GREATER MANCHESTER COMMUNITY HEALTH NEEDS ASSESSMENT 2016
TABLE OF CONTENTS:

INTRODUCTION ...................................................................................................................... 2
COMMUNITY HEALTH NEEDS ASSESSMENT PROCESS ................................................. 4
DESCRIPTION OF THE COMMUNITY SERVED .................................................................... 7
SECONDARY DATA–HEALTH STATISTICS ........................................................................... 14
HEALTH STATUS AND OUTCOMES .................................................................................. 29
ACCESS TO HEALTH CARE .............................................................................................. 37
PRIMARY DATA: COMMUNITY INPUT ............................................................................... 42
APPENDIX A ....................................................................................................................... 46
APPENDIX B ....................................................................................................................... 47
APPENDIX C ....................................................................................................................... 48
APPENDIX D ....................................................................................................................... 50
Greater Manchester Community Health Needs Assessment 2016

INTRODUCTION

Thank you for your interest in the 2016 Greater Manchester Community Health Needs Assessment conducted jointly by Catholic Medical Center, Elliot Hospital, and the City of Manchester Health Department.

With the enactment of the Affordable Care Act, all not-for-profit hospitals nationally must conduct a Community Health Needs Assessment (CHNA) every three years. The state of New Hampshire requires a Community Health Needs Assessment every five years. To meet these requirements and to better serve their communities, Catholic Medical Center and Elliot Health System have partnered to conduct this needs assessment with the assistance of the Manchester Health Department. The hospitals will be using this information to create an implementation plan to address the community needs identified through this process.

Catholic Medical Center
Catholic Medical Center is a not-for-profit, tax-exempt, and licensed full-service hospital with 330 beds. A medical staff of over 700 physicians and allied health professionals provide care to the residents of New Hampshire, concentrating within the greater Manchester area. It serves as a sophisticated acute-care hospital providing high-quality, cost-effective services delivered in a caring and personal manner. Along with the sophisticated clinical quality and leading-edge medical technology, the hospital provides vital programs and services to meet the needs of the community's most vulnerable and the health needs of the region overall. Last year, CMC provided millions of dollars in support to care for the patients of our community health service
programs, including the CMC Medication Assistance Program, the Poisson Dental Facility, Community Education & Wellness, Health Care for the Homeless, the Parish Nurse Program, the Pregnancy Care Center, and the West Side Neighborhood Health Center.

CMC is known for offering nationally recognized cardiology services through its New England Heart and Vascular Institute. Some other specialized programs at CMC include Rehabilitation Services, Bariatric Center, Sleep Center, Wound Center, Hyperbaric Medicine, Diabetes Treatment Center, Pain Management Services, the Cholesterol Management Center, Obesity Treatment Center, Breast Care Center, The Mom’s Place and the Special Care Nursery.

Elliot Hospital
Elliot Hospital is the largest provider of comprehensive health care services in southern New Hampshire. The cornerstone of EHS is Elliot Hospital, a 296-bed acute-care facility located in Manchester, New Hampshire’s largest city. Established in 1890, Elliot Hospital offers southern New Hampshire communities caring, compassionate, and professional patient service regardless of race, religion, national origin, gender, age, disability, marital status, sexual preference, or ability to pay.

EHS is home to Manchester’s designated Regional Trauma Center, Urgent Care Centers, a Level 3 Newborn Intensive Care Unit, Elliot Physician Network, Elliot Specialists, Elliot Regional Cancer Center, Elliot Senior Health Center, Visiting Nurse Association of Manchester and Southern New Hampshire, Elliot 1–Day Surgery Center, Elliot at River’s Edge, and Elliot Pediatrics.
Identification of Needs

Catholic Medical Center and Elliot Hospital are key participants on the Manchester Health Advisory Council (Appendix A), a regional network of stakeholders who share the commitment to improving health in the greater Manchester community. The primary focus of this council over the last two years (2014–2016) has been to conduct a community needs assessment and health improvement strategy for Manchester. This collaborative effort was coordinated under the direction of the City of Manchester Health Department and the Greater Manchester Regional Public Health Network.


The processes, findings, and recommendations associated with this work formed the foundation of our list of community needs. In addition, we have revisited secondary data sources presented in the 2013 Community Health Needs Assessment to evaluate their status to date.

Finally, Catholic Medical Center and Elliot Hospital conducted several key-informant interviews with area town administrators, public health officials, and others to discuss the health needs in their communities and determine if there were additional needs and priorities beyond those identified for the City of Manchester. We also took the opportunity to discuss new and emerging trends in the health of greater Manchester communities.
Prioritization and Approval of Needs

The health needs identified through the 2014 Neighborhood Health Improvement Strategy were prioritized by the Greater Manchester Regional Public Health Network to form the 2016 Greater Manchester Health Improvement Plan. The top public health priority areas chosen by the Greater Manchester Regional Public Network for this plan include the following:

1. Prevent Injuries and Violence, and Reduce Their Consequences
2. Reduce the Burden of Asthma-related Illness through Improved Asthma Control
3. Reduce the Burden of Diabetes-related Illness through Improved Diabetes Control
4. Reduce Substance Misuse and Addiction through Prevention, Treatment and Recovery
5. Increase Public Health Emergency Preparedness

In addition to the priorities from the 2016 Greater Manchester Health Improvement Plan, Catholic Medical Center and Elliot Hospital identified additional health needs through the review of updated primary and secondary data, creating a larger list of health needs for prioritization.

This regionally comprehensive list was presented to a cross section of the community leaders, from the Greater Manchester Regional Public Health Network, Elliot Hospital and Catholic Medical Center for prioritization. The prioritized needs are presented below and will form the foundation of the hospitals’ Community Health Improvement Plan.

Health Needs Identified and Prioritized

1. **Substance Misuse and Addiction**—Specifically heroin, alcohol, and other opioids.
2. **Mental Health** – Manchester residents experiencing poor mental health days is significantly higher than the rest of New Hampshire.

3. **Poverty Rates**–Manchester poverty rates are higher than surrounding communities and the rest of New Hampshire (over 15%, as much as 30% in some parts of the city). Related to the poverty rates, use of free and reduced lunch plans is much higher in Manchester than in surrounding towns and the rest of New Hampshire.

4. **Social and Support Services**–Limited outside the city.

5. **Access to Care**–Due to transportation issues and long wait times (months) for appointments.

6. **Injuries and Violence**–Assaults (Manchester); traffic in communities adjacent to the highway (key informant interviews). See 2016 Greater Manchester New Hampshire Health Improvement Priority Area #1.¹

7. **Obesity**– 66% of adults were considered overweight or obese in the Greater Manchester HSA. See 2016 Greater Manchester New Hampshire Health Improvement Priority Area #5.²

8. **Aging Population** – The 65+ population within the HSA is projected to realize a 22% growth through 2019, and many other towns within the HSA will experience over 30% growth in the 65+ age group.

9. **Dental and Oral Health Care**–Lack of ability to pay for services; however, there are more dentists per 100,000 population than the rest of New Hampshire and the United States.

10. **Diabetes**– The prevalence of diabetes among and diabetes related emergency department visits among residents of the City of Manchester and Greater Manchester were significantly higher than the overall state of NH rate. See 2016 Greater Manchester New Hampshire Health Improvement Priority Area #3.³

---

¹ [https://www.manchesternh.gov/Portals/2/Departments/health/GManCHIP.pdf](https://www.manchesternh.gov/Portals/2/Departments/health/GManCHIP.pdf)
² [https://www.manchesternh.gov/Portals/2/Departments/health/GManCHIP.pdf](https://www.manchesternh.gov/Portals/2/Departments/health/GManCHIP.pdf)
³ [https://www.manchesternh.gov/Portals/2/Departments/health/GManCHIP.pdf](https://www.manchesternh.gov/Portals/2/Departments/health/GManCHIP.pdf)
11. **High Cholesterol Rates** – High cholesterol is one of the major controllable risk factors for coronary heart disease, heart attack and stroke. Heart disease was the 2nd leading cause of death in 2013 in NH.

12. **Asthma** – New Hampshire’s asthma rate is among the highest in the nation. See 2016 Greater Manchester New Hampshire Health Improvement Priority Area #2.4

13. **Transportation** – A lack of both public transport and elderly transportation options.

14. **Prostate Cancer** – The Greater Manchester HSA has a prostate cancer incidence rate significantly higher than the state of NH.

---

**DESCRIPTION OF THE COMMUNITY SERVED**

**Community**

The 2016 Greater Manchester Community Health Needs Assessment focused on the Health Service Area (HSA) of Greater Manchester, a market that is primarily served by Catholic Medical Center and Elliot Hospital. The Greater Manchester HSA is home to approximately 180,000 residents and is composed of the towns of Auburn, Bedford, Candia, Deerfield, Goffstown, Hooksett, New Boston, and the City of Manchester. These towns are located in three different counties (Hillsborough, Rockingham, and Merrimack) within the state of New Hampshire, with 62% of the residents of the HSA living within the City of Manchester.

---

4 [https://www.manchesternh.gov/Portals/2/Departments/health/GManCHIP.pdf](https://www.manchesternh.gov/Portals/2/Departments/health/GManCHIP.pdf)
Demographic Overview of the Manchester Health Service Area (HSA)

The population of the Greater Manchester HSA is changing. The HSA is aging and becoming a more diverse population, with residents reflecting a variety of nationalities, languages, ethnic traditions, religious beliefs, and ideologies.

The 65+ population within the HSA is projected to realize a 22% growth through 2019, and many other towns within the HSA will experience over 30% growth in the 65+ age group. This is significant given a 2012 report from the University of New Hampshire Carsey Institute\(^5\), which notes that the aging population will increase the cost of providing state and local services. Unlike the increase in the 65+ population, the pediatric population (ages 0–17) within the Greater Manchester HSA (excluding the City of Manchester) is projected to realize a slight decline over the next five years. In contrast to the HSA, the City of Manchester’s pediatric population is projected to realize an increase of about 2%. The table below demonstrates the projected change in the HSA population by age cohort.

Greater Manchester Community Health Needs Assessment 2016

Greater Manchester HSA Population by Age

<table>
<thead>
<tr>
<th>Town</th>
<th>Pop 2014</th>
<th>Projected Pop 2019</th>
<th>Five-Year Growth (#)</th>
<th>Five-Year Growth (%)</th>
<th>% Pop Aged 0-17</th>
<th>Projected Growth Age 0-17</th>
<th>% Pop Aged 65+</th>
<th>Projected Growth Age 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auburn</td>
<td>4,928</td>
<td>4,934</td>
<td>6</td>
<td>0%</td>
<td>22%</td>
<td>-15%</td>
<td>12%</td>
<td>43%</td>
</tr>
<tr>
<td>Bedford</td>
<td>21,263</td>
<td>21,388</td>
<td>125</td>
<td>1%</td>
<td>27%</td>
<td>-11%</td>
<td>16%</td>
<td>26%</td>
</tr>
<tr>
<td>Candia</td>
<td>4,051</td>
<td>4,059</td>
<td>8</td>
<td>0%</td>
<td>21%</td>
<td>-12%</td>
<td>12%</td>
<td>53%</td>
</tr>
<tr>
<td>Deerfield</td>
<td>4,246</td>
<td>4,251</td>
<td>5</td>
<td>0%</td>
<td>22%</td>
<td>-9%</td>
<td>12%</td>
<td>42%</td>
</tr>
<tr>
<td>Hooksett</td>
<td>13,210</td>
<td>13,181</td>
<td>-29</td>
<td>0%</td>
<td>22%</td>
<td>-7%</td>
<td>14%</td>
<td>27%</td>
</tr>
<tr>
<td>Goffstown</td>
<td>14,419</td>
<td>14,496</td>
<td>77</td>
<td>1%</td>
<td>21%</td>
<td>-8%</td>
<td>15%</td>
<td>21%</td>
</tr>
<tr>
<td>Manchester</td>
<td>112,661</td>
<td>113,312</td>
<td>651</td>
<td>1%</td>
<td>20%</td>
<td>2%</td>
<td>14%</td>
<td>18%</td>
</tr>
<tr>
<td>New Boston</td>
<td>5,317</td>
<td>5,350</td>
<td>33</td>
<td>1%</td>
<td>26%</td>
<td>-3%</td>
<td>10%</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>180,095</strong></td>
<td><strong>180,971</strong></td>
<td><strong>876</strong></td>
<td><strong>0%</strong></td>
<td><strong>22%</strong></td>
<td><strong>-3%</strong></td>
<td><strong>14%</strong></td>
<td><strong>22%</strong></td>
</tr>
</tbody>
</table>

Source: Health Care Advisory Board Demographic Profiler: Population Age Segmentation Analysis

As stated above, the HSA is becoming a more diverse population, with residents reflecting a variety of nationalities, languages, ethnic traditions, religious beliefs, and ideologies. Manchester continues to welcome refugees into the city. Since 2008, Manchester has welcomed over 1,500 refugees\(^6\). The majority of racial diversity in the Greater Manchester HSA is within the city of Manchester, as the city has nearly 86% of the minority population of the HSA residing within its boundaries. The tables below highlight the racial and ethnic profile of the HSA and the City of Manchester.

Greater Manchester HSA and City of Manchester Population Profile by Race

<table>
<thead>
<tr>
<th>Race</th>
<th>HSA</th>
<th>% Race in HSA</th>
<th>City of Manchester</th>
<th>% Race within Manchester</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>163,568</td>
<td>90.0%</td>
<td>94,390</td>
<td>85.8%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>5,712</td>
<td>3.1%</td>
<td>5,066</td>
<td>4.6%</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>242</td>
<td>0.1%</td>
<td>179</td>
<td>0.2%</td>
</tr>
<tr>
<td>Asian</td>
<td>6,300</td>
<td>3.5%</td>
<td>5,368</td>
<td>4.9%</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>7</td>
<td>0.0%</td>
<td>7</td>
<td>0.0%</td>
</tr>
<tr>
<td>Some Other Race</td>
<td>2,315</td>
<td>1.3%</td>
<td>2,224</td>
<td>2.0%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>3,522</td>
<td>1.9%</td>
<td>2,831</td>
<td>2.6%</td>
</tr>
<tr>
<td><strong>Total Population</strong></td>
<td><strong>181,666</strong></td>
<td><strong>110,065</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minorities</td>
<td>18,098</td>
<td>10.0%</td>
<td>15,675</td>
<td>14.2%</td>
</tr>
</tbody>
</table>

One outcome of the increase in refugees over the past seven years is that 80 languages are now spoken in the Manchester school system. Over the past five years an average of 1,800 students in the Manchester school system are considered to have Limited English Proficiency (LEP). This number has been trending down over the past five years. (see table below) A person with LEP may have difficulty speaking or reading English and thus have difficulty communicating effectively in school.

![Graph showing the number of students with Limited English Proficiency in public schools in the Manchester HSA from SY 10-11 to SY 14-15](Source: http://factfinder.census.gov/ 2010-2014 American Community Survey 5-Year Estimates)

The median household income for the City of Manchester is $55,306. This is significantly lower than all others towns within the Greater Manchester HSA and is
also lower than the median household income for New Hampshire, which is $64,664. The City of Manchester also has a significantly higher percent of individuals and families living below poverty, 14.3% and 10.8%, respectively, than other towns in the HSA and the state. Manchester residents living below the poverty level are concentrated in the East and West side center city. This is demonstrated in the map on the next page from the City of Manchester Health Department. Since poverty is highly associated with increased health risk behaviors, low educational attainment, poor health status, unemployment, and a lower self-reported quality of life, this is important to understanding community needs.

### Greater Manchester HSA Population by Income and Education

<table>
<thead>
<tr>
<th>Town</th>
<th>Median Household Income</th>
<th>Unemployment Rate</th>
<th>Families Below Poverty Level (100%)</th>
<th>Individuals Living Below Poverty Level past 12 Months (100%)</th>
<th>Percent High School Graduate (or Equivalent)</th>
<th>Percent Bachelor’s Degree or Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auburn</td>
<td>$106,222</td>
<td>3.0%</td>
<td>2.2%</td>
<td>2.6%</td>
<td>96.1%</td>
<td>34.7%</td>
</tr>
<tr>
<td>Bedford</td>
<td>$123,423</td>
<td>3.4%</td>
<td>2.0%</td>
<td>2.7%</td>
<td>95.7%</td>
<td>57.9%</td>
</tr>
<tr>
<td>Candia</td>
<td>$93,977</td>
<td>4.4%</td>
<td>1.5%</td>
<td>3.8%</td>
<td>94.7%</td>
<td>33.4%</td>
</tr>
<tr>
<td>Deerfield</td>
<td>$87,982</td>
<td>4.0%</td>
<td>2.7%</td>
<td>3.8%</td>
<td>96.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Goffstown</td>
<td>$69,123</td>
<td>3.4%</td>
<td>1.7%</td>
<td>5.1%</td>
<td>90.7%</td>
<td>30.6%</td>
</tr>
<tr>
<td>Hooksett</td>
<td>$82,725</td>
<td>4.4%</td>
<td>1.2%</td>
<td>3.0%</td>
<td>93.9%</td>
<td>35.2%</td>
</tr>
<tr>
<td>Manchester</td>
<td>$55,306</td>
<td>5.5%</td>
<td>10.8%</td>
<td>14.3%</td>
<td>86.8%</td>
<td>26.4%</td>
</tr>
<tr>
<td>New Boston</td>
<td>$100,075</td>
<td>3.6%</td>
<td>0.6%</td>
<td>1.7%</td>
<td>94.1%</td>
<td>35.9%</td>
</tr>
<tr>
<td>State of NH</td>
<td>$64,664</td>
<td>4.4%</td>
<td>5.7%</td>
<td>8.9%</td>
<td>92.0%</td>
<td>34.4%</td>
</tr>
</tbody>
</table>

Low socioeconomic status for youth is associated with higher hospital admission rates, lower utilization of preventive services, and higher rates of chronic disease. A measurement to assess youth poverty is the number of students enrolled in free or reduced meal plans in schools. A student who is eligible for free-meal enrollment must come from a household where the total annual income per family falls below 130% of the federal poverty guidelines (e.g., for a family of four, this would equate to $29,965 or less annually). For a student to be eligible for reduced-meal enrollment, the total annual household income per family must fall below 185% of the federal poverty guidelines (e.g., for a family of four, this would equate to $42,643 or less.)
The chart below demonstrates a continued increase in the number of students who are enrolled in the free and reduced meal plans within the Manchester School District and the state of New Hampshire. Fifty-seven percent (7,300) of Manchester students are enrolled in the free and reduced meal plans. This is significantly higher than the state of New Hampshire.

Homeless children have a higher risk of health conditions than those with a stable home. According to childtrends.org, children who are homeless:

- Suffer from hunger, poor physical and emotional health, and missed educational opportunities.
- Are twice as likely to go hungry as children who are not homeless.
- Are more likely than other children to have moderate to severe acute and chronic health problems, and less access to medical and dental care.
- Have a higher prevalence of symptoms of asthma, hyperactivity/inattention, and behavior problems.

Source: http://education.nh.gov/data/attendance.htm#free_reduced_district
• Have three times the rate of emotional and behavioral problems, such as anxiety, depression, sleep problems, withdrawal, and aggression.
• Are twice as likely as others to repeat a school grade, be expelled or suspended, or drop out of high school.

During the 2011–2012 school years the Manchester School District identified 1,115 students who were homeless, representing more than 7% of the total student population.

SECONDARY DATA–HEALTH STATISTICS

Health Behaviors and Risk Factors
The World Health Organization defines health as a state of complete physical, mental, and social well-being, not merely the presence or absence of disease or illness. Individual risk factors are characteristics of a person that may explain health or behavior, such as tobacco use. Poor health behaviors and risk factors greatly impact an individual’s health status and outcomes by making it difficult to achieve the definition of "health."

Mental Health
According to the Centers for Disease Control and Prevention (CDC), mental health and physical health are closely connected; mental health plays a major role in people’s ability to maintain good physical health. Mental illnesses, such as depression and anxiety, can affect a person’s ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and often decreases a person’s ability to participate in treatment and recovery.

Mental health rates and resources continue to be a concern within the City of Manchester, the Greater Manchester HSA, and the state of New Hampshire. In the
Greater Manchester HSA, the number of residents reporting poor mental health days nearly doubled from 2010 to 2011, with minimal decline in 2012.

![Graph showing resident reporting poor mental health days over time](http://nhhealthwrqs.org/HealthWRQS2)

As stated above, the percentage of Manchester residents experiencing poor mental health days is significantly higher than the rest of New Hampshire. According to the CDC’s Behavioral Risk Factor Surveillance System (2011), Manchester residents earning less than $25,000 per year self-report double the rate of poor mental health days than the city as a whole.

The Greater Manchester HSA and the entire state of New Hampshire continue to realize an increase in mental health conditions, and hospital emergency departments (EDs) have realized the biggest impact from this trend. The 2013 needs assessment reported a rate of 1,630 mental health–related ED visits and observation stays per 100,000 people within the Greater Manchester HSA in 2007. The most recent data available for all acute care hospital in NH (2009) reports a figure of 1,947 per 100,000 persons. This is a significant increase in ED and observation stays for a mental health condition.
Mental Health–Related ED Visits and Observation Stays per every 100,000 Persons

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manchester Health Service Area</td>
<td>1,630.8</td>
<td>1,947.1</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>1,429.0</td>
<td>1,511.6</td>
</tr>
</tbody>
</table>

Source: NH HealthWRQS Outpatient Hospital Indicator Module

It is commonly accepted that when mental health issues or conditions go unrecognized and/or untreated, they can often lead to self-destructive behaviors such as substance abuse and suicide, thus often leading to emergency department visits. Suicide is an important indicator of poor mental health. In the most recent New Hampshire Suicide Prevention Annual Report produced by the National Alliance on Mental Illness – NH (NAMI NH), State Suicide Prevention Council (SPC), and Youth Suicide Prevention Assembly (YSPA), from 2009 to 2013 suicide among individuals of all ages was the 9th leading cause of death in New Hampshire, and the 10th leading cause of death nationally.7

In the 2013 Greater Manchester Community Health Needs Assessment, a significant increase in death by suicide was noted from 2007 and 2008, with an average rate of 12 per 100,000 persons from 1999 through 2008. According to the most recent data from America’s Health Rankings, NH suicide deaths further increased to an average of 13.6% from 2012 through 2015, peaking at 14.6% in 2013. The graph below illustrates that this rate has recently started to decline, with a 2015 rate of 13.3%.

The 2016 Greater Manchester New Hampshire Health Improvement Plan reports that according to the Youth Risk Behavior Survey (2015) 7.6 % of youth in the Greater Manchester

Region reported having attempted suicide in the past year. This is higher than the state of NH rate of 6.8%.

![NH Suicide Deaths per 100,000 person graph]

Source: Healthhttp://www.americashealthrankings.org/NH/Suicide

**Substance Abuse**

As noted on page 29 of the Greater Manchester Improvement Plan of 2016, “Substance misuse is one of the most prevalent and problematic public health issues that pose a wide range of safety and health risks, impacting physical, social and emotional well-being. Substance misuse, involving tobacco, alcohol, illicit drugs, misuse of prescription drugs, or combinations of all of these behaviors, is associated with a complex range of negative consequences for health and well-being of individuals, families and communities. In addition to contributing to both acute and chronic disease and injury, substance abuse is associated with destructive social conditions, including family dysfunction, lower prosperity, domestic violence and crime”. Priority Area 4 in the Greater Manchester Health Improvement Plan of 2016 is to reduce substance misuse (Alcohol, Tobacco, and Other Drugs) and addiction through prevention, treatment, and recovery.

**Drug Use**

The state of New Hampshire is currently battling an opioid abuse crisis, with the epicenter of this crisis in the City of Manchester. A March 2016 article from the
*Concord Monitor* states that New Hampshire has the highest per-capita drug rate in New England and the third-highest in the nation. In 2015, 439 people died from a drug overdose in New Hampshire, a 60% increase from 2013 (the last time a Community Health Needs Assessment was conducted by CMC and the Elliot Hospital). A continued increase in heroin and fentanyl abuse is the cause for this large increase in overdose deaths over the past two years.

The City of Manchester has the highest rates of overdose deaths and Narcan administration in the state of New Hampshire. From June 2015 through May 2016, EMS/Narcan administration for the City of Manchester was over 500 (see map below).

---

8 Drug deaths claimed 428 lives in New Hampshire in 2015; the state has the highest per capita drug death rate in New England and the third-highest in the nation
Opioid addiction is a problem for all ages of the population, with the largest population of users being between the ages of 20 and 39. The graph below from the May 2016 NH Drug Monitoring Initiative Report demonstrates the rate of use within the age cohorts of 20 – 39.
Alcohol Use
Excessive alcohol use, including underage drinking and binge drinking, can lead to an increased risk of health problems such as injuries, violence, liver diseases, and cancer. A 2015 report from the CDC stated that in 2014 more people died in the United States from alcohol-induced causes (30,722) than from overdoses of prescription painkillers and heroin combined (28,647).

Adults
The graph below shows adults who self-reported engaging in binge drinking in 2009, 2011, and 2012 for the City of Manchester, the Greater Manchester HSA, and the state of New Hampshire. Adult binge drinking rates were lower in 2012 than in 2009 for the City of Manchester and the HSA and lower than the rest of NH.

10 Source: https://www.cdc.gov/alcohol/
Youth

Teen alcohol and drug abuse are associated with a variety of potentially harmful behaviors, such as engaging in risky sexual activity, driving under the influence, abusing multiple substances, and committing crimes. Alcohol and drug abuse among adolescents can cause both short- and long-term physical and mental health problems and exacerbate existing conditions. Teen substance abuse is also associated with poor academic performance and increased risk of dropping out of school. The negative consequences of teen alcohol and drug abuse can carry over into adulthood.

The 2013 Youth Risk Behavior Survey (YRBS) results showed that 35% of 12– to 20–year-olds from the Greater Manchester HSA reported drinking alcohol in the past 30 days. The national rate was reported at 25% and the northeast rate at 29%.12 The table below from the Greater Manchester Heath Improvement Plan of 2016 (based on the 2015 YRBS) shows the most recent report of this group drinking alcohol within the

---

12 Source: http://www.checkthestatsnh.org/new-hampshires-stats/
past 30 days at 31% for the HSA, 4% lower than the 2013 survey. The rate does appear to be declining but is still reported at over 30%.

<table>
<thead>
<tr>
<th>Percent of high school aged youth in the Greater Manchester Region Who report</th>
<th>Alcohol</th>
<th>Marijuana</th>
<th>Rx drugs not prescribed to them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy Access to</td>
<td>39%</td>
<td>44%</td>
<td>14%</td>
</tr>
<tr>
<td>Past 30 Day Use of</td>
<td>31%</td>
<td>22%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: Greater Manchester Health Improvement Plan 2016/NH Regional Youth Risk Behavior Survey, 2015

**Tobacco Use**

As stated on the New Hampshire Health Wisdom website, tobacco use and dependence remains the single most preventable cause of death and disability in New Hampshire. About 1,900 deaths in New Hampshire are attributed to smoking annually, and about 80% of adult tobacco users start by the age of 13.

The table below shows the most recent smoking rates for youth, adults, and pregnant women. The rates for adults and pregnant women are significantly higher in the City of Manchester than within the HSA and New Hampshire. However, all smoking rates are less than reported in 2011.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manchester</td>
<td>N/A</td>
<td>22%</td>
<td>16%</td>
<td>27%</td>
</tr>
<tr>
<td>Greater Manchester Region</td>
<td>9%</td>
<td>18%</td>
<td>14%</td>
<td>24%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>9%</td>
<td>18%</td>
<td>13%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: Greater Manchester Health Improvement Plan 2016 and NH Health Wisdom
Physical Activity

According to the CDC, regular physical activity includes participation in moderate and vigorous physical activities and muscle-strengthening activities. A key factor that makes overweight and obesity more likely is not getting enough physical activity.

Adults

Among adults and older adults, physical activity can lower the risk of:

- Early death
- Coronary heart disease
- Stroke
- High blood pressure
- Type 2 diabetes
- Breast and colon cancer
- Falls
- Depression

The table below shows physical activity rates for the HSA and the state of New Hampshire as reported in the 2013 Community Health Needs Assessment (2011 data) and the most recently available data (2012). The Greater Manchester HSA shows a small decline in physical activity rate, while the state of New Hampshire shows a 2% increase. Overall, over 75% of adults have had some form of physical activity in the past 30 days.

<table>
<thead>
<tr>
<th>Physical Activity</th>
<th>Adults that did Physical Activity or Exercise in Past 30 Days</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manchester HSA</td>
<td>76.1%</td>
<td>75.6%</td>
</tr>
<tr>
<td></td>
<td>New Hampshire</td>
<td>77.6%</td>
<td>79.7%</td>
</tr>
</tbody>
</table>

Source: NH BRFSS 2011, 2012
**Overweight and Obesity**

The National Institutes of Health (NIH) has defined obesity as a body mass index (BMI) of 30 and above. A BMI of 30 is about 30 pounds overweight.

- A BMI from 18.5 to 24.9 is considered normal.
- Adults with a BMI of 25 to 29.9 are considered overweight.\(^\text{13}\)
- Adults with a BMI of 30 to 39.9 are considered obese.
- Adults with a BMI greater than or equal to 40 are considered extremely obese.
- Anyone more than 100 pounds overweight is considered morbidly obese.

Overweight or obese people are at higher risk of developing serious health problems, including heart disease, high blood pressure, type 2 diabetes, gallstones, breathing problems, and certain cancers.

**Adults**

The trend of increasing obesity continues within the Greater Manchester HSA. In 2012, 66% of adults were considered overweight or obese in the Greater Manchester HSA. This is a 2% increase from 2008. Taking a closer look at the distribution of obese to overweight adults, the number of obese adults has increased 7% within the HSA since 2008 and accounts for almost half of the obese/overweight adult population. The state’s rate of obesity is 63% and has not increased since 2008. However, the ratio of obese to overweight residents within New Hampshire continues to increase.

---

\(^\text{13}\) There are exceptions. Some people in this group, such as athletes, may not have too much fat, just more muscle.
Youth

According to the CDC, childhood obesity has both immediate and long-term effects on health and well-being. The immediate health effects include being more likely to have risk factors for cardiovascular disease, such as high cholesterol or high blood pressure. Obese adolescents are more likely to have pre-diabetes and greater risk for bone and joint problems, sleep apnea, and social and psychological problems. The long-term health effect for children and adolescents who are obese is that they are likely to be obese as adults and are therefore more at risk for adult health problems such as heart disease, hypertension, type 2 diabetes, stroke, obesity-related cancer, and osteoarthritis.

The 2015 obesity rate for NH high school students was 12.2%, ranking the state 29th out of 43 states measuring obesity for this population. As shown in the graph below, the obesity rate for high school students continues to trend upward.
Diabetes

According to New Hampshire Health Wisdom website Diabetes community profile available for the Greater Manchester HSA, the increase in diabetes prevalence is closely related to increase in obesity. In the past decade, diabetes and pre-diabetes prevalence have increased, with the greatest burden among the oldest age groups. ED visits for ambulatory-sensitive conditions related to diabetes have increased over the last 10 years.

The prevalence of diabetes and diabetes related emergency department visits among residents of the City of Manchester and Greater Manchester were significantly higher than the overall state of NH rate. See chart below from page 25 of the Greater Manchester, New Hampshire Health Improvement Plan 2016.

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Percent of Adults Who Have Diabetes, Ages 18 and older (2014)</th>
<th>Percent of Adults Who Are Obese, Ages 18 and older (2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manchester</td>
<td>13.1%</td>
<td>35.0%</td>
</tr>
<tr>
<td>Greater Manchester Region</td>
<td>10.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>9.2%</td>
<td>27.4%</td>
</tr>
</tbody>
</table>

Source: Greater Manchester, New Hampshire health Improvement Plan 2016
Health Screenings
Screenings are tests that look for diseases before symptoms occur. Screening tests can find diseases early, when they are easier to treat. Some screenings can be done in a doctor’s office. Others need special equipment and will have to be conducted at a special clinic or laboratory.

Some conditions that doctors commonly screen for include:
- Breast cancer and cervical cancer in women
- Colorectal cancer
- Diabetes
- High blood pressure
- High cholesterol
- Osteoporosis
- Overweight and obesity

Which tests are needed depends on the patient’s age, gender, family history, and risk factors for certain diseases.

Colorectal Cancer Screening
Consistent with past years, respondents to the Behavioral Risk Factor Surveillance System have reported higher screening rates for colorectal cancer year over year. As of 2008, the Greater Manchester HSA and the state of New Hampshire have continued to surpass the Healthy People (HP) 2020 target screening rate of 70.5%. According to the CDC, at a rate of 77.8% in 2014, New Hampshire continues to be one of the top three states in the nation for colorectal cancer screening rates.
Mammography Screening
The Greater Manchester HSA and the City of Manchester are at the HP 2020 target of 81% for mammography screenings; however, the mammography screening rate has been trending downward since 2008. According to the CDC, the state of New Hampshire, while below the HP 2020 target, is one of the top 10 states in the country, with a 79.4% mammography screening rate.
HEALTH STATUS AND OUTCOMES

The health status and outcomes of a population are key indicators of the overall health of a community and fundamental to any needs assessment. Health status is often defined as the level of health of the individual, group, or population being measured, while health outcomes are the result of an illness or injury that has been treated or not.

The tables below show the percentage of adults age 18 and older who self-report having poor or fair health. Similar to 2011, the City of Manchester and the Greater Manchester HSA have a higher percentage of the adult population reporting a poor/fair health status than does the overall state of New Hampshire. However both the City and the HSA report a lower rate than in 2011.

**Self-Reported Poor/Fair Health Status**

<table>
<thead>
<tr>
<th></th>
<th>City of Manchester</th>
<th>HSA</th>
<th>New Hampshire</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Percent of adult population 2011</td>
<td>17.7%</td>
<td>15.0%</td>
</tr>
<tr>
<td></td>
<td>Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Percent of adult population 2012</td>
<td>14.3%</td>
<td>14.5%</td>
</tr>
<tr>
<td></td>
<td>Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2012</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall, the Greater Manchester HSA and the state have the same leading causes of inpatient admissions, but the ranking of the sub-conditions varies. Osteoarthrosis and allied disorders are the leading cause of inpatient admissions in the state of New Hampshire. In comparison, the leading cause of inpatient admissions in the HSA is heart disease and pneumonia. Inpatient admissions for the Greater Manchester HSA for chronic bronchitis are significantly higher than those reported for the state.
The table below provides more details on the leading causes of inpatient admissions in 2009 for the Greater Manchester HSA and New Hampshire by crude rates. Crude rates are calculated as the number of discharges divided by the total population out of which the discharges occur.

### Leading Causes of Inpatient Admissions in the Greater Manchester HSA, 2009

#### Inpatient Discharges per 100,000 People

<table>
<thead>
<tr>
<th>Sub-Condition</th>
<th>Great Manchester HSA</th>
<th>New Hampshire</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Discharges</td>
<td>Crude Rate</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>626</td>
<td>334.0</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>603</td>
<td>321.7</td>
</tr>
<tr>
<td>Osteoarthrosis and allied disorders</td>
<td>526</td>
<td>280.7*</td>
</tr>
<tr>
<td>Chronic Bronchitis</td>
<td>516</td>
<td>275.3*</td>
</tr>
<tr>
<td>Psychoses</td>
<td>490</td>
<td>261.4</td>
</tr>
<tr>
<td>Malignant Neoplasms</td>
<td>470</td>
<td>250.8</td>
</tr>
<tr>
<td>Heart Disease-Cardiac dysrhythmias</td>
<td>432</td>
<td>230.5</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>408</td>
<td>217.7</td>
</tr>
<tr>
<td>Fractures, all sites</td>
<td>330</td>
<td>176.1</td>
</tr>
<tr>
<td>Heart Disease – Myocardial infarction</td>
<td>324</td>
<td>172.9</td>
</tr>
</tbody>
</table>

* Source: HealthWRSQ 2009 - The Greater Manchester HSA

* Denotes the Greater Manchester HSA is statistically significant when compared to the state.

### Cardiovascular Health

According to NH Health Wisdom, Heart disease was the 2nd leading cause of death in 2013 in NH. Heart disease prevalence and congestive heart failure (CHF) prevalence increase with age. During the past decade, mortality rates due to CHF increased and hospitalization rates due to CHF decreased.

Stroke was the 5th leading cause of death in 2013 in New Hampshire. The number of hospitalizations and the number of deaths from stroke increase with age. During the past decade, mortality due to stroke decreased.
High cholesterol is one of the major controllable risk factors for coronary heart disease, heart attack and stroke.

As blood cholesterol rises, so does the risk of coronary heart disease. If other risk factors are present such as smoking, high blood pressure, obesity, physical inactivity, inadequate consumption of fruits and vegetables or diabetes, this risk increases even further. The greater the level of each risk factor, the more that factor affects your overall risk. Cholesterol levels can be affected by your age, gender, family health history and diet. The American Heart Association recommends all adults age 20 or older have their cholesterol, and other traditional risk factors, checked every four to six years.

According to the BRFSS table of cholesterol awareness, cholesterol screening rates have increased slightly among NH adults from 2011 to 2013. During the same time period, the percentage of adults reporting a high cholesterol score is down 2%.

As seen in the graph below, over the last several years, cardiovascular disease has remained fairly consistent within the state of New Hampshire as well as in the Greater Manchester HSA. From 2008 to 2012, the average percentage of individuals who self-
reported having been diagnosed with coronary heart disease, heart attack, or stroke was 11% in the Greater Manchester HSA and 10.8% across the rest of the state.

In addition to health risk behaviors, social factors such as living in poverty and in impoverished neighborhoods can also increase your risk of heart disease. As shown in the chart below, coronary heart disease mortality is 2.0 times greater in high-poverty neighborhoods than low-poverty neighborhoods within the City of Manchester. Furthermore, 70% of the difference in rates between these neighborhoods is associated with neighborhood poverty or the fact that residents are living in neighborhoods that are not health-promoting.
According to the City of Manchester Health Department, despite representing only 9% of the state’s total population, the City of Manchester accounts for nearly 12% of all deaths due to heart disease in the state. The majority of those deaths occur in neighborhoods with high levels of poverty.

**Cancer Prevention and Control**

Everyone is at risk for developing cancer. Increased age, genetics, family history, and gender are known risk factors for cancer that are not modifiable. However, much like heart disease, several behavioral risk factors play a role in the development of certain cancers and can be targeted in prevention efforts. Additionally, the timely access and utilization of health screenings, such as mammography, are essential tools in the fight against cancer. Prevention and early detection are key strategies to decreasing cancer-related mortality.
According to the NH Department of Health and Human Services, new cancer diagnoses and cancer deaths have declined in recent years for both the Greater Manchester HSA and the state. The chart above shows overall age-adjusted cancer incidence from 2000 to 2013 per 100,000 persons. The rates for new cancer diagnoses dropped to 493.74 in the Greater Manchester HSA and to 488.95 for the state of New Hampshire.

According to the CDC, the risk of prostate cancer increasing with age\(^{14}\) and one in seven men will be diagnosed with prostate cancer in their lifetime\(^{15}\). With the aging population in the Greater Manchester HSA prostate cancer rates are high. The Greater Manchester HSA had a prostate cancer incidence rate of 157.1 per 100,000 persons versus a rate of 139.0 per 100,000 persons. The rate within the Greater Manchester HSA is significantly higher than the rest of the state.\(^{16}\)

\(^{15}\) http://www.cancer.org/cancer/prostatecancer/detailedguide/prostate-cancer-key-statistics
\(^{16}\) https://wisdom.dhhs.nh.gov/wisdom/#CommunityProf_E4BAA843845D455C80A2A30AEACF440A_Anon
Oral Health

Oral health is the health of the mouth, which includes the teeth, gums, jawbone, and supporting tissues. Good oral health can prevent disease of the mouth as well as the rest of the body. Poor oral health can lead to serious health conditions including stroke and cardiovascular disease. The most common oral health problems are cavities and gum disease (known as gingivitis and periodontitis); however, oral health also includes conditions such as cankers, cold sores, oral cancer, and other conditions.

Findings from a 2015 publication\textsuperscript{17} for the UNH Carsey School of Public Policy included the following regarding the state of oral health in New Hampshire:

- Although New Hampshire is rated above the national average on most measures of pediatric oral health, performance varies by county.
- When oral health care become inaccessible, NH residents resort to the more costly alternative of hospital emergency departments.
- Data regarding oral health in New Hampshire is limited and difficult to obtain.

According to the BRFSS 2012, approximately 26% and 28% of the population surveyed did not visit a dentist in 2012 in the Greater Manchester HSA and the rest of New Hampshire, respectively. This is well below the HP 2020 target of 51%, where a lower percentage is desirable.

Infant Mortality Rate

The death of a baby before his or her first birthday is called infant mortality. The infant mortality rate is the estimate of infant deaths for every 1,000 live births. High rates of infant mortality can serve as an indicator of the health of the overall population. The top five causes in the United States for infant mortality are\textsuperscript{18}:

\begin{itemize}
\item \textsuperscript{17} UNH Carsey School of Public Policy: Oral Health Care Access in New Hampshire: Summer 2015 Regional Issue Brief #44.
\item \textsuperscript{18} Source: http://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm
\end{itemize}
1. Birth defects
2. Preterm birth
3. Maternal complications of pregnancy
4. Sudden Infant Death Syndrome
5. Injuries

**New Hampshire Infant Mortality Rate 2010–2013 Average by County**

In 2013, for every 1,000 live births, 5.6 infants died within their first year of life in the state of New Hampshire. This is below the HP 2020 target of 6.0.
Access to Health Services

Access to health services, as defined by the Centers for Disease Control and Prevention (CDC), is the timely use of personal health services to achieve the best health outcomes. This access requires three distinct steps:

1. Gaining entry into the health care system
2. Accessing a health care location where needed services are provided
3. Finding a health care provider with whom the patient can communicate and trust

When these steps are met, so is the patient’s ability to gain increased overall physical, social, and mental health status, prevention of disease and disability as well as detection and treatment of health conditions. Patients can further experience a better quality of life, lower preventable death rates, and a longer life expectancy.

The CDC also points out that access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone. There are four key components of access to care: coverage, services, timeliness, and workforce (or system capacity).

Disparities in access to health services affect both individuals and the society as a whole. Limited access to health care impacts people’s ability to reach their full potential, negatively affecting their quality of life. Barriers to services include lack of availability, high cost, and lack of insurance coverage. Such barriers to accessing health services attribute to unmet health needs, delays in receiving appropriate care, inability to get preventive services, as well as preventable hospitalizations.

The following table is self-reported health insurance information from the 2012 NH BRFSS survey, in which over 15% of Greater Manchester HSA residents reported they
did not have a personal doctor or health care provider and 13% reported no insurance at all.

### Greater Manchester HSA Residents Who Report Having Health Insurance

<table>
<thead>
<tr>
<th>Health Insurance Coverage</th>
<th>Greater Manchester</th>
<th>Rest of NH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported having any health insurance</td>
<td>86.0%</td>
<td>85.0%</td>
</tr>
<tr>
<td>Plan through employer or spouse employer</td>
<td>51.90%</td>
<td>49.70%</td>
</tr>
<tr>
<td>Medicare</td>
<td>19.10%</td>
<td>18.66%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>3.40%</td>
<td>3.09%</td>
</tr>
<tr>
<td>A plan purchased on own</td>
<td>4.70%</td>
<td>5.44%</td>
</tr>
<tr>
<td>Military plan, COBRA, or other</td>
<td>6.90%</td>
<td>8.06%</td>
</tr>
<tr>
<td>Don't know if have insurance or what type</td>
<td>0.60%</td>
<td>1.24%</td>
</tr>
<tr>
<td>No insurance</td>
<td>13.3%</td>
<td>14.10%</td>
</tr>
</tbody>
</table>

| Reported not having a personal doctor or healthcare provider | 15.3% | 13.2% |

Source: [http://nhhealthwrqs.org/HealthWRQS2](http://nhhealthwrqs.org/HealthWRQS2)

The US Department of Health and Human services reports the uninsured rate in New Hampshire in 2014 was 12.8 percent, down from 13.8 percent in 2013.

A lack of health insurance is a burden that impacts the entire community. Along with lack of adequate coverage, it is increasingly difficult for people to get the health care they need. Uninsured or underinsured people are less likely to receive medical care and hence they often have poor health status. This group is also at a greater risk for premature mortality.

### Medicaid Enrollment

The Medicaid program funds health care services for low-income families and individuals who meet certain eligibility criteria. The program is jointly funded by the

---


state and federal government; however, the rates of reimbursement do not cover the full cost of care provided by most providers.

With the expansion of coverage as part of the Affordable Care Act, NH Medicaid enrollment has shown a net increase of 48% since the first marketplace open-enrollment period. According to healthinsurance.org, the New Hampshire uninsured rate has decreased from 2013 to 2015 by 37%.

![NH Medicaid/CHIP Enrollment](https://www.medicaid.gov/medicaid-chip-program-information/by-state/)

According to data from the US Census (shown in the table below), at 14%, the City of Manchester has the largest number of Medicaid recipients in New Hampshire.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population (For Whom Insurance Status is Determined)</th>
<th>Population with Any Health Insurance</th>
<th>Population Receiving Medicaid</th>
<th>Percent of Insured Population Receiving Medicaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Manchester HSA Estimates</td>
<td>178,958</td>
<td>159,810</td>
<td>22,002</td>
<td>13.77%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>1,306,315</td>
<td>1,172,061</td>
<td>141,718</td>
<td>12.09%</td>
</tr>
<tr>
<td>United States</td>
<td>309,082,272</td>
<td>265,204,128</td>
<td>55,035,660</td>
<td>20.75%</td>
</tr>
</tbody>
</table>

Source: US Census Bureau, American Community Survey, 2010-14
Medically Underserved and Health Professional Shortage Area

The map below shows the major community health providers within the City of Manchester as well as the census tracts that are federally designated as Medically Underserved Areas. These designed areas have not changed since the 2013 Greater Manchester Community Health Needs Assessment.

Exceptional Medically Underserved Areas

---

Source: Manchester Health Department
Primary Care Access

The CDC reports that a primary care provider (PCP) that serves as the usual source of care for a patient is especially important to the health of that patient. PCPs can develop meaningful and sustained relationships with patients and provide integrated services while practicing in the context of family and community. Having a dedicated PCP is associated with greater patient trust in the provider, good patient–provider communication, and increased likelihood that patients will receive appropriate care.

The Greater Manchester HSA and the state of New Hampshire maintain PCP rates per 100,000 populations well above the national rate of 74.5 and the HP 2020 target of 83.9. See the table below.

Primary Care Physicians per 100,000 Population

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population, 2012</th>
<th>Primary Care Physicians, 2012</th>
<th>Primary Care Physicians, Rate per 100,000 Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Manchester HSA</td>
<td>181,254</td>
<td>163</td>
<td>90</td>
</tr>
<tr>
<td>Estimates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Hampshire</td>
<td>1,320,718</td>
<td>1,223</td>
<td>92</td>
</tr>
<tr>
<td>United States</td>
<td>313,914,040</td>
<td>233,862</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: US Department of Health Human Services, Health Resources and Services Administration, Area Health Resource File 2012
Interviews were conducted with 11 key informants during the winter of 2015/2016. The list of key informants is in Appendix B. The interview questions can be found in Appendix C.

<table>
<thead>
<tr>
<th>Community</th>
<th>Population *</th>
<th>Average Family Income**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auburn</td>
<td>4,953</td>
<td>$106,222</td>
</tr>
<tr>
<td>Bedford</td>
<td>21,203</td>
<td>$123,423</td>
</tr>
<tr>
<td>Candia</td>
<td>3,909</td>
<td>$93,977</td>
</tr>
<tr>
<td>Deerfield</td>
<td>4,280</td>
<td>$87,982</td>
</tr>
<tr>
<td>Goffstown</td>
<td>17,651</td>
<td>$69,123</td>
</tr>
<tr>
<td>Hooksett</td>
<td>13,451</td>
<td>$82,725</td>
</tr>
</tbody>
</table>

Source:**2010-2014 American Community Survey 5-Year Estimates

**Community Needs Key Informant Observations**

The towns surrounding Manchester are for the most part smaller rural communities with little infrastructure and minimal business and industry opportunities. The largest town in our service area is also the wealthiest community in the state. Bedford has a population of approximately 21,203 and an average household income of $123,423. Bedford also has the greatest amount of industry and business opportunities to support a broader tax base for the community. Two other towns have populations of 13,451 and 17,651 persons, and are also in the moderate family income with a range for our state but are the poorest of the communities in our service area. Income range is between $82,725 and $69,123 per family. The remaining three towns are small rural communities with minimal industry or business to support the town. The population range of these communities is between 4,000 and 5,000 persons. These towns are well-to-do communities with family incomes ranging from $87,982 to $106,222. These communities, despite having a relatively high family-income range, are not immune to the issues associated with Manchester and have a number of persons living at or below federal poverty levels as well.
In interviewing the leaders in regard to the overall health of the community, and especially as compared to five years ago, several common needs arose.

**Mental Health/Substance Use Disorders**
The incidence of substance use, especially in relation to youth though not isolated to the adolescent population, was noted by all of the communities as the number one concern. Opiate use was considered to be the most pressing, and the number of overdoses was alarming. Concerns over other substances, especially alcohol, should not be overlooked as well. Goffstown noted that property crimes had increased 25% secondary to the increased incidence of drug use, and Bedford parents have formed a coalition to work within the community to help develop strategies to deal with the substance use issues.

**Dental Services/Access**
Each community reported a lack of access to affordable oral health care specifically for their adult population. Dental services for children are well recognized as a covered benefit by Medicaid but have limited coverage (emergency exams and extractions) for adults. Medicare does not cover any dental services, therefore limiting the ability to access affordable adult dental care for the aging population, especially those on fixed incomes, and private medical insurance does not cover dental care. This results in a higher number of persons, especially adults despite the relative wealth of the area, without the financial means for dental care. Poor nutritional status is also a contributing factor that raises the need for dental care. Most of the surrounding communities have well water, therefore limiting access to a fluoridated water supply.

**Transportation**
Manchester is the only community in our service area with any sort of public transportation system. The lack of public transportation limits access to medical appointments, grocery shopping, pharmacies, and social events, especially in the
aging population, though not exclusive to the aging. The only alternative at present is personal transportation with reliance on family and friends. Lack of public transportation was listed as the second greatest concern in Hooksett and often brought up in relation to social isolationism in Deerfield, Auburn, and Bedford. Green space is readily available in all of the service area communities, but the lack of access to these spaces secondary to transportation and lack of formal programming has limited its use.

Access to Care
As noted above in transportation, access to primary care, specialty care, and other needed health care services is limited due to transportation barriers. Lack of social and support services were noted repeatedly in the adjacent communities. It was stated that access to care is often confronted with long wait times to get into care, up to six months, and long waiting lists for providers. Specialty care services were most often associated with the longer waits than was primary care. It was suggested by more than one community that an increase in non-emergent walk–in care centers may be one way to address access to care.

Aging Populations
For decades, health–care spending in New Hampshire has outpaced overall economic growth—a trend projected to continue into the future. Concerns were expressed over the aging population, especially the frail isolated elderly and the ability of seniors to age in place, at home, or with family. Goffstown has an average age of 55, and New Hampshire in general is becoming one of the oldest states in the United States. According to the 2000 Census, approximately 12% of New Hampshire’s population is over 65, and it is estimated that the number will double to 25% by 2020. Most of the communities reported having no aid or support programs in place to address the needs of the elderly, noting the lack of transportation and the lack of meeting places for seniors to socialize and be active (i.e., senior centers did not formally exist). It was
also noted that in 2016 the Manchester Senior Center started charging non-residents a fee for the use of its centers.

Traffic
The towns that include or border the interstates and highways running in and out of Manchester reported a high number of traffic accidents, raising concerns over increased costs and the potential need for additional resources, people, and capital to support ongoing growth in traffic incidences.

In addition to the concerns and needs expressed by the communities in our service area, a number of positive aspects related to improvements within the communities were noted.

- Community leaders felt the job market has improved over the past 5 years.
- All surrounding communities expressed that they felt their communities were safe places to live and raise children.
- Most communities noted substantial green spaces, parks, and recreational areas in their towns and reflected that those spaces contributed to the overall well-being of their populations and lifestyles.
APPENDIX A

Manchester Neighborhood Health Improvement Strategy Leadership Team
Organizations (also known as Manchester's Public Health Advisory Council)

Boys & Girls Club of Manchester
Catholic Medical Center
Child and Family Services of NH
City of Manchester, Mayor's Office
City of Manchester Health Department
Cogswell Benevolent Trust
Community Health Institute
Dartmouth-Hitchcock Manchester
Easter Seals
Eisenberg, Vital & Ryze Advertising
Elliot Health Systems
Endowment for Health
Federal Reserve Bank of Boston
Granite United Way
Greater Manchester Chamber of Commerce
Harvard Pilgrim Health Care Foundation
HNH Foundation
Makin It Happen Coalition
Manchester Community Health Center/Child Health Services
Manchester Police Department
Manchester School District
Mental Health Center of Greater Manchester
NeighborWorks Southern NH
NH Charitable Foundation
NHDHHS Office of Minority Health and Refugee Affairs
Norvin S. and Elizabeth N. Bean Foundation
People’s United Bank
Resident Leaders
The Granite YMCA
Wells Fargo Advisors
APPENDIX B

Key Informants

Hooksett Town Administrator
Goffstown Town Administrator
Goffstown Fire Chief
Goffstown Police Chief
Welfare Director, Town of Candia
Deputy Health Director, Town of Deerfield
Bedford Acting Town Manager, Planning Director/Zoning Administrator
Auburn Town Administrator
Auburn Health Officer
Auburn Deputy Health Officer
A P P E N D I X C

Key Informant Interview Questions

Location:

Date and Time:

Attendees:

Questions are based on the Neighborhood Health Improvement Strategy Framework (NHIS). The six categories are:

Educational Achievement (Connection between Education and Health)
☞ Do you think the education system in your community is better than it was 5 years ago? Why?

☞ Do you have a comprehensive health curriculum in the school system? and if so at what level/s is it delivered?

Economic Well-being (Connection between Income and Health)
☞ Do you think the job market is better than five years ago?

☞ Do you think most people have health insurance now?

Supportive Living Environments (Connection between Environment and Health)
☞ What is the biggest concern among families in your community right now?

☞ List three things that could contribute to an ideal community?

Access to Appropriate Care (Connection between Access to Care and Health)
Are there any new or different services or resources available to you or your Community that were not available five years ago?

Are there any services that your community could use that it currently does not have?

Are there any health issues in your community that you are particularly concerned about?

Healthy Behaviors (Connection between Behavior and Health)

Are there any new or different services or resources available to you or your Community that were or were not available five years ago?

Do families in your community have access to fresh vegetables & fruit?

Do families in your community have access to mental health or substance abuse resources?

Do families have access to safe playgrounds, walking trails or other venues for physical activity?

Social Connectedness and Safety (Connection between Safety and Health)

Do you think Greater Manchester and surrounding towns are safe during the day and/or night?

If not, what do you think are some of the problems? (Example: drugs, gangs, etc.)

Do you think your community is prepared should a disaster happen?

Other topics:
Community Healthcare Services and Resources
The Greater Manchester community has many health care providers. They include:

**Catholic Medical Center (CMC)**
Catholic Medical Center (or “CMC”) is one of New Hampshire’s largest medical centers, with a commitment to delivering the highest quality and most advanced health care to our patients. CMC is also the home of the New England Heart and Vascular Institute, a leader in the region for advanced cardiovascular services, and the Mom’s Place, delivering new life into our communities every day. CMC offers a wide variety of services to meet the needs of the community including a Primary Care and Specialty Care Physician Network; Urgent Care; Laboratory and Radiology Services; Breast Health Center; Rehabilitation Services; Pregnancy Care Center; Health Care for the Homeless; and Poisson Dental Facility, to name a few. Through our many outreach programs, CMC is fostering a healthier community, every day.

http://www.catholicmedicalcenter.org

**Child Health Services (CHS)/Teen Health Clinic (THC)**
Child Health Services is a medical home delivering specialized care to address the physical and psychosocial needs of children. It is a fully integrated system of biophysical health care, social services, and nutrition services. The Teen Health Clinic is a clinic designed to serve the unique needs of adolescents.

http://www.childhealthservices.org/

**Dartmouth–Hitchcock Medical Center**
Dartmouth–Hitchcock Manchester is a multi-specialty physician group practice with more than 200 providers. Dartmouth–Hitchcock Manchester opened in 1998 and includes an array of primary and specialty care services, a lab, radiology services (including PET/CT and MRI), and an ambulatory surgery center.
Easter Seals
Easter Seals offers many services to the Greater Manchester community, including the following:

- Adult Day Programs
- Adult Rehabilitation
- Child Care
- A Dental Center for children ages 1–20 who are enrolled in Medicaid
- Autism Services
- Substance Abuse Programs
- Transportation

In 2008, Easter Seals provided more than $4 million in free and reduced-price services to New Hampshire families who needed but could not afford the services.

Elliot Health System
The cornerstone of EHS is Elliot Hospital, a licensed 296-bed acute-care facility located in Manchester. HS is home to Manchester’s designated Regional Trauma Center, Urgent Care Centers, a Level 3 Newborn Intensive Care Unit, Elliot Physician Network, Elliot Specialists, Elliot Regional Cancer Center, Elliot Senior Health Center, Visiting Nurse Association of Manchester and Southern New Hampshire, Elliot 1-Day Surgery Center, Elliot at River’s Edge, and Elliot Pediatrics.

Greater Manchester Mental Health Center
The Mental Health Center of Greater Manchester is a private, non-profit, community mental health center that, for the last 50 years, has provided mental health services to children, teenagers, adults, and seniors from Manchester and the surrounding towns.
of Bedford, Goffstown, New Boston, Hooksett, Auburn, Candia, and Londonderry. The Mental Health Center provides 24/7 crisis response and suicide prevention to the community.

http://www.mhcgm.org/

**The Manchester Community Health Center**
The Manchester Community Health Center is a Federally Qualified Health Center (FQHC) that receives federal grant dollar and enhanced Medicaid reimbursement in order to support the primary care needs of the underserved population of the City of Manchester. A second location of the Manchester Community Health Center opened in early 2013 to support the growing needs of the Greater Manchester area.

http://www.mchc-nh.org

**Manchester Health Department**
The Manchester Health Department has been in existence since 1885, and to this day continues to provide the highest level of public health services to the residents of Manchester. The Department is the leading advocate for local public health in New Hampshire, and shares a vision of a healthy community for all Manchester residents where the public can enjoy a high quality of health in a clean environment, enjoy protection from public health threats, and can access high quality health care.

Manchester public health priorities:
- Eliminate preventable disease, disability, injury, and premature death.
- Achieve health equity and eliminate health disparities.
- Create social and physical environments that promote good health for all.
- Promote healthy development and healthy behaviors at every stage of life.

www.manchesternh.gov/health
Visiting Nurse Association of Manchester & Southern NH, Inc.
Services offered by the VNA include, but are not limited to, skilled nursing and physical, occupational, and speech therapy. Some services require a physician's order.

211 Information Line
2–1–1 New Hampshire is an initiative led by the Granite United Way, an organization that represents the 7 United Ways across the state, in partnership with Eversource and the state of New Hampshire. 2–1–1 is an easy-to-remember telephone number that connects callers, at no cost, to information about critical health and human services available in their community.
http://www.211nh.org/

Other community organizations include:

Big Brothers Big Sisters of Manchester
Big Brothers Big Sisters makes meaningful, monitored matches between adult volunteers (“Bigs”) and children (“Littles”) ages 6 through 18 in the greater Manchester area.

Boys & Girls Club of Manchester
The Club runs the Union Street Clubhouse, before–school Programs, summer camp programs, the Jewett Street school site, and the Highland school site.

Child and Family Services
Child and Family Services of NH is a private non–profit that works to advance the well–being of children and families through an array of social services that include following: child abuse prevention, intervention, and treatment; mental health counseling; home–based family strengthening and support; runaway and homeless youth services; eldercare; transitional and independent living; foster care; family counseling; adolescent substance abuse treatment; in–school social work; early
intervention for children with developmental concerns; after-school programs for adjudicated youth; pregnancy counseling and prenatal supports and services; support for families with children who have chronic health conditions; adoption; summer camp for disadvantaged youth; and a child advocacy program that works at the legislative level to protect the best interests of children.

**Coalition for Bedford Youth (CBY)**
Our mission is to support the well-being of Bedford youth by promoting community strategies that develop assets in children. Assets are the protective characteristics that have been linked by extensive research to enhancing resistance to at-risk behaviors.

**Community Health Institute**
The Community Health Institute (CHI) is New Hampshire's Public Health Institute working with public and private organizations to improve health status and foster innovation in health care and public health systems. Established in 1995 by JSI Research and Training Institute (JSI), in partnership with the New Hampshire Department of Health and Human Services and the Robert Wood Johnson Foundation, the CHI provides technical assistance and consulting, training, and research and evaluation services to build capacity to carry out health care and public health improvement initiatives designed to meet community needs. We are successful when our work has a sustainable impact on individual and community ability to achieve desired health outcomes.

**Crispin’s House Youth Coalition/Goffstown, NH**
Crispin’s House operates many programs within the greater Goffstown community, which includes Goffstown, New Boston, Weare, Dunbarton, and Francestown. The organization provides a wide variety of services and support programs to local youth and families. As a coalition we strive to work together with all of our community partners that work with youth, including the churches, schools, parents, law
enforcement, library, business community, other community nonprofits, and nonprofit outlets that encourage and value teen volunteerism. Our programs change and grow depending on current trends with youth in the community. This is a list of what programs we are currently running:

- VolunTEENS
- Youth Forum
- Scholarship Assistance
- Juvenile Court Diversion

**Makin’ It Happen Coalition**

The purpose of the coalition is to create a coordinated community response among individuals, organizations, businesses, and communities to promote behaviors that measurably improve the overall drug prevention, health, and well-being of our youth, with a focus on alcohol, tobacco, and other drug prevention. Its aim is to create an environment where all youth receive family, social, and community support in order to achieve their maximum potential.

**Goals:**

- Decrease non-medical prescription drug use among high school aged youth and adults in the Greater Manchester Region by 2015
- Decrease alcohol use among high school aged youth and adults in the Greater Manchester Region by 2015
- Decrease binge drinking among 11\textsuperscript{th}–12\textsuperscript{th} grade high school aged youth and young adults aged 18 to 25 years old in the Greater Manchester Region by 2015
- Decrease marijuana use among high school aged youth in the Greater Manchester Region by 2015
Manchester Housing and Redevelopment Authority
MHRA provides Section 8 and Public Housing and Congregate Services for low-income eligible families and seniors in hi-rises and scattered sites throughout the City.

NeighborWorks Southern NH
NeighborWorks® Southern New Hampshire enhances people’s lives and the community environment by providing access to quality housing services, revitalizing neighborhoods and supporting opportunities for personal empowerment.

Our major areas of operation are:
- The NeighborWorks Home Ownership Center: Help underserved families understand critical components of home ownership, including its financial responsibilities and maintenance and repair; how homeownership can provide meaningful opportunity to change economic viability, and provide guidance and assistance in the loan process.
- Affordable housing development: Develop affordable housing for sale or rent for low and moderate income families and individuals.
- Resident services: Involve our tenants and other community residents in the civic life of the community, and provide a variety of enrichment services.

New Hampshire Catholic Charities
Catholic Charities is affiliated with two nursing homes in the City as well as elderly apartments that provide quality independent retirement living for seniors.

NH Division of Health and Human Services – Bureau of Elderly & Adult Services
The Bureau provides services under the Adult In-Home Support, Alternate Care and Protection programs. These offer a broad range of services for those who meet financial eligibility guidelines.
St Joseph Community Services, Inc.
Three meal sites in the City are managed by SJCS. The program provides home delivered meals (Meals on Wheels) to homebound seniors and also provides congregate meals Monday through Friday

Southern New Hampshire Services, Inc.
Programs include RSVP Program, Retired and Senior Volunteer Program, Seniors Count Friendly Visitor Program, Bone Builder Exercise Program, CATCH Healthy Habits, Fix–it Program and Fuel Assistance.
The Commodity Supplement Food (CFSP), Fuel and Electric Assistance, Weatherization, Fixit, and Senior Energy Assistance (SEAS) are some of the programs that offer assistance with daily living expenses for income eligible families and individuals.

The William B. Cashin Senior Activity Center
Offers a variety of activities for seniors over 55. Please see our list of activities and/or our calendar for details.