PARTNERS HEALTHCARE SYSTEM, INC.
DON APPLICATION # PHS-18022210-HE
ATTACHMENTS

SUBSTANTIAL CAPITAL EXPENDITURE
THE GENERAL HOSPITAL CORPORATION

February 22, 2018

BY

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BOSTON, MA 02199

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2. Project Description

Partners HealthCare System, Inc. ("Applicant") located at 800 Boylston Street, Suite 1150, Boston, MA 02199 is filing a Notice of Determination of Need ("Application") with the Massachusetts Department of Public Health ("Department") for a substantial capital expenditure by The General Hospital Corporation d/b/a The Massachusetts General Hospital ("MGH") for its licensed satellite located at 40 Second Avenue, Waltham, MA 02451 ("MG Waltham"). MG Waltham is an ambulatory facility that provides a broad array of comprehensive physician and hospital satellite services. Currently, the following physician services are available at MG Waltham via the Massachusetts General Physicians Organization: advanced imaging, primary care, and specialty physician services such as cardiology, OB/GYN, allergy, and pediatrics. As a licensed satellite of MGH, MG Waltham also provides outpatient hospital satellite services, including: oncology/infusion, blood laboratory, pharmacy, rheumatology, vascular, physical and occupational therapy, and ambulatory surgery services. The existing surgical services are limited to orthopedics, plastic surgery, and pain management, and are performed in one of four operating rooms ("ORs").

The proposed project is for the expansion of ambulatory surgical services at MG Waltham through construction of additional ORs and perioperative space and includes shell space for future build-out as demand warrants ("Project"). Specifically, for the reasons enumerated below, the Applicant proposes to construct an additional ambulatory surgery suite at MG Waltham, which will consist of six new ORs, as well as twenty-one perioperative bays and associated support spaces. This expansion at the MG Waltham location will support 750 specific types of lower-acuity procedures across gynecology, urology, general surgery, orthopedics, surgical oncology, and interventional radiology.

The Project will satisfy existing and future needs of the Applicant's patient panel by providing increased access to high-quality surgical services in a cost-effective community setting that is more convenient for many patients. Aggregated zip code data by HSA for the last three fiscal years demonstrate that nearly 50% of lower-acuity gynecology, urology, general surgery, orthopedic, and surgical oncology patients presenting at the MGH main campus in Boston reside in HSA 4, which comprises the cities and towns of Greater Boston, including Waltham. Historical volume trends for these lower-acuity surgeries at MGH's main campus suggest that the number of procedures performed each year will continue to increase into the future. With nearly 50% of the growing demand for these surgeries originating in HSA 4, the Applicant determined that all patients within the Applicant's panel residing in the service area of the Waltham Satellite, including existing MGH, and MG Waltham patients, will benefit from the expansion of ambulatory surgery within the community. This convenient access to high-quality surgical services in a cost-effective community setting will allow patients to schedule surgeries in a timely manner and avoid unnecessary travel barriers to obtaining care (e.g., driving to Boston, expensive parking, etc.).

High quality surgical services are currently available at MG Waltham and the proposed expanded surgical program at MG Waltham will follow similar care models. As a fully integrated outpatient service of MGH, MG Waltham's expanded surgery services will be identical to those a patient can access at the main campus and will be under the same leadership and will participate in the same quality program that is utilized at the main campus. The expanded MG Waltham surgical services will have the same technologies and advanced surgical tools as the main campus location, as well as highly specialized, focused, and trained physicians and nursing staff.

Finally, the Project will meaningfully contribute to Massachusetts' goals for cost containment by providing high quality surgical services for clinically appropriate patients in a more cost-effective setting. As this expansion is subject to the limitations of Medicare site-neutrality requirements, the services provided in the new surgical suite will not be treated by Medicare as a hospital outpatient department for purposes of reimbursement and instead the expanded services will be billed under the Medicare ambulatory surgery center fee schedule. Accordingly, the Project will provide a lower cost alternative, contributing positively to the Commonwealth's goals of containing the rate of growth of total medical expenses and total healthcare expenditures.

In sum, the proposed expansion of surgical services at MG Waltham through construction of additional ORs and shell space for future build-out will allow patients in need of lower-acuity surgical services to receive care in a community setting. This expanded surgical capacity will provide patients with an alternative convenient point of access with equally high quality at a lower-cost, and therefore will improve public health outcomes and patient experience. Accordingly, the Applicant believes that the proposed Project meets the factors of review for Determination of Need approval.

Factor 1: Applicant Patient Panel Need, Public Health Values and Operational Objectives

F1.a.i **Patient Panel:**

Describe your existing Patient Panel, including incidence or prevalence of disease or behavioral risk factors, acuity mix, noted health disparities, geographic breakdown expressed in zip codes or other appropriate measure, demographics including age, gender and sexual identity, race, ethnicity, socioeconomic status and other priority populations relevant to the Applicant's existing patient panel and payer mix.

Partners HealthCare is a not-for-profit, integrated health care system that was formed in 1994 by an affiliation between The Brigham Medical Center, Inc. (now known as Brigham Health) and The Massachusetts General Hospital. Partners HealthCare currently operates two tertiary and seven community acute care hospitals in Massachusetts, one community acute care hospital in Southern New Hampshire, one facility providing inpatient and outpatient mental health services and three facilities providing inpatient and outpatient services in rehabilitation medicine and long-term care. Partners HealthCare also operates physician organizations and practices, a home health agency, nursing homes and a graduate level program for health professionals. Partners HealthCare is a non-university-based nonprofit private medical research enterprise and its academic medical centers are principal teaching affiliates of the medical and dental schools of Harvard University. Partners HealthCare provides its services to patients primarily from the Greater Boston area and eastern Massachusetts, as well as New England and beyond. Additionally, Partners HealthCare operates a licensed, not-for-profit managed care organization that provides health insurance products to the MassHealth Program (Medicaid), Commonwealth Care (a series of health insurance plans for adults who meet income and other eligibility requirements) and commercial populations.

Partners HealthCare serves a large and diverse patient panel as demonstrated by the utilization data for the 36-month period covering Fiscal Year ("FY") 14-16 and the first quarter of FY17.[1] Appendix 2 provides this demographic profile for Partners HealthCare in table form. The number of patients utilizing Partners HealthCare's services has increased over the past three years, with 1,211,361 unique patients in FY14, 1,255,589 unique patients in FY15 and 1,299,981 unique patients in FY16.[2] In the first quarter of FY17, Partners HealthCare had 635,069 unique patients. Partners HealthCare's patient mix consists of approximately 41% males and 58% females. The Massachusetts Center for Health Information and Analysis ("CHIA") reports that Partners HealthCare's patient panel represents 19% of all discharges in the Commonwealth.[3] The system's case mix adjusted discharge rate is 22%.[4]

Partners HealthCare has seen a 4% increase in the number of patients it serves in the 65+ age cohort between FY14 and FY16. Current age demographics show that while the majority of the patients within Partners HealthCare's patient population are between the ages of 18-64 years of age (61-62% of total patient population), patients that are 65 and older make up a significant portion of the total patient population (25-28% of total patient population), and only 10-11% of Partners HealthCare's patients are between 0-17 years of age.

Partners HealthCare's patient panel reflects a mix of races. Data based on patient self-reporting demonstrates that in FY16, 71% of the total patient population identified as White; 6% identified as African American or Black; 4% identified as Asian; 2% identified as Hispanic/Latino; 0.1% identified as American Indian or Alaska Native; and 0.1% identified as Native Hawaiian or Other Pacific Islander. Since patients were grouped into these categories based on how they self-identified,[5] there is a portion of the patient population (17% in FY16) that either chose not to report their race or identified as a race that did not align with the above categories. Therefore, it is important to note that the racial composition of Partners HealthCare patient panel may be understated.

Partners HealthCare provides care to patients from a broad range of geographies including all fifty states. While Partners HealthCare's patient panel resides mainly in Eastern Massachusetts, there is a sizeable portion of the patient panel that resides outside of Massachusetts (12%, 162,301 patients). By applying the Department of Public Health's ("DPH") Health Service Area ("HSA") categories to FY16 data, 45% of Partners HealthCare's patients reside in HSA 4 (584,007 patients); 18% reside in HSA 6 (237,352 patients); 14% reside in HSA 5 (183,635 patients); 5%

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[1] Fiscal year October 1 – September 30.

[2] Includes hospital billing data (Brigham and Women's Hospital, Brigham and Women's Faulkner Hospital, Massachusetts General Hospital, Newton-Wellesley Hospital, and North Shore Medical Center) and physician billing data (Brigham and Women's Physicians Organization, Massachusetts General Physicians Organization, North Shore Physician Group, Newton-Wellesley Ambulatory Services).

[3] Fiscal Year 2015: Partners HealthCare System, MASSACHUSETTS CENTER FOR HEALTH INFORMATION ANALYSIS, http://www.chiamass.gov/assets/docs/r/hospital-profiles/2015/Partners-HealthCare-System.pdf (last visited Jul. 11, 2017).

[4] *Id.*

[5] With the exception of the category "Hispanic/Latino," the race categories shown above are based on the 1997 Office of Management and Budget standards on race and ethnicity. Patients were grouped into these categories based on their responses as follows – White: "White"; African American or Black: "African American", "Black", "Black or African American"; American Indian or Alaska Native: "American Indian", "American Indian or Alaska Native"; Asian: "Asian"; Native Hawaiian or Other Pacific Islander: "Native Hawaiian or Other Pacific Islander", "Native Hawaiian/Other Pacific Islander", "Pacific Islander"; Hispanic/Latino: "Hispanic"," Hispanic or Latino"," Latino"; Other/Unknown: All other responses.

reside in HSA 3 (61,689 patients); 3% reside in HSA 2 (42,928 patients); 1% reside in HSA 1 (11,716 patients); and the origin of 27,391 patients or 2% of the panel is unknown.

A. MG Waltham Patient Panel

Mass General Waltham ("MG Waltham") is a hospital satellite of The General Hospital Corporation d/b/a Massachusetts General Hospital ("MGH") that provides adult primary care, urgent care, as well as a broad array of comprehensive outpatient medical and surgical services. Specifically, MG Waltham provides surgical services to approximately 3,500 patients each year. In FY14, 3,448 patients received surgical services. In FY15, this number rose to 3,484 patients and in FY16, 3,266 patients received surgical care at MG Waltham (see Appendix 2).

Aggregated zip code data by HSA for the last three fiscal years demonstrate that MG Waltham's patient population has a similar geographic composition to the larger Partners HealthCare patient panel. These data indicate that 49.9% (1,630 patients) of MG Waltham's patients reside in HSA 4; 12.4% reside in HSA 6 (406 patients); 11.6% reside in HSA 5 (380 patients); 7.7% reside in HSA 3 (253 patients); 4.3% reside in HSA 2 (139 patients); 2.1% reside in HSA 1 (70 patients); and over 388 patients or 11.9% of the panel is from outside of Massachusetts. HSA data is important when considering who utilizes MG Waltham's surgical services. For example, nearly half (49.9%) of MG Waltham's surgical patients live within HSA 4. This HSA comprises Boston and the areas directly adjacent to MG Waltham. Accordingly, many of these patients utilize MG Waltham as their local surgery provider for specific surgical services. Of those patients receiving surgical services at MG Waltham in FY16, 97.2% had orthopedic surgery and 2.8% had some form of plastic surgery.

In regard to age, 78.2% of MG Waltham's surgical patients are between the ages of 18-64 and 19.3% of patients are over the age of 65. Of the 1,743 patients seen at MG Waltham for surgical services in the first two quarters of FY17, 78.3% of patients were between the ages of 18-64 and 19.4% were 65 years or older. Of the 1,743 patients seen at MG Waltham for surgical services in the first two quarters of FY17, 78.3% of patients were between the ages of 18-64 and 19.4% were 65 years or older.

Moreover, MG Waltham's surgical patients also reflect a diversity of races. Data based on patient self-reporting demonstrate that in FY16, 85% of MG Waltham's surgical patients identified as White; 2.7% identified as African American or Black; 3.2% identified as Asian; 0.6% identified as Hispanic/Latino; 0.1% identified as American Indian or Alaska Native; and no patients identified as Native Hawaiian or Other Pacific Islander. Since patients were grouped into these categories based on how they self-identified,[6] there is a portion of the patient population (8.5% in FY16) that either chose to not report their race or identified as a race that did not align with the above categories. Therefore, it is important to note that the racial composition of MG Waltham's surgical patients may be understated.

[6] With the exception of the category "Hispanic/Latino", the race categories shown above are based on the 1997 Office of Management and Budget standards on race and ethnicity. Patients were grouped into these categories based on their responses as follows – White: "White"; African American or Black: "African American", "Black", "Black or African American"; American Indian or Alaska Native: "American Indian", "American Indian or Alaska Native"; Asian: "Asian"; Native Hawaiian or Other Pacific Islander: "Native Hawaiian or Other Pacific Islander", "Native Hawaiian/Other Pacific Islander", "Pacific Islander"; Hispanic/Latino: "Hispanic"," Hispanic or Latino"," Latino"; Other/Unknown: All other responses.

F1.a.ii **Need by Patient Panel:**
Provide supporting data to demonstrate the need for the Proposed Project. Such data should demonstrate the disease burden, behavioral risk factors, acuity mix, health disparities, or other objective Patient Panel measures as noted in your response to Question F1.a.i that demonstrates the need that the Proposed Project is attempting to address. If an inequity or disparity is not identified as relating to the Proposed Project, provide information justifying the need. In your description of Need, consider the principles underlying Public Health Value (see instructions) and ensure that Need is addressed in that context as well.

A. Providing Surgery in the Appropriate Setting

Ambulatory surgery has increased drastically in the United States since the early 1980s.[7] The growth in outpatient procedures has been driven in large part by medical and technological advancements, such as improvements in the administration of anesthesia and analgesics for the relief of pain and the development and expansion of minimally invasive or non-invasive procedures, which have allowed ambulatory/outpatient surgery to become more feasible.[8] Moreover, advances in medical devices and pharmaceuticals have also contributed to reduced recovery times, further facilitating migration of surgical procedures from inpatient to outpatient care and making it possible for patients who previously spent days in the hospital recovering from a surgical procedure to instead be discharged the same day as surgery.[9] With this increase in outpatient care has come a shift in care setting to outpatient facilities.[10] This shift is attributable to changes in the Medicare program that expanded reimbursement to include surgery performed at locations other than a hospital main campus, such as off-campus hospital outpatient departments and ambulatory surgery centers.[11]

The provision of less-invasive surgical services in an outpatient facility has allowed for improved quality outcomes, a better surgical experience for patients and more cost-effective care.[12] These benefits may be derived from a physician's ability to conveniently schedule procedures in the outpatient setting in a timely fashion, the assembly of clinical teams that are specially trained and highly skilled for specific types of surgery, well-suited equipment and supplies and the overall

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[7] *Outpatient Surgeries Show Dramatic Increase*, 10 HEALTH CAPITAL TOPICS 1 (2010), *available at* https://www.healthcapital.com/hcc/newsletter/05_10/Outpatient.pdf; Margaret J. Hall et al., *Ambulatory Surgery Data From Hospitals and Ambulatory Surgery Centers: United States, 2010*, 102 NAT'L HEALTH STATISTICS REPORTS 1 (2017), *available at* https://www.cdc.gov/nchs/data/nhsr/nhsr102.pdf.
[8] *Outpatient Surgeries Show Dramatic Increase*, *supra* note 7; Hall et al., *supra* note 7; John Bian & Michael A. Morrisey, *Free-Standing Ambulatory Surgery Centers and Hospital Surgery Volume*, 44 INQUIRY 200 (2007), *available at* http://journals.sagepub.com/doi/pdf/10.5034/inquiryjrnl_44.2.200.
[9] *Outpatient Surgeries Show Dramatic Increase*, *supra* note 7; Elizabeth L. Munnich & Stephen T. Parente, *Procedures Take Less Time At Ambulatory Surgery Centers, Keeping Costs Down And Ability To Meet Demand Up*, 33 HEALTH AFFAIRS 764 (2014), *available at* https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2013.1281.
[10] Munnich & Parente, *supra* note 9; Hall et al., *supra* note 7.
[11] Munnich & Parente, *supra* note 9; Hall et al., *supra* note 7.
[12] Munnich & Parente, *supra* note 9.

design of the facility which is tailored to meet the specific needs of surgical patients.[13] Accordingly, due to quality care and the creation of cost efficiencies, the outpatient setting is an attractive alternative for certain patients in need of certain surgical services.

Given the benefits of providing non- and less-invasive surgeries in an outpatient facility, MGH staff reviewed the demand for lower-acuity and less-invasive procedures at the hospital's main campus over the last three years. Of those patients receiving surgery at MGH during this timeframe, it is estimated that 34,795 patients[14] (13,182 patients in FY14, 10,777 in FY15, and 10,836 in FY16) may have been eligible to have their surgical procedure at an outpatient facility. Specifically, MGH staff reviewed its historical volume for certain outpatient surgical procedures, such as certain types of oncological surgery, gynecological surgeries, orthopedic surgeries, general surgeries and urological surgeries. Table 1 below outlines the volume and percentage of surgeries that could have been performed in an outpatient facility over the last three years.

Table 1: Volume of Surgical Procedures that Could be Shifted to the Outpatient Facility

	FY14		FY15		FY16		Q1 and Q2 FY17	
Service Line	Number of Patients	Percentage of Patients	Number of Patients	Percentage of Patients	Number of Patients	Percentage of Patients	Number of Patients	Percentage of Patients
Oncology	134	1.0%	703	6.5%	671	6.2%	438	7.9%
Gynecology	1,730	13.1%	1,238	11.5%	1,414	13.0%	648	11.6%
Orthopedic	2,412	18.3%	2,121	19.7%	2,228	20.6%	1,232	22.1%
General Surger	6,885	52.2%	4,794	44.5%	4,496	41.5%	2,235	40.2%
Urology	2,021	15.3%	1,921	17.8%	2,027	18.7%	1,013	18.2%

Based on this historical demand, MGH clinical staff sought to develop an alternative for patients to provide them with convenient access to surgical services outside of the main campus in Boston. Through this process, staff determined that increased surgical capacity at MG Waltham would allow patients to receive high-quality surgical services in a cost-effective setting that is more convenient for many patients.

B. An Aging Patient Population Needs Access to Local Surgical Services

The proposed Project also will allow the Applicant, and specifically MGH, to address the needs of an aging patient panel and the need for improved access to outpatient surgical services. According to the University of Massachusetts' Donahue Institute's ("UMDI") *Long-Term Population Projections for Massachusetts Regions and Municipalities*, the statewide population is projected to grow a total of 11.8% from 2010 through 2035.[15] An analysis of UMDI's projections

[13] AMBULATORY SURGERY CENTERS: A POSITIVE TREND IN HEALTH CARE (Ambulatory Surgery Center Ass'n), *available at* http://www.ascassociation.org/advancingsurgicalcare/aboutascs/industryoverview/apositivetrendinhealthcare.

[14] The patients discussed are currently MGH patients that would be eligible to have their surgery in an outpatient setting.

[15] UNIVERSITY OF MASSACHUSETTS DONAHUE INSTITUTE, LONG-TERM POPULATION PROJECTIONS FOR MASSACHUSETTS REGIONS AND MUNICIPALITIES 11 (Mar. 2015), *available at* http://pep.donahue-institute.org/downloads/2015/new/UMDI_LongTermPopulationProjectionsReport_2015%2004%20_29.pdf. The Massachusetts Secretary of the Commonwealth contracted with the University of Massachusetts Donahue Institute (UMDI) to produce population projections by age and sex for all 351 municipalities. *Id.* at 7. Within the past five

shows that the growth of the Commonwealth's population is segmented by age sector, and that within the next 20 years, the bulk of the state's population growth will cluster around residents that are age fifty (50) and older.[16] Moreover, between 2015 and 2035, the Commonwealth's 65+ population is expected to increase at a higher rate compared to all other age cohorts.[17] By 2035, the 65+ age cohort will represent approximately a quarter of the Massachusetts population.[18] The general trend of growth appears consistent across the counties where Partners HealthCare's affiliates are located. As the number of patients that fall into the 65+ age cohort for MGH and Partners HealthCare continues to grow, the demand for outpatient surgical services is expected to increase as well.

Over the last 20 years, the number of older people undergoing surgical procedures has increased faster than the rate of population aging.[19] Approximately, 53% of all surgical procedures are performed on the 65+ age cohort. This is likely to be related to changes in anesthetic and surgical techniques, patient expectations and increasing evidence of improved morbidity and mortality following surgery even in the oldest cohorts.[20] Consequently, recent projections estimate that approximately half of the population over the age of 65 will require surgery at least once in their lifetime.[21] Data provide that nearly 30% of the surgeries that were performed at MGH over the last three fiscal years that could have been shifted to the outpatient community setting were for the 65+ age cohort.

The projected increase in the older adult population in tandem with the volume of older adults seeking lower-acuity surgical services necessitates the need for additional options for MGH patients to obtain outpatient surgical care. Accordingly, through the proposed Project, MGH seeks to expand non- and less-invasive surgical capacity in the community through the addition of six additional operating rooms ("ORs") at MG Waltham. This expansion will allow for high quality surgical services to be provided in a more convenient and cost-effective community setting. This shift in clinical setting will allow for improved patient outcomes, higher patient and provider satisfaction and the creation of operating efficiencies.

F1.a.iii **<u>Competition:</u>**
Provide evidence that the Proposed Project will compete on the basis of price, total medical expenses, provider costs, and other recognized

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years, Massachusetts has been experiencing an increase in the population growth rate per year due to high immigration and low domestic outflow, which is expected to slow down in 2030. *Id.* at 12.

[16] *Massachusetts Population Projections – EXCEL Age/Sex Details*, UNIVERSITY OF MASSACHUSETTS DONAHUE INSTITUTE (2015), http://pep.donahue-institute.org/downloads/2015/Age_Sex_Details_UMDI_V2015.xls. This data has been extracted for counties where current Partners HealthCare's hospitals and affiliates are located. *Id.*

[17] UNIVERSITY OF MASSACHUSETTS DONAHUE INSTITUTE, *supra* note 15, at 14. The report uses the cohorts as defined by the U.S. Census Bureau 2010 Census Summary, which are 0-19, 20-39, 40-64, and 65+. *Id.* Figure 2.5 in the report demonstrates that where the 65+ cohort increases from 2015 to 2035, all other cohorts are predicted to decrease. *Id.*

[18] *Id.*

[19] Judith S. L. Partridge et al., *Frailty in the older surgical patient: a review*, 41 AGE AND AGEING 142 (2012), *available at* https://academic.oup.com/ageing/article/41/2/142/47699.

[20] *Id.*

[21] Relin Yang et al., *Unique Aspects of the Elderly Surgical Population: An Anesthesiologist's Perspective*, 2 GERIATRIC ORTHOPAEDIC SURGERY & REHABILITATION 56 (2011), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3597305/.

measures of health care spending. When responding to this question, please consider Factor 4, Financial Feasibility and Reasonableness of Costs.

The expansion of surgical services at MG Waltham will not have an adverse effect on competition in the Massachusetts healthcare market based on price, total medical expenses ("TME"), provider costs or other recognized measures of health care spending. The shift of lower-acuity surgeries to a more cost-effective setting will have a positive impact on the healthcare market. Due to recent changes by Medicare with respect to reimbursement of outpatient hospital services located off of the main campus, MGH will not receive outpatient hospital rates. Consequently, by shifting patients to an equally high-quality, but more cost-efficient setting for certain surgeries, MGH and the Applicant will have a positive effect on the overall Massachusetts healthcare market by lowering the expense for these services.

By focusing on specific procedures at MG Waltham, the hospital will be able to maximize efficiency and quality outcomes for patients. For example, on average, the Medicare program and its beneficiaries share in more than $2.3 billion in savings each year when patients receive certain preventive and surgical procedures at ASCs instead of other outpatient surgical facilities.[22] Since ASCs focus on performing specific services and do so more efficiently, Medicare reimburses ASCs as a percentage of the amount paid to hospital outpatient departments ("HOPDs").[23]

In 2003, Medicare procedures performed in ASCs cost 83% of the amount paid to HOPDs for the same services. As of August 2016, procedures performed in an ASC cost Medicare just 53% of the amount paid to HOPDs.[24] For example, Medicare pays hospitals $1,745 for performing an outpatient cataract surgery while paying ASCs only $976 for performing the same surgery. Beneficiary savings are also significant with a typical cataract surgery costing a beneficiary $349 in the HOPD setting and $195 in an ASC.[25]

A 2014 *Health Affairs* article also discusses the key reimbursement differences between inpatient, HOPD and ASC settings.[26] Using data on procedure length, researchers found that ASCs provide a lower-cost alternative to hospitals as venues for outpatient surgeries due to operating efficiencies that lead to reductions in cost.[27] On average, procedures performed in ASCs take 31.8 fewer minutes than those performed in hospitals—a 25 percent difference relative to the mean procedure time.[28] Consequently, in a comparison of an ASC and a HOPD that have the same number of staff and of operating and recovery rooms, the ASC can perform more procedures per day than the hospital.[29] Researchers estimated the cost savings for an outpatient procedure performed in an ASC using the noted time differences in procedures and estimates of

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[22] *The ASC Cost Differential*, AMBULATORY SURGERY CENTER ASS'N, http://www.ascassociation.org/advancingsurgicalcare/reducinghealthcarecosts/paymentdisparitiesbetweenascsandhopds (last updated Aug. 2016).
[23] *Id.*
[24] *Id.*
[25] *Id.*
[26] Munnich & Parente, *supra* note 9.
[27] *Id.*
[28] *Id.*
[29] *Id.*

the cost of operating room time.[30] Estimated charges for this time are $29–$80 per minute, not including fees for the surgeon and anesthesia provider.[31] This calculation suggests that even excluding physician payments and time savings outside of the operating room, ASCs could generate savings of $363–$1,000 per outpatient case.[32] These results support the claim that ASCs provide outpatient surgery at lower costs than hospitals.[33]

TME is based on price and utilization and by moving patients to a more cost-effective setting, the Applicant's project seeks to lower the cost of these services. Additionally, by referring patients for appropriate surgeries to an outpatient setting in the community, the Applicant is more effectively managing utilization and resources. Accordingly, based on the aforementioned data and examples, shifting patients to a lower-cost setting for appropriate non- and less-invasive surgeries will have a positive impact on the Massachusetts healthcare market through the creation of operating efficiencies that lead to cost reductions in overall care and ultimately TME. These cost efficiencies are created without sacrificing quality.

F1.b.i **Public Health Value /Evidence-Based:**
Provide information on the evidence-base for the Proposed Project. That is, how does the Proposed Project address the Need that Applicant has identified.

A. Applicant's Proposed Six-Room Ambulatory Surgery Suite Expansion

MG Waltham provides adult primary care, a broad array of medical services, and surgical services that do not require an overnight stay in a hospital or visit to an emergency department. The surgical services offered are currently limited in scope to orthopedics and plastic surgery, and are performed in one of four operating rooms ("ORs") located on the second floor of MG Waltham's 40 Second Avenue building. To accommodate growth in lower-acuity surgical service demand within Partners HealthCare and increase its offering of accessible, lower-cost community-based surgical care, the Applicant proposes to expand OR capability at MG Waltham. Specifically, MGH proposes to construct an additional ambulatory surgery suite on the top floor of MG Waltham's 40 Second Avenue building. The proposed expansion will consist of six ORs, as well as twenty-one perioperative bays and associated support spaces, and will support 750 specific types of lower-acuity procedures across gynecology, urology, general surgery, surgical oncology, orthopedics, and interventional radiology.

The proposed expansion is supported by patient panel need, including an increased prevalence of conditions that require surgery, as well as evidence-based research. Aggregated zip code data by HSA for the last three fiscal years demonstrate that nearly 50% (1,630 patients) of lower-acuity gynecology, urology, orthopedic, general surgery, and surgical oncology patients reside in HSA 4, which comprises the cities and towns of Greater Boston, including Waltham where MG Waltham is located. Historical volume trends for these lower-acuity surgeries at MGH suggest that the number of gynecology, urology, orthopedic, general surgery, and surgical oncology ambulatory procedures performed each year will continue to increase into the future (10,777 in FY15, 10,836 in FY16, and 5,566 in the first two quarters of FY17). With nearly 50% of the growing demand for

[30] *Id.*
[31] *Id.*
[32] *Id.*
[33] *Id.*

these surgeries originating in HSA 4, Partners, MGH, and MG Waltham patients alike will greatly benefit from the expansion of these service lines at MG Waltham. As provided in greater detail below, the proposed expansion is further supported by extensive literature related to the efficacy and benefits associated with receiving lower-acuity surgical care at outpatient locations.

B. Research Supporting the Six-Room Ambulatory Surgery Suite Expansion

Enumerated below are the evidence-based arguments supporting the provision of lower-acuity surgical procedures in an outpatient setting. As an overview, this review focuses on quality of care, efficiency, dependability and convenience. Cost-savings are also associated with ambulatory surgical care in outpatient facilities; however, these arguments are addressed in Sections F1.a.iii and F1.2.a.

High-Quality Care

It is recognized and established that, compared with hospital settings, outpatient surgical facilities provide similar or higher quality services, as well as excellent access to physicians who are skilled in particular areas of need.[34] Moreover, the outpatient surgical setting enhances patient care by allowing: (1) physicians to focus exclusively on a small number of processes in a single setting, rather than having to rely on a hospital setting that has large-scale demands for space, resources, and the attention of management; (2) physicians to intensify quality control processes, since outpatient settings are focused on a smaller space and a small number of ORs; and (3) patients the ability to bring concerns directly to physicians who have direct knowledge about each patient's case, rather than hospital administrators who have less-detailed knowledge about individual patients.[35] The surgical procedures that the Applicant proposes to provide at the MG Waltham outpatient location are identical to those a patient can access at the main campus and must adhere to the same quality standards as the main campus. Furthermore, the expanded MG Waltham surgical services will have the same technologies and advanced surgical tools as the main campus location, as well as highly specialized, focused, and trained physicians, and nursing staff.

Efficiencies Associated with Outpatient Surgery Setting

In addition to providing high-quality care, outpatient facilities also operate at high efficiency.[36] Outpatient surgical departments, by design, focus on a limited scope of surgical procedures that are lower-acuity and do not require an overnight stay.[37] At MG Waltham, the focus will be on

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[34] POSITION STATEMENT: AMBULATORY SURGICAL CENTERS (Am. Ass'n of Orthopaedic Surgeons 2010), *available at* https://www.aaos.org/uploadedFiles/1161%20Ambulatory%20Surgical%20Centers.pdf; Munnich & Parente, *supra* note 9; BERNARD J. HEALEY & TINA MARIE EVANS, *Chapter 5: Ambulatory Care Services, in* INTRODUCTION TO HEALTH CARE SERVICES: FOUNDATIONS AND CHALLENGES 110-14 (Jossey-Bass 1st ed. 2014); HARRY A. SULTZ & KRISTINA M. YOUNG, *Chapter 4: Ambulatory Care, in* HEALTH CARE USA 122-24 (Jones and Bartlett Publishers 6th ed. 2009).
[35] AMBULATORY SURGERY CENTERS: A POSITIVE TREND IN HEALTH CARE, *supra* note 13.
[36] POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34.
[37] Mona Al-Amin & Michael Housman, *Ambulatory surgery center and general hospital competition: entry decisions and strategic choices*, 37 HEALTH CARE MANAGEMENT REVIEW 223 (2012); POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34; Dennis C. Crawford et al., *Clinical and Cost Implications of Inpatient Versus Outpatient*

lower-acuity orthopedic, plastic surgery, gynecology, urology, general surgery, surgical oncology, and interventional radiology procedures that are clinically appropriate for an outpatient delivery setting.

This focused approach is characterized by greater uniformity in cases referred and thus less variation in the types of procedures performed.[38] With less variety, surgical schedules are more predictable and the outpatient facility is better able to predict the resources it needs to maintain and lower costs for operation.[39] For instance, the ORs are often designed for specific types of procedures, and equipment and supplies that are best suited to these procedures are setup by the same clinical staff who often work together on a daily basis, which makes surgery much easier to schedule and perform.[40] Moreover, repeated delivery of a comparatively limited range of surgeries by specially trained and highly skilled experts allows for honing of techniques and provision of increased levels of high-quality care in less time.[41] Overall, this relatively narrow focus promotes increased efficiencies among care providers, maximizes the value of necessary staff resources and medical supplies, and leads to improved operational efficiency and economies of scale, which in turn translates into increased productivity, faster turnover, and more patients receiving quality care with shorter wait times.[42]

Dedicated Operating Rooms & Reduced Delays

Another advantage of the provision of surgery in the outpatient setting is that it allows physicians and patients to avoid delays inherent in an acute care hospital OR setting. In a hospital setting, scheduled outpatient procedures are always at risk of being delayed or moved due to emergency surgeries and procedures that take longer than expected, which adversely impacts patients and providers.[43] An outpatient surgical setting, on the other hand, can generally stay within a set schedule since the procedures are less complex, more routine, and are not likely to be delayed.[44] Thus, while the surgical procedures provided at MG Waltham will be identical to those a patient can access through a hospital, the outpatient facility will have the benefit of ORs dedicated solely to lower-acuity orthopedic, plastic surgery, gynecology, urology, general surgery, surgical

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Orthopedic Surgeries: A Systematic Review of the Published Literature, 7 ORTHOPEDIC REVIEW 116 (2015), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4703913/pdf/or-2015-4-6177.pdf.

[38] David Cook et al., *From 'Solution Shop' Model to 'Focused Factor' In Hospital Surgery: Increasing Care Value and Predictability*, 33 HEALTH AFFAIRS 746 (2014), *available at* https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2013.1266; POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34.

[39] Cook et al., *supra* note 38; POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34.

[40] POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34.

[41] Cook et al., *supra* note 38; POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34; Munnich & Parente, *supra* note 9; AMBULATORY SURGERY CENTERS: A POSITIVE TREND IN HEALTH CARE, *supra* note 13.

[42] POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34; Cook et al., *supra* note 38.

[43] POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34; *The Benefits of Outpatient Surgical Centers*, THE CTRS. FOR ADVANCED ORTHOPAEDICS (Jun. 15, 2017), https://www.cfaortho.com/media/news/2017/06/the-benefits-of-outpatient-surgical-centers; Crawford et al., *supra* note 37; HEALEY & EVANS, *supra* note 34; SULTZ & YOUNG, *supra* note 34.

[44] POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34; *The Benefits of Outpatient Surgical Centers*, *supra* note 43; Crawford et al., *supra* note 37.

oncology, and interventional radiology outpatient procedures and will experience greater scheduling efficiencies.[45]

Convenience for Patients and Families

Finally, outpatient surgical facilities provide enhanced convenience for patients and their families.[46] Two factors frequently lacking on hospital campuses and the large building complexes associated with them are convenient location and easily accessible facilities and services.[47] This is of particular concern in large urban settings, such as Boston, where inner-city congestion, traffic, and parking play a role in reducing accessibility.[48] Ambulatory facilities, such as MG Waltham, are preferred by patients and families as they are more accessible and offer an opportunity to bypass the hassles of dealing with a large, complex hospital campus.[49] Generally, and as is the case at MG Waltham, patients enter the easily navigable facility directly from the free parking lot/garage, which eliminates the need for the ill, injured, or elderly patient to walk through a maze of hallways to reach the correct hospital department.[50] Moreover, patients and their families benefit from the accessibility of these services within the community; MG Waltham is conveniently located off Route 128 in Waltham and brings accessible, world-class care to communities west and north of Boston.[51]

F.1.b.ii **Public Health Value /Outcome-Oriented:**
Describe the impact of the Proposed Project and how the Applicant will assess such impact. Provide projections demonstrating how the Proposed Project will improve health outcomes, quality of life, or health equity. Only measures that can be tracked and reported over time should be utilized.

A. Expansion of Surgical Capacity in the Community Setting: Improving Health Outcomes and Quality of Life

The Applicant anticipates that the proposed Project will provide MG Waltham's patients with improved health outcomes, improved quality of life and additional access to high quality surgical services by expanding capacity in the community setting. As more fully discussed in Factor F.1.b.i., shifting patients to an ambulatory setting allows for high-quality lower-cost care. As a proxy for quality, researchers have found that, "The highest-risk Medicare patients were less likely than other high-risk Medicare patients to visit an emergency department or be admitted to a hospital following an outpatient surgery when they were treated in an ASC, even among similar patients undergoing the same procedure who were treated by the same physician in an ASC and a hospital. These results indicate that ASCs provide high-quality care, even for the most vulnerable patients."[52]

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[45] POSITION STATEMENT: AMBULATORY SURGICAL CENTERS, *supra* note 34; *The Benefits of Outpatient Surgical Centers*, *supra* note 43; Crawford et al., *supra* note 37.
[46] HEALEY & EVANS, *supra* note 34; SULTZ & YOUNG, *supra* note 34; Munnich & Parente, *supra* note 9.
[47] HEALEY & EVANS, *supra* note 34; SULTZ & YOUNG, *supra* note 34.
[48] HEALEY & EVANS, *supra* note 34; SULTZ & YOUNG, *supra* note 34.
[49] HEALEY & EVANS, *supra* note 34; SULTZ & YOUNG, *supra* note 34.
[50] HEALEY & EVANS, *supra* note 34.
[51] SULTZ & YOUNG, *supra* note 34; *Mass General Waltham Maps & Directions*, Massachusetts General Hospital, http://www.massgeneral.org/waltham/directions/ (last visited Dec. 26, 2017).
[52] Munnich & Parente, *supra* note 9.

In accordance with this research, high quality surgical services are currently available at MG Waltham and the expanded surgical program at MG Waltham will follow similar care models. Currently, high quality patient outcomes are achieved through the utilization of strategies that are aimed at improving quality, efficiency and patient experience, such as care models that are rooted in collaboration, including patient-centered medical homes, care integration and other care initiatives specifically designed by MGH clinicians. Consequently, MGH offers a number of programs, that MG Waltham participates in to ensure quality care for patients.

First, MG Waltham participates in the Applicant's Patient Reported Outcome Measures ("PROMs") platform. PROMs are a way to assess the metrics of most importance to patients, such as symptom management and functional status. Tracking these outcomes allows providers to take better care of patients by reviewing individual scores to prepare for certain aspects of a procedure. Furthermore, these questionnaires allow quality improvement staff to group together specific patients based on symptoms or procedures to understand which patients will benefit the most from certain treatments. The Applicant is a national leader in the collection of PROMs and has developed an innovative technology-enabled platform that facilitates the collection of this information on a large scale across its network. As an initial step in the surgical consultation process, PROMs are collected to aid surgeons in determining the best course of treatment and the effects surgery will have on a patient. This information is then used in various ways to provide decision support for a surgeon. For example, for spine surgery, this data, as well as other clinical information, is incorporated into a surgical decision platform (Provider Order Entry), which helps the surgeon and patient assess the appropriateness of surgery.

Second, MGH and MG Waltham offer the Shared-Decision Making Program. Through this Program, patients considering surgery at MG Waltham have the opportunity to review video-based decision aids prescribed by their primary care physician ("PCP"). The Shared Decision-Making Program is a collaboration between primary care and specialists that seeks to provide patients with necessary information on a wide array of treatment options, so a patient is able to work with a surgical consultant and PCP to determine if surgery is the best option for care.

Third MG Waltham staff participate in the eConsult Program. Through the eConsult program PCPs and surgeons consult (as needed) through a non-face-to-face electronic interaction that seeks to ensure patients are receiving appropriate care services, while avoiding any unnecessary higher cost consultations. Clinical decision support in the electronic health record ("EHR") and physician-level variation reporting minimize inappropriate ordering of radiology and other high-cost diagnostic tests by a PCP.

Finally, for MGH and MG Waltham's highest risk and most complex patients, clinical staff offer the Integrated Care Management program ("iCMP"). iCMP provides eligible patients with a care manager who develops a care plan in tandem with the patient and other members of the clinical team. The care manager works in-person and telephonically to coordinate a patient's care and ensures that patients are not readmitted to the hospital when possible. Additionally, the care manager connects patients with community based resources that are vital for recovery. MGH also offers the Integrated care management program, Patients Linked to Urgent Supports ("PLUS"). This program provides intensive wrap-around services (psycho-social supports) to a small number of patients. Services include acute community paramedicine, crisis stabilization units, and coordinated transportation. All of these programs assure that MG Waltham's surgical patients have the highest quality care, as well as a superior care experience. Through the proposed

Project, all expanded surgical services will offer these programs to patients; thereby ensuring improved quality outcomes for patients.

Furthermore, additional access will be created by the proposed Project through the implementation of expanded surgical services in the community. It is often difficult for patients, especially elderly individuals, to travel to Boston for surgical services. Time spent on travel, as well as monies spent on costly parking may add stress to a patient unnecessarily. Accordingly, through the expansion of surgical capacity in Waltham, patients will be able to have outpatient, day-surgery close to home without the challenges associated with traveling to Boston. Ultimately, the ability to access surgical services locally assists in patients' surgical experience, ultimately improving overall quality of life.

B. Assessing the Impact of the Proposed Project

To assess the impact of the proposed Project, MGH has developed the following quality metrics and reporting schematic, as well as metric projections for quality indicators that will measure patient satisfaction, access and quality of care. The measures are discussed below:

1. **Satisfaction – Patient Satisfaction:** Patients that are satisfied with care are more likely to seek additional treatment when necessary. MGH staff will review overall ratings of care with surgical services via Press Ganey Survey scores.

   Measure: Overall rating of Care – Response Options, include: Very Good, Good, Fair, Poor and Very Poor.

   Projections: As the surgical services proposed through this project are currently not available at the Hospital's Waltham satellite, the Hospital will establish baseline and projections for this measure within six months of commencement of the new service.

   Monitoring: Any category receiving a less than "Good" rating will be evaluated and policy changes instituted as deemed appropriate.

2. **Access – Wait Times:** The number of days from the date that the surgery is indicated to the scheduled surgery date. This information will be obtained via MGH's EHR system, EPIC.

   Measure: Time interval from when the case was initiated for scheduling in Epic to the date of surgery.

   Projections: As the surgical services proposed through this project are currently not offered at the Hospital's Waltham satellite, the Hospital will establish baseline and projections for this measure within six months of commencement of the new service.

   Monitoring: Reviewed quarterly by clinical staff.

3. **Clinical Quality – Adherence to the Universal Protocol:** This measure evaluates pre-procedural compliance with practices aimed at ensuring high quality outcomes, such as ensuring the appropriate procedure site is identified and other quality standards, such as "time-out" processes.

Measure: The unit or procedure area conducts universal protocol, including when applicable, pre-procedure verification, marking the procedure site and time out.

Projections: As the surgical services proposed through this project are currently not offered at the Hospital's Waltham satellite, the Hospital will establish baseline and projections for this measure within six months of commencement of the new service.

Monitoring: Reviewed quarterly by clinical staff.

4. **Clinical Quality – Medication Labeling** This measure ensures appropriate medications are provided during the procedure.

Measure: Percent of patients who have medication labeled during a procedure.

Projections: As the surgical services proposed through this project are currently not offered at the Hospital's Waltham satellite, the Hospital will establish baseline and projections for this measure within six months of commencement of the new service.

Monitoring: Reviewed quarterly by clinical staff.

F1.b.iii **Public Health Value /Health Equity-Focused:**
For Proposed Projects addressing health inequities identified within the Applicant's description of the Proposed Project's need-base, please justify how the Proposed Project will reduce the health inequity, including the operational components (e.g. culturally competent staffing). For Proposed Projects not specifically addressing a health disparity or inequity, please provide information about specific actions the Applicant is and will take to ensure equal access to the health benefits created by the Proposed Project and how these actions will promote health equity.

To ensure health equity to all populations, including those deemed underserved, the proposed Project will not affect accessibility of MG Waltham's services for poor, medically indigent, and/or Medicaid eligible individuals. MG Waltham does not discriminate based on ability to pay or payer source and this practice will continue following implementation of the proposed Project. As further detailed throughout this narrative, the proposed Project will increase access to high quality surgical services for all patients in a number of ways. For example, as a fully integrated outpatient service of the Hospital, the satellite surgery services will be under the same leadership as surgical services provided at the main campus and will participate in the same quality program, safety program and emergency preparedness programs that are utilized at the main campus of the Hospital.

Over the past decade, MGH has launched a variety of diversity initiatives to address healthcare disparities, increase the percentage of employees from underrepresented groups, build trust among people of diverse backgrounds and evaluate the hospital's progress. Given these efforts, MGH was recently named one of the nation's top ten hospitals and health systems on diversity issues by Diversity Inc, a publication that monitors best practices in the field. With these goals and MGH's commitment to increasing the number of employees from underrepresented groups, MG Waltham staff represent various races and ethnicities. Through the proposed Project, patients will have access to culturally competent staffing through a clinical staff representative of various races and ethnicities.

Moreover, Partners HealthCare, and specifically MGH, has also adopted the Culturally and Linguistically Appropriate Service ("CLAS") standards set forth by the U.S. Department of Health and Human Services Office of Minority Health for all practice sites. MGH provides effective, understandable, and respectful care with an understanding of patients' cultural health beliefs and practices and preferred languages. Additionally, MGH has arrangements to offer ongoing education and training in culturally and linguistically appropriate areas for staff at all levels and across all disciplines.

In regard to interpreter services at MG Waltham, all ORs will have continual access to Interpreter Phones on Pole ("IPOPs") through the hospital's vendor, CyraCom. CyraCom will provide interpreters in approximately 200 languages telephonically. Moreover, MG Waltham's clinicians and patients will have access to CyraCom's Video Remote Interpreting ("VRI") for deaf patients to access American Sign Language ("ASL") interpreters, as well as access to Video Phone on a Pole ("VPOPs") to access MGH main campus staff interpreters for eleven languages, including ASL. Interpretations for encounters that occur with MGH main campus staff are documented in a centralized Interpreter Services Tracking System, which contains a reporting tool for year-end statistics of positive encounters. CyraCom also provides a monthly statement of calls using interpreters, which includes date, time, patient's MRN and the clinic that called. MGH main campus interpreter services will provide the annual statistics from MG Waltham for the annual report of Interpreter Services for the Department of Public Health.

Finally, all Partners HealthCare hospitals, including MGH participate in the American Hospital Association's #123Equity Pledge Campaign. This Campaign seeks to eliminate health and health care disparities that exist for racially, ethnically and culturally diverse individuals. The campaign requires hospital leaders to accelerate progress in the following areas: (1) Increasing the collection and use of race, ethnicity, language preference and other socio-demographic data; (2) Increasing cultural competency training; and (3) Increasing diversity in leadership and governance. Currently, all Partners HealthCare hospitals participate in the Campaign. This Campaign will allow MGH staff to ensure equal access to the benefits created by the Proposed Project.

F1.b.iv **Provide additional information to demonstrate that the Proposed Project will result in improved health outcomes and quality of life of the Applicant's existing Patient Panel, while providing reasonable assurances of health equity.**

The proposed Project will allow patients in need of lower-acuity surgical services to receive care in a community setting. These expanded surgical services provide an alternative point of access with equally high quality at a lower-cost. Furthermore, services provided in this setting are more convenient for patients and clinicians allowing for improved access to timely surgical care; thereby increasing quality outcomes and patient experience. For these reasons, MGH is seeking to expand surgical services at its Waltham site.

F1.c **Provide evidence that the Proposed Project will operate efficiently and effectively by furthering and improving continuity and coordination of care for the Applicant's Patient Panel, including, how the Proposed Project will create or ensure appropriate linkages to patients' primary care services.**

To ensure continuity of care, improved health outcomes and enhanced quality of life, through the proposed Project, MG Waltham staff will continue existing formal processes for linking surgical patients with primary care physicians and specialists for follow-up care, as well as case management/social work support to ensure patients have access to resources around social determinant of health ("SDoH") issues. Providing patients with linkages to these necessary services prevents unnecessary readmissions, ensures appropriate care management and provides the patient with the resources for leading a better life. Moreover, patients at MG Waltham will benefit from MGH's mature population health management strategies, including an existing system of care coordination and care delivery alternatives aimed at improving patient experience and outcomes.

As discussed in Section F1.b.ii, Partners has a number of integrated care programs in place to ensure continuity of care and care integration. In addition to programs, such as eConsult and Shared Decision-Making, MGH assists patients with linkages to care and SDoH through care managers who follow-up with patients after ambulatory procedures. These care managers follow-up with patients telephonically to provide medication reconciliation and coordinate care with clinicians to optimize recovery. Moreover, telehealth technologies are utilized by many surgical practices to conduct follow-up visits, improve adherence to post-surgical care guidelines and collected PROMs. MGH also offers a number of alternatives to emergency department care for post-operative patients through the Partners Mobile Observation Unit ("PMOU"), a program that provides home-based urgent care for patients experiencing at-risk medical events believed to be treatable with enhanced home care. Finally, Patient education videos (vidscrips) have been created to provide a low-cost mechanism for patients to improve self-management of post-operative symptoms with the goal of reducing the need for emergency department visits and unplanned surgical follow up visits. Accordingly, these efforts and initiatives ensure patients are appropriately linked to care integration resources.

F1.d **Provide evidence of consultation, both prior to and after the Filing Date, with all Government Agencies with relevant licensure, certification, or other regulatory oversight of the Applicant or the Proposed Project.**

Since a broad range of input is valuable in the planning of a project, the Applicant carried out a diverse consultative process with individuals at various regulatory agencies regarding the Proposed Projects. The following individuals are some of those consulted regarding this Project:

- Department of Public Health: Nora Mann, Director, Determination of Need Program; Rebecca Rodman, Deputy General Counsel; and Ben Wood, Director, Office of Community Health Planning and Engagement.
- MassHealth: Steven Sauter, Director, Acute Hospital Program, MassHealth Office of Providers and Plans and David Garbarino, Director of Purchasing Strategy and Analytics at Executive Office of Health and Human Services – MassHealth.

F1.e.i **Process for Determining Need/Evidence of Community Engagement:**
For assistance in responding to this portion of the Application, Applicant is encouraged to review *Community Engagement Standards for Community Health Planning Guideline.* With respect to the existing Patient Panel, please describe the process through which Applicant determined the need for the Proposed Project.

Based upon the need for lower-acuity patients to receive timely surgical services, MGH staff developed a plan to provide expanded outpatient surgical services at MG Waltham. In contemplation of this expansion, MGH's leadership sought to define its community broadly and engage patients, family members, local residents and resident groups that may be impacted by the proposed Project to obtain feedback and answer questions. These groups were engaged through various initiatives.

As a first step in the engagement process, MGH sought to engage patients, local residents, as well as those resident groups impacted by the proposed Project. Accordingly, MGH staff hosted a community forum at MG Waltham, on September 7, 2017. This forum was publicized in clinical and administrative areas of MGH and MGH Waltham, as well as through staff outreach to local resident and community groups and on the MG Waltham web site. The goal of this forum was to educate community members on expansion efforts. However, despite leadership's best efforts to engage patients and residents in the DoN process, the meeting was not well attended with only a few patients and staff participating in the meeting.

Given sparse attendance at the community meeting, in an effort to ensure appropriate community engagement, the proposed Project was presented to the Patient Perspective on Perioperative Care Committee at MGH. This Committee is comprised of patients and other members from MGH's General Patient Family Advisory Council ("G-PFAC"). MGH's G-PFAC was formed in 2011 to advance patient experience and promote patient and family involvement in all aspects of hospital operations. The G-PFAC has an enterprise-wide focus, including operations and services across the continuum of care, from inpatient to outpatient. It is dedicated to fostering a partnership between patients, families, and staff to support Mass General in meeting its strategic goals and initiatives. The G-PFAC is comprised of a dedicated group of patient and family members who have experienced many different aspects of care and services at MGH and who volunteer their time, with their expertise and input, to make that care even better. Additionally, other key stakeholders from the hospital staff sit on the G-PFAC. The Council is co-chaired by a patient member and staff and meets monthly throughout the year. As part of its oversight, G-PFAC members participate in committees and task forces at MGH, including the Perspective on Perioperative Care Committee.

On November 6, 2017 surgical staff presented to the Perspective on Perioperative Care Committee on the proposed Project. Meeting minutes and an agenda for the meeting may be found in Appendix 3b. Overall feedback from the meeting was very positive and supportive of the plan. There were no concerns expressed by this group.

F1.e.ii **Please provide evidence of sound Community Engagement and consultation throughout the development of the Proposed Project. A successful Applicant will, at a minimum, describe the process whereby the "Public Health Value" of the Proposed Project was considered, and will describe the Community Engagement process as it occurred and is occurring currently in, at least, the following contexts: Identification of Patient Panel Need; Design/selection of DoN Project in response to "Patient Panel" need; and Linking the Proposed Project to "Public Health Value".**

To ensure sound community engagement throughout the development of the proposed Project, the Applicant in conjunction with MGH took the following actions:

- Presentation to MGH's Perspective on Perioperative Care Committee on November 6,

2017;
- Community forum where staff presented on the expansion initiative on September 7, 2017. Information on this forum was publicized and posted in MGH and MG Waltham's clinical and administrative areas, as well as on the MG Waltham web site.

For detailed information on these activities, see Appendix 3.

For transparency and to educate the community regarding the public health value of the proposed Project, MGH developed a presentation to provide at the aforementioned community forum. This presentation documents the components of the proposed Project and the patient panel need that the Project will meet, as well as the impact of the proposed Project including its public health value (see Appendix 3a).

Factor 2: Health Priorities

Addresses the impact of the Proposed Project on health more broadly (that is, beyond the Patient Panel) requiring that the Applicant demonstrate that the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment, improved public health outcomes, and delivery system transformation.

F2.a. **Cost Containment:**
Using objective data, please describe, for each new or expanded service, how the Proposed Project will meaningfully contribute to the Commonwealth's goals for cost containment.

The goals for cost containment in Massachusetts center around providing low-cost care alternatives without sacrificing high quality. In fact, the Commonwealth's independent state agency that develops policy to reduce health care cost growth and improve the quality of patient care, the Health Policy Commission, has a stated goal of bettering health and care at a lower cost across the Commonwealth. Consequently, the proposed Project will meaningfully contribute to Massachusetts' goals for cost containment by providing high quality surgical services for qualifying lower-acuity patients in a more cost-effective setting. Accordingly, the proposed Project will lower costs, as well as overall TME and total healthcare expenditures.

F2.b. **Public Health Outcomes:**
Describe, as relevant, for each new or expanded service, how the Proposed Project will improve public health outcomes.

The expansion of surgical services at MG Waltham will improve public health outcomes as patients will have access to high quality surgical services in the community. This convenient access to surgical services will allow patients to schedule surgeries in a timely manner, avoiding unnecessary travel barriers to obtaining care (driving to Boston, expensive parking, etc.) and the creation of a better patient care experiences. Moreover, as discussed, studies have documented the benefits that patients receive by obtaining surgical care in the ambulatory setting – given that doctors and staff only specialize in specific types of surgery – and can create efficiencies tailored to the facility and its relatively limited range of procedures and patient complexities. This experience translates to better outcomes for patients, as well as increased overall satisfaction with their care experience. When patients receive timely care, in the appropriate setting and achieve cost savings both the healthcare market and patients benefit from these practices.

F2.c. **Delivery System Transformation:**
Because the integration of social services and community-based expertise is central to goal of delivery system transformation, discuss how the needs of their patient panel have been assessed and linkages to social services organizations have been created and how the social determinants of health have been incorporated into care planning.

As outlined in Section F.1.B.ii, MGH has numerous programs in place to ensure linkages to social service organizations, such as through the iCMP for high-risk, chronically ill patients and these programs extend to MG Waltham. Additionally, as part of the new MassHealth ACO Model, the Applicant and MGH will implement a universal screening program for SDoH. This includes domains such as: housing, food insecurity, finances, childcare, transportation, and literacy. Currently, staff are developing workflows to connect patients to internal and external resources if the patient screens positive in any of the SDoH domains.

Factor 5: Relative Merit

F5.a.i **Describe the process of analysis and the conclusion that the Proposed Project, on balance, is superior to alternative and substitute methods for meeting the existing Patient Panel needs as those have been identified by the Applicant pursuant to 105 CMR 100.210(A)(1). When conducting this evaluation and articulating the relative merit determination, Applicant shall take into account, at a minimum, the quality, efficiency, and capital and operating costs of the Proposed Project relative to potential alternatives or substitutes, including alternative evidence-based strategies and public health interventions.**

Proposal: To expand surgical capacity at MG Waltham to support specific lower-acuity procedures across gynecology, urology, general surgery, surgical oncology, orthopedics, and interventional radiology.

Quality: Studies have shown that patients receiving care in an outpatient setting have high quality outcomes, similar to patients who obtain these services in the inpatient or HOPD. Given specialization by clinicians and their level of experience on specific procedures, care is effective, timely and seamless in a freestanding surgical setting.

Efficiency: Both care and operating efficiencies may be created through the shift of lower-acuity patients to a more cost-effective setting – allowing for lower costs and higher quality outcomes.

Capital Expense: There are one-time capital expenses associated with the expansion of six new ORs and shell space. However, if this construction were to occur on MGH's main campus, costs would be higher.

Operating Costs: In Year 4, after full "ramp-up" of the expanded surgical capacity, operating costs are estimated at $27.6M. However, these same costs for expanded surgical services at MGH's main campus would be nearly 40% more at $47.3M.

List alternative options for the Proposed Project:

Option 1

Alternative Proposal: Expand surgical capacity on the main campus to meet demand for lower acuity surgical patients.

Alternative Quality: MGH has excellent quality scores associated with surgical services, as a result, quality outcomes would be the same. However, patient experience and convenience would not be addressed as the new capacity would be on MGH's main campus in Boston.

Alternative Efficiency: Building out these services on the main campus would be inefficient, as it would not create operating or cost efficiencies.

Alternative Capital Expenses: The construction costs associated with these services Is approximately $47,680,300 for 32,000 gross square feet ("GSF") of renovated space, nearly $17M more than expanding surgical services at MG Waltham. These increased costs are due to necessary infrastructure upgrades that would be required to expand MGH's current peri-operative services in the White, Gray, Jackson, Ellison and Blake buildings. Given the age of these facilities (20-80 years old), the space requires reconfiguration and renovations to incorporate today's technology and team-based model of care.

Alternative Operating Costs: The operating costs associated with expanded outpatient surgical services at MGH's main campus would be 40% greater than at MG Waltham given additional renovations that would need to be made, as well as other staffing costs.

Option 2

Alternative Proposal: Expand surgical capacity through the extension of OR hours at MGH.

Alternative Quality: This is not a feasible solution, as currently, the ORs are utilized for extended periods and patient experience and outcome measures will be impacted by patients receiving services late in the evening, etc.

Alternative Efficiency: Building out these services on the main campus would be inefficient, as it would not provide additional access to services, nor would it create operating or cost efficiencies.

Alternative Capital Expenses: The capital costs for expanding OR hours at MGH would be minimal.

Alternative Operating Costs: The operating costs associated with expanded outpatient surgical services at MGH's main campus would be greater than at MG Waltham due to additional staffing costs. Moreover, there would be costs associated with expanded OR hours because many outpatient procedures performed during later hours in the day would require the patient to be admitted to an inpatient bed in compliance with hospital licensure regulations. This would reduce access to inpatient capacity for other patients. Furthermore, the costs of performing outpatient surgery later in the day and the accompanying overnight inpatient stay will result in additional costs of approximately $2.52M that will not be incurred with the proposed project.

Option 3

Alternative Proposal: Expand outpatient surgical capacity at MGH's Charles River Plaza site.

Alternative Quality: This is not a feasible solution, as quality metrics, such as patient satisfaction and convenience would be hindered given that this location is in Boston just a short distance from the main campus, so patients would still need to travel to Boston for lower acuity procedures.

Alternative Efficiency: Building out these services at the Charles River Plaza site would be inefficient, as it would not provide additional access to services in the community setting.

Alternative Capital Expenses: The construction costs associated with this expansion are $8.46M for 7,300 GSF. However, this project would only allow for specific types of outpatient surgical volume to be shifted from MGH's main campus given space constraints. Accordingly, this option does not meet the need of the patient panel for various types of lower acuity surgery to be provided in a community setting.

Alternative Operating Costs: The operating costs associated with expanded surgical services at the Charles River Plaza site are not comparable, as this expansion would only allow for the minimal surgical volume to be transferred given space constraints.

Attachment/Exhibit

2

TABLE 1: Total PHS Patient Panel

	FY14		FY15		FY16		FY17Q1	
	Count	%	Count	%	Count	%	Count	%
PHS Total	1,211,361		1,255,589		1,299,981		635,069	
Gender								
Male	489,115	40%	510,882	41%	529,584	41%	249,171	39%
Female	699,356	58%	729,920	58%	756,941	58%	381,244	60%
Other/Unknown	22,890	2%	14,787	1%	13,456	1%	4,654	1%
Age								
0-17	125,049	10%	136,541	11%	149,313	11%	65,425	10%
18-64	748,259	62%	781,276	62%	809,642	62%	385,857	61%
65+	315,264	26%	323,115	26%	327,663	25%	179,162	28%
Unknown	22,789	2%	14,657	1%	13,363	1%	4,625	1%
Race								
White	888,884	73%	912,161	73%	924,332	71%	468,014	74%
Black or African American	71,921	6%	73,310	6%	74,127	6%	36,954	6%
American Indian or Alaska Native	1,416	0.1%	1,434	0.1%	1,417	0.1%	617	0.1%
Asian	49,087	4%	51,114	4%	51,921	4%	25,444	4%
Native Hawaiian or Other Pacific Islander	1,052	0.1%	987	0.1%	976	0.1%	441	0.1%
Hispanic/Latino	38,901	3%	32,611	3%	26,698	2%	15,804	2%
Other/Unknown	160,100	13%	183,972	15%	220,510	17%	87,795	14%
Patient Origin								
HSA_1	10,538	1%	11,058	1%	11,716	1%	5,073	1%
HSA_2	42,126	3%	41,549	3%	42,928	3%	19,117	3%
HSA_3	59,490	5%	60,456	5%	61,689	5%	28,734	5%
HSA_4	571,400	47%	581,662	46%	584,007	45%	307,015	48%
HSA_5	121,411	10%	149,729	12%	183,635	14%	81,469	13%
HSA_6	231,359	19%	234,332	19%	237,352	18%	125,405	20%
Outside of MA	147,646	12%	158,403	13%	162,301	12%	62,739	10%
Unknown	27,391	2%	18,400	1%	16,353	1%	5,517	1%

Table 2: MG Waltham Procedural Volume Summary

	FY'14		FY'15		FY'16		FY'17 Q1 and Q2	
	Count	%	Count	%	Count	%	Count	%
MG West Total	**3,448**		**3,484**		**3,266**		**1,743**	
Gender								
Male	1,893	54.9%	1,943	55.8%	1,816	55.6%	956	54.8%
Female	1,553	45.0%	1,532	44.0%	1,446	44.3%	785	45.0%
Other/Unknown	2	0.1%	9	0.3%	4	0.1%	2	0.1%
Age								
0-17	83	2.4%	78	2.2%	83	2.5%	41	2.4%
18-64	2,799	81.2%	2,796	80.3%	2,553	78.2%	1,364	78.3%
65+	566	16.4%	610	17.5%	630	19.3%	338	19.4%
Race								
White	2,972	86.2%	2,934	84.2%	2,775	85.0%	1,481	85.0%
Black or African American	91	2.6%	103	3.0%	89	2.7%	50	2.9%
American Indian or Alaska Native	1	0.0%	2	0.1%	4	0.1%	3	0.2%
Asian	110	3.2%	119	3.4%	103	3.2%	65	3.7%
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%	1	0.0%	1	0.1%
Hispanic/Latino	131	3.8%	21	0.6%	18	0.6%	10	0.6%
Other/Unknown	143	4.1%	305	8.8%	276	8.5%	133	7.6%
Patient Origin								
HSA_1	84	2.4%	74	2.1%	70	2.1%	32	1.8%
HSA_2	142	4.1%	122	3.5%	139	4.3%	81	4.6%
HSA_3	238	6.9%	253	7.3%	253	7.7%	103	5.9%
HSA_4	1,668	48.4%	1,707	49.0%	1,630	49.9%	859	49.3%
HSA_5	407	11.8%	399	11.5%	380	11.6%	214	12.3%
HSA_6	462	13.4%	491	14.1%	406	12.4%	237	13.6%
Outside of MA	447	13.0%	438	12.6%	388	11.9%	217	12.4%
Relevant Historical Data								
Orthopedics	3,435	99.6%	3,402	97.6%	3,176	97.2%	1,681	96.4%
Plastics	13	0.4%	82	2.4%	90	2.8%	62	3.6%

Attachment/Exhibit

3

Attachment/Exhibit

A

The Massachusetts General Hospital
Mass General Waltham
Surgical Service Expansion

Open Forum

Thursday, September 7, 2017

MASSACHUSETTS GENERAL HOSPITAL

MASSACHUSETTS GENERAL PHYSICIANS ORGANIZATION

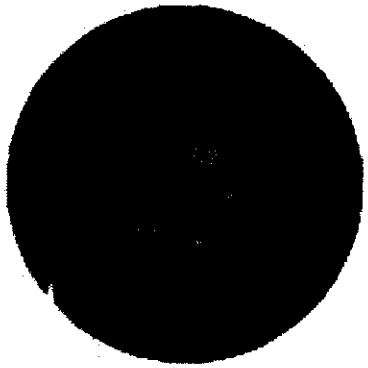
Agenda

- Presenters
- Background (Overview, Mass General Waltham today)
- Proposed Expansion/Scope
- Impact on our Patients
- Project Timeline
- Your Feedback

Presenters

Dawn Tenney

Associate Chief Nurse, Perioperative Nursing



Peter Dunn

Executive Medical Director, Perioperative Administration

Greg Pauly

MGPO Chief Operating Officer

Bill Simmons

Director of Operations at MG West

Current Services at Mass General Waltham

- Primary Care-Internal Medicine and Pediatrics (since 1998)
- Specialty Care Services (since 1998)
- Physical Therapy (since 1998)
- Pharmacy (since 1998)
- Radiology (since 2000)
- OB/Gyn (since 2000)
- Orthopedic Ambulatory Surgery Center (since 2005)
- Pediatric G.I. (since 2005)
- Vascular Center (since 2005)
- Cardiology (since 2009)
- Primary Care Practise (since 2013)
- Allergy (since 2014)
- Foot & Ankle (since 2015)
- Phlebotomy (since 2015)
- Cancer Center (since 2015)

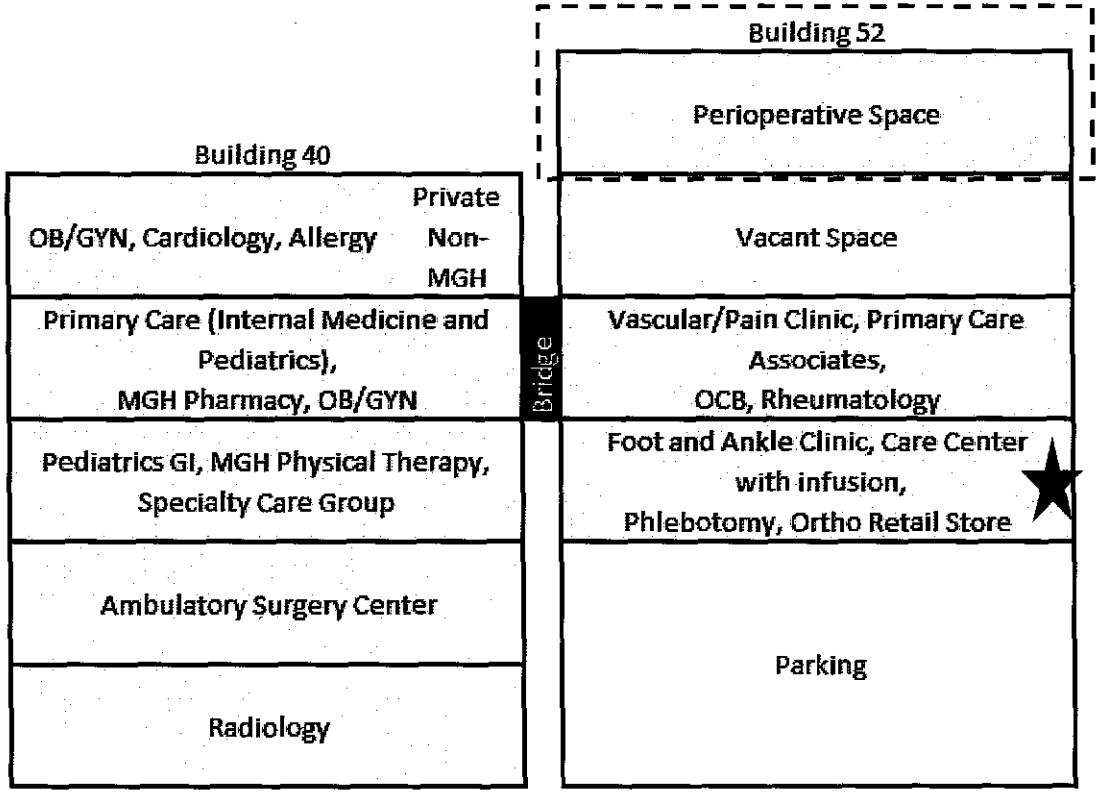
Why are we Planning to Add More Surgical Services?

"To further our vision of patient-centered care and commitment to providing fully integrated care accessible and convenient to patients and their communities."

Scope of Surgical Expansion

Scope of Project

★ Current Location



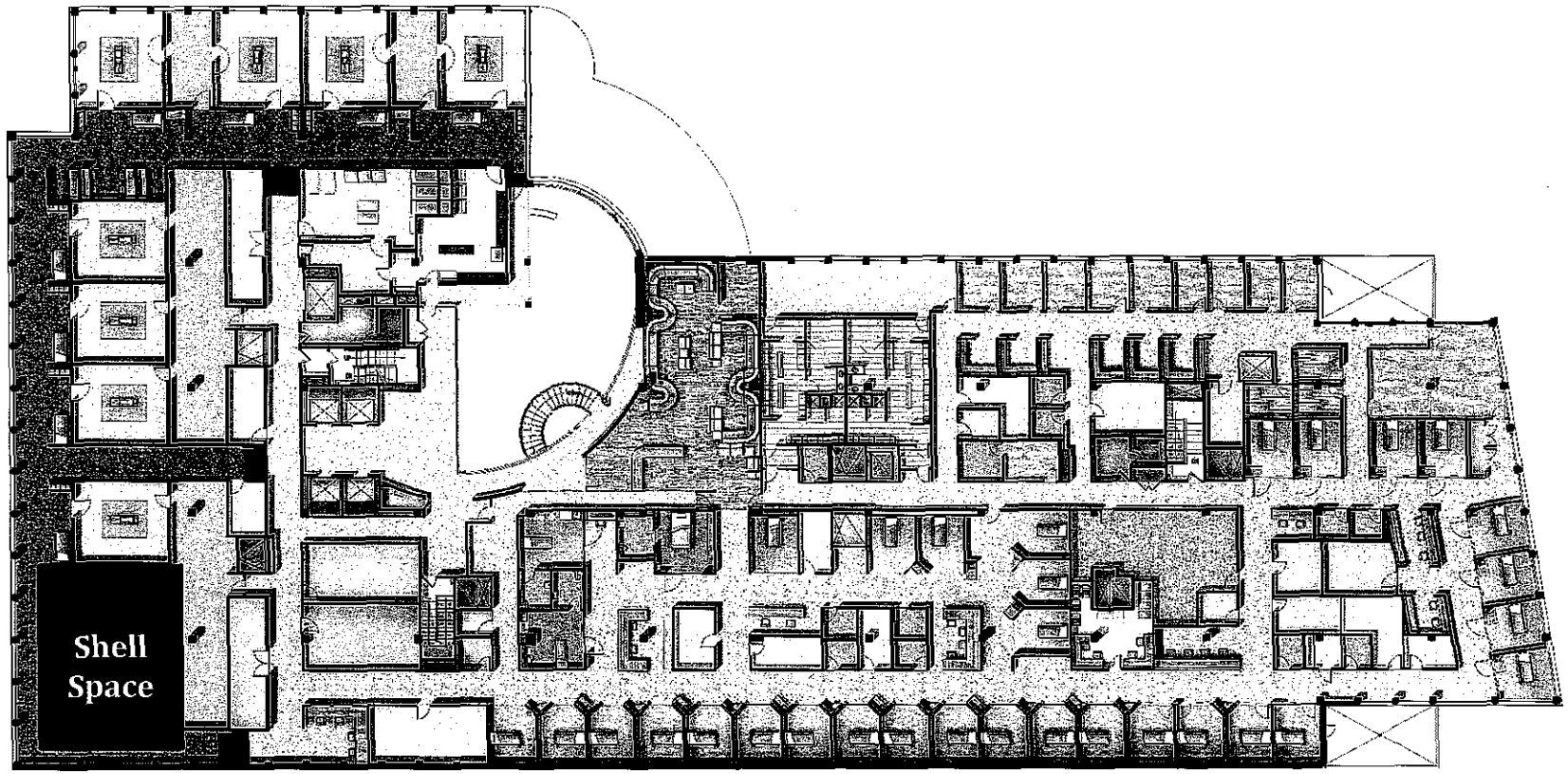
Expanded Surgical Services

Surgical services that will be provided at Mass General Waltham at completion of project include:

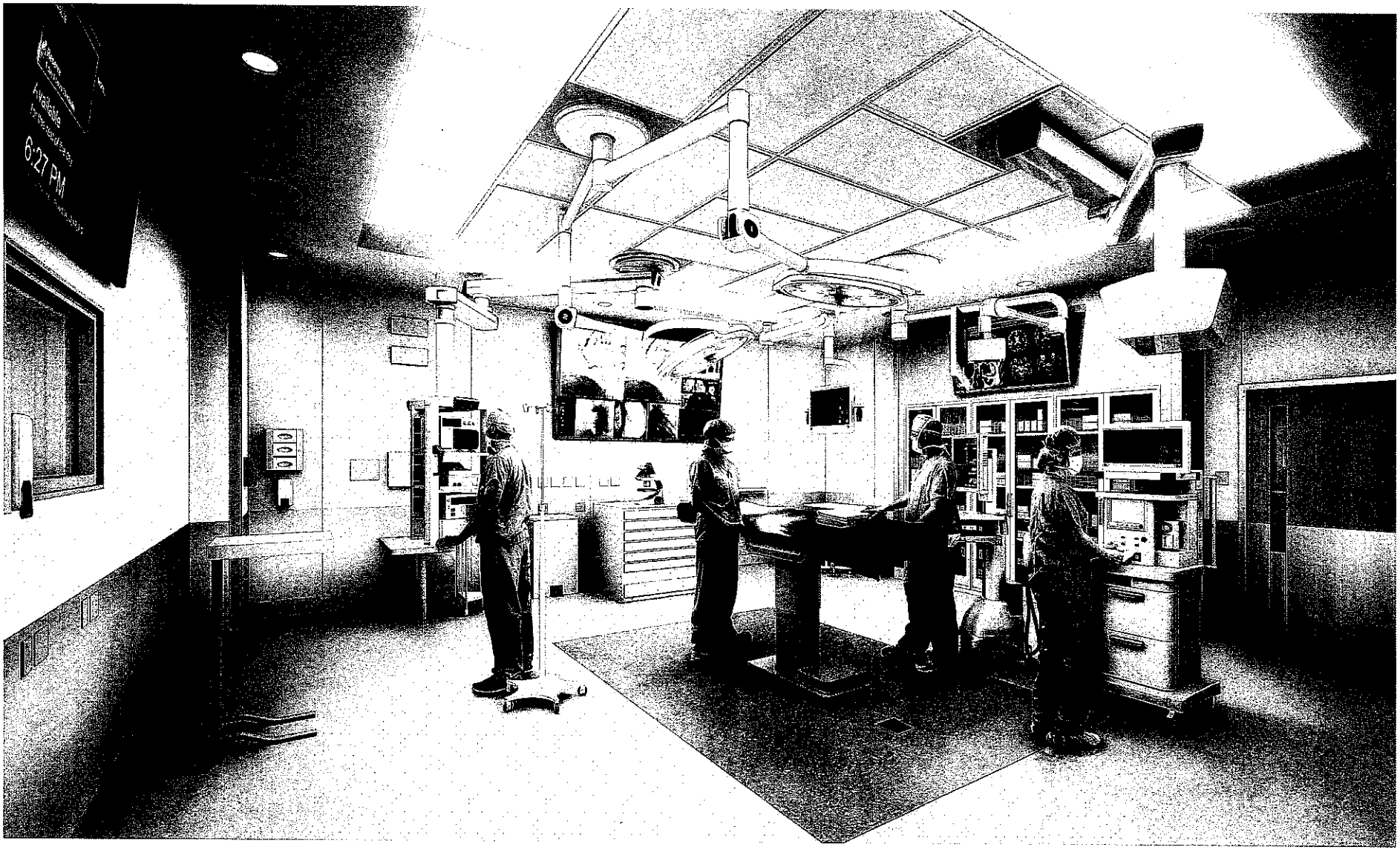
- Interventional Radiology
- Surgical Oncology
- General Surgery
- OBGYN/Fertility
- Urology
- Orthopedics

*All cases will be ambulatory

OR Visualization from Architectural Firm



Mass General Waltham Bldg. Visualization



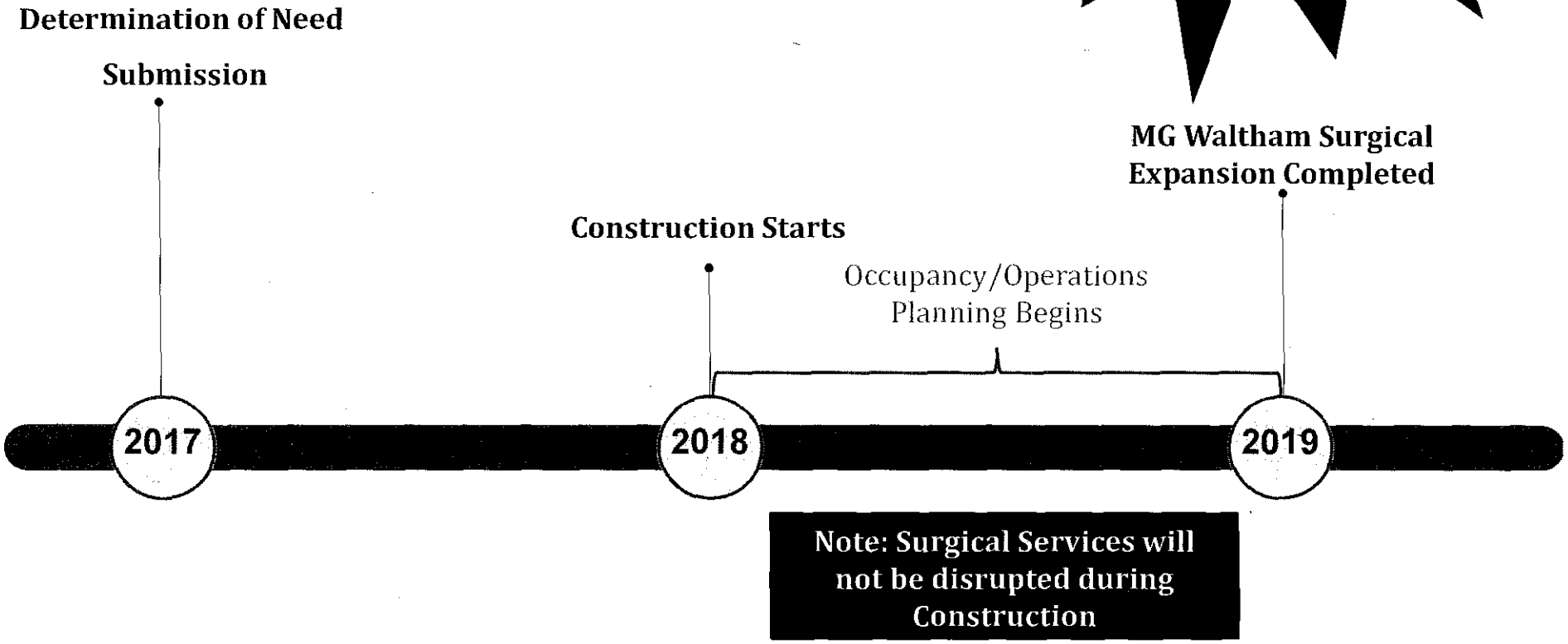
What does it mean for the Patient?

- Increased access (Shorter wait time for appointments than at our Boston location, closer to home)
- Less intimidating than hospital setting
- Convenient patient drop-off
- Free Parking

Timeline

- The timeline below is based on preliminary planning

Construction is internal to the building. There will be no associated traffic disruption.



Note: Surgical Services will not be disrupted during Construction

Your Feedback

- What value do you see in having increased access to surgical services in the Waltham area?
- If you were seeking surgical care, what would be important to you?
  - As you prepared for surgery
  - During the surgery itself
  - As you recovered after the surgery

Please fill out a feedback card before leaving.

Contact Us

- Name: Bill Simmons
- Phone #: (781)-487-4317
- Email: wjsimmons@partners.org
- Website: http://www.massgeneral.org/waltham/contact/

Attachment/Exhibit

B

Contact Us

Poster

MASS GENERAL

Come join us for a presentation on the surgical services available at Mass General Waltham, and an overview of potential additional surgical services.

Thursday, September 7, 2017
6 – 7 pm
Building 52, 1st floor Atrium

Refreshments will be served. RSVP is required.
Please reserve at wjsimmons@partners.org

Thank you for entrusting Mass General with your care.

Feedback Card

We need your feedback on the surgical services available at Mass General Waltham

If you needed surgery in the future, would you choose to have it at Mass General Waltham? ☐Yes ☐No
Please explain why: _____

_____

If you needed surgery in the past, were there services you required that were not available at Mass General Waltham? ☐Yes ☐No ☐Not applicable
If yes, please explain: _____

_____

As we consider the need for additional surgical services at Mass General Waltham, what recommendations or suggestions would you make?

_____

_____

_____

Please place this card in the feedback box when finished.
You can also provide feedback by writing to us at wjsimmons@partners.org

Thank you for entrusting Mass General with your care.

MASS GENERAL

MG Waltham Website

MASS GENERAL Waltham

Log in to Patient Gateway

About Us
Our Services & Doctors
Maps & Directions
Contact Us

Learn about the Epi-Pen recall: Allergy Services in Waltham are committed to providing our patients with accurate information and assistance regarding the Epi-Pen recall.

Comprehensive Outpatient Care

Mass General Waltham provides adult primary care, as well as a broad array of leading-edge medical and surgical services that do not require an overnight stay in a hospital or visit to an emergency room. We also offer our patients urgent care appointments and a physician on-call for assistance after business hours.

View Our Services and Doctors

LOCATION

Mass General Waltham
40 Second Avenue
Waltham, MA 02451

Near Public Transit
Handicapped Accessible

Mass General Care in Your Community

Mass General Waltham's convenient location in Waltham, MA offers patients fully integrated health care under one roof, often with shorter wait times for appointments. Our suburban location simplifies travel for many patients and parking is free.

Maps and Directions

Open Forum at Mass General Waltham

We are holding an Open Forum on Thursday September 7th, 2017 at Mass General Waltham. The Open Forum will include a presentation on the surgical services available at Mass General Waltham, and an overview of potential additional surgical services that might be available in the future. If you are interested in attending the open forum and/or if you would like to provide feedback to us on the surgical services at Mass General Waltham, you can write to us at wjsimmons@partners.org.

Attachment/Exhibit

C

Patient Perspective on Perioperative Care (P3C) Task Force Meeting
Monday November 6, 2017 White 4- room 420
5:30pm to 6:30 pm

AGENDA

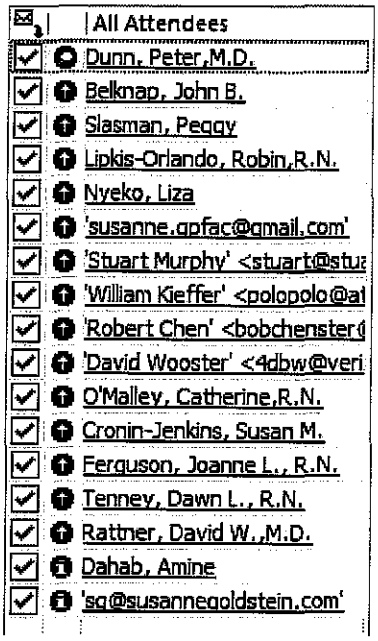
- Plans for MG Waltham Surgical Center:
  Dawn Tenney RN MSN Associate Chief of Perioperative Nursing & Endoscopy with Peter Dunn MD Vice President of Perioperative Services & Healthcare Systems Engineering

- Update Center for Perioperative Care (CPC) Family Waiting Board

Invited guests: Joanne Ferguson MSN RN Director of Perioperative Operational Planning and Susan Cronin-Jenkins Co-Director MGH Planning & Construction

In attendance:

David Wooster, Robert Chen, William Kleffer,
Robin Lipkis Orlando, Peter Dunn, Dawn Tenney, John Belknap, Liza Nyeko, Susan Cronin-Jenkins, Joanne Ferguson, Catherine O'Malley



Reminder – the Patient Perspective on Perioperative Care (P3C) Task Force is meeting on Monday, November 6th, at 5:30 p.m. and will be held in the Perioperative Services Annex conference room (White 4-420).

Parking validation stickers will be available at the meeting. Cathy O'Malley will have them for our members who have driven in.

AGENDA

- Plans for the Waltham MGWest Surgi-Center
- MGH Gray Family Waiting Room
- Update on Overlapping Surgery

Committee Members

Dr. Peter Dunn (confirmed)
Dawn Tenney (confirmed)
*Dr. David Rattner (not available)
Cathy O'Malley (confirmed)
John Belknap (confirmed)
*Peggy Slasman (not available)
Robin Lipkis-Orlando (confirmed)
Liza Nyeko (confirmed)

Susanne Goldstein – Patient Family & Advisory Council (Tentative)
*Stuart Murphy (not available)
Bob Chen (confirmed)
William Kieffer (confirmed)
David Wooster (confirmed)

Invited Guests

Joanne Ferguson
Susan Cronin-Jenkins

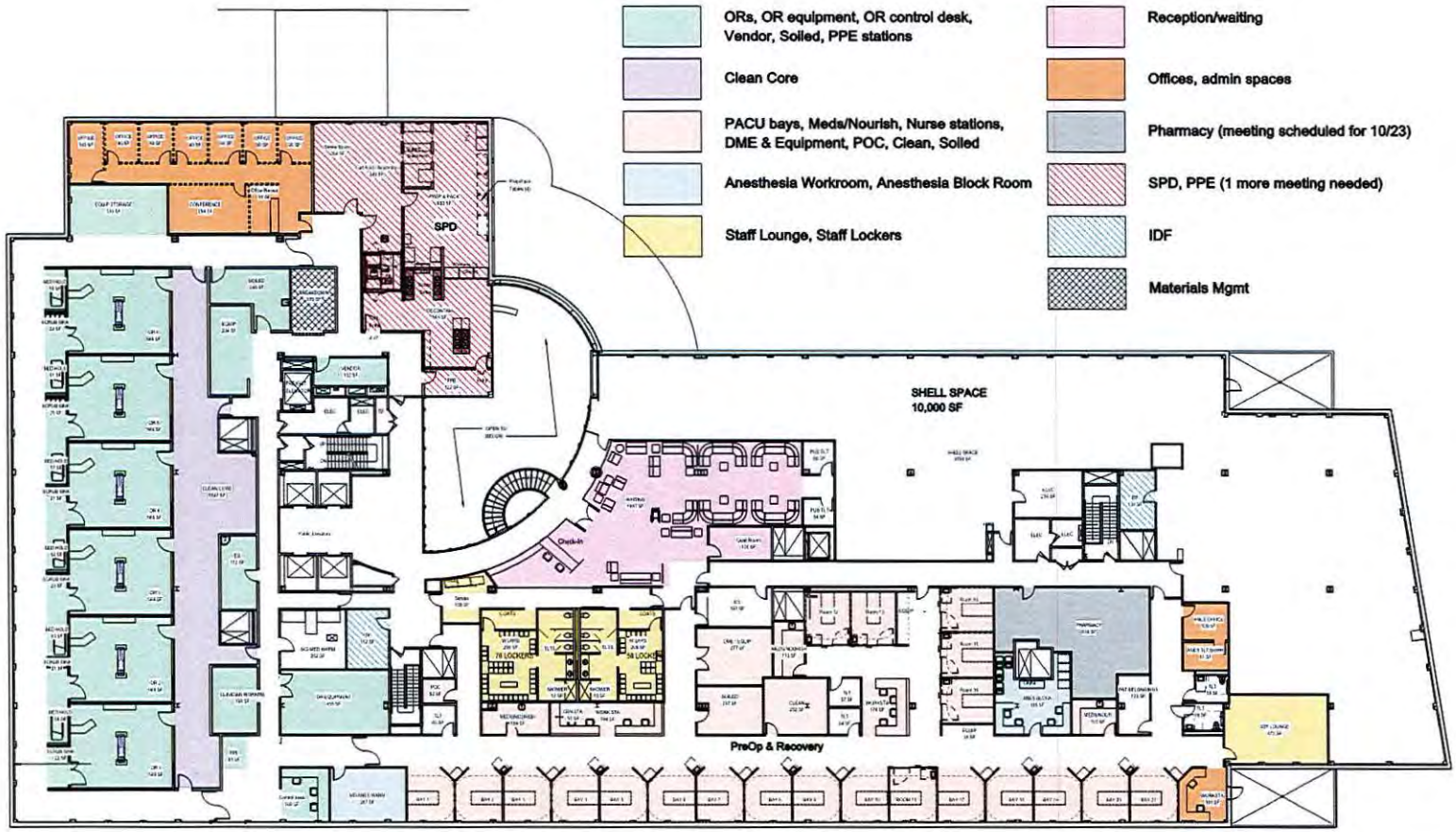
Patient Perspective on Perioperative Care

November 6, 2017

White 420

MASSACHUSETTS GENERAL HOSPITAL
PERIOPERATIVE SERVICES

MG Waltham Surgical Center



Attachment/Exhibit

4

Attachment/Exhibit

A

Newton-Wellesley Hospital
2014 Community Health Needs Assessment

Final Report

Submitted to:
NEWTON-WELLESLEY HOSPITAL

Health Resources in Action
Advancing Public Health and Medical Research

Table of Contents

Newton-Wellesley Hospital
2014 Community Health Needs Assessment

EXECUTIVE SUMMARY

Introduction

Newton-Wellesley Hospital (NWH) is a 313-bed comprehensive medical center affiliated with Partners Health care. In 2014, Newton-Wellesley Hospital sought to undertake a community health needs assessment (CHNA) of its primary service area: Natick, Needham, Newton, Waltham, Wellesley, and Weston. The purpose of the CHNA was to provide an empirical foundation for future health planning as well as fulfill the community health needs assessment mandate for non-profit institutions put forth by the MA Attorney General and IRS. The overarching goals of the 2014 Newton-Wellesley Hospital CHNA were to:

- Identify the health needs and assets of the Newton-Wellesley service area
- Understand how outreach activities can be more effectively coordinated and delivered across the institution and in collaboration with community partners

To this end, the CHNA report provides an overview of the key findings of the community health needs assessment, which explores a range of health behaviors and outcomes, social and economic issues, health care access, and gaps and strengths of existing resources and services.

Community Health Needs Assessment Methods

The community health needs assessment utilized a participatory, collaborative approach to look at health in its broadest context. The assessment process included synthesizing existing data on social, economic, and health indicators in the region as well as information from five focus groups conducted with community residents and leaders, and twelve interviews with community stakeholders. Focus groups and key informant interviews were conducted with individuals from across the six municipalities that comprise the Newton-Wellesley Hospital service area, and with a range of participants representing different audiences, including leaders in education, health care, and social service organizations. Ultimately, the qualitative research engaged approximately 40 participants.

Key Findings

The following provides a brief overview of key findings that emerged from this assessment:

<u>Demographics</u>

- **Population:** According to the U.S. Census, the population size of the Newton-Wellesley service area has experienced slight growth over the past decade, similar to that of the state. The town of Wellesley experienced the largest increase in its population size (5.6%), while the town of Weston had a small decrease in the size of its population (-0.3%).
- **Age Distribution:** With the exception of Waltham (14.4%), all cities/towns in the assessment have a higher percentage of youth under 18 years of age compared to Massachusetts overall (21.6%). Waltham and Wellesley have nearly double the percentage of 18-24 year olds (17.9%) compared to Massachusetts as a whole (10.3%). Only Needham has a larger percentage of residents aged 65 and over compared to the state.
- **Racial and Ethnic Diversity:** The Newton-Wellesley service area is predominantly White, yet participants noted that there has been an influx of immigrants in their community, particularly in Newton and Waltham. Waltham exceeds the statewide percentages of Asian residents, Hispanic/Latino residents, and residents who identify as "Other."

- **Educational Attainment:** Assessment participants repeatedly highlighted that the area has high quality public school systems, and perceived the population as highly educated. Quantitative data show that across all cities/towns in the NWH service area, there is a higher proportion of adults aged 25 and older who have earned a Bachelor's Degree or higher compared to Massachusetts overall; Wellesley has the highest percentage with 80.8% of adults 25 years and older who hold a Bachelor's Degree or higher.
- **Income, Poverty, and Employment:** Most focus group and interview participants commented that communities in the Newton-Wellesley service area were upper-middle to upper class; however, some participants also noted inequalities in the distribution of wealth. Quantitative data indicate that the median household income in each of the cities/towns in the area was above that of the state ($65,658), although the range was $100,000 between Waltham ($72,332) and Weston ($176,875). Compared to Massachusetts overall, these cities/towns also have lower percentages of families living below the federal poverty level and lower levels of unemployment.

Social and Physical Environment

- **Housing:** Many interview and focus group participants noted the high housing costs in the area. Quantitative data confirm the perceptions of high housing costs and limited affordable housing. Median home prices across all cities/towns in the NWH service area are above the statewide median ($335,500) and range from $408,700 in Waltham to $1,000,000+ in Weston. Although more residents of these cities/towns own their homes, renters spend a higher percentage of their household income on housing.
- **Transportation:** Transportation was an issue that emerged in numerous qualitative conversations during this assessment. Participants explained that public transportation was limited in their communities and specifically posed barriers for seniors, and people with disabilities and behavioral health issues accessing goods and services, including food and health care. Quantitative data depict a largely car-dependent region, although Newton, Needham, and Wellesley have a higher percentage of residents commuting to work via public transportation.
- **Crime and Safety:** Overall, participants described the Newton-Wellesley service area as a low crime area and reported that they felt safe. Quantitative data reinforce this feeling; except Natick, all towns in the assessment area experience lower rates of violent and property crimes compared to Massachusetts overall. The property crime rate in Natick is approximately 10% higher than the statewide rate.

Risk and Protective Lifestyle Behaviors

- **Healthy Eating, Physical Activity, and Overweight/Obesity:** Focus group participants cited several barriers across the service area to engaging in healthy lifestyles, such as unaffordable healthy food and physical activity opportunities. However, fruit and vegetable intake and physical activity were greater among CHNA 18 adults compared to adults statewide. Additionally, quantitative data show that adults and youth in the area have lower rates of obesity compared to Massachusetts overall. Waltham is the exception, with higher percentages of obese youth in both 7th (20.5%) and 10th (22.1%) grade compared to youth statewide (17.8% and 15.2%, respectively).
- **Substance Use and Abuse:** Many assessment participants expressed their concerns regarding alcohol and drug use in the community, noting that it is prevalent but not openly discussed. Participants were particularly concerned with the youth population and discussed how substance use is directly connected to mental health issues and suicide among youth. While rates among youth were generally lower in the NWH service area than statewide, youth in Waltham reported the highest use rates for most substances, including tobacco, marijuana, and prescription drugs.

- **Injury-Related Behaviors:** A few interview and focus group participants discussed the risk of injury among seniors, particularly from falls. Quantitative data illustrate that Needham experienced the highest rate of fall-related injury deaths among residents aged 60 years and older (51.3 deaths per 100,000 population) compared to the state (35.0 deaths per 100,000 population). Domestic violence was also a concern, and was mentioned as linked to substance abuse and mental health.

Health Outcomes

- **Mortality**: The age-adjusted mortality rates in the area vary by city/town, although all are lower than the statewide rate. Waltham had the highest mortality rate with 612.2 deaths per 100,000 population, compared to 667.8 deaths per 100,000 population in Massachusetts overall. The leading causes of death in the Newton-Wellesley service area are cancer and heart disease, consistent with the state.
- **Chronic Disease:** Chronic diseases were not heavily discussed as a pressing concern for the community. Two participants mentioned childhood asthma as a concern related to outdoor air quality as well as substandard housing. Quantitative data demonstrate that adults in the area are less likely to have heart disease, diabetes, and asthma compared to adults statewide.
- **Mental Health:** Nearly all assessment participants cited mental health as the top community health concern, specifically discussing issues of stress, anxiety, depression and suicide. Discussions focused on youth, who face pressure and stress in the "academically and athletically competitive environments found in these towns." Adults experience the stress of maintaining financial and social status, and seniors were described as facing mental health issues related to social isolation and hoarding. While youth and seniors were identified as particularly vulnerable populations, mental health was described as a community wide issue warranting attention.
- **Reproductive and Maternal Health:** Issues related to reproductive and maternal health were not mentioned in assessment discussions. Data show that mothers in Waltham were more likely to report receiving inadequate or no prenatal care compared to mothers statewide (10.8% vs. 8.5%).
- **Communicable Disease:** Communicable diseases did not emerge as a pressing health concern in the community. However, quantitative data show that Newton has a higher rate of Hepatitis B compared to the state (14.4 cases per 100,000 population vs. 11.3 per 100,000 population) and Waltham has a higher rate of HIV/AIDS than the state overall (320.7 cases per 100,000 population vs. 261.0 cases per 100,000 population).

Access to Care

Although rates of insurance are high in these communities, assessment participants did express concern about the high cost of health care and challenges navigating the system.

- **Cost and Insurance:** The majority of participants mentioned the high cost of health care and that paying for co-pays and deductibles can be challenging. Others discussed challenges with the limitations of providers not accepting the insurance coverage that they have.
- **Navigating the Health Care System:** Generally, participants discussed the difficulties they face in getting appointments with health care providers. Uncoordinated care, lack of communication between providers and culturally incompetent care were described as posing particular challenges for people with multiple health care needs, seniors and immigrants.
- **Special Pediatric Services:** Many parents discussed how difficult it was to get language therapy, neuropsychiatric testing that is necessary for the development of individualized education programs or plans (IEPs) and occupational therapy for their children on the autism spectrum. They cited long wait times or insurance not covering these services as the explanation for their limited access to these services.

Community Strengths and Assets

Participants in focus groups and interviews were asked to identify their communities' strengths and assets. The following key themes emerged from that discussion.

- **Strong Collaborative Spirit and Community Partnerships:** Interview participants in particular discussed the strong collaboration and partnerships that exist between many community organizations. "We work well with other groups and all of the agencies in town work well together. We build strong partnerships so when we need to call on these partners we can."
- **Community Cohesion:** Among many participants, social cohesion emerged as a key strength of their community. Many participants described having "community pride," which created a sense of identity that strengthened the fabric of the community. Other participants reinforced this notion, adding that the communities' greatest assets are the commitments that residents have to each other, noting particularly strong support for youth and families.
- **Focus on Youth and Education:** One of the most frequently mentioned assets of the NWH service area was the focus on youth and promoting positive youth development. Area schools were described as "wonderful educational systems" that drew many people to the area. As one participant summarized, "This is a place that highly values education. Families that want the best education for their children come here."
- **Community Resources:** Participants identified a wealth of community assets and programs in the area, including a variety of youth sports activities and leagues, community events and festivals, and places of worship. Health-related resources were also identified; these included Newton-Wellesley Hospital, as well as local health departments and social service agencies.

Key Themes

Several overarching themes emerged from the synthesis of data, including:

- **Cost of living and transportation.** Nearly all interviewees and focus group members discussed the high cost of living including housing costs among the NWH service area communities. This high cost of living has been responsible for families leaving their communities for more affordable alternatives and has also dictated population trends. The majority of assessment participants also discussed how the lack of reliable local public transportation is a serious barrier to accessing health care services for certain segments of the population including youth, the elderly and those with behavioral health issues.
- **Waltham is a unique community in this service area.** While the other cities and towns in the NWH service area tend to have similar demographic profiles, Waltham looks somewhat different. Waltham has a more affordable cost of living and has more racial and ethnic diversity. However, Waltham residents have lower median household incomes and educational attainment. Waltham also experiences disproportionately worse health outcomes compared to the other cities and towns in the area. Of note are the higher substance abuse and mental health rates among youth and fewer mothers getting adequate prenatal care.
- **Behavioral health is viewed as a critical and growing issue with a need for more resources and collective action to make change.** Assessment participants view mental health as the highest priority issue in the community. Stress, anxiety, and depression were mentioned as particularly prevalent, and these issues were often described as leading to substance use as a means of self-medication. Economic stress on adults and academic and social pressures on youth have taxed individuals and the mental health system. Access to and use of mental health and subspecialty providers and services is limited by multiple factors, including stigma, health insurance, and fragmentation of services.
- **Participants envision a healthier community that is built on collaborative efforts within and across communities.** A cohesive community and numerous resources along with recent collaborations

regarding suicide have demonstrated the power of community engagement and collaboration. Community members as well as health and human service providers offered many suggestions for how to support the creation and enhancement of community and health care environments for optimal health and well-being.

Community Suggestions for Future Programs and Services

Focus group and interview participants shared their suggestions around future programming and services, and emphasized the need for collaborative and sustainable solutions.

- **Transportation** - focus group and interview participants indicated that providing transportation for medical services was paramount, especially for seniors who are not able to drive, and suggested the Senior Shuttle in Boston as a good example of a program to be replicated.
- **Community Outreach and Partnership** - A theme repeatedly raised by participants was the importance of increased outreach to the community by educating and communicating with the public and partnering with community organizations. Participants recommended that the hospital "take a leadership role in community health," further suggesting that the hospital should "have more visibility and outreach at community events."
- **Communication** - An overarching theme was the importance of effective communication between the hospital and the community as well as between different organizations within the community. One specific issue noted was the challenge of maintaining current databases or lists of community resources so that both providers and consumers of services have the most up-to-date information on available resources in the community.
- **Culturally Competent Services** - Participants spoke of cultural competency in the context of not only providing services in appropriate languages, but also of understanding people of different life stages and physical and mental abilities. A suggested approach included providing training for front-line and ED staff in person-centered care as well as the provision of services in a variety of languages.
- **Care Coordination** - To address challenges that participants discussed related to navigating the health care system during and after care, several recommendations were made, including clustering of clinical services in one location, hiring a patient navigator, and collaborative discharge planning.
- **Leadership in Behavioral Health** - While schools and other institutions in the NWH service area have recently adopted new policies and programs to address behavioral health, assessment participants expressed the desire for additional resources and support from the hospital and community to address these broad issues. Specific recommendations included NWH hiring an addiction specialist and participating in community dialogues and coalitions regarding behavioral health.
- **Focus on Prevention** - Participants envisioned a greater emphasis on prevention as the hospital and community move forward to address health issues. Participants suggested that the hospital collect additional data on behavioral health in particular, and "dig deeper as to why people are having these issues." Hospital and community efforts could then focus on preventing associated risk factors.

Newton-Wellesley Hospital
2014 Community Health Needs Assessment

INTRODUCTION

About Newton-Wellesley Hospital

In 2014, Newton-Wellesley Hospital (NWH) sought to undertake a community health needs assessment (CHNA) of the communities it serves. The purpose of the CHNA was to provide an empirical foundation for future health planning as well as fulfill the community health needs assessment mandate for non-profit institutions put forth by the MA Attorney General and the IRS. NWH contracted with Health Resources in Action (HRiA), a non-profit public health organization in Boston, MA, to collect and analyze data to develop the CHNA report.

The 2014 NWH community health needs assessment was conducted to fill several overarching goals, specifically to:

- Identify the health needs and assets of the Newton-Wellesley service area
- Understand how outreach activities can be more effectively coordinated and delivered across the institution and in collaboration with community partners

This report discusses the findings from the community health needs assessment, which was conducted from August to December 2014.

Geographic and Population Scope of the NWH CHNA

The Newton-Wellesley Hospital Community Health Needs Assessment (CHNA) focused on the six towns that comprise the hospital's primary service area. These communities are Natick, Needham, Newton, Waltham, Wellesley, and Weston. While the CHNA process aimed to examine the health concerns across the entire service area, there was a particular focus on identifying the needs of the most underserved populations groups of the area and delving into the topical areas that arose during previous community health assessments.

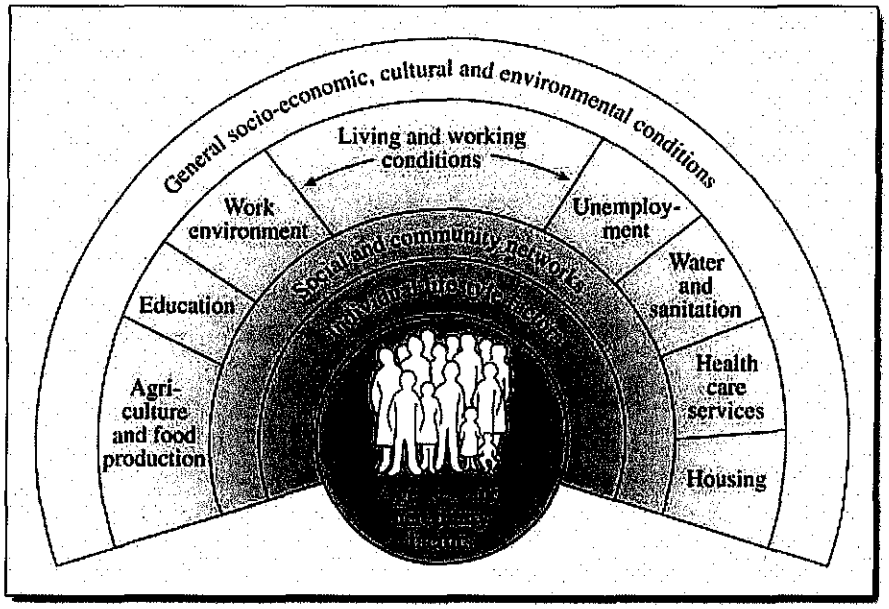
An advisory committee of community stakeholders as well as the Newton-Wellesley Hospital community benefits committee provided strategic oversight throughout the CHNA process. The advisory committee, which was comprised of approximately 15 members from local institutions in the hospital service area, provided guidance on each step of the assessment, including feedback on the CHNA methodology, recommendation of secondary data sources, and identification of key informant interviewees and focus group segments.

Community Health Needs Assessment Methods

The following section describes how the data for this community health needs assessment was compiled and analyzed. This section also provides context about the broad health lens used to guide the assessment process. Specifically, the community health needs assessment defines health in the broadest sense and recognizes numerous factors at multiple levels— from lifestyle behaviors (e.g., exercise and alcohol consumption), to clinical care (e.g., access to medical services), to social and economic factors (e.g., employment opportunities) and the physical environment (e.g., transportation)—that all have an impact on the community's health. The beginning discussion of this section describes the larger social determinants of health framework that helped guide the assessment process.

The diagram in Figure 1 provides a visual representation of the multitude of factors that affect health, demonstrating how individual lifestyle factors, which are closest to health outcomes, are influenced by more upstream factors such as quality of housing and educational opportunities. This report provides information on many of these factors, as well as reviews key health outcomes among the residents of the Newton-Wellesley Hospital service area.

Figure 1: Social Determinants of Health Framework



SOURCE: World Health Organization, Commission on Social Determinants of Health. (2005)

Quantitative Data: Reviewing Existing Secondary Data

To develop a social, economic, and health portrait of the Newton-Wellesley Hospital service area through a social determinants of health framework, existing data were drawn from state, county, Community Health Network Area (CHNA) 18, and local sources. Sources of data included, but were not limited to, the U.S. Census, Centers for Disease Control and Prevention, Massachusetts Department of Public Health, F.B.I. Uniform Crime Reports, and NWH emergency department, urgent care center, and inpatient databases. Other types of data included self-report of health behaviors from large, population-based surveys such as the Behavioral Risk Factor Surveillance System (BRFSS), as well as vital statistics based on birth and death records. It should be noted that aside from population counts, age and racial/ethnic distribution, other data from the U.S. Census are derived from the American Community Survey comprised of data from a sample of a given geographic area. Per Census recommendations, aggregated data from the past five years was used for these indicators to yield a large enough sample size to look at results by city/town.

Much of the health data are not available at the city/town level; therefore, health data by county and/or community health network area (CHNA 18) are provided. CHNA 18 consists of Brookline, Dedham, Dover, Needham, Newton, Waltham, Wellesley, Weston, and Westwood, but does not include Natick.

Qualitative Data: Focus Groups and Interviews

Focus Groups

In total, five focus groups were conducted with individuals from across the NWH service area. Focus groups were conducted with representatives of priority populations, including: high school youth, parents of high school youth, parents of elementary school youth, affordable housing residents, and Council on Aging staff. Focus group discussions explored participants' perceptions of the community, priority health concerns, and suggestions for future programming and services to address these issues. A semi-structured moderator's guide was used across all focus groups to ensure consistency in the topics covered. Each focus group was facilitated by a trained moderator, and detailed notes were taken during each discussion. On average, focus groups lasted 90 minutes and included 5-8 participants. As an incentive, focus group participants received a $30 stipend to compensate them for their time. A list of focus group segments can be found in Appendix A that outlines all of the community engagement participants.

Key Informant Interviews

Interviews were conducted with twelve individuals representing a range of sectors, including leaders in health care, government, and social service organizations focusing on vulnerable populations (e.g., seniors, homeless). The interviews explored participants' perceptions of their communities and priority health concerns, and solicited suggestions for future programming and services to address their perceived health issues. Similar to the focus groups, a semi-structured interview guide was used across all discussions to ensure consistency in the topics covered. Interviews were approximately 45-60 minutes in length. A list of organizations that the key informant interviewees represented can be found in Appendix A that outlines all of the community engagement participants.

Analyses

The collected qualitative information was manually coded and then analyzed thematically for main categories and sub-themes. Data analysts identified key themes that emerged across all groups and interviews as well as the unique issues that were noted for specific populations. Frequency and intensity of discussions on a specific topic were key indicators used for extracting main themes. While town differences are noted where appropriate, analyses emphasized findings common across the Newton-Wellesley Hospital service area. Selected paraphrased quotes – without personal identifying information – are presented in the narrative of this report to further illustrate points within topic areas.

Limitations

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 (quantitative) data analyses, in several instances, regional data could not be disaggregated to the city/town level due to the small population size of the communities in the region. In many instances, data at the Community Health Network Area (CHNA) 18 level are provided. CHNA 18 is a large geographic area comprised of Needham, Newton, Wellesley, Weston, and also includes Brookline and Dover, towns that are not part of NWH's primary service area. In some cases, data at the county level are also provided. Middlesex County includes Natick, Newton, Waltham, and Wellesley; Norfolk County includes Needham and Wellesley.

Additionally, several sources did not provide current data stratified by race/ethnicity, gender, or age – thus these data could only be analyzed by total population. It should also be noted that youth-specific and town-specific data were largely not available, and in cases where such data were available, sample sizes were often small and must be interpreted with caution.

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.

For the qualitative data, it is important to recognize results are not statistically representative of a larger population due to non-random recruiting techniques and a small sample size. Recruitment for focus groups and interviews was conducted by HRiA, NWH, and community organizations, and participants may be more likely to be those already engaged in community organizations or initiatives. Because of this, it is possible that the responses received only provide one perspective of the issues discussed. While efforts were made to talk to a diverse cross-section of individuals, demographic characteristics were not collected from the focus group and interview participants, so it is not possible to confirm whether they reflect the composition of the region. 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.

FINDINGS

Demographics

The health of a community is associated with numerous factors including what resources and services are available (e.g., safe green space, access to healthy foods) as well as who lives in the community. The section below provides an overview of the population of the Newton-Wellesley Hospital service area. The demographics of a community are significantly related to the rates of health outcomes and behaviors of that area. While age, gender, race, and ethnicity are important characteristics that have an impact on an individual's health, the *distribution of these characteristics* in a community may affect the number and type of services and resources available.

Population

As seen in Table 1, all but one (Weston) of the towns in the NWH service area experienced total population growth between 2000 and 2012. During this same time period, however, only Wellesley experienced a higher percent change in population than the state's overall population increase (5.6% v. 3.2%). These findings validate the perception that the majority of community health assessment participants expressed that people were moving into their towns to access ample services including good public schools.

A common theme across the interviews and focus groups was the sense that the towns in the NWH service area are generally nice and friendly but people tend to keep to themselves. Individuals who have been residents of these communities for years discussed how there has been a shift in the communities toward being less open. One focus group member said, "It has changed. When I first moved here it was a lot closer. When someone first moved in they would introduce themselves to you but they don't do that anymore. People really don't come out." Some participants explained this behavior as a "Massachusetts thing." Participants in Waltham talked about feeling like outsiders, or what Waltham residents refer to as "breezers" because they were not originally from Waltham. They discussed how Waltham was a nice place to live but if you didn't know people it was difficult to break in.

Table 1: Total Population by State, County, and City/Town, 2000, 2012

Geography	2000	2012	% Change
Massachusetts	6,349,097	6,560,595	3.2
Middlesex County	1,465,396	1,507,558	2.8
Norfolk County	650,308	672,078	3.2
Natick	32,170	33,071	2.7
Needham	28,911	29,005	0.3
Newton	83,829	85,177	1.6
Waltham	59,226	60,836	2.6
Wellesley	26,613	28,188	5.6
Weston	11,469	11,430	-0.3

DATA SOURCE: US Department of Commerce, Bureau of the Census, 2000 Census, 5 year estimate American Community Survey, 2008-2012

Age Distribution

With the exception of Waltham, all towns focused upon in this assessment have a higher percentage of children under 18 years of age than the state percentage of youth (Table 2). Also of note are Waltham and Wellesley's percentage of 18-24 year olds which are nearly double the percentage of Massachusetts

overall (17.9% and 17.9% v. 10.3%). Only Needham has a larger percentage of residents aged 65 and over than the state percentage (16.7% v. 13.9%). Although the NWH service area towns do not deviate greatly from age distribution patterns across the state, key informant interviews and focus group participants were most likely to discuss community and health issues related to youth and elders when collecting qualitative data for this assessment process.

Table 2: Age Distribution by State, County, and City/Town, 2008-2012

Geography	Under 18 years	18-24 years old	25-44 years old	45-64 years old	65 and over	Median Age
Massachusetts	21.6%	10.3%	26.6%	27.7%	13.9%	39.1
Middlesex County	21.2%	9.5%	28.8%	27.3%	13.2%	38.5
Norfolk County	22.5%	8.2%	25.8%	28.9%	14.6%	40.6
Natick	24.5%	5.6%	26.4%	29.8%	13.8%	41.3
Needham	27.2%	6.1%	20.2%	29.8%	16.7%	43.1
Newton	21.9%	12.6%	22.7%	27.3%	15.4%	39.7
Waltham	14.4%	17.9%	33.0%	22.9%	11.9%	33.7
Wellesley	25.9%	17.9%	16.2%	26.1%	13.8%	37.8
Weston	28.2%	8.1%	15.1%	32.2%	16.3%	43.6

DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

Racial and Ethnic Diversity

In examining the racial and ethnic composition of the six towns covered in this assessment, all towns but Waltham have a higher percentage of White residents as compared to the percentage of White residents in Massachusetts overall (82.0% - 88.4% v. 81.0%). Waltham exceeds the state's percentages of Asian residents (10.8% v. 5.4%), Hispanic/Latino residents (14.2% v. 9.6%) and residents who identify as "Other" (5.4% v. 4.0%). (Table 3)

Table 3: Racial/Ethnic Composition by State, County, and City/Town, 2008-2012

Geography	White	Black	Asian	Hispanic/Latino	Other
Massachusetts	81.0%	6.8%	5.4%	9.6%	4.0%
Middlesex County	80.7%	4.6%	9.5%	6.6%	2.6%
Norfolk County	82.4%	5.9%	8.8%	3.3%	1.3%
Natick	87.1%	3.0%	7.1%	3.2%	1.1%
Needham	88.4%	2.3%	6.8%	3.0%	0.9%
Newton	82.0%	2.4%	13.1%	4.3%	0.7%
Waltham	76.2%	5.2%	10.8%	14.2%	5.4%
Wellesley	83.7%	2.0%	10.3%	4.3%	1.5%
Weston	84.5%	2.3%	10.1%	2.8%	0.5%

DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

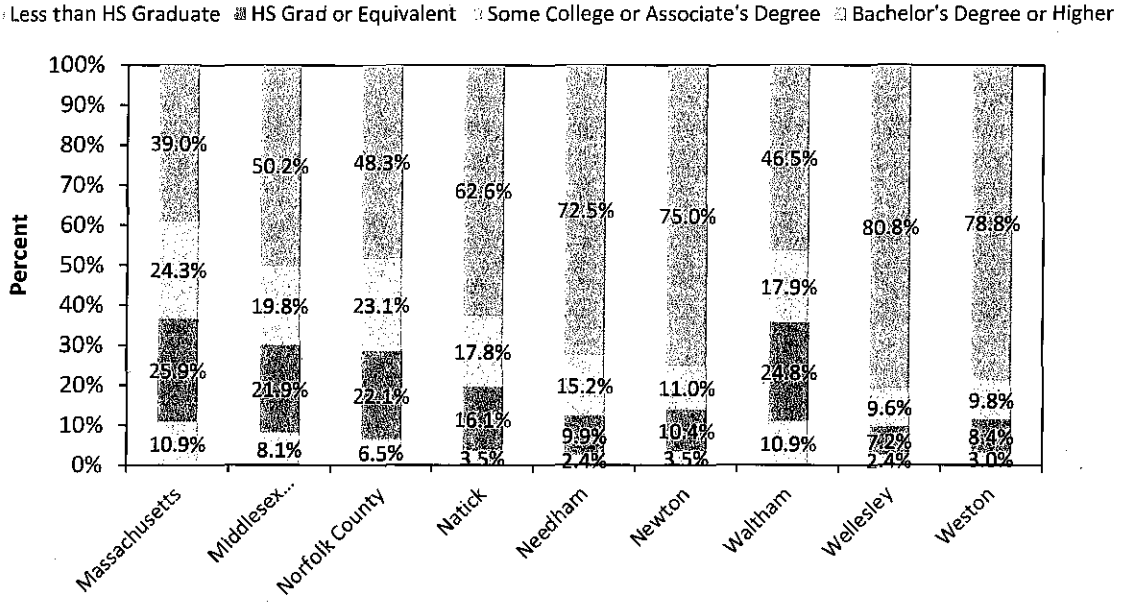
In discussing race and ethnicity with assessment participants, several thought it would be more meaningful to look at country of origin in order to ascertain a better understanding of the minority

groups who lived in their communities. Waltham residents said than many of the newer residents in their town are from South America, many of whom work in landscaping, restaurants and in nursing homes. A Newton resident offered that, "the African American community here is shrinking as the Asian community grows rapidly." Newton participants had mixed views on diversity in their town. One participant described Newton as a "melting pot" while another offered, "from my perspective Newton doesn't have enough diversity. When I go to the grocery market or the bank the people don't look like me." Some of the minority residents involved in this assessment process offered that they were always mindful that they were not White and memories of racism were real. One focus group member talked about wanting to enroll her son in a Boston school as opposed to the town she lived in because she didn't "want him to feel different from everyone else and like he sticks out." Another remembered of her town, "we were called niggers walking down the street. I was like 4 or 5. I was young."

Educational Attainment

The six assessment communities are very well educated. Compared to the state, there is a higher proportion of adults aged 25 and older who have earned a Bachelor's Degree or higher in all cities or towns in the catchment area. Of the six communities, Wellesley and Needham have the lowest percentage of citizens who are not high school graduates (2.4% for each town) and Wellesley has the highest percentage of residents who have earned a Bachelor's Degree or higher (80.8%) (Figure 2).

Figure 2: Educational Attainment of Adults Aged 25 years and older by State, County, and City/Town, 2008-2012



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

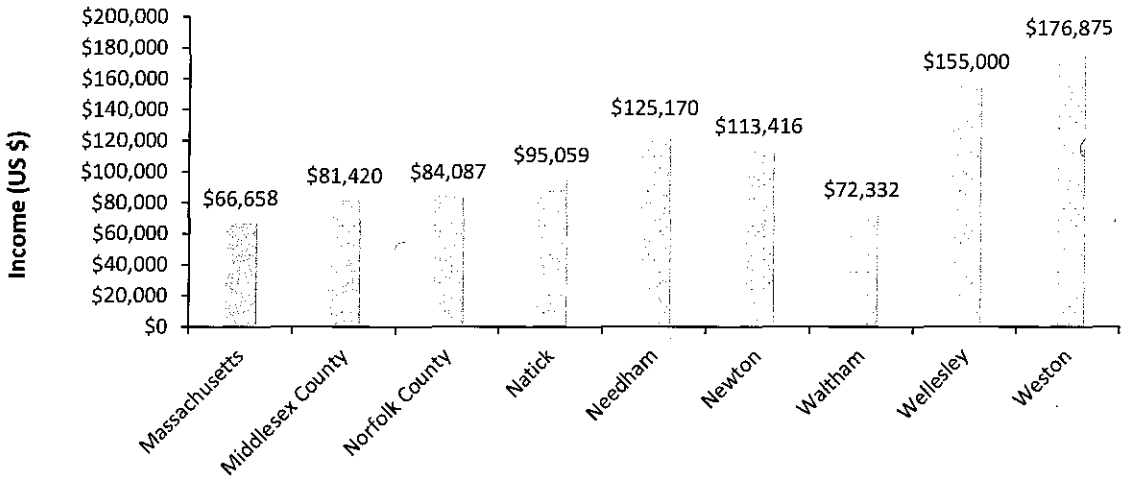
Given the high level of educational attainment in the NWH service area communities, it is not surprising that virtually all community assessment participants mentioned that the school systems are one of the main contributors to the appeal of moving to and residing in their cities and towns. As such, residents from Waltham spent a great deal of time discussing the overcrowding in their schools and the town's tentative plans for redistricting the schools, building a new high school and removing pre-school from

the two elementary school where there are pre-kindergarten programs. Given the importance placed on education in these communities, it may not be surprising that the high school students we heard from as part of the assessment process discussed how their entire lives revolved around school work. They also talked a great deal about the pressure they feel to get into an Ivy League school.

Income, Poverty, and Employment

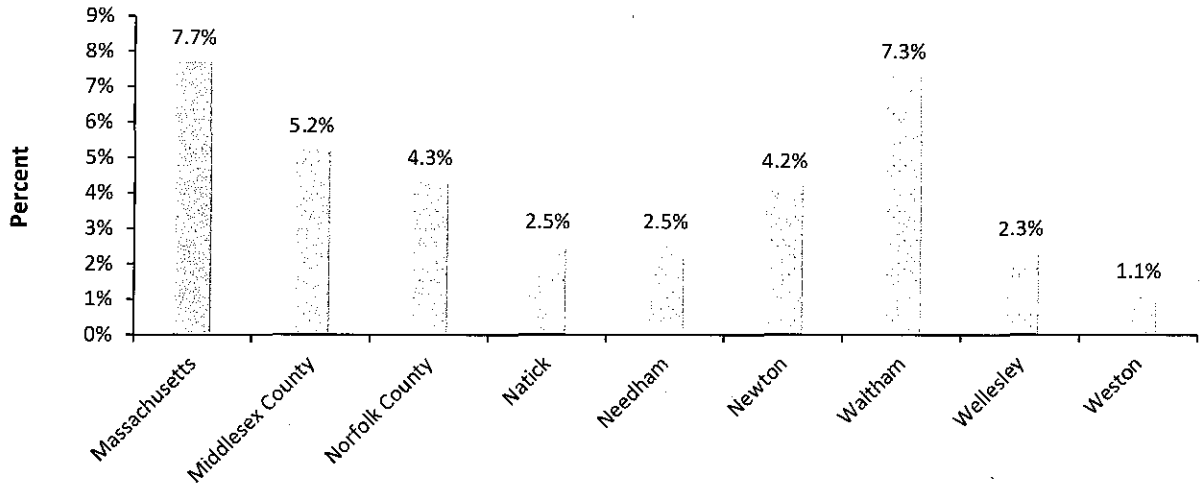
All of the communities in the NWH service area exceed the state's median household income with three of the towns having median household incomes that are double the state's median income (Figure 3). Consistent with the high median household incomes in the area, Figure 4 shows that the percent of families living below poverty level for each of these communities is lower than the percent of families living in poverty across Massachusetts. Additionally, the percentage of unemployed in each of the six service area cities/towns is lower than the state's unemployment rate of 8.5% (Figure 5).

Figure 3: Median Household Income by State, County, and City/Town, 2008-2012



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

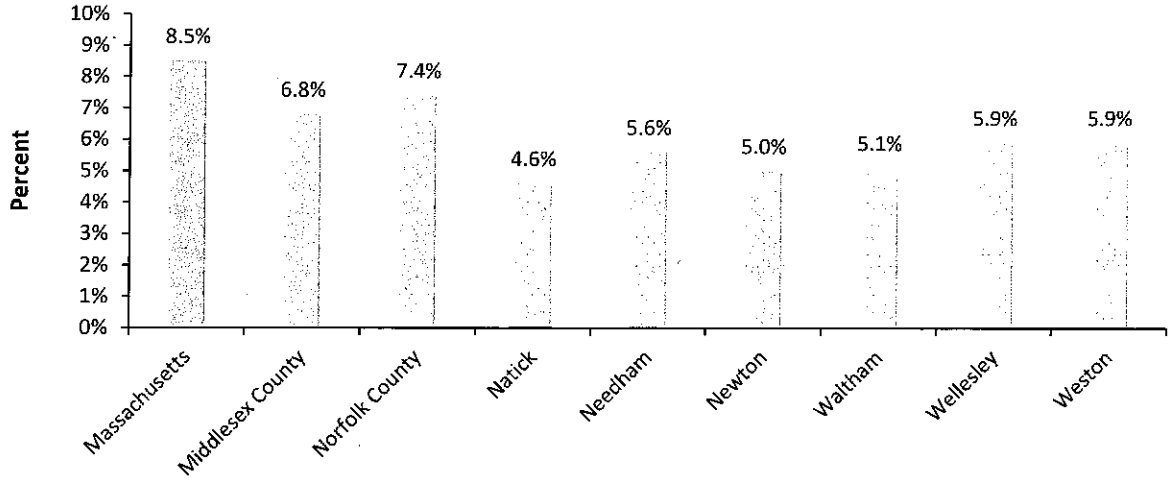
Figure 4: Percent of Families Below Poverty Level by State, County, and City/Town, 2008-2012



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

Nearly all of the interviewees and focus group members mentioned the high cost of living in all of the service area communities. Many participants discussed the trend of younger wealthier families moving to their cities/towns for the school systems while older people and/or people who had lived in their communities for generations have gotten priced out and have had to move away. Representatives of Wellesley, for example, discussed how there used to be a larger Italian and Greek population but they seem to have left because they couldn't afford the area anymore. Participants from Waltham however, said that although there seems to be an influx of people moving to their town for the schools, they did not have the impression that people were leaving because they no longer could afford the area. In fact, people from more expensive surrounding towns such as Lexington, Newton and Concord have been moving to Waltham because more affordable than the surrounding towns.

Figure 5: Unemployment by State, County, and City/Town, 2008-2012



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

Although unemployment was not one of the main issues raised by participants during the assessment process, it did not go unnoted. Several talked about how the economic downturn and the subsequent recession of several years ago are still affecting some residents. Although this service area is relatively wealthy, participants discussed how some people had lost jobs in the past and have not been able to find positions that pay them comparable salaries to their previously held positions. For some this economic stress has contributed to mental health issues including anxiety and depression.

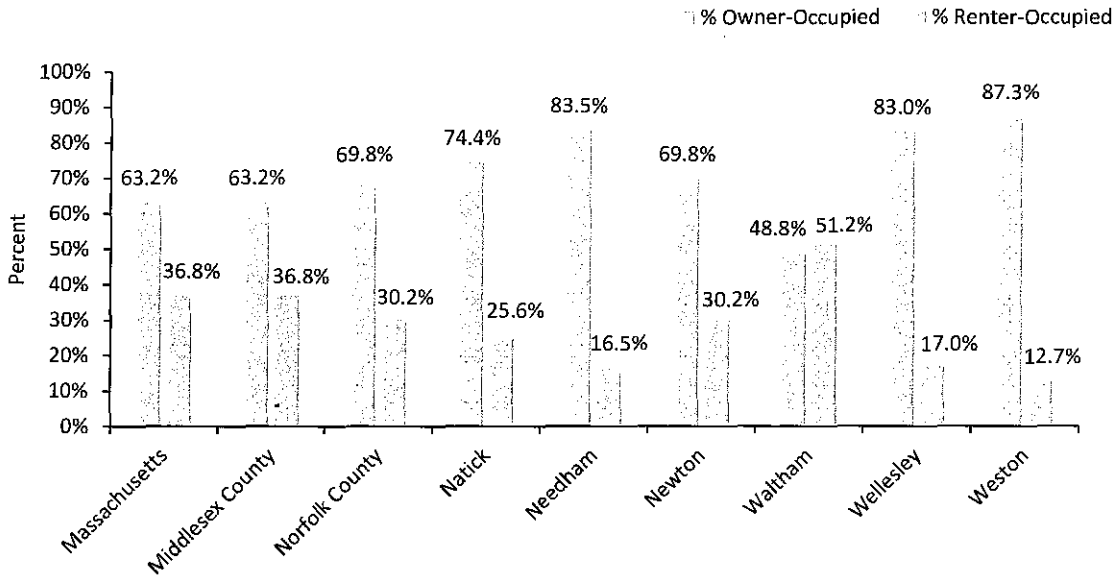
Social and Physical Environment

The social and physical environments are important contextual factors shown to have an impact on the health of individuals and the community as a whole. Understanding these issues will help in identifying how they may facilitate or hinder health at a community level. For example, residents may not engage in physical activity because of missing sidewalks, or healthy foods may not be accessible if there is limited public transportation. The section below provides an overview of the larger environment of the Newton-Wellesley Hospital service area to provide greater context when discussing the community's health.

Housing

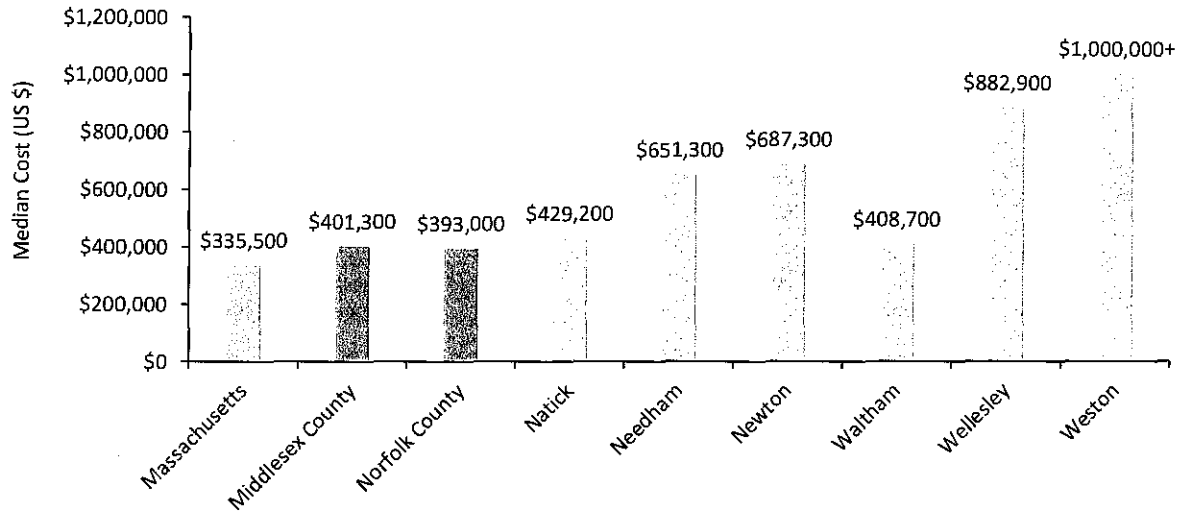
With the exception of Waltham, all cities/towns in the NWH service area have a higher percentage of home-owners and a lower percentage of renters as compared to the state percentages (Figure 6). For those who do rent their homes, in each of the six assessment communities, a higher percentage of them spend 35% or more of their household income on housing than do the home-owners in their communities (Figure 8). All of the assessment communities have median home ownership costs that are higher than the state's median cost (Figure 7).

Figure 6: Percent of Residents Who Own or Rent Homes by State, County, and City/Town, 2008-2012



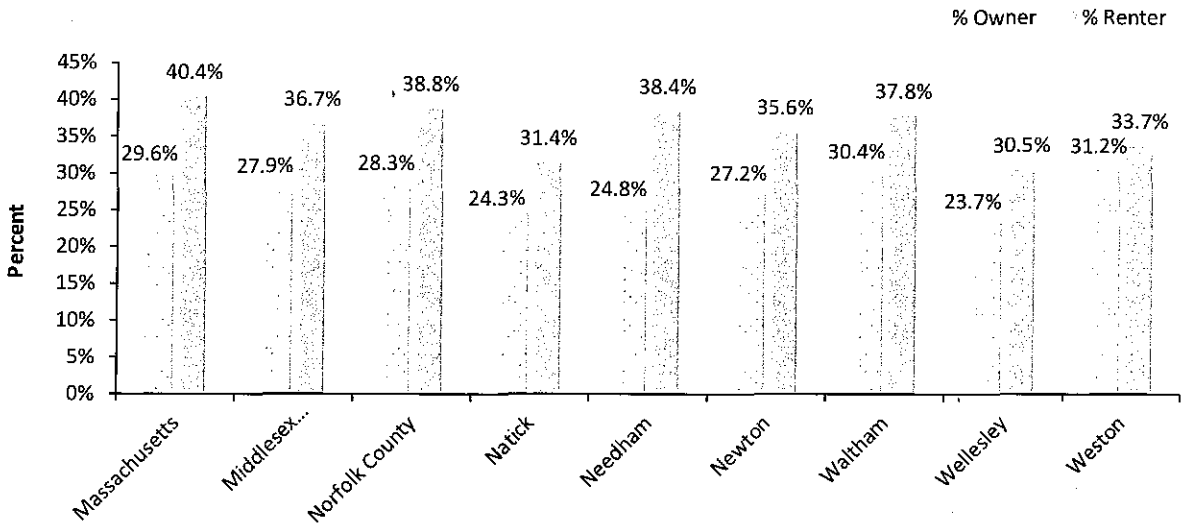
DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

Figure 7: Median Cost of Housing by State, County, and City/Town, 2008-2012



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2007-2011

Figure 8: Percent of Residents Whose Housing Costs are 35% or More of Household Income by State, County, and City/Town, 2008-2012



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

Almost all assessment participants discussed housing challenges in their communities and all of these discussed the high costs of housing, in particular. Several participants felt that the high cost of living and housing costs were purposeful strategies to keep certain people out of their communities. One focus group participant said, "Taxes are so high. I think it's deliberate so people can't move in. They don't want to really diversify." Another participant told the story of building affordable housing, "We own property here but we had to go through the state to build affordable housing. When we had our public hearings you would not believe the people coming out of the woodwork just to oppose our efforts. It was down and out racist."

In all of the conversations about community housing issues, concerns about appropriate housing for seniors were raised. Although area residents generally are wealthier than the rest of the state, it was common to hear that people are "house-rich and cash-poor." Participants discussed that many seniors wanted to downsize because their children no longer lived with them, they no longer wanted the responsibility of home ownership or because they were now living on a fixed income and were finding it difficult to afford their homes. Although representatives of several of the communities discussed efforts in their communities to build smaller less expensive homes that were within walking distance to elder services, most participants talked about how there are limited homes for sale or for rent that are small and affordable. Public housing for seniors was also discussed but there are waiting lists in many of the communities. Also, several participants mentioned that one of the barriers to seniors accessing subsidized housing is that many of the seniors in their communities "don't see themselves as someone who would live in low-income housing." Many participants stressed the importance of deliberate development in the future where many "town centers" would be built so elders can easily access a pharmacy, medical care and a grocery store.

Affordable housing for all residents, not just seniors was also common topic among assessment participants. One participant discussed that many area lower-income residents live one paycheck away

from being evicted. In these situations "people do not want to leave their communities so they end up living on friend's couch or living in illegal boarding houses and in small apartments that are just rooms in houses." The cities/towns end up closing down these illegal housing options for health reason such as fire hazards or overcrowding. "Although this is the right thing to do" one interviewee explained, "You solve one problem of deplorable housing but cause them other problems in terms of stress and homelessness."

Public housing in general was also discussed by many of the assessment participants. In many of the communities, participants talked about how there is limited access to public housing and for those who do live in public housing it can be isolating. The Barton Road housing development in Wellesley, for example, has no or limited public transportation and is far away from any grocery store and health care services.

One participant was also concerned that there are no housing shelters in the area and how this lack of temporary housing creates a real problem for people with behavioral health issues. Once people facing behavioral health issues lose housing, "they wind up having to move and then become disconnected from social support and health care."

Homelessness was also raised as an issue in several communities. One interviewee said of his community, "not everybody's living the American Dream. We have over a hundred adults and children who are homeless. We have families living in hotels here." Among those who raised the issue of homelessness, they noticed that many of the homeless families in their cities/towns were also immigrants.

Transportation

Mirroring the trend in Massachusetts, the vast majority of commuters in each of the hospital service area communities drive to work. Newton, Needham and Wellesley however, have a higher percentage of residents commuting to work via public transportation as compared to the state (12.6% and 10.3% and 9.9% v. 9.2%), whereas Weston has the lowest percentage of public transportation commuting in the six assessment communities. A higher percentage of people walk to work in Wellesley than the other cities/towns in the catchment area and the state (Table 4).

Table 4: Mode of Transportation to Work by State, County, and City/Town, 2008-2012

Geography	Car, truck, or van	Public transportation (excluding taxi)	Walk
Massachusetts	80.3%	9.2%	4.7%
Middlesex County	77.7%	10.7%	4.8%
Norfolk County	78.0%	12.9%	3.5%
Natick	84.1%	8.1%	1.3%
Needham	78.0%	10.3%	2.5%
Newton	72.2%	12.6%	5.5%
Waltham	79.5%	6.6%	7.8%
Wellesley	64.7%	9.9%	15.4%
Weston	82.8%	3.6%	4.7%

DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2008-2012

The necessity of having a car and the inadequacy of the local public transportation was a common theme among key informant interviewees and focus group participants. Although all participants seemed to think that the majority of people living in their towns had cars, they recognized that there "probably are some people trying to rely solely on public transit and that would be a challenge." The lack of having access to a car coupled with spotty local public transportation was discussed by almost all participants as a barrier to maintaining health by limited access to healthy food in many cases and by preventing people from accessing health care. Seniors and people with disabilities or behavioral health issues were cited as the most vulnerable to the transportation barrier in their communities. Interviewees and focus group participants discussed that those without access to transportation may rely on relatives to get to health care appointments but without family members or friends to help they are left to rely on the Ride (the T) or unreliable community volunteer services, or pay for expensive cabs. Although the communities have come up with strategies (such as cab share programs, cab vouchers or funding local buses) to address these issues, these programs are difficult to maintain because they tend to be reliant on unstable funding sources such as grants. Assessment participants were very clear that sustainable transportation options need to be implemented in their communities.

Transportation into Boston was also a topic of conversation in most groups and interviews. Generally residents felt that the commuter rail offered reasonable access to the city as well as nearby access to I-90 or I-95 for driving into Boston. Again however, participants discussed how vulnerable segments of the population may have limited access to transportation and this may be a barrier to them accessing health care.

Many assessment participants discussed traffic and speeding issues in their communities. Residents of Natick and Waltham discussed how the "horrendous" traffic in their communities contributed to inefficiency in their lives because they have to add sometimes 30-45 minutes to their commuting time if they want to get somewhere. Speeding was also raised a problem in their communities. One focus group from Waltham mentioned that two people had recently been hit and killed by a speeding car in their town.

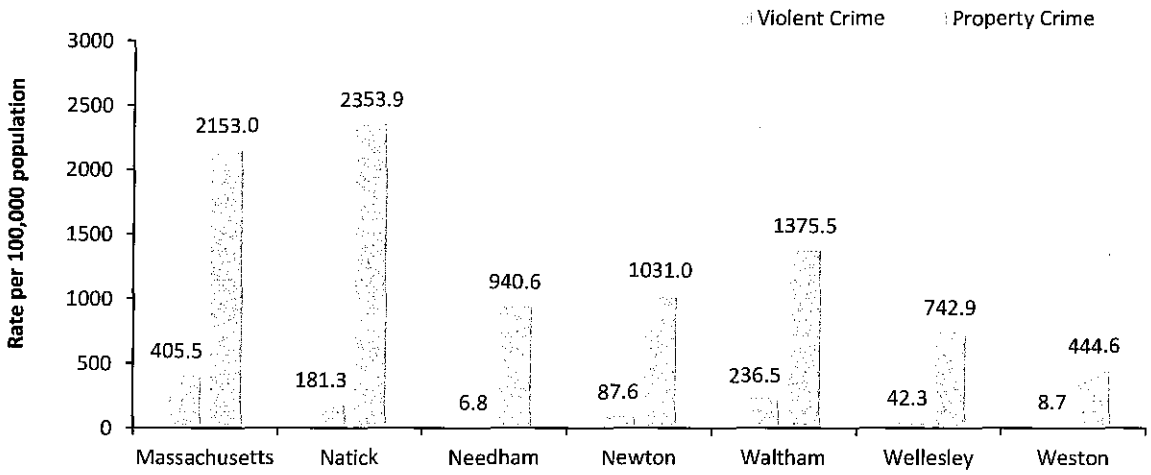
Despite the numerous conversations about driving as a means of transportation, only one participant voiced concern that there are "no incentives for residents of these communities to use more fuel efficient cars or use public transportation."

A few focus group participants discussed the barrier limited sidewalks in their communities caused for encouraging leisurely walks or to access services. One Waltham focus group member offered, "On Trapelo Road the sidewalk is only on one side. It's like Frogger trying to cross the street. Cars won't let you go. I was once there [trying to cross the street] with my baby, grandmother and dog and no one would stop."

Crime and Safety

Overall, participants described the area as a low crime area and reported that they felt safe. Quantitative data reinforce this feeling. Figure 9 indicates that, aside from Natick, all towns in the assessment experience lower rates of violent and property crime compared to Massachusetts overall. The rate of property crime in Natick is approximately 10% higher than the statewide rate.

Figure 9: Crime Rate per 100,000 Population by State and City/Town, 2012



DATA SOURCE: Federal Bureau of Investigation Uniform Crime Reports. Offenses Known to Law Enforcement, by State, by City/Town, 2012

Issues of electronic (cyber) and in-school bullying were noted as areas of concern, and will be discussed below as they relate to youth mental health.

Community Strengths and Assets

Participants in community dialogues and interviews were asked to identify their communities' strengths and assets. This section briefly highlights some of the key community strengths that community dialogue and interview participants identified.

Strong Collaborative Spirit and Community Partnerships

Interview participants in particular discussed the strong collaboration and partnerships that exist between many community organizations. "We work well with other groups and all of the agencies in the town work well together. We build strong partnerships so when we need to call on these partners we can," reported one participant. Others talked about collaborations between schools, health departments, and the hospital, which were seen as increasing in recent years. While participants mentioned that they have many natural partners in the community, they also expressed interest in enhancing and formalizing many of their partnerships, especially with the hospital.

Community Cohesion

Among assessment participants, social cohesion emerged as a key strength of the community. Many participants described having "community pride," which created a sense of identity that strengthened the fabric of the community. As one focus group participant mentioned, "there is a sense of identity of being in this community; you're part of schools, temples. There are lots of little communities, which create a sense of belonging." Others reinforced that the communities' greatest assets are the commitment that residents have to each other, noting particularly strong support to youth families in the community. Further highlighting the active volunteerism and generous spirit of many community

residents, one participant noted that "people volunteer and help each other, especially in times of need."

Focus on youth and education

One of the most frequently mentioned assets of the NWH service area was the focus on youth and promoting positive youth development. For many participants, youth were seen as the heart of the community and services and programs existed to support them. The area schools were described as "wonderful educational systems," and most focus group participants reported moving to the area specifically so that their children could attend schools. One participant summarized, saying "this is a place that highly values education. Families that want the best education for their children come here."

Community resources

Focus group and interview participants identified a wealth of community assets and programs in the NWH service area including a variety of youth sports activities and leagues, community events and festivals, and churches and synagogues. Numerous resources were discussed related to younger, school-age youth. However, there were fewer activities for older youth, particularly if they are not as connected to their schools' activities. Interview participants also identified health-related resources. Participants noted the hospital services, as well as those provided by the local health departments and social services agencies. Community coalitions were specifically acknowledged and suggested as an important area for growth. Several participants also highlighted community resources related to behavioral health- Project Interface, the SPARK program, and an initiative to improve systems integration for youth.

Risk and Protective Lifestyle Behaviors

This section examines lifestyle behaviors among the NWH service area's residents that support or hinder health, including individuals' personal health behaviors and risk factors (i.e., regarding physical activity, nutrition, and substance use) that result in the leading causes of morbidity and mortality among residents. Due to data constraints, many health behavior measures are available only at the county level or for Community Health Network Area (CHNA) 18 as a whole, not individual municipalities or subpopulations. When appropriate and available, municipal statistics are compared to the counties, CHNA and/or state as a whole.

<u>Healthy Eating, Physical Activity, and Overweight/Obesity</u>

- *I have to go to Somerville to Market Basket and spend $200 a month. That would barely last if I food shopped here.* – focus group participant

- *There are resources here if you can afford them. Gyms are expensive; I am trying to get a fitness group or something here. They have fitness for the elderly but what about everyone else? Why wait until we are elderly and out of shape?* – focus group participant

- *There's lots of fast food in our town. The food environment exacerbates the physical inactivity issues, and we're seeing more obesity, especially among youth.* – interview participant

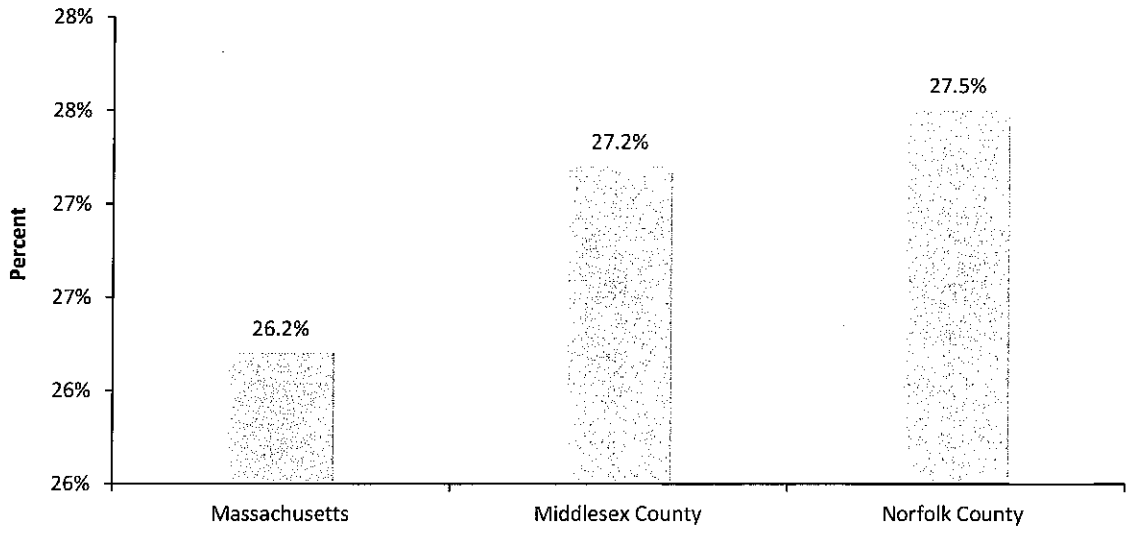
Several focus group and interview participants discussed the importance of healthy eating and physical activity to maintaining weight and overall health. Additionally, in one town, focus group participants commented that there is "social pressure to exercise and be fit," which they said is motivating but also adds to feelings of stress among youth and pressure for adults to find time for exercise in their busy

lives. As one youth participant mentioned, "people are expected to be in shape, and are especially judgmental about weight and being healthy."

Participants also noted several barriers that exist in their communities – such as unaffordable prices of healthy foods, lack of affordable physical activity opportunities for youth and adults, and limited transportation – to achieving a healthy lifestyle. According to the United States Department of Agriculture, 3.0% of Middlesex County residents are low-income and do not live close to a grocery store. This is slightly less than the percentage of residents in Norfolk County (4.0%) and Massachusetts overall (4.0%) who are low-income and do not live close to a grocery store. In discussing other issues related to food access, one community resident noted that a large, affordable grocery store in Wellesley had been replaced by a more expensive store, making it hard to buy the quantity and quality of food that she was accustomed to purchasing. Shopping for more affordable groceries outside their hometown was discussed among several focus group participants.

Quantitative data indicate that adults in the NWH service area have similar healthy eating behaviors compared to adults statewide. As seen in Figure 10, 27.2% of adult residents in Middlesex County and 27.5% of adult residents in Norfolk County reported eating fruits and vegetables five or more times per day (the recommended guideline) compared to 26.2% of adults statewide.

Figure 10: Percent of Adults with Fruit or Vegetable Intake of 5 or More per Day by State and County, 2009

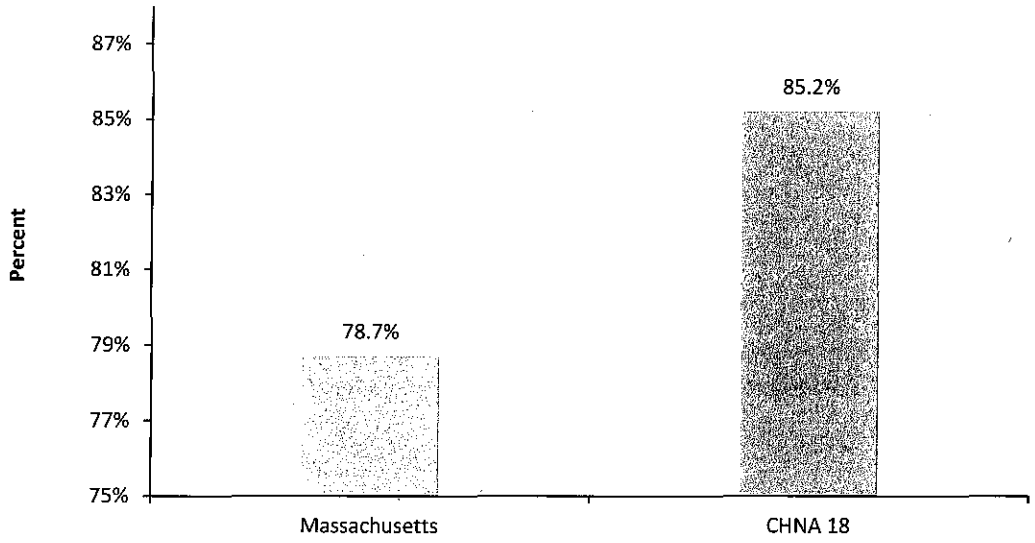


DATA SOURCE: Behavioral Risk Factor Surveillance System, United States, as cited by Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report

In discussing healthy lifestyle behaviors, many assessment participants also commented on the cost of sports leagues, gyms, and other physical activity opportunities. While they noted that some opportunities exist, a few of which are affordable, these varied by municipality in the NWH service area. As one focus group participant mentioned, "Because they are here in Newton they think that people can pay to keep themselves healthy. Yes, the community is full of affluent people but there are some who aren't. They need to make it affordable." Lack of physical infrastructure, for example sidewalks, was also

mentioned as a barrier to engaging in physical activities. This was of particular concern in Waltham, where residents expressed worry about safety from traffic.

Figure 11: Percent of Adults Reporting Any Leisure Time Physical Activity by State and CHNA, 2007-2009



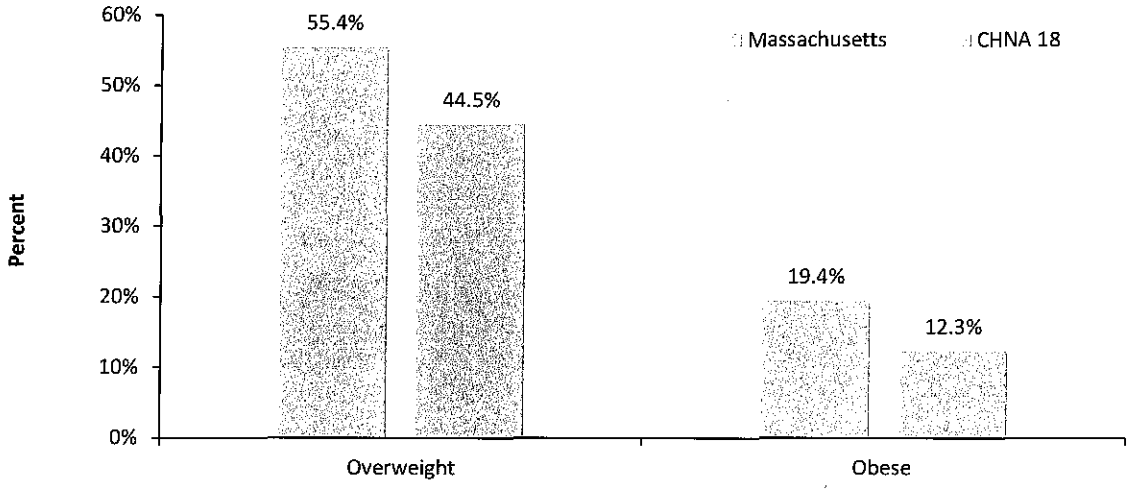
DATA SOURCE: Massachusetts Department of Public Health (2007-2009), MassCHIP

Despite reported challenges, Figure 11 shows that adults in CHNA 18 report were more likely to report engaging in leisure time physical activity than adults in Massachusetts as a whole (85.2% vs. 78.7%). In 2013, 77.0% of middle school students in Massachusetts exercised for 60 or more minutes per day for five or more days per week. High school students in Massachusetts reported exercising considerably less with only 44.0% exercising an hour or more per day for five or more days per week. Physical activity data are available for several towns within the NWH service area. In 2010, 77.6% of Natick middle school students, 81.7% of Needham middle school students, and 79.1% of Waltham middle school students engaged in 20 minutes or more of exercise on three or more days per week.

Healthy eating and physical activity are important predictors of obesity. While obesity was not extensively discussed in this assessment, several participants expressed concerns related to obesity, and the increasing rates among younger children, though this was not a pressing health concern cited by many participants. Obesity was seen as linked to unaffordable healthy food and limited physical activity opportunities as well as towns whose physical infrastructure (sidewalks, walkable town centers) do not support optimal physical activity.

Figure 12 shows that lower percentages of CHNA 18 adult residents are overweight and obese compared to residents statewide. Figure 13 contains more current data at the county level, which indicates that while obesity rates are increasing, slightly fewer adults in Middlesex and Norfolk Counties are obese (23.0% and 20.0%, respectively) compared to adults in Massachusetts overall (24.0%). Interestingly, when looking at hospital data for Newton-Wellesley, morbid obesity is the fourth most common inpatient diagnosis among patients ages 45 to 64 years old (See Appendix C).

Figure 12: Percent of Obese and Overweight Adults by State and CHNA, 2007-2009



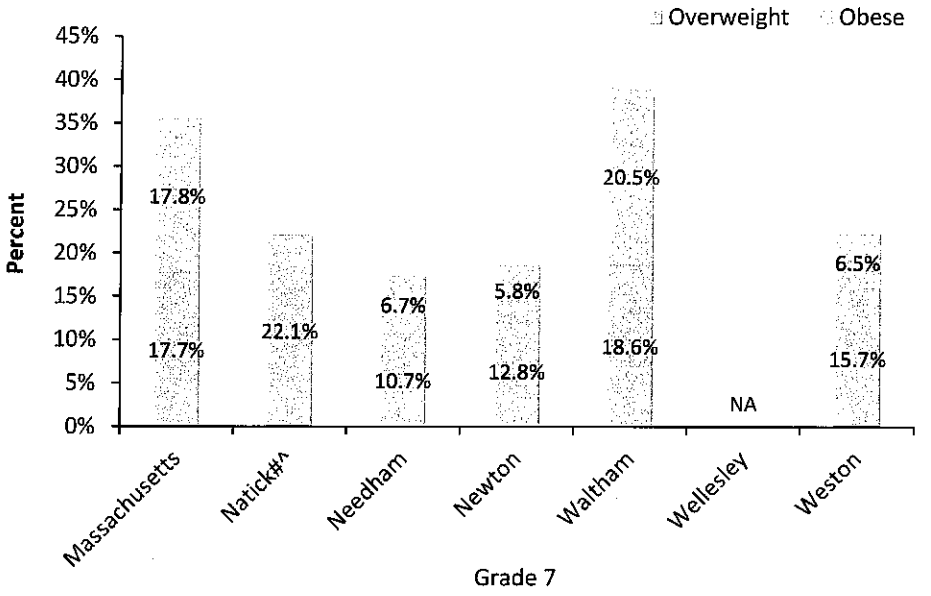
DATA SOURCE: Massachusetts Department of Public Health (2007-2009), MassCHIP
NOTE: Overweight includes adults that report a BMI=26-30; Obese includes adults that report a BMI >=30

Figure 13: Percent of Obese Adults by State and County, 2010

DATA SOURCE: National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation (2010), as cited by County Health Rankings
NOTE: Obese includes adults that report a BMI >=30

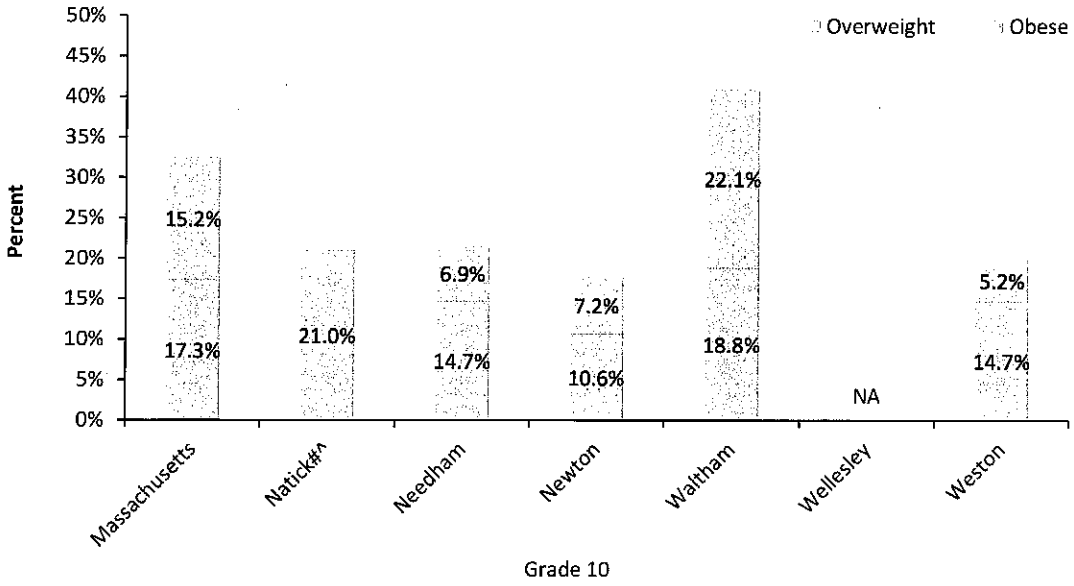
Overweight/obesity rates among youth vary widely within the NWH service area. However, Waltham is the only town in the area with a higher rate of youth who are overweight/obese (39.1% of 7th grade students and 40.9% of 10th grade students) compared to the state overall (35.5% of 7th grade students and 32.5% of 10th grade students) (Figure 14 and Figure 15).

Figure 14: Percent of Students (Grade 7) that are Overweight or Obese by Region and City, 2010



DATA SOURCE: MetroWest Adolescent Health Survey, 2010; Essential School Health Service (2010), Massachusetts Department of Public Health, MassCHIP
NOTE: NA indicates data were not available
Overweight includes students that report a BMI=26-30; Obese includes students that report a BMI >=30
^Grades 7-8
#Overweight and obese were combined

Figure 15: Percent of Students (Grade 10) that are Overweight or Obese by Region and City, 2010



DATA SOURCE: MetroWest Adolescent Health Survey, 2010; Essential School Health Service (2010), Massachusetts Department of Public Health, MassCHIP

NOTE: NA indicates data were not available
Overweight includes adults that report a BMI=26-30; Obese includes adults that report a BMI >=30
#Overweight and Obese were combined
^Grades 9-12

Substance Use and Abuse (Alcohol, Tobacco, and Other Drugs)

- *"There is still a lot of stigma, even though substance abuse is so common here."* – focus group participant
- *"The opiate problem is bigger than we know. We've lost four young people in the past year."* – interview participant
- *"People are using alcohol to numb their mental health problems."* – interview participant

Assessment participants expressed many concerns regarding to substance abuse in their communities, including alcohol use and community acceptance of use, an increase in prescription drug and heroin use, and the link between substance abuse and mental health issues.

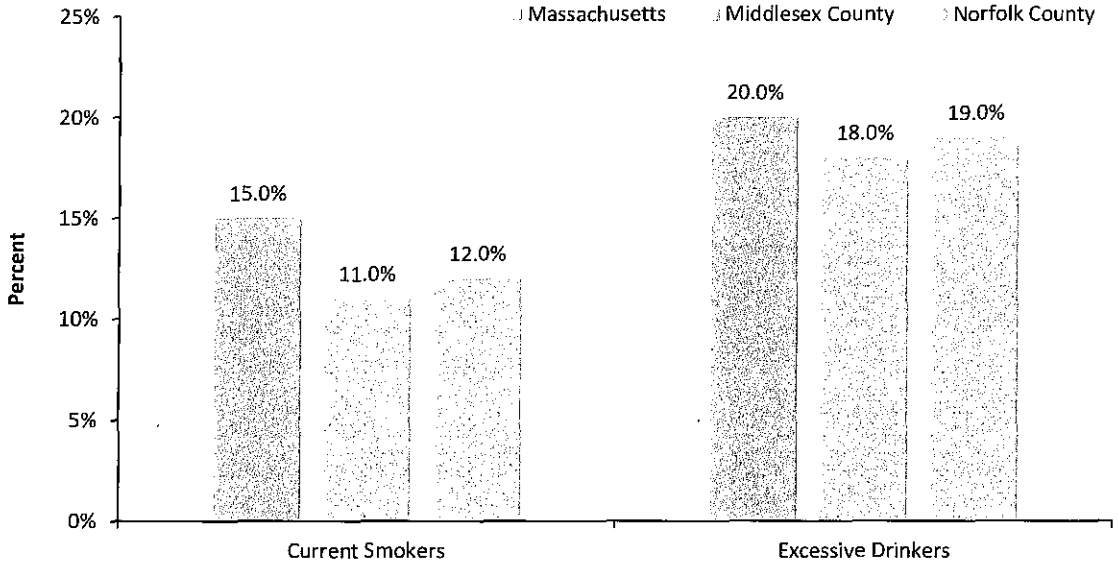
Table 5: Rate of Admissions to DPH Funded Treatment Programs per 100,000 Population by State, County, and City/Town, 2009, 2011

Geography	Admissions to DPH Funded Treatment Programs	Injection Drug User Admissions to DPH Funded Treatment Program	Alcohol and other Drug-Related Hospital Discharges
MA	1532.4	621.2	344.7
Middlesex County	1005.9	421.9	272.5
Norfolk County	1198.4	558.7	345.3
Natick	567.5	125.4	247.7
Needham	298.8	70.3	147.7
Newton	448.7	123.6	153.6
Waltham	821.0	238.4	387.8
Wellesley	237.3	60.0	122.3
Weston	86.3	0.0	86.3

DATA SOURCE: Bureau of Substance Abuse Services, DPH funded program utilization (2011); Calendar Year Hospital Discharges, Uniform Hospital Discharge Data Set (2009); Massachusetts Department of Public Health, MassCHIP

Table 5 shows the rate of admissions to Department of Public Health funded treatment programs and hospital discharges for substance abuse. The NWH service area experiences a lower rate of admission to DPH funded treatment programs across all cities and towns as compared to the state. Waltham reported the highest rate at 821.0 per 100,000 population for all causes and 238.4 per 100,000 for admissions due to injection drug use.

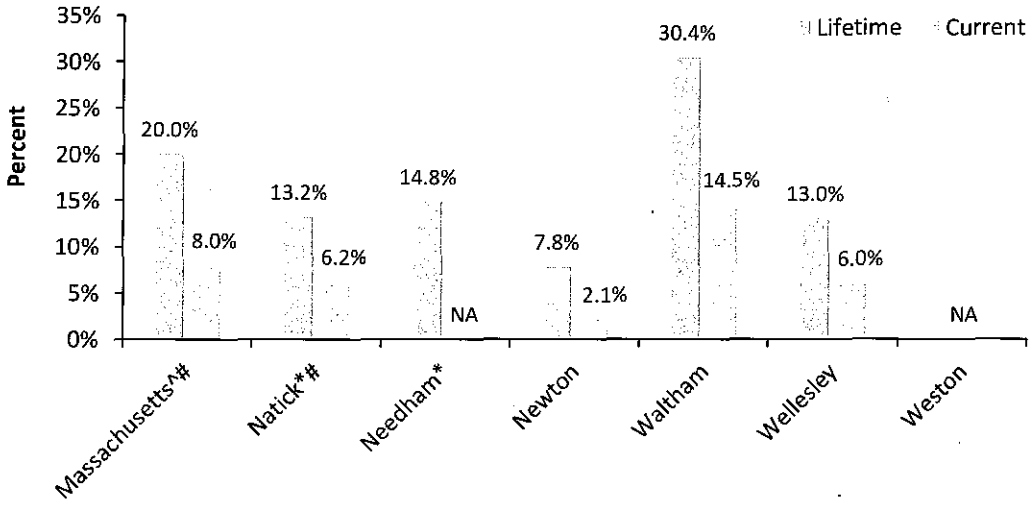
Figure 16: Percent of Adults who Report Current Smoking Status or Excessive Drinking by State and County, 2006-2012



DATA SOURCE: Behavioral Risk Factor Surveillance System, Massachusetts Department of Public Health (2006-2012), as cited by County Health Rankings

Figure 16 illustrates rates of current smoking and excessive drinking among adults in the area. Fewer adults in Middlesex and Norfolk Counties reported being excessive drinkers compared to adults across Massachusetts.

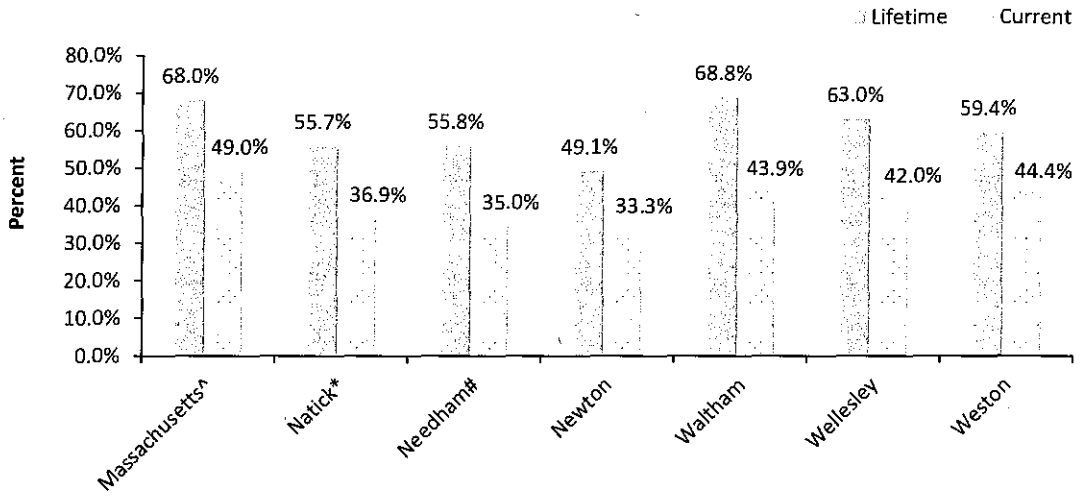
Figure 17: Percent of Students (Grades 7-8) Reporting Current and Lifetime Alcohol Use by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Health Survey, 2011; MetroWest Adolescent Health Survey, 2010, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012
NA indicates data were not available

#Grades 6-8
*2010 data
^2011 data

Figure 18: Percent of Students (Grades 9-12) Reporting Current and Lifetime Alcohol Use by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Risk Behavior Survey, 2011; MetroWest Adolescent Health Survey, 2010, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012; Weston Youth Risk Behavior Survey, 2011-2012
NOTE: "Current" is defined as last 30 days prior to survey administration
*2010 data
^2011 data
#2010 data for Lifetime Alcohol Use and 2012 data for Current Alcohol Use

Youth focus group participants discussed parties where drinking occurred and the pressure they feel to be popular. However, the youth engaged in this assessment noted that they do not feel direct peer pressure to use substances, but rather a lack of knowledge regarding the health effects of substance use. Additionally, they discussed seeing their peers or role models (upper classmen) using substances, which "challenges their perceptions of what is right and the norm." Many of these youth reported that the idea of potential academic and social consequences "ruining their lives" was often enough to deter them from using substances. They recognized that this is not necessarily true of youth in all parts of the NWH service area. Adult focus group participants mentioned the lack of activities for high school youth as contributing to substance use.

Quantitative data indicate that rates of lifetime (ever tried a sip) and current use (within the past 30 days) of alcohol among middle and high school youth are lower in the NWH service area than in the state as a whole. Among middle school youth, Waltham is the exception with 10% more youth having reported lifetime alcohol use than their peers across the state (30.4% vs. 20.0%). Waltham middle school youth also reported the highest rate of current alcohol use (14.5%) among towns in the NWH service area (Figure 17).

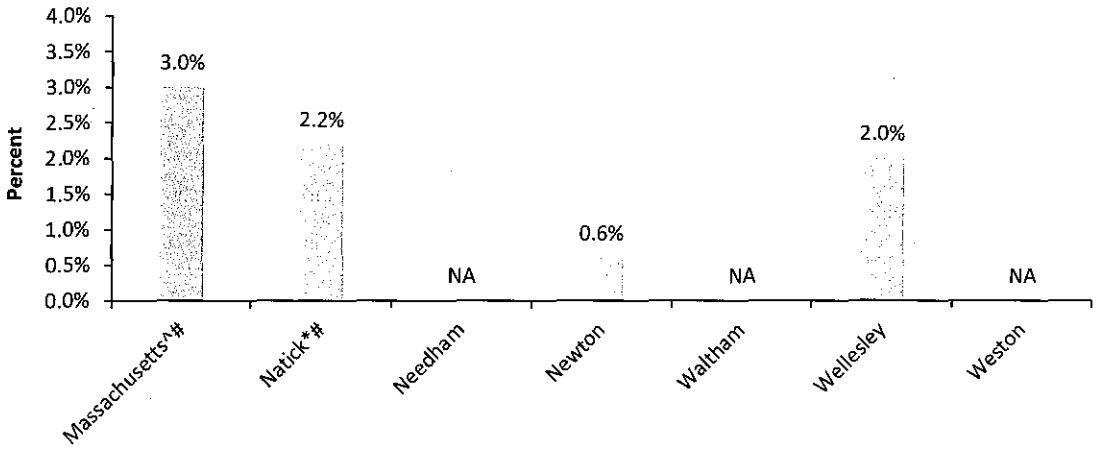
Alcohol use among high school youth in the area was more prevalent than among middle schools, although consistent with use across the state, as seen in Figure 18. Waltham (68.0%) and Wellesley

(63.0%) high school youth reported the highest rates of lifetime alcohol use. Waltham, Wellesley, and Weston high school youth also reported the highest rates of current alcohol use. Across all cities and towns in the NWH service area, less than half of high school students reported currently using alcohol.

However, Figure 20 shows that more high school youth in the area reported binge drinking compared to their peers statewide. The highest rate was reported by high school youth in Weston (29.7%) and the lowest in Newton (17.8%).

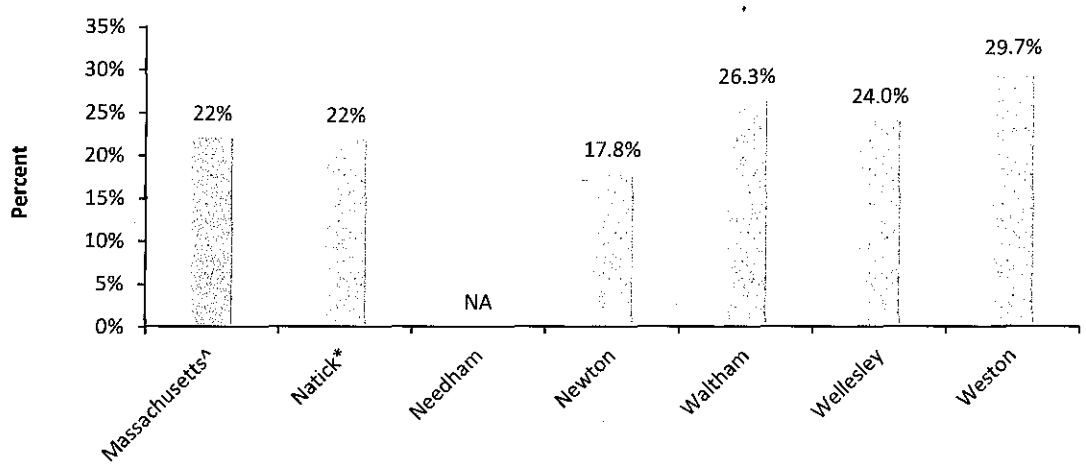
Figure 19 indicates that few middle school youth in the area reported binge drinking.

Figure 19: Percent of Students (Grades 7-8) Reporting Current Binge Alcohol Use by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Health Survey, 2011; MetroWest Adolescent Health Survey, 2010, 2012; Newton Youth Risk Behavior Survey, 2012-2013
NOTE: NA indicates data were not available; "Current" is defined as last 30 days prior to survey administration
#Grades 6-8
*2010 data
^2011 data

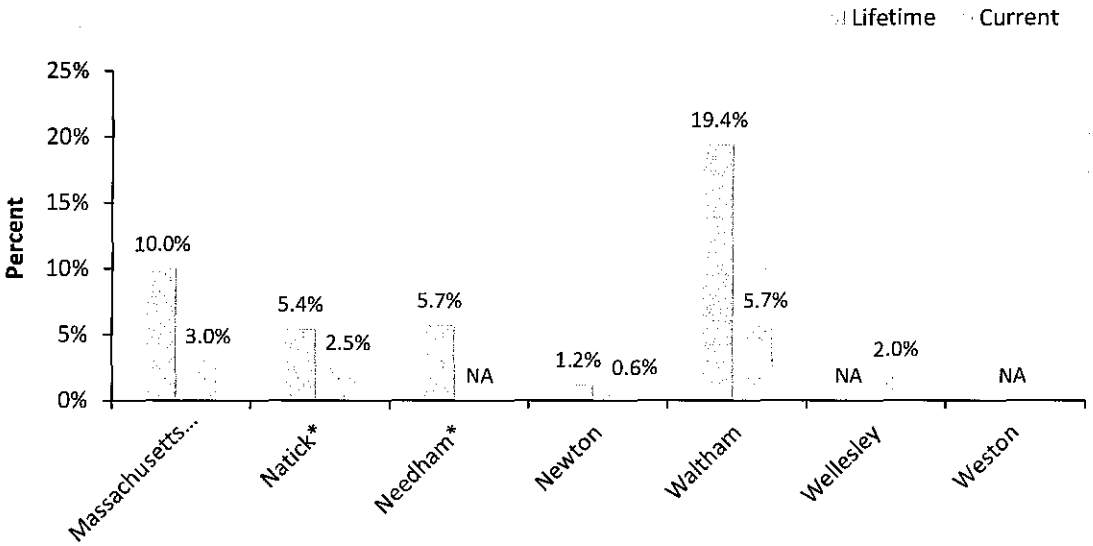
Figure 20: Percent of Students (Grades 9-12) Reporting Current Binge Alcohol Use by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Risk Behavior Survey, 2011; MetroWest Adolescent Health Survey, 2010, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012; Weston Youth Risk Behavior Survey, 2011-2012
NOTE: NA indicates data were not available; "Current" is defined as last 30 days prior to survey administration
*2010 data
^2011 data

Tobacco was also a concern among several interview participants, including smokeless tobacco and alternative tobacco products. As seen above in Figure 16, fewer adults in Middlesex and Norfolk Counties reported being current smokers than adults in Massachusetts overall.

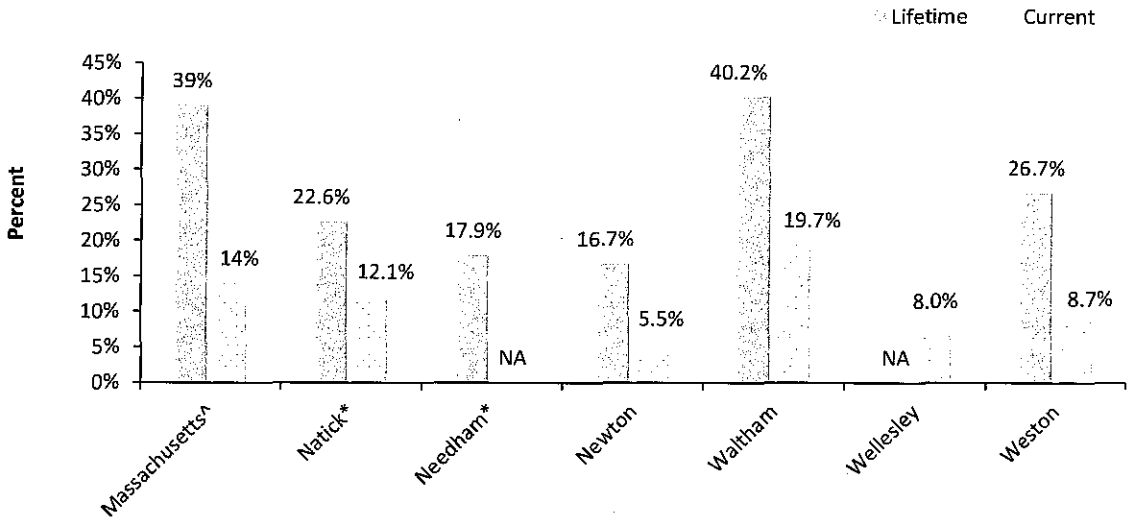
Figure 21: Percent of Students (Grades 7-8) Reporting Current and Lifetime Cigarette Use by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Health Survey, 2011; MetroWest Adolescent Health Survey, 2010, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012

NA indicates data were not available
#Grades 6-8
*2010 data
^2011 data

Figure 22: Percent of Students (Grades 9-12) Reporting Current and Lifetime Cigarette Use by State and City/Town, 2012

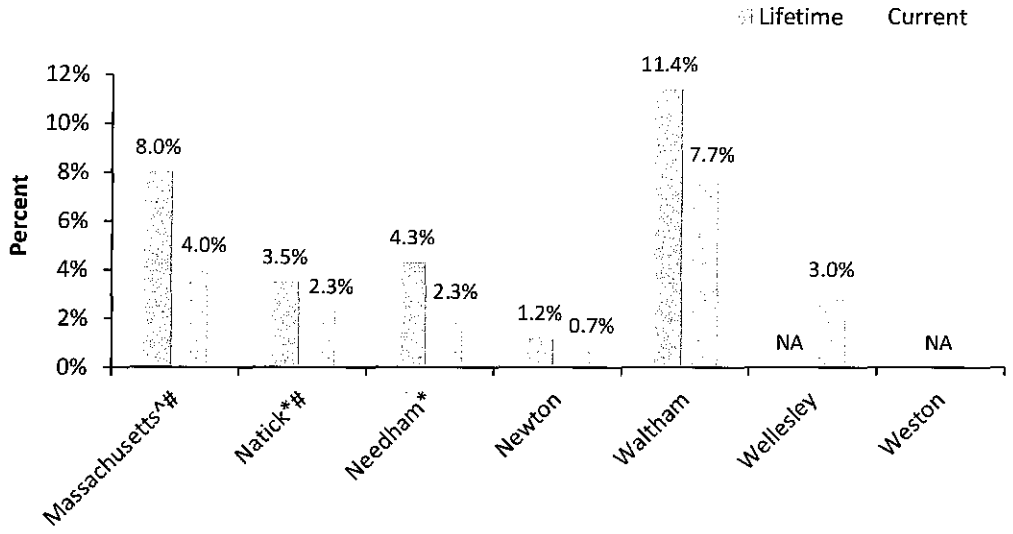


DATA SOURCE: Massachusetts Youth Risk Behavior Survey, 2011; MetroWest Adolescent Health Survey, 2010, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012; Weston Youth Risk Behavior Survey, 2011-2012
NOTE: NA indicates data were not available; "Current" is defined as last 30 days prior to survey administration
*2010 data
^2011 data

Youth tobacco data reveal that compared to the state overall fewer high school youth in the NWH service area reported ever having smoked or currently smoking cigarettes. The exception is Waltham, where 40.2% of high school youth reported having smoked ever in their lifetime and 19.7% reported being current smokers (Figure 22). Data on middle school cigarette use indicate that rates in Waltham are higher than surrounding towns and the state overall. 19.4% of Waltham middle school students reported ever having smoked, while 5.7% reported currently smoking compared to their peers across Massachusetts (Figure 21).

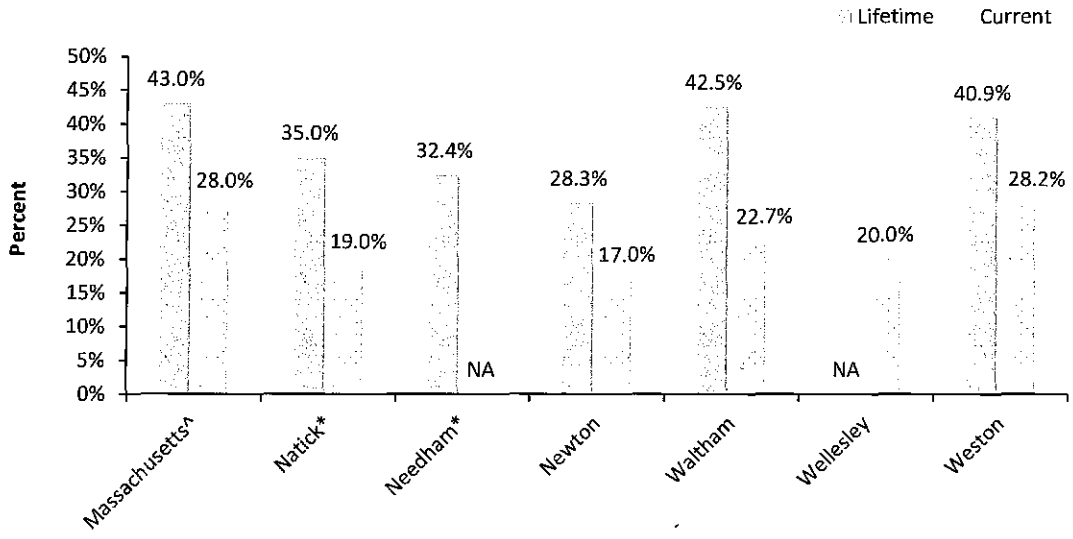
Youth and parent focus group participants were more concerned about marijuana use and youth noted that they are unsure about the dangers of marijuana, particularly given the rise of legalization across the country.

Figure 23: Percent of Students (Grades 7-8) Reporting Current and Lifetime Marijuana Use by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Health Survey, 2011; MetroWest Adolescent Health Survey, 2010, NA indicates data were not available
#Grades 6-8
*2010 data
^2011 data
2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012

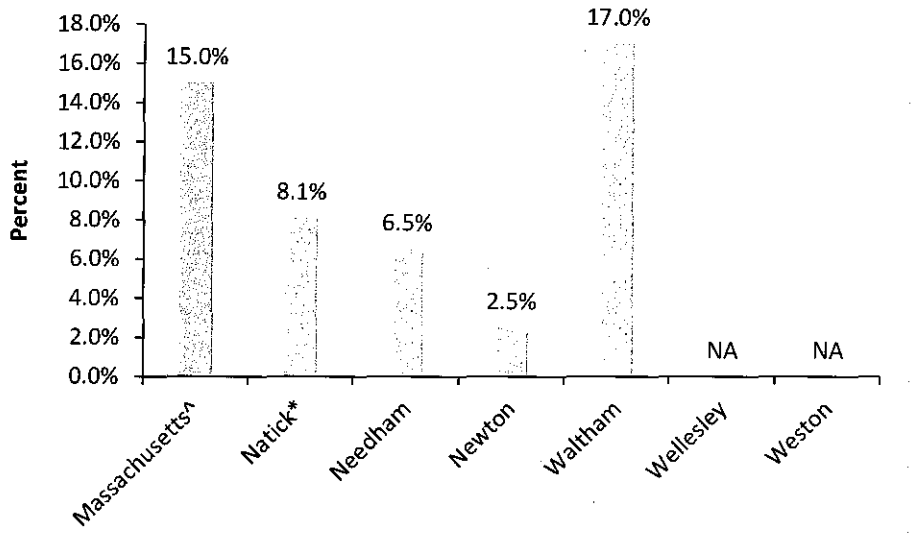
Figure 24: Percent of Students (Grades 9-12) Reporting Current and Lifetime Marijuana Use by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Risk Behavior Survey, 2011; MetroWest Adolescent Health Survey, 2010, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012; Weston Youth Risk Behavior Survey, 2011-2012
NOTE: NA indicates data were not available; "Current" is defined as last 30 days prior to survey administration
*2010 data
^2011 data

Figure 24 shows that lifetime and current use of marijuana among high school youth in the NWH service area is consistent with or lower than statewide use. Waltham high school youth were most likely to report having ever smoked marijuana (42.5%) and Weston high school youth were most likely to report currently smoking marijuana (28.2%). Among middle school youth, Waltham youth again reported higher lifetime (11.4%) and current use (7.7%) of marijuana than nearby cities and towns and the state overall (Figure 23).

Figure 25: Percent of Students (Grades 9-12) Reporting Lifetime Prescription Drug Misuse by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Risk Behavior Survey, 2011; MetroWest Adolescent Health Survey, 2010, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012
NA indicates data were not available
*2010 data
^2011 data

Other interviewees discussed a perceived increase in youth misusing prescription drugs, expressing concern that youth are stealing these from parents and grandparents. Two interview participants conveyed worry that residents in the area start using drugs prescribed to them or a family member, and that then the cost of maintaining use of these gets too much and leads to heroin use, which is often less expensive. Opiate use and overdoses were noted as pressing issues among assessment participants in several towns. Quantitative data show that for the cities/towns with available data, few high school youth reported misusing prescription drugs in their lifetime. Waltham high school students again were the exception, with 17.0% reporting lifetime drug misuse, which is slightly higher than the statewide rate (15.0%) (Figure 25). Quantitative data on heroin use among youth and adults were not available,

although qualitative accounts from assessment participants emphasize that heroin is a growing community concern.

Despite how prevalent substance abuse is among the cities and towns in the NWH service area, several interview and focus group participants noted that the community still struggles to accept and discuss substance abuse. This stigma was often viewed as a barrier to community residents actively seeking existing substance abuse services. Additionally, it is important to note that participants emphasized the connection between substance abuse and mental health, seen as the most pressing health concern within the NWH service area. As one interviewee summarized, "People are using alcohol to numb their mental health problems."

Injury-Related Behaviors

Several interviewees discussed the risk of injury among seniors, particularly from falls. Injuries among seniors were primarily noted in the context of aging in place and the challenges presented when seniors choose to stay in their homes. Injuries were also discussed related to driving under the influence of alcohol. One interviewee noted that there had been a recent cluster of DUIs in Needham.

As illustrated in Figure 26, rates of motor-vehicle related deaths are highest in Natick and Waltham, with rates approximately twice that of the state as a whole. Across all geographies, there are higher rates of fall-related injury deaths among individuals aged 60 years and older than motor vehicle-related deaths. Needham experienced the highest rate at 51.3 deaths per 100,000 population and Natick experienced the lowest rate at 15.8 deaths per 100,000 population. Examining overall injury data, age-adjusted death rates due to injury are lower for Middlesex and Norfolk Counties (37.0 per 100,000 population and 40.0 per 100,000 respectively) compared to Massachusetts overall (45.0 per 100,000).

Figure 26: Age-Adjusted Death Rate per 100,000 Population due to Injury by State, County, and City/Town, 2008-2010

DATA SOURCE: 2010 Mortality (Vital Records) ICD-10 Based, Massachusetts Department of Public Health, MassCHIP
NOTE: A rate of 0.0 indicates that there were no motor-vehicle related injury deaths in the data years 2008-2010

Domestic violence was also discussed by a number of interview participants. One participant commented that the "prevalence of domestic violence is enormous," and another individual reinforced this, stating that "there is so much stigma surrounding [domestic violence]; people don't talk about it in these towns." Domestic violence was linked to both substance abuse and mental health, and seen as "leading to disproportionate health outcomes on all health issues."

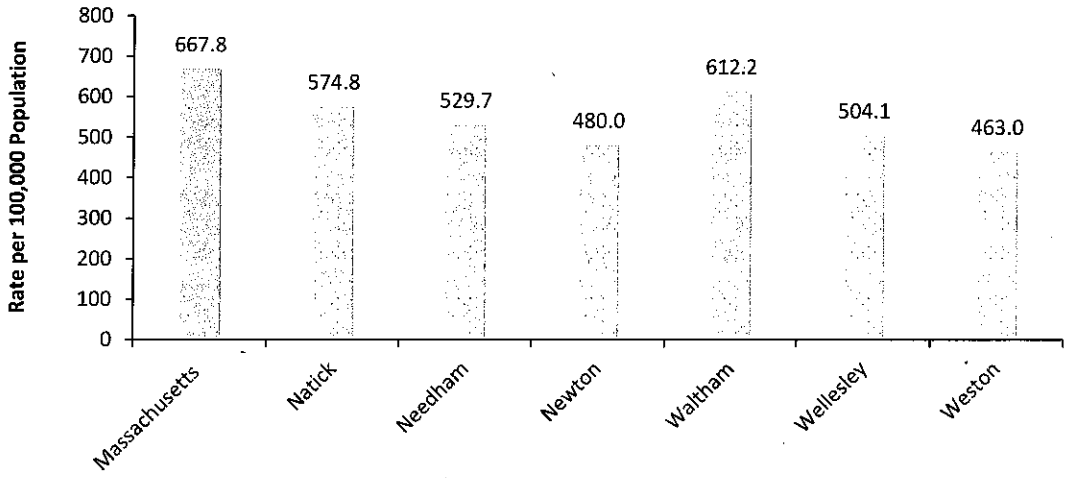
Health Outcomes

This section of the report provides a primarily quantitative overview of leading health conditions in the NWH service area from an epidemiological perspective of examining incidence, prevalence, and mortality data, while also discussing pressing concerns that assessment participants identified during in-depth conversations.

Mortality

As seen in Figure 27, the age-adjusted mortality rate in the hospital service area is lower than that of the state; however rates vary by city/town. Waltham has the highest mortality rate with 612.2 deaths per 100,000 population, compared to 667.8 deaths per 100,000 population in Massachusetts overall. Weston has the lowest mortality rate in the area. The leading causes of death in the NWH service area are heart disease, cancer (particularly lung cancer), and stroke, which are consistent with Massachusetts as a whole. Chronic lower respiratory disease and diabetes are also leading causes of death in the area, although less common.

Figure 27: Age-Adjusted Mortality Rate per 100,000 Population by State and City/Town, 2010



DATA SOURCE: Massachusetts Department of Public Health, Vital Records, 2010 as cited by MassCHIP

Table 6: Top 5 Causes of Death (Number of Deaths) by State and City/Town 2010

Rank	Massachusetts	Natick	Needham	Newton	Waltham	Wellesley	Weston
1	Total Cancer (12, 973)	Heart Disease (67)	Heat Disease (61)	Total Cancer (159)	Total Cancer (126)	Total Cancer (45)	Heart Disease (23)
2	Heart Disease (11,996)	Total Cancer (53)	Total Cancer (49)	Heart Disease (132)	Heart Disease (90)	Heart Disease (32)	Total Cancer (21)
3	Lung Cancer (3,546)	Lung Cancer (15)	Stroke (16)	Lung Cancer (45)	Lung Cancer (36)	Lung Cancer (13)	Stroke (6)
4	Stroke (2,504)	Stroke (12)	CLRD* (15)	Stroke (28)	Stroke (21)	Influenza & Pneumonia (4)	Lung Cancer (5)
5	CLRD* (2,380)	CLRD* (8)	Lung Cancer (11)	CLRD* (15)	CLRD* (16)	CLRD* and Diabetes** (3)	Diabetes (4)

DATA SOURCE: Massachusetts Deaths 2010, Massachusetts Department of Public Health
*Chronic Lower Respiratory Disease
**During data year 2010, in Wellesley, there were 3 deaths attributable to CLRD and 3 deaths attributed to Diabetes

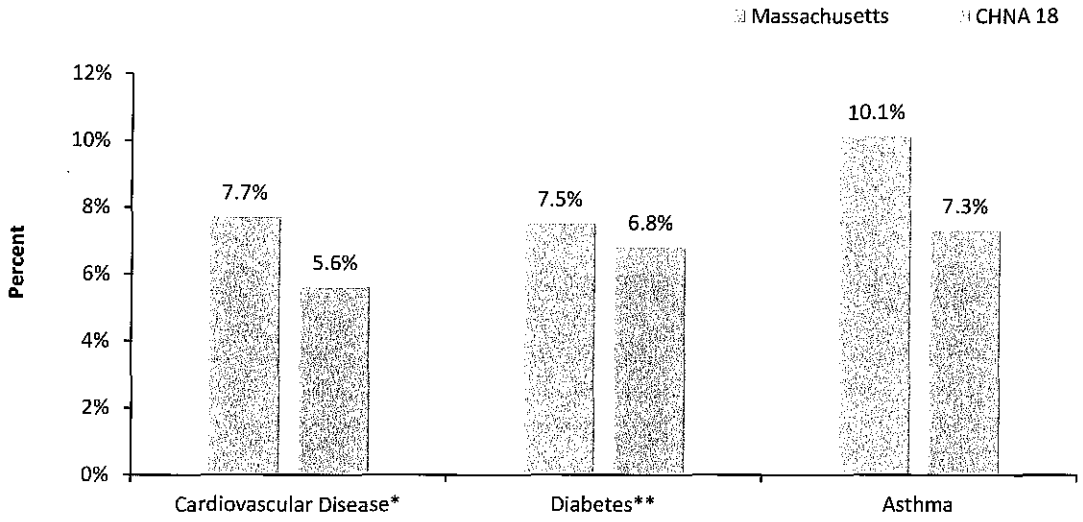
Chronic Disease

Focus group and interview participants reported chronic disease as a significant health issue in the NWH service area – particularly asthma and obesity-related conditions (diabetes and heart disease).

Asthma, specifically among youth, was considered a big health concern by several interview participants. One participant noted that there are some air quality issues in Waltham, which she attributed to traffic from commuters as well as areas of mixed residential and industrial use. Asthma was also seen as related to poor housing conditions within older apartments and houses. Participants were unaware of any resources in the area that focus on asthma prevention.

While local data on asthma prevalence among youth are not available, Figure 28 shows that adults in the area reported less asthma than adults across the state. Similarly, cardiovascular disease and diabetes were less prevalent among adults in the NWH service area than their peers statewide.

Figure 28: Chronic Disease Among Adults by State and CHNA, 2007-2009



DATA SOURCE: Behavioral Risk Factor Surveillance System (2007-2009), Health Survey Program, Massachusetts Department of Public Health

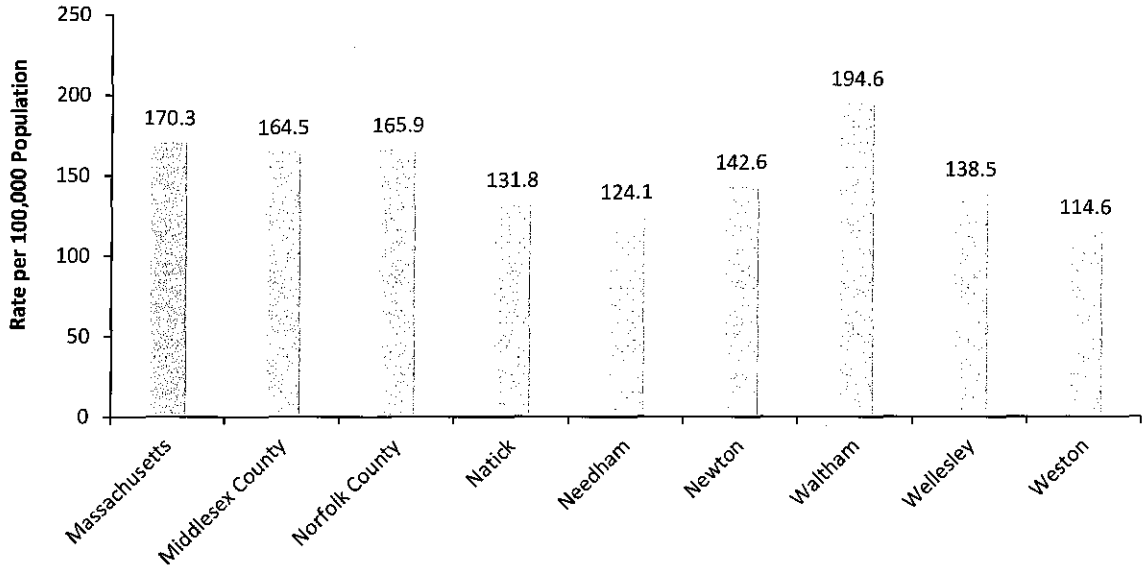
Hospital data from Newton-Wellesley indicate that chest pain is the top diagnosis in the emergency department across all towns included in this assessment. These data can be found in Appendix C.

Cancer

As Table 6 shows, cancer is the leading cause of death across the state and in several cities and towns of the hospital service area. While cancer affects many individuals in the NWH service area, it was infrequently mentioned among assessment participants, except for one participant who speculated about a recent breast cancer cluster in Newton.

Examining the age-adjusted cancer mortality rate in the region demonstrates that residents in Waltham experienced the highest mortality rate due to all cancers (196.4 deaths per 100,000 population), the only city or town in the area that had a higher rate than Massachusetts overall (170.3 deaths per 100,000 population). Residents of the other 5 cities and towns in NWH service area experienced lower cancer mortality rates than the statewide rate. (Figure 29)

Figure 29: All-Site Age-Adjusted Cancer Death Rate per 100,000 Population by State, County, and City/Town, 2010



DATA SOURCE: 2010 Mortality (Vital Records) ICD-10 based, Massachusetts Department of Public Health, MassCHIP

Mental Health

- *"Mental health is connected to so many other issues- lost productivity at work, other physical health issues."* – interview participant

- *"There is pressure to be perfect in every aspect [of life]. Parents are expected to shop organic, attend exercise classes, purchase things. And, people are expected to be stoic about their problems."* – focus group participant

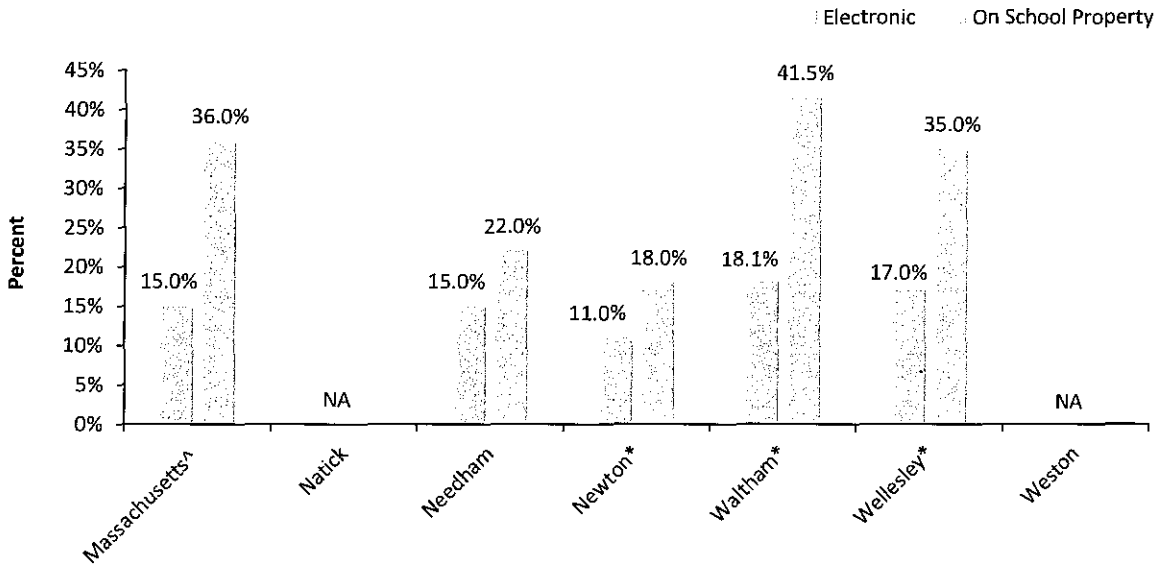
- *"Parents are ashamed and think it's their fault, so makes it hard for them to speak up and look for good care or advocate for their kids."* – focus group participant

Nearly all assessment participants cited mental health as the top community health concern, specifically issues of stress, anxiety, depression, and suicide. Most discussions of mental health focused on the youth population, who face stress and pressure in "academically and athletically competitive environments found in these towns." Focus group participants discussed how school-age youth feel overwhelmed with the pressure to participate in many activities while maintaining high academic achievement and social status. As one youth focus group participant mentioned, "there is an expectation that you always have things together... you don't want to be perceived as falling behind and you're expected to be good at what you do." Youth also mentioned that social media contributed to feelings of stress and anxiety, noting that they felt they had to be constantly connected to and communicating with their peers to maintain their social status.

The following figures illustrate rates of behaviors and outcomes related to mental health among youth in the hospital service area. While youth focus group participants did not cite bullying as an issue,

parents in focus groups as well as several interview participants suggested that bullying is common among young people and has worsened with increasing use of social media. As seen in Figure 30, among middle school students, Newton has a lower rate of electronic bullying compared to surrounding towns and Massachusetts overall. Middle school youth in Waltham reported the highest rates of both electronic and in-school bullying, and these rates exceed those reported among middle school youth statewide.

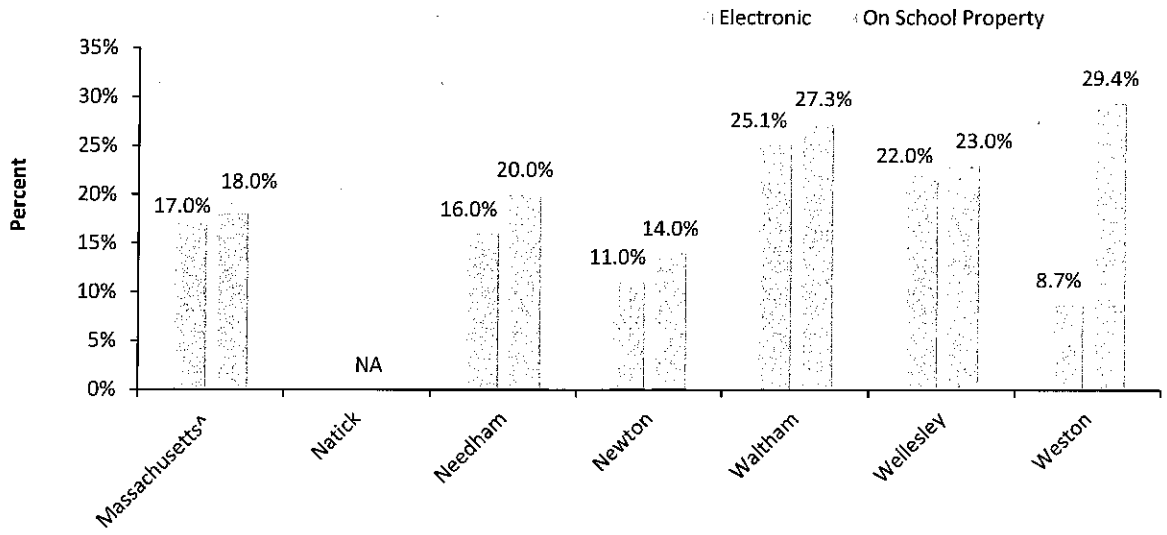
Figure 30: Percent of Students (Grades 6-8) Bullied Electronically and On School Property



DATA SOURCE: Massachusetts Youth Health Survey, 2011; MetroWest Adolescent Health Survey, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012
NOTE: NA indicates data were not available
*Grades 7-8
^2011 data were used when 2012 data were not available

Among high school students, Newton youth reported lower rates of electronic and in-school bullying compared to most of their peers in neighboring towns and statewide. Similar to the experiences reported by middle school students, high school youth in Waltham reported high rates of electronic and in-school bullying. Notably, Weston high school youth reported the lowest rate of electronic bullying but the highest rate of in-school bullying (Figure 31).

Figure 31: Percent of Students (Grades 9-12) Bullied Electronically and On School Property in the Past 12 Months by State and City/Town, 2012

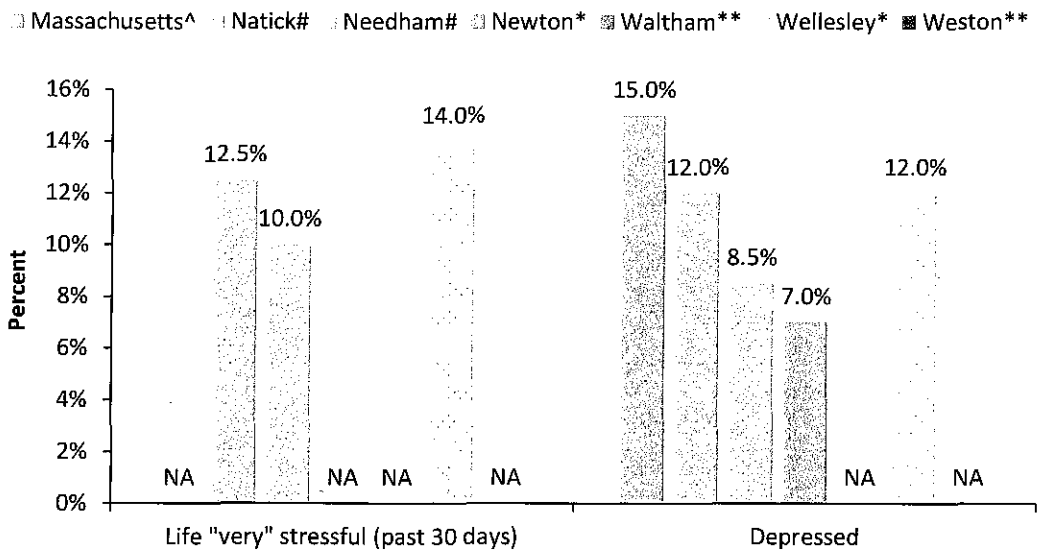


DATA SOURCE: Massachusetts Youth Risk Behavior Survey, 2011; MetroWest Adolescent Health Survey, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012; Weston Youth Risk Behavior Survey, 2011-2012
NOTE: NA indicates data were not available
^2011 data were used when 2012 data were not available

As shown above, bullying is a common experience among area youth. In-school bullying is more prevalent than electronic bullying, particularly among middle school students.

Middle school youth in Natick and Wellesley reported the highest rates of depression among the cities and towns that have data for this indicator. However, these rates are still lower than the state overall (Figure 32). Hospital data for Newton-Wellesley also indicate that depression is a serious community concern. For youth under age 18, 64% of behavioral health diagnoses in the emergency department are related to depressive disorders.

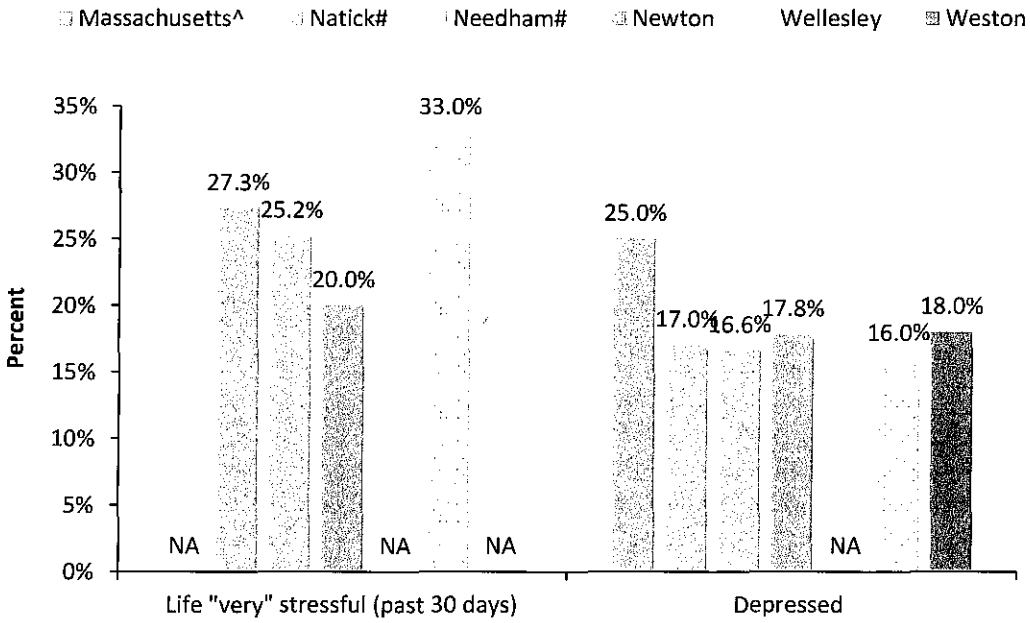
Figure 32: Percent of Students (Grades 6-8) Reporting Stress and Depression Issues by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Health Survey, 2011; MetroWest Adolescent Health Survey, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012
NOTE: NA indicates data were not available
*Grades 7-8
#2010 data
^2011 data
**Data were not available for Waltham or Weston

Reported rates of stress and depression are higher among high school students in the area compared to middle school students. Approximately one-third of high school youth in Wellesley reported that life was very stressful in the past 30 days, which represents the highest rates of stress compared to surrounding towns. However, high school youth across all cities and towns in the hospital service area experienced lower rates of depression than their peers statewide (Figure 33).

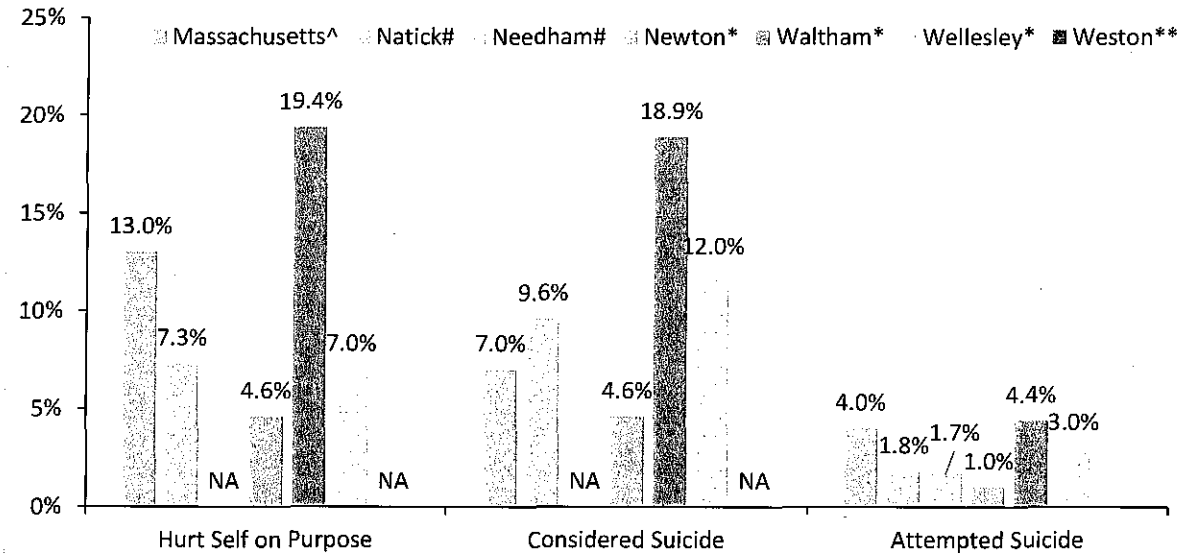
Figure 33: Percent of Students (Grades 9-12) Reporting Stress and Depression by Region and City/Town, 2012



DATA SOURCE: Massachusetts Youth Risk Behavior Survey, 2011; MetroWest Adolescent Health Survey, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012; Weston Youth Risk Behavior Survey, 2011-2012
NOTE: NA indicates data were not available
#2010 data
^2011 data

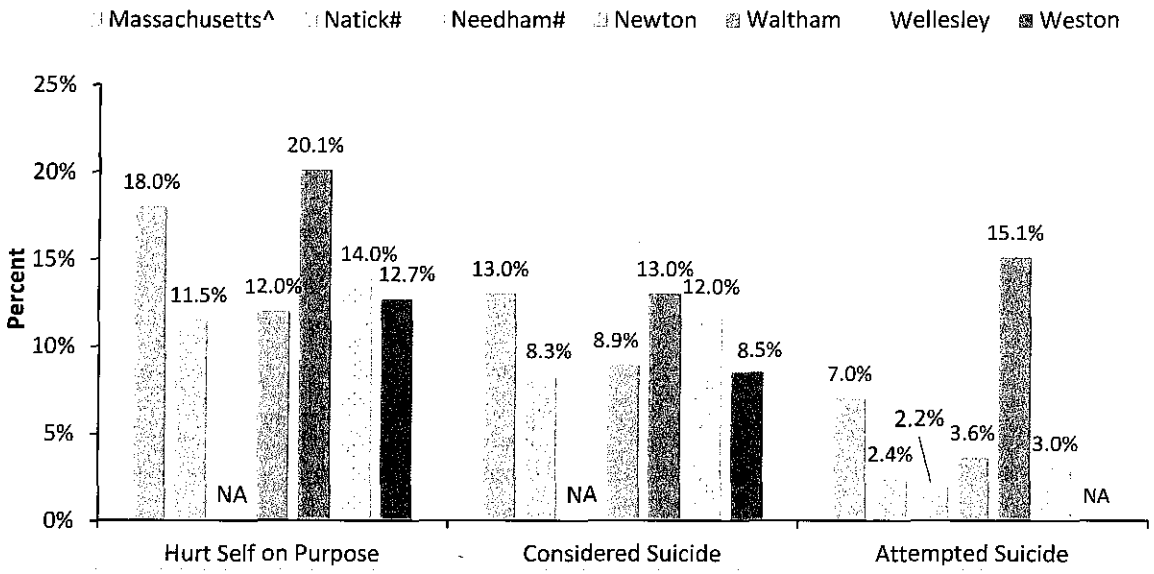
Interview and focus group participants mentioned the recent suicides among high school students in Newton, which were seen as linked to stress and bullying. Figure 34 and Figure 35 indicate that youth in the area generally demonstrate less self-harming behavior as well as suicidal ideation and attempts. Youth in Waltham, however, were more likely to report these behaviors compared to their peers in surrounding towns and statewide. Nearly 1 in 5 middle school youth in Waltham reported hurting themselves on purpose and a similar percentage considered suicide (Figure 34). Waltham high school youth were more likely to report self-harming behavior than their peers. Remarkably, 15% of high school youth in Waltham reported attempting suicide, more than double the statewide rate and approximately five times the rate of other cities and town nearby (Figure 35).

Figure 34: Percent of Students (Grades 6-8) Reporting Self Harm, Suicide Ideation and Attempt, by State and City/Town, 2012



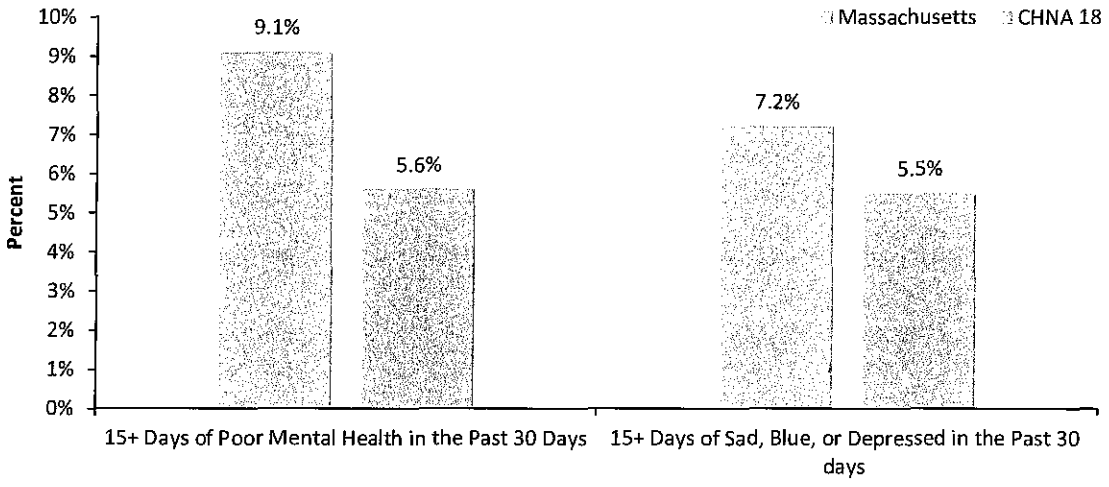
DATA SOURCE: Massachusetts Youth Health Survey, 2011; MetroWest Adolescent Health Survey, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012
NOTE: NA indicates data were not available
*Grades 7-8
#2010 data
^2011 data
**Data were not available for Weston

Figure 35: Percent of Students (Grades 9-12) Reporting Self-Harm, Suicide Ideation and Attempt, by State and City/Town, 2012



DATA SOURCE: Massachusetts Youth Risk Behavior Survey, 2011; MetroWest Adolescent Health Survey, 2012; Newton Youth Risk Behavior Survey, 2012-2013; Waltham Public Schools Youth Risk Behavior Survey, 2012; Weston Youth Risk Behavior Survey, 2011-2012
NOTE: NA indicates data were not available
#2010 data
^2011 data

Figure 36: Percent of Adults Reporting Poor Mental Health by State and CHNA, 2002-2007



DATA SOURCE: Behavioral Risk Factor Surveillance System, Massachusetts Department of Public Health, MassCHIP

To gauge mental health status among adults, the Behavioral Risk Factor Surveillance System survey asks respondents whether they experienced poor mental health, or feelings or sadness and depression for 15 or more days in the past month. These data are illustrated in Figure 36. CHNA 18 residents were less likely to report experiencing poor mental health of sadness and depression (5.6% and 5.5%, respectively) than residents statewide (9.1% and 7.2%, respectively).

Despite low rates of self-reported poor mental health, 2013 hospital data for Newton-Wellesley highlight the behavioral health issues among area adults who use Newton-Wellesley Hospital. For young adults aged 18 to 24 years old, the top two emergency department diagnoses were alcohol abuse and depressive disorders. Similarly, affective psychosis and depressive disorders were the top two inpatient diagnoses among this same age group. Among middle aged adults (45 – 64 years old), behavioral health diagnoses represent 3 of the top 10 inpatient diagnoses, and include depressive disorders, affective psychosis, and schizoaffective disorder (schizophrenia). When examining these hospital data by town, Waltham is unique in having 2 of its top 5 inpatient diagnoses be related to behavioral health- affective psychosis and depressive disorders. For all adults, 78% of behavioral health diagnoses in the emergency department are related to chronic pain, which is associated with depression and can lead to prescription drug misuse.

Qualitative data confirm that mental health issues among adults are a major community concern. Stressors experienced by adults included economic pressures to maintain an expensive lifestyle and social pressure to "maintain status". Assessment participants indicated that in some families they lost their jobs during the recession but they had enough money in the bank that they could survive without work. "Now they cannot find jobs that will pay them as well as their previous positions, and these individuals are depressed and remain unemployed," shared one participant. Interview participants also discussed economic stress for working families trying to afford the high cost of living in the NWH service area. High rents and mortgages, in addition to high costs for basic goods in services, were seen as causing anxiety. One interview participant also noted that families who seek food or fuel assistance experience stress from the shame associated with needing support.

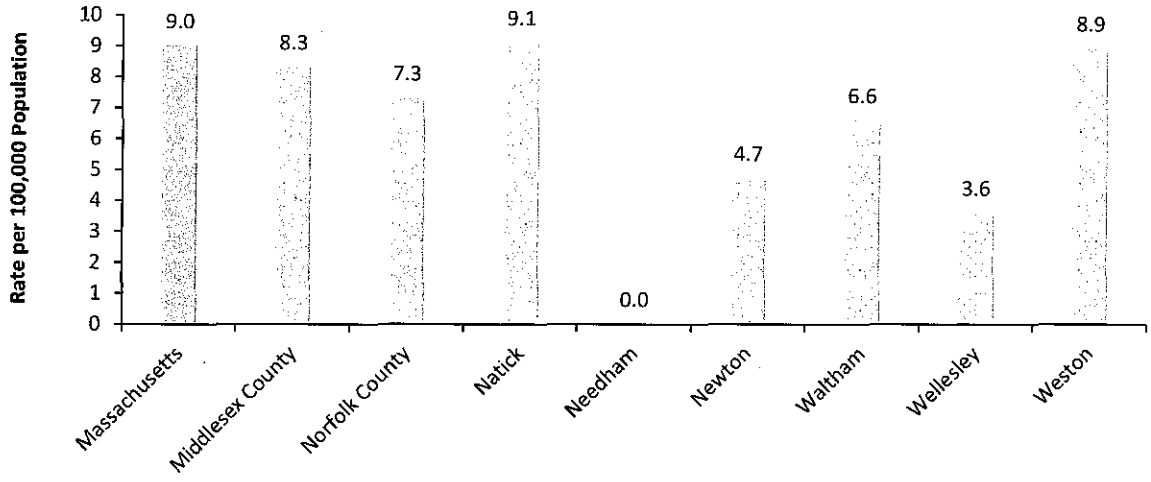
Pressure for adults to maintain social status was also discussed by several participants. As one commented, "There is pressure to be perfect in every aspect [of life]. Parents are expected to shop organic, attend exercise classes, purchase things. And, people are expected to be stoic about their problems." One focus group participant described how she felt as though she did not "fit in educationally" in her community; even though she has a master's degree, she felt undereducated. "People flaunt their credentials here," she commented.

Specific to seniors, the issues of social isolation and hoarding emerged as primary concerns related to mental health. As discussed regarding housing, many seniors in the area are choosing to stay in their homes as they age. Interview participants noted that as seniors become less mobile, both in terms of physical activity and transportation options, they become more socially isolated. Several focus group participants shared existing resources available through health departments and Councils on Aging. However, these groups lamented that they do not have enough to support all the seniors in the area who struggle with social isolation.

Hoarding among seniors is an issue that emerged from conversations with assessment participants. An obsessive compulsive-related disorder, hoarding has increased in the area in recent years, according to focus group and interview participants from local health departments and Councils on Aging. While these organizations each reported seeing approximately ten cases per year, they believe the issue is

more prevalent. Participants commented that while seniors who live in assisted living centers or other facilities have their living spaces inspected, private homes are not necessarily visible to other people. One interview participant shared that in a nearby town an individual died in their home due an extreme case of hoarding, which has brought some attention to the issue. Participants emphasized that each hoarding case is very time-intensive to resolve and often involves many municipal resources, including fire and public health.

Figure 37: Suicide Rate per 100,000 Population by State, County, and City/Town, 2010



DATA SOURCE: Compressed Mortality File, 2010, Centers for Disease Prevention and Control
NOTE: A rate of 0.0 indicates that were no suicide deaths in the data year 2010

Suicide among adults and seniors was not a concern mentioned during the assessment. Quantitative data reinforce that suicide rates in the hospital service area are comparable or lower than the statewide rate. Natick and Weston experienced the highest rates with 9.1 suicides per 100,000 population and 8.9 suicides per 100,000 respectively.

Across all issues of mental health, numerous assessment participants discussed the challenge of stigma. Despite how prevalent mental health issues are in the area, and the recent attention given the three youth suicides in Newton, participants shared concerns that communities in the NWH service area are not as open to community dialogue as would be helpful. One interview participant suggested a reason why the community hesitates to discuss these issues, saying "mental health and substance abuse issues make the community sad and shocked. It creates a feeling that the community failed." This stigma was viewed as a barrier to residents seeking help for themselves and their family members.

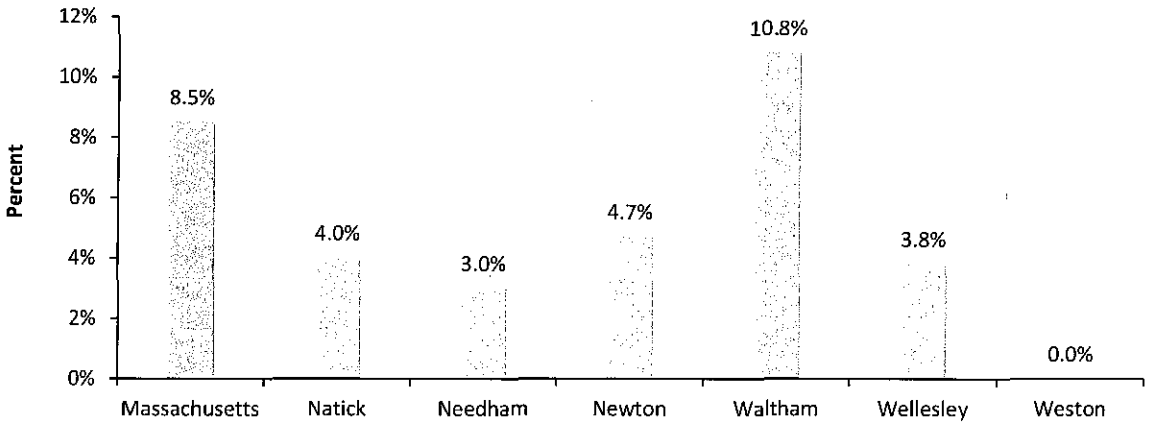
While participants discussed mental health issues across the population, youth, seniors, and immigrant populations were seen as being disproportionately affected by mental health issues in the NWH service area. Several towns (Newton and Waltham) have large immigrant population. As one interview participant described, "Parents are first generation but have worked hard to put their kids on a good path. Adolescent children of immigrant parents are at significantly higher risk than non-immigrant children. Often there is a cultural chasm between children and parents. Lack of connection with peers and adults is major risk factor for suicide, and immigrant children are less likely to talk to parents about symptoms because they would feel ashamed. They also feel less connected to peers or community

resources because they feel 'other' in home and school." Parent focus group participants echoed this last sentiment, emphasizing that it was extremely important for every child to have someone at home or in the school whom they trust and can confide in. Finally, as noted above, the senior population faces several unique challenges regarding mental health, and are harder to reach when they face decreased mobility and increased social isolation.

Reproductive and Maternal Health

Reproductive and maternal health issues did not arise during focus group or interview discussions for this assessment. Quantitative data indicate that approximately 1 in 10 mothers in Waltham reported receiving inadequate or no prenatal care. This is higher than the statewide percentage and more than double that experienced by mothers in nearby cities and towns (Figure 38).

Figure 38: Percent of Mothers with Inadequate or No Prenatal Care by State and City, 2010

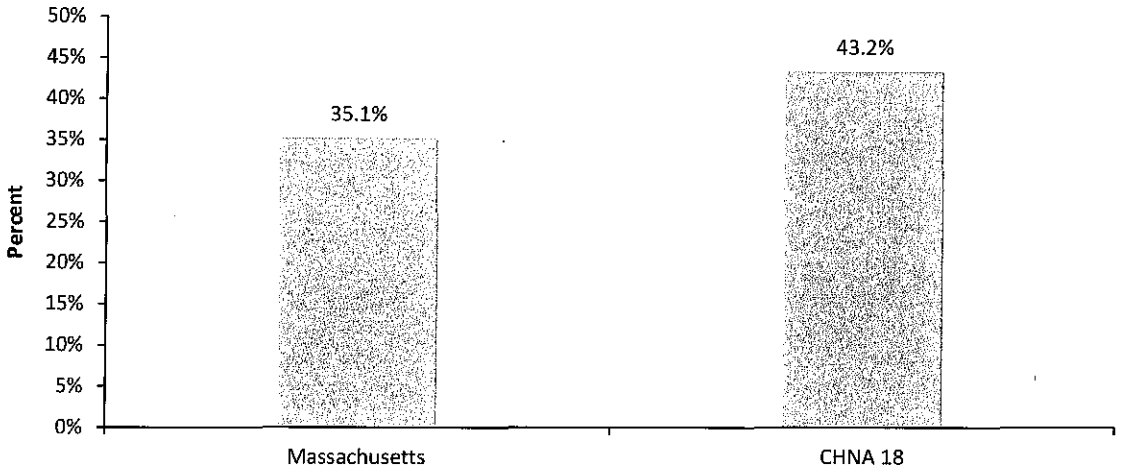


DATA SOURCE: Vital Records 2010, Massachusetts Department of Public Health, MassCHIP
NOTE: NA indicates no data were available

Communicable Disease

Communicable diseases did not emerge as a pressing health concern in the community. However, health department interviewees noted that they offer flu vaccines as one of their primary activities, which are often administered in schools and other community settings. Figure 39 shows that more adults in CHNA 18 reported receiving a flu vaccine than adults statewide.

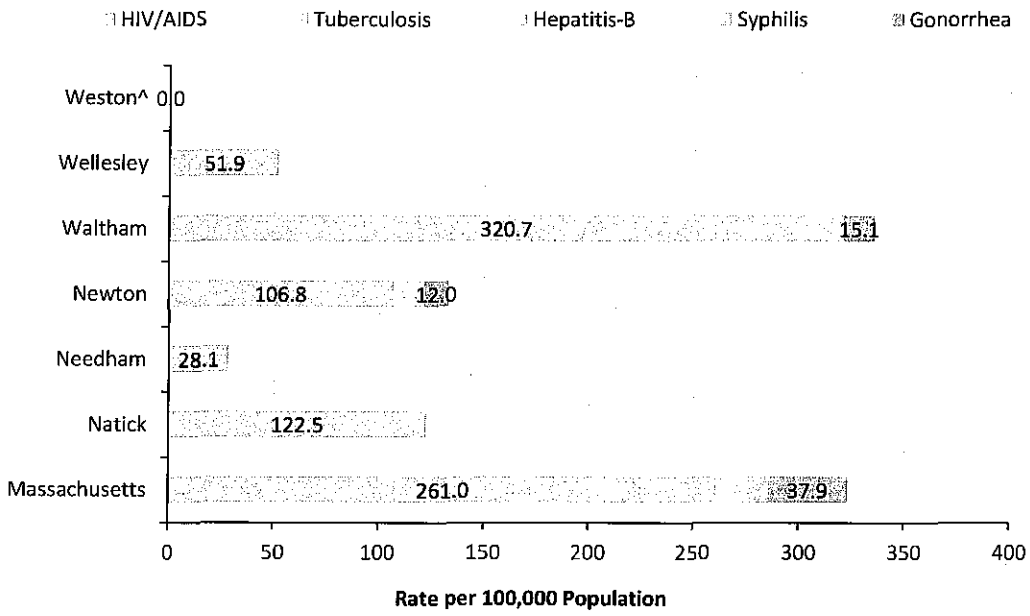
Figure 39: Percent of Adults Who Received a Flu Vaccine by State and CHNA, 2002-2007



DATA SOURCE: Behavioral Risk Factor Surveillance System (2002-2007), Massachusetts Department of Public Health, MassCHIP

Examining the data on other infectious diseases, the hospital service area has lower rates across most conditions. Two notable exceptions are the higher rate of Hepatitis B in Newton compared to the state (14.4 cases per 100,000 population and 11.3 per 100,000 population, respectively) and the higher rate of HIV/AIDS in Waltham compared to the state (320.7 cases per 100,000 population and 261.0 cases per 100,000 population, respectively) (Figure 40).

Figure 40: Infectious Disease Rates per 100,000 Population by State and City/Town, 2009 and 2010*



DATA SOURCE: 2009 AIDS Surveillance Program; 2009 Division of Epidemiology and Immunization; 2009 Division of Tuberculosis Prevention and Control; 2010 Division of Sexually Transmitted Disease Prevention; Massachusetts Department of Public Health, MassCHIP
NOTE: NA indicates data were not available
*Year varies by indicator
^Tuberculosis=0.0; other disease rates not available

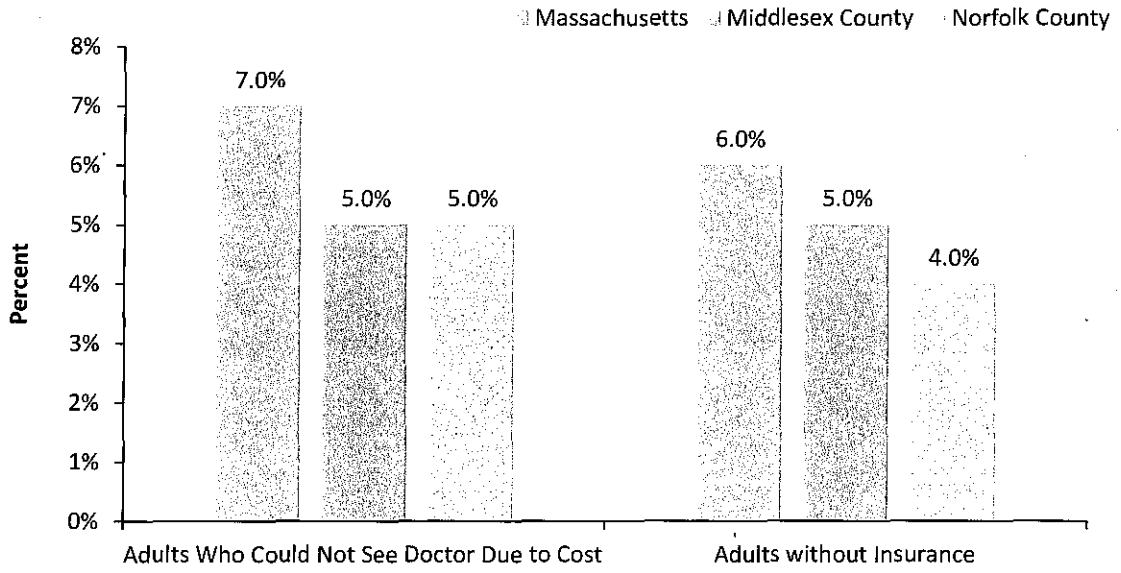
Access to Care

- *"The majority of the community is well-connected, high-achieving, very outspoken in general. There is a small but growing population who need additional assistance through schools, social service providers and health services."* – interview participant

- *"Most families have private insurance which is notoriously bad at paying for mental health coverage."* – interview participant

In terms of access to health care, Figure 41 below illustrates that only 4.5% of adults living in CHNA 18 were unable to see a doctor due to cost as compared to 7.7% of adults in the state overall. Adults in CHNA 18 were also less like to be uninsured compared to adults living in Massachusetts (3.2% v. 7.6%).

Figure 41: Access to Care by State and CHNA, 2006-2012



DATA SOURCE: Behavioral Risk Factor Surveillance System, as cited by County Health Rankings 2006-2012

Despite the area having a smaller percentage of uninsured individuals and a smaller percentage of residents for whom cost was a barrier for seeing a physician and although interview and focus group participants mentioned numerous health care and related services in their communities, they were also quick to discuss a multitude of barriers to these services.

Cost and Insurance

Although the cities/towns in the NWH service area generally tend to have more economic resources as compared to the rest of the state, the majority of participants mentioned the high cost of health care as a challenge to accessing services. In particular, interviewees and focus group participants discussed how the added costs of co-pays and deductibles can be a burden. They voiced particular concern however, for certain segments of their communities such as seniors living on fixed incomes and lower income families trying to cover out of pocket health care expenses.

Many assessment participants discussed the challenges of dealing with insurance whether it be private or public. For those with employer-based insurance, focus group members talked about how the insurance company may present challenges to finding a physician, as they will only cover services provided by specific providers and within particular networks. One participant discussed the obstacles her family faced trying to find area physicians to accept her health insurance that was provided by an out of state employer. Another talked about the many complications of changing jobs and therefore changing employer-based insurance including completing complicated paperwork, locating in-network providers with open panels and making the transitions to new co-pay and coverage policies.

Several participants talked about the challenges they themselves or their clients have had trying to apply for and then navigate the complexities of MassHealth and Medicare. Participants discussed how there is a lot of web-based information about MassHealth and Medicare but they worried that community elders who may not be as savvy using computers as their younger counterparts may not be able to access information using this medium or they may find incorrect information.

Navigating the Health Care System

Many assessment participants talked about how the health care system is challenging to navigate. They discussed how it was not only difficult to get appointments with providers in the first place but then it was difficult to communicate directly with providers. Participants had concerns about the continuity of their care and the lack of care coordination and communication between providers. In particular, many social service providers were concerned with discharge planning at the hospitals and cited many cases where they had clients released into less than optimal home situations without any kind of support. Several participants talked about having volunteers or professional patient navigators available for patients to help them manage their care. Additionally, one focus group member suggested that the electronic medical record system needs to be more streamlined so that patients can have better continuity of care within and across health care systems. Other participants discussed how it is particularly difficult for people who speak other languages and who are from other cultures to navigate our health care system. They stressed the importance of culturally competent care.

Competing Priorities

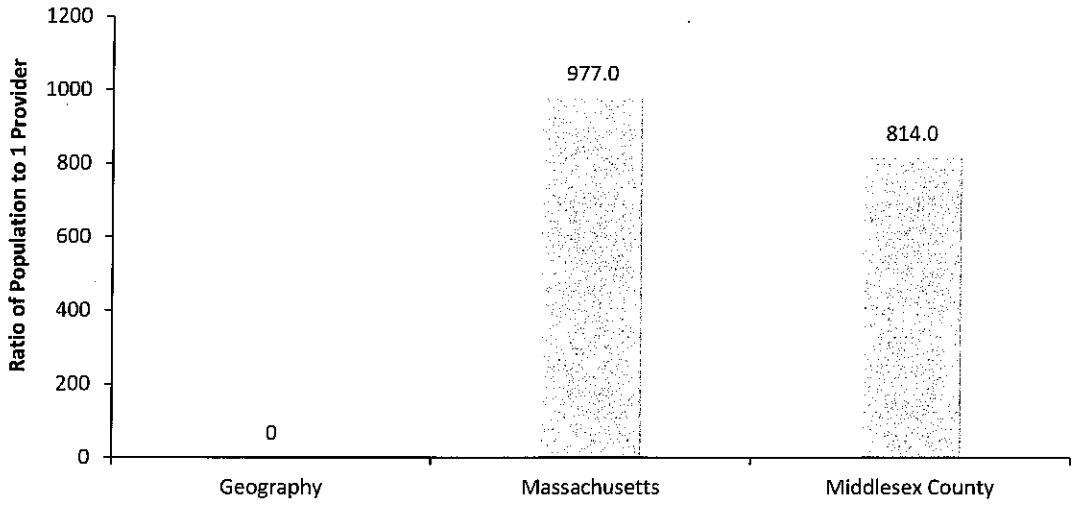
Another barrier to health care that was discussed was all of the competing priorities many individuals have to attending health care appointments. Parents discussed how it can be challenging for working parents to make trips to the doctor's office with their children especially when the practice does not offer evening or weekend hours. Some assessment participants noted that many people have more immediate needs such as housing and accessing food that may take priority over attending health care appointments.

Physician Access

According to Figure 42, the ratio of the population to primary care physicians in Middlesex and Norfolk counties is lower than the state's ratio overall and many participants talked about how it was difficult to access a primary care providers. Some said it was challenging to find providers accepting new patients

and others talked about long waits for appointments. Other participants had also experienced difficulties accessing specialists because of long wait times for appointments.

Figure 42: Ratio of Population to Primary Care Physicians by State and County, 2011

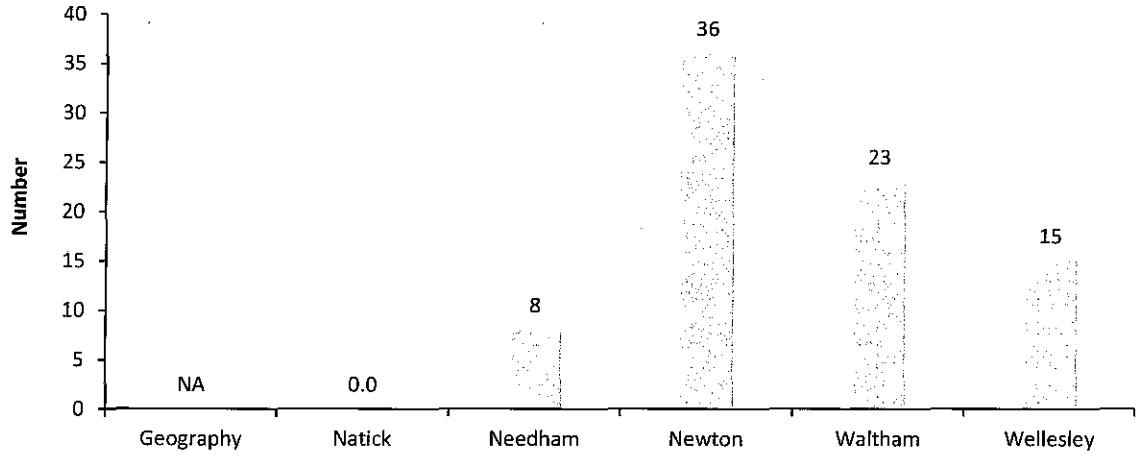


DATA SOURCE: United States Department of Health and Human Services, Area Health Resource File, as cited by County Health Rankings

Figure 43 shows the number of registered pediatricians for each city/town in the NWH service area. Focus group participants and interviewees had mixed impressions of challenges in assessing pediatricians. Several service providers who were interviewed felt there might be a challenge in accessing pediatricians in Waltham as a notable number of children have been seen in the emergency department for issues that could be addressed at a pediatrician's office visit. One interviewee talked about how many families take their children to Joseph M. Smith Community Health Center because they will enroll them in MassHealth and because they speak Spanish. The health center does, though, have months-long waiting lists. Assessment participants from Waltham, however, did not express challenges in accessing their children's pediatricians. Although they were Waltham residents they all had pediatricians outside of Waltham in surrounding towns because their insurance dictated which physicians they or because of loyalty to providers with whom they had a relationship prior to moving to Waltham. Parents attributed improved access to their children's pediatricians with evening and weekend office hours or the ability to go to Doctor's Express. As one parent noted, these are nice options because "your kids don't always get sick between 8 and 5, Monday to Friday."

At the other side of the age spectrum, those working older residents raised concern that there is complete lack of geriatric doctors in their communities to meet the complex needs of older patients. They also discussed how physicians no longer make home visits and that many elders could benefit from this service.

Figure 43: Number of Registered Pediatricians by City/Town, 2009



DATA SOURCE: Physicians Registered and Working in Massachusetts, MassCHIP

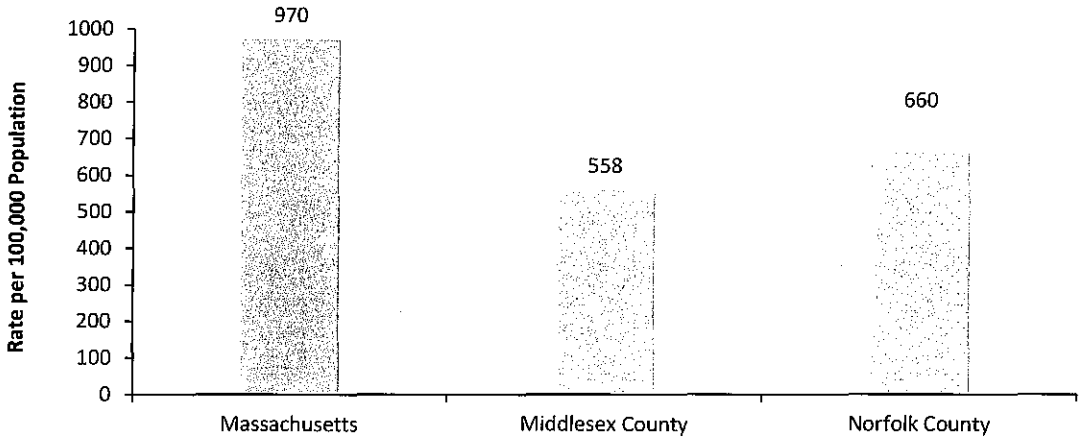
Special Services for Children

Parent participants in the assessment process discussed at the great length the challenges they faced getting ancillary services for their children. In particular, a few talked about how difficult it was to get occupational therapy for their children on the autism spectrum speech or language therapy due to long wait times or insurance not covering these services. Focus group members discussed how it can take months to get the neuropsychiatric testing that is necessary for the development of individualized education programs or plans (IEPs). Many parents end up electing to pay out of pocket for these services either because their health insurance won't cover it or because the wait is too long for insurance-approved providers. Additionally, schools do not target sensory issues and are not required to pay for occupational therapy that would address fine occupational therapy issues.

Behavioral Health

As Figure 44 depicts, Middlesex and Norfolk counties have fewer mental health providers per 100,000 population compared to the Massachusetts overall (558 and 660 v. 970).

Figure 44: Ratio of Population to Mental Health Providers by State and County, 2011-2012



DATA SOURCE: United States Department of Health and Human Services, HRSA Area Resource File, as cited by County Health Rankings

Assessment participants talked a lot about barriers to accessing behavioral health services in their communities. They discussed how stigma and shame prevent individuals who are facing mental health and substance abuse challenges from reaching out for appropriate services. Even when individuals try to access behavioral services there they face obstacles such as insurance complexities and clinician shortages. Interview participants discussed how insurance typically does not sufficiently cover necessary behavioral health services such as family-focused treatment because they have restrictions on what can be covered and they often require burdensome administrative requirements for reimbursement. Parent focus group participants discussed the need for more mental health providers such as psychologists and social workers who specialize in working with children and adolescents.

KEY THEMES

Through a review of the secondary social, economic, and epidemiological data in the NWH service area as well as NWH data and discussions with community residents and leaders, this assessment report provides an overview of the social and economic environment of the NWH service area, and the health conditions and behaviors that most affect the population. Several overarching themes emerged from this synthesis:

Nearly all interviewees and focus group members discussed the high cost of living including housing costs among the NWH service area. This high cost of living has been responsible for families leaving their communities for more affordable alternatives and has also dictated who can move into these communities.

The majority of assessment participants discussed how the lack of reliable local public transportation is a serious barrier for certain segments of the population including youth, the elderly and those with behavioral health issues to accessing health care services.

Although assessment participants offered a great amount of insight into the barriers to accessing services and health care services in particular, they also discussed that their communities were rich in

resources and services. Almost all participants noted how the good school systems and wealth of community services were the reasons their communities were highly sought after.

While the other five cities and towns in the NWH service area tend to have similar demographic profiles, Waltham looks markedly different. On the one hand, Waltham has a more affordable cost of living and has more diversity, however, Waltham has disproportionately worse health outcomes as compared to its neighboring communities.

Behavioral health is viewed as a critical and growing issue with a need for more resources and collective action to make change. Assessment participants view mental health as the highest priority issue in the community. Stress, anxiety, and depression were mentioned as particularly prevalent, and these issues were often described as leading to substance use as a means of self-medication. Economic stress on adults and academic and social pressures on youth have taxed individuals and the mental health system. Access to and use of specialty providers and services is limited by multiple factors including stigma, health insurance, and fragmentation of services.

Participants envision a healthier community that is built on collaborative efforts within and across communities. A cohesive community and numerous resources along with recent collaborations regarding suicide have demonstrated the power of community engagement and collaboration. Community members as well as health and human service providers offered many suggestions for how to support the creation and enhancement of community environments for optimal health and well-being.

Community Suggestions for Future Programs and Services

Although participants identified a wealth of resources in the community, they reported several gaps in programs and services and made recommendations to fill these. When thinking about the future, assessment participants recommended several key areas for action, and emphasized the need for collaborative and sustainable solutions.

Transportation

Focus group and interview participants indicated that providing transportation for medical services was paramount, especially for seniors who are not able to drive. One interview participant suggested that "Newton-Wellesley Hospital has an opportunity to help with transportation to health care services. Could there be a model where NWH would be able to transport people and have it be reimbursable?" One person shared that the Council on Aging can arrange transportation during the day so the hospital should start offering more programs during that time, which would also appeal to people who do not like to drive at night. Another recommendation was a transportation service from housing developments or central locations in towns to the hospital. Many of the NCDF residents use The Ride through MBTA, which takes a long time, and stops residents from going to the doctor. So they'd like another option, especially if there are multiple people from a housing development going to the doctors' offices at same time. The Senior Shuttle in Boston would be a good example of a program to be replicated.

Community Outreach and Partnership

A repeated theme raised by participants was the importance of increased outreach to the community by educating and communicating with the public and partnering with community organizations. One interview participant suggested that the hospital "take a leadership role in community health," further suggesting that the hospital should "have more visibility and outreach at community events." Focus

group and interview participants noted that there have been some collaborations between the hospital and community-based providers of other health services, they expressed that there should be increased collaboration between the hospital and other community partners (such as the schools and health departments/boards of health) concerning health care, awareness, and education.

Communication

An overarching theme was the importance of effective communication between the hospital and the community as well as between different organizations within the community. One specific issue noted was the challenge of maintaining current databases or lists of community resources so that both providers and consumers of services have the most up-to-date information on available resources in the community. Assessment participants suggested that more funding and human resources are needed to continually update these resources, and recommended that there be one centralized place where people can find information on existing resources. Also related to communication, participants indicated that there were opportunities for improvement concerning hospital policies, partnerships with community organizations, and communication with the larger community through flyers, newsletters, and social media. Participants highlighted the need for improved communication between emergency room physicians and public health professionals in the community. For example, one interview participant shared, "If the police department sends someone 16 times to the ED, is there some way for the health department to know? The hospital has a new program for high utilizers in ED, and every once in a while the health department will get a call from someone on that team, but communication is fragmented."

Culturally Competent Services

Similar to outreach and partnership, cultural competency was viewed as a critical aspect of health promotion in the community and quality clinical care in the hospital. As one participant stated, "we as health care providers need to be able to meet the needs of all populations, regardless of where they come from. We need to meet patients where they're at." Participants spoke of cultural competency in the context of not only providing services in appropriate languages, but also of understanding people of different life stages and physical and mental abilities. A suggested approach included providing training for frontline and ED staff in person-centered care as well as the provision of services in a variety of languages. As one interview participant summarized, "the hospital should be more proactive with people who do not speak English as their first language. They need to provide access to language interpretation services with the care they provide as well as share those services with the local community in general."

Care Coordination

To address challenges that participants discussed related to navigating the health care system during and after care, several recommendations were made. Various interview and focus group participants suggested clustering of clinical services so that patients can be in one location for their health care. The suggestion was also made to have a patient navigator or care coordinator to help patients and families find and access health resources that exist not only through the hospital but also in community settings. Finally, discharge planning was an issue that arose in several conversations and prompted a recommendation to have a case manager to support patients' transitions back into the community. Participants were particularly interested in this role as someone who could help elderly patients and other vulnerable populations who might be returning to precarious living situations.

Leadership in Behavioral Health

While schools and other institutions in the NWH service area have recently adopted new policies and programs to address mental health, assessment participants expressed the desire for additional resources and support from the hospital and community to address these broad issues. Participants viewed the hospital's role both as a leader and as a partner. Recognizing the interconnectedness of substance abuse and mental health, one participant recommended that the hospital hire an addiction specialist who could holistically address needs of patients experiencing both issues. Participants mentioned mental health coalitions that exist in several communities in the NWH service area, and recommended that the hospital have a seat at these tables to facilitate communication between both sides.

Given the stigma and shame surrounding behavioral health issues, participants urged more public education and dialogue around mental health and substance abuse. Youth and adults were interested in seeing the community be open about discussing these issues and be proactive about finding collaborative solutions. Additionally, many health departments and social service agencies in the area have educational resources and programming as well as counseling that focus on behavioral health issues. Participants suggested that these resources could be built upon and combined with hospital and school-based behavioral health initiatives to have greater impact in the community.

Overall, participants called for the hospital to play a larger role in addressing behavioral health in its service area. As one interview participant summarized, "health care costs for physical health issues decrease when behavioral health issues are addressed," suggesting that it is in the financial best interest of the hospital to address this important community health issue.

Focus on Prevention

Participants envisioned a greater emphasis on prevention in the future. As one interview participant stated, "we don't focus enough on a prevention and wellness model. Our focus needs to be on keeping people healthy." Another person concurred, stating, "we have to swim upstream and do primary prevention work. It's not well funded, but it's so necessary." Included in the desire to focus on prevention was the need for health care providers and the community to think about the underlying causes of the most pressing health concerns. Participants suggested that the hospital collect additional data on behavioral health in particular, and "dig deeper as to why people are having these issues." Hospital and community efforts could then focus on preventing associated risk factors.

Participants offered a myriad of other programmatic suggestions, including: offering free stress management workshops, providing language interpretation services, holding parenting groups, and partnering with schools to offer curricula on youth resilience.

APPENDIX A: Community Engagement Participants

Advisory Committee

1. Judge Gregory Flynn (Waltham), Overseer
2. Marie DeSisto, Waltham Public Schools
3. Josephine McNeil (Can Do) (Non-profit housing) Newton
4. Margaret Hannah (MA School of Professional Psychology) Newton/Waltham
5. Jo White, Springwell
6. Shep Cohen, Wellesley Board of Health
7. John P. Zuppe,
8. David Fleishman, Supt of Schools, City of Newton
9. Judy Fallows, Ex. Dir. Healthy Waltham
10. Connie Braceland, Watertown Savings
11. Paul Hattis, Tufts School of Public Health and Community Medicine
12. Jhana Wallace, CHNA 18
13. Anne Steer , Overseer

Key Informant Interviews

1. Carol Read, Needham Health Dept., Substance Abuse Prevention & Education Coordinator
2. Marie De Sisto, Waltham Public Schools
3. Cheryl Lefman and Leonard Izzo, Director, Wellesley Health Department
4. Jim White, Natick Health Department
5. Linda Walsh and Teresa Kett, Newton Health and Human Services Department
6. Laurie Hutcheson, Riverside Community Care
7. Jeanne Strickland and Marissa Wheeler, Newton Community Development Foundation,
8. Erin C. Miller, Newton-Wellesley Hospital Domestic Violence/Sexual Assault Coordinator
9. Dr. Mary Christine Bailey, NWH Assoc. Chief Pediatric Emergency Medicine
10. Dr. Susan Swick, NWH Chief of Adolescent Psychiatry
11. Judi Lipton, Health Care for the Homeless, VA Boston Health care System

Focus Groups

1. Councils on Aging Directors
2. Newton High School Youth
3. Waltham parents of elementary school-aged children
4. Newton parents of high school students
5. Newton residents living in affordable housing

APPENDIX B: Discussion Guides

Newton-Wellesley Hospital Community Health Needs Assessment
General Focus Group Guide – Community Residents
Current version: July 28, 2014

Goals of the focus group:
- To determine perceptions of the health strengths and needs of the community
- To explore how these issues can be addressed in the future
- To identify the gaps, challenges, and opportunities for addressing community needs more effectively

[NOTE: QUESTIONS IN THE FOCUS GROUP GUIDE ARE INTENDED TO SERVE AS A GUIDE, NOT A SCRIPT.]

I. BACKGROUND (5 minutes)

- Hi, my name is _____ and I am with Health Resources in Action, a non-profit health organization. Thank you for taking the time to speak with me today.

- We're going to be having a focus group today. Has anyone here been part of a focus group before? You are here because we want to hear your opinions. I want everyone to know there are no right or wrong answers during our discussion. We want to know your opinions, and those opinions might differ. This is fine. Please feel free to share your opinions, both positive and negative.

- Newton-Wellesley Hospital is undertaking a community health needs assessment to gain a greater understanding of the health of residents and how health needs are currently being addressed. As part of this process, we are having discussions like these around the community with a wide range of people - community members, government officials, health care and social service providers, and staff from a range of community organizations. We are interested in hearing people's feedback on the strengths and needs of the community and suggestions for the future.

- We will be conducting several of these discussion groups around the area in Natick, Needham, Newton, Waltham, Wellesley, and Weston. After all of the discussions are done, we will be writing a summary report of the general opinions that have come up. In that report, we might provide some general information on what we discussed today, but we will not include any names or identifying information. Your responses will be strictly confidential. In the report, nothing you say here will be connected to your name.

- Lastly, please turn off your cell phones, beepers, or pagers or at least put them on vibrate mode. The group will last only about 80-90 minutes. If you need to go to the restroom during the discussion, please feel free to leave, but we'd appreciate it if you would go one at a time.

- Any questions before we begin our introductions and discussion?

II. INTRODUCTIONS (5 minutes)

Now, first let's spend a little time getting to know one another. Let's go around the table and introduce ourselves. Please tell me: 1) Your first name; 2) how long you've lived in (insert town); and 3) something

about yourself you'd like to share– such as how many children you have or what activities you like to do in your spare time. [AFTER ALL PARTICIPANTS INTRODUCE THEMSELVES, MODERATOR TO ANSWER INTRO QUESTIONS]

III. COMMUNITY ISSUES (15 minutes)

1. Today, we're going to be talking a lot about the community that you live in. How would you describe your community?

2. If someone was thinking about moving into your community, what would you say are some of its biggest strengths or the most positive things about it? [PROBE ON COMMUNITY AND ORGANIZATIONAL ASSETS/STRENGTHS]

    a. What are some of the biggest problems or concerns in your community? [PROBE ON ISSUES IF NEEDED – HEALTH, ECONOMIC, SOCIAL, SAFETY, ETC.]

3. What do you think are the most pressing *health* concerns in your community?

    a. How have these health issues affected your community? In what way?

    b. What specific population groups are most at-risk for these issues?

IV. PERCEPTIONS OF PUBLIC HEALTH/PREVENTION SERVICES AND HEALTH CARE (25 minutes)

4. Let's talk about a few of the health issues you mentioned. [SELECT TOP HEALTH CONCERNS] What programs, services, and policies are you aware of in the community that currently focus on these health issues?

    a. What's missing? What programs, services, or policies are currently not available that you think should be?

5. What do you think the community should do to address these issues? [PROBE SPECIFICALLY ON WHAT THAT WOULD LOOK LIKE AND WHO WOULD BE INVOLVED TO MAKE THAT HAPPEN]

6. I'd like to ask specifically about health care in your community. If you or your family had a general health issue that needed a doctor's care or prescription medicine – such as the flu or a child's ear infection– where would you go for this type of health care? [PROBE IF THEY GO TO PRIVATE PRACTICE, ED, ETC]

    a. What do you think of the health care services in your community? [PROBE ON POSITIVE AND NEGATIVE ASPECTS OF THE HEALTH CARE SERVICES]

    b. Have you or someone close to you ever experienced any challenges in trying to get health care? What specifically? [PROBE FOR BARRIERS: INSURANCE ISSUES, LANGUAGE BARRIERS, LACK OF TRANSPORTION, ETC.]

        i. [NAME BARRIER] was mentioned as something that made it difficult to get health care. What do you think would help so that people don't experience the

same type of problem that you did in getting health care? What would be needed so that this doesn't happen again? [REPEAT FOR OTHER BARRIERS]

V. VISION OF COMMUNITY AND PROGRAM/SERVICE ENVIRONMENT (10 minutes)

7. I'd like you to think ahead about the future of your community. When you think about the community 3-5 years from now, what would you like to see? What is your vision for the future?

    a. What is your vision specifically related to people's health in the community?

        i. What do you think needs to happen in the community to make this vision a reality?

        ii. Who should be involved in this effort?

VI. PERCEPTIONS OF NEWTON-WELLESLEY HOSPITAL COMMUNITY WORK (20 minutes)

8. What have you heard about Newton-Wellesley Hospital and its work in the community? Are you aware of any of their community outreach activities/programming? [PROBE FOR SPECIFICS]

    a. What is your perception of Newton-Wellesley Hospital and its community outreach activities/programming (if known)?

        i. [PROBE] What do you see as its strengths?

        ii. [PROBE] What do you see as its challenges/limitations?

    b. What do you consider Newton-Wellesley Hospital's role to be in the community?

    c. To what extent do you think Newton-Wellesley Hospital is currently meeting the health concerns of the community?

9. How do you see Newton-Wellesley Hospital becoming more engaged in the community to address these concerns?

    a. Are there specific health issues in the community in which the Hospital should take a lead in addressing? Which ones?

VII. CLOSING

Thank you so much for your time. That's it for my questions. Is there anything else that you would like to mention that we didn't discuss today? Thank you again. Have a good afternoon. [TALK ABOUT NEXT STEPS OF THE PROCESS, SPECIFICALLY HOW PARTICIPANTS CAN GET INVOLVED FURTHER OR RECEIVE THE FINAL REPORT OR SUMMARY OF THE REPORT.]

Newton-Wellesley Hospital Community Health Needs Assessment
Key Informant Interview Guide
Current Version: September 15, 2014

Goals of the key informant interview:
- To determine perceptions of the health strengths and needs of the community
- To explore how these issues can be addressed in the future
- To identify the gaps, challenges, and opportunities for addressing community needs more effectively

[NOTE: THE QUESTIONS IN THE INTERVIEW GUIDE ARE INTENDED TO SERVE AS A GUIDE, NOT A SCRIPT.]

I. BACKGROUND (5 minutes)

- Hello. My name is _____, and I am with Health Resources in Action, a non-profit public health organization in Boston. Thank you for speaking with me today.

- Newton-Wellesley Hospital is undertaking a community health needs assessment to gain a greater understanding of the health of residents and how health needs are currently being addressed. As part of this process, we are having discussions like these around the community with a wide range of people - community members, government officials, health care and social service providers, and staff from a range of community organizations. We are interested in hearing people's feedback on the strengths and needs of the community and suggestions for the future.

- We will be conducting several focus groups and interviews around the area in Natick, Needham, Newton, Waltham, Wellesley, and Weston. After all of the discussions are done, we will be writing a summary report of the general opinions that have come up. In that report, we might provide some general information on what we discuss today, but we will not include any names or identifying information. Your responses will be strictly confidential. In the report, nothing you say here will be connected to your name.

- Our interview will last about 45-60 minutes [EXPECTED RANGE FROM 30-60 MINUTES, DEPENDING ON INTERVIEWEE].

- Any questions before we begin our discussion?

II. THEIR AGENCY/ORGANIZATION (5 minutes)

2. Can you tell me a bit about your organization/agency? [TAILOR PROBES DEPENDING ON AGENCY]
   -

   a. [PROBE ON ORGANIZATION: What is your organization's mission/programs/services? What communities do you work in? Who are the main clients/audiences for your programs?]

      i. What are some of the biggest challenges your organization faces in providing these programs/services in the community?

b. Do you currently partner with any other organizations or institutions in any of your programs/services?

III. COMMUNITY ISSUES (20 minutes)

3. How would you describe the community which your organization serves?

   a. What do you consider to be the community's strongest assets/strengths?

      i. What are some of its biggest concerns/issues in general? What challenges do residents face day-to-day?

   b. What do you think are the most pressing health concerns in the community? Why? [PROBE ON SPECIFICS]

      i. How have these health issues affected your community? In what way?

      ii. Who do you consider to be the populations in the community most vulnerable or at risk for these conditions/issues?

   c. From your experience, what are residents' biggest challenges to addressing these health issues?

      i. [PROBE ON RANGE OF CHALLENGES: E.g., Various barriers to accessing to medical and/or preventive care and services, socioeconomic factors, lack of community resources, social/community norms, etc.]

IV. PERCEPTIONS OF HEALTH CARE AND PUBLIC HEALTH/PREVENTION SERVICES (15 minutes)

4. What do you see as the strengths of the health care services in your community? What do you see as its limitations?

   a. What challenges do residents in your community face in accessing health care?

      i. What do you think needs to happen in your community to help residents overcome or address these challenges?

5. In general, what do you see as the overall strengths and limitations related to the public health/prevention-related programs, services, or policies in your community?

   a. What challenges do residents in your community face in accessing prevention services or programs?

      i. What do you think needs to happen in your community to help residents overcome or address these challenges?

6. Let's talk about a few of the health issues you mentioned previously. [SELECT TOP HEALTH CONCERNS] What programs, services, or policies are you aware of in the community that currently focus on these health issues? [PROBE FOR SPECIFICS]

a. In your opinion, how effective have these programs, services, or policies been at addressing these issues? Why?

b. Where are the gaps? What program, services, or policies are currently not available that you think should be?

c. What do you think needs to be done to address these issues?

i. Do you see opportunities currently out there that can be seized upon to address these issues? For example, are there some "low hanging fruit" – current collaborations or initiatives that can be strengthened or expanded?

V. VISION OF COMMUNITY AND PROGRAM/SERVICE ENVIRONMENT (10 minutes)

7. I'd like you to think ahead about the future of your community. When you think about the community 3-5 years from now, what would you like to see? What is your vision for the future?

a. What is your vision specifically related to people's health in the community?

i. What do you think needs to happen in the community to make this vision a reality?

ii. Who should be involved in this effort?

VI. PERCEPTIONS OF NEWTON-WELLESLEY HOSPITAL COMMUNITY WORK

8. What have you heard about Newton-Wellesley Hospital and its work in the community? Are you aware of any of their community outreach activities/programming? [PROBE FOR SPECIFICS]

a. What is your perception of Newton-Wellesley Hospital and its community outreach activities/programming (if known)?

i. [PROBE] What do you see as its strengths?

ii. [PROBE] What do you see as its challenges/limitations?

b. What do you consider Newton-Wellesley Hospital's role to be in the community?

c. To what extent do you think Newton-Wellesley Hospital is currently meeting the health concerns of the community?

9. How do you see Newton-Wellesley Hospital becoming more engaged in the community to address these concerns?

a. Are there specific health issues in the community in which the Hospital should take a lead in addressing? Which ones?

b. Are there any specific organizations in the community in which you see as being a good fit for partnership with Newton-Wellesley Hospital to address these health concerns?

i. With whom? Around which programs or issues?

VII. CLOSING (5 minutes)

Thank you so much for your time. That's it for my questions. Is there anything else that you would like to mention that we didn't discuss today? Thank you again. Have a good afternoon. [TALK ABOUT NEXT STEPS OF THE PROCESS, SPECIFICALLY HOW PARTICIPANTS CAN GET INVOLVED FURTHER OR RECEIVE THE FINAL REPORT OR SUMMARY OF THE REPORT.]

APPENDIX C: Newton-Wellesley Hospital Data

Top 10 Emergency Department Diagnoses by Town, 2013

Natick	N	%	Needham	N	%	Newton	N	%
CHEST PAIN NEC	53	15%	CHEST PAIN NEC	69	16%	CHEST PAIN NEC	252	15%
FEVER, UNSPECIFIED	41	12%	HEAD INJURY UPSPECIFIED	60	14%	OPEN WND FINGER/S COMP	237	14%
URIN TRACT INFECTION NOS	41	12%	OPEN WOUND OF FOREHEAD	41	9%	HEAD INJURY UPSPECIFIED	204	12%
HEAD INJURY UPSPECIFIED	39	11%	URIN TRACT INFECTION NOS	41	9%	URIN TRACT INFECTION NOS	195	12%
ABDOMINAL PAIN-SITE NOS	32	9%	DEPRESSIVE DISORDER NEC	41	9%	SYNCOPE AND COLLAPSE	179	11%
HEADACHE	28	8%	OPEN WND FINGER/S COMP	40	9%	PNEUMONIA, ORGANISM NOS	133	8%
PNEUMONIA, ORGANISM NOS	28	8%	FEVER, UNSPECIFIED	39	9%	SPRAIN OF ANKLE NOS	130	8%
OPEN WND FINGER/S COMP	27	8%	SYNCOPE AND COLLAPSE	38	9%	OPEN WOUND OF FOREHEAD	119	7%
PAIN IN LIMB	27	8%	HEADACHE	37	8%	PAIN IN LIMB	117	7%
LUMBAGO	26	8%	DIZZINESS AND GIDDINESS	30	7%	LUMBAGO	116	7%
Waltham	**N**	**%**	**Wellesley**	**N**	**%**	**Weston**	**N**	**%**
CHEST PAIN NEC	274	15%	CHEST PAIN NEC	87	13%	CHEST PAIN NEC	39	14%
FEVER, UNSPECIFIED	217	12%	OPEN WND FINGER/S COMP	83	13%	HEAD INJURY UPSPECIFIED	36	13%
HEAD INJURY UPSPECIFIED	192	11%	HEAD INJURY UPSPECIFIED	82	13%	URIN TRACT INFECTION NOS	34	12%
URIN TRACT INFECTION NOS	180	10%	SYNCOPE AND COLLAPSE	70	11%	OPEN WND FINGER/S COMP	31	11%
ALCOHOL ABUSE-UNSPEC	179	10%	URIN TRACT INFECTION NOS	67	10%	OPEN WOUND OF FOREHEAD	29	10%
DEPRESSIVE DISORDER NEC	169	9%	SPRAIN OF ANKLE NOS	56	9%	FEVER, UNSPECIFIED	26	9%
HEADACHE	162	9%	FEVER, UNSPECIFIED	53	8%	SEPTICEMIA NOS	26	9%
LUMBAGO	153	8%	ATRIAL FIBRILLATION	51	8%	SYNCOPE AND COLLAPSE	23	8%
PNEUMONIA, ORGANISM NOS	140	8%	OPEN WOUND OF FOREHEAD	50	8%	PNEUMONIA, ORGANISM NOS	20	7%
AC ALCOHOL INTOX-UNSPEC	138	8%	HEADACHE	46	7%	CELLULITIS OF LEG	20	7%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Top 10 Emergency Department Diagnoses by Age, 2013

<18	N	%	18-24	N	%	25-44	N	%
FEVER, UNSPECIFIED	533	20%	ALCOHOL ABUSE-UNSPEC	152	16%	OTH CURR COND-ANTEPARTUM	319	14%
HEAD INJURY UPSPECIFIED	373	14%	DEPRESSIVE DISORDER NEC	114	12%	CHEST PAIN NEC	319	14%
OPEN WOUND OF FOREHEAD	296	11%	SPRAIN OF ANKLE NOS	113	12%	OPEN WND FINGER/S COMP	276	12%
CROUP	295	11%	HEAD INJURY UPSPECIFIED	94	10%	HEADACHE	243	11%
OTITIS MEDIA NOS	257	10%	SPRAIN OF NECK	84	9%	LUMBAGO	219	10%
PNEUMONIA, ORGANISM NOS	198	7%	URIN TRACT INFECTION NOS	82	9%	SPRAIN OF NECK	183	8%
OPEN WOUND OF JAW	192	7%	SYNCOPE AND COLLAPSE	82	9%	ABDOMINAL PAIN-SITE NOS	180	8%
ASTHMA, NOS, W/ACT EXACERBA	191	7%	NAUSEA WITH VOMITING	81	8%	DEPRESSIVE DISORDER NEC	172	8%
OPEN WOUND OF SCALP	183	7%	ACUTE PHARYNGITIS	81	8%	SPRAIN OF ANKLE NOS	155	7%
SPRAIN OF ANKLE NOS	169	6%	EPISODIC MOOD DISORD NOS	81	8%	HEAD INJURY UPSPECIFIED	150	7%

45-64	N	%	65+	N	%
CHEST PAIN NEC	520	24%	URIN TRACT INFECTION NOS	413	17%
OPEN WND FINGER/S COMP	293	14%	CHEST PAIN NEC	324	14%
LUMBAGO	212	10%	SEPTICEMIA NOS	274	12%
CALCULUS OF URETER	185	9%	SYNCOPE AND COLLAPSE	267	11%
SYNCOPE AND COLLAPSE	174	8%	PNEUMONIA, ORGANISM NOS	221	9%
DIZZINESS AND GIDDINESS	160	7%	HEAD INJURY UPSPECIFIED	214	9%
HEADACHE	157	7%	ATRIAL FIBRILLATION	205	9%
PAIN IN LIMB	152	7%	DIZZINESS AND GIDDINESS	177	7%
HEAD INJURY UPSPECIFIED	151	7%	OTHER MALAISE AND FATIGUE	140	6%
DEPRESSIVE DISORDER NEC	139	6%	ACUTE RENAL FAILURE, UNSPECIFIED	135	6%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Top 10 Urgent Care Center Diagnoses by Town, 2013

Natick	N	%	Needham	N	%	Newton	N	%
ACUTE URI NOS	21	30%	ACUTE URI NOS	15	22%	ACUTE URI NOS	112	24%
ACUTE PHARYNGITIS	10	14%	OTITIS MEDIA NOS	10	15%	ACUTE PHARYNGITIS	67	14%
PNEUMONIA, ORGANISM NOS	7	10%	URIN TRACT INFECTION NOS	9	13%	URIN TRACT INFECTION NOS	55	12%
URIN TRACT INFECTION NOS	6	9%	SPRAIN OF ANKLE NOS	7	10%	OTITIS MEDIA NOS	53	11%
OTITIS MEDIA NOS	5	7%	PNEUMONIA, ORGANISM NOS	7	10%	CHRONIC SINUSITIS NOS	33	7%
CONTUSION OF HAND(S)	5	7%	ACUTE PHARYNGITIS	5	7%	PNEUMONIA, ORGANISM NOS	33	7%
ACUTE NASOPHARYNGITIS	4	6%	NONSPECIF SKIN ERUP NEC	4	6%	STREP SORE THROAT	33	7%
DERMATITIS NOS	4	6%	CELLULITIS OF LEG	4	6%	OPEN WND FINGER/S COMP	30	6%
HORDEOLUM EXTERNUM	4	6%	FLU W RESP MANIFEST NEC	4	6%	BRONCHITIS NOS	27	6%
STREP SORE THROAT	4	6%	FX METATARSAL-CLOSED	3	4%	COUGH	25	5%
Waltham	**N**	**%**	**Wellesley**	**N**	**%**	**Weston**	**N**	**%**
ACUTE URI NOS	276	23%	ACUTE URI NOS	12	15%	ACUTE URI NOS	18	20%
ACUTE PHARYNGITIS	176	15%	ACUTE PHARYNGITIS	10	13%	ACUTE PHARYNGITIS	11	13%
OTITIS MEDIA NOS	149	13%	ACUTE BRONCHITIS	9	12%	OPEN WND FINGER/S COMP	10	11%
URIN TRACT INFECTION NOS	128	11%	OPEN WND FINGER/S COMP	8	10%	CONJUNCTIVITIS NOS	9	10%
SPRAIN OF ANKLE NOS	92	8%	OTITIS MEDIA NOS	8	10%	SPRAIN OF ANKLE NOS	8	9%
OPEN WND FINGER/S COMP	80	7%	ACUTE TONSILLITIS	7	9%	COUGH	7	8%
CHRONIC SINUSITIS NOS	73	6%	URIN TRACT INFECTION NOS	7	9%	OTITIS MEDIA NOS	7	8%
COUGH	70	6%	PAIN IN LIMB	6	8%	DERMATITIS NOS	6	7%
CONJUNCTIVITIS NOS	68	6%	SPRAIN OF ANKLE NOS	6	8%	DERMATITIS DUE TO PLANT	6	7%
STREP SORE THROAT	63	5%	NONSPECIF SKIN ERUP NEC	5	6%	URIN TRACT INFECTION NOS	6	7%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Top 10 Urgent Care Center Diagnoses by Age, 2013

<18	N	%	18-24	N	%	25-44	N	%
OTITIS MEDIA NOS	210	27%	ACUTE PHARYNGITIS	92	19%	Acute upper respiratory infection NOS	247	23%
ACUTE URI NOS	144	18%	ACUTE URI NOS	79	17%	ACUTE PHARYNGITIS	185	17%
ACUTE PHARYNGITIS	102	13%	URIN TRACT INFECTION NOS	65	14%	URIN TRACT INFECTION NOS	130	12%
FEVER, UNSPECIFIED	69	9%	SPRAIN OF ANKLE NOS	49	10%	CHRONIC SINUSITIS NOS	98	9%
SPRAIN OF ANKLE NOS	66	8%	STREP SORE THROAT	48	10%	Open wound of finger(s), complicated	82	8%
VIRAL INFECTION NOS	50	6%	ACUTE TONSILLITIS	39	8%	OTITIS MEDIA NOS	81	8%
CONJUNCTIVITIS NOS	40	5%	OTITIS MEDIA NOS	30	6%	STREP SORE THROAT	67	6%
STREP SORE THROAT	39	5%	ACUTE NASOPHARYNGITIS	27	6%	ACUTE NASOPHARYNGITIS	63	6%
DERMATITIS NOS	30	4%	CHRONIC SINUSITIS NOS	26	5%	SPRAIN OF ANKLE NOS	62	6%
SPRAIN OF HAND NOS	30	4%	OPEN WND FINGER/S COMP	22	5%	FLU W RESP MANIFEST NEC	61	6%

45-64	N	%	65+	N	%
ACUTE URI NOS	147	23%	ACUTE URI NOS	62	20%
URIN TRACT INFECTION NOS	81	13%	URIN TRACT INFECTION NOS	58	19%
OPEN WND FINGER/S COMP	77	12%	COUGH	33	11%
ACUTE PHARYNGITIS	61	10%	PNEUMONIA, ORGANISM NOS	29	10%
CHRONIC SINUSITIS NOS	54	8%	BRONCHITIS NOS	27	9%
PNEUMONIA, ORGANISM NOS	49	8%	OPEN WND FINGER/S COMP	21	7%
BRONCHITIS NOS	49	8%	IMPACTED CERUMEN	21	7%
SPRAIN OF ANKLE NOS	44	7%	CELLULITIS OF LEG	20	7%
OTITIS MEDIA NOS	38	6%	DERMATITIS NOS	18	6%
COUGH	36	6%	PAIN IN LIMB	16	5%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Top 10 Inpatient Diagnoses by Town, 2013

Natick	N	%	Needham	N	%	Newton	N	%
SINGLE LB IN-HOSP W/O CS	162	43%	SINGLE LB IN-HOSP W/O CS	101	35%	SINGLE LB IN-HOSP W/O CS	198	29%
SINGLE LB IN-HOSP W CS	62	16%	SINGLE LB IN-HOSP W CS	43	15%	SEPTICEMIA NOS	105	16%
DEL W 2 DEG LACERAT-DEL	40	11%	DEL W 2 DEG LACERAT-DEL	32	11%	SINGLE LB IN-HOSP W CS	65	10%
DEL W 1 DEG LACERAT-DEL	30	8%	PREV C-DELIVERY-DELIVRD	27	9%	DEL W 2 DEG LACERAT-DEL	61	9%
PREV C-DELIVERY-DELIVRD	22	6%	DEL W 1 DEG LACERAT-DEL	20	7%	PNEUMONIA, ORGANISM NOS	55	8%
OTH CURR COND-DELIVERED	16	4%	SEPTICEMIA NOS	18	6%	URIN TRACT INFECTION NOS	52	8%
POST TERM PREG-DEL	14	4%	ATRIAL FIBRILLATION	12	4%	ACUTE RENAL FAILURE NOS	40	6%
URIN TRACT INFECTION NOS	11	3%	ACUTE RENAL FAILURE NOS	12	4%	ATRIAL FIBRILLATION	33	5%
DVRTCLI COLON W/O HMRHG	10	3%	POST TERM PREG-DEL	11	4%	DEL W 1 DEG LACERAT-DEL	32	5%
ABN FTL HRT RATE/RHY-DEL	10	3%	URIN TRACT INFECTION NOS	10	3%	AC ON CHR DIAST HRT FAIL	31	5%
Waltham	**N**	**%**	**Wellesley**	**N**	**%**	**Weston**	**N**	**%**
SINGLE LB IN-HOSP W/O CS	156	23%	SINGLE LB IN-HOSP W/O CS	67	26%	SEPTICEMIA NOS	26	24%
SEPTICEMIA NOS	89	13%	SEPTICEMIA NOS	41	16%	FOOD/VOMIT PNEUMONITIS	15	14%
SINGLE LB IN-HOSP W CS	85	13%	SINGLE LB IN-HOSP W CS	27	11%	SINGLE LB IN-HOSP W CS	13	12%
AFFECTIVE PSYCHOSIS NOS	64	10%	ATRIAL FIBRILLATION	26	10%	PNEUMONIA, ORGANISM NOS	9	8%
DEPRESSIVE DISORDER NEC	53	8%	DEL W 2 DEG LACERAT-DEL	20	8%	CRBL ART OCL NOS W INFRC	9	8%
PNEUMONIA, ORGANISM NOS	52	8%	PNEUMONIA, ORGANISM NOS	18	7%	SINGLE LB IN-HOSP W CS	8	7%
DEL W 2 DEG LACERAT-DEL	48	7%	DVRTCLI COLON W/O HMRHG	16	6%	ATRIAL FIBRILLATION	8	7%
ACUTE RENAL FAILURE NOS	42	6%	ACUTE RENAL FAILURE NOS	15	6%	URIN TRACT INFECTION NOS	8	7%
ALCOHOL WITHDRAWAL	41	6%	DEL W 1 DEG LACERAT-DEL	15	6%	SUBENDO INFARCT, INITIAL	6	6%
OBS CHRI BRNC W ACT EXA	40	6%	OBS CHRI BRNC W ACT EXA	11	4%	TRANS CEREB ISCHEMIA NOS	6	6%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Top 10 Inpatient Diagnoses by Age, 2013

<18	N	%	18-24	N	%	25-44	N	%
SINGLE LB IN-HOSP W/O CS	2738	63%	AFFECTIVE PSYCHOSIS NOS	58	24%	DEL W 2 DEG LACERAT-DEL	752	28%
SINGLE LB IN-HOSP W CS	1245	29%	DEPRESSIVE DISORDER NEC	39	16%	DEL W 1 DEG LACERAT-DEL	514	19%
TWIN-MATE LB-IN HOS W/O CS	141	3%	DEL W 1 DEG LACERAT-DEL	35	15%	PREV C-DELIVERY-DELIVRD	485	18%
FETAL/NEONATAL JAUND NOS	54	1%	DEL W 2 DEG LACERAT-DEL	28	12%	POST TERM PREG-DEL	295	11%
ASTHMA, NOS, W/ACT EXACERBA	35	1%	PSYCHOSIS NOS	23	10%	LOC OSTEOARTH NOS-L/LEG	184	7%
TWIN-MATE LB-IN HOS W CS	34	1%	POST TERM PREG-DEL	16	7%	OTH CURR COND-DELIVERED	134	5%
ACU BRONCHOLITIS D/T RSV	25	1%	OTH CURR COND-DELIVERED	14	6%	AFFECTIVE PSYCHOSIS NOS	95	3%
PNEUMONIA, ORGANISM NOS	21	0%	ANOREXIA NERVOSA	10	4%	BREECH PRESENTAT-DELIVER	92	3%
ACUTE APPENDICITIS NOS	20	0%	PREV C-DELIVERY-DELIVRD	9	4%	SEC UTERINE INERT-DELIV	91	3%
AC APPEND W PERITONITIS	15	0%	OLIGOHYDRAMNIOS-DELIVER	8	3%	TRANS HYPERTEN-DELIVERED	90	3%

45-64	N	%	65+	N	%
LOC OSTEOARTH NOS-PELVIS	162	19%	SEPTICEMIA NOS	292	21%
OSTEOARTHROS NOS-PELVIS	107	13%	PNEUMONIA, ORGANISM NOS	158	11%
DVRTCLI COLON W/O HMRHG	85	10%	URIN TRACT INFECTION NOS	150	11%
MORBID OBESITY	85	10%	ACUTE RENAL FAILURE NOS	141	10%
SEPTICEMIA NOS	82	10%	ATRIAL FIBRILLATION	132	10%
LOC OSTEOARTH NOS-L/LEG	79	9%	LOC OSTEOARTH NOS-L/LEG	117	8%
DEPRESSIVE DISORDER NEC	69	8%	AC ON CHR DIAST HRT FAIL	114	8%
AFFECTIVE PSYCHOSIS NOS	67	8%	LOC OSTEOARTH NOS-PELVIS	112	8%
SCHIZOAFFECTIVE-UNSPEC	60	7%	FOOD/VOMIT PNEUMONITIS	85	6%
SPINAL STENOSIS-LUMBAR	57	7%	INTERTROCHANTERIC FX-CL	79	6%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Top 10 Emergency Department Behavioral Health Diagnoses by Age, 2013

<18	N	%	18+	N	%
depressive disorder not otherwise classified	146	64%	lumbago	608	31%
neck pain	20	9%	depressive disorder not otherwise classified	466	24%
cervicalgia	20	9%	Backache, unspecified	189	10%
lumbago	16	7%	cervicalgia	149	8%
attention deficit hyperactivity disorder	10	4%	neck pain	149	8%
Backache, unspecified	9	4%	sciatica	144	7%
pain in thoracic spine	4	2%	Other acute pain	111	6%
thoracic or lumbosacral neuritis or radiculitis, unspecified	2	1%	cervical radiculopathy	67	3%
sciatica	1	0%	pain in thoracic spine	52	3%
Other symptoms referable to back	1	0%	thoracic or lumbosacral neuritis or radiculitis, unspecified	42	2%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Top 10 Urgent Care Center Behavioral Health Diagnoses by Age, 2013

<18	N	%	18+	N	%
lumbago	3	27%	lumbago	85	30%
neck pain	2	18%	Backache, unspecified	36	13%
cervicalgia	2	18%	neck pain	28	10%
Backache, unspecified	2	18%	cervicalgia	28	10%
pain in thoracic spine	1	9%	Other chronic pain	24	8%
depressive disorder not otherwise classified	1	9%	sciatica	20	7%
			Other symptoms referable to back	18	6%
			cervical facet syndrome	18	6%
			cervical radiculopathy	16	6%
			Other acute pain	10	4%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Top 10 Inpatient Behavioral Health Diagnoses by Age, 2013

<18	N	%	18+	N	%
depressive disorder not otherwise classified	5	83%	depressive disorder not otherwise classified	200	52%
Other acute postoperative pain	1	17%	cervical spondylosis w/ myelopathy	45	12%
			Paranoid type schizophrenia	39	10%
			cirrhosis of liver	30	8%
			Schizoaffective disorder	23	6%
			lumbago	15	4%
			Neoplasm related pain	9	2%
			Other acute pain	8	2%
			Schizophrenic disorder, residual type	8	2%
			Other chronic pain	4	1%

DATA SOURCE: Newton-Wellesley Hospital EPSI data

Attachment/Exhibit

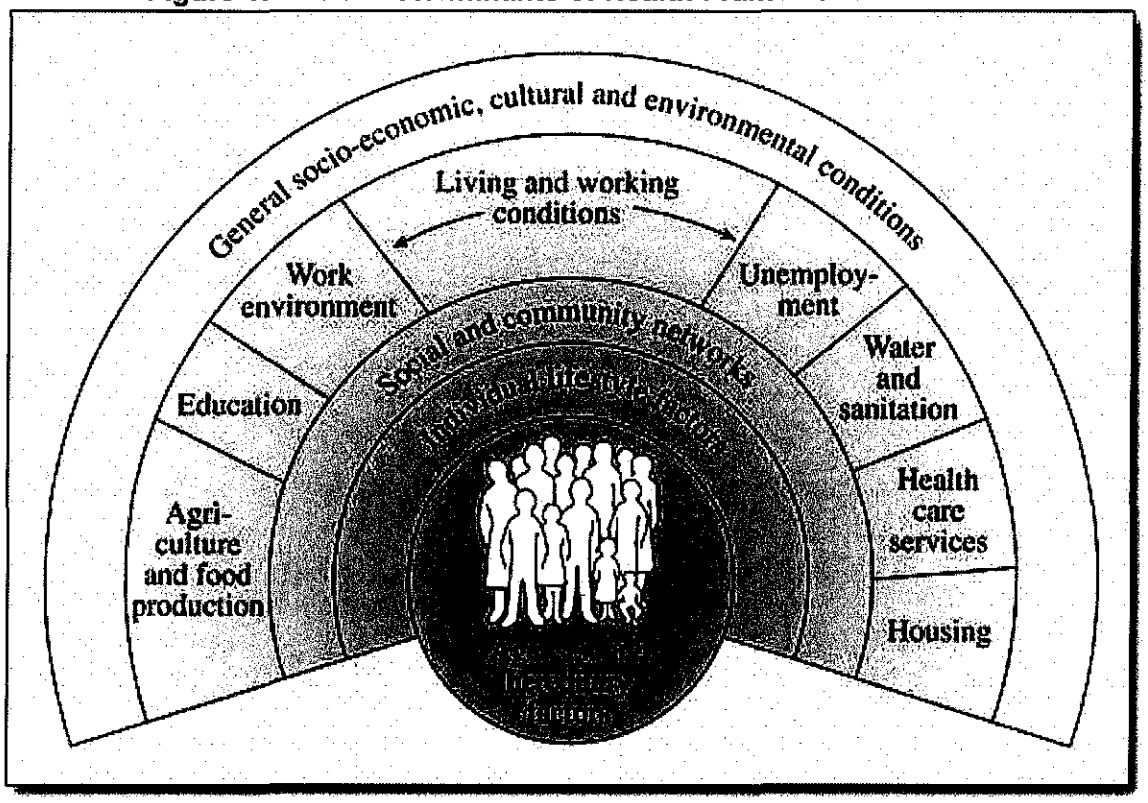
B

Appendix 4b: CHNA/CHIP Self-Assessment Form – Additional Information on Methods and Data Sources for the 2015 Newton-Wellesley Hospital Community Health Needs Assessment

This narrative is to supplement the responses outlined on the Community Health Initiative ("CHI") *CHNA/CHIP Self-Assessment Form* and provide an overview of the Newton-Wellesley Hospital ("NWH")– 2015 Community Health Needs Assessment ("CHNA"), including the methodology employed to obtain community feedback, such as relevant data; key informant interviews; and references. There was a particular focus in the last CHNA on the social determinants of health and how these areas may be addressed.

NWH's 2015 CHNA defines health in the broadest sense and recognizes that factors at multiple levels impact a community's health – from lifestyle behaviors (e.g., exercise and alcohol consumption), to clinical care (e.g., access to medical services), to social and economic factors (e.g., employment opportunities) and the physical environment (e.g., transportation)—that all have an impact on the community's health. The beginning of this section in the CHNA (pages 1-2) describes the larger social determinants of health framework that helped guide the assessment process. The diagram in Figure 1 provides a visual representation of the multitude of factors that affect health, demonstrating how individual lifestyle factors, which are closest to health outcomes, are influenced by more upstream factors such as quality of housing and educational opportunities. The CHNA provides information on many of these factors, as well as reviews key health outcomes among the residents of NWH's service area.

Figure 1: Social Determinants of Health Framework



Source: World Health Organization, Commission on Social Determinants of Health. (2005)

Quantitative Data: Data Sources – Review of Existing Secondary Data

To develop a social, economic, and health portrait of NWH's service area through a social determinants of health framework, existing data were drawn from state, county, Community Health Network Area ("CHNA 18"), and local sources. Sources of data included, but were not limited to, the U.S. Census, Centers for Disease Control and Prevention, Massachusetts Department of Public Health, FBI Uniform Crime Reports, and NWH's emergency department, urgent care center, and inpatient databases. Other types of data included self-report of health behaviors from large, population-based surveys, such as the Behavioral Risk Factor Surveillance System (BRFSS), as well as vital statistics based on birth and death records. It should be noted that aside from population counts, age and racial/ethnic distribution, other data from the U.S. Census are derived from the American Community Survey comprised of data from a sample of a given geographic area. Per Census recommendations, aggregated data from the past five years was used for these indicators to yield a large enough sample size to look at results by city/town.

Many of the health data are not available at the city/town level; therefore, health data by county and/or community health network area (CHNA 18) are provided. CHNA 18 consists of Brookline, Dedham, Dover, Needham, Newton, Waltham, Wellesley, Weston, and Westwood, but does not include Natick.

Qualitative Data: Focus Groups and Interviews

Focus Groups

In total, five focus groups were conducted with individuals from across the NWH service area. Focus groups were conducted with representatives of priority populations, including: high school youth, parents of high school youth, parents of elementary school youth, affordable housing residents, and Council on Aging staff. Focus group discussions explored participants' perceptions of the community, priority health concerns, and suggestions for future programming and services to address these issues. A semi-structured moderator's guide was used across all focus groups to ensure consistency in the topics covered. Each focus group was facilitated by a trained moderator, and detailed notes were taken during each discussion. On average, focus groups lasted 90 minutes and included 5-8 participants. As an incentive, focus group participants received a $30 stipend to compensate them for their time. A list of focus group segments can be found in Appendix A of the CHNA that outlines all of the community engagement participants.

Key Informant Interviews

Interviews were conducted with twelve individuals representing a range of sectors, including leaders in health care, government, and social service organizations focusing on vulnerable populations (e.g., seniors, homeless). The interviews explored participants' perceptions of their communities and priority health concerns, and solicited suggestions for future programming and services to address their perceived health issues. Similar to the focus groups, a semi-structured interview guide was used across all discussions to ensure consistency in the topics covered. Interviews were approximately 45-60 minutes in length. A list of organizations that the key informant interviewees represented can be found in Appendix A that outlines all of the community engagement participants.

Analyses

The collected qualitative information was manually coded and then analyzed thematically for main categories and sub-themes. Data analysts identified key themes that emerged across all groups and interviews, as well as the unique issues that were noted for specific populations. Frequency and intensity of discussions on a specific topic were key indicators used for extracting main themes. While town differences are noted where appropriate, analyses emphasized findings common across NWH's service area. Selected paraphrased quotes – without personal identifying information – are presented in the narrative of the CHNA to further illustrate points within topic areas.

Limitations

As with all research efforts, there are several limitations related to the CHNA's research methods that should be acknowledged. It should be noted that for the secondary (quantitative) data analyses, in several instances, regional data could not be disaggregated to the city/town level due to the small population size of the communities in the region. In many instances, data at the CHNA 18 level are provided. CHNA 18 is a large geographic area comprised of Needham, Newton, Wellesley, Weston, and also includes Brookline and Dover, towns that are not part of NWH's primary service area. In some cases, data at the county level are also provided. Middlesex County includes Natick, Newton, Waltham, and Wellesley; Norfolk County includes Needham and Wellesley.

Additionally, several sources did not provide current data stratified by race/ethnicity, gender, or age –thus these data could only be analyzed by total population. It should also be noted that youth-specific and town-specific data were largely not available, and in cases where such data were available, sample sizes were often small and must be interpreted with caution. 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.

For the qualitative data, it is important to recognize results are not statistically representative of a larger population due to non-random recruiting techniques and a small sample size. Recruitment for focus groups and interviews was conducted by Health Resource in Action ("HRiA"), NWH, and community organizations, and participants may be more likely to be those already engaged in community organizations or initiatives. Because of this, it is possible that the responses received only provide one perspective of the issues discussed. While efforts were made to talk to a diverse cross-section of individuals, demographic characteristics were not collected from the focus group and interview participants, so it is not possible to confirm whether they reflect the composition of the region. 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.

Attachment/Exhibit

C

List of Potential Stakeholders that May Submit a Stakeholder Assessment Form

1. Judge Gregory Flynn
2. David Fleishman
3. Josephine McNeil
4. Margaret Hannah
5. Jhana Williams
6. Connie Braceland
7. Jo White
8. Anne Steer
9. Paul Hattis
10. John Zuppe
11. Shep Cohen

Attachment/Exhibit

D

MG Waltham/Newton-Wellesley Hospital Community Health Initiative Narrative

A. Community Health Initiative Monies

The breakdown of Community Health Initiative ("CHI") monies for the proposed Project is as follows:

- Maximum Capital Expenditure: $30,504,587
- Community Health Initiative: $1,525,229.35 (5% of Maximum Capital Expenditure)
- CHI Administrative Fee to be retained: $45,756.88 (3% of the CHI monies)
- CHI Money – less the Administrative Fee: $1,479,472.47

- CHI Funding for Statewide Initiative: $369,868.12 (25% of CHI monies – less the administrative fee)
- CHI Local Funding: $1,109,604.35 (75% of CHI monies – less the administrative fee))

B. Overview and Discussion of CHNA/DoN Processes

Introduction

The Community Health Initiative ("CHI") processes and community engagement for the proposed Determination of Need ("DoN") Project[1] will be conducted by Newton-Wellesley Hospital ("NWH"). The location of the proposed DoN Project is Waltham. Accordingly, given that the Applicant has another hospital within the specific geography of this project, the Applicant inquired with the Department of Public Health ("Department") if it was appropriate to use the NWH Community Health Needs Assessment ("CHNA") for this CHI. Department staff agreed that this was a logical choice; therefore, NWH is carrying out the CHI processes for this DoN based on discussions with Department staff.

Overview and Discussion

NWH is a 313-bed comprehensive medical center affiliated with Partners HealthCare System, Inc. In 2015, NWH sought to undertake a CHNA of its primary service area: Natick, Needham, Newton, Waltham, Wellesley, and Weston. The purpose of the CHNA was to provide an empirical foundation for future health planning, as well as fulfill the community health needs assessment mandate for non-profit institutions put forth by the MA Attorney General and the Internal Revenue Service. The overarching goals of the 2015 Newton-Wellesley Hospital CHNA are to:

- Identify the health needs and assets of NWH's service area; and
- Understand how outreach activities can be more effectively coordinated and delivered across the institution and in collaboration with community partners.

To that end, the CHNA report provides key findings of the needs assessment process, which explored a range of health behaviors and outcomes; social and economic issues; including the social determinants of health; health care access and gaps; and strengths of existing resources and services.

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[1] The project is for the expansion of ambulatory surgical services at MG Waltham through construction of additional operating rooms and shell space for future build-out ("Project").

Data from the 2015 CHNA provide that Waltham is a unique community in the service area. While the other cities and towns tend to have similar demographic profiles, Waltham looks somewhat different. Waltham has a more affordable cost of living and has more racial and ethnic diversity. However, Waltham residents have lower median household incomes and educational attainment. Waltham also experiences disproportionately worse health outcomes compared to the other cities and towns in the service area. Of note, there are higher substance use disorder and mental health rates among youth and fewer mothers obtaining adequate prenatal care. Consequently, to ensure appropriate community engagement, as part of its 2018 CHNA process, NWH will engage a consulting firm, Health Resources in Action ("HRiA") to conduct focus groups and key informant interviews with individuals from Waltham, develop an appropriate CHNA methodology and devise a full CHNA report. These processes will allow NWH to gain critically needed insights into barriers to address social determinants of health ("SDoH") issues in Waltham.

C. Advisory Committee Duties

Given that this is a Tier 2 CHI, the scope of work that the Advisory Committee will carry out includes:

- Based upon NWH's 2015 CHNA and Implementation Plan and aligned with the Department's Health Priorities and the EOHHS Focus Areas, the Advisory Committee is tasked with the determining the Health Priorities for funding and submitting the Health Priorities Form to the Department for review and approval.

D. Allocation Committee Duties

The Allocation Committee is comprised of individuals from the Advisory Committee who do not have a conflict of interest in regard to funding. The scope of work that the Allocation Committee will carry out includes:

- Determining If there is a conflict of interest for any Allocation Committee member, and if so, asking the member to recuse him/herself (a Conflict of Interest Form is in the process of being developed).
- Carrying out a formal request for proposal ("RFP") process for the disbursement of CHI funds.
- Engaging resources that can support and assist applicants with their responses to the RFP.
- Disbursement of CHI funding.
- Providing oversight to a third-party vendor that is selected to carry out the evaluation of CHI-funded projects.

E. Timeline for CHI Activities

Upon a Notice of Determination of Need being issued by the Public Health Council, the Advisory Committee will commence meeting and begin the CHI Process. The timeline for CHI activities is as follows:

- Six weeks post-approval: The Advisory Committee will begin meeting and reviewing the 2015 CHNA (as well as any information from the 2018 CHNA that may be available) to commence the process of selecting Health Priorities. The Advisory Committee will be kept abreast of progress on the 2018 CHNA process, as well as Waltham-specific activities for additional community engagement.
- Three – four months post-approval: The Advisory Committee has determined Health Priorities for funding and submits the Health Priorities Form to the Department.
- Five – six months post-approval: The Allocation Committee is developing the RFP process and determining how this process will work in tandem with NWH's current grant efforts.
- Five – six months post-approval: NWH will seek to work with an evaluator that will serve as a technical resource to grantees/
- Nine months post-approval: The RFP for funding is released.
- Ten months post-approval: Bidders conferences are held on the RFP.
- Twelve months post-approval: Responses are due for the RFP.
- Fifteen months post-approval: Funding decisions are made, and the disbursement of funds begins.
- Eighteen months to two years post-approval: Evaluator will begin evaluation work.

The aforementioned process is longer than the process outlined in the DoN Guidelines for Tier 2 projects. However, given the Applicant's and NWH's previous experience with RFP processes, staff feel strongly that it will take nine months to develop a RFP process that is transparent, fair and appropriate.

F. Request for Additional Years of Funding

NWH is seeking additional time to carry out the disbursement of funds for CHI. Based on NWH's 2015 CHNA, as well as previous experience with providing grant funding, NWH will offer larger, potentially multi-year grants with CHI funding. Consequently, NWH is seeking to disburse these monies over a 3-5-year period to ensure the greatest impact for the largest number of individuals.

G. Evaluation Overview

NWH is seeking to use 10% of local CHI funding ($110,960.44) for evaluation efforts. These monies will allow NWH to engage a third-party evaluator to carry out technical assistance and ensure appropriate evaluation of the CHI-funded projects.

Attachment/Exhibit

5

PUBLIC ANNOUNCEMENT CONCERNING A PROPOSED HEALTH CARE PROJECT

Partners HealthCare System, Inc. ("Applicant") located at 800 Boylston Street, Suite 1150, Boston, MA 02199 intends to file a Notice of Determination of Need ("Application") with the Massachusetts Department of Public Health for a substantial capital expenditure by The General Hospital Corporation for its licensed satellite located at 40 Second Avenue, Waltham, MA 02451. The project is for the expansion of ambulatory surgical services at the satellite through construction of additional operating rooms and shell space for future build-out ("Project"). The total value of the Project based on the maximum capital expenditure is $30,504,587. The Applicant does not anticipate any price or service impacts on the Applicant's existing Patient Panel as a result of the Project. Any ten Taxpayers of Massachusetts may register in connection with the intended Application no later than 30 days of the filing of the Notice of Determination of Need by contacting the Department of Public Health, Determination of Need Program, 250 Washington Street, 6th Floor, Boston, MA 02108.

PUBLIC NOTICE

Cellco Partnership and its controlled affiliates doing business as Verizon Wireless (Verizon) propose to construct 2 replacement light poles, with antennas attached not to exceed 37 feet at the following locations: in front of 396 Market Street and on Commonwealth Avenue near the southern corner of the intersection with Chestnut Hill Road, Boston, Suffolk County, MA 02135. Public comments regarding potential effects from this site on historic properties may be submitted within 30 days from the date of this publication to: Danielle Ross, Wireless Projects, Environmental Resources Management, 200 Wingo Way, Mt. Pleasant, SC 29464, email: vzwnepa@erm.com, Phone: 1-678-486-2700.

Dec 6

PUBLIC ANNOUNCEMENT CONCERNING A PROPOSED HEALTH CARE PROJECT

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runs every Wednesday, Thursday, Friday and Saturday. To place
23-4545 ext. 5288 or email jenny.kopoulos@bostonherald.com

1

RETURN OF PUBLICATION

I, the undersigned, hereby certify under the pains and penalties of perjury, that I am employed by the publishers of the *Boston Herald* and the following Public/Legal announcement was published in two sections of the newspaper on December 6, 2017 accordingly:

1) "Public Announcement Concerning a Proposed Health Care Project" page 35, Legal Notice Section.

(check one) ___✓___ Size at least two inches high by three columns wide
_____ Size at least three inches high by two columns wide

2) "Public Announcement Concerning a Proposed Health Care Project" page 15, Main News Section.

(check one) _____ Size at least two inches high by three columns wide
___✓___ Size at least three inches high by two columns wide

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Signature

Laurie Kluse
Name

Legal Sales Representative
Title

BETH ELLEN O'GRADY
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS
My Comm. Expires Mar. 20, 2020

12/7/17

PUBLIC ANNOUNCEMENT CONCERNING A PROPOSED HEALTH CARE PROJECT

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Attachment/Exhibit

6

Partners HealthCare System, Inc.

Analysis of the Reasonableness of Assumptions Used For and Feasibility of Projected Financials of Partners HealthCare System, Inc. For the Years Ending September 30, 2018 Through September 30, 2022

TABLE OF CONTENTS

BERNARD L. DONOHUE, III, CPA

Chestnut Green
8 Cedar Street, Suite 62
Woburn, MA 01801

(781) 569-0070
Fax (781) 569-0460

January 4, 2018

Mr. Brian Huggins
Partners HealthCare Systems, Inc.
399 Revolution Drive STE 645
Somerville, MA 02145

RE: Analysis of the Reasonableness of Assumptions and Projections Used to Support the Financial Feasibility and Sustainability of the Proposed 6-Room Ambulatory Surgery Suite at MG Waltham

Dear Mr. Huggins:

I have performed an analysis of the financial projections prepared by Partners HealthCare System, Inc. ("Partners") detailing the projected operations of Partners including the projected operations of MG Waltham. This report details my analysis and findings with regards to the reasonableness of assumptions used in the preparation and feasibility of the projected financial information of Partners as prepared by the management of Partners ("Management"). This report is to be included by Partners in its Determination of Need ("DoN") Application – Factor 4(a) and should not be distributed or relied upon for any other purpose.

I. EXECUTIVE SUMMARY

The scope of my analysis was limited to the five year consolidated financial projections (the "Projections") prepared by Partners as well as the actual operating results for Partners for the fiscal years ended 2016 and 2017 ("Base Budget"), and the supporting documentation in order to render an opinion as to the reasonableness of assumptions used in the preparation and feasibility of the Projections with regards to the impact of certain capital projects at MG Waltham.

The impact of the proposed capital projects at MG Waltham, which are the subject of this DoN application, represent a relatively insignificant component of the projected operating results and financial position of Partners. As such, I determined that the Projections are not likely to result in a scenario where there are insufficient funds available for capital and ongoing operating costs necessary to support the ongoing operations of Partners. Therefore, it is my opinion that the Projections are financially feasible for Partners as detailed below.

II. RELEVANT BACKGROUND INFORMATION

Refer to Factor 1 of the application for description of proposed capital projects at MG Waltham and the rationale for the expenditures.

III. SCOPE OF REPORT

The scope of this report is limited to an analysis of the Projections, Base Budget and the supporting documentation in order to render an opinion as to the reasonableness of assumptions used in the preparation and feasibility of the Projections with regards to the impact of certain capital projects at MG Waltham. My analysis of the Projections and conclusions contained within this report are based upon my detailed review of all relevant information (see Section IV which references the sources of information). I have gained an understanding of Partners and MG Waltham through my review of the information provided as well as a review of Partners website, annual reports, and the DoN application.

Reasonableness is defined within the context of this report as supportable and proper, given the underlying information. Feasibility is defined as based on the assumptions used, the plan is not likely to result in insufficient "funds available for capital and ongoing operating costs necessary to support the proposed project without negative impacts or consequences to [Partners] existing patient panel" (per Determination of Need, Factor 4(a)).

This report is based upon historical and prospective financial information provided to me by Management. If I had audited the underlying data, matters may have come to my attention that would have resulted in my using amounts that differ from those provided. Accordingly, I do not express an opinion or any other assurances on the underlying data presented or relied upon in this report. I do not provide assurance on the achievability of the results forecasted by Partners because events and circumstances frequently do not occur as expected, and the achievement of the forecasted results are dependent on the actions, plans, and assumptions of management. I reserve the right to update my analysis in the event that I am provided with additional information.

IV. PRIMARY SOURCES OF INFORMATION UTILIZED

In formulating my opinions and conclusions contained in this report, I reviewed documents produced by Management. The documents and information upon which I relied are identified below or are otherwise referenced in this report:

1. Five-Year Pro-Forma Statements for the fiscal years ending 2018 through 2022, provided December 4, 2017;

2. Draft Audited Financial Statements of Partners HealthCare System, Inc. and Affiliates as of and for the years ended September 30, 2017 and 2016;

3. Multi-Year Financial Framework of Partners Healthcare System, Inc. for the fiscal years ending 2018 through 2022 prepared as of December 7, 2017;

4. Company website – www.partners.org;

5. Various news publications and other public information about the Company;

6. Determination of Need Application Instructions dated March 2017; and

7. Draft Determination of Need Factor 1, provided December 8, 2017.

V. REVIEW OF THE PROJECTIONS

This section of my report summarizes my review of the reasonableness of the assumptions used and feasibility of the Projections. The Projections are delineated between five categories of revenue and six general categories of operating expenses of Partners as well as other non-operating gains and losses for the Organization. The following table presents the Key Metrics, as defined below, of Partners which compares the results of the Projections for the fiscal years ending 2018 through 2022 to Partners historical results for the fiscal year ended 2017.

	Partners, as reported	Change in Key Metric of pro forma results compared to prior year				
	2017	**2018**	**2019**	**2020**	**2021**	**2022**
EBIDA ($)	861,301	190,199	191,400	54,291	64,370	57,712
EBIDA Margin (%)	6.4%	1.5%	1.5%	0.0%	0.1%	0.0%
Operating Margin (%)	0.4%	1.1%	0.9%	-0.1%	0.1%	0.0%
Total Margin (%)	4.9%	-1.7%	1.1%	0.0%	0.2%	0.1%
Total Assets ($)	16,871,758	659,564	703,062	727,970	765,175	557,268
Total Net Assets ($)	7,464,109	483,200	603,300	630,908	673,378	712,890
Unrestricted Cash Days on Hand (days)	187.3	18.1	28.5	16.5	18.7	12.7
Unrestricted Cash to Debt (%)	128.8%	4.5%	12.8%	14.9%	16.1%	21.1%
Debt Service Coverage (ratio)	5.9	(1.0)	(0.0)	(0.1)	0.0	(1.9)
Debt to Capitalization (%)	46.2%	-1.1%	-1.8%	-1.7%	-1.6%	-2.6%

The Key Metrics fall into three primary categories: profitability, liquidity, and solvency. Profitability metrics, such as EBIDA, EBIDA Margin, Operating Margin, Total Margin, and Debt Service Coverage Ratio are used to assist in the evaluation of management performance in how efficiently resources are utilized. Liquidity metrics, such as Unrestricted Days Cash on Hand, and Unrestricted Cash-to-Debt measure the quality and adequacy of assets to meet current obligations as they come due. Solvency metrics, such as Debt to Capitalization, and Total Net Assets, measure the company's ability to service debt obligations. Additionally, certain metrics can be applicable in multiple categories.

The following table shows how each of the Key Metrics are calculated.

Key Metric	Definition
EBIDA ($)	(Earnings before interest, depreciation and amortization expenses) - Operating gain (loss) + interest expense + depreciation expense + amortization expense
EBIDA Margin (%)	EBIDA expressed as a % of total operating revenue. EBIDA / total operating revenue
Operating Margin (%)	Income (loss) from operations / total operating revenue
Total Margin (%)	Excess (deficit) of revenue over expenses / total operating revenue
Total Assets ($)	Total assets of the organization
Total Net Assets ($)	Total net assets of the organization (includes unrestricted net assets, temporarily restricted net assets and permanently restricted net assets)
Unrestricted Cash Days on Hand (days)	(Cash & cash equivalents + investments + current portion investments limited as to use + investments limited as to use - externally limited funds) / ((Total operating expenses - non recurring charges - depreciation & amortization) / YTD days)
Unrestricted Cash to Debt (%)	Unrestricted Cash-to-Debt (%) - (Cash & cash equivalents + investments + current portion investments limited as to use + investments limited as to use - externally limited funds) / (Current portion of long-term obligations + long-term obligations)
Debt Service Coverage (ratio)	Debt service coverage ratio (ratio) - (Excess (deficit) of revenue over expenses + depreciation expense + amortization expense + interest expense) / (Principal payments + interest expense)
Debt to Capitalization (%)	Debt to Capitalization (%) - (Current portion of long-term obligation + long-term obligations) / (Current portion of long-term obligations + long-term obligations + unrestricted net assets)

In preparing the Key Metrics, Management noted the following:

- Partners has a balloon payment on long-term debt maturing in fiscal year ending 2022 and prepared the Projections to include the balloon payment.

1. Revenues

The only revenue category on which the proposed capital projects would have an impact is net patient service revenue. Therefore, I have analyzed net patient service revenue identified by Partners in both their historical and projected financial information. Based upon my analysis of the projected results from Fiscal Year 2018 through Fiscal Year 2022, the proposed capital projects would represent approximately 0.073% (7 one-hundredths of 1%) of Partners operating revenue beginning in FY 2020 to 0.166% (about 16 one-hundredths of 1%) in FY 2022. The first year in which revenue is present for the proposed capital projects is FY 2020.

It is my opinion that the revenue growth projected by Management reflects a reasonable estimation based primarily upon the organization's historical operations.

3. Operating Expenses

I analyzed each of the categorized operating expenses for reasonableness and feasibility as it relates to the projected revenue items. I reviewed the actual operating results for Partners for the years ended 2016 and 2017 in order to determine the impact of the proposed capital projects at MG Waltham on the consolidated entity and in order to determine the reasonableness of the Projections for the fiscal years 2018 through 2022. Based upon my analysis of the projected results from Fiscal Year 2018 through Fiscal Year 2022, the proposed capital projects would represent approximately 0.109% (about 11 one-hundredths of 1%) of Partners operating expenses beginning in FY 2020 to 0.171% (about 17 one-hundredths of 1%) in FY 2022.

It is my opinion that the growth in operating expenses projected by Management reflects a reasonable estimation based primarily upon the organization's historical operations.

4. Non-Operating Gains/Expenses and Other Changes in Net Assets

The final categories of Partners Projections are various non-operating gains/expenses and other changes in net assets. The items in these categories relate to investment account activity (realized and unrealized), philanthropic and academic gifts, benefit plan funded status, fair value adjustments and other items. Because many of these items are unpredictable, nonrecurring, or dependent upon market fluctuations, I analyzed the non-operating activity in aggregate. Based upon my analysis, there were no non-operating expenses projected for the proposed capital projects at MG Waltham. Accordingly, it is my opinion that the pro-forma non-operating gains/expenses and other changes in net assets are reasonable.

5. Capital Expenditures and Cash Flows

I reviewed Partners capital expenditures and cash flows in order to determine whether Partners anticipated reinvesting sufficient funds for technological upgrades and property, plant and equipment and whether the cash flow would be able to support that reinvestment.

Based upon my discussions with Management and my review of the information provided, I considered the current and projected capital projects and loan financing obligations included within the Projections and the impact of those projected expenditures on Partners cash flow. Based upon my analysis, it is my opinion that the pro-forma capital expenditures and resulting impact on Partners cash flows are reasonable.

VI. FEASIBILITY

I analyzed the projected operations for Partners and the changes in Key Metrics prepared by Management as well as the impact of the proposed capital projects at MG Waltham upon the Projections and Key Metrics. In performing my analysis, I considered multiple sources of information including historical and projected financial information for Partners. It is important to note that the Projections do not account for any anticipated changes in accounting standards. These standards, which may have a material impact on individual future years, are not anticipated to have a material impact on the aggregate Projections.

Because the impact of the proposed capital projects at MG Waltham represents a relatively insignificant portion of the operations and financial position of Partners, I determined that the Projections are not likely to result in insufficient funds available for capital and ongoing operating costs necessary to support the proposed projects. Based upon my review of the Projections and relevant supporting documentation, I

determined the projects and continued operating surplus are reasonable and based upon feasible financial assumptions. Therefore, the proposed capital projects at MG Waltham are financially feasible and within the financial capability of Partners.

Respectively submitted,

Bernard L Donohue, III, CPA

Bernard L. Donohue, III, CPA

Attachment/Exhibit

7

Examiner

Name Approved

The Commonwealth of Massachusetts

OFFICE OF THE MASSACHUSETTS SECRETARY OF STATE
MICHAEL J. CONNOLLY, Secretary
ONE ASHBURTON PLACE, BOSTON, MASSACHUSETTS 02108

ARTICLES OF ORGANIZATION

(Under G.L. Ch. 180)

ARTICLE I

The name of the corporation is:

MGH/BRIGHAM HEALTH CARE SYSTEM, INC.

ARTICLE II

The purpose of the corporation is to engage in the following activities:

(i) To organize, operate and support a comprehensive health care system, including without limitation hospital and other health care services for all persons, and education and research for the prevention, diagnosis, treatment and cure of all forms of human illness; (ii) to improve the health and welfare of all persons; (iii) to operate for the benefit of and to support The Massachusetts General Hospital, The Brigham Medical Center, Inc., their respective affiliated corporations and such other charitable, scientific or educational organizations which are or are affiliated with teaching hospitals in the Greater Boston Area; and (iv) to carry on any other activity that may lawfully be carried on by a corporation formed under Chapter 180 of the Massachusetts General Laws which is exempt under section 501(c)(3) of the Internal Revenue Code.

93-349060

C ☐
P ☑
M ☐
R.A. ☐

10

P.C.

Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on separate 8½ x 11 sheets of paper leaving a left hand margin of at least 1 inch. Additions to more than one article may be continued on a single sheet so long as each article requiring each such addition is clearly indicated.

ARTICLE III

If the corporation has one or more classes of members, the designation of such classes, the manner of election or appointments, the duration of membership and the qualification and rights, including voting rights, of the members of each class, may be set forth in the by-laws of the corporation or may be set forth below:

The designation of classes of members, if any, the manner of election or appointment, the term of office, and the qualifications and rights of members are set forth in the by-laws of the Corporation.

ARTICLE IV

* Other lawful provisions, if any, for the conduct and regulation of the business and affairs of the corporation, for its voluntary dissolution, or for limiting, defining, or regulating the powers of the corporation, or of its directors or members, or of any class of members, are as follows:

See Continuation Sheets IV-A through IV-D attached hereto and incorporated herein by reference.

* If there are no provisions, state "None".

Note: The preceding four (4) articles are considered to be permanent and may ONLY be changed by filing appropriate Articles of Amendment.

IV. Other Lawful Provisions for Conduct and Regulation of the Business and Affairs of the Corporation, for its Voluntary Dissolution, and for Limiting, Defining and Regulating the Powers of the Corporation and of its Trustees and Members.

4.1. The corporation shall have in furtherance of its corporate purposes all of the powers specified in Section 6 of Chapter 180 and in Sections 9 and 9A of Chapter 156B of the Massachusetts General Laws (except those provided in paragraph (m) of said Section 9) as now in force or as hereafter amended, and may carry on any operation or activity referred to in Article 2 to the same extent as might an individual, either alone or in a joint venture or other arrangement with others, or through a wholly or partly owned or controlled corporation; provided, however, that no such power shall be exercised in a manner inconsistent with said Chapter 180 or any other chapter of the Massachusetts General Laws or which would deprive it of exemption from federal income tax as an organization described in Section 501(c)(3) of the Internal Revenue Code.

4.2. The by-laws may authorize the trustees to make, amend or repeal the by-laws in whole or in part, except with respect to any provision thereof which by law, the articles of organization or the by-laws requires action by the members.

4.3. Meetings of the members may be held anywhere in the United States.

4.4. No trustee or officer of the corporation shall be personally liable to the corporation or its members for monetary damages for breach of fiduciary duty as such trustee or officer notwithstanding any provision of law imposing such liability, except to the extent that such exemption from liability is not permitted under Chapter 180 of the Massachusetts General Laws.

4.5.(a) The corporation shall, to the extent legally permissible, indemnify each person who serves as one of its members, trustees or officers, or who serves at its request as a member, trustee or officer of another organization or in a capacity with respect to any employee benefit plan (each such person being called in this Section 4.5 a "Person") against all liabilities and expenses, including amounts paid in satisfaction of judgments, in compromise or as fines and penalties, and

counsel fees, reasonably incurred by such Person in connection with the defense or disposition of any action, suit or other proceeding, whether civil or criminal, in which such Person may be involved or with which such Person may be threatened, while in office or thereafter, by reason of being or having been such a Person, except with respect to any matter as to which such Person shall have been adjudicated in any proceeding not to have acted in good faith in the reasonable belief that his or her action was in the best interests of the corporation or, to the extent that such matter relates to service at the request of the corporation for another organization or an employee benefit plan, in the best interests of such organization or of the participants or beneficiaries of such employee benefit plan. Such best interests shall be deemed to be the best interests of the corporation for the purposes of this Section 4.5.

(b) Notwithstanding the foregoing, as to any matter disposed of by a compromise payment by any Person, pursuant to a consent decree or otherwise, no indemnification either for said payment or for any other expenses shall be provided unless such compromise shall be approved as in the best interests of the corporation, after notice that it involves such indemnification, (a) by a disinterested majority of the trustees then in office; or (b) by a majority of the disinterested trustees then in office, provided that there has been obtained an opinion in writing of independent legal counsel to the effect that such Person appears to have acted in good faith in the reasonable belief that his or her action was in the best interests of the corporation; or (c) by a majority of the disinterested members entitled to vote, voting as a single class.

(c) Expenses, including counsel fees, reasonably incurred by any Person in connection with the defense or disposition of any such action, suit or other proceeding may be paid from time to time by the corporation in advance of the final disposition thereof upon receipt of an undertaking by such Person to repay the amounts so paid if such Person ultimately shall be adjudicated to be not entitled to indemnification under this Section 4.5. Such an undertaking may be accepted without reference to the financial ability of such Person to make repayment.

(d) The right of indemnification hereby provided shall not be exclusive. Nothing contained in this Section shall affect any other rights to indemnification to which any Person or other corporate personnel may be entitled by contract or otherwise under law.

(e) As used in this Section 4.5, the term "Person" includes such Person's respective heirs, executors and administrators, and

a "disinterested" member, trustee or officer is one against whom in such capacity the proceeding in question, or another proceeding on the same or similar grounds, is not then pending.

4.6.(a) No person shall be disqualified from holding any office by reason of any interest. In the absence of fraud, any trustee, officer or member of this corporation, or any concern in which any such trustee, officer or member has any interest, may be a party to, or may be pecuniarily or otherwise interested in, any contract, act or other transaction (collectively called a "transaction") of this corporation, and

(1) such transaction shall not be in any way invalidated or otherwise affected by that fact; and

(2) no such trustee, officer, member or concern shall be liable to account to this corporation for any profit or benefit realized through any such transaction;

provided, however, that such transaction either was fair at the time it was entered into or is authorized or ratified either (i) by a majority of the trustees who are not so interested and to whom the nature of such interest has been disclosed, or (ii) by vote of a majority of each class of members of the corporation entitled to vote for trustees, at any meeting of members the notice of which, or an accompanying statement, summarizes the nature of such transaction and such interest. No interested trustee or member of this corporation may vote or may be counted in determining the existence of a quorum at any meeting at which such transaction shall be authorized, but may participate in discussion thereof.

(b) For purposes of this Section 4.6, the term "interest" shall include personal interest and also interest as a trustee, officer, stockholder, shareholder, director, member or beneficiary of any concern; and the term "concern" shall mean any corporation, association, trust, partnership, firm, person or other entity other than this corporation.

(c) No transaction shall be avoided by reason of any provisions of this paragraph 4.6 which would be valid but for such provisions.

4.7. No part of the assets or net earnings of the corporation shall inure to the benefit of any member, officer or trustee of the corporation or any individual; no substantial part of the activities of the corporation shall be the carrying on of propaganda, or otherwise attempting, to influence legislation except to the extent permitted by Section 501(h) of the Internal Revenue Code; and the corporation shall not participate in, or

intervene in (including the publishing or distributing of statements), any political campaign on behalf of (or in opposition to) any candidate for public office. It is intended that the corporation shall be entitled to exemption from federal income tax as an organization described in Section 501(c)(3) of the Internal Revenue Code and shall not be a private foundation under Section 509(a) of the Internal Revenue Code.

4.8. If and so long as the corporation is a private foundation (as that term is defined in Section 509 of the Internal Revenue Code), then notwithstanding any other provisions of the articles of organization or the by-laws of the corporation, the following provisions shall apply:

A) the income of the corporation for each taxable year shall be distributed at such time and in such manner as not to subject the corporation to the tax on undistributed income imposed by Section 4942 of the Internal Revenue Code, and

B) the corporation shall not engage in any act of self dealing (as defined in Section 4941(d) of the Internal Revenue Code), nor retain any excess business holdings (as defined in Section 4943(c) of the Internal Revenue Code), nor make any investments in such manner as to subject the corporation to tax under Section 4944 of the Internal Revenue Code, nor make any taxable expenditures (as defined in Section 4945(d) of the Internal Revenue Code).

4.9. Upon the liquidation or dissolution of the corporation, after payment of all of the liabilities of the corporation or due provision therefor, all of the assets of the corporation shall be disposed of pursuant to Massachusetts General Laws, Chapter 180, Section 11A, to The Massachusetts General Hospital and The Brigham Medical Center, Inc. if exempt from taxation as organizations described in Section 501(c)(3) of the Internal Revenue Code or, if both are not, to one or more organizations with similar purposes and similar tax exemption.

4.10. All references herein: (i) to the Internal Revenue Code shall be deemed to refer to the Internal Revenue Code of 1986, as now in force or hereafter amended; (ii) to the General Laws of The Commonwealth of Massachusetts, or any chapter thereof, shall be deemed to refer to said General Laws or chapter as now in force or hereafter amended; and (iii) to particular sections of the Internal Revenue Code or said General Laws shall be deemed to refer to similar or successor provisions hereafter adopted.

MGH/BRIGHAM HEALTH CARE SYSTEM, INC.

Continuation Sheet VII(b)

	Name	Residence or Post Office Address
Officers		
Vice-President	J. Robert Buchanan, M.D.	25 Commonwealth Avenue Boston, MA 02116
President	H. Richard Nesson, M.D.	565 Boylston Street Brookline, MA 02146
Treasurer	Richard A. Spindler	210 Schoolmaster Lane Dedham, MA 02026
Clerk	David M. Donaldson	22 Weston Road Lincoln Center, MA 01773
Trustees	W. Gerald Austen, M.D.	163 Wellesley Street Weston, MA 02193
	Eugene Braunwald, M.D.	75 Scotch Pine Road Weston, MA 02193
	J. Robert Buchanan, M.D.	25 Commonealth Avenue Boston, MA 02116
	Francis H. Burr	44 Prince Street Beverly, MA 01915
	Ferdinand Colloredo-Mansfeld	Winthrop Street Hamilton, MA 01982

MGH/BRIGHAM HEALTH CARE SYSTEM, INC.

Continuation Sheet VII(b)

Name	Residence or Post Office Address
John H. McArthur	Fowler 10 Soldiers Field Boston, MA 02134
H. Richard Nesson, M.D.	565 Boylston Street Brookline, MA 02146
Richard A. Spindler	210 Schoolmaster Lane Dedham, MA 02026

AJWCNTNS.LM

ARTICLE V

By-laws of the corporation have been duly adopted and the initial directors, president, treasurer and clerk or other presiding, financial or recording officers, whose names are set out below, have been duly elected.

ARTICLE VI

The effective date of organization of the corporation shall be the date of filing with the Secretary of the Commonwealth or if a later date is desired, specify date, (not more than 30 days after date of filing).

The information contained in ARTICLE VII is NOT a PERMANENT part of the Articles of Organization and may be changed ONLY by filing the appropriate form provided therefor.

ARTICLE VII

a. The post office address of the initial principal office of the corporation IN MASSACHUSETTS is:

c/o Ropes & Gray, One International Place, Boston, MA 02110

b. The name, residence and post office address of each of the initial directors and following officers of the corporation are as follows:

	NAME	RESIDENCE	POST OFFICE ADDRESS
President:	See Continuation Sheet VII(b) attached hereto and incorporated herein by reference.		
Treasurer:			
Clerk:			

Directors: (or officers having the powers of directors).

NAME	RESIDENCE	POST OFFICE ADDRESS
See Continuation Sheet VII(b) attached hereto and incorporated herein by reference.		

c. The fiscal year of the corporation shall end on the last day of the month of: September

d. The name and BUSINESS address of the RESIDENT AGENT of the corporation, if any, is:

I/We the below-signed INCORPORATORS do hereby certify under the pains and penalties of perjury that I/We have not been convicted of any crimes relating to alcohol or gaming within the past ten years. I/We do hereby further certify that to the best of my/our knowledge the above-named principal officers have not been similarly convicted. If so convicted, explain.

IN WITNESS WHEREOF and under the pains and penalties of perjury, I/WE, whose signature(s) appear below as incorporator(s) and whose names and business or residential address(es) ARE CLEARLY TYPED OR PRINTED beneath each signature do hereby associate with the intention of forming this corporation under the provisions of General Laws Chapter 180 and do hereby sign these Articles of Organization as incorporator(s) this 9th day of December, 19 93

David M. Donaldson

David M. Donaldson

Ropes & Gray
One International Place
Boston, MA 02110

NOTE: If an already-existing corporation is acting as incorporator, type in the exact name of the corporation, the state or other jurisdiction where it was incorporated, the name of the person signing on behalf of said corporation and the title he/she holds or other authority by which such action is taken.

SECRETARY OF STATE
RECEIVED
1993 DEC 15 PM 1:39
CORPORATION DIVISION

449104

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF ORGANIZATION

GENERAL LAWS, CHAPTER 180

I hereby certify that, upon an examination of the within-written articles of organization, duly submitted to me, it appears that the provisions of the General Laws relative to the organization of corporations have been complied with, and I hereby approve said articles; and the filing fee in the amount of $35.00 having been paid, said articles are deemed to have been filed with me this 15th day of December 1993.

Effective date

Michael Joseph Connolly

MICHAEL J. CONNOLLY
Secretary of State

A PHOTOCOPY OF THESE ARTICLES OF ORGANIZATION SHALL BE RETURNED

TO: David M. Donaldson, Esq.
Ropes & Gray
One International Place, Boston, MA 02110

Telephone: (617) 951-7250

FEE: $15.00

The Commonwealth of Massachusetts

MICHAEL J. CONNOLLY
Secretary of State
ONE ASHBURTON PLACE, BOSTON, MASS. 02108

FEDERAL IDENTIFICATION NO. 000449104

ARTICLES OF AMENDMENT

General Laws, Chapter 180, Section 7

This certificate must be submitted to the Secretary of the Commonwealth within sixty days after the date of the vote of members or stockholders adopting the amendment. The fee for filing this certificate is $15.00 as prescribed by General Laws, Chapter 180, Section 11C(b). Make check payable to the Commonwealth of Massachusetts.

We, H. Richard Nesson, President/~~Vice President~~, and David M. Donaldson, Clerk/~~Assistant Clerk~~ of

MGH/BRIGHAM HEALTH CARE SYSTEM, INC.
(Name of Corporation)

Name Approved

located at One International Place, Boston, MA 02110

do hereby certify that the following amendment to the articles of organization of the corporation was duly adopted at a meeting held on March 14, 19 94, by vote of all members/~~stockholders having at least two thirds of the members legally qualified to vote~~

That the Articles of Organization of this corporation be and they hereby are amended to change the name of the corporation to "Partners HealthCare System, Inc."

P.C.

Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on separate 8½ x 11 sheets of paper leaving a left hand margin of at least 1 inch for binding. Additions to more than one article may be continued on a single sheet so long as each article requiring each such addition is clearly indicated.

The foregoing amendment will become effective when these articles of amendment are filed in accordance with Chapter 180, Section 7 of the General Laws unless these articles specify, in accordance with the vote adopting the amendment, a later effective date not more than thirty days after such filing, in which event the amendment will become effective on such later date.

IN WITNESS WHEREOF AND UNDER THE PENALTIES OF PERJURY, we have hereto signed our names this 18th day of March, in the year 1994

H. Richard Nesson
President/~~Vice President~~

Clerk/~~Assistant Clerk~~

459052

SECRETARY OF STATE
RECEIVED

1994 MAR 18 PM 4:10

CORPORATION DIVISION

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

(General Laws, Chapter 180, Section 7)

I hereby approve the within articles of amendment and, the filing fee in the amount of $ 15 having been paid, said articles are deemed to have been filed with me this 18th day of March, 1994

Michael Joseph Connolly

MICHAEL J. CONNOLLY

Secretary of State

TO BE FILLED IN BY CORPORATION

PHOTO COPY OF AMENDMENT TO BE SENT

TO: John E. Beard

Ropes & Gray

One International Place, Boston 02110

Telephone 617-951-7411

Copy Mailed

FEDERAL IDENTIFICATION NO. 04-2703535

Fee: $15.00

Examiner

Name Approved

The Commonwealth of Massachusetts

William Francis Galvin
Secretary of the Commonwealth
One Ashburton Place, Boston, Massachusetts 02108-1512

042
041

ARTICLES OF AMENDMENT
(General Laws, Chapter 180, Section 7)

We, Samuel O. Thier, M.D. , *President / ~~Vice President~~,

and Ernest M. Haddad , Secretary ~~Assistant Secretary~~ Clerk,

of Partners HealthCare System, Inc. ,
(Exact name of corporation)

located at 800 Boylston Street, Suite 1150, Boston, MA 02199 ,
(Address of corporation in Massachusetts)

do hereby certify that these Articles of Amendment affecting articles numbered:

II and IV
(Number those articles 1, 2, 3, and/or 4 being amended)

of the Articles of Organization were duly adopted at a meeting held on May 4 1998 , by vote of:

277 members, ~~of the directors, or of the shareholders~~

being at least two-thirds of its members/directors legally qualified to vote in meetings of the corporation ~~or of the holders of at least two-thirds of the capital stock having the right to vote thereon~~

1. Delete Article II and insert in place thereof the following:

Article II

(i) To organize, operate and support a comprehensive health care system, including without limitation hospital and other health care services for all persons, and education and research for the prevention, diagnosis, treatment and cure of all forms of human illness: (ii) to improve the health and welfare of all persons: (iii) to operate for the benefit of and to support The Massachusetts General Hospital, The Brigham Medical Center, Inc., The North Shore Medical Center, Inc., their respective affiliated corporations, such other hospitals, charitable, scientific or educational organizations, and their affiliated corporations that become affiliated with Partners HealthCare System, Inc.

C ☐
P ☐
M ☐
R.A. ☐

3

P.C.

*Delete the inapplicable words.
Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on one side only of separate 8 1/2 x 11 sheets of paper with a left margin of at least 1 inch. Additions to more than one article may be made on a single sheet so long as each article requiring each addition is clearly indicated.

(collectively, the "Partners Affiliated Corporations") and such other charitable, scientific or educational organizations which are or are affiliated with teaching hospitals in the Greater Boston Area; and (iv) to carry on any other activity that may lawfully be carried on by a corporation formed under Chapter 180 of the Massachusetts General Laws which is exempt under Section 501(c)(3) of the Internal Revenue Code; and in furtherance of the foregoing purposes to:

(a) Serve as the controlling and coordinating organization for the Partners Affiliated Corporations in order to assure the consistency and appropriateness of their respective missions, activities, governance and administration;

(b) Solicit and receive devises of real property and grants, donations and bequests of money and other property to be used to further the foregoing purposes and those of the Partners Affiliated Corporations; and

(c) Support the Partners Affiliated Corporations by loan, lease or donation of funds or other assets, by guaranty of obligations or by other action.

2. Delete Section 4.5. of Article IV.

The foregoing amendment(s) will become effective when these Articles of Amendment are filed in accordance with General Laws, Chapter 180, Section 7 unless these articles specify, in accordance with the vote adopting the amendment, a *later* effective date not more than *thirty days* after such filing, in which event the amendment will become effective on such later date.

[redacted] _____ .

SIGNED UNDER THE PENALTIES OF PERJURY, this 29TH day of MAY, 1998 .

_____ , *President [redacted]

_____ , Secretary [redacted]

*Delete the inapplicable words.

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

(General Laws, Chapter 180, Section 7)

S 43730

SECRETARY OF THE COMMONWEALTH
98 JUN -2 AM 9:52

I hereby approve the within Articles of Amendment and, the filing fee in the amount of $ 15.00 having been paid, said articles are deemed to have been filed with me this 2ND day of JUNE 19 98.

Effective date: _____

William Francis Galvin

WILLIAM FRANCIS GALVIN

Secretary of the Commonwealth

TO BE FILLED IN BY CORPORATION

Photocopy of document to be sent to:

Ernest M. Haddad, Esq.
Partners HealthCare System, Inc.
800 Boylston Street, Ste. 1150
Boston, MA 02199

Telephone: (617) 278-1065

AACR.6

FEDERAL IDENTIFICATION NO. 04-3230035 ✓
Fee: $15.00

Examiner

N/A
Name Approved

The Commonwealth of Massachusetts

William Francis Galvin
Secretary of the Commonwealth
One Ashburton Place, Boston, Massachusetts 02108-1512

ARTICLES OF AMENDMENT

042

(General Laws, Chapter 180, Section 7)

We, Samuel O. Thier, M.D. , *President / ~~Vice President~~,

and Ernest M. Haddad , Secretary *~~Clerk / Assistant Clerk~~

of Partners HealthCare System, Inc. ,
(Exact name of corporation)

located at 800 Boylston Street, Suite 1150, Boston, MA 02199 ,
(Address of corporation in Massachusetts)

do hereby certify that these Articles of Amendment affecting articles numbered:

II
(Number those articles 1, 2, 3, and/or 4 being amended)

of the Articles of Organization were duly adopted at a meeting held on May 3 19 99 , by vote of:

293 members, ~~xxxxxxxxxxxxxxxx directors of xxxxxxxxxxxxxxxxxx shareholders~~

being at least two-thirds of its members/directors legally qualified to vote in meetings of the corporation ~~(OR (In the case of a corporation having capital stock, by the holders of at least two-thirds of the capital stock having the right to vote thereon))~~

Delete Article II and insert in place thereof the following:

Article II

The purpose of the corporation is to engage in the following activities:

(i) To organize, operate, coordinate and support a comprehensive integrated health care delivery system (the "System") that provides, without limitation, hospital, physician and other health care services for all persons and education and research for the prevention, diagnosis, treatment and cure of all forms of human illness; (ii) to improve the health and welfare of all persons; (iii) to serve as the controlling and coordinating organization for the System and its member institutions and entities including Brigham and Women's/Faulkner Hospitals, Inc., The Massachusetts General Hospital, The North Shore Medical Center, Inc., Newton-Wellesley Health Care System, Inc., and such other hospital, physician, charitable, scientific, educational,

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M ☐
R.A. ☐

3

*Delete the inapplicable words.
Note: If the space provided under any article or item on this form is insufficient, additions shall be set forth on one side only of separate 8 1/2 x 11 sheets of paper with a left margin of at least 1 inch. Additions to more than one article may be made on a single sheet so long as each article requiring each addition is clearly indicated.

research and other institutions and entities that are controlled, directly or indirectly, through sole corporate membership, stock ownership or otherwise, by the Corporation (collectively, the "Affiliated Organizations"); (iv) to assist and support the Affiliated Organizations in fulfilling their respective purposes, missions and objectives in a manner consistent with the purposes, missions and objectives of the Corporation and the System; and (v) to carry on any other activity that may lawfully be carried on by a corporation formed under Chapter 180 of the Massachusetts General Laws which is exempt under Section 501(c)(3) of the Internal Revenue Code; and in furtherance of the foregoing purposes to:

(a) Solicit and receive devises of real property and grants, donations and bequests of money and other property to be used to further the foregoing purposes; and

(b) Support the Affiliated Organizations by loan, lease or donation of funds or other assets; and

(c) Support the Affiliated Organizations by guaranty of the obligations of the Affiliated Organizations or by other action.

The foregoing amendment(s) will become effective when these Articles of Amendment are filed in accordance with General Laws, Chapter 180, Section 7 unless these articles specify, in accordance with the vote adopting the amendment, a *later* effective date not more than *thirty days* after such filing, in which event the amendment will become effective on such later date.

~~Later effective date: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

SIGNED UNDER THE PENALTIES OF PERJURY, this 24th day of May, 19 99,

Paul O Ober, ~~*President/Vice President~~

Bruce M Haddad, Secretary ~~/*Clerk/*Assistant Clerk~~

*Delete the inapplicable words.

660922

THE COMMONWEALTH OF MASSACHUSETTS

ARTICLES OF AMENDMENT

(General Laws, Chapter 180, Section 7)

I hereby approve the within Articles of Amendment and, the filing fee in the amount of $ 15.00 having been paid, said articles are deemed to have been filed with me this 26th day of May 19 99.

99 MAY 26 AM 9:24

Effective date: _____

William Francis Galvin

WILLIAM FRANCIS GALVIN

Secretary of the Commonwealth

TO BE FILLED IN BY CORPORATION

Photocopy of document to be sent to:

Mary LaLonde

Partners HealthCare System

Office of the General Counsel
50 Staniford St., 10th floor
Boston, MA 02114

Telephone: 617-726-5315

The Commonwealth of Massachusetts
William Francis Galvin

Minimum Fee: $15.00

Secretary of the Commonwealth, Corporations Division
One Ashburton Place, 17th floor
Boston, MA 02108-1512
Telephone: (617) 727-9640

Articles of Amendment

(General Laws, Chapter 180, Section 7)

Identification Number: 043230035

We, BRENT L. HENRY __ **President** X **Vice President,**

and MARY C. LALONDE __ **Clerk** X **Assistant Clerk ,**

of PARTNERS HEALTHCARE SYSTEM, INC.
located at: 800 BOYLSTON ST., SUITE 1150 BOSTON , MA 02199 USA

***do* hereby certify that these Articles of Amendment affecting articles numbered:**

__ Article 1 X Article 2 __ Article 3 __ Article 4

(Select those articles 1, 2, 3, and/or 4 that are being amended)

of the Articles of Organization were duly adopted at a meeting held on 4/19/2016 , by vote of: 197 members, 0 directors, or 0 shareholders,
being at least two-thirds of its members/directors legally qualified to vote in meetings of the corporation (or, in the case of a corporation having capital stock, by the holders of at least two thirds of the capital stock having the right to vote therein):

ARTICLE I

The exact name of the corporation, ***as amended,*** is:
(Do not state Article I if it has not been amended.)

ARTICLE II

The purpose of the corporation, ***as amended***, is to engage in the following business activities:
(Do not state Article II if it has not been amended.)

THE PURPOSE OF THE CORPORATION IS TO ENGAGE IN THE FOLLOWING ACTIVITIES: (I) TO ORGANIZE, OPERATE, COORDINATE AND SUPPORT A COMPREHENSIVE INTEGRATED HEAL TH CARE DELIVERY SYSTEM (THE "SYSTEM") THAT PROVIDES, WITHOUT LIMITATION, HOS PITAL, PHYSICIAN AND OTHER HEALTH CARE SERVICES FOR ALL PERSONS AND EDUCATI ON AND RESEARCH FOR THE PREVENTION, DIAGNOSIS, TREATMENT AND CURE OF ALL FO RMS OF HUMAN ILLNESS; (II) TO IMPROVE THE HEALTH AND WELFARE OF ALL PERSONS A ND TO CONDUCT AND SUPPORT EDUCATION, RESEARCH AND OTHER ACTIVITIES RELATIN G THERE TO, (III) TO SERVE AS THE CONTROLLING AND COORDINATING ORGANIZATION F OR THE SYSTEM AND ITS MEMBER INSTITUTIONS AND ENTITIES INCLUDING BRIGHAM AN D WOMEN'S HEALTH CARE, INC., THE MASSACHUSETTS GENERAL HOSPITAL, NSMC HEALT HCARE, INC., NEWTON WELLESLEY HEALTH CARE SYSTEM, INC., PARTNERS COMMUNITY PHYSICIANS ORGANIZATION, INC., PARTNERS CONTINUING CARE, INC., NEIGHBORHOOD HEALTH PLAN, INC. AND SUCH OTHER HOSPITAL, PHYSICIAN, CHARITABLE, SCIENTIFIC, E

DUCATIONAL, RESEARCH AND OTHER INSTITUTIONS AND ENTITIES THAT ARE CONTROLLED, DIRECTLY OR INDIRECTLY, THROUGH SOLE CORPORATE MEMBERSHIP, STOCK OWNERSHIP OR OTHERWISE, BY THE CORPORATION (COLLECTIVELY, THE "AFFILIATED ORGANIZATIONS"); (IV) TO ASSIST AND SUPPORT THE AFFILIATED ORGANIZATIONS IN FULFILLING THEIR RESPECTIVE PURPOSES, MISSIONS AND OBJECTIVES IN A MANNER CONSISTENT WITH THE PURPOSES, MISSIONS AND OBJECTIVES OF THE CORPORATION AND THE SYSTEM; AND (V) TO CARRY ON ANY OTHER ACTIVITY THAT MAY LAWFULLY BE CARRIED ON BY A CORPORATION FORMED UNDER CHAPTER 180 OF THE MASSACHUSETTS GENERAL LAWS WHICH IS EXEMPT UNDER SECTION 501(C)(3) OF THE INTERNAL REVENUE CODE; AND IN FURTHERANCE OF THE FOREGOING PURPOSES TO: (A) SOLICIT AND RECEIVE DEVISES OF REAL PROPERTY AND GRANTS, DONATIONS AND BEQUESTS OF MONEY AND OTHER PROPERTY TO BE USED TO FURTHER THE FOREGOING PURPOSES; AND (B) SUPPORT THE AFFILIATED ORGANIZATIONS BY LOAN, LEASE OR DONATION OF FUNDS OR OTHER ASSETS; AND (C) SUPPORT THE AFFILIATED ORGANIZATIONS BY GUARANTY OF THE OBLIGATIONS OF THE AFFILIATED ORGANIZATIONS OR BY OTHER ACTION.

ARTICLE III

A corporation may have one or more classes of members. ***As amended,*** the designation of such classes, the manner of election or appointments, the duration of membership and the qualifications and rights, including voting rights, of the members of each class, may be set forth in the by-laws of the corporation or may be set forth below:

ARTICLE IV

As amended, other lawful provisions, if any, for the conduct and regulation of the business and affairs of the corporation, for its voluntary dissolution, or for limiting, defining, or regulating the powers of the business entity, or of its directors or members, or of any class of members, are as follows:
(If there are no provisions state "NONE")

The foregoing amendment(s) will become effective when these Articles of Amendment are filed in accordance with General Laws, Chapter 180, Section 7 unless these articles specify, in accordance with the vote adopting the amendment, a *later* effective date not more than *thirty days* after such filing, in which event the amendment will become effective on such later date.

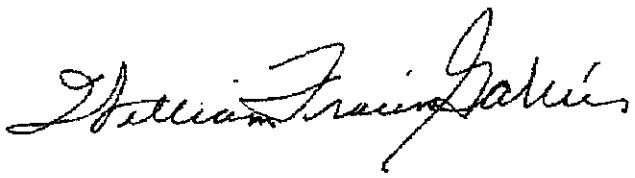
Later Effective Date:

Signed under the penalties of perjury, this 20 Day of April, 2016, BRENT L. HENRY , its , President / Vice President,
MARY C. LALONDE , Clerk / Assistant Clerk.

THE COMMONWEALTH OF MASSACHUSETTS

I hereby certify that, upon examination of this document, duly submitted to me, it appears that the provisions of the General Laws relative to corporations have been complied with, and I hereby approve said articles; and the filing fee having been paid, said articles are deemed to have been filed with me on:

April 20, 2016 04:09 PM



WILLIAM FRANCIS GALVIN

Secretary of the Commonwealth

Attachment/Exhibit

8

Massachusetts Department of Public Health
Determination of Need
Affidavit of Truthfulness and Compliance with Law and Disclosure Form 100.405(B)

Version: 7-6-17

Instructions: Complete information below. When complete check the box "This document is ready to print:". This will date stamp and lock the form. Print Form. Each person must sign and date the form. When all signatures have been collected, scan the document and e-mail to: **dph.don@state.ma.us** Include all attachments as requested.

Application Number: PHS-18022210-HE

Original Application Date: 2/22/18

Applicant Name: Partners HealthCare System, Inc.

Application Type: Hospital/Clinic Substantial Capital Expenditure

Applicant's Business Type: (•) Corporation ( ) Limited Partnership ( ) Partnership ( ) Trust ( ) LLC ( ) Other

Is the Applicant the sole member or sole shareholder of the Health Facility(ies) that are the subject of this Application? (•) Yes ( ) No

The undersigned certifies under the pains and penalties of perjury:

1. The Applicant is the sole corporate member or sole shareholder of the Health Facility[ies] that are the subject of this Application;
2. I have* ~~read~~ 105 CMR 100.000, the Massachusetts Determination of Need Regulation;
3. I understand and agree to the expected and appropriate conduct of the Applicant pursuant to 105 CMR 100.800;
4. I have* ~~read~~ this application for Determination of Need including all exhibits and attachments, and** ~~certify that~~ all of the information contained herein is accurate and true;
5. I have submitted the correct Filing Fee and understand it is nonrefundable pursuant to 105 CMR 100.405(B);
6. I have submitted the required copies of this application to the Determination of Need Program, and, as applicable, to all Parties of Record and other parties as required pursuant to 105 CMR 100.405(B);
7. I have caused, as required, notices of intent to be published and duplicate copies to be submitted to all Parties of Record, and all carriers or third-party administrators, public and commercial, for the payment of health care services with which the Applicant contracts, and with Medicare and Medicaid, as required by 105 CMR 100.405(C), et seq.;
8. I** ~~have caused~~ proper notification and submissions to the Secretary of Environmental Affairs pursuant to 105 CMR 100.405(E) and 301 CMR 11.00; will be made if applicable
9. If subject to M.G.L. c. 6D, § 13 and 958 CMR 7.00, I have submitted such Notice of Material Change to the HPC - in accordance with 105 CMR 100.405(G);
10. Pursuant to 105 CMR 100.210(A)(3), I certify that both the Applicant and the Proposed Project are in material and substantial compliance and good standing with relevant federal, state, and local laws and regulations, as well as with all ~~previously issued~~ Notices of Determination of Need*** ~~and the terms and Conditions attached therein~~;
11. I have* ~~read~~ and understand the limitations on solicitation of funding from the general public prior to receiving a Notice of Determination of Need as established in 105 CMR 100.415;
12. I understand that, if Approved, the Applicant, as Holder of the DoN, shall become obligated to all Standard Conditions pursuant to 105 CMR 100.310, as well as any applicable Other Conditions as outlined within 105 CMR 100.000 or that otherwise become a part of the Final Action pursuant to 105 CMR 100.360;
13. Pursuant to 105 CMR 100.705(A), I certify that the Applicant has Sufficient Interest in the Site or facility; and
14. Pursuant to 105 CMR 100.705(A), I certify that the Proposed Project is authorized under applicable zoning by-laws or ordinances, whether or not a special permit is required; or,
    a. If the Proposed Project is not authorized under applicable zoning by-laws or ordinances, a variance has been received to permit such Proposed Project; or,
    b. The Proposed Project is exempt from zoning by-laws or ordinances.

Corporation:

Attach a copy of Articles of Organization/Incorporation, as amended

David F. Torchiana, M.D.	David Torchiana	2/20/18
CEO for Corporation Name:	Signature:	Date
Scott M. Sperling		2/20/18
Board Chair for Corporation Name:	Signature:	Date

*been informed of the contents of
**have been informed that
***issued in compliance with 105 CMR 100.00, the Massachusetts Determination of Need Regulation effective January 27, 2017

Attachment/Exhibit

9