

# EMERSON HOSPITAL

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## Community Health Needs Assessment



**Emerson Hospital**

Premium Care. Personal Touch.

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## EXECUTIVE SUMMARY

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### Background

Emerson Hospital 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. The hospital provides over 32,000 emergency department visits per year, more than 14,000 day surgeries per year, and 100,000 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. Each year 1,250 newborns are born at Emerson Hospital.

### Community Health Needs Assessment Process

Emerson Hospital undertook a Community Health Needs Assessment (CHNA) from October 2017 through September 2018 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, the Emerson Hospital 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 prioritized the health needs identified by the community. The key focus areas identified through the process are as follows:

- 1) Lack of Transportation Options
- 2) At-Risk Adolescents
- 3) The Growing Aging Population
- 4) Cancer
- 5) Mental Health and Domestic Violence

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

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, age, 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 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 and Urgent Care Centers in Hudson and Littleton.

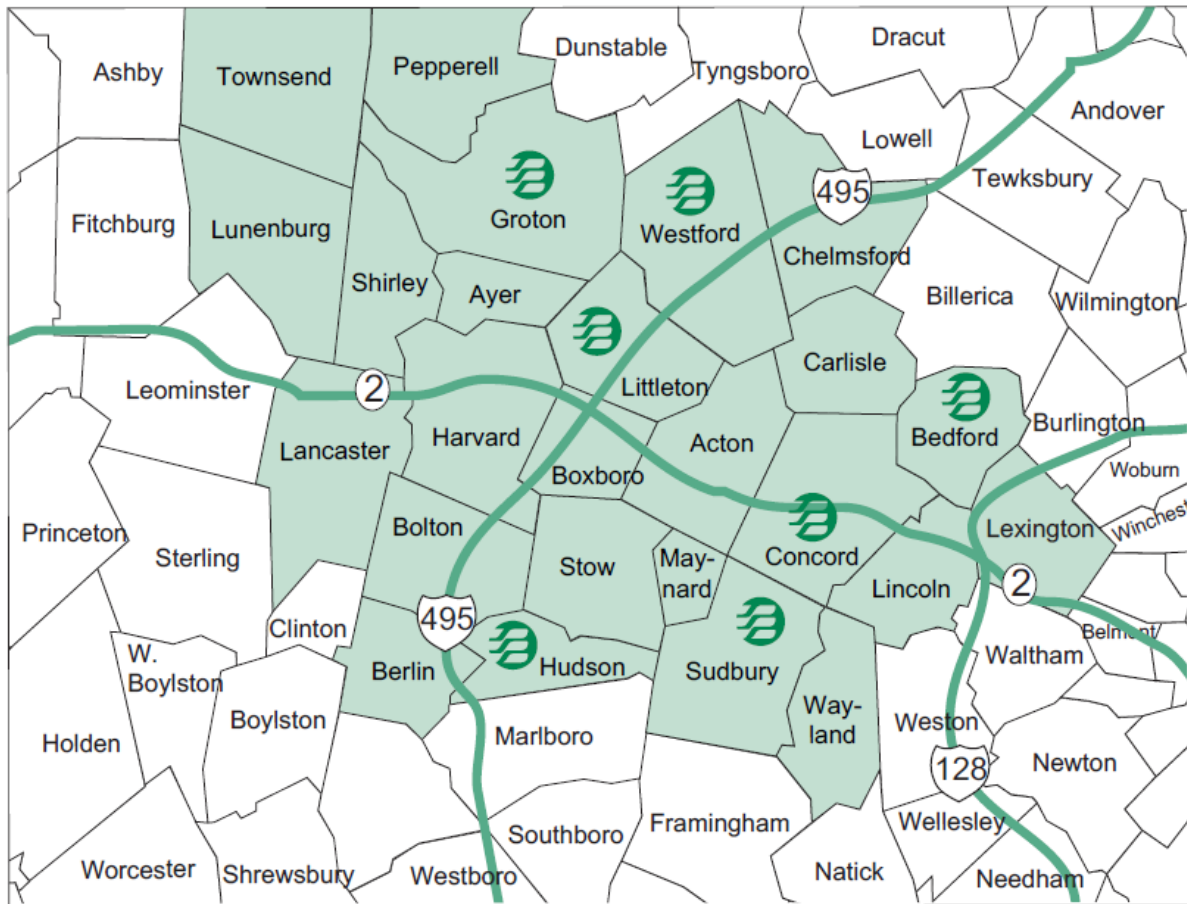


Figure 1: Emerson Hospital Service Area Map

For the purposes of this health needs assessment, the hospital is focusing primarily on 14 towns that make up the Primary Service Area (PSA), along with the secondary area to the west (Secondary West) of Emerson Hospital. In aggregate, these towns represent 70% of Emerson Hospital discharges. The PSA is made up by Acton, Bedford, Bolton, Boxborough, Carlisle, Concord, Harvard, Hudson, Lincoln, Littleton, Maynard, Stow, Sudbury and Westford. The Secondary West (SW) service area is made up by Ayer, Groton, Pepperell, Shirley, and Townsend.

## Target Populations

Emerson Hospital serves a vast community of people with various needs with respect to age, race, socio-economic status and ethnicity. According to the data collected through the needs assessment process, the following populations should be targeted: the elderly, at-risk youth, low income individuals and families, and domestic violence victims.

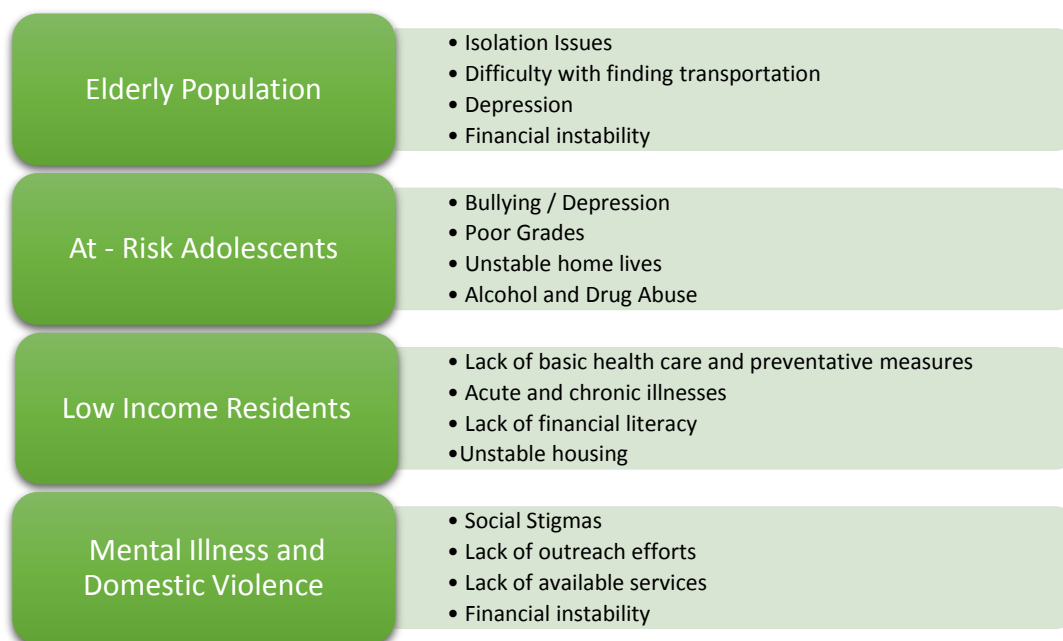


Figure 2: Target Populations of Emerson Hospital

## APPROACH & METHODS

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### Social and Physical Determinants of Health

For the purposes of this Community Health Needs Assessment, it is important to be mindful of the social determinants of health (SDOH). These determinants are sometimes more influential in our health status than realized. Differences in health in a poor community versus an affluent community are so striking, in part, because of these determinants. Some of these social determinants of health include income status, education quality, stability of the built environment, environmental hazards, food security, etc.

Understanding and grasping the relationship between these determinants and the how a population is thriving is essential to realizing the root causes of many common community issues.

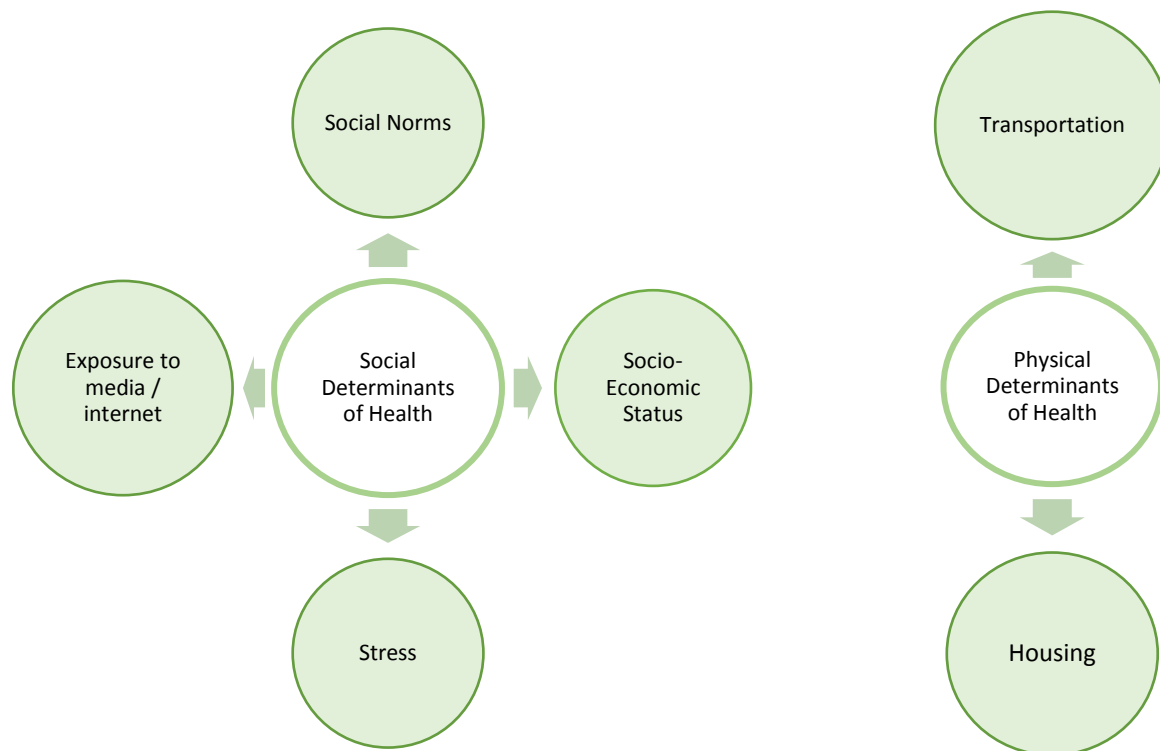


Figure 3: Social and Physical Determinants of Health of Emerson Hospital service area

In the Emerson Hospital service area, there are many determinants that have little impact due to the affluent nature of the community. However, certain populations within the community still struggle and those are the populations which we aim to reach and help with the CHNA report and subsequent programs. Figure 1 displays some of the common social and physical determinants within our area.



## Community Engagement Process

Emerson Hospital used a variety of methods and sources while conducting the CHNA. First, a Youth Risk Behavior Survey (YRBS) was conducted by an outside research company, Market Street Research. The YRBS was conducted in nine school districts across the service area to students in 6<sup>th</sup> and 8<sup>th</sup> grade as well as in high school. This year, over 11,000 students participated in the YRBS. Along with the 2018 YRBS, Emerson Hospital has a Community Benefits Advisory Group (CBAG) that includes prevalent members of the various populations and communities that are served by the hospital. The committee currently has 19 members and convenes on a quarterly basis. Interviews were also conducted throughout the CHNA process with key community members, as well as some of the members of the CBAG to gauge the needs of the Emerson Hospital service area.

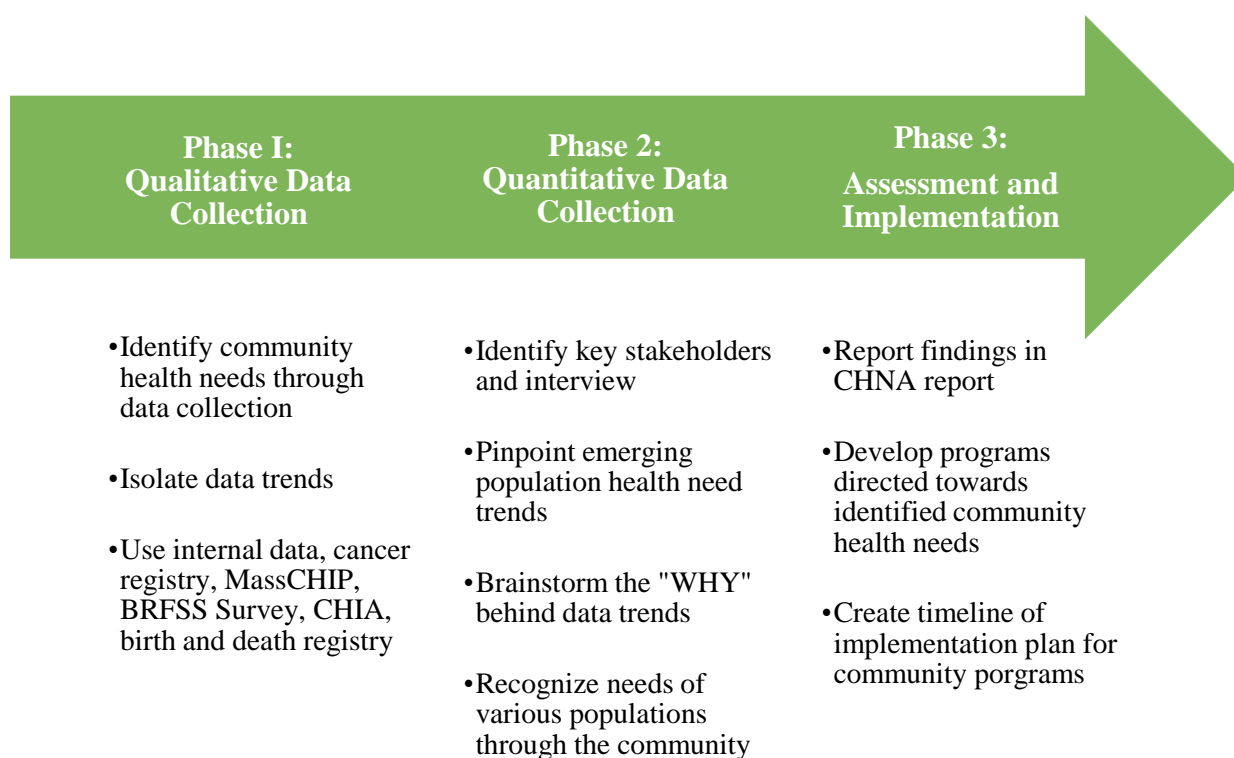


Figure 4: Phases of the Community Engagement Process for CHNA 2018

## QUANTITATIVE DATA



## Health Factors Data

There are approximately 179,000 people living in the Emerson Primary Service Area (PSA) as of June 2018. The Secondary West area (SW) has approximately 50,000 residents as of June 2018. The total population in the PSA is projected to grow by 4.6% or by 10,000 people from 2018-2023. The total population in the SW is projected to grow by 4.5% or by 2,000 people from 2018-2023. The growth in both these areas is primarily in the 65+ age group, followed by younger adults aged 18 - 44. Declines will be seen in the 0 - 17 age group and the 45 - 64 age group.









	2018 Estimate	2023 Projection	2018 - 2023 change	2018 - 2023 % change
<b>0 - 17</b>	49,782	48,991	- 791 	- 1.6 % 
<b>18 - 44</b>	68,546	74,461	5,915 	8.6 % 
<b>45 - 64</b>	73,144	69,156	- 3,988 	- 5.5 % 
<b>65 +</b>	36,810	46,107	9,297 	25.3 % 
<b>Total</b>	<b>228,282</b>	<b>238,715</b>	<b>10,433</b>	<b>4.6 %</b>

Table 1: Emerson Hospital Service Area - Age Data

## Race

The population of the Emerson Hospital Service Area is 82 % White Non-Hispanic, 10 % Asian and Pacific Islanders Non-Hispanic, 4 % Hispanic, and 2 % Black Non-Hispanic.

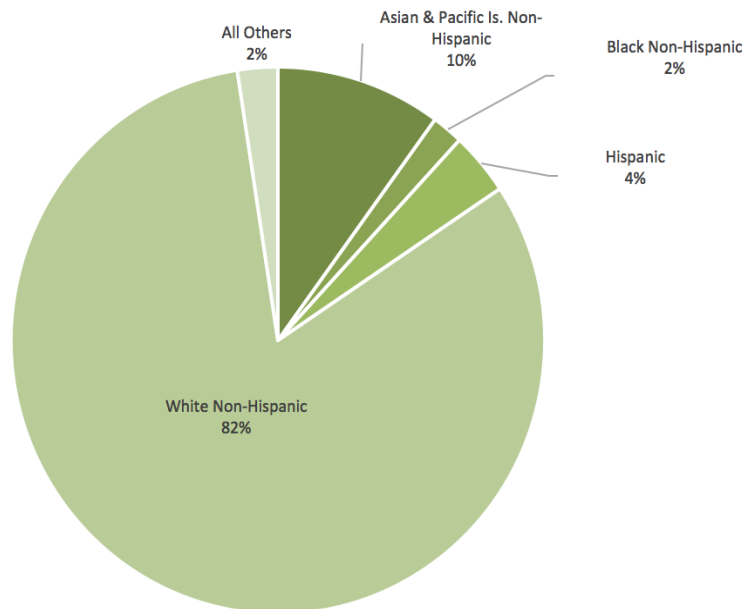


Figure 5: Emerson Hospital Service Area – Population Demographics

The Asian and Pacific Islander demographic has increased by 2% from 2015 to 2018, while the White, Non-Hispanic demographic has decreased in size by 1% during the same timeframe.

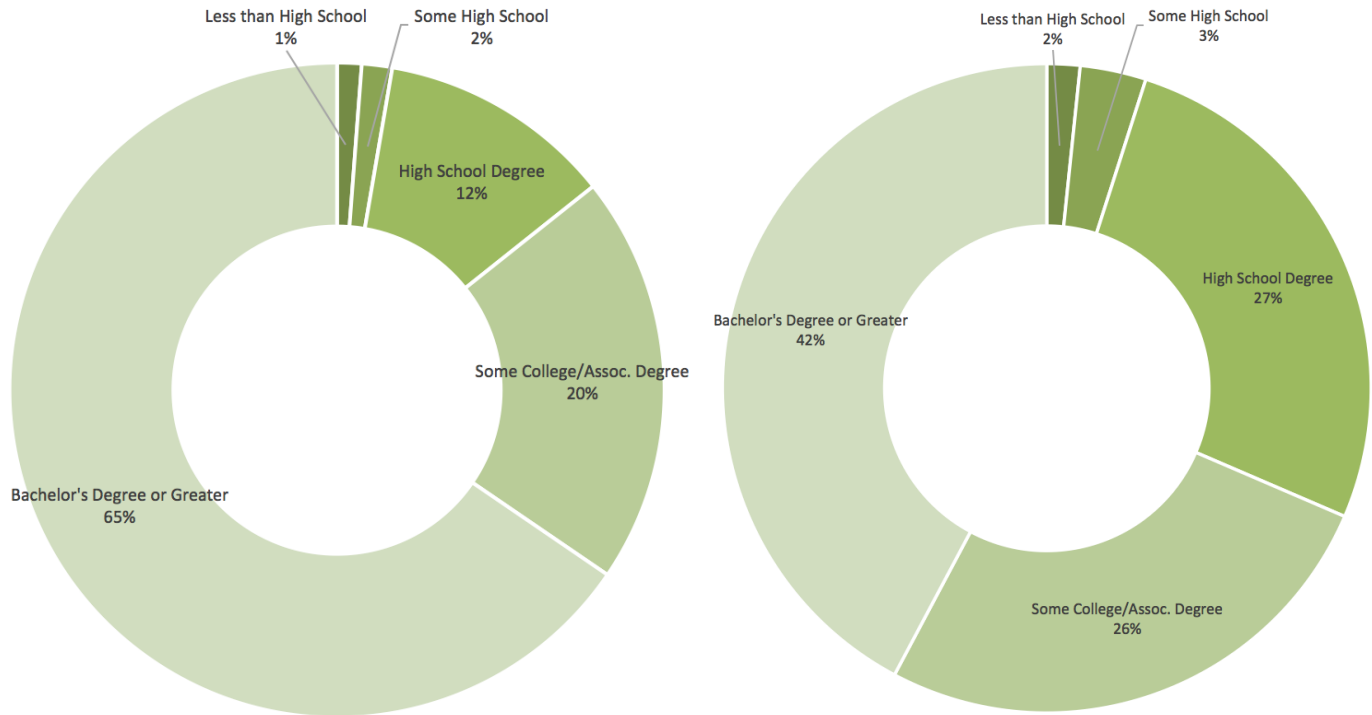
Race	2015	2018	% Change
White	83 %	82 %	1 % ↓
Asian	8 %	10 %	2 % ↑
Hispanic	3 %	4 %	1 % ↑
Black	1 %	2 %	1 % ↑

Table 2: Area Demographic Change from 2015 to 2018

### 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 PSA has a higher than average level of education with 65% of adults having earned a bachelor's degree or higher. The Secondary West service area has 42% of adults having attained a bachelor's degree or higher, compared to the state of Massachusetts which comes in around 41%.



Figures 6 & 7: Emerson Hospital Primary Service Area and Secondary West - Education Levels

### *Employment*

Based on population estimates, both the PSA and the SW service areas have employment rates over 90%.

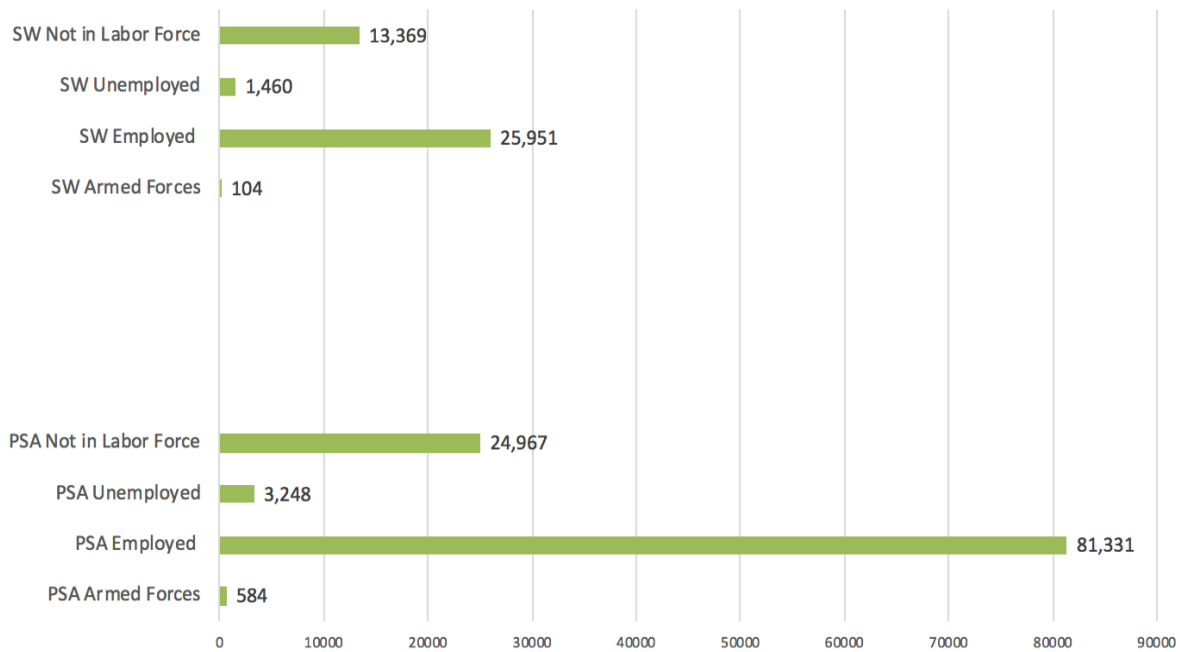


Figure 8: Emerson Hospital Service Area Population - Employment Rates

### *Income*

Higher income is linked to better health status. With more available funds comes the assurance of living a healthier life. High socio-economic status has been linked to higher rates of exercising, including gym memberships, as well as the purchasing of healthier foods, like fresh fruits and vegetables and organic meats. The median household income of the Emerson Primary Service Area is about twice that of the Massachusetts average. However, there is a large wealth gap in the PSA. The distribution of income as seen in Figure 9 indicates that there are large income disparities in the PSA. One in five households has an income under \$50,000 at the same time that one in five households have an income over \$250,000.

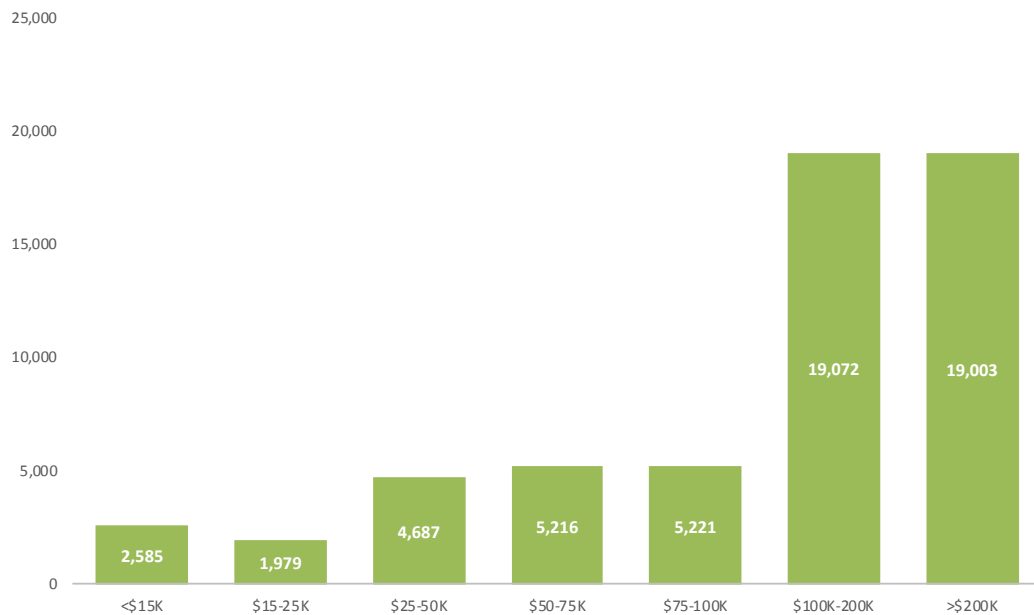


Figure 9: Emerson Hospital Primary Service Area - Household Incomes

The SW service area is less affluent than the PSA, however there are less income disparities in the SW area as compared to the PSA as seen in Figure 10. The median household income is about 1.3 times the Massachusetts average and 25% of households have incomes under \$50,000 and less than 10% have an income over \$250,000.

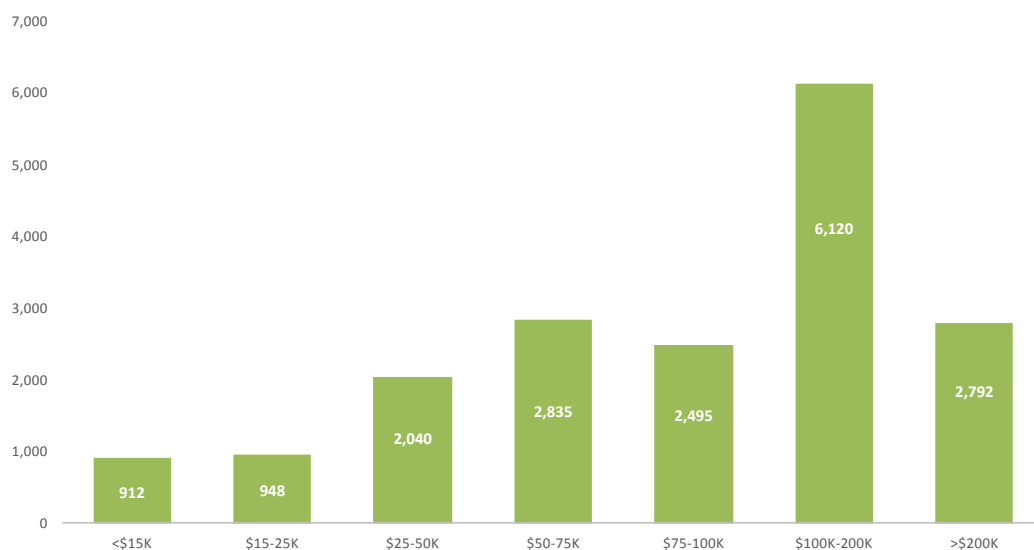


Figure 10: Emerson Hospital Secondary West Service Area - Household Incomes

### *Families in Poverty*

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

	PSA	% of Total PSA	SW	% of Total SW
<b>2018 Families Below Poverty with Children</b>	678	1.6 %	446	3.4 %
<b>2018 Families Below Poverty without Children</b>	443	1.0 %	215	1.7 %
<b>2018 Families At/Above Poverty with Children</b>	21,618	49.7 %	5821	44.8 %
<b>2018 Families At/Above Poverty without Children</b>	20,735	47.7 %	6510	50.1 %

Table 3: Area Poverty Levels

	Acton	Boxborough	Concord	Hudson	Littleton	Maynard	Stow	Westford
<b>Adults/Families Below Poverty with Children</b>	47	28	142	133	48	59	25	89
<b>Adults/Families Below Poverty without Children</b>	40	21	32	82	14	97	20	67
<b>Adults/Families At/Above Poverty with Children</b>	3,491	732	2,294	2,294	1,285	1,201	947	3,622
<b>Adults/Families At/Above Poverty without Children</b>	2,856	727	2,643	2,922	1,459	1,474	1,078	3,062

Table 4: Poverty in communities served by Emerson Hospital, 2018

## Behavioral Risk Factor Surveillance System Data

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) level. 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 (CHNA 15)	SW (CHNA 9)	Massachusetts (BRFSS 2016)
<b>Report Fair/Poor Health</b>	7.6 %	13.5 %	14.1 %
<b>Report 15+ Days of Poor Mental Health</b>	5.4 %	8.9 %	11.3 %

Table 5: Overall Health Measures (<https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2016->)

It is important to note here that in both the PSA and the SW service areas residents report overall good health and low rates of prolonged poor mental health. We believe this may be due to the financial statuses of many of the residents in the service area as well as the higher education rates that are seen here.

	PSA (CHNA 15)	SW (CHNA 9)	Massachusetts (BRFSS 2016)
<b>No Health Insurance</b>	3.7 %	6.0 %	3.8 %
<b>Could Not See A Doctor Due To Cost</b>	4.5 %	7.2 %	8.8 %
<b>Have a Personal Health Care Provider</b>	92.2 %	90.3 %	88.9 %

Table 6: Health Care Access and Utilization (<https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2016->)



Residents in both service areas report high rates of possessing health insurance with only 3.7 % in the PSA reporting no health insurance and 6.0 % in the SW reporting no health insurance. These extremely low rates are most likely due to the high socio-economic status of many residents and, therefore, the ability to purchase health insurance. Also, the employment rate in the area is quite high and many residents may receive health insurance from their employers as well.

Again, high socio-economic status plays a role in the ability of individuals to see health care professionals. When asked about not seeing a doctor due to cost, only 4.5 % of residents in the PSA reported this being an issue and only 7.2 % of residents in the PSA reported this as an issue as well. The Massachusetts average is higher than both rates at 8.8 %.

	PSA (CHNA 15)	SW (CHNA 9)	Massachusetts (BRFSS 2016)
<b>Current Smoker</b>	10.2 %	19.4 %	13.6 %
<b>Binge Drinker (18 – 34 years old)</b>	12.6 %	29.8 %	29.9 %
<b>Overweight (BMI ≥ 25.0)</b>	48.1 %	61.5 %	60.2 %
<b>Obese (BMI ≥ 30.0)</b>	14.4 %	22.1 %	23.6 %
<b>Physical Activity in the Past Month</b>	86.0 %	79.2 %	80.0 %
<b>Ever Tested for HIV</b>	42.2 %	42.0 %	45.6 %

Table 7: Risk Factors and Preventative Behaviors (<https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2016->)

Risk factors that are common at high rates for Massachusetts also exist in the Emerson Hospital service area. Smoking rates for the PSA are lower than the state average at 10.2 %, but the rate of smokers in the SW service area is higher than the state average at 19.4 %. We believe this may be partly due to socio-economic differences between the two areas. Socio-economic status has been linked to smoking rates and with higher socio-economic status comes lower rates of smoking.

	PSA (CHNA 15)	SW (CHNA 9)	Massachusetts (BRFSS 2016)
Flu Vaccine in Past Year (18 – 49 years old)	29.6 %	20.8 %	34.6 %
Flu Vaccine in Past Year (50 – 64 years old)	42.5 %	30.7 %	45.1 %
Flu Vaccine in 3 Past Years (65+)	83.2 %	66.5 %	57.1 %

Table 8: Emerson Hospital Service Area - Immunization Trends (<https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2016->)

Immunization rates for individuals in the service area are mostly favorable. All PSA elementary schools report at least 90% of their kindergarten students having the recommended MMR immunizations as well as the DTap and Polio vaccinations. Approximately 80% of PSA elementary schools have at least 90% of kindergarten students with all their recommended immunizations. Flu vaccinations for all age groups except for the 65+ group are lower than the state average.

	PSA (CHNA 15)	SW (CHNA 9)	Massachusetts (BRFSS 2016)
Diabetes	5.3 %	6.7 %	9.3 %
Heart Disease	6.1 %	5.9 %	5.5 %
High Blood Pressure	23.5 %	23.5 %	25.0 %
High Cholesterol	34.4 %	32.8 %	34.6 %

Table 9: Chronic Health Conditions in the Emerson Hospital Service Area (<https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2016->)

Chronic health conditions in the Emerson service area are mostly occurring at lower rates than the state average. Again, the lack of social and physical determinants in the area may account for these lower rates. Many chronic conditions, such as diabetes and heart disease, can be preventable with healthy lifestyles. As stated before, it is much more likely for someone in an affluent area to live this type of lifestyle due to their socio-economic status. The only exception to this rule is heart disease. Although it can be lessened with a healthy lifestyle, it still has a genetic component to it and, therefore, cannot be completely prevented.

	PSA (CHNA 15)	SW (CHNA 9)	Massachusetts (BRFSS 2016)
<b>Colorectal Cancer Screening Among Men (50 – 74 years old)</b>	69.2 %	65.0 %	76.3 %
<b>Breast Cancer Screening Among Women (50 – 74 years old)</b>	89.6 %	89.7 %	86.3 %
<b>Cervical Cancer Screening Among Women</b>	88.4 %	83.6 %	84.1 %

Table 10: Cancer Screening (<https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2016->)

Cancer screening rates in the service area are quite high. Almost 90% of women in both the PSA and the SW service area received some type of breast cancer screening. Among men in the PSA and SW service areas about 69% and 65%, respectively, received colorectal cancer screenings. The cancers commonly seen in the service area are not preventable through healthy lifestyle choices, similar to the aforementioned heart disease, and are, therefore, close to the Massachusetts average in all categories.

## Health Outcomes Data

### *Birth Indicators*

There were approximately 4,800 babies born in the PSA and SW service areas over the last five years. Almost 89 % of all mother in the PSA service area and 84 % of all mothers in the SW service area were able to receive at least adequate prenatal care. Birth rates per 1000 women are slightly lower for both the PSA and the SW as compared to the state birth rate. The rate of teen births in the PSA and SW service areas is significantly lower than the state rate of births to teen mothers. For the PSA, the percentage of preterm births and low birthweight births are lower than the state average. In the SW, these percentages are at the state average.

	Massachusetts	PSA	SW
Birth Rate per 1000 Women (15 – 44 years old)	52.0	48.6	50.3
Low Birthweights	7.5 %	5.1-6.4 % <sup>1</sup>	7.3-8.7% <sup>1</sup>
Teen Births per 1000 Women (age 15-19)	8.5	0.9-3.5 <sup>1</sup>	1.2-4.9 <sup>1</sup>
Preterm Births (<37 weeks gestation)	8.7 %	7.1-8.7 % <sup>1</sup>	8.5-9.2% <sup>1</sup>

Table 11: Birth Indicators (Massachusetts Department of Public Health Births Report 2016 Table 15, May 2018)

<sup>1</sup>When looking at birth indicators by town, the incidence rate is frequently too low to publish so the state provides a range from 1-4. Rates are provided using the high and low of that range.

### *Death Indicators*

The top cause of death for 2016 in the United States was heart disease. In Massachusetts it was cancer. In the PSA and SW service areas, the top cause of death was also cancer.

	U.S. Deaths	Massachusetts Deaths	PSA Deaths	SW Deaths
<b>Coronary Heart Disease</b>	633,842	11,921	218	73
<b>Cancer</b>	595,930	12,717	269	84
<b>Unintentional Injuries</b>	146,571	3,831	5	2
<b>Chronic Lower Respiratory Diseases</b>	155,041	2,674	44	13
<b>Stroke</b>	140,323	2,468	54	18
<b>Diabetes</b>	79,535	1,268	20	10
<b>Flu/Pneumonia</b>	57,062	1,251	28	5
<b>Suicide</b>	44,193	1,621	14	4

Table 12: Top Causes of Death, 2015-2016 (<https://www.mass.gov/lists/death-data#death-reports->)

## *Disease Indicators*

### **Cancer**

Cancer is the leading cause of death in Emerson's Primary and Secondary West service areas. In 2017, Emerson Hospital saw 635 cases of cancer. The top six types of cancers occurring in the service area are shown below along with their incidence rates compared to the incidence rates throughout the state of Massachusetts.

	PSA Incidence Rate	SW Incidence Rate	Massachusetts Incidence Rate
<b>Breast (female)</b>	158.6	130.0	134.5
<b>Prostate (male)</b>	166.5	152.9	163.8
<b>Lung</b>			
Male	68.5	86.9	83.0
Female	57.1	63.2	65.1
<b>Colorectal</b>			
Male	52.9	51.9	57.1
Female	40.7	41.6	42.5
<b>Melanoma</b>			
Male	43.6	25.8	28.9
Female	25.1	13.2	19.6
<b>Non – Hodgkin’s Lymphoma</b>			
Male	23.0	23.2	24.7
Female	16.7	17.3	16.8

Table 13: Cancer Incidence Rates in the Emerson Hospital Service Area  
 (<https://www.mass.gov/lists/cancer-incidence-city-town-supplement#2009-2013->)

The most common cancer for both the PSA and the SW service areas is prostate cancer. Prostate cancer is also the most common cancer in Massachusetts with breast cancer a close second. Both breast and prostate cancer are cancers that are caused mainly by genetic factors, uncontrolled by any social determinants of health. Also, there is a higher incidence rate due to the fact that in higher socio-economic status areas women and men are more likely to be screened regularly and catch malignancies if they occur.

Lung cancer incidence is lower than the Massachusetts incidence rate for the PSA. In the PSA, only 10.2% of residents are current smokers. However, more people in Emerson Hospital's service area die of lung cancer than any other type of cancer. Lung cancer deaths occur 2.5 times more often than colon cancer deaths, the second leading cause of death among the cancers common for the area. Lung cancer is also one of the most difficult cancers to treat.


Cancer Type		Number of deaths, PSA (CHNA 15)	Number of deaths, SW (CHNA 9)	Total Deaths
	<b>Lung</b>	87	118	<b>205</b>
	<b>Colorectal</b>	27	30	<b>57</b>
	<b>Prostate</b>	24	20	<b>44</b>
	<b>Breast</b>	17	24	<b>41</b>

Table 14: Deaths per Cancer Type (<http://www.mass.gov/eohhs/researcher/community-health/masschip/health-category/cancer.html>)

## Substance Abuse

When surveyed about alcohol consumption, the percentage of Emerson Service Area adults age 60+ reporting heavy drinking is higher than that of the state average, particularly in the PSA where 8% of residents 60+ report being heavy drinkers. The percentage of adults age 18 – 59 who report binge drinking on any one occasion in the past month is similar to that of the state average right around 5%. The CDC defines heavy drinking as adult men having more than 14 drinks per week and adult women having more than 7 drinks per week. Binge drinking is defined as 5 or more drinks during a single occasion for men, 4 or more drinks for women.



	PSA (CHNA 15)	SW (CHNA 9)	Massachusetts
<b>Heavy Drinkers</b> (18 – 59 years old)	4.9 %	6.5 %	7.0 %
<b>Heavy Drinkers (60+)</b>	8.0 %	5.7 %	5.2 %
<b>Binge Drinkers</b> (18 – 59 years old)	21.2 %	20.4 %	21.8 %
<b>Binge Drinkers (60+)</b>	5.0 %	4.8 %	5.4 %

Table 15: Substance Abuse (<http://www.mass.gov/eohhs/researcher/community-health/masschip/risk-factors-and-health-behaviors.html>)

Poisonings, most of which are classified as drug overdoses, continue to be one of the leading causes of injury deaths in Massachusetts. Opioids, including heroin, oxycodone, morphine, and codeine, are the agents most associated with poisoning deaths.

PSA	Opioid Overdose Deaths
Acton	1
Bedford	3
Bolton	0
Boxborough	1
Carlisle	0
Concord	1
Harvard	0
Hudson	4
Lincoln	0
Littleton	1
Maynard	2
Stow	1
Sudbury	0
Westford	6
<b>PSA rate per 100,000 population</b>	<b>12.6</b>
<b>MA Average (per 100,000)</b>	<b>31.1</b>

Table 16: Opioid Overdose Deaths in the Primary Service Area, 2017  
 ([https://www.mass.gov/files/documents/2018/05/22/Opioid-related%20Overdose%20Deaths%20by%20City%20Town%20-%20May%202018\\_0.pdf](https://www.mass.gov/files/documents/2018/05/22/Opioid-related%20Overdose%20Deaths%20by%20City%20Town%20-%20May%202018_0.pdf))

In 2016, the Massachusetts average rate of opioid overdose deaths per 100,000 people was 31.1. In the PSA during that same year there were 20 deaths due to opioid overdoses, or 12.6 per 100,000 people. In the SW service area, there were 11 deaths rooted from the same cause, a rate of 22.2 per 100,000.

SW	Opioid Overdose Deaths
Ayer	1
Groton	1
Pepperell	2
Shirley	3
Townsend	4
<b>SW Rate per 100,000 population</b>	<b>22.2</b>
<b>MA Average (per 100,000)</b>	<b>31.1</b>

Table 17: Opioid Overdose Deaths in the Secondary West Service Area, 2017  
[https://www.mass.gov/files/documents/2018/05/22/Opioid-related%20Overdose%20Deaths%20by%20City%20Town%20-%20May%202018\\_0.pdf](https://www.mass.gov/files/documents/2018/05/22/Opioid-related%20Overdose%20Deaths%20by%20City%20Town%20-%20May%202018_0.pdf)

According to the Massachusetts Department of Public Health, "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." This quote exemplifies the current public health crisis occurring all over the United States including within the Emerson Hospital service area.

### Tick – Borne Illness

According to the Center for Disease Control and Prevention (CDC), Massachusetts has one of the highest rates of tick-borne illnesses in the country. One of the most common illnesses occurring from tick bites is Lyme disease. In 2016, there were 52 confirmed cases of Lyme disease in Middlesex County per 100,000 residents. This was an increase from the year prior which had 45 confirmed cases per 100,000 residents (WBUR). The Emerson Hospital service area comprises about 14.5% of the entire Middlesex County residents.

## Youth Risk Behavior Survey (YRBS) Data

Every two years, Emerson Hospital and public school districts within Emerson Hospital's service area collaborate to conduct the Emerson Youth Risk Behavior Survey (YRBS), a comprehensive survey of youth in 6<sup>th</sup> grade and 8<sup>th</sup> grade as well as high school, regarding risk behaviors in the following general areas:

- Vehicular safety
- Social and emotional wellbeing
- Physical safety
- Sexual behavior
- Tobacco, alcohol, and drug use
- Diet, body image, and physical activity
- Sleep, school work, and screen time
- Social media

For the 2018 YRBS, 11,018 youths were surveyed. Those in 6<sup>th</sup> and 8<sup>th</sup> were administered the survey through an online platform. Those in high school received the survey through a paper questionnaire. The figures below highlight some of the areas of concern for both the hospital and the community.

### *Suicide*

Thoughts of suicide and mental health issues in general are common among students in today's school landscape. Students were asked if they worried about peers committing suicide or were told by peers that they were planning on committing suicide. Approximately two thirds of students surveyed revealed that they were worried about peers committing suicide. About a fifth of students said that they were told by one of their peers that they were planning a suicide, but did not tell an adult about it. The commonality of this trend highlights the severity of the issue at hand.

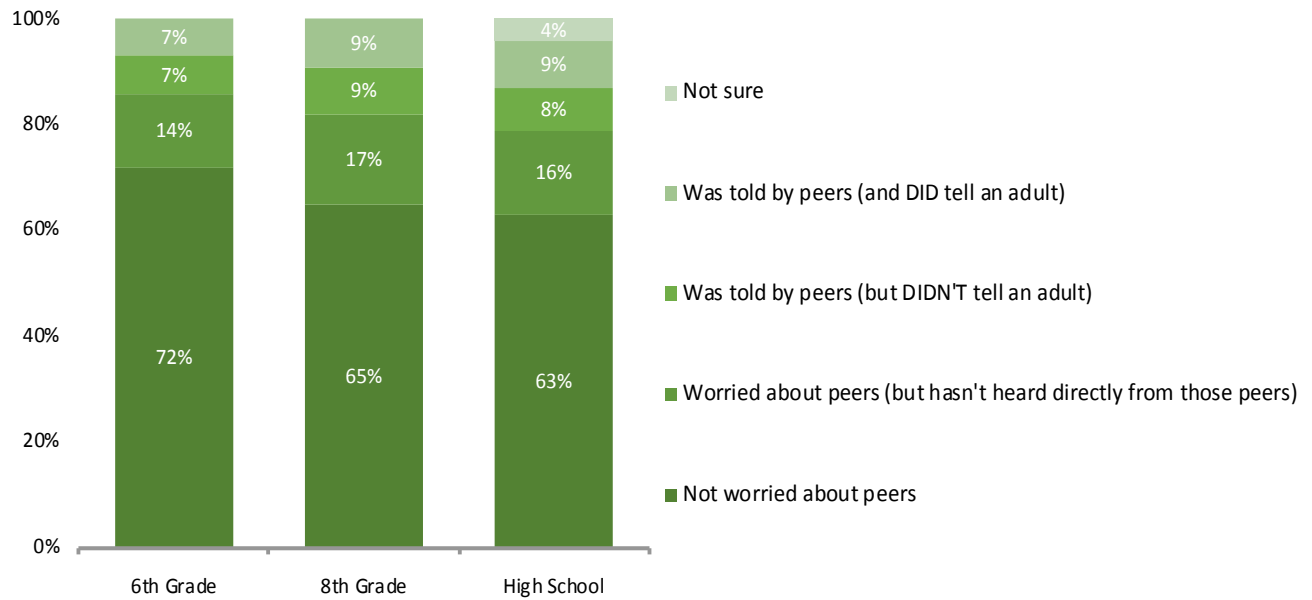


Figure 11: Suicide Data Trends from YRBS 2018

## *Stress*

Stress is a normal component of everyday life. It is not uncommon for there to be stress in all aspects of life. However, stress for younger children and teenagers is often met with terrible outcomes, such as suicide and self-harm. It is often seen that these children are unable to cope with the common stresses of life due to the fact that they have not been taught proper coping mechanisms. Furthermore, the stress on children to succeed, especially in these highly affluent areas, is exacerbated.

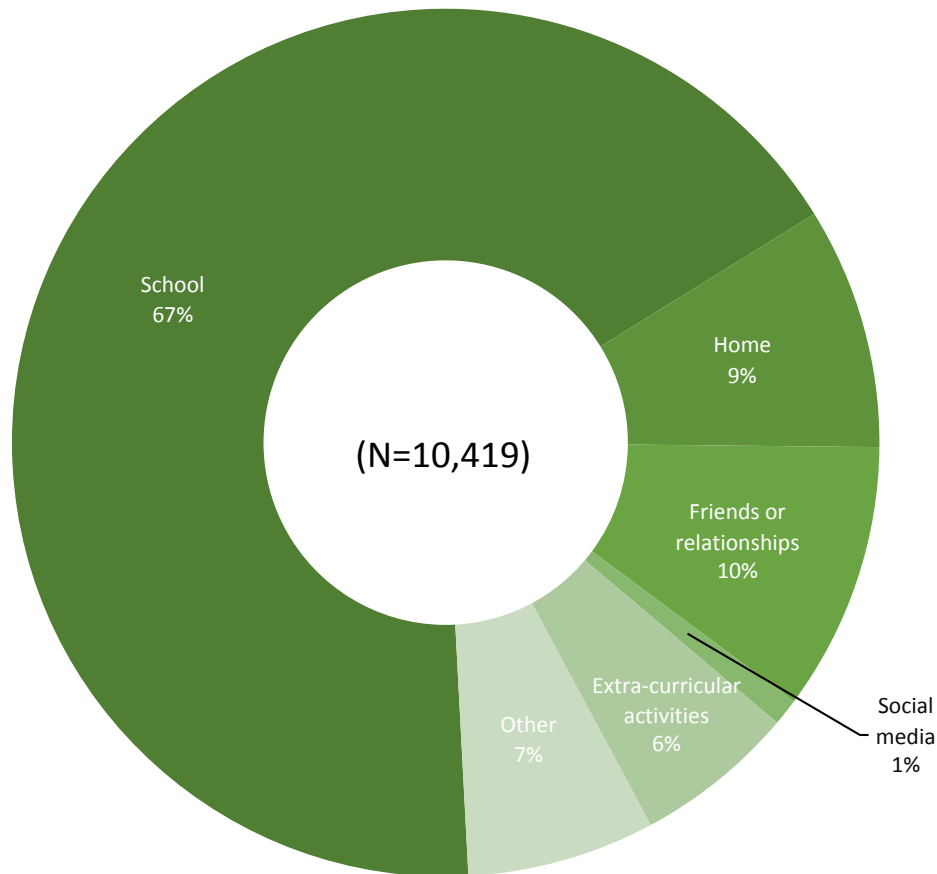


Figure 12: Greatest Sources of Stress in Life from YRBS 2018

As is seen above, 67% of students surveyed reported school as being the greatest source of stress in their lives. This stress is quite common among those in high school, especially juniors, for this is the year that the college application process begins. But, even more alarming is the rate of stress on kids as young as 6<sup>th</sup> grade. In high socio-economic status areas, such as our service area, schooling is extremely competitive and starts very early in life. It is expected that children in these areas will excel in their education path.

## Vaping

In the state of Massachusetts, approximately 5% of the total population is using e-cigarettes, also known as vaping. However, according to the YRBS 2018 survey data, around 28% of all high-schoolers surveyed are “vaping”. This vast difference is illuminating a new and upcoming trend in many communities, including the Emerson Hospital service area. Youth are more inclined to use these e-cigarettes due to the newfound trendiness of this product. Celebrities and rappers commonly endorse the product, bringing notoriety to an industry that was on the decline. The use of e-cigarettes is commonly thought to be safer and healthier than regular cigarettes, however this is untrue and unfounded.

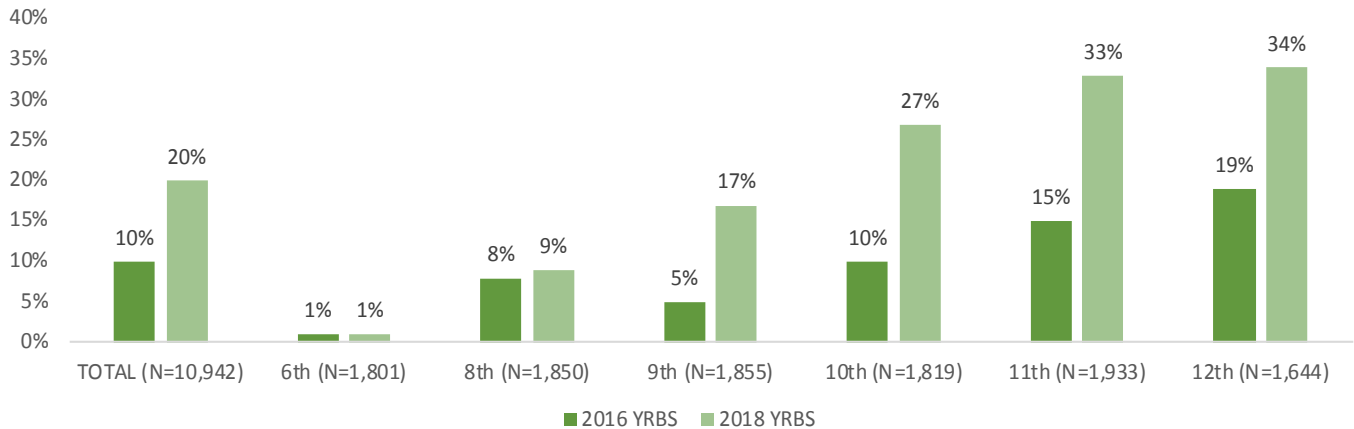


Figure 13: Vaping Data Trends 2016 – 2018 from YRBS 2018

## Binge Drinking

Binge drinking is considered having 4-5+ drinks on one occasion. Approximately 20% of high schoolers in the state of Massachusetts are binge drinking. For the Emerson Hospital service area, binge drinking seems to be a decreasing trend. From 2004 to 2018 there has been a steady decline every year in the number of teenagers partaking in this trend. Binge drinking may be on the decline due to other substances taking the place of alcohol, like vaping and smoking marijuana.

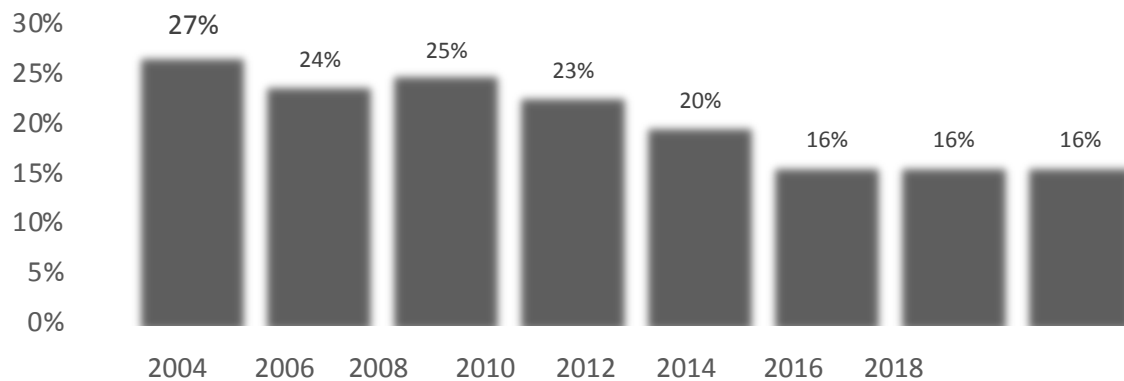


Figure 14: High School Binge Drinking Data Trends from YRBS 2018

## QUALITATIVE DATA

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### Key Informant Interviews

Emerson Hospital engaged Rebecca Hirsch, a Masters of Public Health candidate at the Boston University School of Public Health, to interview a series of individuals to gather their perceptions about the health care 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 as well as key representatives from Emerson itself. These individuals were asked:

- What health issues do you see in the community?
- Which issues do you think are most significant?
- Are there any health care services that are lacking in the community?
- What keeps the community from accessing the health care that they need?
- Do you think that if the services that are currently lacking were offered that they would be used by the community?

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 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) Lack of Transportation Options
- 2) At-Risk Adolescents
- 3) The Growing Aging Population
- 4) Cancer
- 5) Mental Health and Domestic Violence

## KEY INTERVIEW FINDINGS

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### Lack of Transportation Options

A common theme seen throughout the interview process was that of transportation. The Emerson Hospital service area is located in an area only accessible through the use of motor vehicle transportation. Public transportation routes do not directly run through the service area. To add to this dilemma, many individuals are separated from the hospital by highways with very few sidewalks available to walk on. There currently is an initiative between UberHealth and Emerson Hospital in which an Uber will take home a patient without transportation from either the Emergency Department or the Cancer Center. This initiative is in its infancy and its effects are still being monitored.

Doug Halley, the retired Town of Acton Health Director and current Transportation Coordinator, spoke to the issues surrounding transportation services in the Emerson Hospital service area. Emerson Hospital is the 2<sup>nd</sup> most common trip made through the CrossTown Connect transportation service, with Lahey Hospital and the VA being the other most common destinations. The CrossTown Connect covers seven communities, with Concord being a recent addition. The shuttle charges only \$1 to its riders and can be used among all residents, not just the elderly population. When it comes to the issue of the aging community and its mobility issues, Halley said that the aging population is far more active than previous aging populations, however there are more and more people living to be 80 or 90. This 80+ demographic is using the transportation services more due to the occurrence of more health issues and disabilities at that age. As for the communication issue, Halley is hoping for there to be more outreach towards the Asian population as there is a growing population of younger Asian Americans bringing their parents to the U.S. who do not speak the language. Overall, in order to create a larger impact on the transportation issue, Halley says there is a main question we need to ask: Is it a critical need or an indeterminate need?

Holly Richardson, the Town of Hudson Social Service Advocate, and Janice Long, the Director of the Town of Hudson Senior Center, discussed the aging population and the need for more transportation options for them. Transportation for medical needs is the biggest barrier for the Center currently. The Hudson Senior Center only has two buses currently making shuttling residents to doctors' appointments all the more challenging. One bus is designated for taking seniors on everyday tasks, such as grocery shopping, leaving just one shuttle for medical appointments and other necessary trips. Janice Long mentioned that the Center recently received a grant that will go towards purchasing two more shuttles, hopefully one this year and one next year. Long said, "Even with the new shuttles, there is still an immense need in our community for people to be able to get to appointments not in the immediate area, such as getting to Emerson Hospital, which is hard for us to do by ourselves because of the time it takes".

Overall, there needs to be a concerted effort by all parties in order to address this enormous issue.

### At-Risk Adolescents

There are almost 50,000 adolescents (0 - 17 years old) in the Emerson Hospital service area. Of those 50,000, more than 75% have experienced or witnessed some form of bullying, either physically or online.

Along with the bullying, many are anxious, stressed and/or depressed due to a multitude of factors such as: the need to be “perfect” academically, social pressure from peers to use alcohol and drugs, and underlying mental health issues, just to name a few. According to the YRBS survey, many of these “at-risk” adolescents also are more likely to get less than four hours of sleep on school nights, lack engagement out-of-school activities and participate in riskier behavior, such as not wearing a helmet or driving while impaired with others in the car.

Amy Gullotti, a nurse at the Sudbury middle school, spoke to the issue of at-risk adolescents. She mentioned that many of the students suffer from anxiety, depression and even self-harm. The Sudbury school district is just one of many schools in the area with students suffering from these mental health problems. Gullotti also mentioned cyber bullying as an expanding issue, especially on Mondays and Fridays due to the digital harassment that occurs for some of these students throughout the weekend. When asked about healthcare services currently lacking in the area, Gullotti mentioned the need for more outreach programs as well as programs that would better train staff on mental health issues commonly faced by adolescents. Overall, there is a lot of room for improvement in dealing with common issues for at-risk adolescents for not just Sudbury, but all the school districts in the Emerson Hospital service area.

Susan Rask, the Public Health Director of the Town of Concord, spoke about the issues facing the Town of Concord. She, like others interviewed, mentioned that there is an extremely high level of stress in the youth in the area. These at-risk youth are also partaking in vaping, cyber-bullying and often suffering from mental health issues. “There needs to be more outreach efforts to those parents of the at-risk kids [...] we need to saturate the area with these to get our message across to everyone ...” Outreach efforts to parents that educate them on the idea of “first use” is one way that Rask suggested of helping this at-risk adolescent population. “It would be a good first step...”

More outreach programs coordinated with the schools is a necessity. The effort has to be made because of the staggering increase in the number of children with mental health issues due to high stress levels, cyber-bullying and overall pressures to fit in. This pressure to fit in has also resulted in a dangerous new trend sweeping the Emerson Hospital service area, vaping.

Overall, there needs to be a concerted effort by parents, schools, and the community to reach at-risk children. The “at-risk” adolescents are still young enough to be taught different ways of coping and behaving. It is also of the utmost importance that these adolescents have properly trained therapists in the schools and out in the community. At the moment, there is a lack of outpatient mental health services and, for those services that do exist in the area, the cost is a chief deterrent for many families. Many insurances used in the Emerson Hospital service area do not have high reimbursement rates for mental health services, a common issue not just in our service area.

## **The Growing Aging Population**

As of 2018, there are approximately 37,000 people in the Emerson Hospital service area above the age of 65. However, this cohort of individuals is expected to increase by 25% over the next five years making it the fastest growing population in the service area. With a rapidly increasing elderly population, comes a number of other issues. As individuals age, they tend to lose the ability to drive or their licenses are

revoked, making the need for transportation to do everyday tasks that much more necessary. As stated in the transportation section, there is a lack of any form of public transportation besides Uber and Lyft for the area. Unfortunately, those options can become quite expensive when used daily. On top of the transportation issue, comes the issue of isolation. Many elderly individuals do live alone and do not have family nearby. Add to this not having a car and much of their day can be spent alone in their homes.

Ginger Quarles, the Director of the Concord Council on Aging, believes that there needs to be better overall education about the geriatric community and its needs. Quarles mentioned that the mental health aspect of geriatric care is heavily needed in the area, but currently unavailable in our service area. Also, many in the aging community feel as though they are not treated with the same care/respect that younger individuals are and are quite often put off by poor experiences with physicians causing them to not access care again. Quarles also mentioned that “[...] patient navigators could be a helpful tool in reducing re-admission rates at the hospital ...” Patient navigators would ensure that elderly patients understand what they have been told by their physician as it relates to accurate dosing and their health. Overall, there needs to be a push for more physicians specializing in geriatrics.

Susan Rask, the Public Health Director of the Town of Concord, spoke about the issues facing the Town of Concord. Common among some of the other interviews, Rask mentioned that the growing senior population in the area has created a lot of problems that didn’t exist before. Transportation is one of these issues along with a lack of downsizing options for those senior citizens living alone in their homes that are “just too big for them at this stage”.

Holly Richardson, the Town of Hudson Social Service Advocate, and Janice Long, the Director of the Town of Hudson Senior Center, also discussed the aging population and the needs of this unique population. As stated in the “Lack of Transportation” section, medical transportation is a large need for the center. Besides transportation, Richardson mentioned that the influx of elders to the Hudson area may pose a distinctive challenge to the area, especially when it comes to the lack of geriatricians as well as the programming offered by the senior center which are almost all at capacity.

As mentioned in the transportation section, the aging population is growing at a rapid pace. By 2023, the 80+ population will have increased by almost 5%, making it the fastest growing population of people in the Emerson Hospital service area. This population of people have a specific and unique medley of issues that they face daily. There are not enough geriatricians in the area and there are certainly not enough geriatric-psychologists. These specialties are needed in an area where there is such an enormous elderly population. There also needs to be better housing options for those who want to downsize as well as more transportation options so that individuals can get to the hospital and their doctor appointments much more easily.

Amy Loveless, the Director of the Maynard Council on Aging, also spoke on many of the issues that the rapidly growing aging population are facing. One of the biggest “problem areas” is centered on their caregivers. Loveless said that “... many times the caregiver is forgotten about ...” The ones who are giving the care need an outlet or support group available for them. Many times the caregivers are an afterthought since they are not the ones “in need”. However, they are a group very much in need. Loveless suggested that an after work support group would be greatly appreciated among these caregivers and would serve as their “safe space” where they can vent and discuss their feelings.

## Cancer

Cancer is the leading cause of death in the Emerson Hospital service area. Breast and prostate cancer are the two most common cancers in the area followed by lung, colorectal, melanoma and lymphoma. More people in the service area died of lung cancer than any other type of cancer as it is one of the hardest cancers to cure overall. As a result of the 2015 CHNA report, two sunscreen dispensers were ordered by Emerson Hospital to be placed in public areas in Concord, Sudbury, Hudson, Littleton and Westford. These initiatives have been a success. There was a drop in the incidence rate of melanoma from 2015 to 2018.

Robin Schoenthaler, MD, a Radiation Oncology specialist, spoke to the health issues and health access issues that those in the cancer community face. Like many others, she said that access to transportation was an issue for many patients. She also mentioned that she sees many patients who are at the poverty level and, therefore, rely on their insurance plans to help pay for their treatments. However, Dr. Schoenthaler pointed out that the insurance coverage that many of her patients have often are high deductible plans. As a result, November and December are the highest volume months of the year since many patients are trying to reach their deductibles come the end of the year and there is a push to finish all treatments in a limited amount of time. Another health issue Schoenthaler mentioned was access to mental health, or a psycho-oncologist. This is an important piece of the puzzle for those facing a life-threatening disease. One of the services that Dr. Schoenthaler would like to see implemented throughout the breast cancer service is a nurse navigator program. Currently, there are only two nurses on the Radiation Oncology staff. The center sees over 200 cases a year of breast cancer. The nurse navigator would act as a liaison between the patient and their families and their doctors. To have someone there immediately after a cancer diagnosis to tell the patient what the next steps they need to take are, such as making an oncologist or radiologist appointment, would be invaluable for the patient. The nurse navigator could also be a resource for the patient who will undoubtedly have many questions. The nurse navigator pilot program for the breast cancer service could become a much larger program implemented throughout the entire Cancer Center of Emerson Hospital.

Overall, Emerson Hospital wants to continue working to reduce the number of people dying from preventable cancers, such as melanoma, as well as continue to work towards screening more regularly for breast and prostate cancer. There is already a good infrastructure of outreach programs centered around the cancer community as well. One possible way of helping patients and their families with this would be through a nurse navigator pilot program.

## Mental Health and Domestic Violence

Both mental health and domestic violence are growing health and social needs within the Emerson Hospital service area. Approximately 15% of residents within the service area reported 15 or more days of suffering from poor mental health. This is an increase from the numbers reported on this issue in the Community Health Needs Assessment of 2015.

Bethany Hadvab, the town social worker of Sudbury, spoke about the health issues she is seeing in the Sudbury area. She, like others, mentioned transportation as one of the main issues facing residents there. Financial literacy was another large issue facing the community. Hadvab told me that many residents live in subsidized housing or are seniors who have trouble with understanding property taxes. She wants to put together a financial literacy program that teaches the residents of Sudbury about common financial tasks, such as filling out tax forms and learning to put together a weekly budget. She also mentioned domestic violence and mental health as another huge issue plaguing the community. Hadvab said, “More and more people are coming forward and reporting abuse, whether it is financial abuse, mental abuse or physical abuse [...] I think our number of DV cases are increasing because people feel safer reporting now due to our outreach efforts in the community.” Along with this, Hadvab mentioned that there is a new sect of DV coming about coined “financial violence” in which one party in a relationship holds all the power over the other financially. All the property and all the bank accounts the couples have is in the abusive partner’s name and, therefore, if the other partner tries to leave he/she is left with absolutely nothing. This is especially an issue in high socio-economic status areas, such as the Emerson Hospital service area.

Anthony Piro, the Director of Operations and Psychiatry at Emerson Hospital, and James Evans, MD, the Medical Director of Behavioral Health Service at Emerson Hospital, both spoke about mental health and the health access issues that arise within this population of individuals. One of the biggest issues that was revealed was that the addiction recovery unit does not offer suboxone as a treatment for opioid addiction. “We need to offer suboxone for treatment recovery [...] methadone is on its way out ...” Throughout the entire service area there is a lack of outpatient treatment centers for those suffering from mental health disorders. Also, there are very few geriatric psychiatrists in general although the need for them is great. Both Piro and Dr. Evans also said that many times substance abuse goes undetected in the geriatric patients. One of the most significant issues mentioned by them was that there is a “horrible shortage” of child and adolescent beds in behavioral psychiatric units.

Jacquelin Apsler, the Executive Director of the Domestic Violence Services Network, spoke to the issue of domestic violence and the understanding and compassion that needs to be better conveyed to those in abusive situations. Apsler mentioned that there is a large need in the community for better outreach efforts from doctors, nurses and police officers. However, she did mention that she understands the complexity of the issue. “In a perfect world”, Apsler said, “we would be able to put together a class for nurses to teach them what DV looks like and how to interact with those who come into the hospital that are suspected to be suffering.” Apsler went on to say that nurses are the first line of defense since many times they are the ones to interact with the injured party due to the abusive partner. “It would be a major step in the right direction.”

## IMPLEMENTATION PLAN

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### Issue 1: Lack of Transportation

#### Strategy 1

Emerson Hospital is working with both the Council on Aging (CoA) in Hudson and the CrossTown Connect (CTC) transportation group in order to form a partnership. The CTC provides transportation

services for those without any other option. A key component of a town becoming a member is that they would have access to the Central Dispatch Call Center. This call center allows for any CoA that is participating to have access to all the other buses from all the CoAs through the central dispatcher. One of the key areas of focus for Emerson, the Hudson CoA and the CTC is medical transportation. Previously, the CTC was not in service in the Hudson area.

- Partnership between CTC and Hudson CoA will allow Hudson to become a part of the service area for the CTC
- Hudson CoA will be able to transport residents to appointments at Emerson Hospital, which they previously were unable to do due to lack of buses

### **Strategy 2**

Emerson Hospital is aiding in bringing TransLoc to the service area, along with various other partners around the community including many CoAs, the MetroWest Regional Transit Authority (MWRTA) and the CrossTown Connect. TransLoc is a microtransit approach to the transportation issue. Microtransit responds to the specific transportation challenges facing the community including car-dependence, population aging, increasing mobility problems, few affordable non-driving options, and a varied population density.

- Pilot program would include taxi, bus, livery and other transportation resources from within participating towns and the MWRTA
- The pilot would be a three-phase process: simulation, pilot and agency-run implementation

## **Issue 2: At – Risk Adolescents**

### **Strategy 1**

Emerson Hospital will continue with supporting local school districts as was in the implementation plan from the 2015 CHNA. The hospital will provide teach-the-teacher Extra Edge workshops which are 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.

- Teach-the-Teacher will include 45 Concord teachers and 25 Westford teachers that have been trained through Emerson Hospital's sponsorship
- Emerson Hospital will sponsor 25 teachers from Acton-Boxborough and 25 teachers from Maynard as well

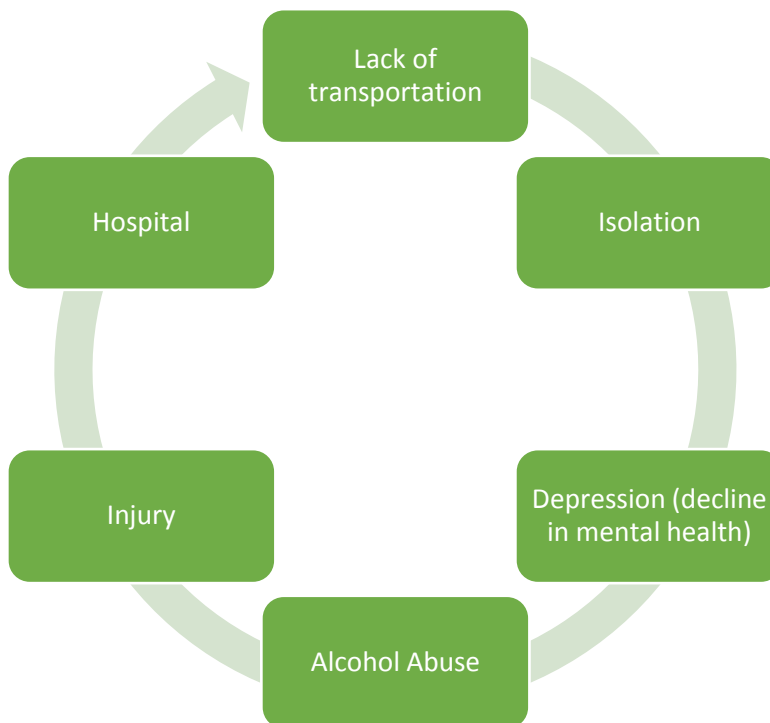
### **Strategy 2**

The Youth Risk Behavior Survey (YRBS) will continue to be performed every two years by Emerson Hospital. It is an invaluable tool to the hospital and the community in order to gauge the true behaviors of adolescents and high school students. The data ascertained from the YRBS is used as a baseline for future years and as a way to track the ever-changing population of who is and who is not at risk.



### Issue 3: Growing Aging Population

The rapidly growing aging population is an issue for Emerson Hospital and will only continue to grow into an even larger issue. There is not just one key issue among this population due to the vast number of problems and concerns that this population of people face. Below is an example of how the growing aging population will continue to exacerbate hospital outpatient resources unless strategies are put into place to combat issues such as lack of transportation, mental health and alcohol abuse, just to name a few.



Commonly, elderly individuals lose the ability to drive or have their cars taken away by concerned family members. This lack of transportation keeps them feeling isolated and as a result a decline in mental health is almost always seen combined with dependency on alcohol or other prescription medications. This alcohol and drug abuse can often lead to falls and broken bones which will land an elderly individual into the hospital. The cycle then begins again with the patient now having no transportation to return home.

## **Issue 4: Cancer**

### **Strategy 1**

Emerson Hospital will continue with the sunscreen dispenser program as was suggested in the implementation plan of the 2015 CHNA. In Phase 1 of the sunscreen dispenser program, the dispensers were targeted for Littleton, Westford, Sudbury, Concord and Hudson.

- In Phase 2, the dispensers will be placed in Groton, Bedford, Acton, Maynard and Carlisle
- Emerson will partner with the Town Public Health Directors as well as the Parks and Recreation force to ensure the dispensers are kept clean and filled with sunscreen

### **Strategy 2**

Emerson Hospital will continue will Low-Dose CT Screenings for lung cancer as was suggested in the implementation plan of the 2015 CHNA. The low-dose CT screenings are used to help diagnose lung cancer at earlier stages. This is important for our service area as lung cancer kills more people in this community than any other type of cancer.

### **Strategy 3**

Emerson Hospital will continue its annual Family Health and Wellness Expo. At this expo, community members can access free screening programs for cancers such as prostate, skin and oral and receive training on self-examinations for breast cancer.

### **Strategy 4**

Emerson will work with the medical staff to present ongoing cancer prevention and education lectures for the community and our target populations.

## **Issue 5: Mental Health and Domestic Violence**

### **Strategy 1A and 1B**

Emerson Hospital will continue to work with local schools to sponsor the bi-annual Youth Risk Behavior Survey (YRBS) to identify at-risk adolescents. The next YRBS will be conducted in 2020. Emerson Hospital will also pilot a program that would create a baseline survey similar to the YRBS to be given to the elderly population in our service area to assess the behavioral health needs of seniors and their caregivers. The goal is that this survey would be replicated in future years to provide trend line data, similar to YRBS. The survey will be modeled after a similar survey from the Center for Disease Control and Prevention.

### **Strategy 2**

As a part of the annual competency training that all Emerson Hospital staff receive, there will be a section added to address Domestic Violence and Financial Violence and how to deal with patients presenting with these issues.

### **Strategy 3**

Emerson Hospital will continue working on domestic violence training with the Domestic Violence Service Network as was suggested in the implementation plan of the 2015 CHNA. In Phase 1, the training was provided to 80 Emerson patient care employees in the Emergency Department. In Phase 2, the training will be given to new staff in the Emergency Department as well as staff in Obstetrical Services and Pediatrics. It is important to note that “financial violence” is a new term under the larger domestic violence umbrella and as such needs to be taught to all staff, even those who were previously trained.

## **Approval of Needs Assessment Implementation Plan**

Emerson Hospital’s Community Benefits Advisory Group (CBAG) met on September 25, 2018, to review the key findings, focus areas and approve the recommended priorities and implementation plan.

The Emerson Hospital Board of Directors met in October 2018 to review the findings of the 2018 Community Health Needs Assessment and approve the recommended priorities and implementation plan.

## APPENDICES

### Appendix A: Key Informants

Name	Position
Alice Sapienza	Member, Board of Directors, Sudbury Council on Aging
Amy Gullotti	Middle School Nurse, Sudbury
Amy Loveless	Director, Maynard Council on Aging
Anthony Piro	Director of Operations/Psychiatry, Emerson Hospital
Bethany Hadvab	Town Social Worker, Sudbury
Doug Halley	Town of Acton Health Director & Transportation Coordinator
Eva Willens	Deputy Administrator, MetroWest Regional Transit Authority
Franny Osman	Chair, Transportation Advisory Committee of Acton
Ginger Quarles	Director, Concord Council on Aging
Holly Richardson	Social Service Advocate, Town of Hudson
James Evans, MD	Medical Director of Behavioral Health Services, Emerson Hospital
Janice Long	Director, Hudson Senior Center
Jacquelin Apsler	Executive Director, Domestic Violence Services Network, Inc.
Joseph Palomba, MD	Medical Director, Emerson Urgent Care, Hudson & Littleton
Judith Labossiere	Executive Director, Home Care Services, Emerson Hospital
Margaret Hannah	Director, Freedman Center for Child and Family Development
Robin Schoenthaler, MD	Radiation Oncologist, Emerson and Massachusetts General Hospitals
Susan Rask	Public Health Director, Town of Concord

## Appendix B: Community Health Network Areas (CHNA) Descriptions

### CHNA 15: Northwest Suburban Health Alliance Towns (Metro West Region)

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

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

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, Winchendon

***Bold Italics:*** Primary Service Area (PSA)

**Bold:** Secondary West Area (SW)

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