

2016

Beverly Hospital & Addison Gilbert Hospital
Community Health Needs Assessment



Produced by John Snow Inc.



Executive Summary

Purpose and Background

Beverly Hospital (BH) is a 227-bed Massachusetts medical center and acute care facility that serves the health care needs of residents of Beverly and its surrounding communities. Addison Gilbert Hospital (AGH) is a full-service, 58-bed medical/surgical acute care facility that was founded in 1889. AGH provides state-of-the-art inpatient and outpatient care to residents of the Cape Ann community. Together, the two hospitals (BH-AGH) provide a comprehensive range of outpatient services, such as cardiology, oncology, radiology, geriatrics, women's health, rehabilitation and cardiopulmonary services. Inpatient care is available in the areas of critical care, general medicine, surgery, obstetrics, newborn special care, pediatrics and psychiatry. Twenty-four-hour emergency services are easily accessible at both hospitals.

This Community Health Needs Assessment (CHNA) report, along with the associated Community Health Improvement Plan (CHIP), is the culmination of nearly a year of work. BH-AGH conducted the assessment to better understand and address the health-related needs of those living in its service area, with an emphasis on those who are most vulnerable. This project fulfills Massachusetts Attorney General's Office and federal Internal Revenue Service (IRS) requirements mandating that BH-AGH assess community health needs, engage the community and identify priority health issues every three years. The Commonwealth and federal requirements further direct BH-AGH to create a Community Health Improvement Plan that will guide how BH-AGH, in collaboration with the community, its network of health and social services providers, and the local health departments, will address the identified needs and priorities.

With respect to community benefits, BH-AGH works with partners and collaborators to increase access to hospital emergency and inpatient services, specialty care services, primary care, behavioral health services, and other needed community services. In addition, BH-AGH supports or implements community health programs that promote health education and the reduction of health care risk factors (e.g., poor nutrition, limitations on physical activity, tobacco use, alcohol abuse), as well as ensure that those in its service area are provided chronic disease management services. BH-AGH also works with partners to reduce the burden of mental illness and substance use. This work is done in partnership with an extensive array of health, social services, public health and other community-based organizations throughout BH-AGH's service area.

BH-AGH supports activities that meet the needs of all demographic and socio-economic segments of the population, but focuses particular efforts on those who face disparities due to socio-economic status, race/ethnicity, age and other factors.

Approach and Methods

The CHNA was conducted in three phases, which allowed BH-AGH to (1) compile an extensive amount of quantitative and qualitative data, (2) engage and involve key stakeholders, BH-AGH 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 benefits requirements. Data sources included a broad array of publicly available secondary data, key informant interviews, community forums, and a random household community health survey that captured information from hundreds of households in BH-AGH's primary service area.

range of other ways that populations characterize themselves to ensure that all residents have the opportunity to live healthy, happy and fulfilling lives. However, in accordance with federal statute and Commonwealth guidelines, BH-AGH's community benefits activities are focused particularly on those population segments identified by the needs assessment as being most at risk: low-income individuals and families, racial/ethnic minorities, youth and adolescents, older adults, and those who are geographically or otherwise isolated. The body of evidence and academic literature have shown that these populations are more likely to face disparities with respect to social determinants of health, access to care and health outcomes. A map showing the hospital locations and the specific cities and towns that are part of BH-AGH's community benefits service area is included above.

Key Health-Related Findings

Following are the key health-related findings drawn from the assessment's interviews and community forums as well as a review of the existing quantitative data.

- **Social Determinants of Health Have a Major Impact on Many Segments of the Service Area's Population.** Relative to the Commonwealth overall, most of the communities in BH-AGH's service area are affluent and fare well with respect to the leading health indicators. However, there are segments of the population that struggle to access needed health services and experience disparities in health outcomes. One of the dominant themes from the assessment's key informant interviews and community forums was the impact that the underlying social determinants of health have on the service area, particularly on low-income, racially/ethnically diverse and older adult cohorts. Social determinants such as poverty, lack of employment opportunities, limited transportation, limited health literacy, linguistic barriers, lack of social support and domestic violence limit many people's ability to care for their own and their family's health.
 - **Low Income.** The towns in BH-AGH's service area with the highest proportions of low-income individuals were Gloucester and Beverly. In Gloucester, 10.2% of the population was living in poverty and 24.5% were living in low-income households earning less than 200% of the federal poverty level. In Beverly, 8.6% were living in poverty, and 19.6% were living in low-income households. In the Commonwealth, 8.1% of the population was living in poverty, and 24.8% was living in low-income households.¹
 - **Economic Challenges.** More than 35% of those living in rental units in the cities/towns of Beverly, Essex, Gloucester, Hamilton, Ipswich, Manchester by the Sea, Peabody and Rockport are considered to be "house poor," meaning they pay 35% or more of their income on housing.²
 - **Older Adults.** Six of the 13 cities/towns that are included in BH-AGH's assessment had a higher percentage of older adults (65+) compared to the Commonwealth overall. These towns included Danvers (17.6%), Gloucester (19.8%), Ipswich (19.7%), Manchester by

¹ 2009-2013 US Census Bureau American Community Survey (ACS)

² 2009-2013 US Census Bureau American Community Survey (ACS). "House poor" describes a situation in which a person spends a large proportion of his or her total income on home ownership, including rent payments, mortgage payments, property taxes, maintenance and utilities.

the Sea (20.4%), Peabody (20.3%) and Rockport (26.1%), which compare to the Commonwealth figure at 14.1%.³

- **Foreign Born.** In Essex County, 14.9% of residents reported as being foreign born, compared to 15% for the Commonwealth overall. The median among the 13 municipalities was approximately 5%. Peabody had the highest percentage of foreign born at 15%. Towns with the largest percentages of foreign born in the service area were Peabody (15%) and Middleton (10%). These towns also had the highest percentages of residents speaking languages other than English at home, with Peabody reporting 21% and Middleton reporting 17%.⁴
- **Limited Access to Primary Care, Oral Health and Behavioral Health Services for Low-Income, Medicaid-Insured, Uninsured and Other Vulnerable Population Segments.** Massachusetts has one of the highest rates of health insurance coverage and one of the strongest, most robust health service systems in the nation, yet there are still pockets of low-income, Medicaid-insured, uninsured and underinsured residents who have limited access to needed services and/or are not properly engaged in essential medical, oral and behavioral health services. Behavioral health and oral health services are a particular concern. As will be discussed below, these populations are, in turn, more likely to use the emergency room, more likely to have health risk factors such as obesity, poor fitness and risky alcohol use, and more likely to have diabetes, hypertension and asthma.
 - **Low-Income Segments Most at Risk.** Key informants and community forum participants stressed the fact that despite the relative affluence of the area, there were pockets of service area residents who struggled with poor health outcomes and faced significant barriers to access.⁵ These populations were more likely to be low income, older adult and foreign born.
 - **High Rate of Uninsured Residents in Low-Income Populations.** Low-income residents are much more likely to be uninsured than residents in middle- and upper-income brackets. According to the 2015 BH-AGH Community Health Survey, 3.6% of all respondents from the BH-AGH service area were currently uninsured, compared to 8.1% of low-income respondents.⁶
 - **Lack of Access to Primary Care.** According to the 2015 BH-AGH Community Health Survey, 79% of all respondents from BH-AGH's service area had seen a primary care provider in the preceding 12 months, compared to only 66% of low-income respondents.⁷
 - **Higher Emergency Department Utilization.** According to the 2015 BH-AGH Community Health Survey, 22.1% of all respondents from BH-AGH's service area had at least one

³ 2009-2013 US Census Bureau American Community Survey (ACS)

⁴ 2009-2013 US Census Bureau American Community Survey (ACS)

⁵ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

⁶ In order to ensure an appropriate, statistically sound sample size, all low-income respondents from each of the surveys conducted by Lahey Health System's three hospital partners were aggregated.

⁷ 2015 BH-AGH Community Health Survey

hospital emergency department visit in the preceding 12 months, compared to 29.1% of low-income respondents.⁸

- **Lack of Access Due to Cost of Care.** Three in 10 (30.1%) of those living at 138% of the federal poverty level or below reported not getting needed dental care due to cost, and 1 in 5 (19.3%) were not able to fill a needed drug prescription due to cost.⁹
- **High Rates of the Leading Health Risk Factors.** Another significant finding drawn from the assessment's quantitative data was the fact that many cities and towns in BH-AGH's service area have rates of chronic physical and behavioral health conditions that are higher than Commonwealth averages. In some people, these conditions have underlying genetic and biological causes that are difficult to counter. However, for most, these conditions are considered preventable or at least manageable. Addressing the leading health risk factors (e.g., obesity, fitness, nutrition, tobacco use and alcohol abuse) is critical to chronic disease prevention and management efforts. It should be noted that most cities and towns in BH-AGH's service area fare well as a whole compared with Commonwealth averages on these risk factors. However, there are cities/towns whose rates are not as favorable and segments of populations in all municipalities that do not fare as well and have major risk factors. As stated above, those at risk are more likely to be low-income, older adult or foreign born.
 - **Overweight/Obese.** Based on responses from the BH-AGH Community Health Survey, the percentage of adult respondents (18+) who reported as either obese or overweight (66.8%) was higher than the percentage for the Commonwealth (58%). However, adults in households earning below 200% of the federal poverty level were even more likely to be overweight or obese (72%).¹⁰
 - **Cigarette Smoking.** According to the 2015 BH-AGH Community Health Survey, 11% of adult respondents (18+) reported as current cigarette smokers, compared to 22.3% of low-income respondents. Commonwealth-wide, 16.6% of adults reported as current cigarette smokers.¹¹
 - **Alcohol Use.** According to the 2015 BH-AGH Community Health Survey, 12% of adult respondents reported as heavy drinkers, defined as more than 60 drinks a month for men and 30 drinks a month for women, compared to only 8% of adults in the Commonwealth overall. Similarly, 30% of respondents reported "binge drinking" — more than five alcoholic drinks at any one sitting for men and more than four drinks for women — compared to only 19.4% for Commonwealth residents overall.¹²
- **High Rates of Substance Use and Mental Health Issues.** One of the leading findings from the assessment was the profound impact that substance use and mental health are having on individuals, families and communities throughout BH-AGH's service area. Depression/anxiety, suicide, alcohol abuse, opioid and prescription drug abuse, and marijuana use among youths are major health issues. Numerous residents and area service providers spoke passionately during

⁸ 2015 BH-AGH Community Health Survey

⁹ Center for Health Information and Analysis. Findings from the 2014 Massachusetts Health Insurance Survey. May 2015. Accessed at: <http://www.chiamass.gov/assets/docs/r/pubs/15/MHIS-Report.pdf>

¹⁰ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

¹¹ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

¹² 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

interviews and community forums about the tremendous impact that these issues have on many individuals and families in the service area. Opioid abuse was a particular concern for residents and service providers in BH-AGH's service area, and there were calls for greater outreach, education, screened, and treatment services for all segments of the population by age and income.¹³

- **Substance Use Deaths.** Essex County experienced a more than 200% increase in opioid abuse overdose deaths between 2001 and 2014. Specifically, in 2001, 58 deaths were reported due to opioid abuse in Essex County. By 2013 this number had risen to 116, and between 2013 and 2014 the figure rose startlingly to 190 deaths.¹⁴
- **Substance Use-Related Hospitalizations.** Beverly (509), Essex (474) and Gloucester (550) all had rates of alcohol or other substance use-related hospitalizations per 100,000 population that were significantly higher than the rates for Essex County (296) and the Commonwealth overall (338).¹⁵
- **Substance Use-Related ED Visits.** Beverly (1,132), Essex (1,035) and Gloucester (1,694) all had rates of alcohol/substance use-related emergency department discharges per 100,000 population that were significantly higher than the Commonwealth rate (859).¹⁶
- **Opioid-Related ED Visits.** Gloucester (655), Peabody (479) and Topsfield (368) all had rates of opioid-related emergency department discharges per 100,000 population that were significantly higher than the Commonwealth overall (260).¹⁷
- **Alcohol Use.** According to the BH-AGH Community Health Survey, 12% of adults reported as heavy drinkers, compared to only 6.2% for low-income respondents and only 8% for the Commonwealth overall.¹⁸
- **Mental Health Hospitalizations.** Beverly (1,572), Danvers (1,128), Essex (1,122), Gloucester (1,391) and Peabody (931) all had hospitalization rates per 100,000 population for mental health disorders that were significantly higher than the rates for Essex County (1,031) and the Commonwealth overall (838).¹⁹
- **Mental Health-Related ED Visits.** Beverly (8,653), Danvers (6,353), Gloucester (8,827), Peabody (5,795) and Rockport (5,339) all had rates of emergency department utilization per 100,000 population mental health disorders that were higher than the rates for Essex County (5,709) and the Commonwealth overall (4,990).²⁰
- **Mental Health.** According to the 2015 BH-AGH Community Health Survey, approximately 7% of adult respondents (18+) reported as being in poor mental or emotional health more than 15 days per month, compared to approximately 10% of low-income

¹³ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

¹⁴ Massachusetts Department of Public Health. Data Brief: Fatal Opioid-related Overdoses among Massachusetts Residents. 2015.

¹⁵ 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS)

¹⁶ 2008-2012 Massachusetts Hospital Emergency Visit Discharges

¹⁷ 2008-2012 Massachusetts Hospital Emergency Visit Discharges

¹⁸ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

¹⁹ 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS)

²⁰ 2008-2012 Massachusetts Hospital Emergency Visit Discharges

individuals. Commonwealth-wide, 11.2% of adults reported as being consistently in poor mental or emotional health.²¹

- **High Rates of Chronic and Acute Physical Health Conditions, Particularly for Low-Income Populations (e.g., heart disease, hypertension, cancer and asthma).** The assessment's quantitative data shows that BH-AGH's service area fares better than the Commonwealth overall with respect to chronic disease rates, but there are a number of towns that fare less favorably, and the rates for low-income and older adult populations are very high. It should be noted that even for those communities that do not have rates that are statistically higher than the Commonwealth's, these conditions are still the leading causes of premature death.
 - **Diabetes.** Among 2015 BH-AGH Community Health Survey respondents, 8.8% reported that they had ever been told they had diabetes, compared to 8.5% of adults 18+ in the Commonwealth overall. However, among low-income respondents, 12.1% reported that they had been told they had diabetes.²²
 - **Hypertension.** Twenty-eight percent of respondents from the 2015 BH-AGH Community Health Survey reported ever being told they had hypertension, compared to 29% for the Commonwealth overall. Among low-income respondents to the Community Health Survey, 32% reported that they had been told they had hypertension.²³
 - **Asthma.** Twenty percent of 2015 BH-AGH Community Health Survey respondents reported being told they had asthma, compared to 17% for the Commonwealth overall. The percentage for low-income respondents in this case was actually lower at 13%; however, low-income respondents were considerably more likely to be seen in the hospital emergency department for urgent care. For the entire survey sample, 4% of asthmatics had an emergency department visit, compared to 19% of low-income respondents.²⁴
 - **Chronic Disease "Hotspots."** Residents of Beverly, Gloucester, Danvers and Peabody were more likely than those in other towns in BH-AGH's service area to be hospitalized for chronic conditions such as diabetes, hypertension, cardiovascular disease, cerebrovascular disease, asthma and COPD. Each of these cities/towns had rates of hospitalization or death that were statistically higher than the Commonwealth for at least four of these six conditions. Beverly and Peabody had higher rates in five of the six conditions.²⁵
- **High Rates of Cancer, Particularly for Low-Income, Racially/Ethnically Diverse and Otherwise At-risk Population Segments.** Many of the communities that are part of BH-AGH's service area have high cancer incidence, hospitalization or mortality rates. This is particularly true for certain cancers in specific communities. Myriad factors are associated with cancer, and many of them are very difficult to assess completely or to address. However, at the root of addressing cancer

²¹ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

²² 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

²³ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

²⁴ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

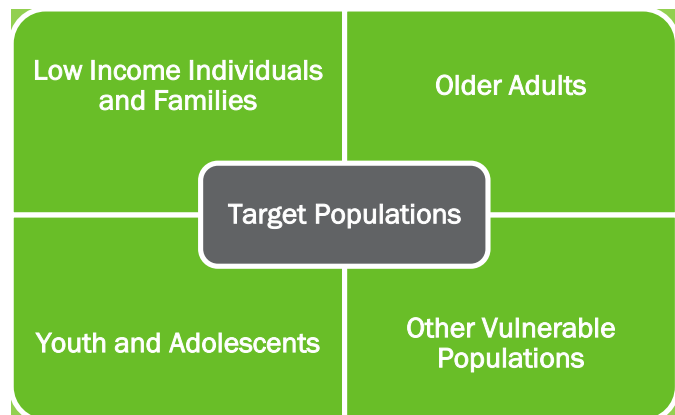
²⁵ 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS)

and high mortality are screening, early detection, peer support and access to timely and supportive quality treatment.

- **Cancer.** Eight of the 13 towns that are part of BH-AGH's primary service area (Boxford, Danvers, Gloucester, Hamilton, Ipswich, Manchester by the Sea, Middleton and Peabody) reported higher rates of cancer incidence (all cancer types) than the Commonwealth. The highest cancer incidence rate per 100,000 population was in Middleton (647), followed by Boxford (600), Manchester by the Sea (595), Hamilton (594), Peabody (575), Danvers (572), Ipswich (572) and Gloucester (564). These rates compare to 509 for the Commonwealth and 531 for Essex County.²⁶
- **Cancer.** Of all respondents to BH-AGH's Community Health Survey, 15.4% reported that they had ever been told they had cancer, compared to 11.1% of residents in the Commonwealth; 17% of low-income respondents to the survey had ever been told they had cancer.²⁷
- **Most Common Cancer.** Lung cancer incidence rates ranged from as low as 44 per 100,000 population in Boxford to 90 in Gloucester. The cities of Gloucester (90) and Peabody (87) both had incidence rates that were higher than the Commonwealth rate (70) and the Essex County rate (72). Boxford (233), Danvers (194) and Topsfield (240) all had prostate cancer incidence rates per 100,000 population that were higher than the Commonwealth rate (157) and the Essex County rate (167).²⁸
- **Mammography Screening.** According to the BH-AGH Community Health Survey, the percentage of women 40+ who have had a mammography screening in the past two years was slightly higher in BH-AGH's service area (88.4%) than in the Commonwealth overall (85%).²⁹

Priority Target Populations

BH-AGH focuses its activities to meet the needs of all segments of the population with respect to age, race, ethnicity, income and gender identity to ensure that all residents have the opportunity to live healthy lives. However, based on the assessment's quantitative and qualitative findings, there was broad agreement that BH-AGH's Community Health Improvement Plan should target low-income populations (e.g., low-income individuals/families, older adults on fixed incomes, homeless), older adult populations (e.g., frail, isolated older adults), youth/adolescents (e.g., 13-18, those in middle school and high school), and other vulnerable populations (e.g., diverse racial/ethnic minorities and



²⁶ 2007-2011 Massachusetts Cancer Registry

²⁷ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

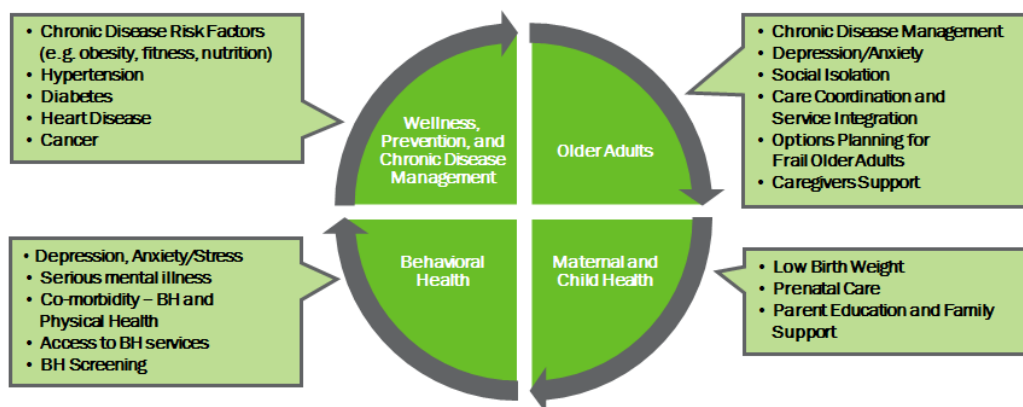
²⁸ 2007-2011 Massachusetts Cancer Registry

²⁹ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

linguistically isolated populations) that are more likely than other cohorts to face disparities in access and health outcomes.

Community Health Priorities

BH-AGH’s CHNA approach and process provided ample opportunity to vet the quantitative and qualitative data compiled during the assessment. BH-AGH has framed the community health needs in three priority areas, which together encompass the broad range of health issues and social determinants of health facing BH-AGH’s service area. These four areas are (1) Wellness, Prevention and Chronic Disease Management; (2) Elder Health; (3) Behavioral Health; and (4) Maternal and Child Health. BH-AGH already has a robust Community Health Improvement Plan that has been addressing all of the issues identified, but this CHNA has provided new guidance and invaluable insight into quantitative trends and community perceptions that can be used to inform and refine BH-AGH’s efforts. The following are the core elements of BH-AGH’s updated Community Health Improvement Plan.



Summary Community Health Improvement Plan (CHIP)

Priority Area 1: Wellness, Prevention and Chronic Disease Management
<p>Goal 1: Promote Wellness, Behavior Change and Engagement in Appropriate Care (physical, mental, emotional and behavioral health)</p> <p>Goal 2: Increase Physical Activity and Healthy Eating</p> <p>Goal 3: Identify Those with Chronic Conditions or at Risk; Screen and Refer for Counseling/Treatment</p> <p>Goal 4: Enhance Care Coordination, Counseling and Referral Services During/After Hospital Discharge</p>
Priority Area 2: Elder Health
<p>Goal 1: Promote General Health and Wellness</p> <p>Goal 2: Promote Healthy Eating and Food Security</p> <p>Goal 3: Improve Access to Care</p>

Goal 4: Enhance Access to Health and Wellness Services Through Improved Transportation

Goal 5: Improve Chronic Care Management

Goal 6: Reduce Falls

Goal 7: Enhance Care Coordination, Counseling and Referral Services During/After Hospital Discharge

Goal 8: Enhance Caregiver Support and Reduce Family/Caregiver Stress

Goal 9: Decrease Depression and Social Isolation

Priority Area 3: Behavioral Health (Mental Health and Substance Use)

Goal 1: Promote Outreach, Education, Screening and Treatment for Those with Mental Health and Substance Use Issues in Clinical and Community-Based Settings

Goal 2: Increase Access to Mental Health and Substance Use (MH/SA) Services

Goal 3: Improve Integration of MH/SA and Primary Care Medical Services

Goal 4: Increase Awareness and Screening for Domestic Violence (DV) Throughout BH-AGH

Priority Area 4: Maternal and Child Health

Goal 1: Reduce the Number of Babies Born at Low Birth Weight (Particularly Those Born Addicted)

Goal 2: Increase Parental Support for At-risk Mothers and Fathers

Acknowledgements

This community health needs assessment (CHNA) was developed through a collaborative assessment process with the three hospital systems that are part of Lahey Health – Northeast Health Corporation (Beverly Hospital and Addison Gilbert Hospital), Winchester Hospital, and Lahey Hospital Medical Center.

Beverly Hospital and Addison Gilbert Hospital would like to acknowledge the great work, support and commitment of the Lahey Health Community Health Needs Assessment (CHNA) Advisory Committee, with representation from each of Lahey Health’s hospitals, including BH-AGH. The Advisory Committee met periodically throughout the assessment in order to keep abreast of the assessment’s progress and to provide important feedback on the process.

Since the beginning of the assessment in April 2015, dozens of individuals have participated in this process through interviews and community forums. These participants included representatives from health and social services organizations, public health departments, community advocacy groups, community businesses and the community at large. The information gathered as part of these efforts allowed BH-AGH to engage residents in discussions on community health status, capacity and overall community need, and to gain a better understanding of barriers to care, service gaps and the underlying determinants of health. In addition, hundreds of community members from BH-AGH’s primary service area completed lengthy community health surveys. The information gathered through this survey has been critical to assessing need, and will be important as BH-AGH moves forward to target its community benefits strategies.

BH-AGH would like to thank everyone who 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, surveys and community forums to ensure the development of a comprehensive, thoughtful and quality assessment. While it was not possible for this assessment to involve all of the community’s stakeholders, care was taken to ensure that a representative sample of key stakeholders was engaged. Those involved showed a strong commitment to strengthening the region’s 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 all who were involved. Please accept our heartfelt appreciation and thanks for your participation in this assessment.

John Snow, Inc. (JSI)

John Snow, Inc., and our nonprofit JSI Research & Training Institute, Inc., form 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.

For over 35 years, Boston-based JSI and our affiliates have provided high-quality technical and managerial assistance to public health programs worldwide. JSI has implemented projects in 106 countries, and currently operates from eight U.S. and 81 international offices, with more than 500 U.S.-based professionals and 1,600 host country staff.

JSI is deeply committed to improving the health of individuals and communities worldwide. We work in partnership with governments, organizations and host-country experts to improve the quality, access and equity of health systems worldwide. We collaborate with government agencies, the private sector, and local nonprofit and civil society organizations to achieve change in communities and health systems.

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Introduction

Tax-exempt hospitals like BH-AGH play essential roles in the delivery of health care services and, as a result, are afforded a range of benefits, including state and federal tax-exempt status. With this status come certain fiduciary and public service obligations. The primary obligation of tax-exempt hospitals is that they provide charity care to all qualifying individuals. Tax-exempt hospitals are also expected to assess health needs within their community, and to support the implementation of community-based programs geared toward improving health status and strengthening the health care systems in which they operate. Specifically, the IRS requires tax-exempt hospitals to conduct a Community Health Needs Assessment (CHNA) and to develop an associated Community Health Improvement Plan (CHIP) every three years. It is expected that these activities be done in close collaboration with the area’s health and social services providers, local public health departments, key stakeholders, and the public at large.

Figure 1: Commonwealth and Federal Community Benefits Requirements

<p>Massachusetts Voluntary Guidelines</p> <p>Hospitals are required to provide charity care as a condition of Massachusetts licensure – maintaining or increasing the percentage of patient revenues allocated to free care</p> <p>The Attorney General's Office has developed a set of Voluntary Guidelines for non-profit hospitals and health plans. Specifically, non-profit hospitals are expected to:</p> <ul style="list-style-type: none"> • Affirm and publicize a community benefits mission statement • Demonstrate institutional support / involvement • Demonstrate involvement of the community • Involve local public health departments • Conduct a Community Health Needs Assessment • Identify target populations, specific programs that meet identified need, and measurable goals • Submit a community benefits report to the AG's office 	<p>Federal IRS Requirements</p> <p>The Patient Protection and Affordable Care Act (PPACA) established requirements for non-profit hospitals under § 501(r) of the Internal Revenue Code. The federal code requires that tax-exempt hospitals:</p> <p>Conduct a Community health needs assessment</p> <ul style="list-style-type: none"> • Engage community stakeholders including local health departments • Prioritize leading health issues • Conduct evidence-based planning activities addressing key health issues • Implement a community health improvement strategy <p>Community Benefits expenditure categories include:</p> <ul style="list-style-type: none"> • Uncompensated Care • Medical, Education & Training • Medical Research • Community Health Programming
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BH-AGH recognizes the merit and importance of these activities, and, as such, its efforts over the past year extend far beyond meeting Commonwealth expectations and federal regulatory requirements. A robust, comprehensive and objective assessment of community health needs and service capacity, conducted collaboratively with key stakeholders and the community at large, allows BH-AGH not only to fulfill its public requirements, but also to explore ways to effectively leverage its community benefits activities and resources to align with the organization’s broader business and strategic objectives. The CHNA process facilitates community partnerships and fosters community engagement. These efforts promote the development of more targeted, integrated and sustainable community benefits activities.

This report, along with the associated CHIP, is the culmination of more than a year of work. It summarizes the findings from BH-AGH’s CHNA and provides the core elements of BH-AGH’s CHIP, including the major goals that will guide the plan. BH-AGH’s Community Relations Department, with

the full support of BH-AGH’s Board of Directors, clinicians and administrators, looks forward to working with community partners, local health departments and community residents to address the issues that arose from the CHNA and to implement the CHIP.

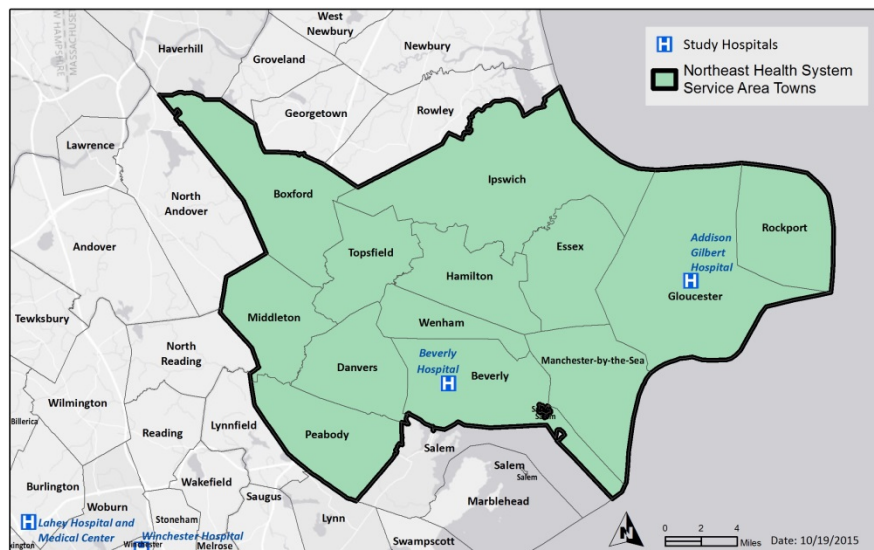
Included below are further details regarding BH-AGH’s service area and target population, as well as detailed descriptions of how the CHNA was completed and the CHIP developed.

Overview of Community Benefits Services Area and Target Population

Beverly Hospital (BH) is a 227-bed Massachusetts medical center and acute care facility that serves the health care needs of residents of Beverly and its surrounding communities. Addison Gilbert Hospital (AGH) is a full-service, 58-bed medical/surgical acute care facility that was founded in 1889. AGH provides state-of-the-art inpatient and outpatient care to residents of the Cape Ann community. Together, the two hospitals (BH-AGH) provide a comprehensive range of outpatient services, such as cardiology, oncology, radiology, geriatrics, women’s health, rehabilitation and cardiopulmonary services. Inpatient care is available in the areas of critical care, general medicine, surgery, obstetrics, newborn special care, pediatrics and psychiatry. Twenty-four-hour emergency services are easily accessible at both hospitals.

BH-AGH serves individuals and families throughout the northeast quadrant of Massachusetts and even draws patients from southern New Hampshire. With respect to community benefits, BH-AGH focuses its efforts more narrowly to target the communities in its primary, local service area. BH-AGH’s community benefits investments are focused on expanding access, addressing barriers to care and improving the health status of residents living in 13 municipalities located in Essex County.

Figure 2: Beverly and Addison Gilbert Hospitals Service Area



BH-AGH’s community benefits service area encompasses Beverly, Boxford, Danvers, Essex, Gloucester, Hamilton, Ipswich, Manchester by the Sea, Middleton, Peabody, Rockport, Topsfield and Wenham.

Demographically and socio-economically, BH-AGH focuses its community benefits activities on meeting 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 populations are characterized, to ensure that all residents have the opportunity to live healthy, happy and fulfilling lives. However, BH-AGH’s community benefits activities are focused particularly on low-income individuals and families, racial/ethnic minorities, older adults and those who are geographically or otherwise isolated. The body of evidence and academic literature have shown that these populations

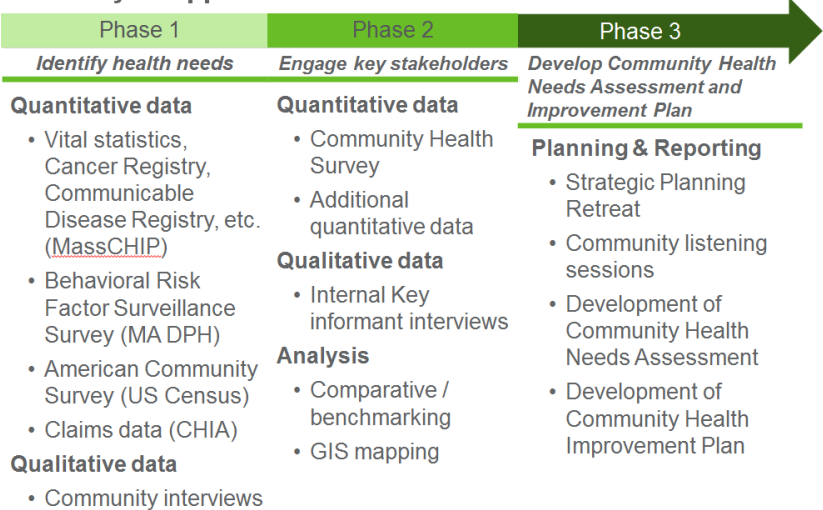
are more likely to face disparities with respect to social determinants of health, access to care and health outcomes. A map showing the hospital locations and the specific cities and towns that are part of BH-AGH’s community benefits service area is included above in Figure 2.

Approach and Methods

The CHNA was conducted in three phases. Phase I involved a rigorous and comprehensive review of existing quantitative data and qualitative interviews with key stakeholders to characterize community

Figure 3: CHNA Approach and Methods

Summary of Approach



need. Phase II involved a more targeted assessment of need and broader community engagement activities that included additional interviews and community listening sessions with health care, social services and public health service providers, as well as forums that included community residents at large. A major component of Phase II activities was a comprehensive community health survey that collected information directly from community residents through a random household

mail survey. Finally, Phase III included a series of strategic planning and reporting activities that involved a broad range of internal and external stakeholders. This phase also included a range of presentations whereby BH-AGH communicated the results of the CHNA and outlined the core elements of its current and revised CHIP. Figure 3 provides a visual depiction of the approach and key components.

Characterize Population and Community Need

In Phases I and II, the JSI Project Team sought to gain an understanding of health-related characteristics of the region’s population with respect to its 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 using trend data and information from previous assessments.

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. The primary source of secondary, epidemiologic data was the Massachusetts Community Health Information Profile (MassCHIP) data system.³⁰ Tests of significance were performed, and statistically significant differences between values are noted when

³⁰ Massachusetts Community Health Information Profile (MassCHIP) system. <http://www.mass.gov/eohhs/researcher/community-health/masschip/>

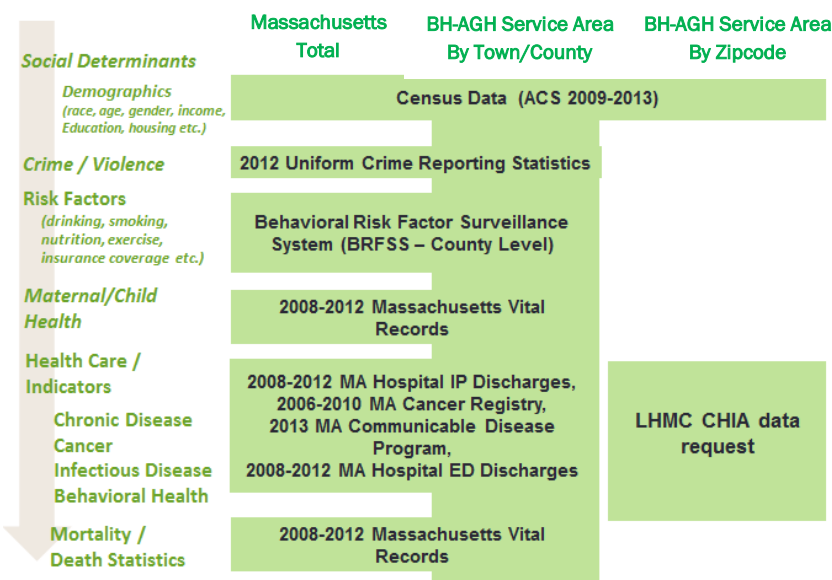
applicable. More specifically, data from the MassCHIP resource is typically provided along with the 95% confidence interval for any given statistic. A confidence interval measures the probability that a population parameter will fall between two set values. Throughout our assessment, statistical significance is defined as two values with non-overlapping 95% confidence intervals.

JSI produced GIS maps that facilitated analysis and helped the Project Team visually present the data. The list of secondary data sources included:

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

Random household survey. To obtain targeted, direct quantitative data from residents of BH-AGH’s service area, JSI conducted a random household mailing survey that asked over 100 questions on residents’ health, well-being and perception of wellness in the community. A randomly generated sample of approximately 1,500 households was drawn from the service area. Selected households received prenotification letters seven to 10 days in advance of receiving surveys. Respondents could

Figure 4: Data Sources by Level of Geography



request a Spanish version of the survey to be mailed by calling an 800 number. Reminder letters and additional survey packets were sent out in two-week intervals, and an online version of the survey was provided to nonrespondents after eight weeks. In all, 1,137 community residents responded to the survey across Lahey Health System’s entire service area; approximately 400 of these respondents were drawn from the 13

cities/towns in BH-AGH’s primary community benefits service area. A more detailed description of the survey approach and methods is included in the report’s appendices.

Key informant interviews with stakeholders. JSI conducted approximately 20 stakeholder interviews in the hospital’s service area. Interviewees included staff at each participating hospital, 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, causes of mortality/morbidity, barriers to care, underlying determinants of health and service gaps that could not be captured through quantitative data. The goals of these interviews were (1) to understand what health issues service providers and policymakers perceived to be most critical and (2) to develop an inventory of resources available in the region. Interview notes were reviewed and extracted into a Google spreadsheet. A list of the interviewees is included in the report’s appendices.

Capture Community Input

JSI conducted a series of community and provider forums in the hospital’s service area to gather community input. During the community forums, JSI discussed findings from the assessment and posed a range of questions that solicited input on community needs, perceptions and attitudes, including: (1) Does the data reflect what you see as the major needs and health issues in your community? Are the identified gaps the right ones? What segments of the population are most at risk? What are the underlying social determinants of health status? (2) What strategies would be most effective for improving health status and outcomes in these areas? The provider forums captured similar information, but more time was dedicated to discussing service gaps and strategies for improving health status and outcomes. The community and provider forums and their locations are listed in Figure 5.

Figure 5: Community and Provider Forums

Date	Event	Audience
Nov 12, 2016	BH-AGH Patient/Family Advisory Committee	Community/Patients/ & BH-AGH Staff
Dec 9 , 2016	BH-AGH Physician Leadership Committee	BH-AGH Clinicians/ Staff
Jan 11, 2016	Beverly Community Forum	Community
Jan 20, 2016	Gloucester Community Forum	Community
Jan 26, 2016	Peabody Community Forum	Community

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, evidence-based interventions that the hospitals and other key providers believe will address the identified community health priorities. One of the major goals of this phase was to develop a community benefits strategic framework to clarify community health priorities and identify the range of health issues and subcomponents within each priority area. Drawing on the information gathered in Phases I and II, JSI presented CHNA findings, reviewed the breadth of BH-AGH’s current community benefits programming, and explored how BH-AGH could refine or augment what it is currently doing to better address community need. These strategic planning activities involved BH-AGH’s and Lahey Health’s

clinical and administrative leadership, the BH-AGH Board of Directors, community service providers, local public health officials, and other community leaders.

Data Limitations

Assessment activities of this nature face limitations with respect to both quantitative and qualitative data collection. With respect to the quantitative data compiled for this project, the most significant limitation was the availability of timely data. Relative to most states and commonwealths throughout the United States, Massachusetts does an exemplary job of making comprehensive data available at the Commonwealth, county and municipal levels. This data is made available through the Massachusetts Community Health Information Profile (MassCHIP) data system,³¹ which is an online, internet-based resource provided by the Massachusetts Department of Public Health (MDPH).³² MassCHIP makes a broad range of health-related data available to health and social services 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 available demographic, socio-economic and epidemiologic data was more than adequate to facilitate an assessment of community health need and support the CHIP development process, particularly as it was augmented by health status data captured by the household survey. Nonetheless, the value of the data from MassCHIP is limited due to the fact that much of the information 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 Commonwealth. The data was still valuable and allowed the Project Team to identify health needs relative to the Commonwealth and specific communities. However, older data sets 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 10 years old, which challenged any current analysis.

With respect to the household survey, great efforts were made to ensure a representative sample and maintain the analytic power of our analysis. Our sampling strategy was driven by household address data collected at the municipality and census tract levels. A certain number of households were selected in each census tract based on the size of the municipality to ensure an appropriate distribution of households across the service area. Additionally, we invested substantial resources to maximize our response rate, which ranged from 35% to more than 50% across the service area, with a total response rate for the BH-AGH service area of ~45%.

With respect to qualitative data, information gathered through interviews and community forums engaging service providers, health department officials, 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. Overall, nearly 100 people were involved through our interviews, community forums and strategic planning sessions. This is a considerable achievement, but it is still a relatively small sample compared to the size of the resident and service provider populations overall. While every effort was made to advertise the community forums and to select a

³¹ Massachusetts Community Health Information Profile (MassCHIP) system.
<http://www.mass.gov/eohhs/researcher/community-health/masschip/>

³² 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.

broadly representative group of stakeholders to interview, the selection or inclusion process was not random. In addition, the community forums did not exclude participants if they did not live in the particular regions where the meetings were held, so feedback by meeting does not necessarily reflect the needs or interests of the areas in which the meetings were held.

Leading CHNA Findings

Population Characteristics, Determinants of Health and Health Equity

An understanding of community need and health status in BH-AGH's community benefits service area must begin with an understanding of the population's characteristics as well as the underlying social, economic and environmental factors that impact health status and health equity. This information is critical to (1) recognizing disease burden, health disparities and health inequities; (2) identifying target populations and health-related priorities; and (3) targeting strategic responses. The assessment captured a wide range of quantitative and qualitative data related to age, gender, 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 and provided insights into the leading determinants of health and health inequities.

Following is a summary of key findings related to community characteristics and the social, economic and environmental determinants of health for BH-AGH'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 set forth in the BH-AGH CHNA data appendices included with this report.

- **Age and Gender.** Age and gender are key factors in determining community need. With respect to age, more densely populated geographies typically have younger populations than do suburban or rural geographies. BH-AGH's service area is a relatively suburban area, and these trends certainly apply in this case.
 - Six of the 13 cities/towns that were included in BH-AGH's assessment had a higher percentage of older adults (65+) compared to the Commonwealth overall.³³ Towns in BH-AGH's service area with the highest percentages of residents 65 or older were Danvers, Gloucester, Ipswich, Manchester by the Sea, Peabody and Rockport.
 - Many of the service area towns also had higher than average percentages of youth and young adults, including Beverly, Manchester by the Sea and Wenham.³⁴

A common theme throughout the stakeholder interviews and community/provider forums was that older adults (~65+ years old) and youth (~12-18 years old) represented two of the most vulnerable populations in the service area. This is not to say that young and middle-aged adults, 19-65 years of age, do not face critical problems — only that when community participants were asked to identify demographic segments of the population that were most at risk, they were more likely to cite youth/adolescent and older adult populations than other

³³ 2009-2013 US Census Bureau American Community Survey (ACS)

³⁴ 2009-2013 US Census Bureau American Community Survey (ACS)

age cohorts.³⁵ The specific needs of these populations are discussed in greater detail later in the report.

With respect to gender, the service area's distribution overall mirrors that in the Commonwealth. However, there is an outlier. Middleton's population is heavily skewed to men, with 61% reporting as male and 39% reporting as female. Other than Middleton, the distributions by gender are comparable to the Commonwealth, ranging 50% to 54% female and 46% to 50% male.³⁶ See Figure 6 for specific age distributions at the local, county and Commonwealth levels.

- **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. Overall, the service area has a relatively homogeneous, white, non-Hispanic population, although pockets of diversity do exist in selected communities: Beverly, Hamilton, Middleton and Peabody.
 - The percentage of white, non-Hispanic people at the municipality level ranged from as high as 97% in Manchester by the Sea to a low of 82% in Middleton, with the median being approximately 93%.³⁷
 - In Essex County, 14.9% reported as being foreign born, compared to 15% for the Commonwealth. The median among the 13 municipalities was approximately 5%. Peabody had the highest percentage of foreign born, at 15%.³⁸
 - Towns with the largest percentages of foreign-born people in the service area were Peabody (15%) and Middleton (10%). These towns also had the highest percentages of residents speaking languages other than English at home, with Peabody reporting 21% and Middleton reporting 17%.³⁹

According to information gathered from our interviews and community forums, foreign-born and racial/ethnic minority populations (e.g., Hispanics/Latinos, Black/African Americans, Asian-Indians, Portuguese-speaking Brazilians) represent some of the most at-risk populations in the service area. A number of interviewees and forum participants identified older parents of those living in the region, who are living with or visiting their adult children, as an at-risk population.⁴⁰

Notably, just because someone is foreign born does not mean they face disparities in health outcomes or barriers to care. In fact, some foreign-born cohorts are known to have better outcomes compared to the population overall. However, these populations are more likely to face cultural, linguistic or health literacy barriers that require a more tailored response to health problems.

³⁵ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

³⁶ 2009-2013 US Census Bureau American Community Survey (ACS)

³⁷ 2009-2013 US Census Bureau American Community Survey (ACS)

³⁸ 2009-2013 US Census Bureau American Community Survey (ACS)

³⁹ 2009-2013 US Census Bureau American Community Survey (ACS)

⁴⁰ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

- **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, education and the extent to which one lives in areas of economic disadvantage, 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 emergent and 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 to higher socio-economic levels.⁴¹ A recent article published in the *Journal of the American Medical Association (JAMA)* studied life expectancy across the United States and identified demographic and socio-economic factors that were correlated more or less strongly with low life expectancy. Two of the strongest determinants of low life expectancy are whether individuals were immigrants or foreign born or whether they lived in low-income communities. Those living in communities with a larger proportion of low-income residents were much more likely to have a lower life expectancy and to face disparities with respect to other leading health indicators.⁴²

Overall, the BH-AGH service area is relatively affluent compared to the Commonwealth overall and had a significantly higher median income, a lower percentage of low-income individuals (those earning less than 200% of the federal poverty level) and higher rates of education. However, pockets of people living in poverty or are in low-income brackets in all of the cities and towns that are part of the BH-AGH service area. There are also individuals who have historically been in middle- or high-income brackets who are temporarily unemployed as well as disabled, or older adults who are on fixed incomes, who struggle due to high housing and other living expenses. Often these individuals and their families struggle to pay for essential household items or are forced to make hard choices about what they live with and without.

- In 2014, 10.2% of Gloucester’s population and 8.6% of Beverly’s population was living in poverty.⁴³
- In 2014, more than 35% of those living in rental units in the cities/towns of Beverly, Essex, Gloucester, Hamilton, Ipswich, Manchester by the Sea, Peabody and Rockport are considered “house poor,” meaning they spent 35% or more of their income on housing.⁴⁴

⁴¹ Alexander, K., Entwistle, D., and Olson, L. *Family Background, Disadvantaged Urban Youth, and the Transition to Adulthood*, Russell Sage Foundation. June 2014

⁴² McGinnis J. Income, Life Expectancy, and Community Health: Underscoring the Opportunity. *JAMA*. 2016;315(16):1709-1710. doi:10.1001/jama.2016.4729.

⁴³ 2009-2013 US Census Bureau American Community Survey (ACS)

⁴⁴ 2009-2013 US Census Bureau American Community Survey (ACS). **“House poor”** describes a situation in which a person spends a large proportion of his or her total income on home ownership, including rent payments, mortgage payments, property taxes, maintenance and utilities.

With respect to education, all of the cities and towns in BH-AGH's service area had higher percentages of residents with a high school diploma or GED equivalency than the Commonwealth overall.

- In 2014, in the Commonwealth overall, 89% of adults 25 and older had a high school diploma or GED equivalency. In BH-AGH's service area, eight of the 13 cities/towns had percentages at or above 95%.⁴⁵
- Unemployment rates were lower in Essex County compared to the Commonwealth overall. As of April 2016, 4% of the population in Essex County was unemployed, compared to 4.2% for the Commonwealth.⁴⁶
- **Crime, Violence and Community Cohesion.** Crime and violence are major concerns in some communities, and these issues can have intense and far-reaching impacts on health status. In their extreme, impacts can include death, injury and economic loss, but also include emotional trauma, anxiety, isolation, lack of trust and loss of community cohesion. According to quantitative data from the Massachusetts Department of Public Health and anecdotal information from key informants and community forum participants, crime and violence were not leading health concerns in BH-AGH's service area.⁴⁷
 - Crime rates were low compared to the Commonwealth overall, and no one in our interviews or community forums mentioned that crime was a major health concern.⁴⁸
 - Data on domestic violence was limited, but there was information on child abuse. In this case, only two towns, Lowell and Haverhill, had rates of child abuse or maltreatment/neglect that were higher than Commonwealth levels.⁴⁹

A number of informants noted elder abuse/neglect as one of a handful of health issues pertaining specifically to older adult populations.⁵⁰ There was no quantitative data to support this.

- **Unstable Housing and Homelessness.** An increasing body of evidence suggests that poor housing is associated with a wide range of health conditions, including asthma and other respiratory conditions, exposure to environmental toxins, injury, and the spread of communicable diseases. These health issues are more common among low-income segments of the population who often struggle to afford safe housing, healthy food and basic needed health care services.

Individuals without housing – those living either on the street or in transient, unstable conditions – have been shown to have significantly higher rates of illness and premature mortality. There are also groups who lack affordable housing. Although they technically do

⁴⁵ 2009-2013 US Census Bureau American Community Survey (ACS)

⁴⁶ Bureau of Labor Statistics. http://www.bls.gov/cps/cps_htgm.htm

⁴⁷ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums. 2012 Uniform Crime Reporting Statistics

⁴⁸ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

⁴⁹ 2011 Massachusetts Department of Children and Families

⁵⁰ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

not fall into low-income brackets, the high cost of their housing causes them to struggle to pay for food, other essential household items and needed health care services.

Nearly all residents in Essex County live in safe housing, and homelessness is not a major concern in BH-AGH's service area. However, homelessness does exist, and there are pockets of residents who struggle to afford housing costs.

- Qualitative interviews suggested that the high home values and cost of living in many of these areas made it difficult for many residents to make ends meet. Older adults living on fixed incomes were identified as particularly at risk.⁵¹
- In 2014, more than 35% of those living in rental units in the cities/towns of Beverly, Essex, Gloucester, Hamilton, Ipswich, Manchester by the Sea and Peabody spend 35% or more of their income on housing.⁵²
- **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."⁵³ 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. Specifically, low-income individuals and families, as well as low-income, frail and/or isolated older adults, were identified as at risk with respect to food access. Interviewees and community forum participants reported that significant numbers of people struggled to buy fresh produce and other nutritional foods and referred to food insecurity and food scarcity as major contributors to obesity and chronic disease.

⁵¹ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

⁵² 2009-2013 US Census Bureau American Community Survey (ACS)

⁵³ Feeding America. Child Development. <http://feedingamerica.org/SiteFiles/child-economy-study.pdf>

Figure 6: Demographic and Socio-economic Characteristics of the BH-AGH Service Area

Statistically Higher than State and County
 Statistically higher than State⁵⁴

	Indicators	Benchmarks		Service Area												
		State	Essex County	Beverly	Boxford	Danvers	Essex	Gloucester	Hamilton	Ipswich	Manchester	Middleton	Peabody	Rockport	Topsfield	Wenham
	Total Population	6,605,058	750,808	40,026	8,040	26,899	3,546	29,043	7,995	13,354	5,185	9,131	51,522	7,040	6,211	4,964
Gender	Male	48.4%	48.1%	47.0%	49.3%	48.7%	46.2%	47.1%	50.2%	50.2%	50.5%	61.8%	47.4%	46.2%	47.8%	45.7%
	Female	51.6%	51.9%	53.0%	50.7%	51.3%	53.8%	52.9%	49.8%	49.8%	49.5%	38.2%	52.6%	53.8%	52.2%	54.3%
Age	0-9 Years	11.3%	12.1%	10.7%	13.3%	11.7%	9.5%	8.8%	16.2%	9.5%	9.8%	10.3%	9.5%	8.6%	12.1%	6.2%
	10-19 Years	13.0%	13.5%	12.4%	12.6%	12.2%	13.4%	12.6%	12.7%	13.3%	14.0%	10.7%	11.6%	10.3%	16.0%	28.7%
	20-24 Years	7.2%	6.3%	8.8%	3.6%	5.0%	4.2%	3.7%	5.1%	2.7%	3.7%	6.5%	5.9%	2.3%	3.1%	15.2%
	25-64 Years	54.2%	53.6%	53.2%	55.7%	53.3%	57.9%	55.2%	52.2%	54.7%	51.9%	59.4%	52.7%	52.7%	51.9%	37.3%
	65+ Years	14.1%	14.5%	14.9%	14.9%	17.6%	15.1%	19.8%	13.7%	19.7%	20.4%	13.1%	20.3%	26.1%	17.0%	12.6%
	Population 18 years and older	78.7%	77.2%	81.2%	75.3%	78.2%	79.4%	81.3%	73.2%	79.9%	76.8%	80.2%	81.4%	83.2%	74.5%	80.7%
Race/ Ethnicity/ Foreign Born/ Language	Non-Hispanic White	75.7%	75.30%	91.5%	94.0%	93.0%	96.2%	94.6%	89.9%	96.6%	9700.0%	81.8%	86.5%	95.7%	93.9%	94.2%
	Non-Hispanic Black	6.3%	2.8%	1.7%	0.0%	1.1%	0.0%	0.5%	3.3%	0.4%	0.0%	2.9%	1.9%	1.7%	0.0%	1.9%
	Hispanic	9.9%	17.1%	3.1%	1.4%	2.6%	1.2%	2.7%	2.1%	1.3%	2.4%	9.2%	7.8%	1.4%	0.1%	0.7%
	Non-Hispanic Asian	5.5%	3.2%	2.0%	3.5%	2.5%	1.4%	0.5%	3.0%	0.7%	0.0%	5.3%	2.6%	0.6%	4.3%	1.8%
	Foreign Born	15.0%	14.9%	5.9%	5.9%	5.9%	3.9%	7.6%	6.4%	3.7%	3.9%	9.9%	15.0%	5.0%	6.8%	4.7%
	Linguistically Isolated	21.9%	24.0%	7.8%	6.1%	8.7%	7.0%	10.8%	6.1%	5.7%	4.8%	17.2%	21.0%	6.0%	7.0%	6.3%
Education/ Income	High School Graduates	89.4%	89.0%	94.7%	98.0%	94.1%	92.8%	89.9%	98.3%	96.3%	98.8%	91.3%	89.9%	95.8%	96.1%	98.1%
	Living in Poverty	11.4%	11.2%	8.6%	0.9%	5.4%	3.5%	10.2%	2.5%	5.1%	5.8%	3.8%	6.3%	4.4%	6.1%	3.8%
	Renter Occupied Housing	37.3%	36.6%	39.1%	2.5%	31.2%	34.5%	36.2%	23.2%	22.6%	29.9%	15.2%	36.6%	30.3%	6.6%	11.7%
	House Poor (>35% of Income)	40.5%	42.4%	37.6%	0.0%	31.9%	44.8%	34.9%	35.5%	37.4%	38.5%	27.1%	43.1%	39.3%	24.2%	8.7%

⁵⁴ Data provided by the Massachusetts Department of Health through the MassCHIP resource is typically provided along with the 95% confidence interval for any given statistic. A confidence interval measures the probability that a population parameter will fall between two set values. Throughout our assessment, statistical significance is defined as two values with non-overlapping 95% confidence intervals.

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 to which 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 sources, including the US Census Bureau and the Massachusetts Department of Public Health. Information was compiled through the Beverly Hospital–Addison Gilbert Hospital Community Health Survey (BH-AGH Community Health Survey), which augmented the data collected through the Massachusetts Department of Public Health and allowed for the identification of “geographic hotspots” and demographic/socio-economic population segments most at risk. Qualitative information gathered from the assessment’s interviews and community forums greatly informed this section by providing perceptions on the confounding and contributing factors of illness, health priorities, barriers to care, service gaps and possible strategic responses to the issues identified.

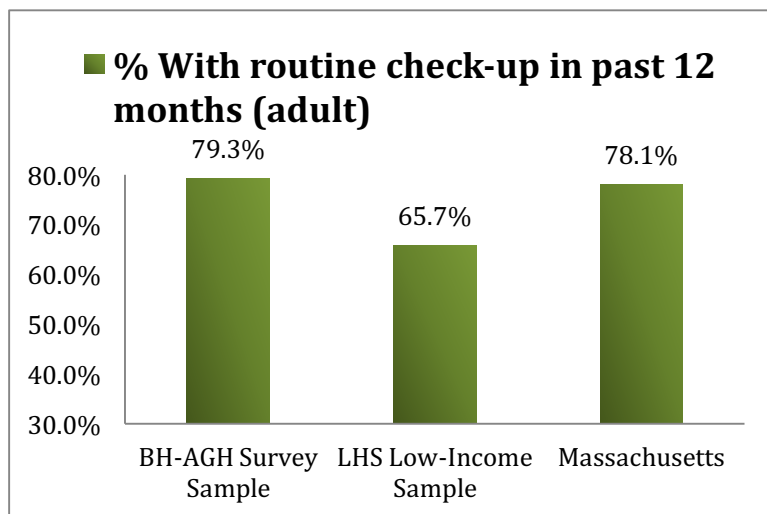
The following are key findings related to health insurance coverage and access to primary care, health risk factors, overall mortality, health care utilization, chronic disease, cancer, infectious disease, behavioral health (mental health and substance use), elder health, and maternal and child health.

Summary data tables/graphs are included below, along with a narrative review of the assessment’s qualitative findings. More expansive data tables and summaries of findings from the assessment’s interviews and forums are included in the BH-AGH CHNA data appendices.

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

The extent to which a person has insurance that helps 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 been 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 and urgent care, and chronic disease management services for those in

Figure 7: Percent with Routine Checkup in Past 12 Months, 2015
(Source: BH-AGH Community Health Survey, 2015)



need.⁵⁵

Eastern Massachusetts, including Essex County, has a robust health care system that provides comprehensive services spanning the health care 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. There are no absolute gaps in any components of the system, except possibly in the areas of behavioral health and oral health.

Based on information gathered from interviews and the community or provider forums, large proportions of the population struggle to access behavioral health and oral health services. These barriers are partly due to shortages of service providers willing to accept the uninsured or certain types of health insurance, particularly Medicaid. Many residents also struggle to pay for services, particularly those who have to pay out of pocket for co-pays or pay for the full cost of care. While medical health insurance rates are high throughout Essex County and the Commonwealth, the proportion of the population with comprehensive oral health insurance is quite low. And although behavioral health services are typically covered by most health plans, the benefits are not always as robust, and the co-pays can be high. Interviewees and forum participants noted particular gaps in behavioral health services for children and youth.

- **Insurance Rates.** 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 insurance, compared to 10% nationally, due to the state's early health reform efforts, which began in 2006.⁵⁶
- **Low-Income Segments Most at Risk.** Key informants and community forum participants stressed the fact that despite the relative affluence of the area, there were pockets of service-area residents who struggled with poor health outcomes and faced significant barriers to access. These populations were more likely to be low income, older adult and foreign born.⁵⁷
- **High Uninsurance Rates Among Low-Income Residents.** Low-income residents are much more likely to be uninsured than residents in middle- and upper-income brackets. According to the 2015 BH-AGH Community Health Survey, nearly all respondents from BH-AGH's service area were currently insured, compared to 8.1% of low-income respondents that reported they were currently uninsured.⁵⁸

⁵⁵ Institute of Medicine. Coverage Matters: Insurance and Health Care. September 2001. Accessed at: <https://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2003/Coverage-Matters-Insurance-and-Health-Care/Uninsurance8pagerFinal.pdf>

⁵⁶ Kaiser Family Foundation, Health Insurance Coverage of the Total Population. <http://kff.org/other/state-indicator/total-population/>

⁵⁷ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

⁵⁸ 2015 BH-AGH Community Health Survey. In order to ensure an appropriate, statistically sound sample size, all low-income respondents from each of the surveys conducted by Lahey Health System's three hospital partners were aggregated.

- **Lack of Access to Primary Care.** According to the 2015 BH-AGH Community Health Survey, 79% of all respondents from BH-AGH's service area had seen a primary care provider in the previous 12 months, compared to only 66% of low-income respondents.⁵⁹
- **Higher Emergency Department Utilization.** According to the 2015 BH-AGH Community Health Survey, 22.1% of all respondents from BH-AGH's service area had had at least one hospital emergency department visit in the previous 12 months, compared to 29.1% of low-income respondents.⁶⁰
- **Lack of Access Due to Cost of Care.** Three in 10 (30.1%) of those living at 138% of the federal poverty level or below reported not getting needed dental care due to cost, and 1 in 5 (19.3%) were not able to fill a needed drug prescription due to cost.⁶¹

While these findings are generally positive, the data should not be interpreted to suggest that everyone in BH-AGH's service area receives the highest-quality services when and where they want them. Despite strong statistics and the overall success of the Commonwealth's health reform efforts, data captured for this assessment showed that substantial segments of the population – particularly those with low income, racial/ethnic minorities and older adults – faced significant barriers to care and struggled to access medical, oral health and behavioral health 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. More importantly, these challenges often lead to poor health status and disparities in health outcomes.

Health Risk Factors

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 alcohol abuse – have on health status, the burden of physical chronic conditions and cancer, as well as on mental health and long-term substance use issues. A discussion and review of available data and information drawn from quantitative and qualitative sources from this assessment is provided below.

Overweight/Obesity. Over the past two decades, obesity rates in the United States have doubled for adults and tripled for children.^{62,63} Overall, these trends have spanned all segments of the population, regardless of age, sex, race, ethnicity, education, income or geographic region. While some segments have struggled more than others, no segment has been completely unaffected. Data from the 2015 BH-AGH Community Health Survey shows that residents of the service area fare even worse than the Commonwealth with respect to the population that is either overweight or obese. Low-income segments of the population fare worse still.

⁵⁹ 2015 BH-AGH Community Health Survey

⁶⁰ 2015 BH-AGH Community Health Survey

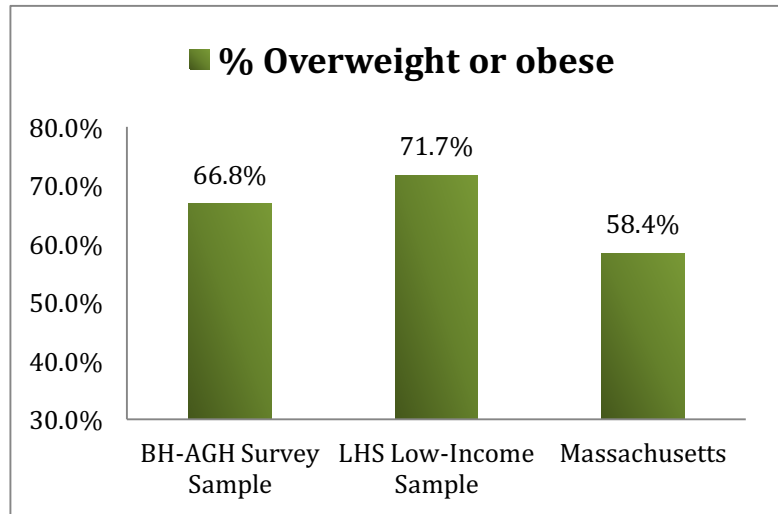
⁶¹ Center for Health Information and Analysis. Findings from the 2014 Massachusetts Health Insurance Survey. 2015. Accessed at: <http://www.chiamass.gov/assets/docs/r/pubs/15/MHIS-Report.pdf>

⁶² 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. Ogden CL. Childhood Obesity in the United States: The Magnitude of the Problem. Power Point.

⁶³ The State of Obesity. Obesity Rates and Trends Overview. Accessed July 19, 2016. Accessed at: <http://stateofobesity.org/obesity-rates-trends-overview/>

- Based on responses from the 2015 BH-AGH Community Health Survey, the percentage of adults (18+) who reported as either obese or overweight was higher than the percentage for the Commonwealth: 66.8% compared to 58%, respectively.

Figure 8: Percent Overweight or Obese, 2015
(Source: BH-AGH Community Health Survey, 2015)



However, adults in households earning below 200% of the federal poverty level were even more likely to be overweight or obese, with 72% of low-income individuals reporting as either overweight or obese.⁶⁴

- Data for children and youth from the MA Youth Risk Behavior Surveillance System (YRBSS) was not available for Essex County, but, anecdotally, the JSI Project Team learned through interviews and the community forums that this was a major health issue.⁶⁵
- **Physical Fitness and Nutrition.** Lack of physical fitness and poor nutrition are among 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. Overall fitness and the extent to which people are physically active reduce the risk for many chronic conditions and are linked to good emotional health.

Approximately 1 in 5 adults (18+) (19%) ate the recommended five servings of fruits and vegetables per day, and roughly the same proportion (21%) reported getting no physical activity in the preceding 30 days.⁶⁶

According to data collected through the BH-AGH Community Health Survey, adults in BH-AGH's service area fare much better than adults Commonwealth-wide with respect to eating the recommended number of servings of fruits and vegetables, but a considerably larger percentage of respondents reported not getting any physical activity other than that related to their job. Once again, it is important to note that low-income survey respondents fared considerably worse than respondents overall.

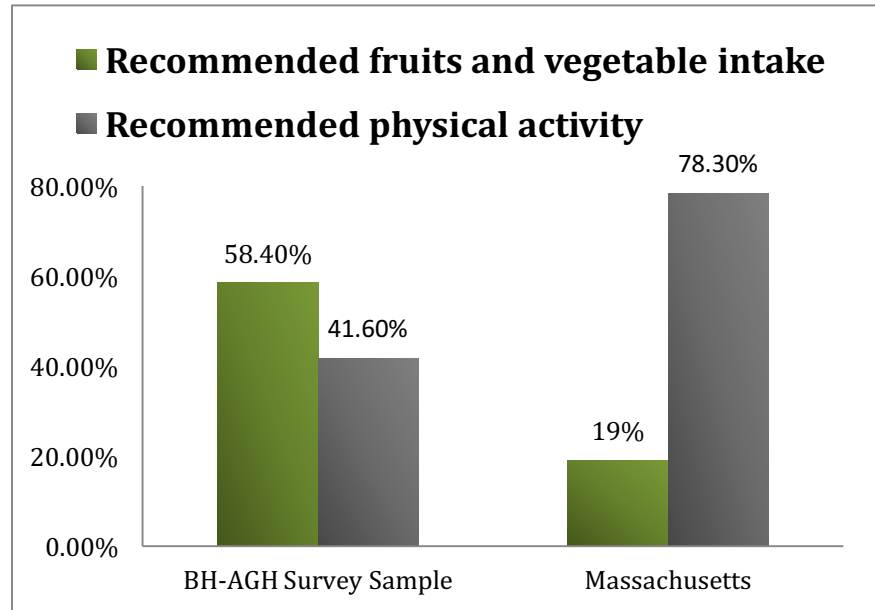
⁶⁴ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

⁶⁵ 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

⁶⁶ 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

- According to the BH-AGH Community Health Survey, 39% of respondents did not eat at least five servings of fruits and vegetables per day, and more than 50% did not have adequate physical activity, according to Centers for Disease Control and Prevention guidelines, other than activity related to their jobs.⁶⁷

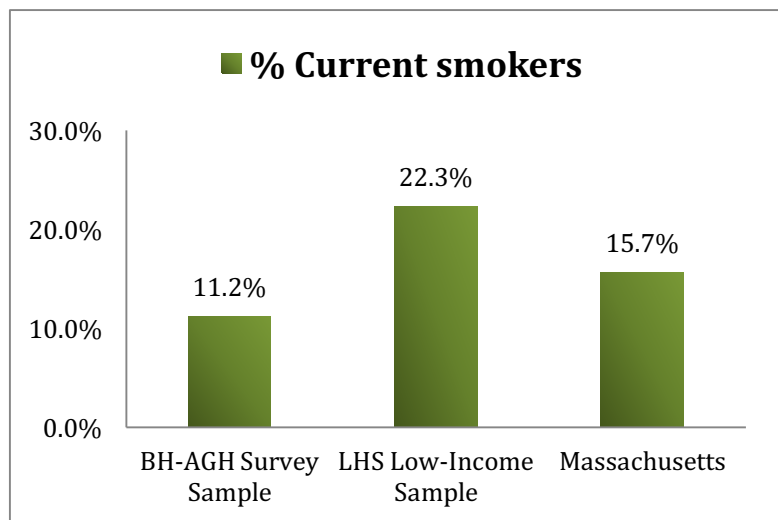
Figure 9: Recommended Fruits and Vegetables and Physical Activity
(Source: BH-AGH Community Health Survey, 2015)



- **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.⁶⁸

Massachusetts and Essex County had lower rates of tobacco use than many geographies throughout the United States, but given that tobacco use is still the leading cause of illness and disease in the United States, it is important that work be

Figure 10: Percent Current Smokers, 2015
(Source: BH-AGH Community Health Survey, 2015)



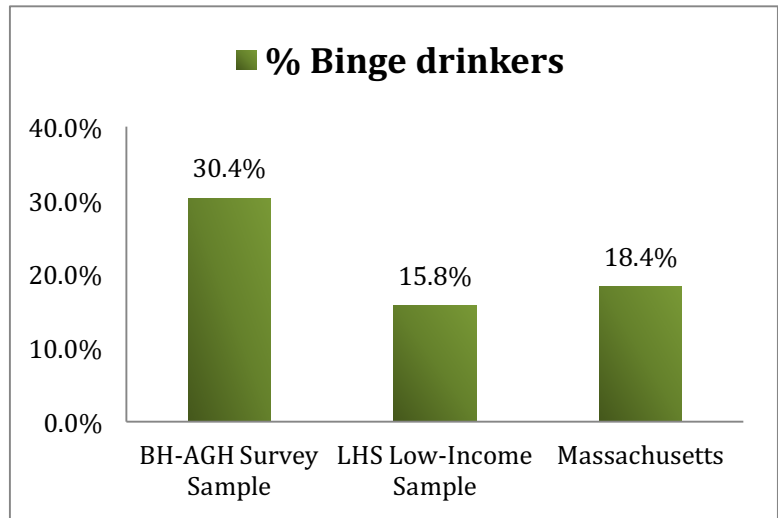
⁶⁷ 2015 BH-AGH Community Health Survey

⁶⁸ Office of Disease Prevention and Health Promotion. Tobacco Use. Accessed at: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=41#five>. Accessed on: July 20, 2016

done to lower these rates further.

- According to the 2015 BH-AGH Community Health Survey, 11% of adult respondents (18+) reported as current cigarette smokers, compared to 22.3% of low-income respondents. Commonwealth-wide, 16.6% of adults reported as current cigarette smokers.⁶⁹
- **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.
 - According to the 2015 BH-AGH Community Health Survey, 12% of adult respondents reported as heavy drinkers, defined as more than 60 drinks a month for men and 30 drinks a month for women, compared to only 8% of adults in the Commonwealth overall.⁷⁰
 - Similarly, 30% of respondents reported “binge drinking” – more than five alcoholic drinks at any one sitting for men and more than four drinks for women – compared to only 18.4% for Commonwealth residents overall.⁷¹

Figure 11: Percent Binge Drinkers, 2015
(Source: BH-AGH Community Health Survey, 2015)



These findings were confirmed by key informant interviews and participants in the community forums, as a major theme from the qualitative information was the impact and burden of substance use, particularly alcohol, on the service area’s population. A majority of the key informants who were part of this assessment cited alcohol abuse as a major health concern for all segments of the population.⁷²

⁶⁹ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

⁷⁰ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

⁷¹ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

⁷² 2015 BH-AGH Key Informant Interviews and Community and Provider Forums

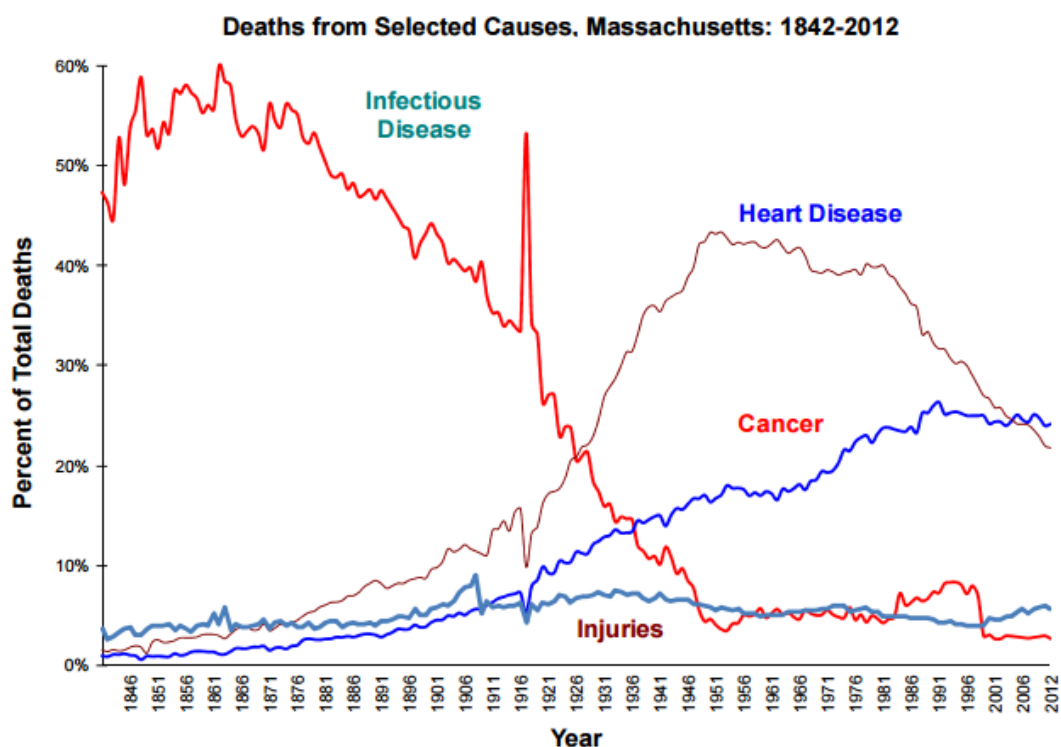
Mortality and Premature Mortality

In 2012, the life expectancy for a resident in the Commonwealth of Massachusetts was 81 years. In 1950, it was 70 years, and in 1900 it was 45 years.⁷³ This change is dramatic and due largely to improvements in the ability to prevent maternal/child deaths during pregnancy and manage infectious diseases, such as influenza. In 1900, cancer was the known cause of death in only 4%-5% of deaths; today, nearly 25% of all deaths can be attributed to cancer. See Figure 12 below.

Since 1950, there have been major improvements in the ability to prevent premature death due to heart disease, stroke and even cancer. However, there is still a great deal of work to do in this area, as these diseases are still the top three causes of premature death. Even if city- or town-level rates of illness are not higher than the county, Commonwealth or national benchmarks, it is important that BH-AGH and its community health partners address these issues if they are to improve health status and well-being.

According to data from the Massachusetts Department of Public Health, in 2012 cancer, cardiovascular disease (heart disease), cerebrovascular disease (stroke) and chronic lower respiratory disease (COPD) were the leading causes of death for the service area. Other leading causes of death include diabetes, influenza/pneumonia, opioid-related issues, homicide, suicide and motor vehicle-related accidents.

Figure 12: Deaths from Selected Causes in Massachusetts, 1842–2012



Source: Massachusetts Department of Public Health. *Massachusetts Deaths 2012: Data Brief*. January 2015. <http://www.mass.gov/eohhs/docs/dph/research-epi/death-data/death-databrief-2012.pdf>. Accessed on: May 11, 2016.

As discussed above, there is a correlation between income and where one lives on the one hand and life expectancy, death and overall health status on the other. According to a study published in April 2016 in the *Journal of the American Medical Association*, Essex County residents living in households earning less than \$100,000 per year are expected to die about seven years before their wealthier counterparts. That's roughly the equivalent to the difference in life expectancy between an average man in the United States and one in Egypt. The report underscores the role of geography and wealth in attaining longevity. The essential point is that if you live in communities with large proportions of low-income residents, you are likely to have lower health status and a lower life expectancy.⁷⁴

Table 13: Leading Causes of Death in Massachusetts and the United States, 2012

(Source: *Massachusetts Deaths 2012: Data Brief*. Boston, MA: Office of Data Management and Outcomes Assessment, Massachusetts Department of Public Health. January 2015. <http://www.mass.gov/eohhs/docs/dph/research-epi/death-data/death-databrief-2012.pdf>)

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

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

Throughout the United States, including Massachusetts, there were major health disparities with respect to all of these conditions among low-income, racial/ethnic minority and other sub-groups.

⁷⁴ The Health Inequality Project. How can we reduce disparities in health? Accessed at: <https://healthinequality.org>. Accessed on: June 22, 2016

Rates of illness and death vary by condition, but overall, non-Hispanic, white populations are less likely to have chronic health conditions than are low-income segments and most racial/ethnic minority segments. This places a disproportionate burden on communities with a high proportion of low-income and racial/ethnic populations. In BH-AGH's service area, Beverly, Gloucester, Middleton and Peabody have the greatest proportion of low-income and racial/ethnic minority or foreign-born populations.

The leading causes of premature death were similar to those of mortality overall, but there are important differences. The first and second leading causes of premature death in Massachusetts were cancer and heart disease. Unintentional injuries, respiratory disease and diabetes are ranked third, fourth and fifth, respectively, and each had a considerable impact on the premature death rate overall. With respect to the CHNA, the more relevant variable is premature death⁷⁵ and the prevention of disease. 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 to focus attention on the morbidity and mortality that can be prevented. None of the cities and towns in BH-AGH's primary service area had a statistically higher rate of premature death than the Commonwealth rate of 275.9 per 100,000.⁷⁶

Health Care Utilization

Increasing health care costs combined with poor health outcomes have encouraged a close review of the utilization of health care services. At the core of recent health care reform efforts in Massachusetts and throughout the nation is the idea of promoting a focus on prevention and the reduction of health care utilization rather than the treatment of disease. Hospital community benefits programs are geared toward supporting preventive services; strengthening community health, social services and public health programs; and ensuring that the population has access to high-quality primary care services, including primary medical care, behavioral health and oral health services.

With respect to health care utilization, there has been a substantial focus on strategies to reduce costly hospital emergency department and inpatient care utilization, particularly service utilization that is preventable or avoidable with proper education and screening and timely primary care and outpatient services. The federal Agency for Healthcare Research and Quality (AHRQ) has identified a series of measures that apply hospital discharge codes that are designed to identify when people are seen in the hospital emergency department or inpatient setting for conditions that are preventable or avoidable. These measures are called Preventable Quality Indicators (PQIs), and when the rates of these specific hospital discharge codes are high, it suggests that consumers need to be more engaged in or have better access to preventive, primary care and care management services.

- Of the five PQI measures reported by MDPH for all towns in Massachusetts, several towns reported consistently higher rates, compared to the Commonwealth and county levels, of congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD) and asthma admissions in patients older than 20.⁷⁷

⁷⁵ Premature deaths are deaths that occur before a person reaches an expected age — for instance, age 75. Many of these deaths are considered preventable.

⁷⁶ 2009-2012 Massachusetts Vital Records Mortality

⁷⁷ 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS)

- Towns reporting significantly higher rates on these indicators were Beverly (asthma, CHF, bacterial pneumonia and COPD), Danvers (bacterial pneumonia), Gloucester (asthma, bacterial pneumonia and COPD) and Peabody (CHF, bacterial pneumonia and COPD).⁷⁸

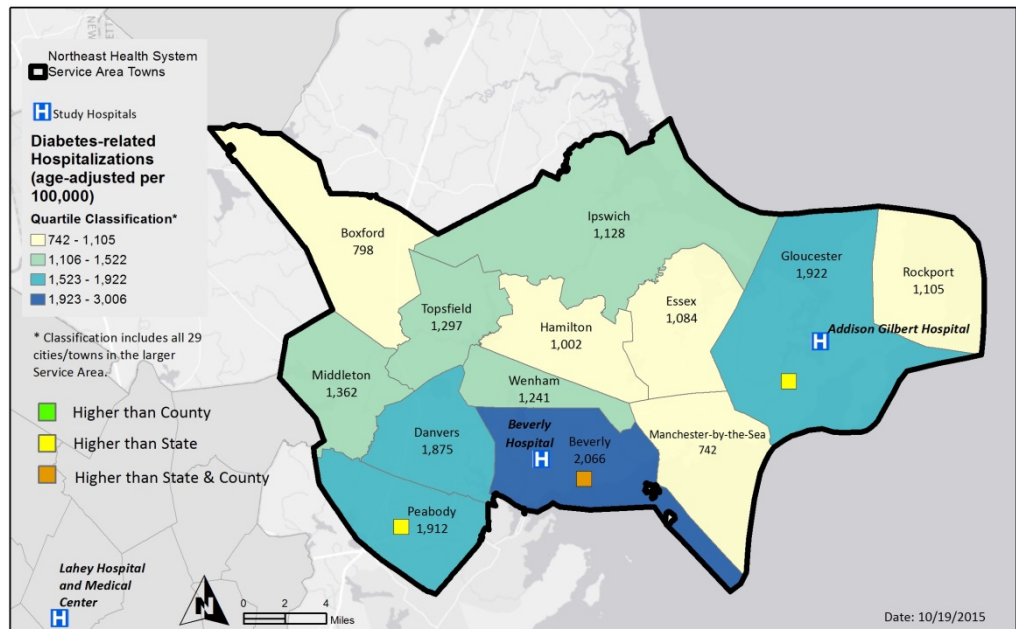
More generally, MDPH reports data on hospital emergency department discharges. Across the BH-AGH service area, the most common disease-specific measures that were arising as statistically higher than average involved mental health, substance use, diabetes, hypertension and heart disease. Service area towns with consistently higher rates across these measures than Commonwealth rates were Beverly, Gloucester and Peabody.

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 (18+) have at least one chronic condition, and almost 1 in 3 have multiple chronic conditions.⁷⁹

Perhaps most significantly, despite the high prevalence and dramatic impact, chronic diseases are largely preventable, which underscores the need to focus on the health risk factors, primary care engagement and evidence-based chronic disease management.

Figure 14: Diabetes-related Hospitalizations (Per 100,000 Population)
 (Source: Massachusetts Department of Public Health, MassCHIP; 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS))

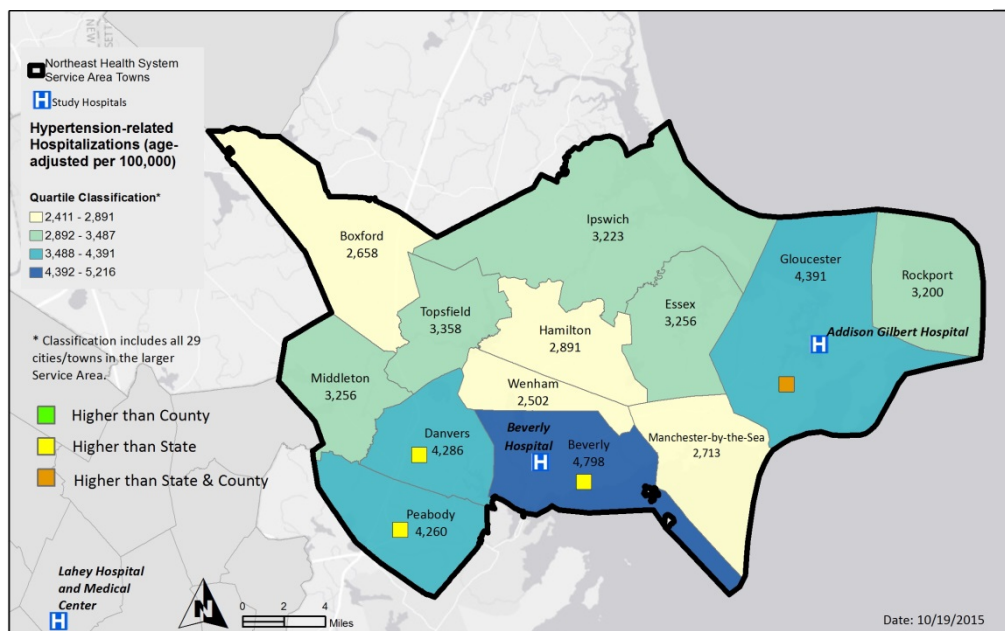


⁷⁸ 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS)

⁷⁹ Centers for Disease Control and Prevention. Chronic Disease Prevention and Health Promotion. Accessed at: <http://www.cdc.gov/chronicdisease/>. Accessed on: July 19, 2016. A chronic condition is a human health condition or disease that lasts a year or more and requires ongoing medical attention or that limits activities of daily living.

Many of the cities and towns in BH-AGH's service area have chronic disease prevalence, hospitalization and mortality rates that are higher than the rates for the Commonwealth overall. Chronic health conditions such as asthma, cardiovascular disease, cerebrovascular disease

Figure 15: Hypertension Hospitalizations (Per 100,000 Population)
 (Source: Massachusetts Department of Public Health, MassCHIP; 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS))



(stroke), chronic lower respiratory disease (most notably COPD), diabetes, heart failure and hypertension are the most common chronic conditions. Beverly, Danvers, Gloucester and Peabody all reported higher rates of illness, hospitalization or mortality than the Commonwealth overall for two or more of these chronic conditions.⁸⁰

Even in towns where these rates are not higher than Commonwealth averages, qualitative interviews and forums indicated that these diseases were of utmost concern to community members, local health officials and service providers. These interviewees and forum participants also discussed the disparities that exist for at-risk subpopulations such as members of low-income households, racially or ethnically diverse populations, and older adults, all of whom are all more likely to have one or more of these conditions.

Data from the BH-AGH Community Health Survey confirms that these chronic physical health conditions are a substantial issue. However, it is important to note that the prevalence rates for these conditions for the overall respondent population are generally comparable to or actually lower than the rates for the Commonwealth overall, according to comparison data from the Massachusetts Department of Public Health, Behavioral Risk Factor Survey System collected in 2012-2013.

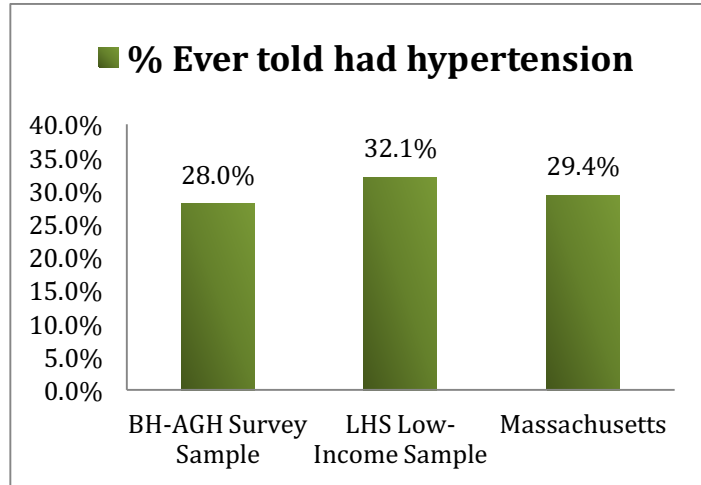
- **Diabetes.** Among 2015 BH-AGH Community Health Survey respondents, 8.8% reported that they had ever been told they had diabetes, compared to 8.5% of adults 18+ in the Commonwealth overall. Among low-income respondents to the Community Health Survey, 12.1% reported they had been told they had diabetes.⁸¹

⁸⁰ 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS). 2008-2012 Massachusetts Vital Records Mortality

⁸¹ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

- **Hypertension.** Twenty-eight percent of respondents from the 2015 BH-AGH Community Health Survey reported ever being told they had hypertension, compared to 29% for the Commonwealth overall. Among low-income respondents to the Community Health Survey, 32% reported they had been told they had hypertension.⁸²

Figure 16: Percent Ever Been Told Had Hypertension, 2015 (Source: BH-AGH Community Health Survey,



- **Asthma.** Twenty percent of 2015 BH-AGH Community Health Survey respondents reported being told they had asthma, compared to 17% for the Commonwealth overall. The percentage for low-income respondents in this case was actually lower at 13%. However, low-income respondents were considerably more likely to be seen in the hospital emergency department for urgent care. For the entire survey sample, 4% of asthmatics had had an emergency department visit, compared to 19% of low-income respondents.⁸³

Cancer

Cancer is the second leading cause of death in the United States and the first leading cause of death in the Commonwealth. While experts have an idea of the risk factors and causal factors associated with cancer, more research is needed as there are still many unknowns. 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, and exposure to fumes, secondhand 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. In 2015, nationally, 163.2 people per 100,000 died of cancer, and in Massachusetts this figure was 159.6 deaths per 100,000.⁸⁴

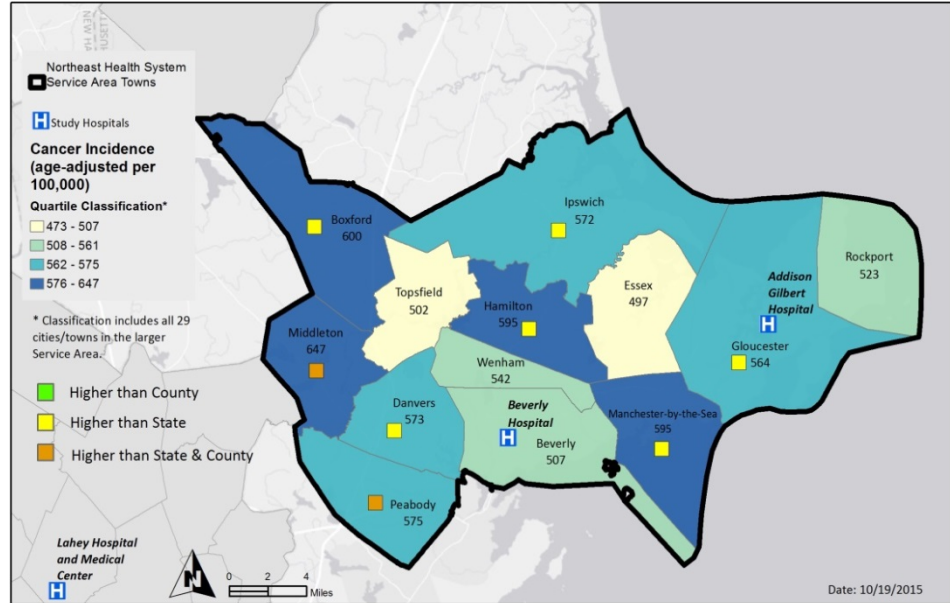
⁸² 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

⁸³ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

⁸⁴ Centers for Disease Control and Prevention. Stats for the State of Massachusetts. Accessed at: http://www.cdc.gov/nchs/pressroom/states/MA_2015.pdf

- **All Cancer.** Eight of the 13 towns in BH-AGH's primary service area (Boxford, Danvers, Gloucester, Hamilton, Ipswich, Manchester by the Sea, Middleton and Peabody) reported higher rates of cancer incidence (all cancer types) than those for the Commonwealth (509 per 100,000 population) and Essex County (531). The highest rate per 100,000 population was in Middleton (647),

Figure 17: Cancer Incidence (All Cancers) (Per 100,000 Population)
 (Source: Massachusetts Cancer Registry (2006-2010))



followed by Boxford (600), Manchester by the Sea (595), Hamilton (594), Peabody (575), Danvers (572), Ipswich (572) and Gloucester (564).⁸⁵

- **Cancer.** Of all respondents to BH-AGH's Community Health Survey, 15.4% reported that they had ever been told they had cancer, compared to 11.1% for residents of the Commonwealth; 17% of low-income respondents had ever been told they had cancer.⁸⁶
- **Most Common Cancer.** Among all cancer types, lung and prostate cancers were the most common forms. Lung cancer incidence rates ranged from as low as 44 per 100,000 population in Boxford to 90 in Gloucester. The cities of Gloucester (90) and Peabody (87) both had incidence rates that were higher than the Commonwealth rate (70) and the Essex County rate (72). Boxford (233), Danvers (194) and Topsfield (240) all had prostate cancer incidence rates per 100,000 that were higher than the Commonwealth rate (157) and the Essex County rate (167).⁸⁷
- **Mammography Screening.** According to the BH-AGH Community Health Survey, the percentage of women 40+ who have had a mammography screening in the preceding two years was slightly higher in BH-AGH's service area (88.4%) than in the Commonwealth overall (85%).⁸⁸

⁸⁵ 2007-2011 Massachusetts Cancer Registry

⁸⁶ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

⁸⁷ 2007-2011 Massachusetts Cancer Registry

⁸⁸ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

Behavioral Health

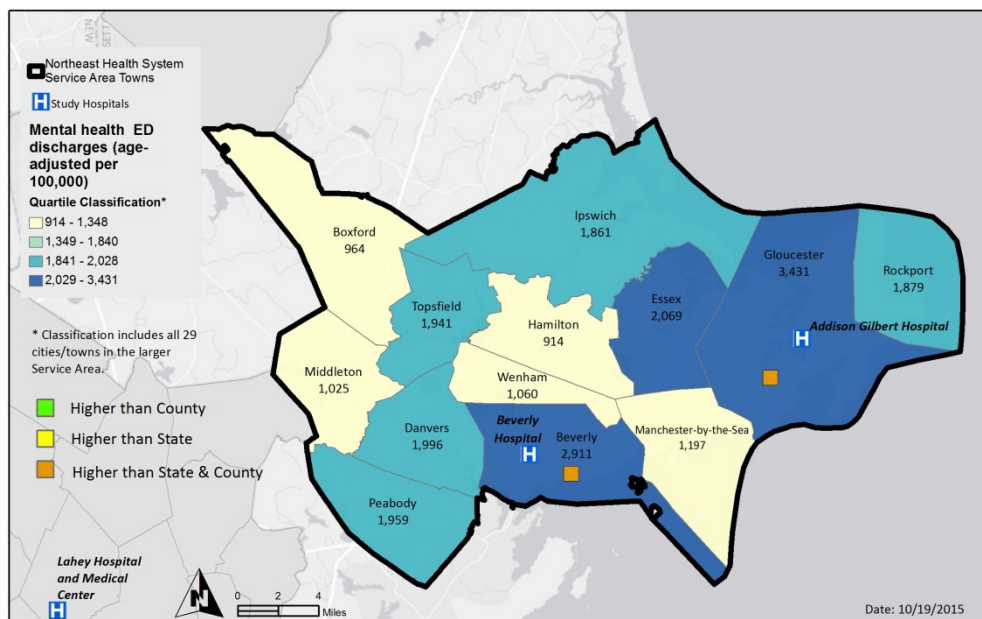
Mental illness and substance use have a profound impact on the health of people living throughout the United States. Data from the Centers for Disease Control and Prevention suggests that approximately 1 in 4 (25%) adults in the United States has a mental health disorder,⁸⁹ and an estimated 22 million Americans struggle with drug or alcohol problems.⁹⁰

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. The impact of mental health and substance use on the residents of BH-AGH's service area and in Essex County overall is particularly profound. There is ample quantitative and qualitative information to show this impact.

- **Opioid Overdoses.** Essex County experienced more than a 200% increase in opioid overdose deaths between 2001 and 2014. Specifically, in 2001, 58 deaths due to opioid abuse were reported in Essex County. By 2013 this number had risen to 116, and between 2013 and 2014 the figure rose startlingly to 190 deaths.⁹¹
- **Alcohol- or Other Substance Use-Related Hospitalizations.** Beverly (509), Essex (474) and Gloucester (550) all had rates of alcohol- or other substance use-related hospitalizations per 100,000 population that were significantly higher than the rates for Essex County (296) and the Commonwealth overall (338).⁹²

Figure 18: Mental Health Emergency Department Discharges (Per 100,000 Population) (Source: Massachusetts Department of Public Health, MassCHIP; 2008-2012 Massachusetts Hospital Inpatient)



⁸⁹ National Institute of Mental Health. Statistics. Accessed at:

<http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml>. Accessed on: July 19, 2016

⁹⁰ Office of Disease Prevention and Health Promotion. HealthyPeople.gov. Substance Abuse. Accessed at: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=40>. Accessed on: July 19, 2016

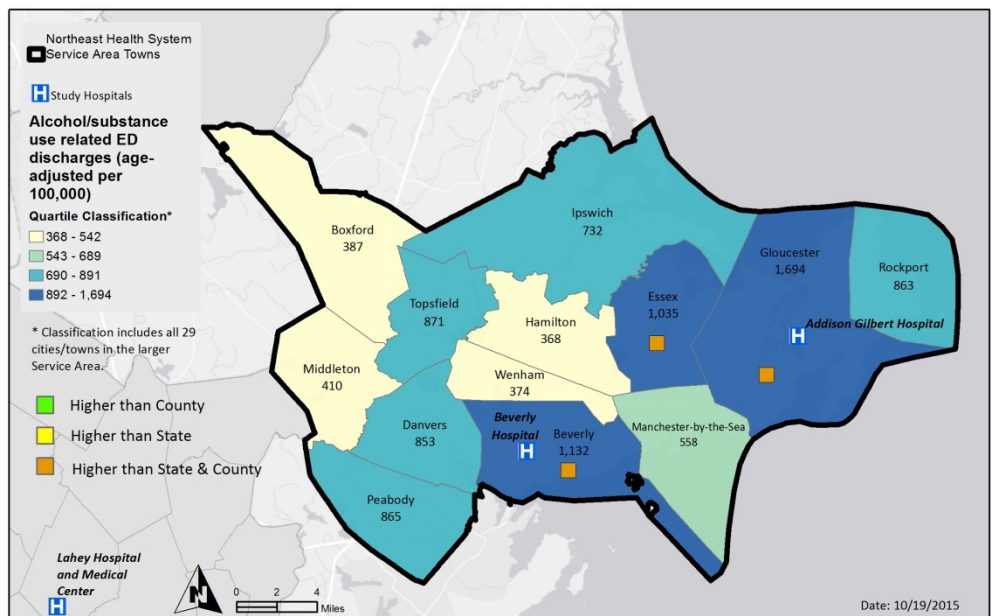
⁹¹ Massachusetts Department of Public Health. Data Brief: Fatal Opioid-related Overdoses among Massachusetts Residents. Accessed at: <http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-aug-2015-overdose-county.pdf>

⁹² 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS)

- **Alcohol- or Other Substance Use-Related ED Visits.** Beverly (1,132), Essex (1,035) and Gloucester (1,694) all had rates of alcohol- or substance use related emergency department discharges per 100,000 that were significantly higher than the Commonwealth rate (859).⁹³
- **Opioid-Related ED Visits.** Gloucester (655), Peabody (479) and Topsfield (368) all had rates of opioid-related emergency department discharges per 100,000 population that were significantly higher than the Commonwealth rate (260).⁹⁴

- **Alcohol Use.** According to the BH-AGH Community Health Survey, 12% of adults reported as heavy drinkers, compared to only about 8% for the Commonwealth overall.⁹⁵

Figure 19: Alcohol/Substance Abuse-Related Emergency Department Discharges (Per 100,000 Population) (Source: Massachusetts Department of Public Health, MassCHIP; 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS))



- **Binge Drinking.** According to the BH-AGH Community Health Survey, 30% of respondents reported “binge drinking” – more than five alcoholic drinks at any one sitting for men and more than four drinks for women – compared to only 15.8% for low-income respondents and 19.4% for Commonwealth residents overall.⁹⁶

- **Mental Health-Related Hospitalizations.** Beverly (1,572), Danvers (1,128), Essex (1,122), Gloucester (1,391) and Peabody (931) all had hospitalization rates per 100,000 population for mental health disorders that were significantly higher than the rates for Essex County (1,031) and the Commonwealth overall (838).⁹⁷

- **Mental Health-Related ED Visits.** Beverly (8,653), Danvers (6,353), Gloucester (8,827), Peabody (5,795) and Rockport (5,339) all had rates of emergency department utilization

⁹³ 2008-2012 Massachusetts Hospital Emergency Visit Discharges

⁹⁴ 2008-2012 Massachusetts Hospital Emergency Visit Discharges

⁹⁵ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

⁹⁶ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

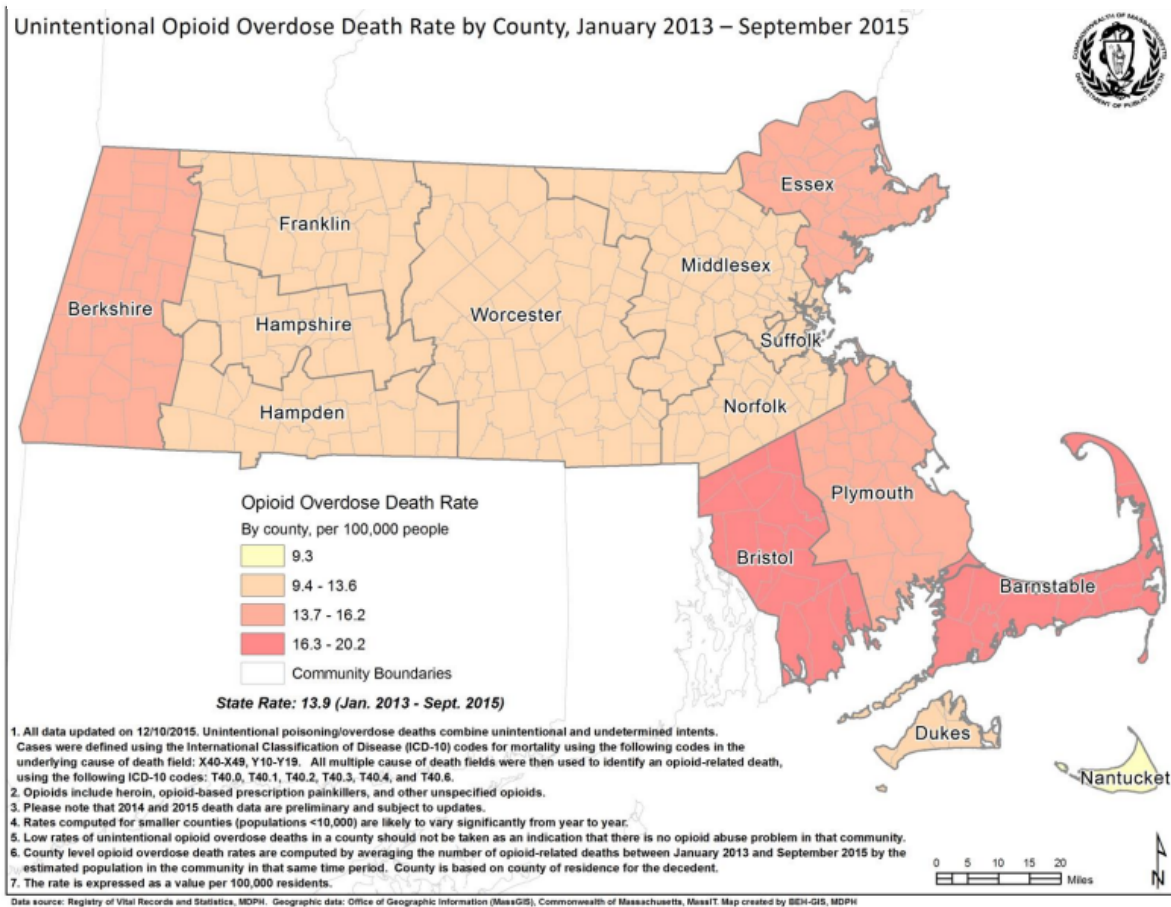
⁹⁷ 2008-2012 Massachusetts Hospital Inpatient Discharges (UHDDS)

per 100,000 population that were higher than the rates for Essex County (5,709) and the Commonwealth overall (4,990).⁹⁸

- **Poor Mental Health.** Approximately 7% of adult respondents (18+) reported as being in poor mental or emotional health more than 15 days per month, compared to approximately 10% for low-income individuals. Commonwealth-wide, 11.2% of adults reported as being consistently in poor mental or emotional health.⁹⁹

There was an overwhelming sentiment across all of the community forums that mental health and substance use were two of the major health issues facing the community. The clear sentiment was that these issues impacted all segments of the population from children and youth to young and middle-aged adults to elders.

Figure 20: Unintentional Opioid Overdose Death Rate by County, Jan. '13–Sept. '15
(Source: MA Department of Public Health)



Interviewees and meeting participants discussed the stresses that youth face related to family, school and their social lives with peers. These stresses often lead to depression, low self-esteem and isolation, as well as substance use, risky sexual behaviors and, in extreme cases, suicide. A number

⁹⁸ 2008-2012 Massachusetts Hospital Emergency Visit Discharges

⁹⁹ 2015 BH-AGH Community Health Survey. 2012-2013 Behavioral Risk Factor Surveillance System (BRFSS)

of stakeholders and forum participants also referenced ADHD, autism and developmental delays in children and youth.

With respect to adults and older adults, the issues are similar in many ways. Stakeholders and forum participants cited depression, anxiety and stress, often coupled with isolation, particularly in older adults. In older adults, mental health issues are often exacerbated by lack of family/caregiver support, lack of mobility and physical health conditions.

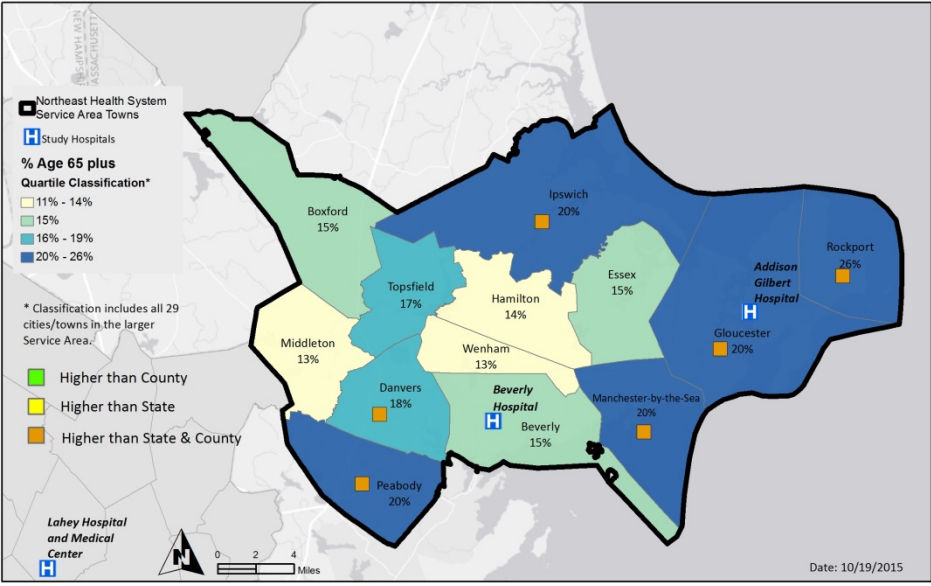
These issues have a major impact on a small but very-high-need group of individuals and families. Community forum participants and interviewees cited substantial gaps in behavioral health services and family/child support services, particularly for low-income individuals and families. Stakeholders advocated strongly for expansion of mental health services, particularly care/case management services, as well as other supportive services that this population needed to manage their conditions and improve their health status and overall well-being.¹⁰⁰

Elder Health

In the United States, in the Commonwealth and in Essex County, 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 disease, Parkinson’s disease and dementia. The CDC and the Healthy People 2020 Initiative estimate that, by 2030, 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.¹⁰¹

Figure 21: Percent Older Adults (65 Years Old or Older)
 (Source: US Census Bureau American Community Survey (ACS, 2009-2013))



leading cause of death among older adults.¹⁰¹

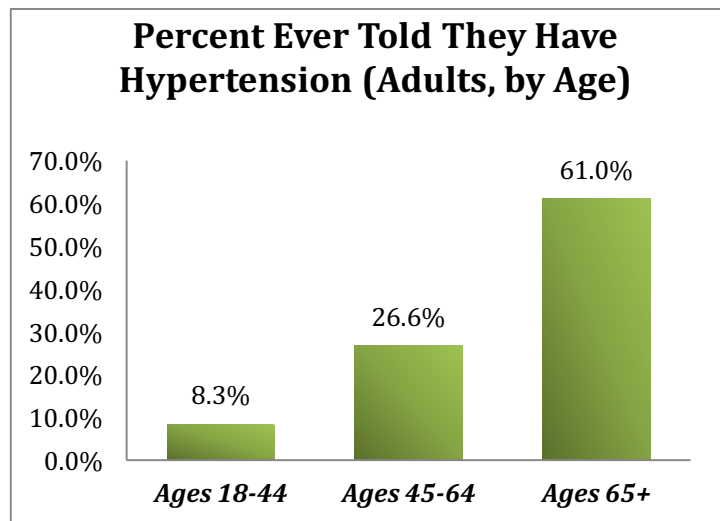
¹⁰⁰ 2015 BH-AGH Key Informant Interviews and Community Forums
¹⁰¹ Office of Disease Prevention and Health Promotion. HealthyPeople.gov. Older Adults. Accessed at: <https://www.healthypeople.gov/2020/topics-objectives/topic/older-adults#two>. Accessed on: July 19, 2016

According to qualitative information gathered through interviews and community forums, elder health is one of the highest priorities for the BH-AGH service area. Chronic disease, depression, isolation and fragmentation of services were identified as some of the leading issues facing the area’s senior population. Demographically, 6 of the 13 towns in BH-AGH’s service area had higher percentages of residents 65 or older than state or county averages, with the highest percentages of seniors in Rockport (26.1%), Manchester by the Sea (20.4%) and Peabody (20.3%). Other municipalities with higher percentages of older adults than the Commonwealth include Ipswich (19.7%), Gloucester (19.8%) and Danvers (17.6%).¹⁰²

When considering elder health, it is important to understand that rates of chronic physical disease by age are much higher for elders 65+ compared to rates for the adult population overall. The older people are, the more likely they are to have one or more chronic conditions. Older adults commonly have two to three or more chronic health conditions.

- **Hypertension.** According to the BH-AGH Community Health Survey, 61% of older adult respondents 65+ had ever been told they have hypertension, compared to only 28% of survey respondents overall.¹⁰³
- **High Cholesterol.** Similarly, of the respondents 65+ who had ever had their blood cholesterol levels checked, 55.9% had ever been told their blood cholesterol levels were high, compared to 33.8% for survey respondents overall.¹⁰⁴
- **Cancer.** With respect to cancer, 43.3% of older adults 65+ had ever been told they had cancer, compared to 15.1% for survey respondents overall.¹⁰⁵

Figure 22: Percent Ever Been Told Had Hypertension by Age, 2015 (Source: BH-AGH Community Health Survey, 2015)



As some of the highest utilizers of health care services and specialty care, seniors are more at risk of being affected by gaps in the health care infrastructure.

- **Specialty Care Utilization.** According to the BH-AGH Community Health Survey, 78.3% of older adults (65+) reported seeking specialty care within the preceding year, compared to 61.2% of all respondents.¹⁰⁶

While clinical integration and care coordination efforts have made great strides, fragmentation of care persists as a serious issue affecting seniors in particular. Older adults in the BH-AGH service

¹⁰² 2009-2013 US Census Bureau American Community Survey (ACS)

¹⁰³ 2015 BH-AGH Community Health Survey

¹⁰⁴ 2015 BH-AGH Community Health Survey

¹⁰⁵ 2015 BH-AGH Community Health Survey

¹⁰⁶ 2015 BH-AGH Community Health Survey

area may find themselves seeing a number of different specialty care doctors, following entirely separate care plans, and attempting to fill and manage multiple prescription drugs without any coordinated direction or support.

- **Alzheimer's Disease.** Older adults in Essex County are statistically more likely to die of Alzheimer's disease than adults in the Commonwealth overall. In the BH-AGH service area, Danvers (47.5), Gloucester (37.1) and Topsfield (46.3) all had age-adjusted rates of Alzheimer's deaths per 100,000 above the Commonwealth average (20.6).¹⁰⁷

While social determinants of health affect all populations, community and organizational experts expressed concern that seniors may feel these effects more acutely. Many older adults live on fixed incomes with limited funds for medical expenses, leaving them less able to afford the high costs associated with negative health outcomes. Transportation was also consistently mentioned as a major barrier to senior well-being, as many elders no longer drive and find themselves with fewer transportation options in BH-AGH's suburban setting.

Caregiver support was consistently brought up as a serious issue in community interviews, as many elders rely on family members or aides to manage their care. Stakeholders reported that, between navigating the health system, organizing appointments and medications, and making major medical decisions on behalf of their loved one, caregiver stress and burnout was one of the greatest threats to senior well-being.

Maternal and Child Health

Maternal and child issues are of critical importance to the overall health and well-being of a geographic region and are 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 from the MDPH on maternal and child health showed that most communities in the BH-AGH service area are not worse off than the Commonwealth on leading maternal and child health indicators. However, based on discussions with pediatric providers in BH-AGH's Department of Obstetrics, as well as information gathered from key informant interviews and community forums, we know that there is a relatively small, but nonetheless critical, number of mothers who struggle with addiction.¹⁰⁸ Their babies often suffer from neonatal abstinence syndrome and require intensive services to manage their withdrawal symptoms.¹⁰⁹ There are also significant numbers of young mothers and fathers, often teens, who are in tremendous need of peer-to-peer and other supportive counseling and educational services.¹¹⁰

¹⁰⁷ 2008-2012 Massachusetts Vital Mortality Records

¹⁰⁸ 2015 BH-AGH Key Informant Interviews and Community

¹⁰⁹ National Institute of Health. Neonatal Abstinence Syndrome, 2015.
<https://medlineplus.gov/ency/article/007313.htm>

¹¹⁰ 2015 BH-AGH Key Informant Interviews and Community

Youth and Adolescents

There is an unfortunate lack of data available on youth and adolescents at the county and town levels. Commonwealth-level data is available through the Massachusetts Youth Risk Behavioral Survey, which provides critical information about substance use, mental health and stress, sexual activity, and other risky behaviors, but it does not provide a complete picture of youth/adolescent health and is not collected for all of the cities and towns in BH-AGH's service area.¹¹¹ Nonetheless, a number of areas of concern particular to youth were highlighted by the Commonwealth-level data, and these same concerns were passionately confirmed by qualitative comments from the interviews and community forums.

- **Mental Health.** In 2013, 1 in 5 high-school youths (22%) in the Commonwealth felt sad or hopeless, and 6% had attempted suicide in the preceding year.¹¹² Nearly 1 in 5 (17%) reported being bullied at school. Exposure to stressors may explain, in part, why certain groups suffer from poorer mental and physical health outcomes than others. Stress related to school, family issues or social situations with peers can have detrimental effects on mental health.
- **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 servings of fruits and vegetables each day, whereas a quarter (25%) reported watching at least three hours of TV on an average school day.¹¹³
- **Alcohol and Substance Use.** In 2013, almost a quarter (23%) of high-school youths in the Commonwealth reported that they had been offered, sold or given drugs in the preceding year. Meanwhile, 1 in 10 (11%) reported current cigarette use, and a third (36%) reported current alcohol use.¹¹⁴

All of these issues were discussed passionately by educators, service providers and community members through the interviews and community forums, and, in fact, they were the basis for one of a few dominant discussions at all of the forums organized for this assessment.

¹¹¹ 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>

¹¹² Massachusetts Department of Elementary and Secondary Education & Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth, 2013.

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¹¹³ Massachusetts Department of Elementary and Secondary Education & Massachusetts Department of Public Health. Health and Risk Behaviors of Massachusetts Youth, 2013.

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¹¹⁴ 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, community forums and the BH-AGH Community Health Survey. Participants engaged in a discussion of (1) the assessment’s 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.

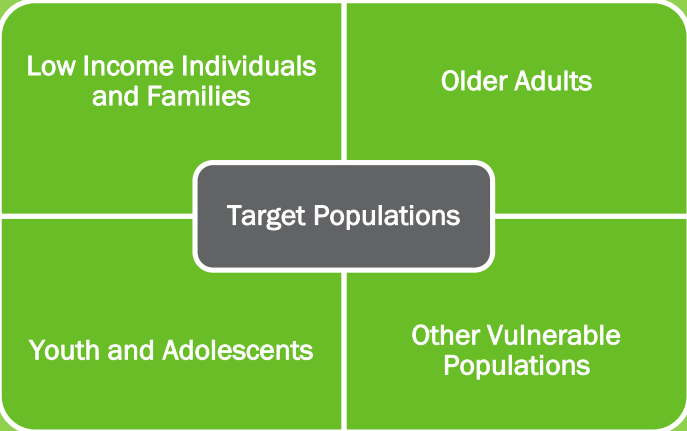


Figure 23: BH-AGH Community Benefits Target Population

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 of BH-AGH’s Community Health Improvement Plan.

Target Populations Most at Risk

BH-AGH, along with its other health, public health, social services and community health partners, is committed to improving the health status and well-being of all residents living throughout its service area. BH-AGH’s Community Health Improvement Plan (CHIP), which was developed as part of this process, provides a roadmap for how BH-AGH will address the issues identified by the needs assessment, including information on goals, objectives, target populations, specific activities, programs and services, measures to monitor impact, and key partners/collaborators.

After considerable discussion, there was broad agreement that BH-AGH’s CHIP should target low-income populations (e.g., low-income individuals/families, older adults on fixed incomes, homeless), older adult populations (e.g., frail, isolated older adults), youths/adolescents (e.g., 13-18, those in middle school and high school), and other vulnerable populations (e.g., diverse racial/ethnic minority and linguistically isolated populations). These demographic and socio-economic target populations have complex needs and 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 lead to disparities in health outcomes.

Community Health Priorities

BH-AGH’s CHNA approach and process provided ample opportunity to vet the quantitative and qualitative data compiled during the assessment. BH-AGH has framed the community health needs in four priority areas, which together encompass the broad range of health issues and social

determinants of health facing residents living in BH-AGH’s service area. These four areas are (1) Wellness, Prevention and Chronic Disease Management; (2) Elder Health; (3) Behavioral Health (mental health and substance use); and (4) Maternal and Child Health.

BH-AGH already has a robust CHIP to address all the identified issues. However, the CHNA has provided new guidance and invaluable insight on quantitative trends and community perceptions, which BH-AGH is using to inform and refine its efforts. The following are the core elements of BH-AGH’s updated CHIP.

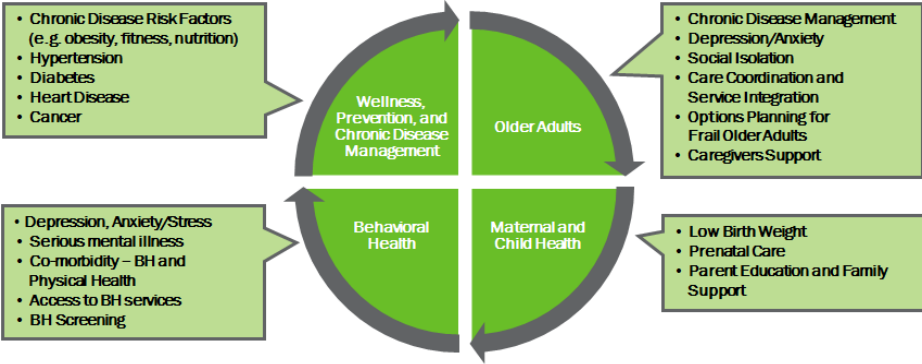


Figure 24: BH-AGH Community Health Priorities

BH-AGH’s Summary Community Health Improvement Plan

Given the complex health issues in the community, BH-AGH has been strategic in identifying its priority areas in order to maximize the impact of its community benefits program and its work to improve the overall health and wellness of residents in its service area. The community health priorities identified above have guided BH-AGH’s community health improvement planning process. The priorities 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 facilitate the greatest possible health impact.

The following goals address the existing issues affecting the target populations and the community health priorities identified above.

Priority Area 1: Wellness, Prevention and Chronic Disease Management
Goal 1: Promote Wellness, Behavior Change and Engagement in Appropriate Care (physical, mental, emotional and behavioral health)
Goal 2: Increase Physical Activity and Healthy Eating
Goal 3: Identify Those with Chronic Conditions or at Risk; Screen and Refer for Counseling/Treatment
Goal 4: Enhance Care Coordination, Counseling and Referral Services During/After Hospital Discharge
Priority Area 2: Elder Health
Goal 1: Promote General Health and Wellness
Goal 2: Promote Healthy Eating and Food Security

Goal 3: Improve Access to Care

Goal 4: Enhance Access to Health and Wellness Services Through Improved Transportation

Goal 5: Improve Chronic Care Management

Goal 6: Reduce Falls

Goal 7: Enhance Care Coordination, Counseling and Referral Services During/After Hospital Discharge

Goal 8: Enhance Caregiver Support and Reduce Family/Caregiver Stress

Goal 9: Decrease Depression and Social Isolation

Priority Area 3: Behavioral Health (Mental Health and Substance Use)

Goal 1: Promote Outreach, Education, Screening and Treatment for Those with Mental Health and Substance Use Issues in Clinical and Community-Based Settings

Goal 2: Increase Access to Mental Health and Substance Use (MH/SA) Services

Goal 3: Improve Integration of MH/SA and Primary Care Medical Services

Goal 4: Increase Awareness and Screening for Domestic Violence (DV) Throughout BH-AGH

Priority Area 4: Maternal and Child Health

Goal 1: Reduce the Number of Babies Born at Low Birth Weight

Goal 2: Increase Parental Support for At-risk Mothers and Fathers