2016

Community Health Needs Assessment for Beth Israel Deaconess Hospital-Milton

Beth Israel Deaconess Hospital
Milton

Produced by John Snow Inc.

JSI

Executive Summary

Purpose and Background

Beth Israel Deaconess Hospital Milton (BID-Milton) is an 88-bed acute care hospital with a complete complement of inpatient and outpatient health services, 24-hour emergency services and more than 350 physicians on staff. BID-Milton's mission is to improve the health of the community by providing exceptional, personalized health care with dignity, compassion and respect.

This Community Health Needs Assessment (CHNA) report along with the associated Community Health Improvement Plan (CHIP) is the culmination of nine months of work and was conducted so that BID-Milton could better understand and address the health-related needs of those living in its service area, with an emphasis on those who are most disadvantaged. This project also fulfills Massachusetts Attorney General's Office and Federal Internal Revenue Service (IRS) requirements that dictate that BID-Milton assess community health need, engage the community, and identify priority health issues every three years. The Commonwealth and Federal requirements further direct BID-Milton to create a community health strategic plan that will guide how BID-Milton, in collaboration with the community, their network of health and social service providers, and the region's local health departments, will address the needs and the priorities identified by the needs assessment.

With respect to community benefits, BID-Milton focuses its efforts on creating opportunities for residents of the service area to lead healthy lives. This is achieved through coalition partnerships dedicated to reduce the burden of mental illness and substance use, increase access to evidence-based chronic disease management and prevention efforts, and aid efforts to support healthy aging. BID-Milton focuses activities to meet the needs of all segments of the population with respect to age, race/ethnicity, income, and sexual orientation to ensure that all residents have the opportunity to live healthy, happy, and fulfilling lives. However, its Community Benefits activities are focused particularly on youth, adults with behavioral health and chronic health conditions, low-income families, and older adults.

Approach and Methods

The CHNA was conducted by the BID-Milton's Public Relations Department in three phases, which allowed BID-Milton to: 1) compile an extensive amount of quantitative and qualitative data, 2) engage and involve key stakeholders, BID-Milton clinical and administrative staff, and the community at-large, 3) develop a report and detailed strategic plan, and 4) comply with all Commonwealth Attorney General and Federal IRS Community Benefit requirements.

BID-Milton Service Area

BID Milton's Community Benefits primary service area includes Milton, Quincy, and Randolph. This primary service area encompasses a population of just over 153,000. [1] The CHNA analysis focuses on this primary service area but also includes secondary service area comparisons. BID-Milton's secondary service area includes Braintree ,Canton, Dorchester and Hyde Park which has a population of approximately 254,000 .[2]

Key Health-related Findings

- **Opportunities to Decrease Alcohol and Substance Use.** Data from the Centers for Disease Control and Prevention suggests that approximately one in four (25%) adults in the United States has a mental health disorder[3] and an estimated 22 million Americans struggle with drug or alcohol problems.[4] In Norfolk County, 16% engaged in binge drinking and 8% reported heavy drinking.[5] Furthermore, almost one in five adults (18%) in Norfolk County has been diagnosed with depression.[6] Although utilization related to mental disorders and substance use was not high across all towns in the primary service area, Quincy had significantly higher hospital utilization rates where alcohol or heroin was the primary substance. For hospital or Emergency Department (ED) utilization related to mental health, Quincy had higher rates of mental disorder-related hospitalizations and mental disorder ED discharges than the Commonwealth overall.[7] Access to behavioral health services was consistently noted as a significant issue during the interviews and community forums, especially for low income individuals as well as the lack of providers that understand the needs of older adults or different cultures (including providers that speak languages other than English).

- **Rapidly Increasing Opioid Use**. Opioid use was the number one health issue identified by the majority of the interviewees and community forum participants. The number of opioid related deaths in Norfolk County increased by over 400% from 24 in 2000 to 124 in 2014, a trend seen throughout the state of Massachusetts. [8] Within the primary service area, the data indicate that the epidemic has impacted Quincy significantly. The city has higher rates across the majority of opioid metrics when compared to the state as a whole, making it a "hot spot". This includes significantly higher rates of admissions to Department of Public Health-funded programs where heroin was the primary substance, opioid-related discharges, opioid-related ED discharges, and opioid related fatal overdoses compared to the state overall.[9]

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[1] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates.
[2] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates.
[3] http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml
[4] http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=40
[5] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data
[6] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data
[7] Mass CHIP, crude rates per 100,000, 2011-2013
[8] http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/overdose-deaths-by-county-including-map-may-2016.pdf
[9] BIDMC and MHDC: CHIA Case Mix ED Visits and Inpatient Hospitalizations

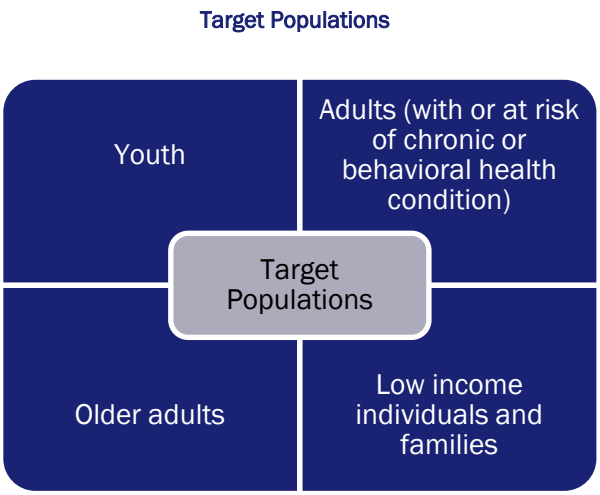
- **High Prevalence of Chronic Disease.** Throughout the United States, chronic diseases such as heart disease, stroke, cancer, respiratory diseases, and diabetes are responsible for approximately 7 of 10 deaths each year, and treating people with chronic diseases accounts for 86% of our nation's health care costs. Half of all American adults have at least one chronic condition, and one in four at least two chronic conditions.[10] A chronic condition is defined as a health condition or disease that lasts a year or more and requires ongoing medical attention or that limits activities of daily living.[11] Prevalence of chronic disease in Norfolk County and the Commonwealth overall are similar. In Norfolk County, just under a third (29%) of adults had hypertension, 14% had ever had asthma, one in 10 had diabetes, 4% had had a heart attack, and 3% had a stroke.[12] While there are some disease-specific utilization rates in Quincy and Milton that are signifcantly higher than the state, the data show that there is greatest need in Randolph. There is signficant care and prevention need for chronic diseases in Randolph where all the age adjusted hospital utilizaton and ED utilization rates for all chronic diseases (except heart disease) were higher than the state overall. [13]

- **Cancer Incidence.** Cancer is the second leading cause of death in the United States and the first leading cause of death in the Commonwealth and Norfolk County. According to 2013-2014 BRFSS data, 15% of Norfolk County residents reported ever receiving a diagnosis of cancer, significantly higher than Massachusetts overall (12%).[14] With respect to incidence, Quincy had significantly higher rates of lung cancer and a higher rate of lung cancer deaths than the state overall.[15] Efforts need to be made to screen for and identify those with cancer, with an emphasis on those facing barriers to care. Furthermore, efforts should be made to ensure that those who have cancer have access to the highest quality care and the supportive services they need to manage and cope with their illness.

- **Need for Increased Support for Older Adults.** During the qualitative interviews and the community and provider forums, participants identified older adults as a high risk population and cited the following concerns: the need for more support for aging in the home; not enough affordable housing; not enough providers with expertise in geriatric primary care or mental health; need better coordination of care for elders, linkages between hospitals, housing, better post-acute system; transportation needs; and falls prevention. Milton, Quincy and Randolph all had higher rates of hospitalizations due to falls overall when compared to the state. Quincy also had higher ED discharge rates of due to falls.[16]

Priority Target Populations

BID-Milton focuses activities to meet the needs of all segments of the population with respect to age,



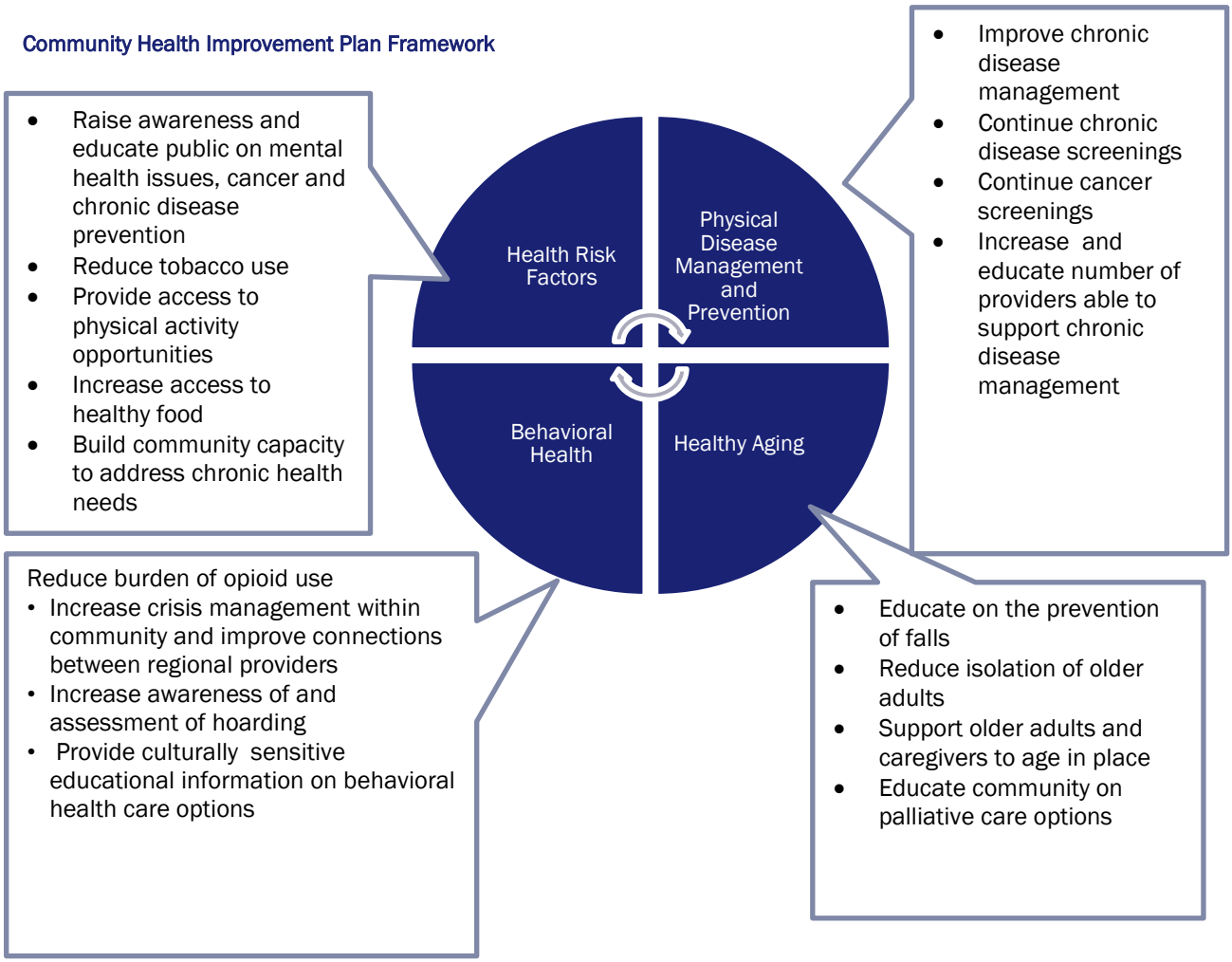
[10] Ward BW, Schiller JS, Goodman RA. Multiple chronic conditions am
Dis. 2014;11:130389. DOI:http://dx.doi.org/10.5888/pcd11.13038
[11] http://www.cdc.gov/chronicdisease/overview/.
[12] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregat
[13] Mass CHIP, 2008-2012
[14] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregat
[15] Mass CHIP, Age-adjusted rates, 2008-2012
[16] United States Census Bureau, 2010-2014 American Community Su

race/ethnicity, income, and sexual orientation to ensure that all residents have the opportunity to live healthy, happy, and fulfilling lives. However, its Community Benefits activities are focused particularly on youth, adults with behavioral health and chronic health conditions, low-income adults, and older adults. As a result, BID-Milton will focus its community health/community benefits efforts primarily on these demographic and socio-economic segments of the population.

Community Health Priorities

The CHNA's approach and process provided ample opportunity to vet the quantitative and qualitative data compiled during the assessment. Ultimately, there was little debate that the most significant health-related issues facing the communities that are part of BID-Milton's service area were: 1) Health risk factors, 2) Behavioral health (mental health and substance use), 3) Physical disease management and prevention, and 4) Healthy aging. Focusing its efforts on these areas of common need will allow BID-Milton and its community partners to ensure that it has the greatest possible impact on those most at-risk.

Community Health Improvement Plan Framework



Summary Community Health Improvement Plan (CHIP) (Priority Areas and Major Goals)

The following is a summary of the goals for each of these priority areas.

Priority Area 1: Health Risk Factors
• Goal 1: Raise awareness and educate public on mental health issues, cancer and chronic disease prevention • Goal 2: Reduce tobacco use • Goal 3: Increase access to physical activity opportunities • Goal 4: Increase access to healthy food • Goal 5: Build community capacity to address chronic health needs
Priority Area 2: Physical Disease Management and Prevention
• Goal 1: Improve chronic disease management • Goal 2: Continue chronic disease screenings • Goal 3: Continue cancer screenings • Goal 4: Increase number of providers able to support chronic disease management
Priority Area 3: Behavioral Health
• Goal 1: Increase awareness on behavioral and mental health issues • Goal 2: Reduce the burden of opioid use • Goal 3: Increase awareness and assessment of hoarding • Goal 4: Increase cultural competency of behavioral health providers • Goal 5: Increase crisis management and improve connections between regional providers
Priority Area 4: Healthy Aging
• Goal 1: Prevent falls in community • Goal 2: Reduce isolation of older adults • Goal 3: Support older adults and caregivers to age in place • Goal 4: Educate community about palliative care

Acknowledgements

This community health needs assessment (CHNA) was developed through a collaborative assessment process with four affiliated Beth Israel Deaconess hospitals – Beth Israel Deaconess Medical Center (BIDMC), Beth Israel Deaconess Hospital-Milton, Beth Israel Deaconess Hospital-Needham and Beth Israel Deaconess Hospital-Plymouth.[17]

John Snow, Inc. (JSI) would like to acknowledge the great work, support, and commitment of the CHNA Advisory Committee, with representation from each hospital including BID-Milton. The Advisory Committee met periodically throughout the assessment in order to keep abreast of the assessment's progress and to provide feedback that was absolutely vital to its outcome.

Since the beginning of the BID-Milton's assessment in early October 2015, more than 50 individuals participated in meetings and/or were interviewed by JSI. These participants included representatives from health and social service provider organizations, public health departments, community advocacy groups, community businesses, and many other types of community organizations, as well as from the community at-large. The information gathered as part of these efforts allowed JSI and BID-Milton to engage the community and gain a better understanding of community capacity, strengths, and weaknesses as well as community health status, barriers to care, service gaps, underlying determinants of health, and overall community need.

JSI would like to thank everyone that was involved in this assessment, but particularly the region's service providers, health departments, advocacy groups, and community members who invested their time, effort, and expertise through interviews and community forums to ensure the development of a comprehensive, thoughtful, and quality assessment. This group is committed to strengthening the regions system of care, particularly for those segments of the population who are most at-risk. This assessment would not have been possible or nearly as successful without the support of the all of those who were involved. Please accept our heartfelt appreciation and thanks for your participation in this assessment.

John Snow, Inc. (JSI). JSI is a public health management consulting and research organization dedicated to improving the health of individuals and communities throughout the world. JSI's mission is to improve the health of underserved people and communities and to provide a place where people of passion and commitment can pursue this cause.

[17] JSI was contracted by the four affiliated Beth Israel hospitals to facilitate the CHNA process.

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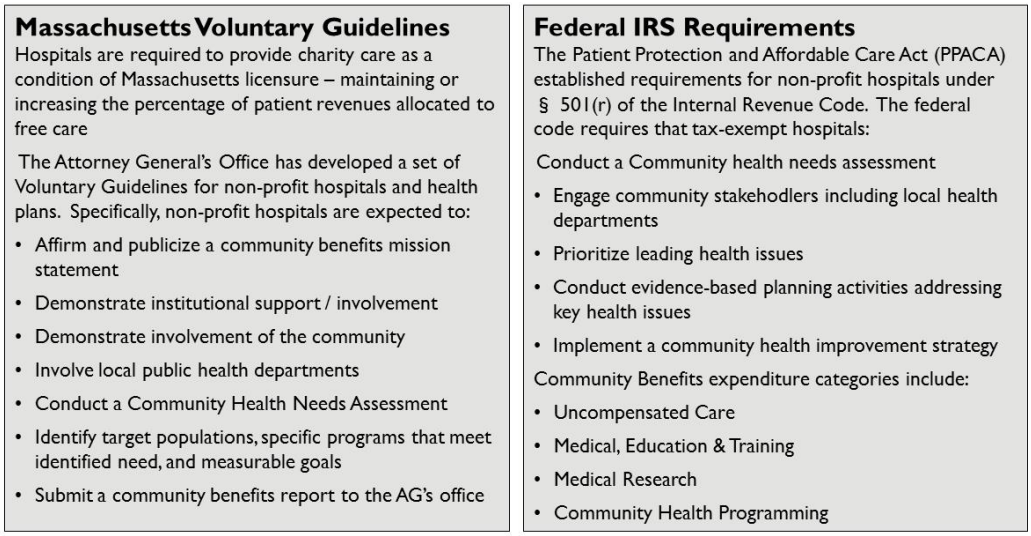
Introduction

Purpose and Background

Hospitals play essential roles in the delivery of health care services to the residents of the communities in which they operate and as a result are often afforded a range of benefits, including State and Federal tax-exempt status. With this status, however, come certain fiduciary and public obligations. The primary obligation of tax-exempt hospitals is that they provide charity care to all, regardless of their ability to pay. Another obligation is that they are expected to conduct periodic community health needs assessments and support the implementation of community-based programs geared to improving health status and strengthening the health care systems in which they operate, otherwise known as "Community Benefits" activities. The Massachusetts Attorney General's Office voluntary Community Benefits Guidelines for Non Profit Acute Care Hospitals and the federal Internal Revenue Service requirements, mandated as part of the Patient Protection and Affordable Care Act (PPACA), and outlined in Schedule H, Form 990, clearly delineate these obligations. More specifically, the Massachusetts Commonwealth's Attorney General's Office and the IRS directives charge tax-exempt hospitals with conducting a community health needs assessment (CHNA) and to develop an associated community health improvement plan (CHIP) every three years. Furthermore, it is expected that these activities will be done in close collaboration with the hospital service area's health and social service providers, the local public health departments, other key stakeholders, and the public at-large.

Figure 1 - Commonwealth and Federal Community Benefits Requirements



BID-Milton recognizes the merit and importance of these activities and its efforts over the past year extend far beyond meeting Commonwealth expectations or federal regulatory requirements. A robust, comprehensive, and objective assessment of community health need and service capacity, conducted collaboratively with key stakeholders, not only allows BID-Milton to fulfill its public requirements, but allows BID-Milton to explore ways to more effectively leverage its community benefits activities and resources and to the organization's broader business and strategic objectives. The CHNA process facilitates community and regional partnerships and fosters broad community

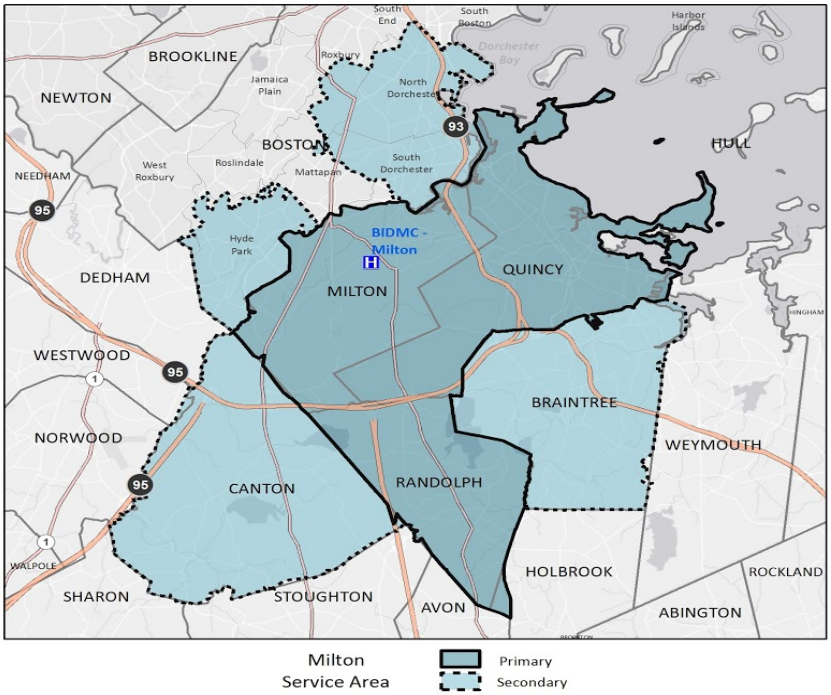
engagement. If done effectively, these efforts can promote the development of more targeted, integrated, and sustainable Community Benefits activities. Ultimately, this will lead to program efficiencies, promote greater program impact, and ease long-term evaluation and reporting burdens.

Included below are further details regarding BID-Milton's Community Benefits service area and target population as well as detailed descriptions of how the CHNA and CHIP efforts were implemented.

Overview of Community Benefits Services Area and Target Population

Milton Hospital opened in 1903 with just nine beds and is now an 88-bed acute care hospital with a complete complement of inpatient and outpatient health services, 24-hour emergency services and more than 350 physicians on staff.[18] In 2012 , the hospital completed a clinical affiliation with Beth Israel Deaconess Medical Center, bringing access to additional clinical services for the local community. BID-Milton's mission is to improve the health of the community by providing exceptional, personalized health care with dignity, compassion and respect.

Figure 2. BID-Milton's Primary and Secondary Service Area



BID Milton's primary service area includes Milton, Quincy and Randolph (Figure 2) which are all part of Norfolk County. This primary service area encompasses a population of just over 153,000. [19] The CHNA analysis focuses on this primary service area but also includes secondary service area comparisons. BID-Milton's secondary service area includes Braintree, Canton, Hyde Park and Dorchester; this area's population is approximately 254,000 .[20]

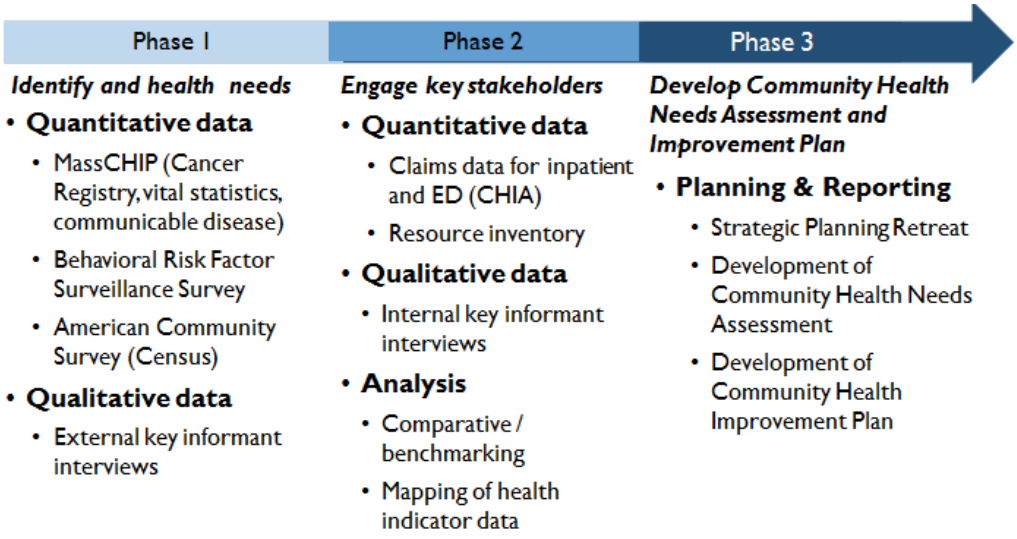
BID-Milton focuses activities to meet the needs of all segments of the population with respect to age, race/ethnicity, income, sexual orientation, and the broad range of other ways that population's characterize themselves to ensure that all residents have the opportunity to live healthy, happy, and fulfilling lives. However, its community benefits activities are focused particularly on youth, adults with behavioral health and chronic health conditions, low-income families, and older adults. The body of evidence and academic literature has shown that these populations are more likely to face disparities with respect to social determinants of health, access to care, and health outcomes.

[18] http://bidmilton.org/about-us/history/
[19] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates.
[20] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates.

Approach and Methods

The CHNA was conducted in a three-phased process beginning with a rigorous and comprehensive review of quantitative and qualitative data to characterize community needs, followed by soliciting of community input, and concluding with a priority setting session that drew from the findings of the first two phases. Data collection took place between October 2015 and February 2016. Reporting out of findings and priority setting took place in March 2016 (Figure 3).

Figure 3 - CHNA Approach and Methods



Characterize Population and Community Need

The goal of Phase I and Phase II was to gain an understanding of health-related characteristics of the region's population, including demographic, socio-economic, geographic, health status, care seeking, and access to care characteristics. This involved quantitative and qualitative data analysis, including, to the extent possible, an analysis of changes over time.

Community-specific health data analysis. JSI characterized health status and need at the town, zip-code, or census tract level. JSI collected data from a number of sources to ensure a comprehensive understanding of the issues. JSI produced geographic information systems maps that facilitated analysis and helped the Project Team to visually present the data.

- U.S. Census Bureau, American Community Survey 5-Year Estimates (2009-2013)
- Behavioral Risk Factor Surveillance System (BRFSS), (2013-2014 aggregate)
- CHIA Inpatient Discharges (2011-2013)
- MA Hospital IP Discharges (2008-2012)
- MA Hospital ED Discharges (2008-2012)
- MA Cancer Registry (2007-2011)
- MA Communicable Disease Program (2011, 2012, 2013)
- Massachusetts Vital Records (2008-2012)
- Massachusetts Bureau of Substance Abuse Services (BSAS) (2013)

Key informant interviews with stakeholders. JSI conducted 18 stakeholder interviews in the hospital's service area. Interviewees included hospital staff, primary care providers, behavioral health and mental health providers, community-based service organizations, community leaders, and local health officials. Interviews were conducted using a standard interview guide, and information was gathered related to major health issues, mortality/morbidity, barriers to care, underlying determinants of health, and service gaps that could not be identified through quantitative data. One JSI staff person was the lead on all interviews to ensure continuity of understanding of the hospital's needs and resources. Interview notes were reviewed and extracted into a Google Spreadsheet. A list of the interviewees is included in Appendix A.

Resource Inventory. To understand community need and underlying risks as well as to appropriately target strategies, JSI inventoried existing resources in the hospital's service area. JSI reviewed the hospital's prior annual report of Community Benefits activities to the MA Attorney General, which included a listing of partners, as well as publicly available lists of providers (primary care, behavioral health, councils on aging etc.) The goal of this process was to identify key partners who may or may not be already partnering with the hospital.

Capture Community Input

JSI conducted a series of community and provider forums in BID-Milton's service area to gather community input. During the community forums, JSI discussed findings of the data and posed a range of questions that solicited input on community ideas, perceptions and attitudes, including: 1) Does the data reflect what you see as the major needs and health issues in your community? 2) Are the identified gaps the right ones? 3) What segments of the populations are most at-risk? 4) What are the underlying social determinants of health status? 5) What strategies would be most effective to improving health status and outcomes in these areas? A listing of the community and provider forums and their locations are listed in the table below. A list of the participants is included in Appendix B.

Table 1 - Community and Provider Forums

Date	Event
February 11, 2016	Patient and Family Advisory Council
February 22, 2016	Community Benefits Advisory Committee
February 25, 2016	BID-Milton Board of Overseers
March 1, 2016	Quincy Public Forum

Use Data to Prioritize Needs and Set Goals

The goal of the final phase of the assessment was to review the results, identify priorities, review existing Community Benefits activities and determine a range of proven, feasible, evidenced-based interventions that BID-Milton and other key providers believed would address the issues that identified community health priorities. One of the major goals of this phase was to develop a

Community Benefits strategic framework that would clarify community health priorities and identify the range health issues and sub-components within each priority area. Drawing on the information gathered in Phases I and II, JSI presented CHNA findings, reviewed BID-Milton's current Community Benefits programming, and explored how BID-Milton could refine or augment what it is currently doing to better address community need. These strategic planning activities involved BID-Milton's clinical, administrative leadership, and senior leadership; community service providers; local public health officials; and other community leaders.

Data Limitations

Assessment activities of this nature nearly always face data limitations with respect to both quantitative and qualitative data collection. With respect to the quantitative data compiled for this project, the most significant limitation is the availability of timely data. Relative to most states and commonwealths throughout the United States, Massachusetts does an exemplary job at making comprehensive data available at the commonwealth-, county- and municipal-level. This data is made available through the Massachusetts Community Health Information Profile (MassCHIP) data system[21], an on-line, internet-based resource provided by the Massachusetts Department of Public Health (MDPH).[22] MassCHIP makes a broad range of health-related data available to health and social service providers and the public at-large. The data compiled for this assessment represented nearly all of the health-related data that was made available through MassCHIP. The breadth of demographic, socio-economic, and epidemiologic data that was made available was more than adequate to facilitate an assessment of community health need and support the CHIP development process. One major challenge was that much of the epidemiologic data that is available, particularly at the sub-county or municipal-level, was four to five years old. The list of data sources included in this report provides the dates for each of the major data sets provided by the state. The data was still valuable and allowed us to identify health needs relative to Massachusetts overall and in specific communities. However, older datasets may not reflect recent trends in health statistics. The age of the data also hindered trend analysis, as trend analysis required the inclusion of data that may have been up to ten years old, which challenged any current analysis.

With respect to qualitative data, information gathered through interviews and community forums engaging service providers, other community stakeholders, and/or community residents provided invaluable insights on major health-related issues, barriers to care, service gaps, and at-risk target populations. However, given the relatively small sample size and the nature of the questioning the results are not generalizable to the larger population. While every effort was made to advertise the community forums and to select a broadly representative group of stakeholders to interview, the selection or inclusion process was not random.

[21] Massachusetts Community Health Information Profile (MassCHIP) system. http://www.mass.gov/eohhs/researcher/community-health/masschip/

[22] The MassCHIP portal was down due to technical difficulties at the Massachusetts Department of Public Health but JSI Staff made a formal, comprehensive request in writing, which was met by staff at MDPH. This process limited our ability to do multiple, iterative data draws but the JSI staff still was able to capture ample data through the MassCHIP system.

Overview of Geographic Service Area

BID Milton's primary service area includes Milton, Quincy and Randolph (Figure 2) which are all part of Norfolk County. This primary service area encompasses a population of just over 153,000, with Quincy accounting for over 60% of the population (92,900). [23] The CHNA analysis focuses on this primary service area but also includes secondary service area comparisons. BID-Milton's secondary service area includes Braintree, Dorchester, Hyde Park and Canton which are also part of Norfolk County; this area's population is approximately 254,000 .[24]

Population Characteristics, Determinants of Health, and Health Equity

An understanding of community need and health status in BID-Milton's Community Benefits Service Area began with knowledge of the population's characteristics as well as the underlying social, economic, and environmental factors that impacted health and health equity. This information was critical to: 1) recognizing disease burden, health disparities and health inequities; 2) identifying target populations and health-related priorities; and 3) targeting strategic responses. This assessment captured a wide range of quantitative and qualitative data related to age, gender, sexual orientation, race/ethnicity, income, poverty, family composition, education, violence, crime, unemployment, access to food and recreational facilities, and other determinants of health. The data provided valuable information that characterized the population as well as provided insights into the leading determinants of health and health inequities.

The following is a summary of key findings related to community characteristics and the social, economic, and environmental determinants of health for BID-Milton's Community Benefits Service Area. Conclusions were drawn from quantitative data and qualitative information collected through interviews and community/provider forums. Summary data tables are included below and more expansive data tables are included in the BID-Milton's CHNA Data Appendices included with this report.

- *Age and Gender:* The towns in BID-Milton's primary service area had comparable proportions of older adults (65+) compared to Massachusetts overall at 14% (Milton, 14%; Randolph, 15%; Quincy, 15%).[25] Older adults have unique health needs, and an increasingly aging population has implications for the distribution and types of morbidity in the population, as discussed later. Milton had significantly higher youth populations (age under 18) at 25% than the state (14%). A common theme throughout the interviews and the community/provider forums was that older adults and youth represented two of most vulnerable populations in the service area. This is not to say middle-aged adults, 19 – 64 years of age, did not face important health issues. However, when community participants were asked to identify population cohorts most at-risk, they were more likely to cite youth and older adult populations. The specific needs of these populations will be discussed in greater detail later in the report.

[23] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates.
[24] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates.
[25] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

- *Race/Ethnicity, Foreign Born Status, and Language:* There is an extensive body of research and evidence that illustrates the health disparities that exist for racial/ethnic minorities, foreign-born populations, and individuals with limited English language proficiency. According to the 2010-2014 ACS, BID-Milton's service area had a diverse racial and ethnic population that was significantly different than the state (see Figure 4, Table 2). Randolph and Quincy had significantly higher populations of Asian residents as compared to the state (Randolph, 11%; Quincy, 26%; MA, 6%), while Milton and Randolph had larger numbers of Black residents (Milton 13%; Randolph, 41%; MA, 6%). Randolph and Quincy all had significantly higher numbers of foreign born residents and residents that spoke a language other than English when compared to the state overall (Table 2). Randolph and Quincy had significantly higher rates of individuals with limited English proficiency than the state (see Figure 5).

  Interviews with hospital staff revealed that the overall patient population at BID-Milton has increased in diversity, partly due to the closing of Quincy Medical Center but also due to the changing demographics of the towns in the primary and secondary service area.

Figure 4. Percent of Non-White Population (Source: 2010-2014 American Community Survey 5-Year Estimates)

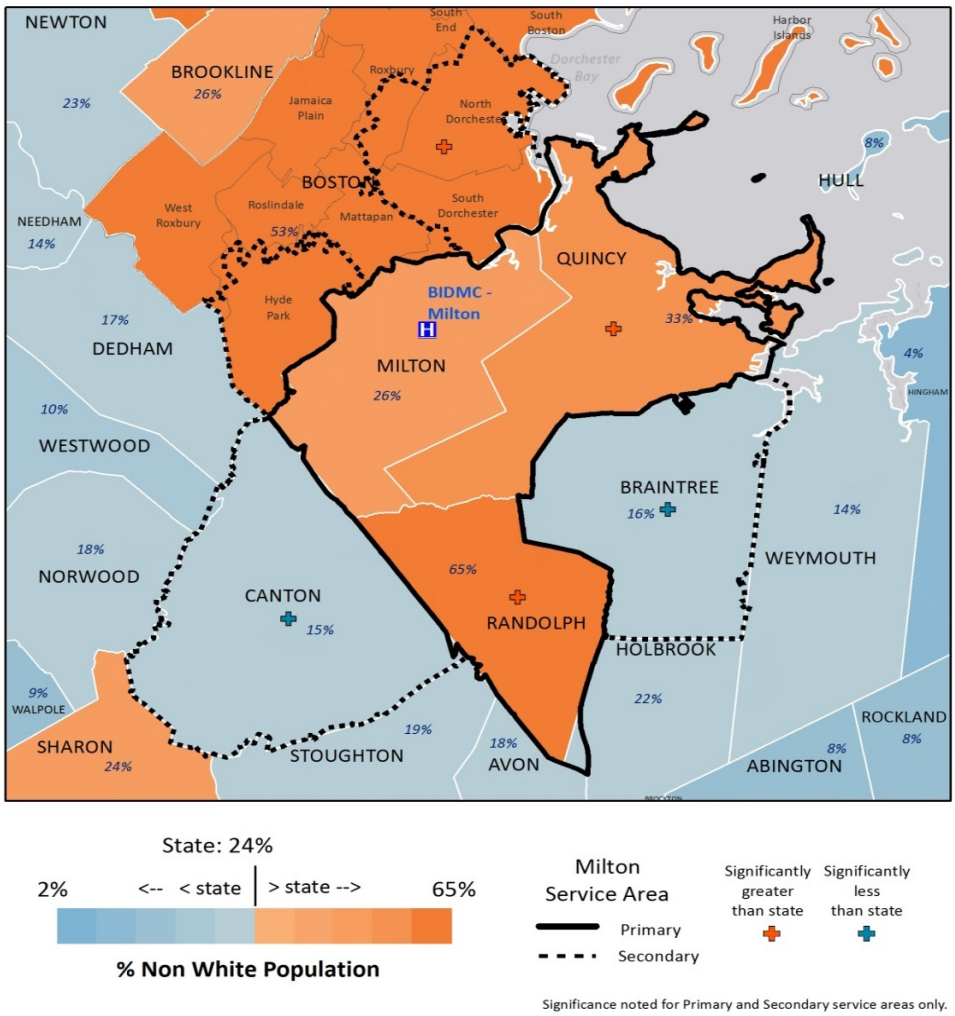
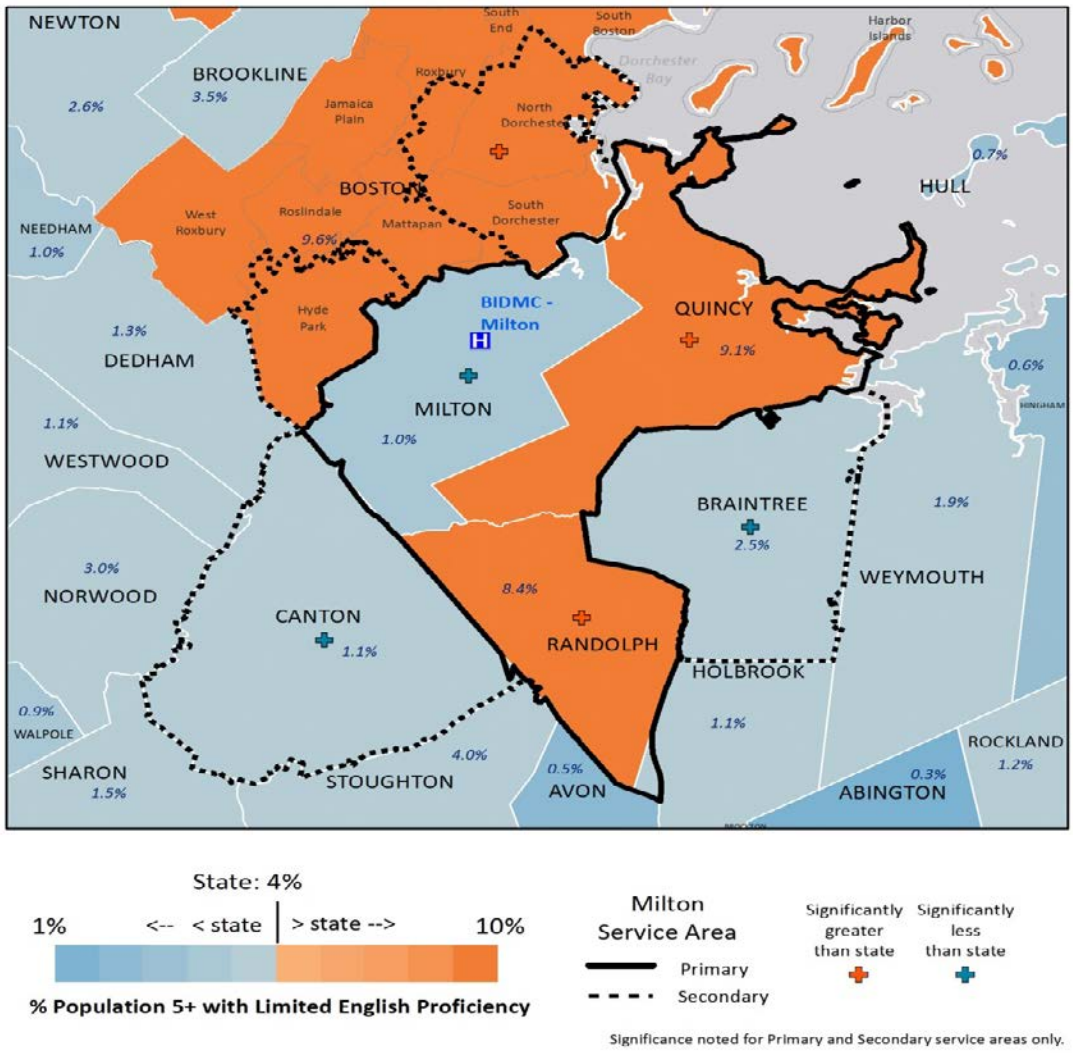


Table 2 - Distribution by Race/Hispanic Identify, Foreign Born Status and Language (Source: US Census Bureau. American Community Survey, 5-year averages, 2010-2014)

	MA	Milton	Randolph	Quincy
Asian alone (%)	6%	6%	11%	26%
Black alone (%)	6%	13%	41%	5%
White alone (%)	75%	75%	41%	63%
Hispanic / Latino (%)	10%	5%	7%	3%
Foreign Born (%)	15%	12%	30%	29%
Language other than English spoken at home	22%	18%	37%	34%

Source:
Orange indicates statistically higher than statewide rate
Blue indicates statistically lower than statewide rate

Figure 5 - Percent of Non-White Population



- *Income, Education, and Employment:* Socio-economic status has long been recognized as a critical determinant of health. Higher socio-economic status, as measured by income, employment status, occupation, and education, is closely linked to health status, overall well-being, and premature death. Research shows that communities with lower socio-economic status bear a higher disease burden and have a lower life expectancy. Residents of these communities are less likely to be insured, less likely to have a usual source of primary care, more likely to use the emergency department for non-emergent care, and less likely to access health services of all kinds, particularly routine and preventive services. Moreover, research shows that children born to low income families are, as they move into adulthood, less likely to be formally educated, less likely to have job security, more likely to have poor health status, and less likely to rise and move up to higher socio-economic levels.

  The average household income in Milton ($143K) is higher than the Massachusetts average ($93K), but lower in Randolph and Quincy ($76K, $77K, respectively)[26].Milton had a significantly lower proportion of low income population (those living at below of the federal poverty level - see Table 3 below) compared to the state (4% versus 12%). Quincy had a significantly higher proportion of people aged 65 and older living in poverty compared to the state (12% versus 9%). Milton also had higher rates of educational attainment compared to the state: 40% of the state's population has a bachelor's degree or higher, compared to 63% of Milton's population. Randolph had lower rates of residents with bachelor's degrees or higher at 29% compared to the state overall at 40%. Unemployment in Randolph (13%) and Quincy (10%) was higher than the state overall at 9%, while lower in Milton at 7%.

  While these data indicate that Milton is more affluent than the state overall, participants from the interviews described pockets of poverty within Milton including young families and the elderly population. One participant described the lack of affordable infant and toddler day care in the Milton area for low-income families.

Table 3 - Distribution of Population Living Below 200% of the Federal Poverty Level (Source: US Census Bureau. American Community Survey, 5-year averages, 2010-2014)

Living Below Poverty Level (past 12 months)	MA	Milton	Quincy	Randolph
All families	8%	3%	8%	10%
Female Householder, no husband present	26%	6%	19%	25%
All people	12%	4%	10%	11%
People 65+	9%	8%	12%	11%

- *Crime, Violence, and Community Cohesion.* Crime and violence are major issues that can have intense and far reaching impacts on health status. These impacts can include death,

[26] U.S. Census Bureau. 2010-2014 American Community Survey 5-Year Estimates.

injury, and economic loss but they also include emotional trauma, anxiety, isolation, lack of trust, and an absence of community cohesion. According to quantitative data from the 2013 FBI Uniform Crime Reports and anecdotal information from key informants, crime and violence were not a leading concern in Milton or Quincy. Randolph had higher overall rates of crime at 524 per 100,000 compared to the state at 404 per 100,000 and rates of aggregated assault at 384 per 100,000 compared to the state at 271 per 100,000.

- *Unstable Housing and Homelessness.* An increasing body of evidence has associated housing quality with poor overall health status and illness due to infectious diseases, chronic illnesses, injuries, poor nutrition, substance abuse, and mental health conditions. These health issues have also proven to be more common in low income (<200% FPL) cohorts of the population who often struggle to decide between paying for safe housing, healthy food, needed health care services, and other needs. There are also clear links between poor housing conditions and the illnesses listed above, which confound and exacerbate overall health status and emotional well-being. At its extreme are those without housing, either living on the street or in some transient housing situation, who have been shown to have significantly higher rates of illness and shorter life expectancy. Lack of affordable housing also has an impact on poverty and the ability of individuals and families to pay for food and other essential household items.

  According to the 2010-2014 ACS, residents of Milton and Randolph had significantly higher owner occupied housing compared to the state as a whole at 62% while Quincy's population had less (Milton, 79%; Randolph, 69%; Quincy, 48%). However, based on the community interviews and the forums, participants reported the growing lack of affordable housing in the area, in particular for low income families or for elders.

- *Food Access.* "Food is one of our most basic needs. Along with oxygen, water, and regulated body temperature, it is a basic necessity for human survival. But food is much more than just nutrients. Food is at the core of humans' cultural and social beliefs about what it means to nurture and be nurtured."[27] Issues related to food insecurity, food scarcity, hunger and the prevalence and impact of obesity are at the heart of the public health discourse in urban and rural communities across the United States. While we were unable to capture quantitative data on this topic, many interviewees and participants in the community forums identified lack of access to healthy foods as a major health issue for segments of the population in this region, including Milton. Low income individuals and families, as well as low income and/or isolated older adults, were identified as at-risk with respect to food access.

Mortality and Premature Mortality

Cancer, cardiovascular disease (heart disease), chronic lower respiratory disease (COPD), cerebrovascular disease (stroke), and unintentional accidents were the leading causes of death in the United States and in Massachusetts (Table 4). Other leading causes of death include diabetes, influenza/pneumonia, kidney disease, and Alzheimer's. While Massachusetts overall ranks in the top half of all states in terms of mortality rates due to influenza/pneumonia and kidney disease, it rates

[27] http://feedingamerica.org/SiteFiles/child-economy-study.pdf

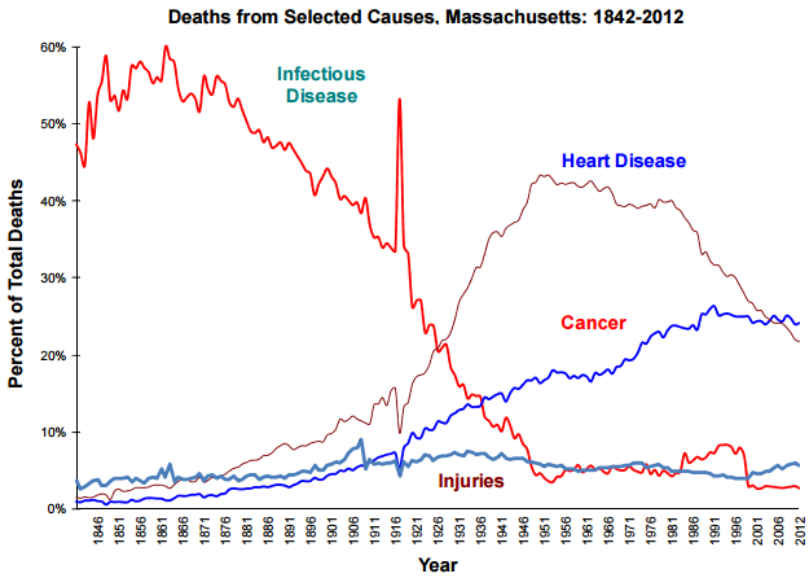
in the bottom half for the other eight leading causes of death, and in the bottom five states for accidents, chronic lower respiratory diseases, stroke, diabetes, and suicide.

Table 4 - Leading Causes of Death in Massachusetts and the United States, 2013

US Leading Cause of Death	Death Rate in MA	Total Deaths in MA	State Rank	US Rate	US Ranking
Cancer	159.6	12,858	31	163.2	2
Heart Disease	141.5	12,023	43	169.8	1
Accidents	32.5	2,393	45	39.4	4
Chronic Lower Respiratory Diseases	31.7	2,572	46	42.1	3
Stroke	27.7	2,354	47	36.2	5
Alzheimer's Disease	19.4	1,699	38	23.5	6
Influenza/pneumonia	18	1,551	16	15.9	8
Kidney Disease	15.1	1,261	18	13.2	9
Diabetes	14.1	1,142	50	21.2	7
Suicide	8.2	572	48	12.6	10

Source: Centers for Disease Control and Prevention, *Stats of the State of Massachusetts.* Accessed at: http://www.cdc.gov/nchs/pressroom/states/MA_2015.pdf
Note: Data source is National Vital Statistics Reports, Vol. 64, No. 2; and rankings and rates are based on 2013 age-adjusted death rates.
US Ranking: Ranking of cause of death in the US overall
State Rank: Ranking of MA compared to other states. Rates for the U.S. include the District of Columbia and (for births) U.S. territories.

Figure 6. Deaths from Selected Causes in Massachusetts, 1842 – 2012
(Source: Massachusetts Departments of Public Health)



In 2012, the life expectancy for a resident in Massachusetts was 81 years. In 1950, it was 70 years, and in 1900 it was 45 years.[28] This change is dramatic, and is due largely to improvements in the ability to prevent maternal/child deaths at pregnancy and manage infectious diseases, such as influenza. Since 1950, there have also been major improvements in our ability to prevent deaths due to heart disease, stroke, and cancer but there is still a great deal of work to do in this area, as these

[28] Massachusetts Department of Public Health. *Massachusetts Deaths 2012: Data Brief.* January 2015. Accessed at http://www.mass.gov/eohhs/docs/dph/research-epi/death-data/death-databrief-2012.pdf

issues are still among the top three leading causes of death (see Figure 6).

Cancer is the leading cause of death in Massachusetts and has seen a marked increase over the past century. In 1900, cancer was the cause of death in only 4-5% of deaths. In 2014 nearly 25% of all deaths were attributable to cancer.[29] Cancer was also the leading cause of death in Norfolk County (see Table 5 below).

All of these leading causes of death, individually and collectively, have a major impact on people living in BID-Milton's primary service area but cancer, cardiovascular disease (heart disease), chronic lower respiratory disease (COPD), cerebrovascular disease (stroke), and diabetes are the most important for BID-Milton to consider as they are the most prevalent conditions and are, to a large extent, preventable. All of these chronic conditions also share the health risk factors discussed above - obesity/overweight, lack of physical exercise, poor nutrition, tobacco use, and alcohol abuse.

Table 5 - Leading Causes of Death in Norfolk County (2012)

Cause of Death	Number of Norfolk County Deaths, 2012
All Cancer	**1,317**
Lung Cancer	*338*
Female Breast Cancer	*122*
Heart Disease	1,200
Stroke	241
Chronic Lower Respiratory Disease	241
Influenza and pneumonia	145
Diabetes	96
Opioids-related	67
Suicide	66
Motor vehicle	38
Homicide	5

Source: Massachusetts Department of Public Health. *Massachusetts Deaths 2012: Data Brief.* January 2015. Accessed at http://www.mass.gov/eohhs/docs/dph/research-epi/death-data/death-databrief-2012.pdf

Recent data has shown that opioid related deaths in Norfolk County continues to increase, from 24 in 2000, 67 in 2012, to a high of 124 in 2014. [30] This trend is consistent with increases in other counties in Massachusetts and confirms the opioid epidemic in the state. While addiction is a complex disease, opioid addiction and deaths can be reduced with appropriate prevention, treatment, and recovery support.

While examining mortality rates is important, perhaps a more useful indicator is premature death. Putting a greater emphasis on premature death, rather than overall mortality, supports the underlying intention of the Community Benefits program to improve health status and focusing attention on the morbidity and mortality that can be prevented. Premature death is calculated as the

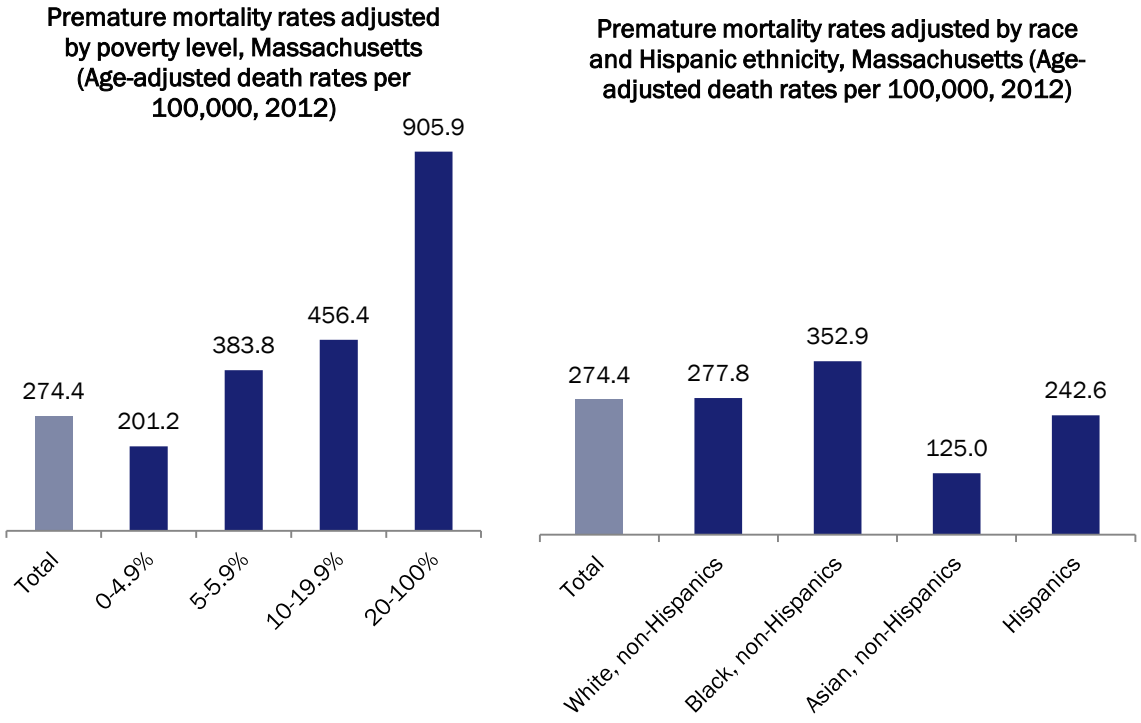
[29] Massachusetts Department of Public Health. *Massachusetts Deaths 2012: Data Brief.* January 2015. Accessed at http://www.mass.gov/eohhs/docs/dph/research-epi/death-data/death-databrief-2012.pdf

[30] http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/overdose-deaths-by-county-including-map-may-2016.pdf

years of potential life lost before age 75. Every death occurring before age 75 contributes to the total number of years of potential life lost.[31] Overall, Massachusetts has an age-adjusted premature death rate per 100,000 of 5,100 compared to 4,400 per 100,000 in Norfolk County. Within BID-Milton's primary service area, Milton had significantly lower premature death rates than the state, while Randolph's rate was comparable to the state.[32] In contrast, Quincy had significantly higher rates of premature death in when compared to the state (315 per 100,000 versus 276 per 100,000).

It should be noted that significant disparities exist in mortality and premature death. Poverty is associated with premature death, as is black, non-Hispanic race (see Figure 7 below). This puts a disproportionate burden on communities with higher proportions of low income and racial/ethnic populations. As described above, Quincy has higher than state rates of individuals 65 and older who are living in poverty, while Milton and Randolph have large populations of Black residents when compared to the state. [33]

Figure 7 - Disparities in premature mortality rates in Massachusetts (Age-adjusted death rates per 100,000, 2012)



Source: Massachusetts Deaths 2012: Data Brief. Released January 2015. Accessed at http://www.mass.gov/eohhs/docs/dph/research-epi/death-data/death-databrief-2012.pdf

[31] County Health Rankings 2016. Accessed at www.countyhealthrankings.org. 2016
[32] Massachusetts Vital Records, 2008-2012
[33] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Major Findings by the Leading Areas of Health-Related Need

At the core of the CHNA process is an understanding of access to care issues, the leading causes of illness and death, and the extent that population segments and communities participate in certain risky behaviors. This information is critical to assessing health status, clarifying health-related disparities, and identifying community health priorities. The assessment captured a wide range of quantitative data from Federal, Commonwealth, and local data sources, including from the US Census Bureau and the Massachusetts Department of Public Health. Qualitative information gathered from the assessment's interviews and community and provider forums greatly informed this section by providing community perceptions on the confounding and contributing factors of illness, health priorities, and strategic responses to the issues identified.

The following are key findings related to health insurance coverage and access to primary care, health risk factors, overall mortality, health care utilization, chronic disease, cancer, infectious disease, behavioral health (mental health and substance abuse), elder health, and maternal and child health. Summary data tables/graphs are included below, along with a narrative review of the assessment's qualitative findings. More expansive data tables are included in the BID-Milton's CHNA Data Appendices.

Health Risk Factors

Insurance Coverage and Usual Source of Care of Primary Care (including medical, oral health, and behavioral health services)

The extent to which a person has insurance that helps to pay for needed acute services, as well as access to a full continuum of high quality, timely, and accessible preventive and disease management or follow-up services, has shown to be critical to overall health and well-being. Access to a usual source of primary care is particularly important as it greatly impacts one's ability to receive regular preventive, routine, urgent care, and chronic disease management services.[34]

Norfolk County has a strong and robust healthcare system that provides comprehensive services that span the full healthcare continuum, including outreach and screening services, primary medical care, medical specialty care, hospital emergency and trauma services, inpatient care, and outpatient surgical and post-acute/long-term care services. Access to dental and behavioral health services are more problematic, but relative to other regions in Massachusetts, Norfolk County is better situated than other communities. Based on information gathered from our interviews and the community/provider forums, there were no absolute gaps in services across any of these categories, even for low income and racial/ethnic minority populations that often struggle with access to health care services. Massachusetts leads the nation with the lowest Commonwealth/state uninsurance rates in the nation. In 2014, only 4% of residents in the Commonwealth lacked medical health

[34] http://iom.edu/~/media/Files/Report%20Files/2003/Coverage-Matters-Insurance-and-Health-Care/Uninsurance8pagerFinal.pdf

insurance, compared to 10% nationally, due to the state's early health reform efforts which began in 2006.[35] The uninsured rate was even lower in Norfolk County at 2.8%.

In 2014, according to the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), it was estimated that 91% of Norfolk County adults (18+) had a primary care provider (PCP), slightly higher than the Commonwealth overall (88%).[36] Comparable numbers of individuals reported having had a routine check-up with a PCP in the past year (Massachusetts, 78%; Norfolk County, 80%). Only 6% of Norfolk County residents reported not being able to see a doctor at some point due to cost, only slightly lower than Massachusetts overall (8%).[37]

These findings indicate that overall residents in Norfolk County and Massachusetts have access to primary and other medical services. However, this does not mean that everyone in Massachusetts or Norfolk County receives the highest quality services when they want it and where they want it. Low income, racial/ethnic minority populations, and older adults often face significant barriers to care and struggle to access services due to lack of insurance, cost, transportation, cultural/linguistic barriers, and shortages of providers willing to serve Medicaid insured or low income, uninsured patients. Randolph does not have a federally qualified health center within its city limits, limiting access to primary care, including pediatric care, for those who are uninsured or are covered by MassHealth. Lack of transportation was cited by the majority of interview and community/provider forum participants, especially for the elderly and low/income populations without access to a car and who rely on public transportation.

Even among the insured, the qualitative results from the stakeholder interviews and provider/community forums revealed that individuals across all socio-demographic groups struggle to access behavioral health services in particular, including finding adequate treatment services appropriate for youth, older adults, and culturally competent providers. Massachusetts has very high medical health insurance rates, but benefit packages often do not adequately cover behavioral health services, forcing consumers to go without needed services or pay out of pocket. These factors limit access and drive inappropriate use of the hospital emergency department.

Findings from the interviews and the community/provider forums reveal that finding culturally competent providers who understand the different cultural backgrounds of the population is a barrier to care. This includes access to providers who can communicate to patients in their native language. In particular, participants reported that there is a lack of cultural competent providers for behavioral health services. As described above, over third of residents in Quincy (34%) and Randolph (37%) speak languages other than English at home, and the qualitative respondents indicated this was a major barrier to care.

Health Behaviors

There is a growing appreciation for the effects that certain health risk factors, such as obesity, lack of physical exercise, poor nutrition, tobacco use, and other substance abuse have on health status and the burden of physical disease and mental/emotional health problems. A discussion and review

[35] Kaiser Family Foundation, Health Insurance Coverage of the Total Population. http://kff.org/other/state-indicator/total-population/

[36] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data

[37] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data

of available data and information drawn from quantitative and qualitative sources from this assessment is below.

Over half (58%) of Norfolk County adults are overweight or obese. Statewide, nearly one quarter of high school youth are overweight or obese.

- *Overweight/Obesity.* Over the past two decades, obesity rates in the United States have doubled for adults and tripled for children.[38] [39] These trends have spanned all segments of the population, regardless of age, sex, race, ethnicity, education, income, or geographic region. While there are segments that have struggled more than others, no segment has been unaffected. In 2013-2014, according to data from the Massachusetts BRFSS, more than one-half of adults (18+) in Massachusetts (58%) and in Norfolk County (57%) and are either obese or overweight.[40] According to the 2014 Massachusetts Youth Risk Behavior Survey (YRBS), nearly one-quarter of high school youth (23%) are obese or overweight.[41] Data for Norfolk County for children and youth was not available.

1 in 5 adults eats the recommended 5 fruits and vegetables per day, and 1 in 5 adults reported no leisure time activity in the last 30 days.

- *Physical Activity and Healthy Eating:* Physical inactivity and poor nutrition are the leading risk factors associated with obesity and chronic health issues, such as heart disease, hypertension, diabetes, cancer, and depression. Adequate nutrition helps prevent disease and is essential for the healthy growth and development of children and adolescents. Physical inactivity is a risk factor for many chronic conditions, while being active is linked to good emotional health. Approximately one in five adults (18+) in Massachusetts (19%) and in Norfolk County (21%) ate the recommended five servings of fruits and vegetables per day[42]. Seventy-eight percent of Massachusetts adults and 80% of adults in Norfolk County reported any leisure time physical activity in the past 30 days.[43] Data for Norfolk County for children and youth was not available.

- *Tobacco Use:* Tobacco use is the single most preventable cause of death and disease in the United States. Each year, approximately 443,000 Americans die from tobacco-related illnesses. For every person who dies from tobacco use, 20 more people suffer with at least one serious tobacco-related illness, such as chronic airway obstruction, heart disease, stroke, or cancer.[44] About 1 in 6 adults in Massachusetts (16%) were current smokers, according to Massachusetts BRFSS data in 2013-2014.[45] In comparison, the rate of current smokers in Norfolk County was significantly lower than the

[38] Fryar DC, Carroll MD, Ogden CL. Prevalence of overweight, obesity, and extreme obesity among adults: United States, 1960-1962 through 2011-2012. National Center for Health Statistics Health E-Stat. 2014.
Odgen CL. Childhood Obesity in the United States: The Magnitude of the Problem. Power Point.
[39] http://stateofobesity.org/obesity-rates-trends-overview/
[40] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data
[41] Massachusetts Department of Elementary and Secondary Education & Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth, 2013.
http://www.doe.mass.edu/cnp/hprograms/yrbs/2013report.pdf
[42] MA Behavioral Risk Factor Surveillance System, 2013 only
[43] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data
[44] http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=41#five
[45] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data

state at 12%. The 2014 Massachusetts YRBSS revealed that 17% of high schoolers (grades 9-12) used tobacco products in 2013.[46] Data for Norfolk County for children and youth was not available.

- *Alcohol Abuse:* Risky behaviors related to alcohol are strongly correlated with chronic medical and mental health issues. Alcohol abuse raises the risk of developing chronic illnesses and increases the severity of illnesses once they emerge. In 2013, approximately 7% of adults in Massachusetts and 8% of adults in Norfolk County reported heavy drinking, defined as drinking 15 or more drinks per week for men, or 8 or more drinks per week for women.[47] Approximately 1 in 5 adults (18%) in Massachusetts reported binge drinking, defined as drinking 5 or more drinks on an occasion for men or 4 or more drinks on an occasion for women. Slightly less (16%) reported binge drinking in Norfolk County.

Physical Disease Management and Prevention: Chronic Disease, Cancer, and Infectious Disease

Chronic Disease

Throughout the United States, chronic diseases such as heart disease, stroke, cancer, respiratory diseases, and diabetes are responsible for approximately 7 of 10 deaths each year, and treating people with chronic diseases accounts for 86% of our nation's health care costs. Half of all American adults have at least one chronic condition, and one in four at least two chronic conditions.[48] A chronic condition is defined as a health condition or disease that lasts a year or more and requires ongoing medical attention or that limits activities of daily living.[49] Perhaps most significantly, despite the high prevalence and dramatic impact of the most prevalent chronic disease, they are largely preventable, which underscores the need to focus on the health risk factors, primary care engagement, and evidence-based chronic disease management. Participants from the qualitative interviews also identified chronic diseases as pressing health concerns, in particular diabetes and heart disease.

Estimated prevalence of chronic disease and utilization of services as a result of chronic diseases were assessed. Prevalence rates are based on self-reported data of ever being told they have a chronic condition, reported by adults in the BRFSS (Table 6). Prevalence of chronic disease in Norfolk County and the Commonwealth overall are similar, with the exception of asthma. In Norfolk County, 14% of the adult population reported that they had been told they ever had asthma compared to 17% in the state, while 9% currently had asthma compared to close to 12% in the state. However, these lower asthma rates were not statistically significant.

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[46] Massachusetts Department of Elementary and Secondary Education & Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth, 2013. http://www.doe.mass.edu/cnp/hprograms/yrbs/2013report.pdf

[47] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data

[48] Ward BW, Schiller JS, Goodman RA. Multiple chronic conditions among US adults: a 2012 update. *Prev Chronic Dis.* 2014;11:130389. DOI:http://dx.doi.org/10.5888/pcd11.130389

[49] http://www.cdc.gov/chronicdisease/overview/.

Table 6 - Prevalence of Chronic Disease (2013-2014 BRFSS)

BRFSS Indicator	Commonwealth	Norfolk County
Ever had asthma	17.2	14.3
Currently with asthma	11.7	9.2
Ever told they have diabetes	9.1	9.6
Ever told they have hypertension (2013 only)	29.4	30.4
Ever told they had a myocardial infarction (MI)	4.0	3.7
Ever told they had angina/coronary heart disease (CHD)	3.8	3.9
Ever told they had a stroke	2.5	3.0

Source: MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data

In terms of utilization of health care services for chronic diseases, Milton had comparable or significantly lower age-adjusted hospitalization utilization rates for all chronic diseases compared to Massachusetts overall (Table 7). Quincy had comparable or lower age adjusted utilization rates with the exception of diabetes and COPD where it had significantly higher rates than the state. The data show that there is signficant care and prevention need for chronic diseases in Randolph where all the age adjusted hospital utilizaton rates for all chronic diseases were higher than the state overall (Table 7, Figure 8). To see the full set of data including the rates for the towns in the secondary service areas, please see the Data Appendices.

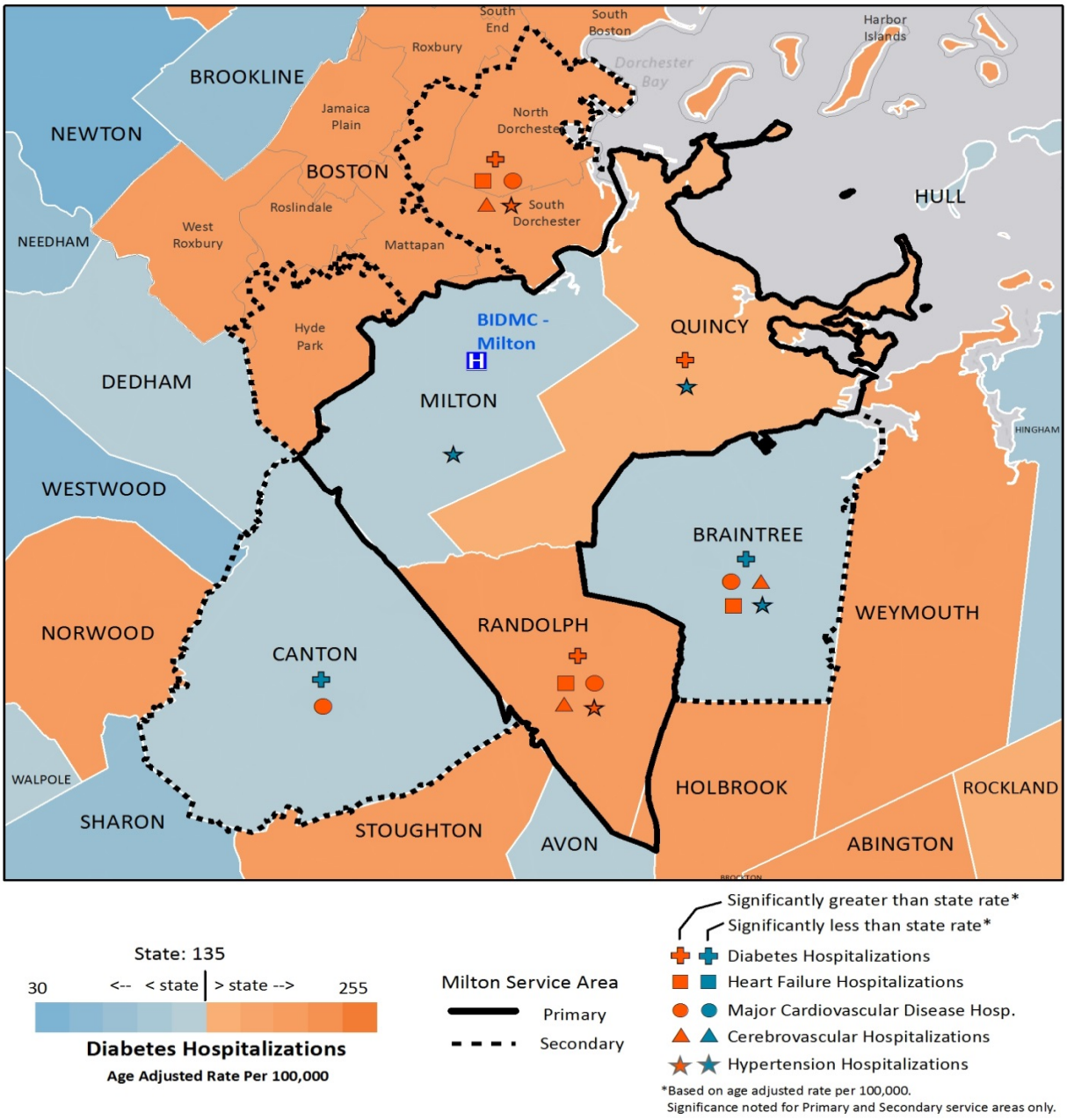
Figure 8 summarizes a number of chronic disease indicators in one map of the service area. The base layer shows the range in diabetes hospitalization rates, with orange indicating rates higher than the Commonwealth and blue indicating rates lower than the Commonwealth. Markers indicate significantly different rates from the Commonwealth on this and other chronic disease measures. Taken together, this map demonstrates that chronic disease is a concern particularly in Randolph.

Table 7 - Rate of Hospitalizations due to Chronic Diseases (Mass CHIP, 2008-2012)

Rate (per 100,000) of Hospitalizations due to:	MA	Milton	Quincy	Randolph
Diabetes	135	119	149	210
Diabetes-related	1,846	1,467	1,862	2,518
Hypertension	45	35	33	91
Hypertension-related	4,025	3,704	4,032	4,893
Major cardiovascular disease	1,344	1,353	1,341	1,656
Heart disease	980	999	980	1.183
Cerebrovascular disease	228	238	231	281
COPD	364	282	402	489
Asthma	152	132	123	252

Mass CHIP, Age-adjusted rates per 100,000, 2008-2012
Orange indicates statistically significantly higher than state
Blue indicates statistically significantly lower than state

Figure 8 - Chronic Disease Hospitalization Utilization



When looking at ED utilization due to chronic diseases, Randolph showed similar trends with significantly higher rates of age adjusted ED utilization than the state for all chronic diseases with the exception of heart disease (Table 8). Both Milton and Quincy had higher hypertension-related ED utilization rates than the state while Milton also had higher asthma-related ED utilization. To see the full data as well as rates for the towns in the secondary service area, please see the Data Appendices.

Table 8 - Rate of ED Discharges due to Chronic Diseases (Mass CHIP, 2008-2012)

Rate (per 100,00) of ED Discharges due to:	MA	Milton	Quincy	Randolph
Diabetes	133	77	132	173
Hypertension	121	117	107	190
Hypertension-related	2,831	3,476	3,320	4,474
Major cardiovascular disease	402	403	387	473
Heart disease	215	225	206	206
Asthma	573	427	429	656
Asthma-related	1,444	1,595	1,352	2,025

Mass CHIP, Age-adjusted rates per 100,000, 2008-2012
Orange indicates statistically significantly higher than state
Blue indicates statistically significantly lower than state

Cancer

Cancer is the second leading cause of death in the United States and the first leading cause of death in both Massachusetts and Norfolk County.[50] While experts have an idea of the risk factors and causal factors associated with cancer, the majority of cancers occur in people who do not have any known risk factors. The major known risk factors for cancer are age, family history of cancer, smoking, overweight/obesity, excessive alcohol consumption, excessive exposure to the sun, unsafe sex, exposure to fumes, second hand cigarette smoke, and other airborne environmental and occupational pollutants. As with other health conditions, there are major disparities in outcomes and death rates across all forms of cancer, which are directly associated with race, ethnicity, income, and whether one has comprehensive medical health insurance coverage.

According to 2013-2014 BRFSS data, 15% of Norfolk County residents reported ever receiving a diagnosis of cancer, which is significantly higher than the Commonwealth overall (12%).[51] With respect to incidence, only Quincy had significantly higher rates lung cancer compared to the Commonwealth overall (Table 9). In Massachusetts, the cancer death rate is 170 per 100,000. Milton has a significantly lower rate of cancer deaths (all types), at 149 per 100,000 while Quincy and Randolph have cancer death rates comparable to the state. When looking at specific types of cancer deaths, all three towns had significantly lower or comparable death rates when compared to the state for breast, colorectal, lung and prostate cancer with the exception of Quincy which had a higher rate of lung cancer deaths than the state overall.[52]

[50] Massachusetts Department of Public Health. *Massachusetts Deaths 2012: Data Brief.* January 2015. Accessed at http://www.mass.gov/eohhs/docs/dph/research-epi/death-data/death-databrief-2012.pdf
[51] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data
[52] Mass CHIP, Age-adjusted rates, 2008-2012

Table 9 - Incidence of Cancer (Age-adjusted rates, 2007-2011)

Incidence of cancer (age-adjusted rate per 100,000, invasive) (2007-2011)	MA	Milton	Quincy	Randolph
All types	502	504	505	489
Breast cancer – women only	136	131	132	125
Colorectal cancer	42	43	49	48
Lung cancer	69	55	80	66
Prostate cancer – men only	151	182	128	154

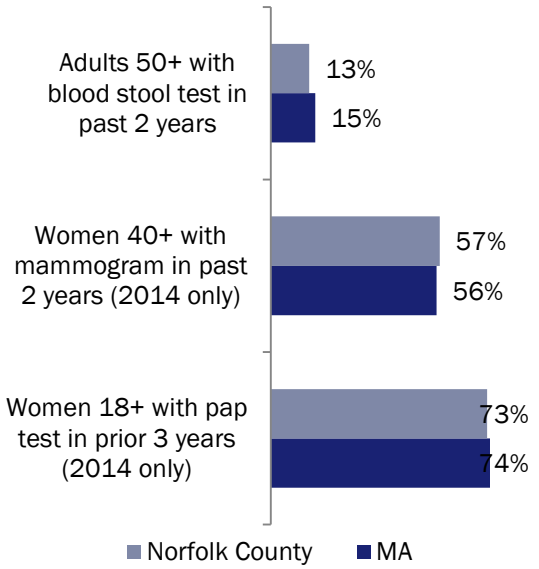
Mass CHIP, Age-adjusted rates, 2007-2011
Orange indicates statistically significantly higher than state
Blue indicates statistically significantly lower than state

However, this does not mean that cancer is not a significant problem as it is the leading cause of death

in the county and a major burden on the service system Efforts need to be made to screen for and identify those with cancer, with an emphasis on those facing barriers to care. Furthermore efforts should be made to ensure that those who have cancer have access to the highest quality care and the supportive services they need to manage and cope with their illness.

Norfolk County and Massachusetts had comparable cancer screening rates (Figure 9). However, there are opportunities for improvement, as just 13% residents over 50 in Norfolk County had a blood stool test in the past two years, and over a quarter (27%) of women 18+ had not had a Pap test in the past 3 years.[53]

Figure 9 - Cancer Screening Rates in Massachusetts and Norfolk County (BRFSS 2013-2014 aggregate data)



Infectious Disease

Increases in life expectancy and decreases in the mortality rate during the 20th century are largely due to reductions in infectious disease mortality, as a result of immunization. However, infectious diseases remain a major cause of illness, disability, and even death. Sexually transmitted diseases (i.e., chlamydia and HIV/AIDS), diseases transmitted through needle injection (i.e., HIV/AIDS and hepatitis B and C), tick-borne illnesses (Lyme disease), and pneumonia are among the infectious

[53] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data

diseases that have the greatest impact on the population. The assessment captured data on all of the conditions referenced above.

Lyme disease is not a major issue in the BID-Milton's primary or secondary service with crude incidence either being significantly lower or comparable to the state crude rates.[54]

All towns in the primary service area had significantly lower or comparable hospitalization rates due to pneumonia/influenza compared to Massachusetts overall with the exception of Randolph which were higher than the state. According to BRFSS 2013-2014 data, similar rates of older adults (65+) in Norfolk County reported ever having a pneumonia vaccination or having a flu shot in the past year when compared to the state.[55] Chlamydia, gonorrhea, and hepatitis C crude incidence rates in the primary and secondary service area towns were all significantly lower or comparable to the Commonwealth overall with the exception of chlamydia for Randolph. [56]

Great strides have been made with respect to HIV/AIDS, and for most it is considered to be more of a chronic condition that can be managed with medications than a terminal condition. Rates of illness, death, and HIV transmission have declined dramatically over the past decade. However, HIV/AIDS still has a major impact on the lesbian, gay, bisexual and transgender (LGBT) community as well as on injection drug users. Within the primary service area, the rate of HIV-related hospitalizations and deaths were comparable to the state.[57]

Behavioral Health

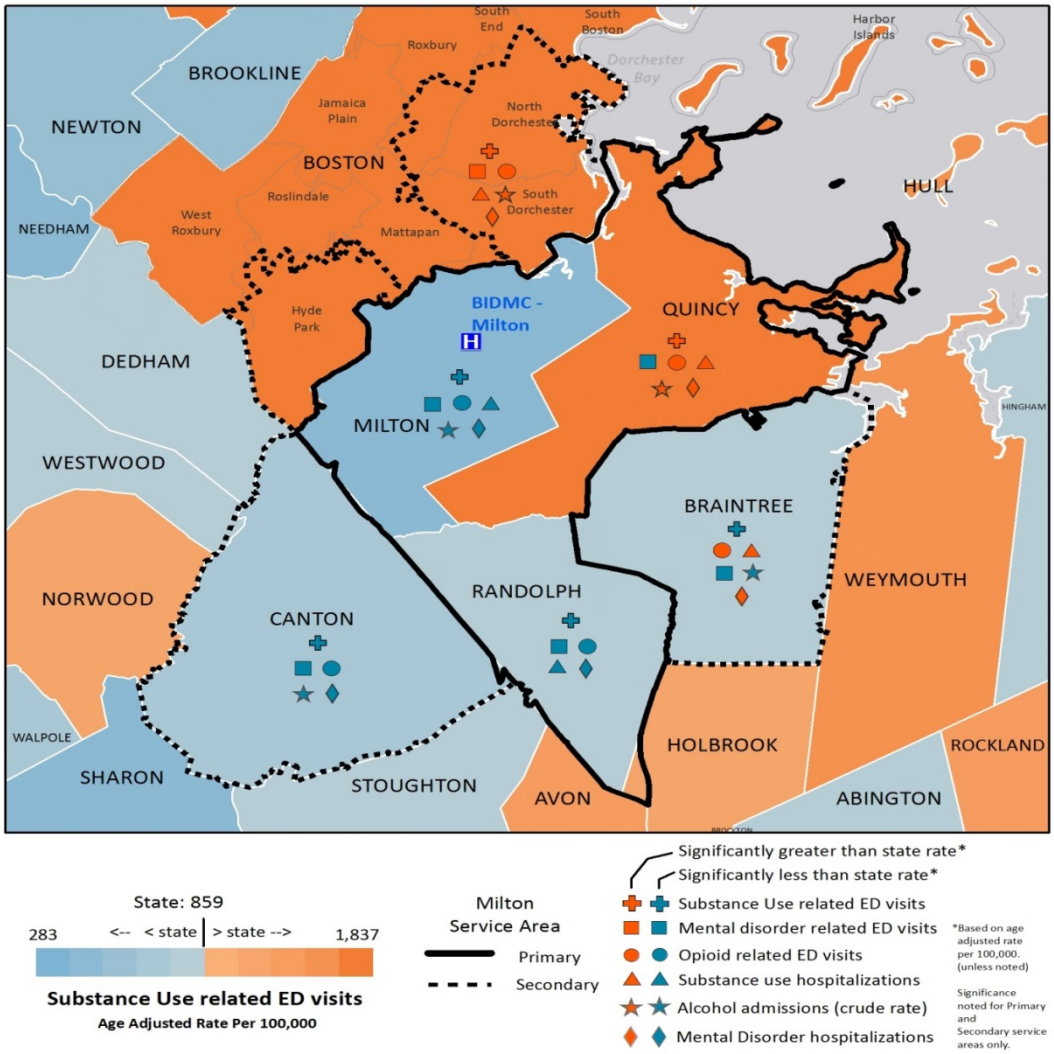
Mental illness and substance use have a profound impact on the health of people living throughout the United States. Data from the Centers for Disease Control and Prevention suggests that approximately one in four (25%) adults in the United States has a mental health disorder[58] and an estimated 22 million Americans struggle with drug or alcohol problems.[59] According to the 2013-2014 BRFSS, 18% percent of adults in Norfolk County had ever been diagnosed with depression, comparable to the Commonwealth overall (21%).[60] Depression, anxiety, and alcohol abuse are directly associated with chronic disease, and a high proportion of those living with these issues also have a chronic medical condition. For Milton and Randolph, the majority of the data show that the behavioral health indicators are lower or comparable to the state averages. In contrast, the data for Quincy indicate a significant impact of mental health and substance use (see Figure 10).

Figure10 shows a number of behavioral health-related indicators in one map of the service area. The base layer shows the range in the rate of substance use-related ED visits in the service area, with orange indicating rates higher than the Commonwealth and blue indicating rates lower than the Commonwealth. Markers indicate significantly different rates from the Commonwealth on this and

[54] Mass CHIP, 2008-2012
[55] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data
[56] Mass CHIP, 2008-2012
[57] Mass CHIP, 2008-2012
[58] http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml
[59] http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=40
[60] MA Behavioral Risk Factor Surveillance System, 2013-14 aggregate data

other behavioral health measures. Taken together, this map demonstrates that Quincy is a high-need area for behavioral health.

Figure 10. Behavioral Health Indicators



However, although the majority of rates for Milton and Randolph may be lower or comparable than state averages, during the qualitative interviews and community/provider forums, participants overwhelmingly identified behavioral health as the number one need in BID-Milton's service area. Participants noted:

- Behavioral health needs **impact physical health**, leading to higher morbidity and mortality
- **Lack of behavioral health providers,** particularly for substance abuse recovery services such as outpatient and medication assisted therapy.
- **Lack of cultural competent behavioral health providers,** as well as those that understand the needs of **older adults**.
- Lack of understanding about the dangers of prescriptions drugs, need for more **education and preventive services.**

- **Stigma** continues to prevent those from getting needed care

Recent trend data from MDPH support anecdotal evidence that the growing opioid epidemic is significant across the state. As described above, the number of opioid related deaths in Massachusetts increased from 338 to 1,282 from 2000 to 2014 (Figure 11). [61] In the same period, the number of opioid related deaths in Norfolk County increased by over 400% from 24 in 2000 to 124 in 2014[62].

Figure 11 - Number of Unintentional Opioid Overdose Deaths, 2000-2014 (Mass DPH, January 2016)

The data indicate that the epidemic has impacted Quincy significantly (see Table 10). The city has higher age adjusted rates across all opioid metrics when compared to the state as a whole, making it a "hot spot". This includes significantly higher rates of admissions to DPH-funded programs where heroin was the primary substance, opioid-related discharges, opioid-related ED discharges, and opioid related fatal overdoses compared to the Commonwealth overall.[63]

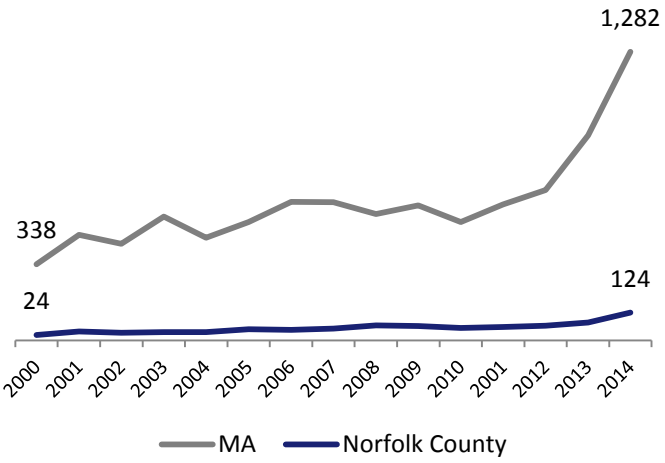


Table 10 - Opioid-Related Health Care Utilization and Mortality (Age-adjusted rates, 2008-2012)

Opioid use indicator	MA	Milton	Quincy	Randolph
Admissions to DPH funded programs where heroin was the primary substance*	791	237	1,387	374
Opioid-related hospitalizations**	316	196	381	249
Opioid-related ED discharges**	260	130	385	186
Opioid-related fatal overdoses***	9	2	20	9

*Massachusetts Bureau of Substance Abuse Services (BSAS), 2013
**Age-adjusted rates per 100,000, 2008-2012; Massachusetts Hospital Inpatient Discharges (UHDDS), 2008-2012 & Massachusetts Hospital Emergency Visit Discharges, 2008-2012
***Age-adjusted rate per 100,000, Massachusetts Vital Records 2008-2012
Orange indicates statistically significantly higher than state
Blue indicates statistically significantly lower than state

With respect to alcohol and all substance use, rates of alcohol/substance-related hospitalizations and ED discharges in Milton and Randolph were lower or comparable to the Commonwealth

[61] http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf
[62] http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/overdose-deaths-by-county-including-map-may-2016.pdf
[63] BIDMC and MHDC: CHIA Case Mix ED Visits and Inpatient Hospitalizations

overall.[64] Quincy had significantly higher hospital utilization rates where alcohol or heroin was the primary substance (see data appendices). For hospital or ED utilization related to mental health, Milton, Randolph and Quincy had lower rates than the state, with the exception of mental disorder-related hospitalizations and mental disorder ED discharge rates, which were significantly higher than the Commonwealth overall (see Table 11 below).

Table 11 - Mental Health-Related Health Care Utilization and Mortality (Age-adjusted rates, 2008-2012)

Mental health indicator	MA	Milton	Quincy	Randolph
Mental disorders – hospitalizations*	838	517	791	615
Mental disorders - all related hospitalizations*	3,840	2,726	3,919	3,676
Mental disorder ED discharges**	2,092	1,154	3,077	1,722
Mental disorder related ED discharges**	4,990	2,381	4,779	3,693
Mental Disorders: All – Deaths***	49	38	41	38
Suicide Deaths***	8	7	9	3

*Massachusetts Hospital Inpatient Discharges (UHDDS), 2008-2012
**Massachusetts Hospital Emergency Visit Discharges, 2008-2012
***Massachusetts Vital Records 2008-2012
Orange indicates statistically significantly higher than state
Blue indicates statistically significantly lower than state

Special Populations

Older Adults

Across the country, older adults are among the fastest growing age groups. The first "baby boomers" (adults born between 1946 and 1964) turned 65 in 2011 and over the next 20 years these "baby boomers" will gradually enter the older adult cohort. Older adults are much more likely to develop chronic illnesses and related disabilities such as heart disease, hypertension, and diabetes as well as congestive heart failure, depression, anxiety, Alzheimer's, Parkinson's disease, and dementia. By 2030, the CDC and the Healthy People 2020 Initiative estimates that 37 million people nationwide (60% of the older adult population 65+) will manage more than one chronic medical condition. Many experience hospitalizations, nursing home admissions, and low-quality care. They also may lose the ability to live independently at home. Chronic conditions are the leading cause of death among older adults.[65]

As mentioned above in the section on population characteristics, all three of BID-Milton's primary service area towns have comparable proportions of the population that are over 65 to the state.[66] When considering elder health, it is important to understand that if the assessment had access to crude rates of chronic disease by age, we would find that elders 65+ have rates of the leading chronic health conditions that are nearly twice the rates for the adult population overall. The older

[64] Mass CHIP, Age-adjusted rates per 100,000, 2008-2012
[65] https://www.healthypeople.gov/2020/topics-objectives/topic/older-adults#two
[66] United States Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

you get the more likely it is that you have one or more chronic conditions: 49% of those aged 45-64 and 80% of people 65 and older live with one or more chronic conditions[67].

A leading concern for older adults is falls. Milton, Quincy and Randolph all had higher rates of hospitalizations due to falls overall (Table 12) when compared to the state. Quincy also higher ED discharge rates of due to falls. All three towns had comparable or lower rates of deaths due to Alzheimer's or Parkinson's disease (see data appendices).

Table 12 - Elder Health Indicators (Mass CHIP)

Elder health indicators	MA	Milton	Quincy	Randolph
Falls-related hospitalizations*	367	435	424	406
Falls-related ED discharges**	2,764	2,509	3,159	2,228
Hip fracture hospitalizations*	84	84	91	80

*Massachusetts Hospital Inpatient Discharges (UHDDS), 2008-2012
**Massachusetts Hospital Emergency Visit Discharges, 2008-2012
Orange indicates statistically significantly higher than state
Blue indicates statistically significantly lower than state

During the qualitative interviews and the community and provider forums, participants identified older adults as a high risk population and identified the following concerns:

- More support for **aging in the home**
- Not enough **affordable housing**
- Not enough **providers with expertise** in geriatric primary care or mental health
- Need better **coordination of care** for elders, linkages between hospitals, housing, better post-acute system.
- **Transportation** needs
- **Palliative care** services becoming increasingly more important

Maternal and Child Health

Maternal and child issues are of critical importance to the overall health and well-being of a geographic region and at the core of what it means to have a healthy, vibrant community. Infant mortality, childhood immunization, rates of teen pregnancy, rates of low birth weight, and rates of early, appropriate prenatal care for pregnant women are among the most critical indicators of maternal and child health. Data compiled on maternal and child health from MA DPH reveal that

[67] Gerteis J, Izrael D, Deitz D, LeRoy L, Ricciardi R, Miller T, Basu J. Multiple Chronic Conditions Chartbook. AHRQ Publications No, Q14-0038. Rockville, MD: Agency for Healthcare Research and Quality. April 2014.

Randolph had significantly higher rates of pre-term and low-birthweight births (see data appendices).[68]

Youth

There is an unfortunate lack of data available on youth at the county or town levels. However, qualitative data from the interviews and community forums indicate that this is a priority population for residents of BID-Milton's service area. Interviewees cited the following concerns for youth:

- Youth **substance and alcohol use**, even in children as young as middle school aged. The most often cited concerns were opioids, prescription drugs, alcohol and marijuana.
- Youth **mental health**, in particular depression, anxiety, stress, and peer pressure.
- **Overweight/obesity** among youth, including the lack of physical activity and lack of access to healthy food and nutrition
- **Access to primary pediatric care in Randolph**. Randolph does not have a federally qualified health center, which limits pediatric primary care for low-income children.

State-level data is available through the Massachusetts Youth Risk Behavioral Survey.[69] A number of areas of concern were highlighted by the state-level data, and these same concerns were confirmed by qualitative comments from the partner survey and forums. Particular concerns for youth include:

- **Mental Health:** In 2013, one in five high-school youth (22%) in the Commonwealth felt sad or hopeless, and 6% had attempted suicide in the past year.[70] One in five (17%) reported being bullied at school. While all three of these indicators have shown improvement since 2007, the prevalence of poor mental health remains a significant concern.
- **Overweight/Obesity, Physical Activity and Healthy Eating:** In 2013, 25% of high-school youth in the Commonwealth were overweight or obese. Just 15% reported eating at least five fruits and vegetables each day, whereas a quarter (25%) reported watching at least three hours of TV on an average school day.[71]
- **Alcohol and Substance Use:** In 2013, almost a quarter (23%) of high-school youth in the Commonwealth reported that they were offered, sold, or given drugs in the past year. Meanwhile, one in ten (11%) reported current cigarette use, and a third (36%) reported current alcohol use.[72]

[68] Massachusetts Vital Records Natality, 2008-2012

[69] Massachusetts Department of Elementary and Secondary Education & Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth, 2013. http://www.doe.mass.edu/cnp/hprograms/yrbs/2013report.pdf

[70] Massachusetts Department of Elementary and Secondary Education & Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth, 2013. http://www.doe.mass.edu/cnp/hprograms/yrbs/2013report.pdf

[71] Massachusetts Department of Elementary and Secondary Education & Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth, 2013. http://www.doe.mass.edu/cnp/hprograms/yrbs/2013report.pdf

[72] Massachusetts Department of Elementary and Secondary Education & Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth, 2013. http://www.doe.mass.edu/cnp/hprograms/yrbs/2013report.pdf

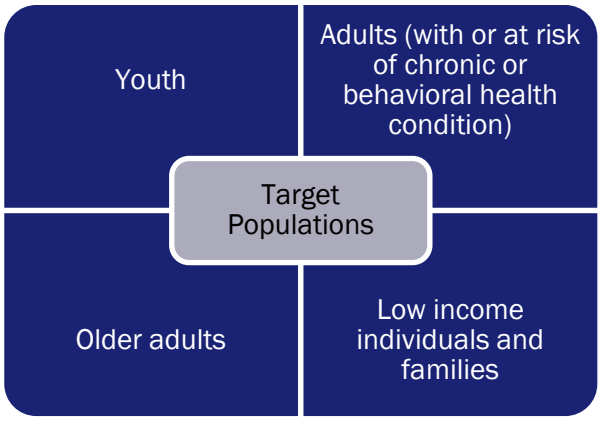
Community Health Priorities and Target Populations

Once all of the assessment's findings were compiled, hospital and community stakeholders participated in a strategic planning process that integrated data findings from Phases I and II of the project, including information gathered from the interviews and forums. Participants engaged in a discussion of: 1) the assessment findings, 2) current Community Benefits program activities, and 3) emerging strategic ideas that could be applied to refine their community benefits strategic response. From this meeting, community health priorities were identified, as were target populations and core strategies to achieve health improvements.

Following is a brief summary of the target populations and community health priorities that were identified with the support of community stakeholders. Also included below is a review of the goals, objectives, and core elements of BID-Milton's Community Health Improvement Plan (CHIP).

Target Populations

Figure 12 - Target Populations



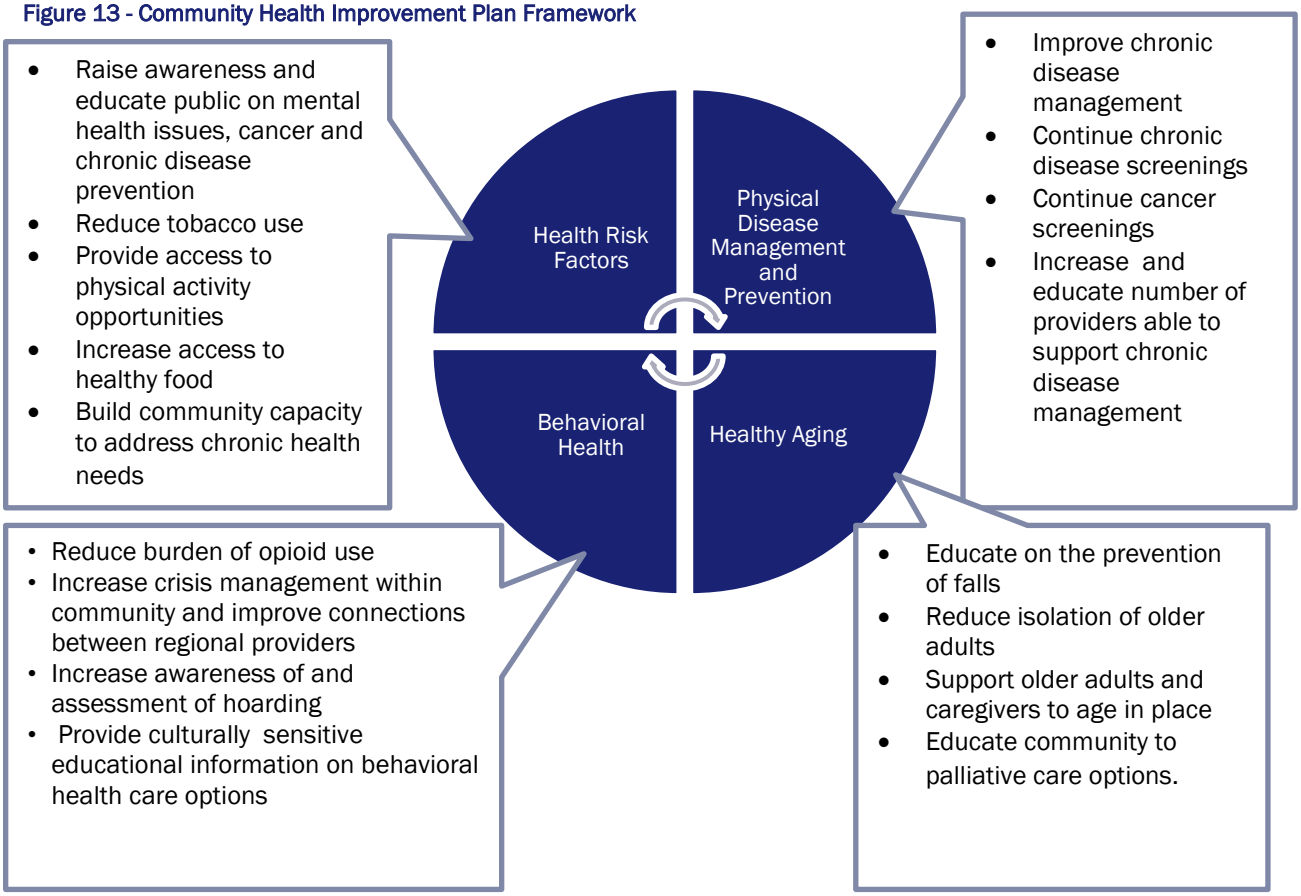
BID-Milton, along with its other health, public health, social service, and community health partners, is committed to improving the health status and well-being of those living throughout its service area. BID-Milton's CHIP, summarized in the next section, includes many activities that will support and impact all residents in their efforts to live healthy, active, independent, and fulfilling lives. However, based on the assessment's quantitative and qualitative findings, including discussions with a broad range of community stakeholders, there was broad agreement that BID-Milton's CHIP should target certain demographic and socio-economic target populations that have complex needs, face barriers to care and service gaps, as well as other adverse social determinants of health that can put them at greater risk, limit their access to needed services, and that can often lead to disparities in health outcomes. More specifically, the assessment identified youth, adults with or at risk of physical or behavioral health condition, low income individuals and families, and older adults (especially frail or socially isolated adults) as primary target populations.

Community Health Priorities

The CHNA's approach and process provided ample opportunity for key stakeholders to vet the quantitative and qualitative data compiled during the assessment. In addition, interview and community/provider forum participants were asked what they perceived to be the leading community health priorities. Ultimately, there was little debate that the most significant health-related issue facing the communities fell into the following four priority areas: 1) Health risk factors, 2) Behavioral health (mental health and substance use), 3) Physical disease management and prevention, and 4) Healthy aging. A fifth area was identified – community benefits infrastructure – with the goal of this area to support implementation of efforts in the other three areas.

These health priorities have directed BID-Milton's community health improvement planning process, and have helped identify target populations most in need of programs and services. The priorities outlined below are designed to promote community-based wellness and disease prevention, and ensure ongoing self-management of chronic diseases and behavioral health disorders. The goals and activities drawn from these priorities will make extensive use of existing partnerships, resources and programs in order to make the largest possible health impact.

Figure 13 - Community Health Improvement Plan Framework



BID-Milton's Community Health Improvement Plan

Given the complex health issues in the community, BID-Milton has been strategic in identifying its priority areas in order to maximize the impact of its Community Benefits program and improve the overall health and wellness of the service area. Based on the data, BID-Milton has identified the following as the highest priority needs of the service area:

1. Health Risk Factors
2. Behavioral Health (mental health and substance use)
3. Physical disease management and prevention
4. Healthy Aging.

These health priorities have directed BID-Milton's community health improvement planning process, and have helped identify target populations most in need of programs and services. The priorities outlined below are designed to promote community-based wellness and disease prevention, and ensure ongoing self-management of chronic diseases and behavioral health disorders. The goals and activities drawn from these priorities will make extensive use of existing partnerships, resources and programs in order to make the largest possible health impact.

Priority Area 1: Health Risk Factors

There are a number of health awareness, education, prevention, and screening activities and campaigns initiatives that BID-Milton can continue and/or implement to improve the service area population's health by working on prevention efforts, including increasing access to healthy foods and opportunities for physical activity; reducing smoking rates, and continued education of mental health, cancer, and chronic disease prevention. Efforts need to be linguistically and culturally appropriate and understandable for those who have limited health literacy skills. The following goals and objectives focus on further enhancing the impact of these efforts.

Priority Area 1: Health Risk Factors			
Goal	**Target Population**	**Programmatic Objectives**	**Partners**
Goal 1: Raise awareness and educate public on mental health issues, cancer and chronic disease prevention	• Youth • Adults	• Educate on health risk factors and healthy behaviors	• Local senior centers • Medical Staff • South Shore Mental Health
Goal 2: Reduce tobacco use	• Adults	• Reduce number of current smokers	• Nicotine Anonymous
Goal 3: Increase physical activity	• Youth • Adults	• Increase number of children and adults with access to opportunities for physical activity	• Grant recipients (TBD)
Goal 4: Increase access to healthy food	• Youth • Adults	• Increase number of children and adults with access to opportunities to eat healthy	• Fresh Truck
Goal 5: Build community capacity to address chronic health needs	• Community	• Support community initiatives that are designed to prevent chronic disease; strengthen community partnerships	• Grant recipients (TBD)

Priority Area 2: Physical Disease Management and Prevention

There are a broad range of chronic and infectious diseases prevalent in BID-Milton's service area, including heart disease, diabetes, hypertension, and cancer. Although treating these illnesses requires a range of clinical interventions, there is a great deal of overlap with respect to the potential community interventions. Population-level responses to chronic and infectious illnesses all require community based education, screening, timely access to treatment and seamless coordination of follow-up services.

Public health officials, community based organizations and hospitals are already fully engaged on these issues and all have existing programs to address prevention, service coordination, improve follow-up care, and ensure that those with chronic and infectious conditions are engaged in the services they need. However, these efforts need to be enhanced and refined based on data from this assessment. Moving forward, it is critical that these issues be addressed and perfected so that the network of hospitals, healthcare providers, and community based organizations work collaboratively to address the increasing needs of this group. The following goals and objectives address the existing access care coordination issues, barriers, and targeted service gaps identified through the process.

Priority Area 2: Physical/Chronic Disease Management and Prevention			
Goal	**Target Population**	**Programmatic Objectives**	**Partners**
Goal 1: Improve chronic disease management	• Adults with chronic disease	• Reduce impact of chronic disease	• Town of Randolph
Goal 2: Continue chronic disease screenings	• Adults	• Increase number of adults screened for high blood pressure and blood sugar	• Medical Staff • Curry College
Goal 3:Continue cancer screenings	• Adults	• Increase number of adults screened for cancer	• Community health centers • Medical Staff
Goal 4: Provider Capacity	• Providers	• Increase number of providers able to support chronic disease prevention	• Curry College

Priority Area 3: Behavioral Health

The burden of mental illness and substance abuse is substantial. These issues impact all segments and age groups in the population. Hospitalization rates for substance abuse and mental health are higher in many of the towns when compared to the Commonwealth. Large portions of the population also struggle with alcohol abuse and binge drinking. Despite increased community awareness and sensitivity about mental illness and addiction, there is still a great deal of stigma related to these conditions and there is a general lack of appreciation for the fact that these issues are often rooted in genetics and physiology similar to other chronic diseases.

Priority Area 3: Behavioral Health			
Goal	**Target Population**	**Programmatic Objectives**	**Partners**
Goal 1: Increase awareness on behavioral health issues	• Youth • Adults	• Increase awareness of community members about mental health issues and how to help someone in need.	• South Shore Mental Health
Goal 2: Reduce burden of opioid use	• Adults and youth with behavioral health condition • Providers	• Increase capacity of providers to address opioid use	• Medical Staff

Priority Area 3: Behavioral Health			
Goal 3: Increase awareness of and assessment of hoarding	• Providers • Healthcare workers • Municipal workers	• Increase knowledgebase and referrals for assessment to appropriate agencies.	• Appropriate state agencies
Goal 4: Increase cultural competency	• Adults and youth with behavioral health condition	• Reduce ED/inpatient utilization for alcohol and substance use	• South Shore Mental Health
Goal 5: Increase crisis management within community and improve connections between regional providers	• Adults and youth with behavioral health condition • Service providers	• Increase safety of community members and increase access to care	• Integrated Care Learning Consortium Members

Priority Area 4: Healthy Aging

Older adults are much more likely to develop chronic illnesses and related disabilities such as heart disease, hypertension, and diabetes as well as congestive heart failure, depression, anxiety, Alzheimer's, Parkinson's disease, and dementia. The older you get the more likely it is that you have one or more chronic conditions: 80% of people 65 and older live with one or more chronic conditions[73].Many experience hospitalizations, nursing home admissions, and low-quality care. They also may lose the ability to live independently at home. BID-Milton has identified older adults as a target population and their objectives below are aimed at increasing quality of life for older adults.

Priority Area 4: Healthy Aging			
Goal	**Target Population**	**Programmatic Objectives**	**Partners**
Goal 1: Educate on falls prevention	• Older Adults	• Prevent falls in the community	• YMCA • Council on Aging • South Shore Elder Services
Goal 2: Reduce isolation of older adults	• Older Adults	• Decrease isolation of older adults • Preventing unnecessary utilization due lack of access to services	• SNFs • Council of Aging
Goal 3: Support older adults and caregivers to age in place	• Older Adults	• Increase older adult capacity to continue aging at home	• South Shore Elder Services
Goal 4: Increase access to palliative care	• Older Adults	• Educate individuals on palliative care options available	• VNA Care • APG • Hospice

[73] Gerteis J, Izrael D, Deitz D, LeRoy L, Ricciardi R, Miller T, Basu J. Multiple Chronic Conditions Chartbook. AHRQ Publications No, Q14-0038. Rockville, MD: Agency for Healthcare Research and Quality. April 2014.

Appendix A. List of Key Informant Interviews

Community Interviewee	Affiliation
Mary Ann Sullivan	Milton COA
Sandra Lindsey	South Shore Elder Services
Caroline Kinsella	Milton Public Health
Ruth Jones	Quincy Public Health
Helena Skinner	Quincy Schools
Richard Doane	Interfaith Social Services, Quincy
Karen Peterson	South Shore YMCA
Beth Ann Strollo	Quincy CAP
Susan Dolan	Milton Early Childhood Alliance
Cynthia Sierra	Manet, Quincy
Sherry Ellis	South Shore Mental Health
Toni Eaton	Old Colony Hospice
Vicki McCarthy	Youth Counselor, town of Milton

Internal Interviewee	Role at BID-Milton
Marian Girouard Spino	Case Management
Lynn Cronin	VP of Nursing, CNO
Dr. Jon Anderson	Emergency Department
Phillipa Breslin	ED Nurse Manager
Rebecca Blair	Patient Experience

Appendix B. List of Community and Provider Forum Participants

Milton PFAC Attendees	Affiliation
Rebecca Blair	BID-Milton
Jeanntte Currie	BID-Milton
Anita McNulty	Resident
Vicky McCarthy	PFAC co-chair
Charlene Neu	PFAC co-chair
Maureen Keenan	Resident
Myrna Melchore-Scott	Resident
Jeff Stone	Resident
Maureen Burns-Johnson	BID-Milton
Jean Vaughn	PFAC coordinator

North Quincy Library Attendees	Affiliation
Eric Tiberi	South Cove Community Health Center
Wendy Lee	South Cove Manor
Eugene Welch	South Cove Community Health Center
Ruth Jones	Quincy Public Health Nurse
Nina Liang	Resident, Councilwoman
Helen Chu	South Cove Manor,
Anita Wall	Quincy Resident
Ameila Wall	Quincy Resident

Board of Overseers Meeting Attendees	Affiliation
Stephanie Truesdell	BID-Milton
Miles Travers	Resident
Carolyn Savage	Resident
Shirley DeLibero	Resident
Carol Fallon	Resident, Board Member
Lucinda Larson	Resident, Board of Overseers Member
Nancy Edwards	Volunteer
George Geery	Resident
Ellen Kaye	Volunteer
Pam Birkenfeld	Board of Overseers Member
Maria Marinconan	Resident