



Community Health Needs Assessment and Implementation Plan

2015

Executive Summary

Emerson is a 179-bed hospital with more than 300 primary care doctors and specialists, located in Concord, Massachusetts. Emerson Hospital provides advanced medical services to more than 300,000 people in 25 towns. The Hospital's core mission is to make high-quality health care more accessible to those who live and work in our community.

Emerson Hospital has undertaken a Community Health Needs Assessment (CHNA) from October 2014 through September 2015 to better understand and address the health needs of the Emerson Hospital community and to meet all provisions of section 501(r) of the Affordable Care Act which requires hospitals to conduct a community health needs assessment (CHNA) and adopt an implementation strategy at least once every three years.

The CHNA report contains secondary data from existing sources, such as the U.S. Census, the Massachusetts Department of Public Health, the CDC Behavior Risk Factor Surveillance Survey, Data, Youth Risk Behavior Survey, among others. This report also includes input from key informant interviews with community residents and stakeholders, particularly those with special knowledge of local and state public health departments, representatives from Councils on Aging, Housing Authorities, local schools, and representatives of medically underserved, low-income, and minority populations.

Utilizing the dominant themes gathered from the data collection and key informant interviews; Emerson Hospital Management has prioritized the health needs identified by the community. The key focus areas identified through the process are as follows:

- 1) Cancer Prevention, Detection, and Care
- 2) Mental Health and Substance Abuse Care
- 3) Care Coordination for Elderly Patients
- 4) Domestic Violence Awareness and Advocacy
- 5) Health Care Services in Maynard, Massachusetts.

The full report presents supporting data for each identified need, as well as additional indicators related to each area of focus. This report was used by Emerson Hospital in developing implementation strategies to work towards improving their community's health over the next three years.

2015 Emerson Hospital Community Health Needs Assessment

Emerson Hospital has undertaken a Community Health Needs Assessment (CHNA) to better understand and address the health needs of the Emerson Hospital community. The goals of this assessment are to:

- Evaluate the community's perceptions of its unmet health needs
- Assist the community to better understand its health needs and health status
- Explore opportunities for new programs to meet unmet health needs
- Monitor progress toward improving the health of the community
- Determine how to effectively allocate Community Benefit resources to best respond to community health needs
- Meet all provisions of section 501(r) of the Affordable Care Act which requires hospitals to conduct a community health needs assessment (CHNA) and adopt an implementation strategy at least once every three years

Needs Assessment Process

The CHNA was completed using quantitative data collection and qualitative interviews. The first phase was to gather an understanding of the Emerson Hospital service area through collecting Quantitative Data from secondary sources. This secondary data includes demographics (population, ages, race, education, employment, and income), health behavior information, and healthcare statistics. There was an effort to use data that is regularly updated and accessible. There are some limitations to this data. Most notably, much of the data is not collected at the zip code level for towns the size of those in Emerson's community, but is instead collected at the county level or a larger regional level that may not accurately mirror Emerson's service area. When data is available at the zip code level, it is frequently suppressed in Emerson service area towns because lower population numbers lead to low occurrence figures. Low numbers of cases can also skew incidence rates.

Following the data collection, the second phase was to gather qualitative data through interviews and surveys of many community service providers throughout the Emerson Hospital community. This qualitative data, combined with the statistical data, was used to outline the health needs of the community.

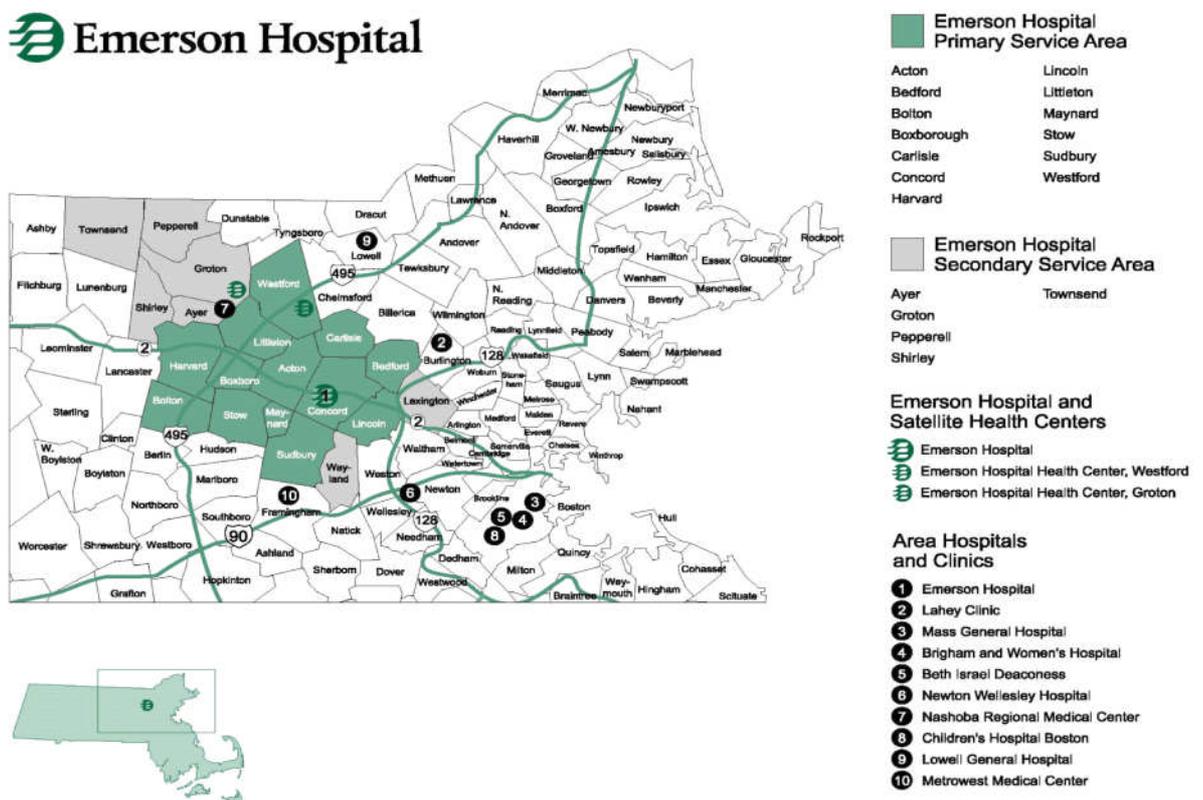
Emerson Hospital

Emerson is a 179-bed hospital with more than 300 primary care doctors and specialists. The hospital's mission is to deliver high quality, safe and cost-effective care to our patients and to

maintain a professional and respectful environment for all members of the Emerson Hospital community. The hospital provides over 32,000 emergency department visits per year, more than 11,000 day surgeries per year, and more than 68,000 physical therapy and other rehab treatments per year. The hospital cares for over 2,000 patients who receive 32,000 home care visits each year. 1,200 newborns are born at Emerson Hospital each year.

Emerson Hospital Service Area

Emerson Hospital provides advanced medical services to more than 300,000 people in 25 towns. Our core mission has always been to make high-quality health care more accessible to those who live and work in our community. To further this mission, Emerson has outpatient facilities in the towns of Westford, Groton, Sudbury and Concord, Massachusetts.



For the purposes of this health needs assessment, the hospital is focusing primarily on 13 towns that make up the Primary Service Area, along with the secondary area to the west of Emerson Hospital. In aggregate, these towns represent 70% of Emerson Hospital discharges.

HEALTH FACTORS DATA

Social and Economic Factors

There are just over 150,000 people living in the Emerson Primary Service Area (PSA) in 2015. The Secondary West area (SW) has 50,000 residents (Nielsen Site Reports). The total population in the PSA and SW is projected to grow 3% or by 10,000 people from 2015-2020. This growth is primarily in the 55+ age groups, followed by younger adults ages 18-34. Declines will be seen in the 35-54 adult age groups and the 10-17 age groups.

	2015 Estimate	2020 Projection	2015-2020 change	2015-2020 % change
0-9	21,694	22,616	922	4%
10-17	25,160	21,812	-3,348	-13%
18-24	19,752	22,825	3,073	16%
25-34	15,814	20,699	4,885	31%
35-44	21,412	18,573	-2,839	-13%
45-54	36,980	31,114	-5,866	-16%
55-64	32,051	37,213	5,162	16%
65+	29,659	37,751	8,092	27%

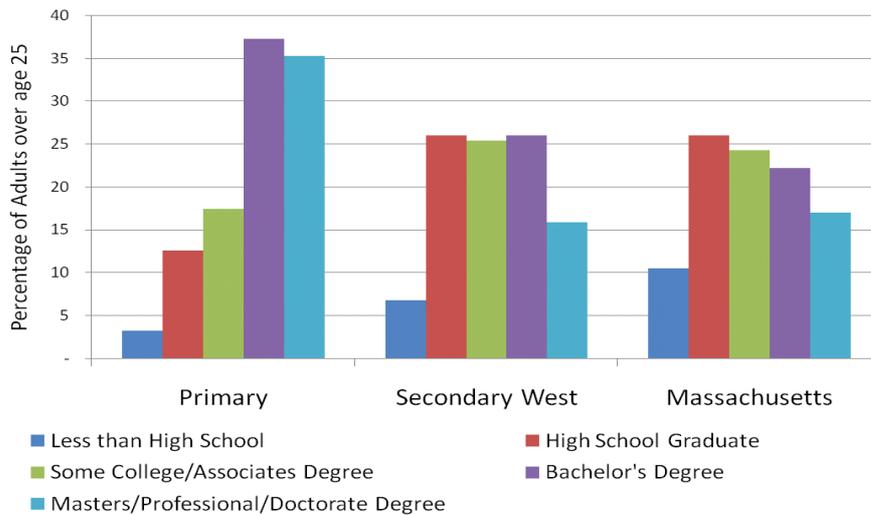
Race

The population of the Emerson Hospital Service Area is 83% White, 8% Asian, 3% Hispanic, and 1% Black. A few communities have significant Asian populations; Acton at 19% of the population, Boxboro at 17% of the population, Westford at 13% of the population, and Bedford at 10%. This population is primarily Chinese and Asian Indian.

Education

Education can influence health in many ways. According to the Robert Wood Johnson Foundation, "People with more education are likely to live longer, to experience better health outcomes, and to practice health-promoting behaviors such as exercising regularly, refraining from smoking, and obtaining timely health care checkups and screenings. Educational attainment among adults is linked with children's health as well, beginning early in life: babies of more-educated mothers are less likely to die before their first birthdays, and children of more-educated parents experience better health"

Emerson's Primary Service Area has a higher than average level of education with almost 70% of adults over age 25 having earned a bachelor's degree or higher. The Secondary West area has more than 40% of adults over age 25 that have attained a bachelor's degree or higher, compared to the state of Massachusetts at 39%.



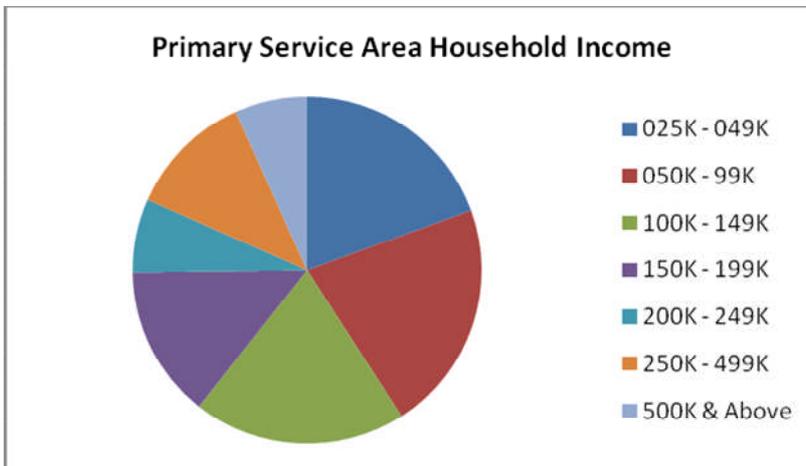
Employment

Based on population estimates, the PSA has a 94% employment rate. The SW employment rate is slightly lower at 93%.

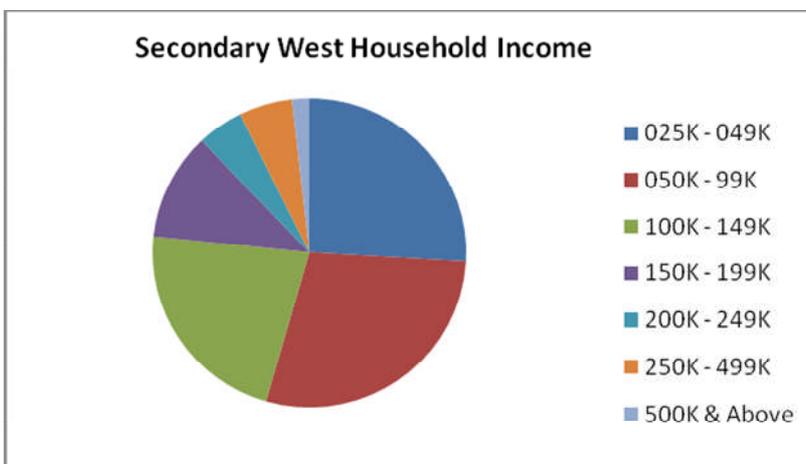
Income

Higher income is linked to better health. The greater the gap in a community between the richest and poorest people, greater differences will be seen in health status.

While the median household income of the Emerson Primary Service Area is 1.8 times the Massachusetts average, the distribution of income indicates that there are income disparities in the PSA. One in 5 households has an income under \$50K at the same time that one in 5 households have an income over \$250K.



The Secondary West area is less affluent than the PSA but there is less income disparity. The median household income is 1.3 times the Massachusetts average. 25% of households have incomes under \$50K and less than 10% have an income over \$250K.



Families in Poverty

Despite overall affluence of the service area, there are over 1,700 families in the Service area below poverty levels. Concord, Acton, and Westford have the highest number of families below poverty with children. Maynard, Westford, and Acton have the highest number of families below poverty without children.

	PSA	% PSA	SW	%SW
2015 Families below Poverty with Children	830	3.8%	389	6.2%
2015 Families below Poverty without Children	349	1.7%	175	2.7%

Poverty in Communities primarily served by Emerson Hospital

	Acton	Boxboro	Concord	Littleton	Maynard	Stow	Westford
Families below Poverty w/Children	92	34	120	45	14	23	65
Families below Poverty w/o Children	31	14	28	17	67	20	38

Populations Potentially in Need of Social Supports

Thirteen percent or almost 3,000 households in the PSA are headed by single parents. Twenty-one percent or 1,200 households in the SW are headed by single parents. Both area rates are favorable to the state average of 30%.

Five percent of the PSA and 4% of the SW are widows and widowers. This represents 6,100 people in the primary area and 1,700 in the secondary towns. These percentages are slightly lower than the state percentage of 6%, but will grow with the aging population projections in the service area.

Access to Health Care

The Behavioral Risk Factor Surveillance System (BRFSS) is a health-related telephone survey run by the Centers for Disease Control and Prevention. This data is not available at the town level in Emerson’s service area, but is available at the Community Health Network Area (CHNA). The Northwest Suburban Health Alliance (CHNA 15) has been used as a proxy for the Primary Service Area. The Community Health Network of North Central Massachusetts (CHNA 9) is used as a proxy for the Secondary West area. A list of towns included in each CHNA is listed in Appendix B.

BRFSS data suggests that the Emerson Hospital Service area has favorable access to health care:

	PSA <i>CHNA 15</i>	SW <i>CHNA 9</i>	Massachusetts
Report Fair/poor health	7%	12%	12%
No health insurance	2%	5%	4%
Checkup in past year	72%	78%	77%
No MD visit due to cost	4%	7%	7%

Utilization of preventive and screening health services is favorable in the Emerson Service Area, with room for improvement in the Secondary West.

	PSA <i>CHNA 15</i>	SW <i>CHNA 9</i>	Massachusetts
Age 50+ screening colonoscopy	67%	60%	64%
Screening mammogram	89%	82%	85%
Flu Vaccine	81%	70%	75%
Cholesterol checked in past year	87%	84%	84%

Immunization rates for children are mostly favorable. All PSA elementary schools report at least 91% of their kindergarten students have recommended MMR immunizations. 80% of PSA elementary schools have at least 90% of kindergarten students with all recommended immunizations

Health Behaviors

Adults in Emerson's Service area have mostly favorable health behaviors with room for improvement. The smoking rate in primary area is lower than state average but in the secondary area is higher than the state average. The percentage of older adults reporting chronic or long-term heavy drinking is higher than state average, particularly in the primary service area. Chronic drinking is defined by the BRFSS as more than 60 drinks a month for men, or more than 30 drinks a month for women. The percentage of adults who reported binge drinking, or consuming five or more drinks for men or four or more drinks for women, on any one occasion in the past month, is similar to state average.

	PSA (CHNA 15)	SW (CHNA 9)	Massachusetts
Smokers	10%	21%	16%
Chronic Drinkers age 18-59	5%	7%	7%
Chronic Drinkers age 60+	8%	6%	5%
Binge Drinkers age 18-59	21%	20%	22%
Binge Drinkers age 60+	5%	5%	5%
Adults who are overweight	51%	61%	58%
Adults who exercise	87%	79%	79%
5 or more fruits and vegetables per day	26%	26%	27%

HEALTH OUTCOMES DATA

Birth Indicators

There are approximately 1,584 babies born in the PSA and SW in 2013 and close to half of them are born at Emerson Hospital. Secondary Data shows lower risk factors for babies born in the service area. There are fewer births to adolescent mothers, and a higher rate of adequate prenatal care compared to the state as a whole. Infant death rates are lower than the state. While the Primary Service area has a lower than average prenatal smoking rate, the Secondary West prenatal smoking rate is the same as the state average.

	Massachusetts	Primary	Secondary West
Lower Percent of Teen Mothers	6%	<2%	<5%
Higher Percent with adequate prenatal care	85%	90%	85%
Lower Infant Death Rate	4%	0.1%	1%
Lower Prenatal Smoking	6%	2%	6%

Death Indicators

As is the trend in Massachusetts, Cancer was the top cause of death in the Emerson Hospital service area, followed by Heart Disease, Chronic lower respiratory diseases, and stroke. The percentage of total suicide deaths is at or slightly above the Massachusetts average percentage.

Top Causes of Death, 2012:

	U.S.	Mass	PSA	SW
Cancer	23%	24%	23%	25%
Heart Disease	24%	22%	21%	23%
Chronic lower respiratory diseases	6%	5%	5%	7%
Stroke	5%	4%	5%	3%
Diabetes	3%	2%	2%	1%
Suicide	2%	1%	1%	1%
Unintentional injuries	5%	6%		
Opioid related		1%	1%	1%
Motor Vehicle Accidents		1%	1%	3%

Disease Indicators

Cancer

Cancer is the leading cause of death in Emerson's Primary and Secondary West Service areas. The top six types of cancers occurring in the Service are:

Cancer Incidence Rates in the Emerson Hospital Service Area

	PSA Average annual incidence	PSA Crude Rate per 100,000	SW Average annual incidence	SW Crude Rate per 100,000	Massachusetts Age-Adjusted Rate per 100,000
Female Breast	135	174.7	35	146.9	129.9
Male Prostate	137	181.2	30	114.4	139.7
Lung	69	44.9	33	65.8	70.4
Colorectal	64	42.1	19	38.9	44.2
Melanoma	50	32.8	8	15.6	23.0
Non- Hodgkin Lymphoma	35	22.8	7	14.0	20.4
All Sites	782	512.4	219	438.3	508.8

Standardized Incidence Ratios and Cancer Incidence

A Standardized Incidence Ratio (SIR) is an indirect method of adjustment for age and sex that describes in numerical terms how a city/town's cancer experience in a given time period compares with that of the state as a whole. The following types of cancer have incidence rates that are statistically higher than expected:

2006-2010		Observed	Expected	SIR
Female Breast	Acton	98	75	131.3
	Concord	108	81	132.8
	Sudbury	92	69	133.5
Melanoma	Boxboro Males	8	3	264.9
	Carlisle Females	7	2	286.9
	Concord Males	32	15	216.9

Lung Cancer incidence is lower than expected in the Emerson Service area, but significantly lower than expected in Acton, Bedford, Concord, Lincoln, Sudbury, and Westford.

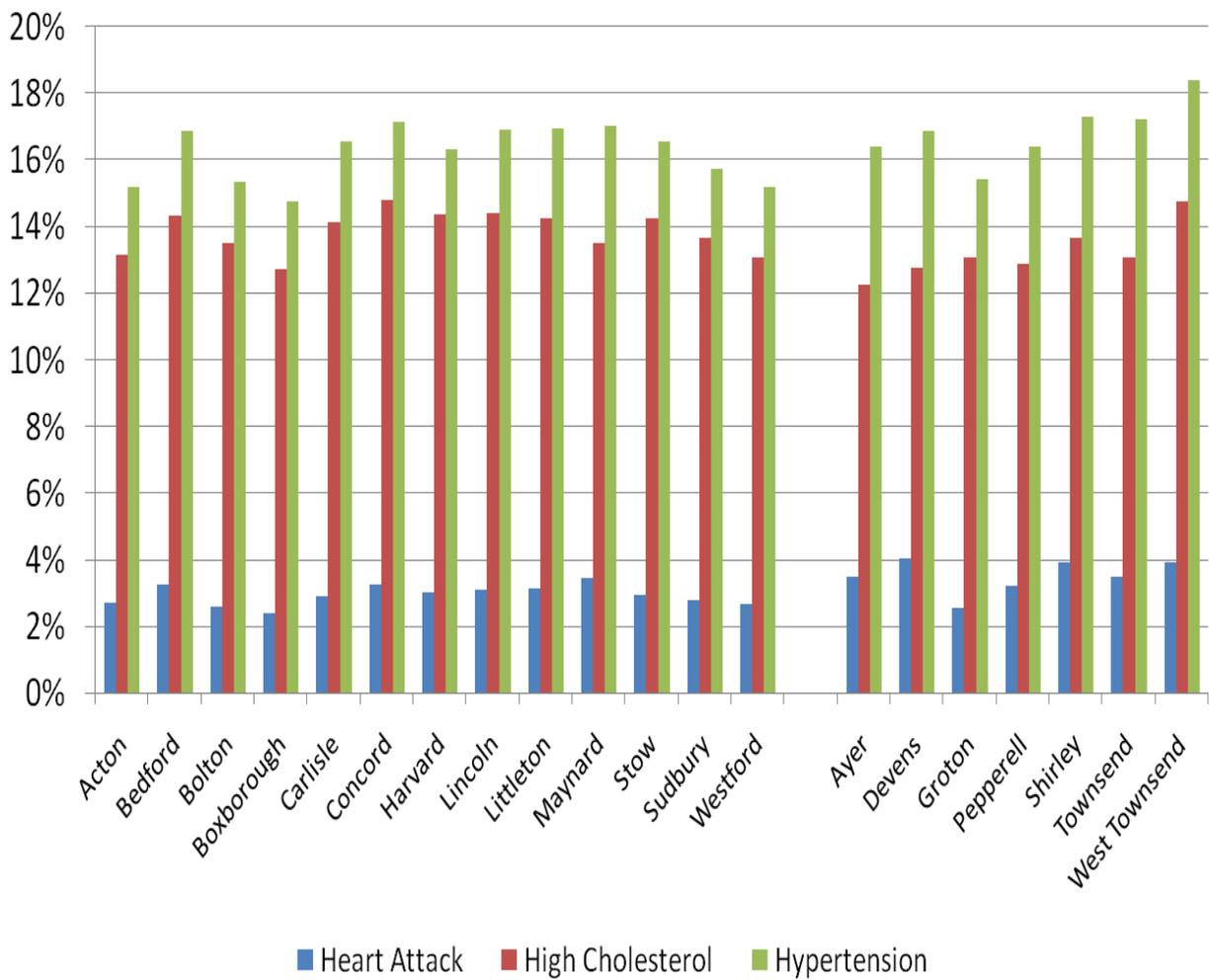
Although incidence rates for Lung cancer are lower than expected across the service area, tobacco use rates are lower, and mortality from lung cancer is lower than state average, ***more people in Emerson's service area die of lung cancer than any other type of cancer.***

2010-2013 Deaths	PSA	SW	Total
Lung	152	82	234
Colorectal	59	16	75
Breast	53	16	69
Prostate	36	9	45
Melanoma	10	0	10

Heart Disease

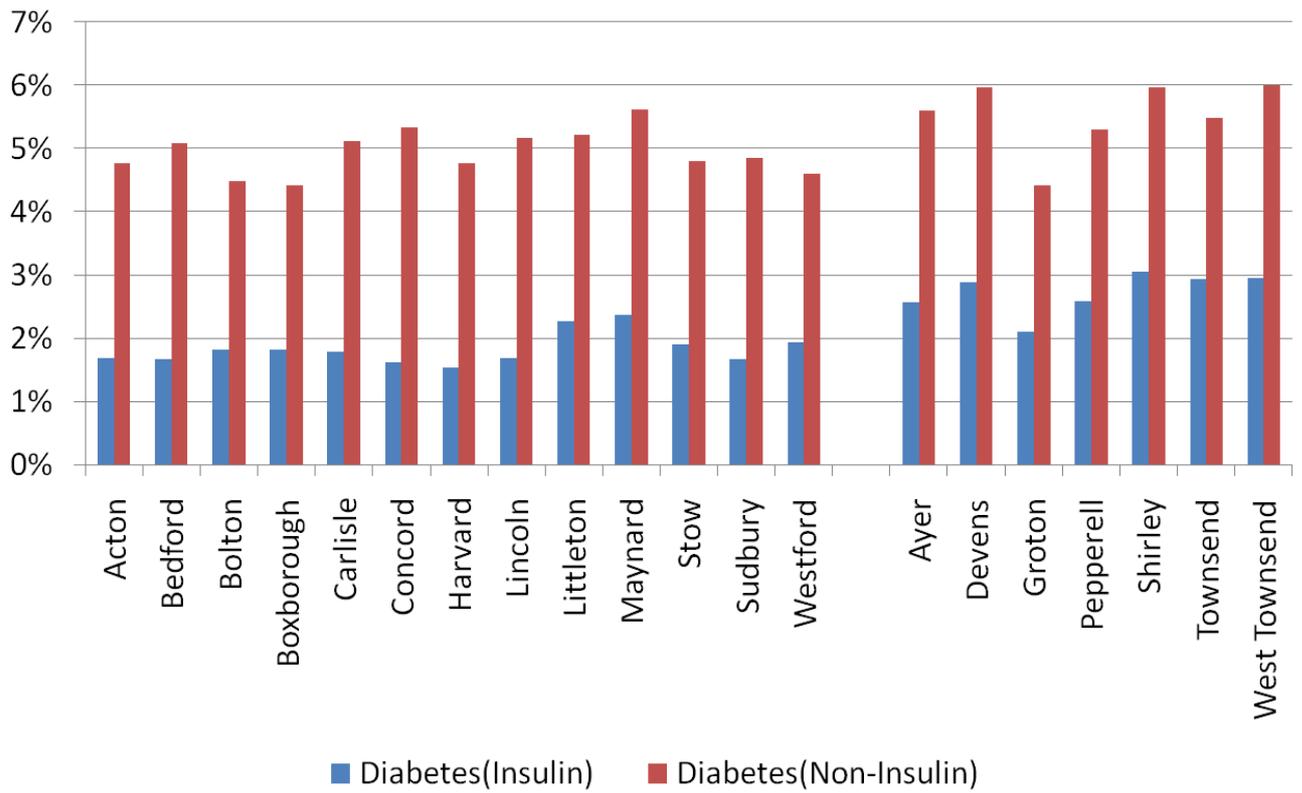
Heart Disease is the second leading cause of death in Emerson’s service areas and in state of Massachusetts. In 2012, 204 deaths, or 21% of all deaths in the PSA were attributed to heart disease. In the secondary west service area, 66 deaths or 23% of all deaths were due to heart disease.

Three percent of Emerson Service Area adults report that they have had a heart attack. 16% self-report Hypertension and 14% report High Cholesterol.



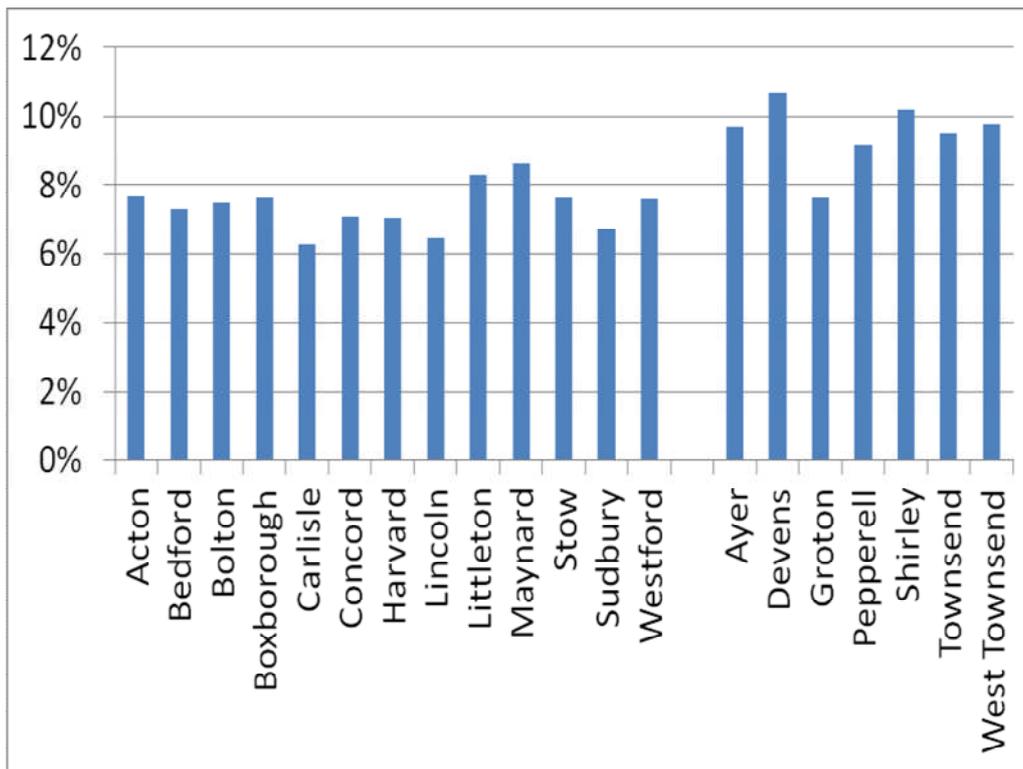
Diabetes

There are 7,300 adults in Emerson's service area who self-report that they have Diabetes (7% of adults in PSA, 8% of adults in Secondary West). Diabetes causes 2% of deaths in the PSA.



Mental Health

Seven percent of adults in the Primary Service area report depression. The rate is consistent across the service area. The incidence is higher in the Secondary West area, where 9% of the adult population reports depression.



Among high school students surveyed in the Youth Risk Behavior Survey, more than three respondents in five (61.2%) report having experienced somewhat high or very high levels of stress as a result of their academic workload during the previous twelve months.

One-third (33.8%) of all respondents report having experienced somewhat high or very high levels of stress as a result of events in school during the previous twelve months. The incidence of this experience is higher among female respondents.

Among area high school students, 12.1% of all respondents report having seriously considered attempting suicide during the twelve months prior to the survey. 3.7% of all respondents report having actually attempted suicide on at least one occasion during the twelve months prior to the survey.

Substance Abuse

The percentage of older adults reporting chronic or long-term heavy drinking is higher than state average, particularly in the primary service area. The percentage of adults who reported binge drinking, or consuming five or more drinks for men or four or more drinks for women, on any one occasion in the past month, is similar to state average.

	PSA (CHNA 15)	SW (CHNA 9)	Massachusetts
Chronic Drinkers age 18-59	5%	7%	7%
Chronic Drinkers age 60+	8%	6%	5%
Binge Drinkers age 18-59	21%	20%	22%
Binge Drinkers age 60+	5%	5%	5%
	PSA		Massachusetts
High School Drinking	29%		36%
High School Binge Drinking	16%		19%
High School marijuana use	27%		41%

The Youth Risk Behavior Survey revealed that over ten percent of area high school students report having ever used any prescription medication that was not prescribed by a doctor for them.

Poisonings, most of which are drug overdoses, continue to be the leading cause of injury deaths in Massachusetts. Opioids, including heroin, oxycodone, morphine, and codeine, are the agents most associated with poisoning deaths. In Emerson's Service Area, close to 1% of total 2012 deaths were Opioid related. (11 total deaths, 8 in PSA, 3 in SW). While lower than the state average of 1.3%, this statistic is something to monitor:

According to the Acton-Boxborough United Way Community Needs Assessment, *"Opiates are an acute problem with a quick escalation from prescription painkillers to heroin addiction...Since January 2012, 40 Acton OD calls resulted in 5 deaths"*

According to the Massachusetts DPH, *"The risk of opioid-related death has increased dramatically for every population group and every type of community in the state,*

impacting Massachusetts residents from every age, racial, economic, and geographic group. Opioid poisoning deaths occur in poor urban areas and in affluent suburbs."

Injuries

Deaths due to injuries (Motor vehicle accidents, suicide, and homicide) represent 2% of all deaths in Emerson's Primary Service area, consistent with the percent of total in the state of Massachusetts. In the secondary area, 5% of all deaths are due to injuries. This higher rate is due to a higher percentage of motor vehicle accident deaths.

In the Behavioral Risk Factors Survey, 19% of adults in the Primary Service Area and 20% of Adults in the Secondary Service area report an unintentional fall in the past 3 months. These rates are higher than the state average of 15%.

Tick-Borne Illnesses

There were 123 confirmed cases of Lyme disease in Emerson's PSA in 2010. This was down from 248 in 2007 and 256 in 2008. Statewide, the highest incidence rates were among children aged 5-9 years and adults aged 65-74 years.

QUALITATIVE DATA COLLECTION

Key Informant Interviews

Emerson Hospital engaged Jill Block, MPH, a Public Health Researcher, to interview several individuals in the community to gather their perceptions of the healthcare needs of the Emerson community. A list of individuals interviewed is in Appendix A. These individuals included local and state public health departments, representatives from Councils on Aging, Housing Authorities, local schools, and representatives of medically underserved, low-income, and minority populations. These individuals were asked:

- What health issues they see in the community?
- Which issues are most significant?
- Are there any healthcare services that are lacking in the community?
- What keeps the community from accessing the health care they need?

Throughout the interview process, there were many common themes and focus areas. The qualitative themes, combined with supporting health factors data have been organized by population cohort.

CHNA DATA AND KEY FINDINGS

1. Population Cohort: Service Area Adult Population

Target Issue: Cancer

Data Findings: An average of 1,000 service area residents were diagnosed with cancer every year from 2006-2010. Cancer is the top cause of death in the Emerson Hospital service area. Lung cancer is the leading cause of cancer death, followed by colorectal cancer. Five types of cancer account for 60% of cancer incidence: Female Breast (18%), Male Prostate (18%), Lung Cancer (9%), Colorectal Cancer (8%), and Melanoma (6%).

Interview Findings: Skin cancer prevention education for youth is needed.

2. Population Cohort: Service Area Population

Target Issue: Mental Health and Substance Abuse

Data Findings: The percentage of adults who reported binge drinking, or consuming five or more drinks for men or four or more drinks for women, on any one occasion in the past month, is similar to state average. Admission rates to substance abuse treatment programs are lower than state average. The rate of hospitalization related to substance abuse is lower than state average. Middlesex county has the highest number of opioid related deaths in Massachusetts and the percentage increase in deaths from 2013 to 2014 was 38%.

Through the Youth Risk Behavior Survey, Emerson Service Area youths report experiencing high levels of stress due to academic workload and events in school. High School students in Emerson's area report considering suicide at a rate equal to the state average. Use of alcohol and illegal drugs are decreasing from prior years.

The percentage of older adults (60+) in the primary service area reporting chronic or long-term heavy drinking (60 drinks a month for men, or more than 30 drinks a month for women) is higher than state average (8% vs 5%).

Interview Findings: The Emerson Hospital Community needs promotion of available mental health services and education to inform and remove the stigma of treatment. There is a

perceived need for physician education on drug interactions and substance abuse, and screening for substance abuse. The Acton Boxborough United Way CNA notes that substance abuse, especially opiate addiction and overdoses and mental illness are a prominent and daily concern. The report notes that since January 2012 there were 40 Acton OD calls resulting in 5 deaths.

Stress among teens in the service area is very high. There are very high expectations of teens in the service area. Girls and Asian teens are seen as more vulnerable. The Acton Boxborough United Way CNA reports that stress among young adults and unhealthy coping mechanisms were the top concerns of residents.

There is a need for more substance abuse programs (residential and outpatient) for youth under age 18. There is a need for transitional programs for youth who have been hospitalized for suicidality. There is a need for prevention education for parents and youth about drugs and social host liability. The community needs to be more educated on prescription drug abuse in youth.

Depression, anxiety, dementia, loss of function, and the stresses of family care giving are all prominent issues with the elderly population in the Emerson Service Area. There are concerns around alcohol use, overuse of pain medications, and mixing alcohol with medications in the elderly population. Geriatric psychiatric services are limited in availability and geriatric psych providers in the market are aging as well. Violent behaviors sometimes appear in people suffering from dementia. Isolation, particularly in winter is a problem for service area elders

3. Population Cohort: Elderly Population

Target Issue: Isolation

Data Findings: 30,000 people comprising 16% of the current Primary Service Area, 12% of the Secondary West Service Area. This group is the fastest growing population group in the Service area, projected to grow by 27% or 8,000 people from 2015-2020. By 2020 over 18% of service area residents will be age 65 or over.

a) Care Coordination

Interview Findings:

There is a perceived lack of collaboration with multiple health care providers and social service providers. Elderly patients need better transition planning to prevent confusion upon hospital discharge and to prevent readmissions; Medication management for

elderly residents in lacking. Service area needs caregiver respite programs, or better promotion of those that exist.

b) Transportation is a barrier to accessing health care

Interview Findings: The towns in Emerson's service area were designed for cars, not pedestrians. As the physical demands of driving become more challenging with age, transportation is a barrier to care for many elders in Emerson's service area. Co-locating services so that driving is less necessary would be helpful. Elderly need pharmacies and grocery stores with delivery services.

4. Population Cohort: Service Area Population

Target Issue: Domestic Violence & Abuse

Data Findings: There were 558 Primary Service Area residents served by the Domestic Violence Support Network from July 2013-June 2014. 33% of these were in the town of Acton and 13% in Maynard.

Interview Findings

There is a perceived need for hospital staff training on domestic violence issues specific to the immigrant communities in the service area. Domestic violence is easier to hide in less dense neighborhoods with larger homes. Immigrant populations, especially Southeast Asian women married to professionals, are at risk for domestic violence. Women are afraid of deportation if they leave their marriage. Emotional abuse is prevalent. Mental health and substance abuse are typical issues for abuse victims. Alcohol use exacerbates domestic violence. Victims need legal services, transportation, and mental health services. Children in these families need counseling. The Acton Boxborough United Way CNA notes that domestic violence and financial scams are prominent and daily public safety concerns.

Target Group: Maynard residents

Data Findings: There are 10,500 residents of Maynard, projected to grow 4% from 2015 to 2020. Maynard is the only town in Emerson's Primary Service Area where the school age population (age 5-17) is growing. The 55+ population is projected to grow 16% in 5 years, compared to 21% in Emerson's total service area. Median household income is \$80,000 which is the lower than average in the Emerson PSA. There are 582 people below the poverty level in Maynard

Emerson has a 59% market share in Maynard based on FY2012 inpatient data. There is one Emerson affiliated Internal medicine provider and a CVS minute clinic in Maynard.

Interview Findings: There are very few health services located within the town of Maynard; residents have to travel and many lack transportation. The Maynard Council on Aging is a new program in need of programming. The community could benefit from outreach/on-site wellness checks at Open Table in Maynard.

5. Population Cohort/Target Group: Youth Population/Age 0-9

Data Findings: 22,000 people comprising 11% of the Service Area. This group is projected to grow by 4% or 1,000 children from 2015-2020, but will remain steady at 11% of the total service area population.

Interview Findings: School nurses would like opportunities for professional development/updates/networking. There is a need for mental health services for children, especially those living in homes experiencing violence and trauma. The Acton Boxborough United Way CNA highlights challenges from more children with special needs, specifically ADD/ADHD, anxiety, and Autism Spectrum Disorders, and the lack of pediatric medication providers, including child psychiatrists.

6. Population Cohort/Target Group: Low Income residents

Data Findings: 1 in 5 households in Emerson's Primary Service Area has an income under \$50K 1,700 families in the Service area below poverty levels. Concord, Acton, and Westford have the highest number of families below poverty with children. Maynard, Westford, and Acton have the highest number of families below poverty without children. The Acton Boxborough United Way CNA notes that "Acton has consistently had more households earning less than \$50,000 than those earning more than \$200,000 (\$50,000 is about 2x the federal poverty level for a family of 4)...Seniors are one of the population groups...with the highest rate of poverty".

Interview Findings: Vulnerable populations are families who have low incomes due to medical issues or job loss, single mothers who are underemployed, and non-professional immigrants working in service jobs. There is limited affordable housing. There is a need for transportation to medical appointments, particularly for the non-elderly populations. Emerson's Primary Service area lacks local, affordable eye exams and glasses, affordable dental care, and affordable access to hearing aids. The Metro West Free Clinic is located in Sudbury, but only 10% of its patients are from Emerson's PSA. There is a perceived need for more training on how to access Mass Health.

CHNA FINDINGS PRIORITIZATION PROCESS

The key community health needs identified through this process were reviewed by Emerson Hospital Management. The health needs were prioritized based on the following criteria:

- The resources needed to address the finding align with Emerson Hospital's mission, infrastructure, and financial resources.
- The need has a significant prevalence in the Emerson Hospital Community so that resources are used to improve the lives of many people
- The health need contributes significantly to the morbidity and mortality in the Emerson Community
- Emerson has the ability to make a lasting impact over a long period of time
- Emerson Hospital has the ability to measure the impact of its plan to show improved health of the community

KEY FOCUS AREAS IDENTIFIED

Using prioritization criteria listed above to review the findings from data collection and key stakeholder interviews; Emerson Hospital plans to focus on the following five community needs:

- 1) Cancer Prevention, Detection, and Care
- 2) Mental Health and Substance Abuse Care
- 3) Care Coordination for Elderly Patients
- 4) Domestic Violence Awareness and Advocacy
- 5) Health Care Services in Maynard

RATIONALE FOR FINDINGS NOT ADDRESSED

There are many needs that were found but are driven by issues outside of Emerson Hospital's control. For example, Emerson Hospital does not have the resources or expertise to greatly influence the transportation infrastructure in the service area. However, Emerson will explore involvement with Crosstown Connect to understand how access to Emerson's locations can be improved.

IMPLEMENTATION PLAN

To address the 5 key focus areas identified in this Community Health Needs Assessment, Emerson Hospital will implement the following strategies over the next three years:

1. Cancer Prevention, Detection, and Care

- Emerson will continue its annual Family Health and Wellness Expo, where residents can access free cancer screening programs. Results show that the program has contributed to early detection of cancers in the service area.
- Because lung cancer is the leading cause of cancer death in the service area, Emerson Hospital will offer Low-Dose CT Lung Screening to help diagnose lung cancer at earlier stages.
- Emerson Hospital will continue to assist patients seeking smoking cessation assistance by actively promoting the Massachusetts Tobacco Cessation & Prevention Program.
- To address higher incidence rates of melanoma in the service area and to educate the community about skin cancer prevention, Emerson will seek to donate/install three sunscreen dispensers at public areas in Concord, Acton, and Westford.

2. Mental Health and Substance Abuse Care

- Emerson Hospital will continue its collaboration with local school districts to sponsor the biannual Emerson Hospital Youth Risk Behavior Survey so that mental health, substance use, and other trends can continue to be understood and addressed by individual communities. The next YRBS will be conducted in 2016.
- Emerson Hospital will participate in the Massachusetts initiative to decrease opioid abuse through education and alternative pain management.
- Emerson's Emergency Department has signed a State-wide pledge to limit narcotics prescriptions, limit number of doses, and utilize the Massachusetts Online Prescription Monitoring Program.
- Emerson will continue to sponsor local school districts in providing teach-the-teacher Extra Edge workshops, adapted from the Benson-Henry Institute for

Mind Body Medicine's Education Initiative. This research-validated program brings stress-reduction and life-management skills to students. 45 Concord teachers and 25 Westford teachers have been trained through Emerson's sponsorship to date. Emerson will build on this success by sponsoring 25 teachers from Acton-Boxborough and 25 teachers from Maynard in this program.

- Emerson Behavioral Health employees will provide community education on mental health and substance abuse topics. At least one educational event on issues pertaining to adolescents and at least one event on issues pertaining to the elderly population will be presented each year. Possible topics will be How to Identify Alcohol Abuse, Caregiver Anxiety and Stress, Seasonal Depression, and How to Recognize Signs and Symptoms of Dementia.
- Emerson Hospital will conduct a feasibility study to evaluate the possibility of expanding inpatient geriatric psychiatric services.
- Emerson Hospital will conduct a feasibility study to evaluate the possibility of providing an outpatient drug and alcohol rehab program for adolescents.

3. Care Coordination for Elderly

- Emerson Hospital will launch the CHART initiative to reduce readmissions among high-risk patients while improving care. This program will provide high-risk patients with medication reconciliation, referral to a psychiatric transitional social worker, and palliative care or hospice care if needed,
- Emerson Hospital will coordinate with community partners to plan a Senior Summit to facilitate a discussion among community service providers on best practices in serving the complex needs of their clients and ways to coordinate efforts as a community
- Emerson will fund COAs with grants to provide transportation vouchers to low income seniors.

4. Domestic Violence Awareness and Advocacy

- Emerson will build upon Domestic Violence Service Network training that has already been provided to 80 Emerson patient care employees in the Emerson Hospital Emergency Department. Obstetrical Services and Pediatrics patient care staff will be the focus for the next phase of training.

5. Health Care Services in Maynard

- Emerson will initiate a planning process and feasibility study to define what health care services are most needed by the Maynard population.
- Emerson will participate in a minimum of one health fair/health screening event in the town of Maynard each year.
- Emerson will expand its Council on Aging grants to include the Maynard COA.

APPROVAL OF NEEDS ASSESSMENT IMPLEMENTATION PLAN

Emerson Hospital's Community Benefits Advisory Committee met on September 17, 2015 to review the key findings, focus areas, and approve the recommended priorities and implementation plan.

The Emerson Hospital Board of Directors met on 10/27/2015 to review the findings of the CHNA and approve the recommended priorities and implementation plan.

Appendix A: Key Informants

Jill Block, MPH	Public Health Research and consulting professional. Coordinator of Healthy Concord
Ginger Quarles	Director, Concord Council on Aging
Joan Butler	Minuteman Senior Services
Jaquelin Apsler	Domestic Violence Service Network
Susan Rask	Middlesex Tick Task Force
Tony Piro	Emerson Hospital Behavioral Health
Margaret Hannah	MSPP Interface
Karin Segal	Metrowest Free Medical Clinic (Sudbury)
Rachel Sagan	Acton-Boxborough United Way
Aileen Buford	Concord Community Services Coordinator
Chris DeBruzzi	CCHS Nurse
Judith Lincicum	Concord Housing Authority
Dick Krug	Concord Veterans' Services
Pat Trahman	Maynard HS School Nurse
Amy Loveless	Maynard Council on Aging
Lisa McLean	Maynard Middle School Nurse
Sarah Dorfman	Littleton High School Guidance Counselor
Laura Ducharme	Acton Community Services Coordinator
Sheryl Ball	Acton Health Department
Jan Stewart	Danny's Place
Diane Nichol (email)	Acton-Boxborough High School Nurse
Carrie Leggatt	Acton Medical Associates
Sean O'Leary	Westford Schools Health Education Coordinator
Joan Mitchell	Westford Academy Nurse
Doug Halley	Health Director, Town of Acton & Transportation Coordinator, Crosstown Connect

Appendix B: CHNA Descriptions

Northwest Suburban Health Alliance (CHNA 15) Towns:

Acton, Bedford, Boxborough, Burlington, *Carlisle, Concord*, Lexington, *Lincoln, Littleton*, Wilmington, Winchester and Woburn

Community Health Network of North Central Massachusetts (CHNA 9) Towns:

Ashburnham, Ashby, **Ayer**, Barre, Berlin, **Bolton**, Clinton, Fitchburg, Gardner, **Groton**, Hardwick, **Harvard**, Hubbardston, Lancaster, Leominster, Lunenburg, New Braintree, Oakham, **Pepperell**, Princeton, Rutland, **Shirley**, Sterling, Templeton, **Townsend**, Westminster, and Winchendon.

Bold Italics = Primary Service Area Town

Bold = Secondary West Town

Data Sources

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