BOSTON MEDICAL CENTER COMMUNITY HEALTH NEEDS ASSESSMENT

SUBMITTED TO:
Boston Medical Center
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SUBMITTED BY:
Health Resources in Action, Inc.

Health Resources in Action
Advancing Public Health and Medical Research

95 Berkeley Street, Suite 208
Boston, MA 02116
617.451.0049 | Fax: 617.451.0062
TTY: 617.451.0007 | www.hria.org

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A. BACKGROUND

Boston Medical Center (BMC) is a private, not-for-profit, 496-bed academic medical center. The hospital is the primary teaching affiliate for Boston University School of Medicine. As the largest safety net hospital in New England, BMC provides a full spectrum of pediatric and adult care services, from primary care and family medicine to advanced specialty care. It is also the largest and busiest provider of trauma and emergency services in New England. Emphasizing community-based care, BMC is committed to providing consistently excellent and accessible health services to all.

Unwavering in its commitment to serve the community, Boston Medical Center is dedicated to providing accessible health care. Approximately 73% of BMC's patient visits come from underserved populations, the low-income and the elderly, who rely on government payors such as Medicaid, the Health Safety Net and Medicare for their coverage, and 30 percent do not speak English as a primary language. Nearly 70% of BMC's patients are racial and ethnic minorities.

In 2012, BMC partnered with Health Resources in Action (HRiA), a non-profit public health organization, to conduct its Community Health Needs Assessment. HRiA has 12 years of experience successfully conducting CHNAs for hospitals and other health-related organizations across the state and the U.S. This report describes the methods and findings from this effort. The CHNA was undertaken with the goal of identifying the health needs of and assets in the community served by BMC.

B. DEFINITION OF THE COMMUNITY SERVED BY BMC

While BMC serves residents from across the City of Boston, the largest proportion of its population represents the traditionally underserved, including the low-income, elderly and disabled who rely on government payors for their medical coverage, and those who do not speak English as a primary language. For this CHNA, the community served by BMC was defined as vulnerable populations residing in the Boston neighborhoods of Dorchester, East Boston, Mattapan, Roslindale, Roxbury, South Boston, and the South End.

C. PROCESS AND METHODS

This CHNA identifies the health-related needs of and assets in the community served by BMC through a social determinants of health framework, which defines health broadly and recognizes numerous factors at multiple levels— from lifestyle behaviors (e.g., healthy eating and active living) to clinical care (e.g., access to medical services) to social and economic factors (e.g., poverty) to the physical environment (e.g., air quality)—which have an impact on the community's health.

Existing social, economic, and epidemiological data were drawn from national, state, county, and local sources, such as the U.S. Census Bureau and the Massachusetts Department of Public Health, which include self-report, public health surveillance, and vital statistics data. More than 55 individuals—representing *persons with expertise in public health; leaders, representatives and members of medically underserved, low-income, minority populations; and populations with chronic disease needs* from the community served by the hospital—were engaged in focus groups and interviews between November 2012 and March 2013 in order to gauge their perceptions of the community and priority health concerns. Three of the focus groups were conducted in languages other than English, including Vietnamese, Spanish and Cape Verdean Creole. (See Appendix A for a list of individuals who were interviewed, Appendix B for a list of focus group participants, and Appendix C for a list of organizations.)

D. INFORMATION GAPS

As with all research efforts, there are several limitations related to the assessment's research methods that should be acknowledged. It should be noted that for the secondary data analyses, in several instances, current neighborhood level data were not available. In regard to the Boston Behavioral Risk Factor Survey (BBRFS), a large survey of Boston adults frequently cited in this report, neighborhood-level data generally do not include homeless people or people whose neighborhood of residence was not reported in the survey (except in the Boston overall numbers).

Likewise, data based on self-reports should be interpreted with particular caution. In some instances, respondents may over- or underreport behaviors and illnesses based on fear of social stigma or misunderstanding the question being asked. In addition, respondents may be prone to recall bias—that is, they may attempt to answer accurately but remember incorrectly. In some surveys, reporting and recall bias may differ according to a risk factor or health outcome of interest. Despite these limitations, most of the self-report surveys here benefit from large sample sizes and repeated administrations, enabling comparison over time. Additionally, public health surveillance data has its limitations regarding how data are collected and reported, who is included in public health datasets, and whether sample sizes for specific population groups are large enough for sub-group analyses.

While the focus groups and interviews conducted for this study provide valuable insights, results are not statistically representative of a larger population due to non-random recruiting techniques and a small sample size. Recruitment for focus groups was conducted by community health centers, and participants were those individuals already connected to health centers. Because of this, it is possible that the responses received only provide one perspective of the issues discussed. In addition, health centers did not exclude participants if they did not live in the particular neighborhood, so participants in a specific community's focus group might not necessarily live in that area, although they did spend time there through the health center. Lastly, it is important to note that data were collected at one point in time, so findings, while directional and descriptive, should not be interpreted as definitive.

E. HEALTH NEEDS OF THE COMMUNITY

Cultural, racial, ethnic, and linguistic diversity were frequently cited by residents as a characteristic of their neighborhoods. It is also noteworthy that the seven neighborhoods that comprise BMC's community are consistently at or among the top Boston neighborhoods for many of the needs identified by the CHNA, such as poverty, chronic diseases, substance abuse, and violence. The following provides a brief overview of key findings that emerged from this assessment.

"There is a huge cultural and ethnic mix." - Interview participant

"Our patients are poor. Traditional ones are poor or working class who are caught in that bind— too much money to qualify for anything and they're really struggling." – Interview participant

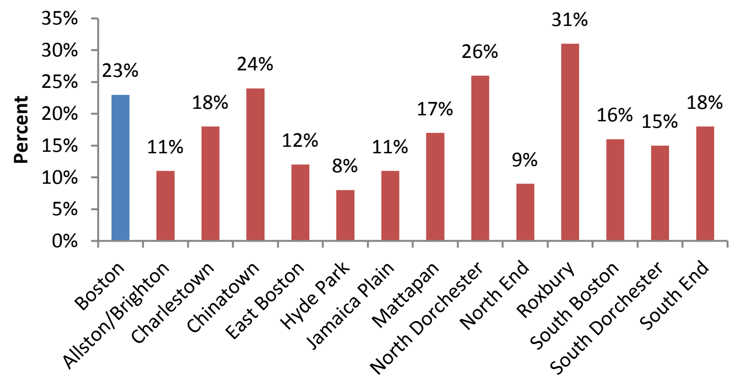
I. Poverty

Poverty and income level were identified as being at the root of many community health issues. Residents described **struggling to make ends meet**. Economic data confirm that significant proportions of neighborhood residents are poor. In 2010, Roxbury (31%) and North Dorchester (26%) had the highest percentage of residents living in poverty (Figure 3).

> *"You have a choice between eating or buying medicine … it's tough."* – Focus group participant

- While the unemployment rate in Boston has decreased from nearly 8% in January 2012 to 6% in December, **under- and un- employment** disproportionately affect residents due to skill level and language.
- According to participants, lack of affordable housing coupled with a rising cost of living has resulted in overcrowding and rising homelessness.

Figure 3: Percent of Families below Poverty by City and Select Neighborhoods, 2010



DATA SOURCE: U.S. Department of Commerce, Bureau of the Census, 2010 Census as reported by Health of Boston 2012-2013

II. Access to and Utilization of Health Care

Issues around health care access and utilization were frequently raised in focus groups and interviews, specifically, the challenges posed by health insurance and cost, as well as lack of quality of care.

- The high cost of health care, ranging from **health insurance premiums** to **co-pays** for prescription medication, was described as prohibiting residents from seeking care in a timely manner.
- Concerns regarding quality of care were largely related to time and language.
- Despite Boston's **transportation** system, participants indicated that it is not accessible by all residents across neighborhoods, preventing them from accessing health facilities and resources external to their immediate community.

III. Chronic Diseases and Conditions

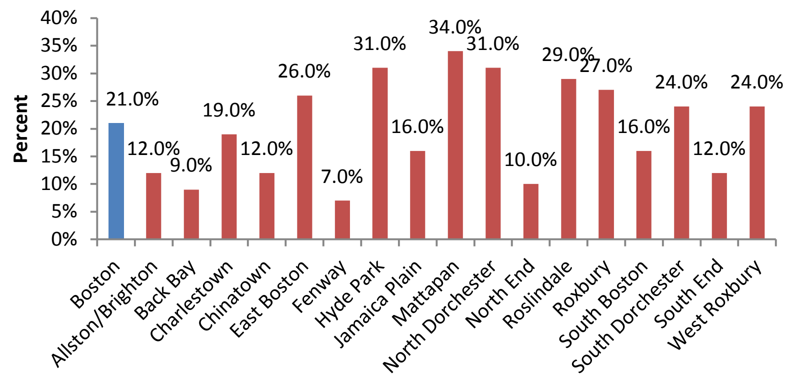
Chronic diseases and conditions represent the leading causes of death in Boston (cancer, heart disease). While cancer was not identified as a community health concern, chronic diseases and their related risk factors were frequently noted.

> *"Chronic diseases, smoking, heart disease, diabetes – we top the charts."* – Interview participant

Obesity was one of the most concerning health issues cited by stakeholders and residents engaged in this assessment, particularly with respect to physical activity, nutrition, and weight management.

- Quantitative data demonstrate that obesity is a pervasive problem in Boston. As displayed in Figure 2, several neighborhoods had a higher proportion of obese residents compared to the city overall, where 21% of Boston adults are obese in 2010. Rates in Mattapan, North Dorchester, and Hyde Park were particularly high, with over 30% of neighborhood residents considered obese.

Figure 4s: Percent of Obese Adults by City and Neighborhood, 2010



DATA SOURCE: Boston Behavioral Risk Factor Survey 2010, Boston Behavioral Risk Factor Surveillance System (BBRFSS), Boston Public Health Commission, as reported by Health of Boston 2012-2013

- Focus group and interview participants noted environmental barriers such as lack of safe recreational space and limited access to affordable healthy foods as significant challenges to obesity prevention efforts.

Other chronic illnesses frequently mentioned in discussions included **diabetes, cardiovascular-related conditions** (hyptertension and high cholesterol), and **asthma**.

IV. Mental Health and Substance Abuse

Mental health issues among residents were considered a significant health concern in these communities. Not only did residents deal with **depression**, but the **exposure to violence** was believed to contribute to many mental health problems.

- Depressive symptoms affect both youth and adults in Boston. While most neighborhoods were largely consistent with Boston overall (9%), Mattapan (17%) had nearly double the proportion of adults reporting persistent sadness (feeling sad, blue, or depressed 15 or more of the past 30 days) compared to adults citywide. In 2011 one out of every four Boston youth reported persistent sadness; however, this percentage has decreased since 2001.

Alcohol, tobacco, and other drugs were discussed in nearly every focus group, as substance abuse was viewed as a key issue related to violence and other neighborhood ills.

- According to the 2010 BBRFS, 16% of Boston adults reported smoking cigarettes. Further, 23% of adults indicated that they participated in excessive alcohol consumption, defined as consuming an average of more than two drinks per day for men and more than one drink per day for women during a one month period.

V. Violence

Growing **neighborhood violence and concerns regarding personal safety** were prominent themes among focus group discussions and were consistently highlighted in stakeholder interviews.

> *"Violence brings fear, sadness, and difficulty sleeping, especially for my kids."* – Focus group participant

- Boston Police Department crime statistics confirm high numbers of crimes in particular neighborhoods for the first three months of 2013; Roxbury/Mission Hill and Dorchester experienced a disproportionate number of person-to-person crimes in this time period, collectively accounting for over 75% of homicides, sexual assaults, aggravated assaults, and robberies reported.

F. EXISTING HEALTH CARE FACILITES AND RESOURCES WITHIN THE COMMUNITY

While these communities face numerous challenges, they also possess a number of strengths and organizational resources.

- Community cohesiveness and cultural diversity were cited as being great strengths at the local level.
- Health centers, community-based organizations, and local businesses were also viewed as contributing to the activity and cultural richness of neighborhoods.

> *"It's a great community here. I have been well taken care of here in the clinic by the staff, and by the people I have met in my neighborhood and my church."* – Focus group participant

Most participants reported obtaining their day-to-day health care from local community health centers. Participants also discussed the number of community programs and services present in the community. In addition to the large number of small ethnic shops that have fostered a connection to home countries for many immigrant families, ethnic-based service organizations such as the Haitian Multiservice Center meet the needs of residents. In addition, residents shared that there are many social service organizations serving the community, including the Barbara McInnis House, Mass Quit Works, the Boston Safe Street Program, the Greater Boston Food Bank, and the Visiting Nurse Association. Boston Health Care for the Homeless was mentioned by several participants for the important role it plays in reaching a vulnerable population with complex health care needs. Finally, focus group and interview participants reported that BMC is a substantial provider of health services in the community.

While participants identified several community-based organizations as assets, they also noted that many are facing considerable fiscal challenges. They specifically mentioned that in August 2012 the Commonwealth of Massachusetts closed a shelter program that served low-income families. A program that providers use to link patients directly to substance abuse services will end in July with *"nothing to take its place."* A smoking cessation program recently lost public funding and consequently reduced the number of counselors.

An additional challenge noted for those working in the social service and health sectors was the *"siloed"* nature of funding, which was described as hindering the efficient use of existing resources. According to interview participants, this funding structure creates competition among organizations rather than fostering collaboration. As one interviewee stated, *"Coordination across services is a challenge. Funding sources are not aligned, so that means little groups are trying to fill gaps."*

G. KEY THEMES AND CONCLUSIONS

Several overarching themes emerged from the CHNA:

- Issues related to poverty and violence underscore all aspects of daily life for residents of many Boston neighborhoods, although these neighborhoods also possess several strengths.
- Chronic diseases and conditions and their risk factors—some of the most concerning health issues among participants—are also the conditions that consistently follow social and economic patterns.
- Mental health and substance abuse, particularly related to exposure to violence, depression and stress created by economic instability, were perceived as pressing health concerns.
- While health care coverage is less of a challenge than it once was, perceived quality and utilization of primary care continue to be concerns.

Residents in the communities served by BMC encounter numerous social and economic challenges, including poverty, neighborhood violence, and limited employment opportunities, which have a significant impact on population health. Data demonstrate that the vulnerable populations—the medically underserved, low-income, minority populations, and populations with chronic disease needs—in the community served by BMC are disproportionately affected by poverty, chronic diseases, mental health and substance abuse, and violence. However, resiliency and cohesion among resident, as well as community-based organizations' programs and services, are considered strengths of these communities.

APPENDIX A: List of Interview Participants

Name	Title and Organization
Bowen, Deborah, PhD	Chair, Department of Community Health Sciences, Boston University School of Public Health
Hardt, Eric, MD	Physician, Geriatrics, Boston Medical Center; Associate Professor of Medicine, Boston University School of Medicine
James, Thea, MD	Director, Violence Intervention Advocacy Program, Boston Medical Center; Associate Professor of Emergency Medicine, Boston University School of Medicine Emergency Medicine; Supervising Medical Officer, Boston Disaster Medical Assistance Team
Maypole, Jack, MD	Director, Comprehensive Care Program, Developmental and Behavioral Pediatrics, Boston Medical Center; Former Director of Pediatrics, South End Community Health Center
Morton, Samantha, JD	Director, Medical Legal Partnership Boston
Philips, Susan, MD	Physician, General Internal Medicine, Boston Medical Center
Shanahan, Chris, MD, MPH, FACP	Director of Community Medicine, Boston Medical Center; Former Medical Director, Mattapan Community Health Center
Thakrar, Nisha, MD	Chief Medical Officer, South Boston Community Health Center
Williams, Charles, MD	Vice Chair, Clinical Affairs and Quality, Division of Family Medicine, Boston Medical Center; Assistant Professor of Family Medicine, Boston University School of Medicine; Medical Director, Boston HealthNet

Deborah Bowen, PhD
Dr. Bowen has led or participated in numerous community-intervention studies that have successfully recruited and maintained advisory committees, including members of the community representing the target audience. Dr. Bowen has been involved in initiatives focusing on: community-based research of cancer-prevention targets; breast cancer risk communications; research and training in Native American communities; the health of public housing residents; and a church-based dietary-intervention trial.

Eric Hardt, MD
Dr. Hardt has produced videotaped educational materials for medical interpreters and for health care workers working across language barriers. He has authored and co-authored book chapters and articles on medical interpretation, the bilingual medical interview, cultural factors in the medical interview, and related areas. He has published on issues of exclusion of non-English-speakers from medical research, on issues involving costs and outcomes related to the use of medical interpreters in the emergency department, and on inadequate medical interpretation as a cause of medical errors.

Thea James, MD
As the Director of VIAP, Dr. James leads the team to help guide victims of community violence through recovery from physical and emotional trauma. Using a trauma-informed model of care, VIAP empowers clients and families and facilitates recovery by providing services and opportunities. VIAP presents

options for families that bring hope and healing to their lives. In turn, this guidance helps strengthen others who are affected by violence and contributes to building safer and healthier communities.

John S. Maypole, MD
Dr. Jack Maypole works with medically complex and high-risk pediatric patients. His research focuses on the mortality and morbidity rates related to underserved populations.

Samantha Morton, JD
Ms. Morton leads MLP | Boston's interdisciplinary team of health care staff, attorneys, and paralegals who integrate legal assistance into the medical setting as a vital component of patient care. By combining the strengths of law and medicine, MLP | Boston addresses the complex social determinants of patients' health and ensures that low-income patients are able to meet their basic needs for food, housing and utilities, education and employment, health care, and personal and family stability and safety. Ms. Morton has published and presented extensively on MLP practice. She is a member of the Boston Bar Association (BBA) Health Law Section Steering Committee.

Susan Philips, MD
Dr. Phillips provides direct patient care for predominantly underserved populations, and teaches residents and medical students.

Chris Shanahan, MD, MPH, FACP
Dr. Shanahan's research focus is on health disparities, substance abuse, community-based research networks, and data warehousing for improving quality of medical care. A particular area of interest to him is the development of data warehousing methods to support community-based quality and disparities research.

Nisha Thakrar, MD
Dr. Thakrar is Medical Director at South Boston Community Health Center. She also provides direct patient care for predominantly underserved populations.

Charles Williams, MD
Dr. Williams is a member of the team leading the implementation of Patient-Centered Medical Home efforts at BMC and in the several Boston HealthNet community health centers. In addition to providing direct patient care for predominantly underserved populations, his professional and teaching interests include quality improvement, practice management, electronic health records, evidence-based medicine and leadership development.

APPENDIX B: List of Focus Group Participants

Name	Role
Baptista, Elizabeth	Resident
Barbosa, Maria	Resident
Blackman, Ornella	Resident
Blair, Rebecca	Boston Medical Center Patient Family Advisory Committee
Brondao, Anita	Resident
Brondao, Josefa	Resident
Brown-Johnson, Carmen	Boston Medical Center Patient Family Advisory Committee
Bucca, Debbie	Boston Medical Center Patient Family Advisory Committee
Cardoso, Gabrielle	Resident
Cassette, Peggy	Resident
Castaneda, Delmi	Resident
Do, Dung	Resident
Dogget, Patty	Boston Medical Center Patient Family Advisory Committee
DosSantos, Domingos	Resident
Duong, Nam	Resident
Fernandes, Elizomjila	Resident
Fernandes, Francisco	Resident
Figueroa, Monica	Resident
Hayman, Earlene	Resident
Hemenway, Ann	Resident
Katzanek, Sheryl	Boston Medical Center Patient Family Advisory Committee
Landaverde, Luz Maria	Resident
Le, Muoi	Resident
Loud, Diane	Boston Medical Center Patient Family Advisory Committee
Luong, Hoang Long	Resident
Melendez, Haydee	Resident
Menjivar, Tomasa	Resident
Mines, Velma M.	Resident
Monaci, Elaine	Resident
Monaci, Pat	Resident
Montrond, Herminia	Resident
Morales, Eloisa	Resident
Nazolimy, Aurea	Resident
Nguyen, Hep	Resident
Nguyen, Minh Xuan	Resident
Nguyen, Phong	Resident
Nguyen, Thao	Resident
Not available, Juana	Resident
Not available, Melva	Resident
Not legible, Jorele C.	Boston Medical Center Patient Family Advisory Committee
Not legible, Jorele C.	Boston Medical Center Patient Family Advisory Committee
Ortiz, Edwin	Resident
Roberson, Kirby	Boston Medical Center Patient Family Advisory Committee

Name	Role
Rodriguez, Maria	Resident
Romero, Lilian	Resident
Sanchez, Blanca	Resident
Silveria, Ana	Resident
Taylor, Josephine	Resident
Truong, Hong	Resident
Uyen, Ha	Resident
Walkes, Rose	Resident

APPENDIX C: List of Organizations

Dorchester House Multi-Service Center
East Boston Neighborhood Health Center
Greater Roslindale Medical and Dental Center
South End Community Health Center
Upham's Corner Health Center