2016

Community Health Needs Assessment for New England Baptist Hospital

NEW ENGLAND BAPTIST® HOSPITAL

Produced by John Snow Inc.

JSI

ACKNOWLEDGEMENTS

This assessment was conducted on behalf of the New England Baptist Hospital (NEBH) President's Council and was overseen by Christine Dwyer, NEBH's Director of Public Affairs and Community Relations. Additional support and guidance was provided by NEBH's Community Benefits Committee and NEBH's Patient and Family Advisory Council. All participants of these groups were involved in various ways throughout the process and provided information and feedback that was vital to the outcome of the project.

Since the beginning of the project in March, dozens of individuals were interviewed by John Snow, Inc. (JSI), the consulting company hired by NEBH to assist with the assessment, including administrative and clinical staff from the Hospital, representatives from the leading health and social service agencies in the Mission Hill and Roxbury communities, Boston Public Health Commission staff, and other public and elected officials. JSI also conducted two focus groups with community residents, service providers, and other community health stakeholders. The information gathered as part of these efforts allowed NEBH to engage the community and gain a better understanding of the health status, health care needs, service gaps, and barriers to care of those living in Mission Hill and Roxbury, NEBH's primary service for its community benefit efforts.

NEBH's President's Council would like to thank everyone that was involved in this assessment, particularly the community members and service providers who participated in interviews and focus groups. While it was not possible for the JSI project team to talk with all of the community's leading service organizations and community leaders, they talked with most, and it was inspiring to see how committed this group was to strengthening and improving the health of their community. The President's Council would also like to thank Ms. Dwyer once again for her determined efforts to advocate for and improve the health and well-being of those living in the Mission Hill and Roxbury communities. NEBH has been in the Mission Hill community for over 120 years and recognizes that the health and strength of the Hospital is linked to the health and strength of its neighborhood. Ms. Dwyer exemplifies this commitment and NEBH is more committed than ever to engaging with and maintaining its connection to one of Boston's great neighborhoods.

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Executive Summary

Purpose and Background

New England Baptist Hospital (NEBH) is one of Boston's leading health care organizations and is nationally recognized for its expertise in orthopedic surgery as well as musculoskeletal disorders and disease. NEBH was the site of one of the first artificial hip replacements in the country and continues to lead the way in new methods to diagnose and treat musculoskeletal disease and promote musculoskeletal health. NEBH prides itself on its ability to blend exceptional patient care and advanced medical knowledge in ways that allow it to achieve the best outcomes for its patients.

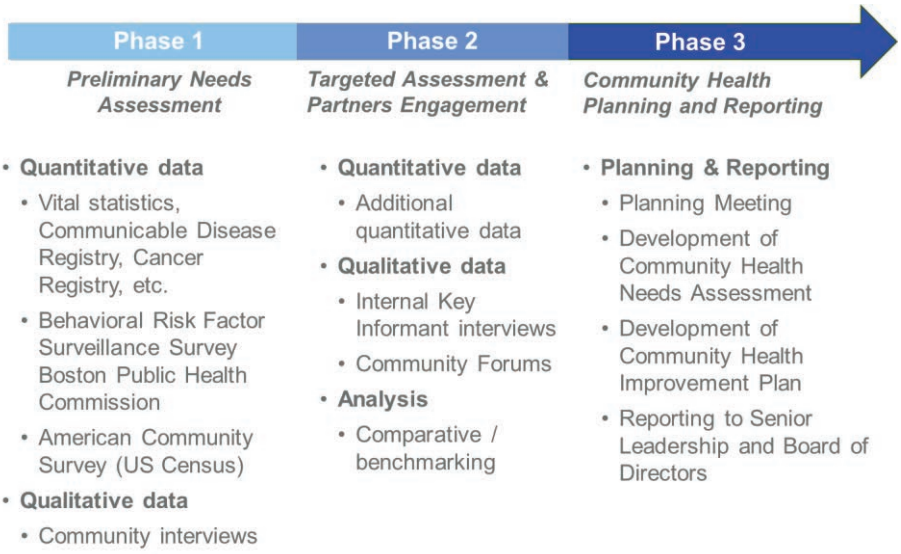
In addition to its commitment to clinical excellence, NEBH is committed to collaborating with community partners and residents from across the Mission Hill/Roxbury neighborhood to identify areas of special need and improve the overall health of the region. NEBH works with all segments of the population but in recognition of its strong ties to its surrounding community and its specific clinical expertise, NEBH focuses its community benefits efforts on improving the health and well-being of the low income, underserved populations living in Mission Hill and Roxbury and on musculoskeletal health. NEBH currently operates numerous educational, outreach, and community-strengthening initiatives, collaborates with many of the community's leading service organizations, and contributes approximately $2.1 Million to the Massachusetts Uncompensated Care Pool each year. NEBH is eager to explore ways that it can further engage and enrich its connections to the community.

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

With respect to community benefits, NEBH works with these partners and collaborators to increase access to services, healthy foods, and physical activity, as well as on assisting those in its CBSA to manage their chronic physical and musculoskeletal health issues. This year in response to the community health assessment, NEBH will also expand what it has historically invested in and work with its community partners as well. This work will be accomplished in partnership with an array of health, social service, and other community-based organizations throughout NEBH's CBSA. Demographically and socio-economically, NEBH focuses its activities to meet the needs of all segments of the population but it focuses its efforts particularly on those who may face disparities due to race, ethnicity, socioeconomic status, and age.

Approach and Methods

The CHNA was conducted in three phases. In Phase I, the JSI project team conducted a preliminary needs assessment that relied heavily on quantitative health-related data drawn from the Massachusetts Community Health Information Profile (MassCHIP) system as well as other national, state, and local sources. These data allowed the JSI project team to understand the underlying characteristics of area residents and identify the specific segments of the community most at-risk. These data also allowed the project team to better understand the leading causes of morbidity and mortality and the associated health-related risk factors. The culmination of Phase I was a series of meetings with the NEBH President's Council and the Patient Family Advisory Committee, which allowed JSI to vet its initial findings and get input from key community leaders as well as NEBH clinicians and senior staff.



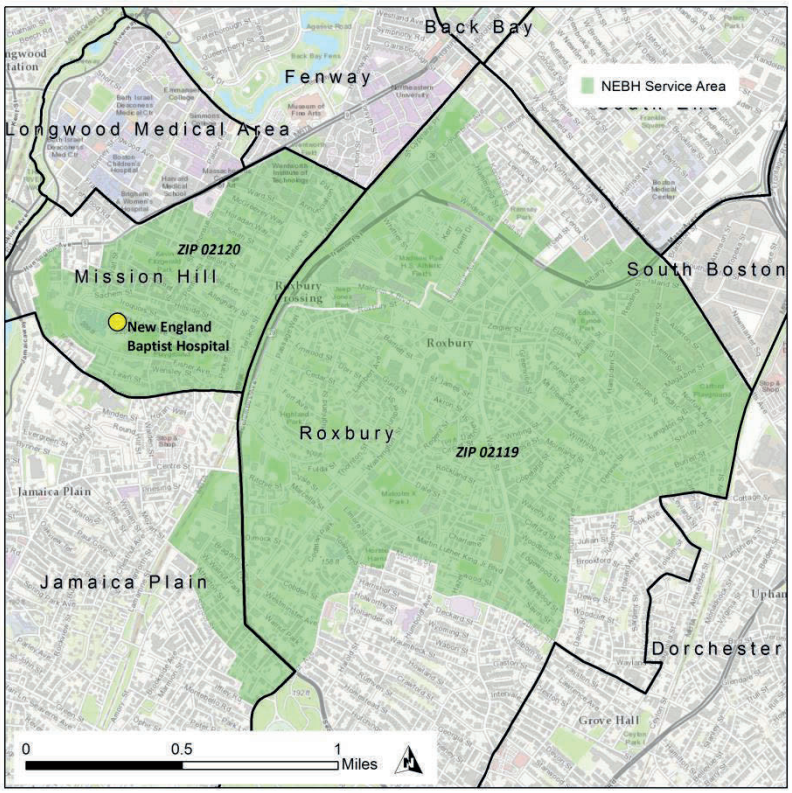
In Phase II, JSI conducted a series of interviews with key stakeholders and two focus groups with community members. The focus groups helped the JSI project team to engage the community and better understand their health status, health-seeking behaviors, service gaps, health-related challenges, and priorities. The intent of the interviews was to gather more in-depth information regarding the leading health issues and priorities, better understand how NEBH should address these issues, and identify partners for future collaboration. By the end of the project, JSI interviewed more than 24 NEBH staff and community stakeholders and conducted two focus groups. The culmination of Phase II was a preliminary CHNA report that compiled, analyzed, and integrated all of the data collected in Phases I and II of the project. The content of this report was then presented to the President's Council, other NEBH staff, and key community leaders in order to gather their input.

In Phase III, Christine Dwyer, Director of Public Affairs and Community Relations, worked with JSI to integrate the CHNA's findings, including feedback from NEBH staff and the community, and developed NEBH's Community Health Improvement Plan. In Phase III, JSI also developed a final CHNA report, obtained approval for its Community Health Improvement Plan from NEBH's Board of Trustees, and disseminated the results of the project to internal and external stakeholders.

NEBH Community Benefits Service Area

NEBH focuses its community benefits efforts on improving the health status of the low income, diverse, older adult, and otherwise vulnerable populations living in parts of Roxbury and Jamaica Plain but focuses primarily on Mission Hill, which is a is a three-quarters (3/4) square mile neighborhood of Boston, with a population of approximately 19,000 persons.

NEBH Community Benefits Service Area (CBSA)



The neighborhoods that are part of NEBH's CBSA have large proportions of low income, racially and ethnically diverse, foreign born immigrant, and older adult residents that often face intense challenges with respect to social determinants of health, access to care, and many of the leading health indicators. NEBH has been committed to working with their CBSA and over the years has supported and collaborated with dozens of organizations in the community in efforts to expand access to care, improve health status, and address many of the other health-related challenges they face. NEBH's support of these neighborhoods has been funneled through an array of community-based organizations that have been partnering with NEBH for years.

Following is a summary of the leading health related findings that were identified through NEBH's community health needs assessment.

Leading Health-Related Findings

- **Social Determinants of Health (e.g., economic stability, education, and community/social context) Continue to Have a Tremendous Impact on Many Segments of the Population.** The dominant theme from the assessment's key informant interviews and community forums was the continued impact that the underlying social determinants of health are having on the CBSA's low income, underserved, diverse population cohorts. More specifically, determinants such as poverty, employment opportunities, violence, transportation, racial segregation, literacy, provider

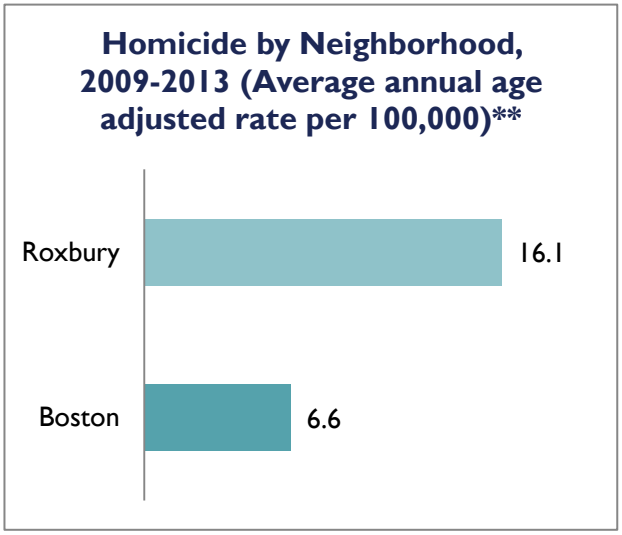
linguistic/cultural competency, social support, and community cohesion limit many people's ability to care for their own and/or their families' health.

- **Low Income.** 35% of Roxbury residents and 41% of Mission Hill residents lived below the federal poverty line compared to 22% for Boston and 12% for the Commonwealth overall. 58% of Roxbury's population and 62% of Mission Hill's population live in households earning less than 200% of the federal poverty level compared to 38% for Boston and 25% for the Commonwealth overall.[1]

- **Economic Challenges.** 79% of Roxbury's housing units and 91% of Mission Hill's housing units were renter-occupied compared to 66% for Boston and 38% for the Commonwealth. 46% of Roxbury residents and 50% of Mission Hill residents living in rental units were considered to be "house poor" as 35% or more of their income was spent on housing compared to 41% for Boston and the Commonwealth.[2]

- **Educational Attainment**. 77% of Roxbury's population and 85% of Mission Hill's population had a high school degree or higher compared to 85% for Boston and 90% for the Commonwealth. Only 23% of Roxbury's population and 36% of Mission Hill's population had a bachelor's degree or higher compared to 45% for Boston and 40% for the Commonwealth.[3]

- **Violence.** Key informants and community forum attendees named violence as a leading health and safety concern. Neighborhood violence can severely limit an individual's ability and motivation to exercise and participate in outdoor events and activities. Furthermore, studies have shown that neighborhoods in which residents share feelings of mutual trust and connectedness are more likely to work together to achieve common goals, like cleaner and safer public spaces, and maintain social controls that discourage undesirable behaviors, like underage substance use and gang activity. Among residents of Roxbury, the homicide rate per 100,000 population was 16.1 compared to 6.6 for Boston overall.[4] The rate of nonfatal gunshot/stabbing emergency department visits was 153.6 per 100,000 population in Roxbury, compared to 76.9 for Boston overall.[5]

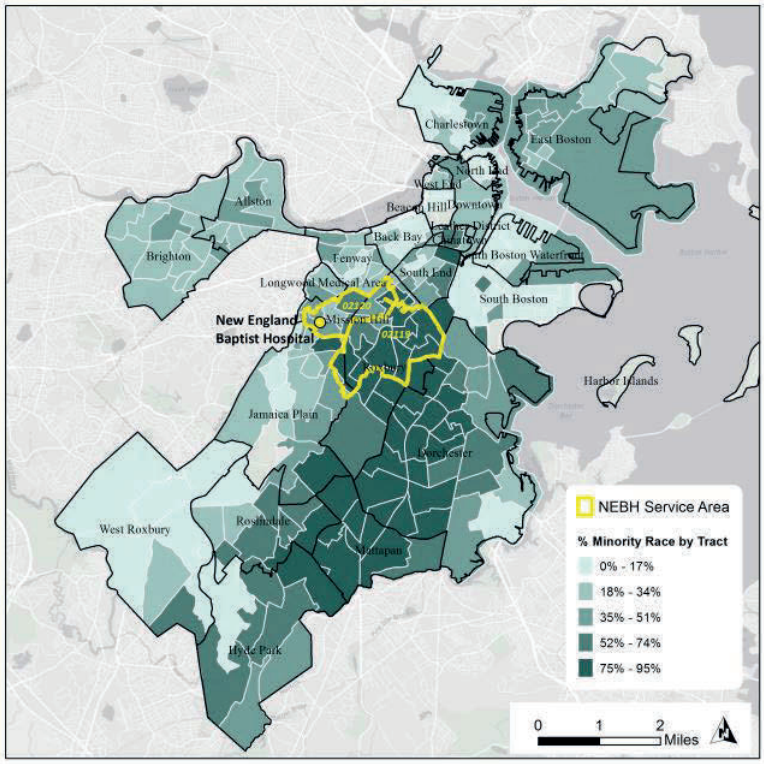


[1] 2014 US Census American Community Survey (ACS)
[2] 2014 US Census American Community Survey (ACS)
[3] 2014 US Census American Community Survey (ACS)
[4] Boston Public Health Commission. 2014-2015 Health of Boston Report. Accessed at: http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport_HOB_2014-2015.pdf
[5] 2014-2015 Health of Boston Report

- **Transportation.** Community forum attendees identified a need for a broad intervention to address transportation equity issues on Mission Hill. Access to affordable and reliable forms of transportation was a key area of concern for older adults, who rely on various forms of public transport to attend doctor's appointments, visit the pharmacy, and access other health and social services.

- **Older Adults.** 12% of Roxbury's population and 7% of Mission Hill's population is over 65 years of age compared to 10% for Boston and 14% for the Commonwealth.[6] Many forum attendees identified older adults as a population that has unique needs and disparate health outcomes, yet are reluctant to voice concerns over fear of displacement from their homes and communities.

- **Disparities in Health Outcomes Exist in NEBH CBSA by Race/Ethnicity, Foreign Born Status, and Language:** As was established in the 2013 NEBH Community Benefits CHNA Report, there are major health disparities for residents living in NEBH's CBSA. This is particularly true for racially/ethnically diverse, foreign born, and non-English speaking residents living in Roxbury, at the heart of NEBH's CBSA, which face many of the most significant disparities in the City of Boston and Massachusetts overall. The impact of racism, barriers to care, and disparities in health outcomes that those living in NEBH's CBSA face are widely documented in the literature and are confirmed by numerous national, Commonwealth, and local data sources, including quantitative data from the Boston Public Health Commission 2014-15 Health of Boston Report.[7] It should also be noted that one of the dominant themes from the assessment's key informant interviews and community forums was the impact that the underlying social determinants listed above have on the service area, particularly on low income, racially/ethnically diverse, and older adult cohorts.



- **Race/Ethnicity.** 9% of Roxbury's population and 45% of Mission Hill's population is non-Hispanic White compared to 75% for Boston and the Commonwealth. Non-Hispanic Blacks, non-Hispanic Asians, and Hispanics represent a significantly larger percentage of

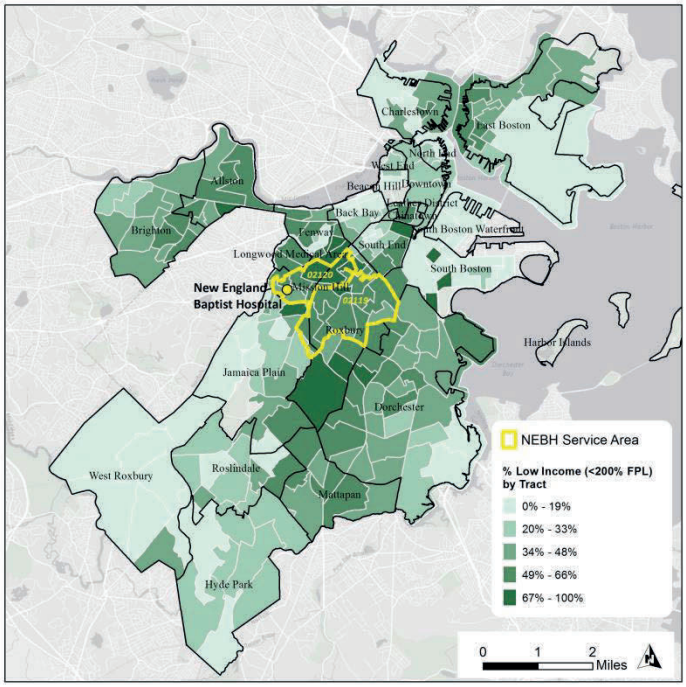
[6] 2014 US Census American Community Survey (ACS)
[7] Boston Public Health Commission. 2014-2015 Health of Boston Report. Accessed at: http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport_HOB_2014-2015.pdf

Roxbury's population (55%, 2%, 29%) and Mission Hill's population (21%, 12%, 20%) compared to Boston (13%, 6%, 5%) and the Commonwealth (6%, 6%, 10%).[8]

- **Foreign born.** 27% of Roxbury's population and 23% of Mission Hill's population is foreign born compared to 15% for the Commonwealth.[9]
- **Linguistically Isolated.** 43% of Roxbury's population and 39% of Mission Hill's population is linguistically isolated compared to 37% for Boston and 22% for the Commonwealth. 27% of Roxbury's population and 18% of Mission Hill's population speak Spanish at home compared to 16% for Boston and 8% for the Commonwealth.[10]

It is crucial that these disparities be addressed and, to this end, NEBH's Community Health Improvement Plan continues to include a range of programs that are targeted to address these disparities. However, it is critical to note that there is a multitude of individual, community and societal factors that work together to create these inequities. The underlying issue is not only race/ethnicity, foreign born status, or language but rather a broad array of inter-related issues including economic opportunity, education, crime, and community cohesion. Arguably, these are the leading determinants of health for all urban communities in the United States, and they are daunting challenges. NEBH is committed to doing what it can to address these factors and many of the components of NEBH's CHIP is structured to address the existing health disparities and inequities in some way.

- **Limited Access to Primary Care Medical and Specialty Care, Oral Health, and Behavioral Health Services for Low Income, Medicaid Insured, Uninsured, and Other Population Segments Facing Barriers to Care.** Massachusetts has one of highest rates of health insurance and one of the strongest, most robust health service systems in the nation, yet there are still substantial 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. As will be discussed below, these populations are, in turn, more likely to use the emergency room and more likely to have health risk factors such as obesity, poor fitness, and risky alcohol use as well as more likely to have diabetes, hypertension, and asthma.[11]



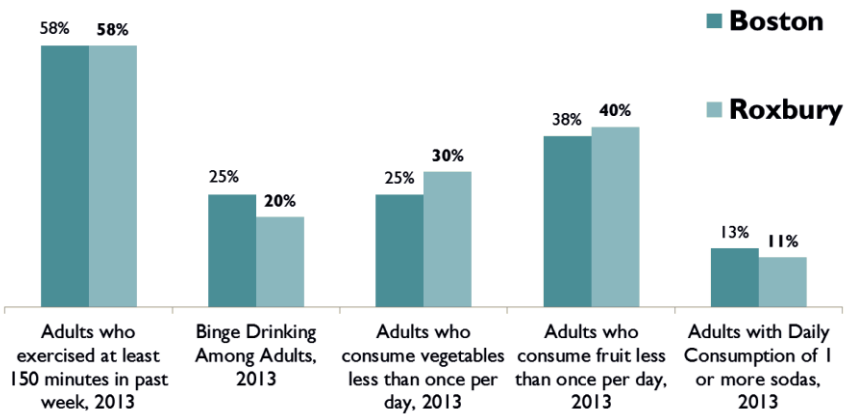
[8] 2014 US Census American Community Survey (ACS)
[9] 2014 US Census American Community Survey (ACS)
[10] 2014 US Census American Community Survey (ACS)
[11] Boston Public Health Commission. 2014-2015 Health of Boston Report. Accessed at: http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2014-2015/FullReport_HOB_2014-2015.pdf

- **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.[12] These populations were more likely to be low income, older adult, and foreign born.
- **High Uninsurance Rates in Low Income.** Among low-income residents of the Commonwealth, the uninsurance rate was 8% - double the uninsurance rate of the Commonwealth's total population (4%).[13] According to the Blue Cross Foundation, uninsured adults in the Commonwealth were more likely to be young, male, and single, with lower reported educational attainment. However, the majority of uninsured adults were employed.[14]
- **Lack of Access to Primary Medical and Oral Health Care Services.** Uninsured adults are less likely to use health care services than those that are insured. Approximately 87% of insured adults in the Commonwealth reported visiting a general physician within the past 12 months, compared to 63% of uninsured adults. Uninsured adults are more likely to report problems obtaining care compared to those that were insured (37% versus 21%, respectively. Most concerning is that among all adults who reported a health care visit, uninsured adults were nearly 30 percentage points less likely to rate the quality of care as very good or excellent.[15] Finally, 3 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.[16]
- **Lack of Access to Behavioral Health Services.** One of the most common findings from those who were interviewed or participated in the community forums was the burden of mental health and substance abuse on residents throughout NEBH's service area. Residents suffered from a broad range of issues including depression, anxiety, dementia, alcohol abuse, and opioid abuse. In addition to discussing the burden of these issues on individuals, families, and the community, participants reflected on the lack of educational, assessment, and treatment services available in the community to support those with behavioral health issues.
- **Higher Emergency Department Utilization.** Approximately 38% of uninsured adults in the Commonwealth reported visiting the emergency department in the past year; 18% reported that their most recent ED visit was for a non-emergency condition that could

[12] 2015 NEBH Key Informant Interviews and Community and Provider Forums
[13] http://kff.org/other/state-indicator/total-population/ (Henry J. Kaiser Foundation, 2014)
[14] Blue Cross Foundation Massachusetts. Reaching the Remaining Uninsured in Massachusetts: Challenges and Opportunities. 2013. Accessed at: http://bluecrossmafoundation.org/sites/default/files/download/publication/Uninsured_in_MA_Report_FINAL_0.pdf
[15] Blue Cross Foundation Massachusetts. Reaching the Remaining Uninsured in Massachusetts: Challenges and Opportunities. March 2013. Accessed at: http://bluecrossmafoundation.org/sites/default/files/download/publication/Uninsured_in_MA_Report_FINAL_0.pdf
[16] 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

have been treated by a general physician if one was available. This compared to 32% and 13%, respectively, for insured adults.[17]

- **High Rates of the Leading Health Risk Factors.** One of the leading findings from the assessment is that many communities and/or population segments in NEBH's CBSA have high rates of chronic physical and behavioral health conditions. In some individuals, these conditions have underlying genetic roots that are difficult to counter. However, for most people these conditions are widely considered to be preventable or manageable. Addressing the leading health risk factors (e.g., Lack of Nutritional Food and Physical Activity, Alcohol/Illicit Drug Abuse, and Tobacco Use) is critical to chronic disease prevention and management efforts. It should be noted that most areas within NEBH's service area fare well against Commonwealth averages on these risk factors. However, there are cities/towns whose rates are not as favorable. As stated above, low-income, foreign born, and older segments of the population are more likely to be at-risk.



    - **Overweight/Obese.** 30% of Roxbury adults reported in obese categories compared to 22% for Boston. 30% of Roxbury adults consumed vegetables less than once per day compared to 25% for Boston.[18]
    - **Cigarette Smoking**. 18% of Roxbury adults reported as current smokers compared to 16% for Boston overall.[19]
    - **Alcohol Use.** Roxbury's alcohol-related hospital patient encounter rate per 1,000 population was 22.6 compared to 17.7 for Boston.[20]

- **High rates of Substance Use and Mental Health Issues.** During interviews and community forums, residents and area service providers spoke passionately about the tremendous impact that mental health and substance use issues have on many individuals and families in the service area. Depression and anxiety, isolation, alcohol abuse, opioid and prescription drug abuse, and post-traumatic stress disorder were identified as major health concerns. Opioid abuse was a particular concern for residents and service providers in NEBH's service area and

[17] Blue Cross Foundation Massachusetts. Reaching the Remaining Uninsured in Massachusetts: Challenges and Opportunities. March 2013. Accessed at: http://bluecrossmafoundation.org/sites/default/files/download/publication/Uninsured_in_MA_Report_FINAL_0.pdf
[18] 2013 Behavioral Risk Factor Surveillance System
[19] Boston Public Health Commission. 2012-2013 Health of Boston Report. Accessed at: http://www.bphc.org/healthdata/health-of-boston-report/Documents/HOB-2012-2013/HOB12-13_FullReport.pdf
[20] BPHC CHIA, 2008-2012

there were calls for greater outreach, education, screening, and treatment services for all segments of the population.

Behavioral health outcomes, 2013

Area	Mental Health Hospitalizations, 2013 (age adjusted rate per 1,000)	Alcohol-Related hospital patient encounters* (residents 12+) (age adjusted rate per 1,000)	Drug-related hospital patient encounters* (residents 12+) (age adjusted rate per 1,000)	Persistent Sadness Among Adults (15+ days during past 30 days), 2013	Suicide, 2009-2013 (Avg annual age adjusted rate per 100,000)
Boston	8.0	17.7	6.8	12.2 (10.7-13.7)	6.7
Roxbury	9.0	22.6	12.2	12.6 (7.7-17.5)	6.2

*Sources: Hospital Case Mix Database, MA Center for Health Information and Analysis (CHIA), **MA Hospital Inpatient Discharges 2008-2012, ***MA Vital Records 2008-2012*
Analysis: Boston Public Health Commission Research and Evaluation
**Includes ED visits, observational stays, and inpatient hospitalizations*

Despite the burden of mental health and substance abuse on all people, there is an extremely limited service system available to meet specialized needs, especially for older adults, those with mild to moderate episodic issues, and those with severe, complex, chronic conditions. Efforts need to be made to expand access, reduce barriers to care (including stigma), and improve the quality of primary care and specialized behavioral health services.

- **Substance Use.** Roxbury's rate of admissions to treatment programs for substance use per 1,000 population was 55.8 compared to 30.2 for Boston.[21]
- **Substance Use.** Roxbury's alcohol-related hospital patient encounter rate per 1,000 population was 22.6 compared to 17.7 for Boston. Similarly, the drug-related hospital patient encounter rate per 1,000 population was 12.2 compared to 6.8 for Boston.[22]
- **Substance Use.** Roxbury's unintentional drug overdose death rate per 100,000 population was 15.9 compared to 15.5 for Boston. The unintentional opioid overdose/poisoning hospital patient encounter rate was 1.9 for Roxbury compared to 1.1 for Boston.
- **Substance Use.** Roxbury's substance abuse mortality rate per 100,000 residents was 36.3 compared to 33.9 for Boston (HOB 2012-2013 - average annual rates for 2005-2011).
- **Mental Health.** The rate of mental health hospitalizations for Roxbury was 9.0 compared to 8.0 for Boston.
- **Mental Health.** 13% of Roxbury adults reported as being in poor mental or emotional health more than 15 days in the past month compared to 12% for Boston residents.
- **Mental Health.** Key informants and community forum participants identified isolation and depression as a leading issue faced by the area's older adult population. Interviewees and forum participants discussed additional challenges faced by older adults who are more likely to struggle with chronic physical health conditions. They face barriers that

[21] BPHC CHIA / BSAS
[22] BPHC CHIA, 2008-2012

make it harder for them to leave their homes, especially if they are sick, frail, or depressed.

- **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, overall, NEBH's service area fares better than the Commonwealth with respect to chronic disease rates. It should be noted that even for those communities that do not have rates that are statistically higher than the Commonwealth, these conditions are still the leading causes of premature death.

Cardiovascular health outcomes, 2013

Area	Percent of Adults with Hypertension, 2013	Heart Disease Hospitalizations, 2013*	Heart Disease Mortality, 2013*
Boston	24.0 (22.3-25.6)	9.1	133.6
Roxbury	28.3 (22.1-34.5)	13.2	148.3

*age-adjusted rate per 100,000

Sources: *Boston Behavioral Risk Factor Surveillance Survey, 2013 and Hospital Case Mix Database, MA Center for Health Information and Analysis (CHIA)*
Analysis: *Boston Public Health Commission Research and Evaluation*

  - **Cardiovascular Disease.** The hospitalization rate per 1,000 population due to heart disease was 13.2 for Roxbury compared to 9.1 for Boston. The mortality rate per 100,000 due to heart disease was 148.3 for Roxbury compared to 133.6 for Boston.[23]
  - **Hypertension.** The hospitalization rate per 100,000 due to hypertension was 110 for Boston compared to 45 for the Commonwealth. 28.3% of Roxbury adults reported having hypertension compared to 24% for Boston overall.[24]
  - **Diabetes.** The diabetes prevalence in Roxbury was significantly higher compared to Boston overall. 15.1% of Roxbury adults reported having diabetes compared to 8.6% of Boston adults. The hospitalization rate due to diabetes per 1,000 population was 3.5 for Roxbury, compared to 1.9 for Boston.[25]
  - **Asthma.** 13.8% of Roxbury adults reported having asthma compared to 11.1% for Boston. The hospitalization rate due to asthma per 1,000 population was 5.9 for Roxbury, compared to 2.6 for Boston. Similarly, the hospital emergency discharge per 1,000 population due to asthma was 17.5 for Roxbury, compared to 9.0 for Boston overall.[26]

Asthma outcomes, 2013

	Percent of Adults with Asthma, 2013	Asthma Emergency Department Visits, 2013*	Asthma Hospitalizations, 2013*
Boston	11.1 (9.7-12.5)	9.0	2.6
Roxbury	13.8 (7.9-19.7)	17.5	5.9

*age-adjusted rate per 100,000

Sources: *Boston Behavioral Risk Factor Surveillance Survey, 2013 and Hospital Case Mix Database, MA Center for Health Information and Analysis (CHIA)*
Analysis: *Boston Public Health Commission Research and Evaluation*

[23] CHIA
[24] CHIA
[25] CHIA
[26] CHIA

- High Rates of HIV/AIDS. Great strides have been made in controlling and managing HIV/AIDS, and for many it is managed as a chronic condition with medications. Although rates of illness, death, and HIV transmission declined overall in the past decade, HIV/AIDS continues to impact certain segments of the population, including men who have sex with men and injection drug users. In NEBH's CBSA, rates of HIV/AIDS are particularly high in Roxbury. The hospitalization rate per 100,000 where HIV/AIDS was the primary reason for the visit was 40 for Boston compared to 12 for the Commonwealth.

- 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 NEBH's service area have high cancer incidence, hospitalization or mortality rates. This is particularly true for certain cancers in specific communities. Roxbury is more burdened by colorectal cancer, breast cancer, lung cancer, pancreatic cancer, and prostate cancer. There are a myriad of factors associated with cancer and many of them are difficult to assess or address. However, at the root of addressing cancer and high mortality is screening, early detection, peer support, and access to timely, supportive, quality treatment.

Cancer Mortality, 2011-2013

Area	All Cancer, 2013	Colorectal Cancer 2011-2013	Female Breast Cancer 2011-2013	Lung Cancer, 2011-2013	Pancreatic Cancer, 2011-2013	Prostate Cancer, 2011-2013
Boston	176.1	16.4	17.9	45.4	12.1	25.7
Roxbury	170.8	25.5	23.6	64.3	16.1	49.5

All age-adjusted rates per 100,000
Sources: *Boston Resident Deaths, MA DPH*
Analysis: *Boston Public Health Commission Research and Evaluation*

    - Cancer. Roxbury's mortality rate due to colorectal cancer per 100,000 population was 25.5 compared to 16.4 for Boston. The mortality rate due to lung cancer was 64.3 compared to 45.4 for Boston.[27]
    - Cancer. Roxbury's mortality rate due to breast cancer in females per 100,000 population was 23.6 compared to 17.9 for Boston. The mortality rate due to prostate cancer was 49.5 compared to 25.7 for Boston.[28]
    - Cancer. Roxbury's mortality rate due to pancreatic cancer per 100,000 was 16.1 compared to 12.1 for Boston.[29]

[27] Boston Resident Deaths, MA DPH
[28] Boston Resident Deaths, MA DPH
[29] Boston Resident Deaths, MA DPH

Community Health Priorities and Target Populations

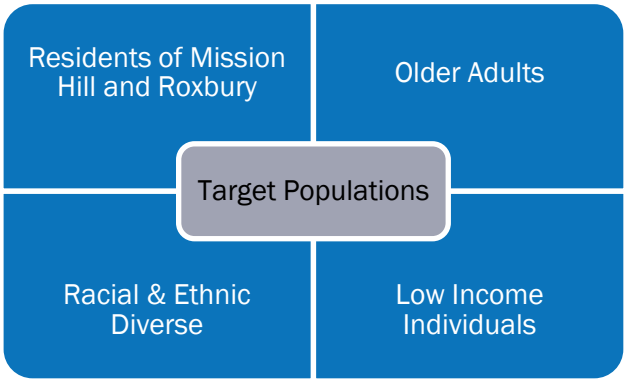
Once all of the assessment's findings were compiled, hospital and community stakeholders participated in a planning process that integrated data findings from Phases I and II of the project, including information gathered from interviews and community forums. Participants reviewed the assessment findings and the current community benefits program activities. From these discussions, a listing of community benefits target populations and community health priorities were identified. Finally, NEBH staff, with input from JSI and the Community Benefits Committee, developed NEBH's Community Health Improvement Plan (CHIP), which builds on prior work. Care was taken to identify those activities that continue to be aligned with community need and are having a positive impact on the community. New community health activities were identified in response to knowledge of best practices and new needs identified by the assessment.

Following is a brief summary of the target populations and community health priorities that were identified. Also included below is a review of the goals, objectives, and core elements of NEBH's Community Health Implementation Plan (CHIP).

Target Populations

NEBH, along with its other health, public health, social service, and community health partners, is committed to improving the health status and well-being of all residents living throughout its CBSA. In light of this, NEBH's CHIP includes many activities that will support residents throughout NEBH's CBSA. However, based on the assessment's quantitative and qualitative findings, including discussions with a broad range of community participants, there was broad agreement that NEBH's CHIP should target certain demographic, socio-economic and geographic cohorts that have complex needs, and face barriers to care, service gaps, and other adverse social determinants of health that can put them at greater risk. More specifically, the assessment identified low income populations, older adults, racially/ethnically diverse populations, and residents from Mission Hill and Roxbury overall.

Community Health Target Populations



Community Health Priorities

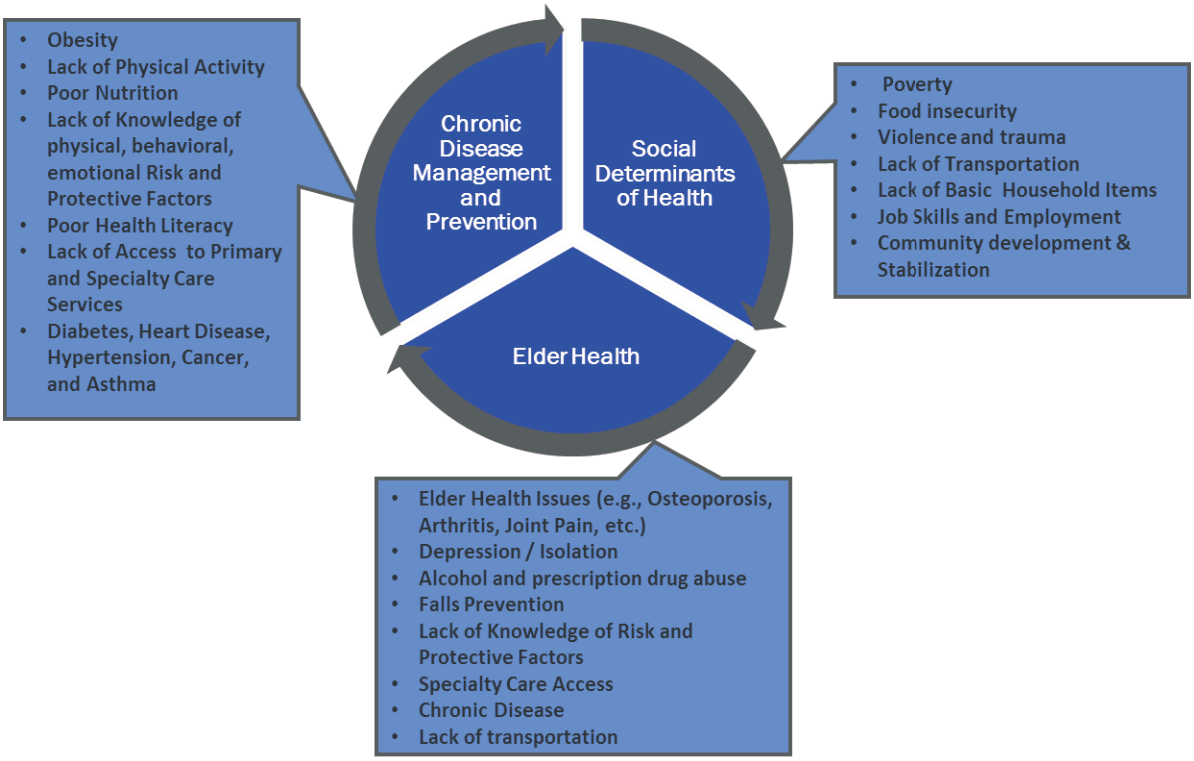
NEBH's CHNA's approach and process provided ample opportunity to vet the quantitative and qualitative data compiled during the assessment. NEBH has framed the community health needs in three priority areas, which together encompass the broad range of health issues and social determinants of health facing residents living in NEBH's CBSA. These three areas are: 1) Social Determinants Health (including poverty, food insecurity, safety and violence), 2) Chronic Disease Management and Prevention (including physical, behavioral, and emotional risk factors as well as

chronic disease management) and 3) Elder Health (including access to care, falls prevention, depression/anxiety, and isolation).

It should be noted that one of the primary differences with respect to NEBH's community health assessment this year compared to its assessment in 2013 was the impact and burden of behavioral health issues. While, NEBH does not have the expertise and capacity to dedicate a great deal of community benefits resources to behavioral health issues, the organization is committed to doing what it can to promote awareness, educate, and reduce the impacts of behavioral health issues, particularly for youth/adolescent and older adult segments of its service area. For example, NEBH works with community partners to reduce violence and its impacts among youth. NEBH also promotes physical activity and socialization among its older adult population witch has clear benefits with respect to physical and emotional well-being. Finally, with respect to chronic disease management, NEBH sponsors educational sessions and workshops that educate participants on the risk factors associated with chronic disease, including the physical, behavioral, and emotional factors such as depression, alcohol and drug abuse.

NEBH already has a robust community health implementation plan that it has been implementing with community partners for years to address all of the issues identified in this assessment. This year's CHNA has provided new guidance and invaluable insight on quantitative trends and community perceptions that have been used to inform and refine NEBH's current efforts. The following are the core elements of NEBH's updated Community Health Implementation Plan (CHIP).

Community Health Priorities



NEBH's Community Health Implementation Plan

Given the complex health issues in the community, NEBH has been strategic in identifying its priority areas in order to maximize the impact of its community benefits program and work to improve the overall health and wellness of residents in its CBSA. Based on the data, NEBH has identified the following as the highest priority needs of the CBSA:

1. Social Determinants and Health
2. Chronic Disease Management and Prevention
3. Elder Health

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

The following goals address the existing access, care coordination issues, barriers, and targeted service gaps identified through the CHNA process.

Priority Area 1: Social Determinants of Health

Improvements in health status begin with knowledge of the population's characteristics as well as the underlying social, economic, and environmental factors that impact health and health equity. More specifically, determinants such as poverty, employment opportunities, violence, transportation, racial segregation, literacy, provider linguistic/cultural competency, social support, and community cohesion limit many people's ability to care for their own and/or their families' health. The following goals and objectives address the existing challenges, access issues, barriers to care, and targeted service gaps identified through the needs assessment process.

Priority Area 1: Social Determinants of Health
Goal 1: Increase Access to Healthy Foods and other Basic Household Needs
Goal 2: Promote Violence Prevention and Address Trauma (Safe Neighborhoods/Community Cohesion)
Goal 3: Increase Job Opportunities for Youth and Adults
Goal 4: Decrease Transportation Barriers

Priority Area 2: Chronic and Infectious Disease Management and Prevention

Lack of physical activity, poor nutrition, alcohol abuse, depression/isolation, and tobacco use are some of the leading risk factors for chronic disease and poor emotional health. Addressing these issues and developing healthy habits in these areas are among the most important things people of all ages can do to improve their health and manage their chronic health conditions. Physical activity helps prevent many diseases (e.g. heart disease, diabetes and some cancers), strengthens bones

and muscles, reduces stress and depression and makes it easier for people to maintain a healthy body weight. Eating a healthy diet can help lower people's risk for heart disease, high blood pressure, diabetes, osteoporosis and certain cancers, and also helps people maintain a healthy body weight and promote a sense of overall health and emotional well-being. Limiting alcohol consumption and not using tobacco can dramatically reduce one chances of contracting heart disease, diabetes, and respiratory disease as well as depression and anxiety.

There are a broad range of chronic and infectious diseases prevalent in NEBH's CBSA, including heart disease, diabetes, asthma, hypertension, cancer, HIV/AIDS, and depression. Although treating these illnesses requires a range of clinical interventions, there is a great deal of overlap with respect to the potential community interventions. Population-level responses to chronic and infectious illnesses all require community based education, screening, timely access to treatment and seamless coordination of follow-up services, including access to wellness activities that address health risk factors.

NEBH, in collaboration with public health officials, community based organizations and other clinical providers is already fully engaged on these issues and NEBH has a broad range of existing programs that work to address prevention, service coordination, improve follow-up care, and ensure that those with chronic and infectious conditions are engaged in the services they need. However, these efforts need to be enhanced and refined based on data from this assessment. Moving forward, it is critical that these issues be addressed and perfected so that NEBH, other clinical providers, and the broad range of key community based organizations can work collaboratively to address community need with respect to physical, behavioral, and emotional health issues. The following goals and objectives address the existing educational, assessment, care coordination, and access to care and services issues identified through the assessment process.

Priority Area 2: Chronic Disease Management and Prevention

Goal 1: Promote General Health, Wellness, and Emotional Well-being

Goal 2: Increase Physical Activity and Healthy Eating

Goal 3: Improve Chronic Disease Management (e.g., Increase screening, Identification, and referral for those with Chronic Disease and/or its Associated Risk Factors, including physical, emotional, and behavioral health risk factors)

Priority Area 3: Elder Health

In the United States, in the Commonwealth, and in NEBH's CBSA, particularly on Mission Hill, older adults are one of the fastest growing populations and are widely considered to be among those most at-risk. The first "baby boomers" (adults born between 1946 and 1964) turned 65 in 2011 and over the next 20 years these "baby boomers" will gradually enter the older adult cohort. Older adults are much more likely to develop chronic illnesses and related disabilities such as heart disease, hypertension, and diabetes as well as congestive heart failure, depression, anxiety, Alzheimer's, Parkinson's disease, and dementia. By 2030, the CDC and the Healthy People 2020 Initiative estimates that 37 million people nationwide (60% of the older adult population 65+) will manage more than one chronic medical condition. Many experience hospitalizations, nursing home admissions, and low-quality care. They are also prone to falls and may lose their ability to live

independently at home. Chronic conditions and unintentional injury are among the leading cause of illness and death among older adults.[30] According to qualitative information gathered through interviews and community forums, elder health is one of the highest priorities. Chronic disease, depression, isolation and fragmentation of services were identified as some of the largest issues facing the area's senior population.

Priority Area 3: Elder Health
Goal 1: Promote General Health and Emotional Well-being
Goal 2: Decrease Depression and Social Isolation
Goal 3: Reduce Falls
Goal 4: Increase screening, Identification, and referral for Elders with Health Issues such as Osteoporosis, Arthritis/Lupus, and Depression

On-going Planning, community engagement, and Implementation

Historically, NEBH has relied heavily on Mission Hill's and Roxbury's leading health and social service organizations to implement its community benefit initiatives. To this end, the Hospital has provided financial support directly to community organizations such as Sociedad Latina, the Tobin Community Center, Mission Hill Senior Legacy Project, Action for Boston Community Development (ABCD), Mission Hill Little League, and the Roxbury Tenants of Harvard (RTH) as well as many other organizations. NEBH will continue to operate in this manner but will also expand existing and develop new community education, outreach, health promotion, and community enrichment activities. This assessment was meant to ensure that the community benefit program was aligned with and responsive to the needs of its target population. All the activities discussed in NEBH's Community Health Improvement Plan are aligned with key finding identified during the assessment.

The efforts that are part of NEBH's Community Health Improvement Plan will be implemented and coordinated by Christine Dwyer, Director of Public Affairs and Community Relations at NEBH, who will work in close concert with NEBH's Community Benefit Committee and Patient and Family Advisory Council as well as key stakeholders throughout the community. Ultimately, the Community Health Improvement Plan will be overseen by David Passafaro, Sr. Vice President, External Affairs and NEBH's President's Council, which is comprised of the hospital's senior leadership team.

New England Baptist Hospital is committed to collaborating with community partners and residents to strengthen the community and improve overall health and well-being. NEBH is also committed to leveraging existing resources and building local capacity. NEBH looks forward to strengthening its connections and to continued collaboration with the area's social service organizations, community groups, and residents.

[30] 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 7/19/2016

NEW ENGLAND BAPTIST HOSPITAL COMMUNITY HEALTH IMPROVEMENT PLAN (CHIP)

2016

Priority Area 1: Social and Economic Determinants of Health

Goal	Target Population	Programmatic Objectives	Community Activities	Community Partners
Increase Access to Healthy Foods and other Basic Household Needs	• Low-income individuals and families	• Educate individuals and families about healthy eating, meal planning, household budgeting, etc. • Decrease the number of individuals and families who suffer from food insecurity and/or lack basic household items	• Support community food pantries • Support and promote the development of community workshops, cooking classes, and educational sessions	• Action for Boston Community Development (ABCD) • Sociedad Latina • Mission Hill Elementary School • Roxbury Tenants of Harvard (RTH) • Tobin Community Center • Fair Foods
Increase Job Opportunities for Youth and Adults	• Youth and adults	• Provide summer internship and employment opportunities for youth • Provide career training and employment opportunities for adults interested in health careers	• Support the Meredith Cameron Youth Opportunity Internship • Promote hospital job opportunities to Mission Hill residents	• Action for Boston Community Development (ABCD) • Sociedad Latina • Roxbury Tenants of Harvard (RTH) • Mission Main • Tobin Community Center • Private Industry Council (PIC)
Improve Access and Safety to Essential Community Venues for Mission Hill	• Mission Hill community	• Increase the number of Mission Hill residents who have access to affordable transportation to	• Support the Mission Link • Maintain McLaughlin Field • Make community	• Mission Link • Friends of McLaughlin Park • City of Boston

Residents		ensure access to basic needs and reduce isolation • Improve accessibility and beautify community parks and other areas • Remove trash and provide cleaning services in community settings	improvements to walkways and other public areas • Provide trash truck and clean public areas after student move-in day	• Problem Properties Task Force • Mission Hill Community
Stabilize Community Housing Market	• NEBH staff	• Provide mortgage and rental assistance to NEBH employees interested in moving to Mission Hill	• Promote Mission Hill Mortgage and Rental Assistance Program to stabilize Mission Hill housing market	• No partners necessary

Priority Area 2: Obesity, Fitness, Nutrition, and Chronic Disease

Goal	Target Population	Programmatic Objectives	Community Activities	Community Partners
Promote General Health and Wellness	• Children • Youth • Adults	• Educate the public about health risk factors, health promotion, and basic wellness	• Support and promote the development of community workshops and educational sessions on key health issues in community venues	• Boston Public Health Commission • Sociedad Latina • City of Boston • Roxbury Tenants of Harvard (RTH) • Mission Main • Alice Taylor Housing Development • Tobin Community Center • Mission Hill Health Movement • Action for Boston Community Development
Increase Physical Activity	• Children • Youth • Adults	• Educate on healthy eating and active living • Increase the number of children and adults who are physically active • Improve accessibility and beautify of walkways, community parks, and recreation areas	• Support and promote the development of community workshops and educational sessions • Support and promote the development of walking and other physical activity groups in community venues • Maintain McLaughlin Field • Make community improvements to walkways and other public areas • Support Little League	

			• Support Summer Camp at the Tobin Community Center • Support Jr. and Sr. Celtics	(ABCD) • Public Housing Facilities • Boston Food and Fitness Collaborative • Little League • McLaughlin Field • Mission Hill Legacy Project • Maria Sanchez House • Boston Celtics
Increase Healthy Eating	• Children • Youth • Adults	• Educate on healthy eating and active living • Decrease the number of individuals and families who suffer from food insecurity • Increasing access to healthy foods, fruits, and vegetables	• Support community food pantries • Support and promote the development of community workshops, cooking classes, and educational sessions • Support the $2 a Bag program at the Tobin Community Center and Roxbury Tenants of Harvard	
Increase Screening, Identification, and Referral for People with Chronic Disease and/or Associated Risk Factors	• Children • Youth • Adults	• Link children/youth, adults, and elders with various health risk factors to evidence-based programs and services that promote healthy living and help them to manage their health issues and risk factors	• Support and promote community health fairs and screening/referral events	• Sociedad Latina • Tobin Community Center • Mission Hill Health Movement • Action for Boston Community Development (ABCD) • Roxbury Tenants of Harvard (RTH) • Public Housing Facilities

Priority Area 3: Elder Health

Goal	Target Population	Programmatic Objectives	Community Activities	Community Partners
Promote General Health and Wellness for Elders	• Elders	• Increase general knowledge about chronic disease, physical activity, nutrition, behavioral	• Support and promote the development of community workshops and	• Boston Public Health Commission • Mission Hill

		health, and falls prevention	educational sessions • Create an elder health education and prevention program	Health Movement • Action for Boston Community Development (ABCD) • Roxbury Tenants of Harvard (RTH) • Mission Hill Legacy Project • Public Housing Facilities
Decrease Depression and Social Isolation in Elders	• Elders	• Increase the number of Mission Hill residents who have access to affordable transportation • Reduce isolation • Reduce depression • Increase physical activity	• Support Mission Link • Develop or support communal activities that bring elders together • Support activities sponsored by Mission Hill Legacy Project • Support activities in Public Housing Developments • Volunteer at community dinners and events.	• Mission Hill Health Movement • Public Housing Facilities • Mission Hill Legacy Project • Roxbury Tenants of Harvard (RTH) • Action for Boston Community Development (ABCD) • Maria Sanchez House • Alice Taylor Housing Development