [ ] Day care
- [ ] Doctor/health care provider
- [ ] Educational groups
- [ ] Family
- [ ] Friends
- [ ] Health center
- [ ] Health department
- [ ] Other (please specify)
- [ ] Hospital
- [ ] Internet/Online
- [ ] Library
- [ ] Newspaper/Magazine
- [ ] Social media
- [ ] Radio
- [ ] TV

14. What are some barriers to being physically active?

- [ ] Time
- [ ] Access to recreational spaces
- [ ] Other (please specify)
- [ ] Cost of recreational activities
- [ ] Knowledge of how to be physically active

15. Where do you usually get your food (check all that apply)?

- [ ] Convenience stores
- [ ] Farmers markets
- [ ] Food pantry
- [ ] Grocery store/supermarket
- [ ] Other (please specify)
- [ ] Home grown
- [ ] Restaurants/fast food
- [ ] Soup kitchen
- [ ] I'm currently having trouble accessing food

16. What are some barriers to healthy eating? (check all that apply)

- [ ] Transportation
- [ ] Affordability
- [ ] Other (please specify)
- [ ] Lack of nutrition education
- [ ] Preparing meals (don't have time, don't know how, etc.)

17. Do you need to learn how to cook for any of these special diets? (check all that apply)

- [ ] Diabetes
- [ ] HIV/AIDS
- [ ] Heart Disease
- [ ] Other (please specify)
- [ ] Hypertension
- [ ] Gluten Free
- [ ] No, I don't need that information

18. In what ways is Morton Hospital serving the community well?

19. What is the number one thing Morton Hospital can do to improve the health and quality of life in this community?

20. What have we not asked that you feel is important?

Appendix C.
Focus Group Questions

1. What do you think is healthy about our community?
2. What would make this community a healthier place to live?
3. What do you think are some barriers to staying healthy in this community?
4. What do you see as the major health problems in this community?
5. What are some strategies or ideas that could address these issues?
6. What populations would you identify as underserved in our community?
7. What are some barriers to accessing primary and preventive care in our community?
8. Are there any ways we could overcome these barriers?
9. In what ways do you feel Morton Hospital is serving this community well?
10. What is the number one thing Morton Hospital can do to improve the health and quality of life in this community?
11. What have we not asked you about that you feel is important?

References

DESE) & (DPH). (2015). *Health & risk behaviors of massachusetts youth.* Retrieved from http://www.mass.gov/eohhs/docs/dph/behavioral-risk/youth-health-risk-report-2015.pdf

Adler NE, N. K. (2002). Socioeconomic Pathways in Health: Pathways and Policies. *Health Affairs*, 21.

BPHC. (2017). *Boston Public Health Commission.* Retrieved from Health of Boston 2016-2017: http://www.bphc.org/healthdata/health-of-boston-report/Documents/_HOB_16-17_FINAL_SINGLE%s20PAGES.pdf

Braveman P, E. S. (2011). The Social Determinants of Health: Coming of Age. *Annual Review of Public Health*, 32.

Braveman PA, C. C. (2010). Socioeconomic disparities in health in the United States: What the patterns tell us. *American Journal of Public Health.*, 100: S186-S196.

CDC. (2016). *Morbidity and Mortality Weekly Report (MMWR) .* Retrieved from Increases in Drug and Opioid-Involved Overdose Deaths — United States, 2010–2015: https://www.cdc.gov/mmwr/volumes/65/wr/mm655051e1.htm

Center for Health Information and Analysis. (2014). *Center for Health Information and Analysis (2014). Case Mix Hospitalization Data.* Retrieved from http://www.chiamass.gov/

Data USA. (2016). *Data USA: Plymouth County, MA*. Retrieved November 2018, from www.datausa.io: https://datausa.io/profile/geo/plymouth-county-ma/#demographics

Data USA. (2018, September 22). Retrieved 2018, from Data USA: https://datausa.io/profile/geo/plymouth-county-ma/#health

Data USA. (2018). *Data USA*. Retrieved from https://datausa.io/profile/geo/bristol-county-ma/

Data USA. (2018). *Data USA Norfolk County MA*. Retrieved from https://datausa.io/profile/geo/norfolk-county-ma/

Derose, P. E. (2007, October). Immigrants And Health Care: Sources Of Vulnerability. *Health Affairs, 26*(5). Retrieved November 2018, from https://www.healthaffairs.org/doi/full/10.1377/hlthaff.26.5.1258

Henkel, D. (2011). Unemployment and substance use: a review of the literature (1990-2010). *Current Drug Abuse Reviews.*, 4(1):4-27.

Heo S, L. T. (2009). Quality of Life in Patients With Heart Failure: Ask the Patients. . *Heart & Lung: The Journal of Acute and Critical Care*, 38(2):100–108.

Hobson-Prater T, L. T. (2012). The Significance of Race for Neighborhood Social Cohesion: Perceived Difficulty of Collective Action in Majority Black Neighborhoods. *Journal of Sociology, Social Welfare*, XXXIX(1): 89-109.

Housing Solutions of Southeastern Massachusetts. (2018). *Housing Solutions of Southeastern Massachusetts*. Retrieved from www.housingsolutionssema.org: http://housingsolutionssema.org/housing/

HRSA. (2018). *HRSA Workforce*. Retrieved from Medically Underserved Areas and Populations (MUA/Ps): https://bhw.hrsa.gov/shortage-designation/muap

Hyman, R. (2018, March 30). Round-table discussion focuses on homelessness in Taunton. Taunton, Bristol County. Retrieved September 22, 2018, from http://www.tauntongazette.com/news/20180330/round-table-discussion-focuses-on-homelessness-in-taunton

Krumholz H, P. E. (1997. 157(1):99-104.). Readmission After Hospitalization for Congestive Heart Failure Among Medicare Beneficiaries. *Archives of Internal Medicine. January* , 157(1):99-104.

MA Legislature. (2016). *Facing The Massachusetts Housing Crisis.* Retrieved from https://malegislature.gov/CC/WhatsNext/Attachment/1

Massachusetts Caucus of Women Legislators. (2015, April 7). *Poverty: A Look at Massachusetts*. Retrieved from http://www.mawomenscaucus.com/mawomenscaucusblog/2015/4/7/poverty-a-look-at-massachusetts

Massachusetts Department of Public Health.State Health Assessment. (2017, October). Retrieved from Massachusetts Department of Public Health: www.mass.gov/dph/2017statehealthassessment

MCH. (2018, November 8). *Masachusetts Coalition for the Homeless*. Retrieved from Basic Facts on Homelessness in Massachusetts and Across the Country: http://www.mahomeless.org/about-us/basic-facts

MDPH. (2014). *Massachusetts Deaths*. Retrieved from Death Data: https://www.mass.gov/files/documents/2016/12/uv/death-report-2014.pdf

MDPH. (2017). *Commonwealth of Massachusetts*. Retrieved from Mass.gov: www.mass.gov/dph/2017statehealthassessment

National Institute on Drug Abuse. (2017). Retrieved from https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates

Relihan, T. (2017, April 4). *Wicked Local*. Retrieved from Wicked Local Acton: http://acton.wickedlocal.com/news/20170404/are-people-sicker-in-bristol-county-report-says-yes

RentData.org . (2018). *Fair Market Rent by ZIP Code Accurate Rental Price Data*. Retrieved from www.rentdata.org: https://www.rentdata.org/lookup

Robert Wood Johnson Foundation. (2011). *How Social Factors Shape Health: The Role of Stress.* Retrieved from http://www.nmpha.org/Resources/Documents/RWJF%20Issue%20Brief%20-%20Stress%20_%20Health.pdf

Robert Wood Johnson Foundation. (2013). How does Employment--or Unemployment--Affect Health? *Health Policy Snapshot Public Health and Prevention*. Retrieved from http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2013/rwjf403360

Ross CE, M. J. (1993). Refining the Assocation between Education and Health: The Effects of Quantity, Credential, and Selectivity. *Demography*, 36.

Rudd RA, S. P. (n.d.). *Increases in Drug and Opioid-Involved Overdose Deaths — United States, 2010–2015.* Retrieved from MMWR Morb Mortal Wkly Rep 2016;65:1445–1452: http://dx.doi.org/10.15585/mmwr.mm655051e1

SAMHSA. (2015). *America's Need for and Receipt of Substance Use Treatment in 2015.* Retrieved from https://www.samhsa.gov/data/sites/default/files/report_2716/ShortReport-2716.html

SAMHSA. (2015). *Key Substance Use and Mental Health Indicators in the United States: Results from the 2015 National Survey on Drug Use and Health.* Retrieved from SAMHSA.Gov: https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2015/NSDUH-FFR1-2015/NSDUH-FFR1-2015.htm

SAMHSA. (2015). *Key Substance Use and Mental Health Indicators in the United States: Results from the 2015 National Survey on Drug Use and Health.* Retrieved from https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2015/NSDUH-FFR1-2015/NSDUH-FFR1-2015.htm

SAMHSA. (2016). *America's Need for and Receipt of Substance Use Treatment in 2015.* Retrieved from SAMHSA.gov: https://www.samhsa.gov/data/sites/default/files/report_2716/ShortReport-2716.html

SAMHSA. (2016). *SAMSHA*. Retrieved from SAMSHA.gov: https://www.samhsa.gov/disorders/co-occurring

Sentell, T. &. (2012). Low health literacy, limited English proficiency, and health status in Asians, Latinos, and other racial/ethnic groups in California. *Journal of Health Communication, 17*(3), pp. 82-99. Retrieved November 2018, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3552496/

Southcoast Health. (2016). *COmmunity Needs Assessment.* Retrieved from https://www.southcoast.org/wp-content/uploads/2016/05/South-Coast-CHNA-2016-Final.pdf

The Boston Foundation. (2017). *The Greater Boston Housing Report Card 2017.* Boston: Northeastern University. Retrieved from https://www.tbf.org/-/media/tbf/reports-and-covers/2017/2017-housingreportcard.pdf

U.S. Census. (2011). *The Foreign-Born Population in the United States.* Retrieved from www.census.gov: https://www.census.gov/newsroom/pdf/cspan_fb_slides.pdf