The
Greater Manchester
Community Health Needs Assessment
June 2013

An assessment of the Manchester Health Service Area (HSA)
conducted jointly by

Catholic Medical Center, Elliot Health System

with the assistance of the City of Manchester Health Department

Introduction

The Affordable Care Act of 2010 required all not-for-profit hospitals to conduct a Community Health Needs Assessment every three years. Additionally, the State of New Hampshire has a requirement that one be done every five years. To better serve their communities as well as meet the requirements, Catholic Medical Center (CMC) and Elliot Health System (the Elliot) have partnered with the Manchester Health Department to conduct this assessment. The hospitals will be using this information to create an Implementation Plan to address the needs identified through this process.

Spearheaded by the *Manchester Sustainable Access Project*, a data subcommittee comprised of the charitable health care organizations was created in 2008. The goal of this subcommittee was to do a thorough, in-depth examination and analysis of the "health related determinants and status of Manchester area residents, to provide a model with strategic imperatives from which to plan and hold themselves accountable for responding to and improving the health status of its residents by the year 2015". (*Believe In A Healthy Community 2009*, Executive Summary) References to that document will be referred to as "CHNA 2009" in this report.

Since hospitals are required by the IRS to assess the needs of their community every three years, the Elliot and CMC have undertaken this Needs Assessment for 2013. The two hospitals chose to use the 2009 Assessment as a basis for this assessment. Doing so allowed them to look more specifically at medically related health needs since that is their primary purview. Hence this report is more targeted and focused in scope and issues examined.

This assessment covers the Manchester Health Service Area (HSA) which is defined by the New Hampshire Department of Health and Human Services and includes the towns of Auburn, Bedford, Candia, Deerfield, Goffstown, Hooksett, New Boston, and the City of Manchester. The residents of these towns receive most of their hospitalizations from Catholic Medical Center and Elliot Hospital.

The population of the Manchester HSA is growing in size and is increasingly multicultural, with residents reflecting a variety of nationalities and languages. Although predominantly Caucasian, there has been an influx of refugees in the City of Manchester in the last several years as part of the New Hampshire Refugee Resettlement Program. Refugees have come to New Hampshire from more than 30 nations and represent a diverse group of ethnic minorities.

Another factor of the HSA is that the population is aging. The number of adults age 65 and older is expected to increase 18% through the year 2018, with many of the towns within this HSA experiencing over 30% growth in this age group. The Demographics section of this report includes more detail of this significant statistic.

The two hospitals formed a Needs Assessment Work Group with three representatives of each hospital and a Manchester Health Dept staff member. Caron Lanouette of Community Benefit Consulting was contracted as Project Manager (Appendix D). A subcommittee of the workgroup was formed to gather and report the secondary data. Additionally, another subcommittee oversaw identifying focus groups and Key Informants. This committee also distributed a survey.

A variety of different secondary data sources were accessed. They included the Centers for Disease Control and Prevention (CDC), New Hampshire Department of Health and Human Services, NH HealthWRQS and the City of Manchester Department of Health. A detailed list of data sources can be found in Appendix A.

Healthy People 2020 (HP 2020) is a CDC initiative to track health behaviors and trends across the country. Part of this program is the creation of health related targets and goals that communities and states strive to meet. This report utilized as many of those targets as were available and applicable.

During March, April and May of 2013, the hospitals also conducted seven focus groups which included clergy, first responders, pregnant women, school nurses, Bhutanese refugees as well as two seniors groups. Due to concerns on the part of many participants, anonymity was guaranteed and hence, they will not be listed by name in the appendix. A group discussion was conducted on March 25, 2013 with members of the Manchester Sustainable Access Project which included the Public Health and Deputy Public Health Directors, Manchester Health Department; the President, Mental Health Center of Greater Manchester; the Chief Medical Officer, and Director, Community Health, Catholic Medical Center; Vice President of Planning and Business Development, Elliot Health System and the Medical Director, Dartmouth-Hitchcock Manchester Clinic. (See Appendix B for the detailed list). The focus and discussion group attendees will often be referred to as 'community members' in this report.

During this same period of time, a survey (Appendix C) was distributed to seniors at the Manchester Senior Center, the Rotary and the clients, patients, and staff at The Mental Health Center of Greater Manchester, with 50 responses being returned.

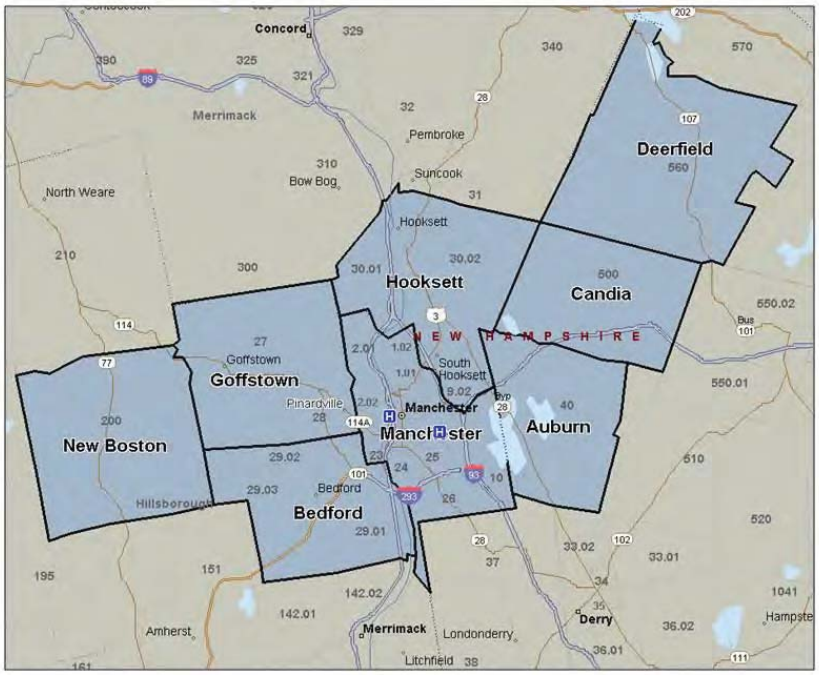
In this report comments from the community members and survey respondents will be indented from the rest of the text.

Community Information

Community

The 2013 Community Health Needs Assessment focused on the Health Service Area (HSA) of Greater Manchester, a market which is primarily served by Catholic Medical Center and Elliot Hospital. The Manchester HSA is home to approximately 180,000 residents and is comprised of the towns of Auburn, Bedford, Candia, Deerfield, Goffstown, Hooksett, New Boston as well as the City of Manchester. These towns are located in three different counties (Hillsborough, Rockingham and Merrimack) within the State of New Hampshire with 60% of the residents of the HSA living within the City of Manchester.

Health Service Area - 2013 Community Needs Assessment



Demographic Overview of the Manchester Health Service Area (HSA)

The population of the Manchester HSA is changing; not only is it is aging, it is becoming increasingly multicultural with residents reflecting a variety of nationalities, languages, ethnic traditions, religious beliefs and ideologies.

Manchester HSA Population by Age

Towns	Pop 2013	Projected Pop 2018	# Change Total Pop	% Change Total Pop	% Pop Aged 0-17	Projected Growth Age 0-17	% Pop Aged 65+	Projected growth Age 65+
Auburn	4,939	4,908	-31	-0.6%	21.9%	-13.6%	11.5%	34.0%
Bedford	21,429	21,731	302	1.4%	27.3%	-8.1%	15.1%	21.3%
Candia	3,885	3,840	-45	-1.2%	20.9%	-12.1%	12.4%	29.8%
Deerfield	4,269	4,244	-25	-0.6%	23.0%	-6.7%	11.8%	30.8%
Goffstown	17,729	17,822	93	0.5%	19.1%	-5.3%	13.9%	17.2%
Hooksett	13,495	13,554	59	0.4%	21.7%	-5.5%	13.0%	22.2%
Manchester	109,845	110,054	209	0.2%	21.8%	2.2%	12.7%	14.1%
New Boston	5,412	5,541	129	2.4%	26.9%	-2.5%	9.7%	41.4%
Total	**181,003**	**181,694**	**691**	**0.4%**	**22.3%**	**-1.5%**	**13.0%**	**18.0%**
State of NH	1,319,663	1,322,654	2,991	0.2%	21.0%	-4.0%	15.0%	17.0%

Source: Nielsen Claritas Population Facts, 2013-2018
Pop= Population

The City of Manchester is home to 60% of the residents of the HSA and, in alignment with the State of New Hampshire, the population of the Manchester HSA is aging. The 65+ population within the HSA is projected to realize an 18% growth through 2018 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 which notes that the aging population will increase the cost of providing state and local services.

In contrast to the growing 65+ population, the pediatric population (ages 0-17) within the Manchester HSA (excluding the City of Manchester) is projected to realize a slight decline over the next five years. The City of Manchester's pediatric population is projected to realize an increase of about 2% in children ages 0-17.

Manchester HSA and City Population Profile by Race

	Manchester HSA	% Race in Manchester HSA	City of Manchester	% Race in Manchester
White	162,142	89.9%	94,299	86.1%
Black or African American	4,964	2.8%	4,476	4.1%
American Indian and Alaska Native	451	0.3%	346	0.3%
Asian	5,147	2.9%	4,014	3.7%
Native Hawaiian and Other Pacific Islander	88	0.0%	72	0.0%
Some Other Race	3,723	2.1%	3,440	3.1%
Multi Racial (Two or More Races)	3,818	2.1%	2,918	2.7%
Total Population of any Race/Ethnicity	**180,333**		**109,565**	
Minorities	18,191	10.1%	15,266	13.9%

Source: US Census American Fact Finder http://factfinder2.census.gov 2010 Census

As seen from the 2010 census data shown above, the majority of racial diversity within the Manchester HSA is within the City of Manchester, as the city has nearly 84% of the minority population in the Manchester HSA residing within its city boundaries.

Manchester HSA Population by Ethnicity

	Manchester HSA	City of Manchester	% within Manchester
Hispanic or Latino (of any race)	10,060	8,883	88.3%

Source: US Census American Fact Finder http://factfinder2.census.gov 2010 Census

The 2010 census also found that of the 18,943 Hispanics within the Manchester HSA, just over 88% reside within the City of Manchester.

Refugee Resettlement

The changing diversity of the City of Manchester is partly the result of the city being a site for refugee resettlement.

New Hampshire Refugee Resettlement by Municipality: Federal Fiscal Year 2008–2012

	FY08	FY09	FY10	FY11	FY12
Manchester	246	303	341	314	115
Concord	192	188	187	178	206
Laconia	59	70	22	12	3
Franklin	0	0	0	1	0
Nashua	12	0	0	17	41
Charlestown	3	0	0	0	0
TOTAL	**512**	**561**	**550**	**522**	**365**

Source: New Hampshire Office of Refugee Resettlement

The table above highlights the impact of refugee resettlement in New Hampshire and, more specifically, the City of Manchester over the past five fiscal years. During this timeframe Manchester received over 2,100 refugees, this is more than any other city or town within the state.

Students with Limited English Proficiency in Public Schools in the Manchester HSA

	SY 05-06	SY 06-07	SY 07-08	SY 08-09	SY 09-10
Auburn	0	1	0	0	0
Bedford	2	5	5	2	4
Candia	0	0	0	0	0
Deerfield	0	1	0	1	1
Goffstown	29	34	22	13	14
Hooksett	50	15	13	14	16
New Boston	1	0	0	0	0
Manchester	1,202	936	942	1,022	989
TOTAL	**1,284**	**992**	**982**	**1,052**	**1,024**

Source: New Hampshire Department of Education, Limited English Proficiency Enrollment

One resulting effect of the increase in refugees is that over 70 languages are now spoken in the Manchester School System. Over the past five years, an average of about 1,000 students in the Manchester School System are considered to have Limited English Proficiency (LEP). A person with LEP may have difficulty speaking or reading English and thus have difficulty communicating effectively in school.

Economic and Education Demographics

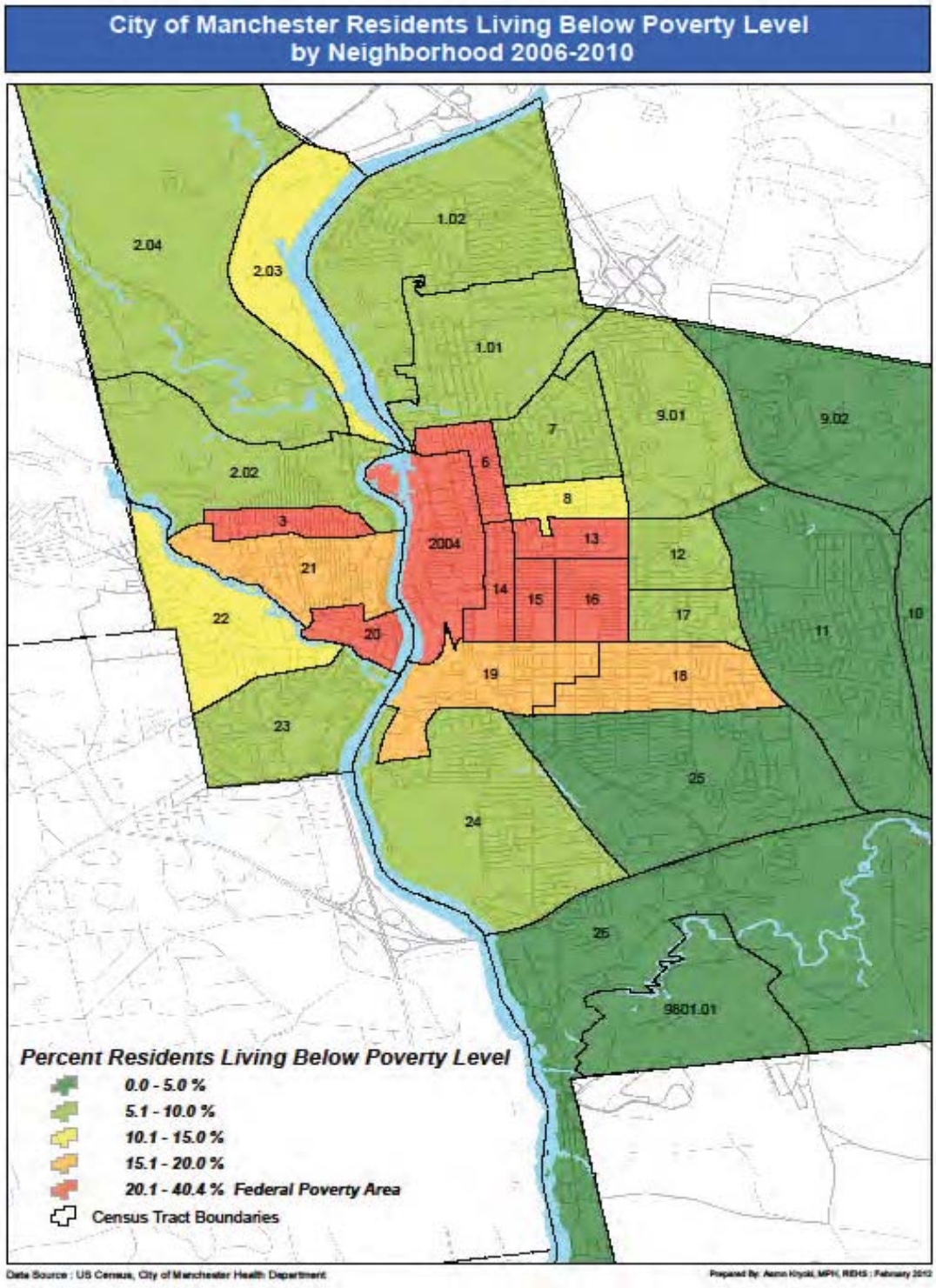
The median household income for the City of Manchester is $53,278. This is significantly lower than all others towns within the Manchester HSA and is also lower than the median household income for the state, which is $64,664.

Manchester HSA Population by Income and Education

	Median Household Income	Unemployment Rate	Families Below Poverty Level (100%)	Individuals Living Below Poverty Level past 12 mos (100%)	Percent High School Graduate	Percent Bachelor's Degree or Higher
Auburn	$ 92,938	2.6%	1.8%	1.7%	94.0%	33.6%
Bedford	$127,208	3.3%	2.3%	3.2%	96.1%	58.1%
Candia	$ 94,755	6.2%	1.6%	4.2%	96.9%	29.0%
Deerfield	$ 85,815	4.5%	1.4%	2.9%	93.4%	34.2%
Goffstown	$ 74,904	3.0%	1.9%	4.1%	90.2%	28.7%
Hooksett	$ 85,064	4.1%	1.3%	3.1%	93.4%	33.9%
Manchester	$ 53,278	5.2%	10.2%	13.8%	86.1%	25.8%
New Boston	$ 91,367	3.8%	1.9%	2.4%	97.0%	41.7%
State of NH	$ 64,664	6.3%	5.2%	8.0%	91.2%	33.1%

Source: American Community Survey, 2007

Similar to the median household income statistics, the City of Manchester has a significantly higher percent of individuals and families living below poverty, 10.2% and 13.8%, respectively. This is also high compared with a state average of 5.2% and 8.0%. Manchester residents living below the poverty level is concentrated in the East and Westside center city. This is demonstrated in the map on the next page from the 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 a significant trend.


City of Manchester Residents Living Below Poverty Level
by Neighborhood 2006-2010
2.04
2.03
1.02
1.01
2.02
7
9.01
9.02
6
8
3
2004
13
12
21
14
15
16
17
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22
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11
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18
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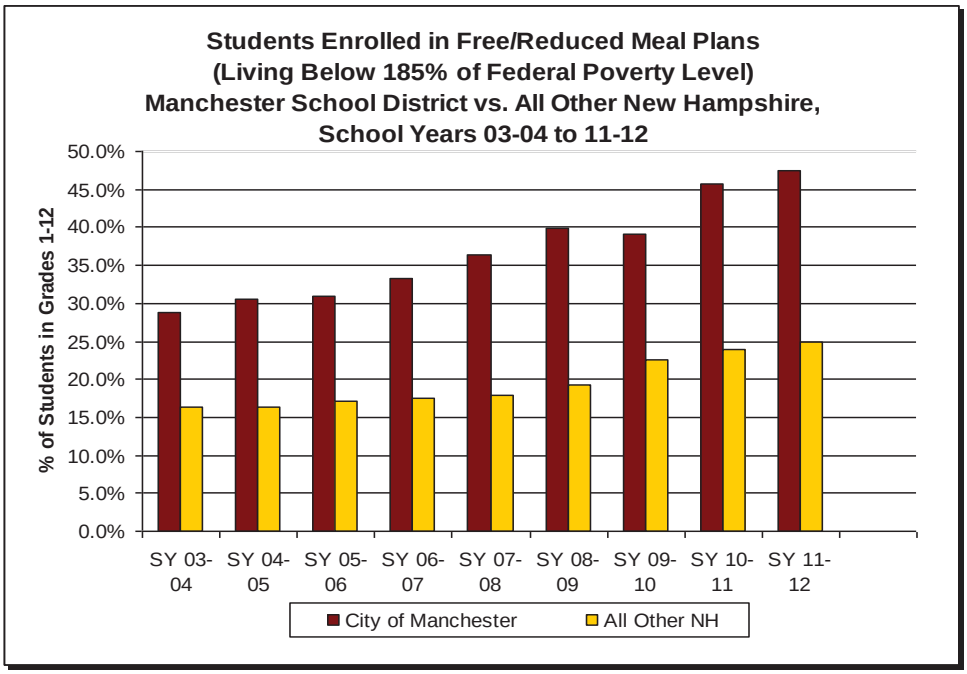
25
9801.01
Percent Residents Living Below Poverty Level
0.0 - 5.0 %
5.1 - 10.0 %
10.1 - 15.0 %
15.1 - 20.0 %
20.1 - 40.4 % Federal Poverty Area
Census Tract Boundaries
Data Source : US Census, City of Manchester Health Department

Manchester Free and Reduced Meal Plans

As was noted in *Believe in a Healthy Community, the Greater Manchester Community Needs Assessment* of 2009, 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 of the continued increase in youth poverty is the number of students enrolled in Free/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 (i.e. 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 (i.e. for a family of four, this would equate to $42,643 or less).



Source: NH Department of Education

The above chart demonstrates a continued increase in the number of students who are enrolled in the Free and Reduced Meal programs within the City of Manchester as well as how the city compares to the rest of the state.

Manchester Public School, Free and Reduced Meal Program Enrollment

Manchester Public Schools as of March 1, 2013	Free (F) Meal Enrollment	Reduced (R) Meal Enrollment	TOTAL Free and Reduced Enrollment	Total School Enrollment	F/R%**
TOTAL	7,123	820	7,943	15,054	53%

** ***F/R%:*** *Represents the total number of children enrolled in free and reduced meals per public school. (F) is free meals; (R) is reduced cost meals*

As indicated in the chart above, over 50% of Manchester students are enrolled in the Free and Reduced Meal programs and of those, 90% are receiving free meals while only 10% are receiving reduced cost meals. This means that over 7,100 students and their families are living at or below 130% of the poverty level in the Manchester School District. This impoverished population is larger than the entire population in some towns within the Manchester HSA and state.

Homeless

During the 2011-2012 school year, the Manchester School District identified 1,115 students who were homeless, representing more than 7% of the total student population. Although it is challenging to estimate the adult homeless population in the City of Manchester due to a number of factors, in the survey conducted with community members within the Manchester HSA homelessness ranked in the top ten of community concerns. Many survey respondents noted the increasing presence of homeless people and saw this as an emerging issue and trend.

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 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 decrease a person's ability to participate in treatment and recovery.

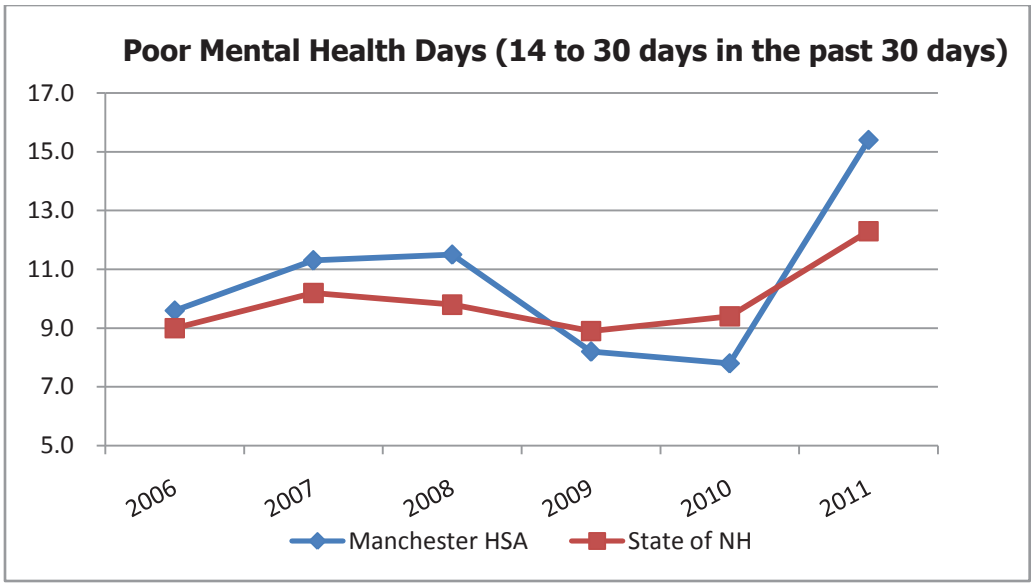
Mental health rates and resources continue to be a concern within the City of Manchester, the Manchester HSA and the State of New Hampshire. In the Manchester HSA the number of residents reporting poor mental health days, nearly doubled from 2010 to 2011. Although not as dramatic, there has also been an increase in the number of residents reporting poor mental health days throughout the state.

Poor Mental Health Days

(14 to 30 days in past 30 days when mental health was not good)

	Manchester HSA	New Hampshire
2010 percent of population ages 18-64	7.8%	9.4%
2011 percent of population ages 18-64	15.4%	12.3%

Source: NH DHHS, Division of Public Health Services, Behavioral Risk Factor Surveillance Survey, 2011



Source: NH DHHS, Division of Public Health Services, Behavioral Risk Factor Surveillance Survey

Below are comments from Community Members regarding mental health within the Manchester HSA.

In discussions with the key informants, mental health issues and responses (or lack thereof) were of the greatest concern.

The First Responders focus group listed a number of concerns regarding mental health. They noted that mental health is a big issue for first responders. They get "lots of emergency calls for mental health issues." There are long waits for mental health care and not a lot of resources for mental health [patients].

The survey respondents ranked mental health high on the list of concerns and the population with mental health issues was noted as being an underserved population. A few also listed mental health issues with youth as an emerging issue.

The clergy have observed that people are coming into their churches and parishes looking for assistance for a multitude of mental health issues. A number of focus group participants complained that patients in one town cannot access a mental health provider in another town because the insurance will not cover services and there are insurance restrictions for mental health services.

When focus groups were asked what the community could do better, some participants noted that there is a long wait time for a referral response. Some noted that many times the wait time for a return call can be over a week. Other comments included: the system is overwhelmed on the state and local levels; mental health resources are overloaded; Mental Health Center of Greater Manchester needs more providers and staff; the entire issue of mental health is so complex; more counseling is needed.

Poor Mental Health Days Income Factor

The percentage of Manchester residents experiencing poor mental health days is significantly higher than the rest of New Hampshire. In addition, Manchester residents earning less than $25,000 per year self report double the rate of bad mental health days than the city as a whole. This increases even more when compared to the HSA and the rest of the state.

Poor Mental Health Days

	City of Manchester	Manchester HSA	Rest of New Hampshire		Manchester Residents – Earning Less Than $25,000 Annually
Mental health not good 14 to 30 days	**20.1%***	**15.4%**	**12.3%**		**40.8%***

Source: NH DHHS, Division of Public Health Services, Behavioral Risk Factor Surveillance Survey, 2011
** Denotes statistical difference between Manchester and the rest of the state and Manchester residents earning less than $25,000 and the rest of the city and state*

According to the Manchester Health Department, "There is considerable evidence that one way of closing the treatment gap, especially for untreated mental illness, is to integrate mental health services with physical healthcare in the same location. To this end, the Manchester Sustainable Access Project (MSAP) was first formed in 2005 to develop an economically sustainable system of comprehensive, coordinated primary care (including oral health and behavioral health care) for Manchester's uninsured, the underinsured and Medicaid enrollees."

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 and thus often leading to Emergency Department (ED) visits.

Mental Health Related ED Visits and Observation Stays

	Manchester HSA	New Hampshire
Per every **100,000** people	1,630.8	1,429.0

Source: NH HealthWRQS - 2007

Based on the NH HealthWRQS data (and demonstrated in the table above), the Manchester HSA reported higher volumes than the State of New Hampshire for both hospital emergency discharges for mental illness related conditions and hospital inpatient discharges for mental illness related conditions for the years 2003-2007. (See appendix E)

In the Manchester HSA, patients treated most often for mental health conditions in the ED are from the age group 25 to 34 and 35 to 44. For the state, the largest volume of mental health related ED visits were from people aged 15 to 24 followed by ages 35 to 44.

> The First Responders focus group noted that mental health cases tie up ED beds and pose a safety issue for responders. Their assessment is that health care organizations are failing to deal with mental health issues. ED mental health evaluations seem to be ineffective and treatment (in general) is not effective.

Due to the extensive responses that were received regarding mental health issues, an addendum focusing just on those issues will be added at a later date.

Suicide

Suicide is an indicator of poor mental health and, as shown in the Health Status section of this report, it is the 10th leading cause of death in the Manchester HSA. This is as compared to suicide being the 11th leading cause of death in the United States.

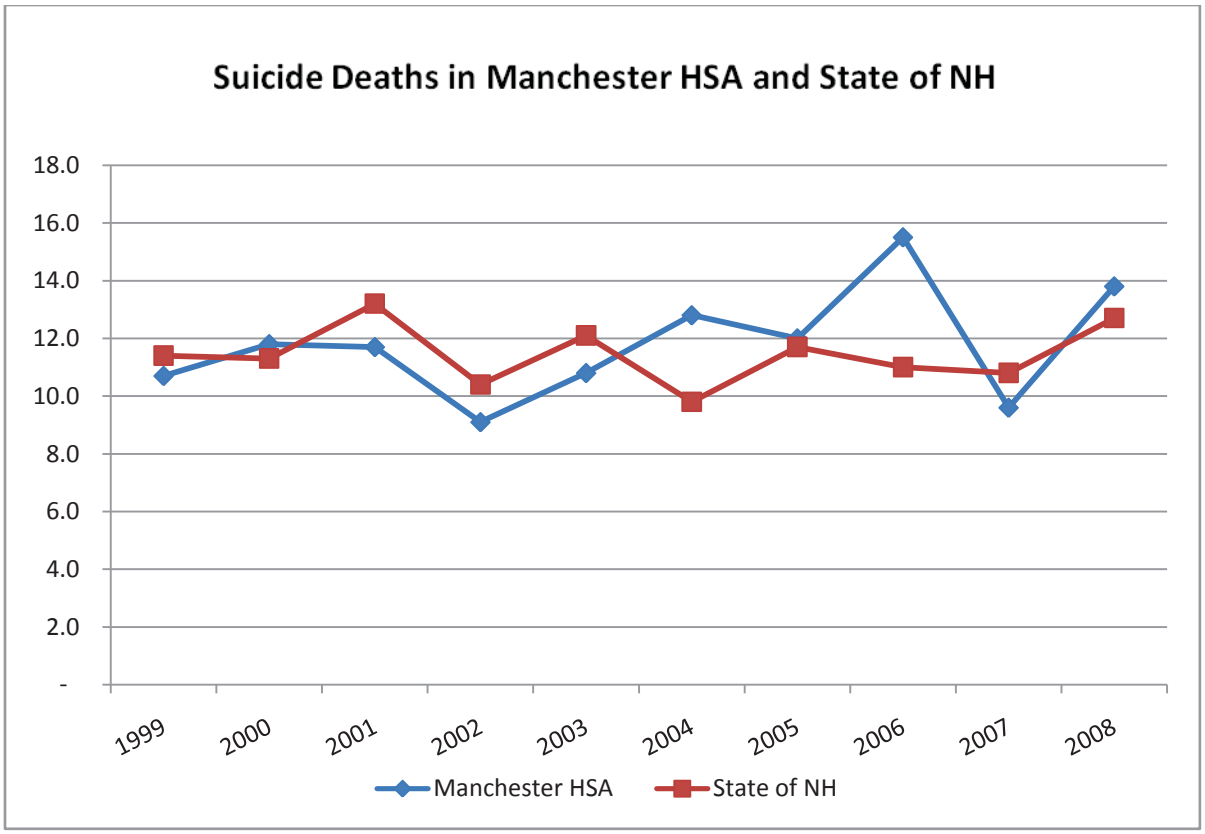
Suicide Deaths by Any Cause - 2008

	Manchester HSA	New Hampshire	HP 2020 Target
Per every **100,000** people	13.8	12.7	10.2

Source: NH HealthWRQS from 2008 - GREATER MANCHESTER

Healthy People 2020 (HP 2020) is a Centers for Disease Control and Prevention initiative to track health behaviors and trends across the country. Part of this program is the creation of health related target objectives that communities and states strive to achieve. As demonstrated in the table above, the Manchester HSA and the State of New Hampshire rates of suicide were higher than HP 2020 objective.

The rate of suicide deaths is not a complete picture for estimating the number of individuals at-risk because is only representative of the individuals who were successful in their attempt. Many more individuals experience suicidal thoughts and make actual attempts.



Source: NH HealthWRQS 1999-2008

For the Manchester HSA and the State of NH, the number of deaths from suicide by any cause/mechanism showed a significant increase from 2007 to 2008. When trending this data over ten years (1999-2008) the average rates are 12.0 for The Manchester HSA and 11.4 for the state.

Substance Abuse

The CDC defines substance abuse as referring "to a set of related conditions associated with the consumption of mind and behavior altering substances that have negative behavioral and health outcomes." These can be drugs or alcohol. With drugs these substances are not limited to illegal drugs. There is now a growing epidemic of prescription drug abuse as well. The CDC also notes that substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. These problems may include:

Teenage pregnancy
Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)
Other sexually transmitted diseases (STDs)
Domestic violence
Child abuse
Motor vehicle crashes
Physical fights
Crime
Homicide
Suicide

Substance Abuse-Related Emergency Department Discharges

	City of Manchester	Manchester HSA	New Hampshire
Age-adjusted per **10,000** people (2003–2007)	110.8*	80.5	68.3

Source: NHDHHS, Division of Public Health Services, NH Regional Health Profiles, 2011

* Denotes statistical difference between City of Manchester and New Hampshire, and Manchester HSA and New Hampshire

Substance abuse related emergency discharges in the previous table are defined as the misuse or abuse of drugs, adverse reactions to drugs, or other drug-related consequences. This table does not reflect all Emergency Department (ED) visits due to other consequences of substance abuse such as those listed by the CDC above. Nationally over half of all ED visits were attributed to adverse reactions to pharmaceuticals and almost one half were attributed to drug misuse or abuse. As also demonstrated in the table above, both the City of Manchester and the Manchester HSA have a significantly higher rate of substance abuse related emergency discharges as the state.

Adults

Drug Use

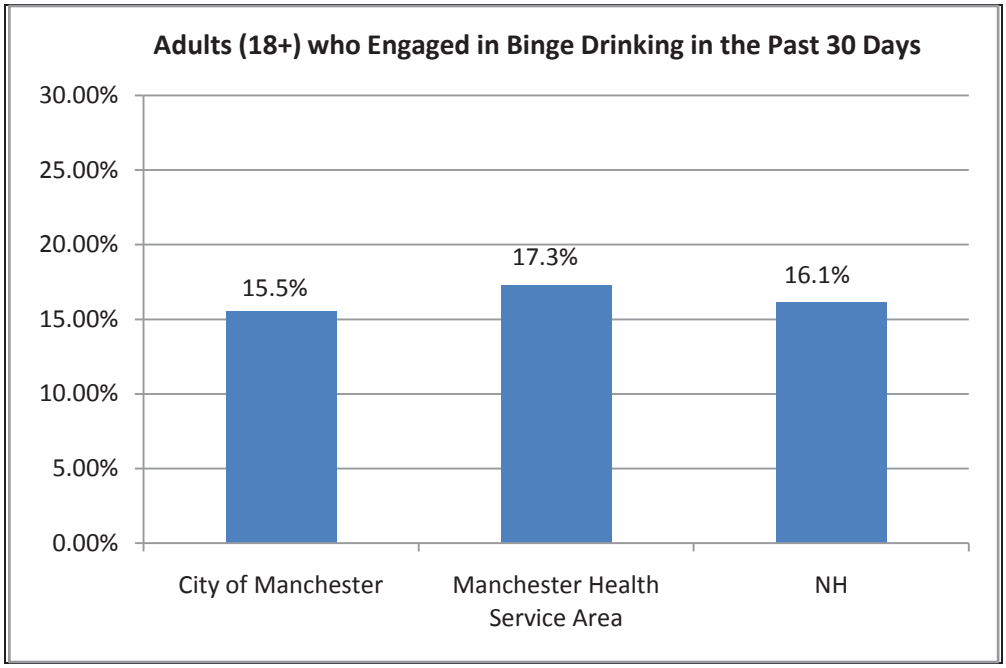
The New Hampshire Governor's Commission on Alcohol and Drug Abuse Prevention, Intervention and Treatment in its report *Call to Action: Responding to New Hampshire's Prescription Drug Epidemic* has noted the epidemic of prescription drug abuse is a public health crisis in New Hampshire. This epidemic includes an alarming increase in prescription drug related deaths now outpacing traffic fatalities in the state. Crimes related to prescription drug abuse are also on the rise, including theft and illegal distribution. Such abuse has both economic and social costs that are a burden to local communities and the state as a whole.

The Commission's report states that the most telling indicator of a New Hampshire epidemic is the steady increase in total drug-related deaths since 2000, with the majority of the increase attributable to prescription drug overdoses. The number of drug-related overdose deaths in the state increased substantially between 2002 and 2010, more than doubling from 80 deaths to 174 deaths over the eight year period. According to this report, prescription opioids (such as Vicodin, OxyContin, Percocet, Morphine, Codeine, and related drugs) are the most prevalent drug of abuse leading to death.

In the survey, respondents repeatedly listed drug use as a concern. These respondents, along with the focus groups, expressed a growing awareness of increased prescription drug abuse. Prescription drug abuse was also a primary concern and focus of the key informants who expressed mounting concern about the drug use and trafficking in Manchester.

Alcohol Use

Excessive alcohol use, including binge drinking (drinking 5 or more drinks on an occasion for men or 4 or more drinks on an occasion for women), can lead to increased risk of health problems such as injuries, violence, liver diseases, and cancer.



Source: 2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services

The table above reports adults who self-reported engaging in binge drinking in 2011 for the City of Manchester, the Manchester HSA, and the State of New Hampshire. All three survey areas reported rates of binge drinking that were fairly comparable and below the Healthy People 2020 target of 24.4%.

The need for more drug and alcohol abuse outreach was noted by focus group participants and survey respondents.

Youth

Drug Use

According to the 2011 Youth Risk Behavior Survey, shown in the table below, prescription drug use percentages among students is about the same in the City of Manchester as it is in the Manchester HSA and the entire state.

Prescription Drug Use - 2011

	Manchester	Manchester HSA	New Hampshire
Percentage of students who in their life used prescription drugs (such as OxyContin, Percocet, Vicodin, Adderall, Ritalin, or Xanax) without a doctor's prescription	16.9%	17.3%	19.5%
Percentage of students who in the past 30 days used prescription drugs (such as OxyContin, Percocet, Vicodin, Adderall, Ritalin, or Xanax) without a doctor's prescription	9.6%	9.2%	10.4%

Source: NHDHHS, Division of Public Health Services, Youth Risk Behavior Survey, 2011

According to the New Hampshire Governor's Commission on Alcohol and Drug Abuse Prevention, Intervention and Treatment 2012 - 2013 one in five New Hampshire high school students has misused prescription drugs such as Oxycontin and Ritalin and the use of prescription drugs is a substance abuse problem that has reached epidemic proportions in the state. In the same report from the New Hampshire Governor's Commission on Alcohol and Drug Abuse Prevention Intervention and Treatment, it is reported that of young adults in New Hampshire reporting nonmedical use of pain relievers in the past year, NH is the second highest among all the U.S. states and territories.

Alcohol Use -2011

Alcohol Use	Manchester	Manchester HSA	New Hampshire
Percentage of students who had five or more drinks of alcohol in a row, that is, within a couple of hours, on **one or more** of the past 30 days	21.5%	21.4%	24.3%

Source: NHDHHS, Division of Public Health Services, Youth Risk Behavior Survey, 2011

According to the 2011 Youth Risk Behavior Survey, as seen in the table above, alcohol use by students is about the same in the City of Manchester as it is in the Manchester HSA and the state. The same survey also found that over 80% of New Hampshire high school seniors have tried alcohol and almost half are drinking regularly. Almost one out of three high school

students in grades 9 through 12 are drinking alcohol and/or smoking marijuana at least monthly, and about one in four (23.8%) are binge drinking at least once a month, a type of alcohol consumption (five or more drinks within a couple of hours) that poses significant health and safety risks.

The 2009–2010 National Survey on Drug Use and Health (NSDUH) found that New Hampshire ranked sixth among all states in the percentage of youth aged 12 to 17 reporting binge drinking in the past month (10.3%) and ninth in the percentage of youth aged 18 to 25 (48.3%). In both cases the percentages are higher than the national average (8.4 and 41.2%). Nationally, binge drinking among 12- to 17-year-olds has been declining, but neither the CDC Youth Risk Behavior Survey, which includes only high school students, nor the NSDUH find similar declines in New Hampshire (NH DHHS, 2012)."

Research now tells us definitively that the younger a person initiates alcohol use the more likely they are to develop alcohol dependence later in life.

Tobacco Use

According to the 2011 State of New Hampshire Health Profile, "Each year an estimated 1,700 people die prematurely from smoking–related illnesses in New Hampshire. An additional 200 die each year from exposure to secondhand smoke. Despite these known health risks, an estimated 160,000 adults in the state still smoke cigarettes."

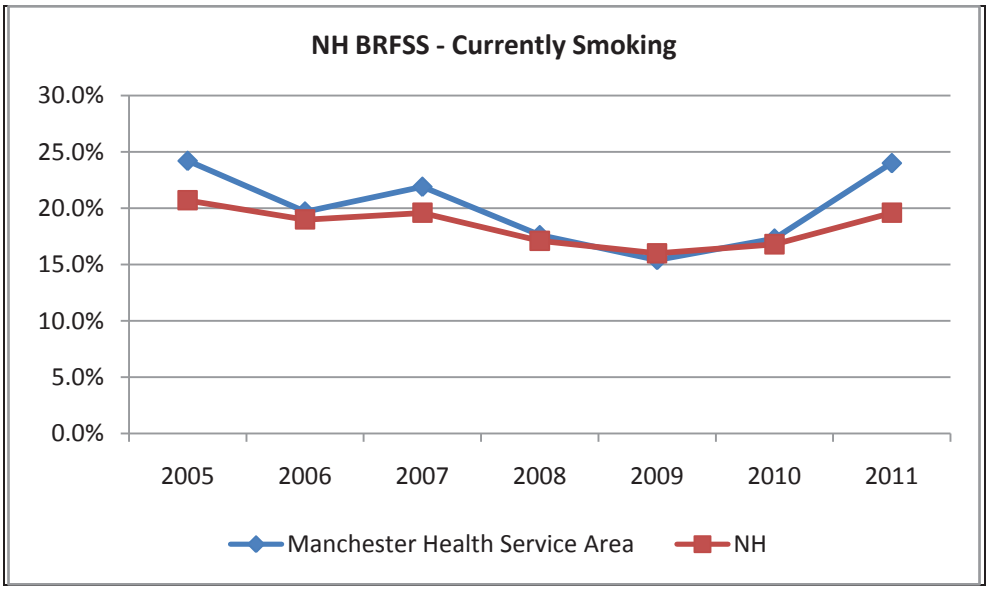
Adult Tobacco Use

	City of Manchester	Manchester HSA	Rest of New Hampshire	HP 2020 Target
Adults 18+ currently smoking	26.9%∗	24.0%	19.6%	12%

Source: NHDHHS, Division of Public Health Services, Behavorial Risk Factor Surveillance Survey, 2011

∗ Denotes statistical difference between Manchester and the rest of the state

According to the 2011 BRFSS, adults who currently smoke is significantly higher in the City of Manchester (26.9%) than the rest of New Hampshire (19.6%). Moreover, the Healthy People 2020 target is 12% or less of the adult population smoking. As noted in the table above, the percentage of smokers in Manchester, the Manchester HSA and the state is much higher than the national target.



Source: NH BRFSS

Another important statistic, as highlighted in the chart above, is that the rate of smokers in the State of New Hampshire and Manchester HSA increased from 2010 to 2011 after a three year decline.

Smoking rates are associated with income. The table below demonstrates smoking rates by income level. As shown, residents who earn less than $25,000 annually had significantly higher smoking rates than those earning more income.

Adults Smoking Income Factor

	City of Manchester	Rest of New Hampshire		Manchester Residents – Earning Less Than $25,000 Annually
Current smoker	26.9*	19.6%		35.2%

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011
∗ Denotes statistical difference between Manchester and the rest of the state

In contrast to adult smoking rates, which were significantly higher than state reported smoking rates, the amount of youth within the City of Manchester who reported smoking a cigarette in the past 30 days is below the levels reported for State of New Hampshire and are on target with the Manchester HSA. However, these rates for all these areas are above the HP 2020 target.

Youths Smoking

	City of Manchester	Manchester HSA	Rest of New Hampshire	HP 2020 Target
Percentage of students who smoked cigarettes on one or more of the past 30 days	17.6%	17.3%	18.7%	16.0%

Source: NHDOE, Youth Risk Behavior Survey (YRBS), 2011

The vast majority of adult smokers initiated tobacco use at an early age. To decrease smoking rates, strategies should be aimed at both youth tobacco prevention and adult tobacco treatment.

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 Manchester HSA and the State of New Hampshire.

Physical Activity

	Manchester HSA	New Hampshire	HP 2020 Target
Adults that **did** Physical Activity or Exercise in Past 30 Days[1]	76.1%	77.6%	N/A
Adults 18-64 who met CDC physical activity guidelines[2]	51.8%	54.6%	47.9%

[1] *NH BRFSS 2011*
[2] *NH BRFSS 2009*

As shown in the table above, almost 52% of Manchester HSA adults ages 18 to 64 were not meeting the CDC physical activity of getting moderate activity for at least 30 minutes on five or more days per week or participating in vigorous activity for 20 minutes on at least three days per week.

The following table breaks down physical activty in the City of Manchester by income level. As with other data, Manchester residents earning less than $25,000 annually had a higher rate of inactivity/not exercising than the rest of the residents of the city and state.

Physical Activity Income Factor

	City of Manchester	Rest of New Hampshire		Manchester Residents – Earning Less Than $25,000 Annually
Adults that did **not** do Physical Activity or Exercise in Past 30 Days	26.0%	22.4%		29.6%

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011

Nutrition

According to the CDC, "Eating a diet high in fruits and vegetables is associated with a decreased risk of many chronic diseases, including heart disease, stroke, high blood pressure, diabetes, and some cancers. Research also has found that replacing foods of high energy density (high calories per weight of food) with foods of lower energy density, such as fruits and vegetables, can be an important part of a weight-management strategy."

The table below highlights fruit and vegetable consumption, and is an indicator of nutrition habits of the population. Only about quarter of the residents of the City of Manchester, the Manchester HSA and the overall State of New Hampshire eat a healthy amount of fruits and vegetables, which means that 75% of the population is not eating fruits or vegetables five or more times daily.

Fruit and Vegetable Consumption

	City of Manchester	Manchester HSA	Rest of New Hampshire
Fruits and Vegetables five or more times per day, percent of adults (2007, 2009)	27.7%	28.3%	28.0%

Source: Greater Manchester Health Profile 2011

During the focus groups, a school nurse observed that there is a Fruit Program in the schools but the students are not choosing to eat the fruit. Poor food choices and poor eating habits did show up as a concern on the survey as well.

Overweight and Obesity

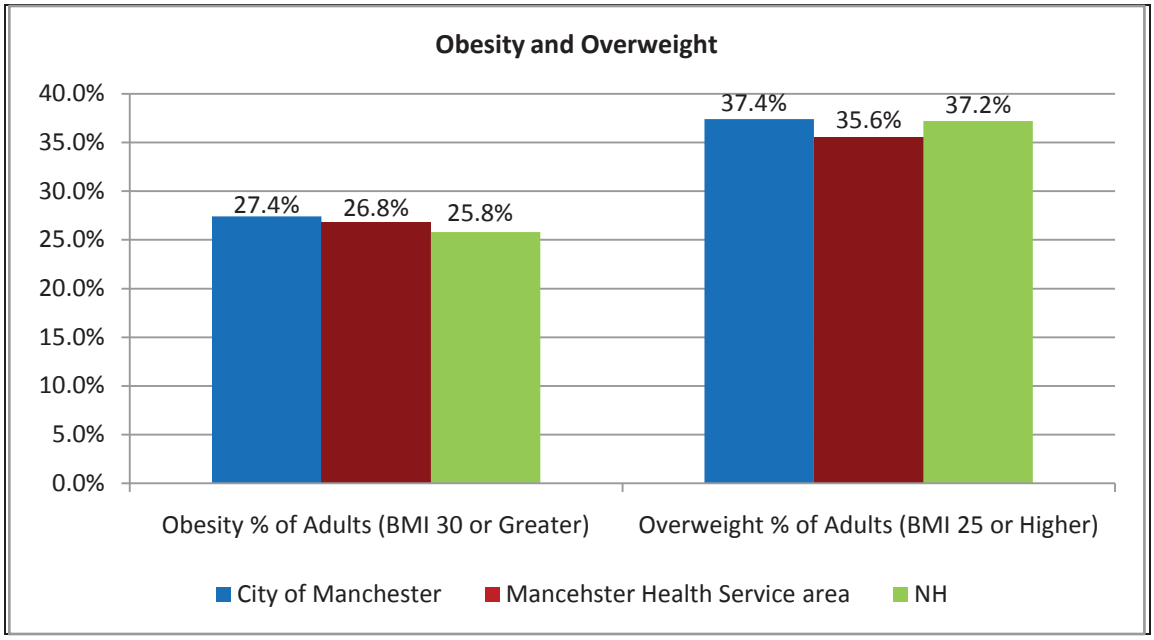
Obesity

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**. There are exceptions. Some people in this group, such as athletes, may not have too much fat, just more muscle.
- 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.

The tables below compare obesity rates for adults within the City of Manchester, the Manchester HSA and the State of New Hampshire.



Today, over 60% of adults are overweight or obese in the State of New Hampshire. Over time, there have been increases in the number of adults who are consider obese by BMI. In 2000, the percentage of obese adults in New Hampshire was reported at 18%, and in 2009, it had risen to over 26%.

Obesity and Overweight Income Factor

	City of Manchester	Rest of New Hampshire		Manchester Residents – Earning Less Than $25,000 Annually	HP 2020 Target
Overweight (BMI >= 25)	30.0%	34.9%		21.6%	N/A
Obese (BMI >= 30)	31.4%	26.6%		34.9%	30.5%

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011

As with other data, Manchester residents earning less than $25,000 per year had a higher rate of physical inactivity than the rest of the residents of the city and state.

Adults

As shown in the previous table, Manchester has fewer people who are overweight than the overall State of New Hampshire but a higher percentage of people who qualify as obese. When breaking out obesity rates by income level, residents within the City of Manchester earning less than $25,000 annually have a substantially higher rate of obesity than overweight. What is not reflected in the previous table is the increase over time. In the year 2000 the percent of obese adults in New

Hampshire was reported at 18% and in 2009 it had reportedly risen to over 26%. Obesity in New Hampshire continues to increase.

> During the focus groups, first responders said obesity is making it difficult for them to reach, treat and transport patients often because of door size, moving/lifting the patient, etc. Responding to the obese would be easier if they had a heads up warning that the patient was obese. They also noted that some hospitals are not equipped with bariatric equipment.
>
> Obesity concerns also ranked high in the survey responses and a number of respondents thought of it as an emerging issue or trend.

Youth

Among children and adolescents, physical activity can:

- Improve bone health
- Improve cardio-respiratory and muscular fitness
- Decrease levels of body fat
- Reduce symptoms of depression

There is limited data is available regarding youth obesity across the state of New Hampshire. However, the Manchester Health Department collects BMI within its student population. "During the 2011-2012 school year in Manchester, 21% of students screened from Kindergarten, first grade, third grade, and fifth grade were overweight or obese as defined by body mass index." The 2011 NH Health Profile reported, "In 2009, 26% of high school students enrolled in New Hampshire public schools were overweight or obese. Twice as many boys (16%) were obese compared with girls (8%).

> Survey responses indicated a greater concern for youth or childhood obesity compared to that of adult obesity.

According to the Centers for Disease Control and Prevention, 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, type 2 diabetes, stroke, several types of cancer, and osteoarthritis.

Health Screenings

Screenings are tests that look for diseases before symptoms occur. Screening tests can find diseases early, when they're 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.

As the table below demonstrates, the percentage of women receiving mammograms in all three survey areas is at or above the HP 2020 target. However, the number of adults receiving screenings of some kind for colorectal cancer is well below the HP 2020 target. The Mammogram and Colonoscopy rates for the City of Manchester are at or above the levels for the State of New Hampshire.

Health Screenings

	City of Manchester	Manchester HSA	Rest of New Hampshire	HP 2020 Target
Mammogram in past two years, percent of women 40 and older (2003, 2008)	81.2%	84.0%	81.0%	81.1%
Colonoscopy or Sigmoidoscopy in past 5 years, percent of adults 50 and older (2006, 2008)	63.3%	63.3%	58.2%	70.5%

Source: Greater Manchester Health Profile 2011

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.

Self-Reported Poor/Fair Health Status

	City of Manchester	Manchester HSA	New Hampshire
Percent of adult population	17.7%	15.0%	13.7%

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011

The table above shows the percentage of adults age 18 and older who self-report having poor or fair health. This reflects the "as subjectively assessed by the individual" part of the earlier definition. As the table highlights, the Manchester HSA has a higher percent of the adult population reporting a poor/fair health status than does the state.

Self-Reported Poor/Fair Health Status with Income Factor

	City of Manchester	Rest of New Hampshire		Manchester Residents – Earning Less Than $25,000 Annually
Physical health not good 14 to 30 days	15.8%	11.7%		32.8%
Fair or poor health	17.7%	13.7%		36.4%

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011

As is true with most health outcomes, health status is greatly influenced by socioeconomics, such as poverty. The table above highlights that Manchester residents earning less than $25,000 per year, self-report poor health conditions at a much higher rate than is reflected in the total population numbers for the City of Manchester and the state.

Leading Causes of Death

Overall Leading Causes of Death per 100,000 People 2008 by Condition (All Ages)

	Manchester HSA	New Hampshire	HP 2020 Target
Diseases of the Heart	190.3	174.4	100.8
Cancers	181.7	185.4	160.6
Chronic Lower Respiratory Diseases	57.1	50.5	N/A
Stroke	31.8	34.7	33.8
Alzheimer's Disease	28.0	28.6	N/A
Accidents	26.4	34.4	36.0♦

Source: NH HealthWRQS – 2008
♦unintentional injury deaths

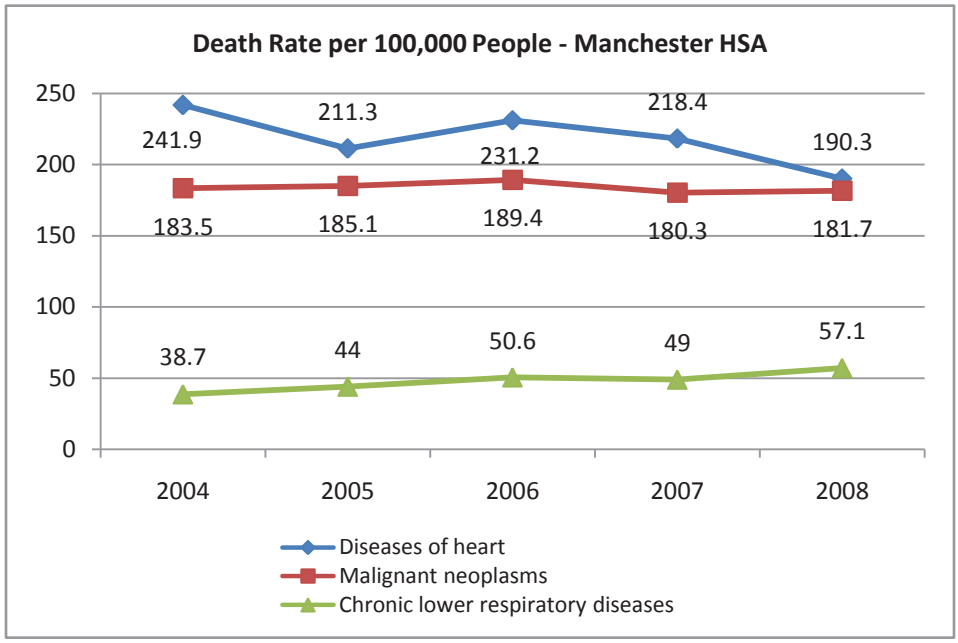
Both the Manchester Health Service Area (HSA) and the State of New Hampshire have the same six leading causes of death, as shown in the table above, but the ranking of each cause of death is not the same when comparing the two geographical areas. Diseases of the heart are the leading cause of death in the Manchester HSA while cancer is the leading cause of death for the overall state. Diseases of the heart for both the Manchester HSA and the state exceed the Healthy People 2020 (HP 2020) target.

Top 10 Leading Causes of Death per 100,000 People Trended 2004-2008 Manchester HSA By Condition

	2004	2005	2006	2007	2008
Diseases of heart	241.9	211.3	231.2	218.4	190.3
Cancers	183.5	185.1	189.4	180.3	181.7
Chronic lower respiratory diseases	38.7	44.0	50.6	49.0	57.1
Stroke	39.8	41.2	39.1	33.2	31.8
Alzheimer's disease	32.6	33.4	29.7	35.4	28.0
Accidents	23.6	30.1	29.7	28.9	26.4
Diabetes Type 1	24.1	29.5	25.9	24.5	22.1
Influenza and pneumonia	27.5	27.9	24.8	17.4	26.4
Kidney related diseases and syndromes	13.5	17.8	11.0	17.4	18.3
Intentional self-harm (suicide)	13.5	12.8	16.0	10.4	14.6

Source: NH HealthWRQS - 2008

The table above lists the top ten leading causes of death by condition for the Manchester HSA from 2004-2008. Death from diseases of the heart continues to be the primary cause of death within the Manchester HSA, although it has declined in recent years, followed by cancers and chronic lower respiratory diseases. The following chart shows death rate trends by condition from 2004-2008 for the top three causes of death in the HSA.



Source: NH HealthWRQS - 2008

Premature Death and Mortality Rates

The Robert Wood Johnson Foundation County Health Rankings provide the following explanation for Premature Death Rates; "Premature deaths are deaths that occur before a person reaches an expected age, such as age 75. Measuring premature death, rather than just overall death rates alone, provides an estimate of the deaths that could have been prevented. Risk factors such as unhealthy behaviors, lack of access to timely and adequate health care, and social conditions like living in poverty all contribute to premature death."

Premature Death Rate (PDR) and Premature Mortality Rate (PMR) are important measures of health status in a community. While they report the same basic outcome, in the sources used for the analysis, the age and population figures were compiled differently for each indicator and provide two different ways to evaluate health status and outcomes. The Premature Death Rate (PDR) defines the outcome as 'Years of potential life lost before age 75 per 1,000 population' and the Premature Mortality Rate (PMR) defines the outcome as 'Deaths of people under age 65 adjusted rate per 100,000 people'. The PDR data available allows comparison between geographies while the PMR data provides trended historical data.

Shown in the following table are premature death rates for the City of Manchester, the Manchester HSA and New Hampshire. This table reports Years of Potential Life Lost (YPLL) before age 75 per 100,000 people for all causes of death, age-adjusted to the 2000 standard. YPLL measures premature death and is calculated by subtracting the age of death from the 75 year benchmark. As the following table demonstrates, the YPLL is significantly higher in the City of Manchester and the Manchester HSA compared to New Hampshire.

Premature Death Rate

	City of Manchester	Manchester HSA	New Hampshire
Premature Death, years of potential life lost before **age 75** per **1,000** people	68.6*	59.3 *	56.7

Source: 2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services
*Both the City of Manchester and Manchester HSA are statistically significant when compared to the state

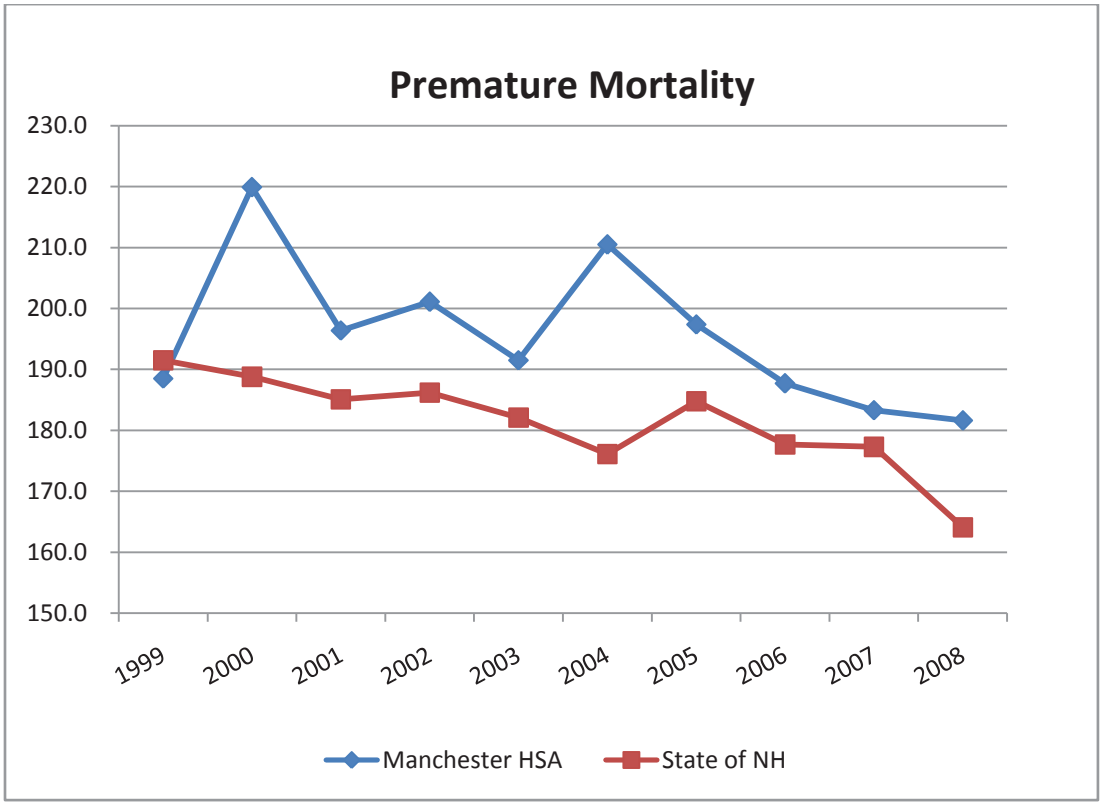
As mentioned previously, another important indicator of a community's health status is the premature mortality rate. As shown in the table below (based on the most recently available data) the Manchester HSA's premature death rate is higher than that of the overall state rate.

Premature Mortality Rate

	Manchester HSA	New Hampshire
Deaths of people under **age 65** adjusted rate per **100,000** people	181.6	164.1

Source: NH Health WRQS 2008

In looking at historical trends of premature mortality (shown in the table below) from 1999-2008, the Manchester HSA has consistently had a higher rate of premature mortality than the state, Over the past several years, both the Manchester HSA and the state have shown a decline in the premature mortality rate.



Source: NH HealthWRQS

Leading Causes of Inpatient Admissions in the Manchester HSA

Inpatient Discharges per 100,000 People

		Manchester HSA	New Hampshire
Sub-Condition:	Admissions	Crude Rate	Crude Rate
Pneumonia	626	337.5	315.5
Psychoses	593	319.7	321.2
Heart failure	563	303.5*	281.3
Chronic bronchitis	549	296.0*	215.7
Osteoarthrosis and allies disorders	475	256.1	303.1
Cancers	438	236.1	263.3
Cardiac dysrhythmias	424	228.6	234.3
Stroke	388	209.2	225.3
Fractures, all sites	351	189.2	199.7
Cellulitis and abscess	347	187.1*	136.6

Source: HealthWRQS 2008 - The Manchester HSA

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

The table above shows leading causes of death in 2008 for inpatient admissions in the Manchester HSA and New Hampshire by crude rates. Crude rates are calculated as the number of admissions divided by the total population out of which the admissions occur.

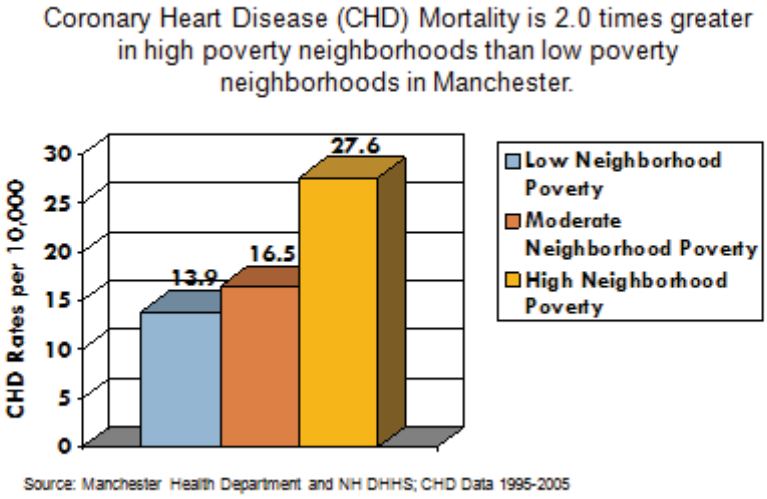
The Manchester HSA and the state have the same leading causes of inpatient admissions but these conditions do not rank in the same order in each geography. Psychoses are the leading cause of inpatient admissions in the State of New Hampshire. In comparison, the leading cause of inpatient admissions in the HSA is pneumonia. Trending back to 2004, psychoses had been the leading cause for inpatient admissions in the Manchester HSA. Inpatient admissions for the Manchester HSA for heart failure, chronic bronchitis, cellulitis and abscesses are significantly higher than the rate reported for the state.

Discharge Follow-up

The community members interviewed noted a gap in follow-up care services within the Manchester HSA for patients who have had surgery and need post surgery care.

Cardiovascular Health

Heart disease is the number one cause of death for Manchester residents. Although family history is an important factor, recent studies have found that physical inactivity, an unhealthy diet and tobacco use greatly contribute to the development of this disease.



In addition to health risk behaviors, social factors such as living in poverty and living in impoverished neighborhoods can also increase your risk of heart disease. As shown in the chart above, 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.

In addition, according to the 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. Increasing age, genetics or 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.

Cancer Status

	City of Manchester	Manchester HSA	New Hampshire	HP 2020 Target
New cancer diagnoses, age adjusted per **100,000** population (2003-2007)	496.7	491.4	499.8	N/A
Cancer deaths, age adjusted per **100,000** population (2003-2007)	189.7	181.5	185.0	160.6

Source: 2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services

According to the NH HealthWRQS for 2008, new cancer diagnoses and cancer deaths declined for both the Manchester HSA and the state. In 2008 the rates for new cancer diagnoses dropped to 427.2 in the Manchester HSA compared to 481.2 for the state.

Preventable Hospitalizations and Ambulatory Care

The Agency for Healthcare Research and Quality in its *HCUP Fact Book #5* defined preventable hospitalizations as "hospitalizations that may be preventable with high quality primary and preventive care. These hospitalizations may be avoided if clinicians effectively diagnose, treat, and educate patients, and if patients actively participate in their care and adopt healthy lifestyle behaviors." It goes on to note, "potentially preventable hospitalizations are a significant issue with regard to both quality and cost. While some hospitalizations were likely inevitable, many might have been prevented if individuals had received high quality primary and preventive care. Identifying and reducing such avoidable hospitalizations could help alleviate the economic burden placed on the U.S. health care system."

Ambulatory care refers to treatment and care that a patient receives that result in no overnight hospitalization. This can include minor surgical and medical procedures, most types of dental services, dermatology services, and many types of diagnostic procedures including blood tests, X-rays, biopsies, etc. Ambulatory care services also include emergency visits, rehabilitation visits, and sometimes even telephone consultations.

Ambulatory Care Sensitive Conditions

Ambulatory care sensitive conditions (ACSCs) are those for which, in theory, hospitalization is thought to be preventable through health care in ambulatory settings. Hospitalization for an ambulatory care sensitive condition is considered to be a measure of access to appropriate primary health care. While not all admissions for these conditions are preventable, it is assumed that appropriate ambulatory care could prevent the onset of this type of illness or condition, control an acute episodic illness or condition, or manage a chronic disease or condition. A disproportionately high rate is presumed to reflect problems in obtaining access to appropriate primary care.

ACSCs can be further broken down into two categories – Acute and Chronic.

Acute – bacterial pneumonia, urinary tract infection, ulcers, cellulitis, hypoglycemia, dehydration, and ear, nose & throat infections

Chronic – chronic lung disease (asthma and COPD), congestive heart failure, seizures, diabetes, and hypertension

	City of Manchester	Manchester HSA	New Hampshire
Acute Ambulatory Care sensitive condition hospital discharges, age adjusted per **100,000** population (2003-2007)	906.5*	779.8*	697.3
Chronic Ambulatory Care sensitive condition hospital discharges, age adjusted per **100,000** population (2003-2007)	797.5*	668.7*	605.4

Source: 2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services
**Denotes both the City of Manchester and Manchester HSA are statistically significant when compared to the state*

As shown in the previous table, rates of both chronic and acute ACSCs are significantly higher in Manchester and the Manchester HSA as compared to the State.

High rates of chronic ACSCs, such as asthma or diabetes, may be an indicator of a lack of prevention efforts, a primary care resource shortage, or other factors that create barriers to obtaining timely and effective care. (CHNA 2009)

> Community members noted a need for accessibility for pre-hospital care, before small medical problems become a large health issue. Additionally, it was noted that people are waiting too long for their medications and this affects patients who are diabetic or who have flu complications, making their medical conditions significantly worse. The delay in receiving medications leads to poor health outcomes.

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. Poor oral health can affect the health of the entire body. The most common oral health problems are cavities and gum disease (known as gingivitis and periodontitis). However oral health also includes canker and cold sores and oral cancer among other conditions.

Self-Reported Oral Health Status 2010

	City of Manchester	Manchester HSA	New Hampshire	HP 2020 Target
Visited the dentist or dental clinic within the past year	74.6%	78.2%	75.7%	49.0%
Teeth cleaned by dentist or hygienist within the past year	78.5%	80.9%	77.0%	N/A
Adults that have had any permanent teeth extracted	45.9%	41.9%	42.1%	21.6%
Adults aged 65+ who have had all their natural teeth extracted	N/A	23.2%	17.5%	21.6%

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2010 - The Manchester HSA

Looking at the 2010 BRFSS data included in the previous table, about 25% of adults from the City of Manchester, the Manchester HSA and the State of NH did not visit a dentist in 2010. In addition, over 40% of people reported having had permanent teeth extracted. Both of these metrics are well above the HP 2020 targets.

> Dental care issues such as lack of insurance coverage, lack of services and poor dental health came up repeatedly among survey respondents. There was specific concern about dental care for those over 21 who don't have coverage, particularly those on Medicaid.

Conversely, New Hampshire is one of only five states to receive a grade of "A" in a new report by the Pew Research Foundation on the impact of school dental sealant programs on children's oral health. NH school sealant programs reach more than 75% of high-risk schools.

Asthma

Asthma is a chronic disease that affects the airways in the lungs, and as the CDC notes, is a serious health and economic concern in the United States. It is estimated that Asthma costs the United States $56 billion each year. In 2009, asthma caused 10.5 million missed days of school and 14.2 million missed days of work.

The table below represents adults who report that they have been told by a doctor, nurse, or other health professional that they had asthma.

When comparing the 2007 and 2009 data for the City of Manchester, the Manchester HSA and the state to the 2011 NH BRFSS data from the NH HealthWRQS website, there is an increase in current asthma for all three areas. The most significant increase was realized in the City of Manchester where there was an increase of 6%.

Self-Reported Current Adult Asthma

	City of Manchester	Manchester HSA	New Hampshire
Adults – 2007, 2009†	11.4%	12.0%	10.2%
Adults – 2011††	17.4%	14.2%	11.4%

Source: †2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services and NH DHHS, Division of Public Health Services; ††Behavioral Risk Factor Surveillance Survey (BRFSS) 2011

New Hampshire data consistently shows significant increasing trends in adult asthma from 2000-2008, and it appears that asthma is increasing faster in some groups than in others:

- 13.8 times faster among adult women than men
- 4.7 times faster among individuals whose household income is less than $25,000 annually
- 4.7 times faster among the uninsured
- 3.2 times faster among those with less than a high school education

Self-Reported Current Adult Asthma by Income Factor

	City of Manchester	Rest of New Hampshire		Manchester Residents– Earning less than $25,000
Adults who indicated that they currently have asthma	17.4%*	11.4%		29.5%*

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011
∗The City of Manchester is statistically significantly higher when compared to the state

Breaking out asthma statistics by income, shown in the table above, demonstrates a significant difference in rates of asthma when income levels are included in the analysis. Compared to the 17.4% of Manchester adults who reported that they have asthma, nearly 30% of Manchester residents earning less than $25,000 indicate that they currently have asthma. This is a significant difference and important distinction when devising strategies to reach groups at the highest risk for unmanaged asthma.

Birth and Infant Health Status

Infants born with a low birth weight are at a higher risk of infant mortality and of long-term health issues than babies born at a normal weight.

Low Birth Weight

	City of Manchester	Manchester HSA	New Hampshire	HP 2020 Target
Per **1,000** births, percent (2007)	6.8%	6.5%	6.2%	7.8%

Source: 2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services

As the table above shows, the City of Manchester, the Manchester HSA and the State of New Hampshire all have low birth weight rates per 1,000 below the HP 2020 target.

Infant Mortality Rate

	Manchester HSA	New Hampshire	HP 2020 Target
Deaths per **1,000** live births (2004-2008)†	4.9	5.2	6.0

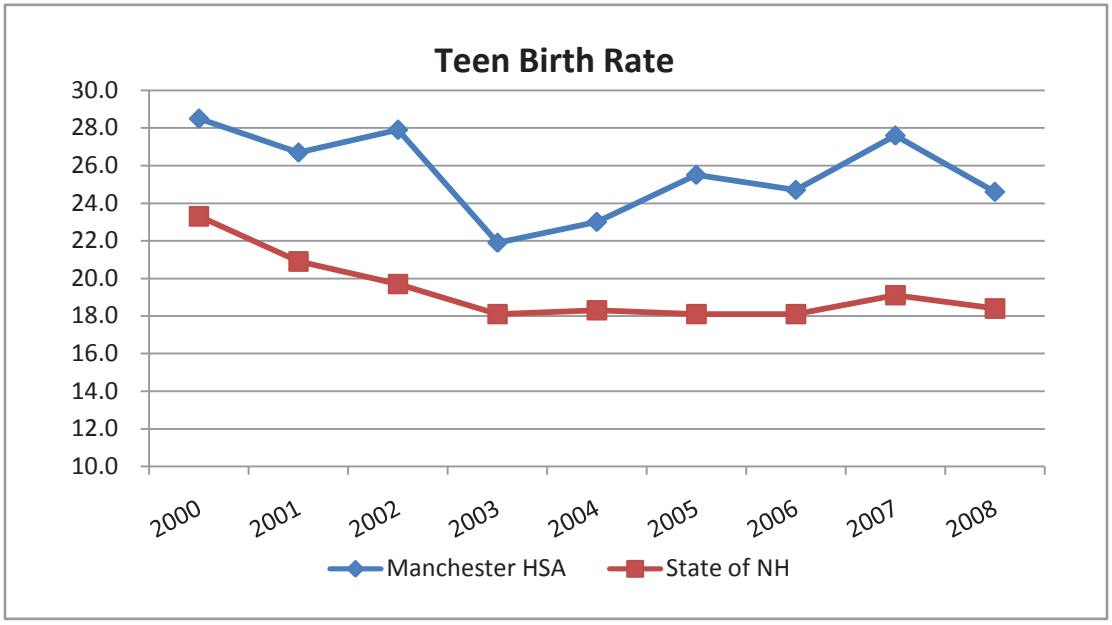
Source: NH Health WRQS 2008

†The infant mortality indicator reports the rate of deaths to infants less than one year of age per 1,000 births and is a critical indicator for any community because high rates of infant mortality show the existence of broader issues pertaining to access to care and maternal and child health.

As shown in the table above, the infant mortality rate in both the Manchester HSA and the state are lower than the HP 2020 target, however, there is still concern around infant mortality rates. In the Manchester HSA there were 57 infant deaths reported for the five year period from 2004-2008. During that same time period, the state reported 373 infant deaths.

Teen Birth Rate

Shown in the chart below, the teen birth rate in the Manchester HSA has fluctuated since 2000, dropping to its lowest reported rate in 2003 and then increasing back up through 2007 and slightly decreasing again in 2008. In contrast, the state has realized a steady decline from 2000-2003 and has remained at a fairly consistent rate of 18 births per 1000 females age 15-19. Both the City of Manchester and the Manchester HSA have consistently realized a greater number of teen births than the state.



Source: NH HealthWRQS 2000-2008

Teen Birth Rate - 2008

	City of Manchester	Manchester HSA	New Hampshire
Teen birth rate per **1,000** females age 15-19 (2008)	39.4*	24.6*	18.4

Source: 2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Service
**Both the City of Manchester and Manchester HSA are statistically significant when compared to the state*

The 2011 NH Health Profiles (shown in the previous table) reported a teen birth rate of 39.4 per 1,000 and 24.6 for the Manchester HSA. Both of these were statistically significant compared to the teen birth rate of the overall state, and Manchester alone is statistically significant from the Manchester HSA.

Sexually Transmitted Diseases

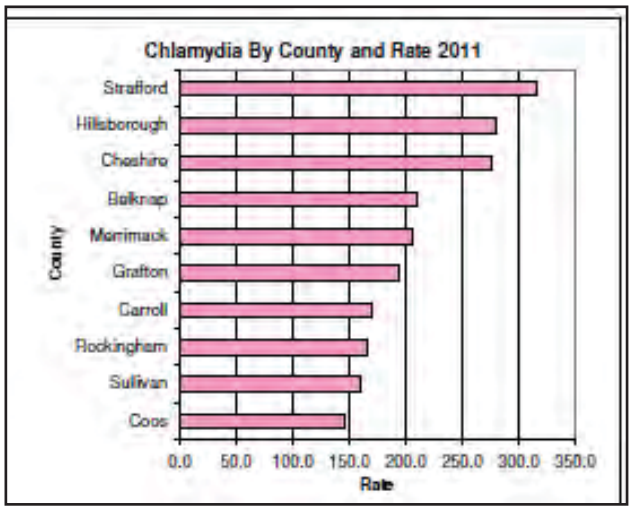
The State of New Hampshire STD/HIV Surveillance Program monitors STDs and reports data at the county level and for the City of Manchester.

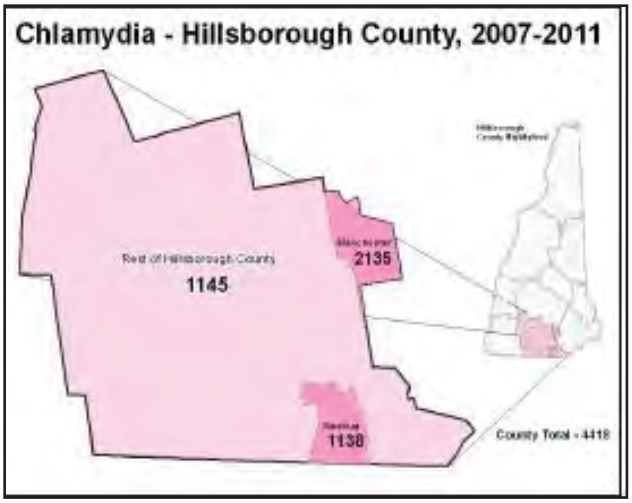
City of Manchester

	2007	2008	2009	2010	2011
Sexually transmitted incident rates - Chlamydia per **100,000** person	401.8	343.6	340.2	386.1	478.0
Sexually transmitted incident rates - Gonorrhea per **100,000** person	32.1	22.0	25.5	25.6	29.1
Sexually transmitted incident rates - Syphilis per **100,000** person (Primary Secondary and latent Syphilis)	8.3	4.6	N/A	4.6	N/A

Source: NH STD/HIV Surveillance Program 5 Year Data Summary Report
*Case rates calculated on events <20 are considered statistically insignificant

As shown in the previous table, the incidence of chlamydia is significantly higher than gonorrhea or syphilis and has increased significantly in the past three years after declining. Within Hillsborough County 50% of new chlamydia cases are within the City of Manchester.





Source for both graph and map: NH STD/HIV Surveillance Program 5 Year Data Summary Report

Access to Healthcare

Access to Healthcare is reported using two categories of information: Data obtained through insurance information (Medicaid enrollment, amount of physicians, etc.), and barriers that can't be measured by numbers alone. The survey, conducted as part of this CHNA, asked "why might someone have a problem accessing various health services". The results show the top five reasons in ranked order were:

1. Cost of services/lack of insurance
2. Lack of information
3. Lack of transportation
4. Too long a wait for services
5. Language barriers.

The need for improved access for affordable health insurance to low income, non disabled, and people with no insurance but whose finances do not qualify for Medicaid, was also noted. It was mentioned that high insurance deductibles impact access for some families and the uninsured with pre-existing conditions.

The focus groups also noted access to affordable insurance, cost of insurance, and cost of healthcare or lack of affordable healthcare as all being barriers to care.

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 3 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. They 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 NH BRFSS survey in which almost 12% of Manchester HSA residents reported they did not have a personal doctor or healthcare provider.

NH Residents who Report having Health Insurance

	Manchester HSA	New Hampshire
Reported having any health insurance	85.2%	86.3%
Plan through an employer	54.0%	50.8%
Medicare	15.4%	16.8%
Medicaid	4.7%	3.2%
A plan purchased on own	3.6%	4.9%
Military Plan, Cobra, or other	6.6%	8.7%
Don't know if have insurance or what type	0.2%	1.0%
No Insurance	15.5%*	14.7%
Reported not having a personal Doctor or healthcare provider	11.6%	12.7%

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011

A lack of health insurance is a burden that impacts the entire community (CHNA 2009) along with the lack of adequate coverage makes it difficult for people to get the health care they need. Uninsured people are less likely to receive medical care and hence, they often have poor health status. The uninsured are also at a greater risk for premature mortality.

Below are comments from Community Members regarding insurance issues and concerns within the Manchester HSA.

> The Clergy noted that there are a number of insurance issues such as difficulty in filling out forms, how to navigate the insurance system, etc. They wondered if these services can become part of the Parish Nurse Program. That program could provide assistance with insurance applications, choices, completing paperwork, etc. Workshops/presentations on insurance topics may not be enough they said, adding insurance sessions at a specific parish location may be better.
>
> There was a concern that insurance does not always cover services and patients should be told when services are not covered.
>
> A number of community members said that there is a lack of knowledge on how to navigate the health care system by people who live in poverty, are uninsured and underinsured. The observation was made that patients who don't know how to access the health care system get

left behind. These are frequently uninsured patients. Teaching the uninsured how to access the health care system and how to access free services was noted as a need.

The lack of dental services and mental health services for the underinsured or uninsured was repeatedly mentioned as a need.

There were also concerns about health insurance coverage, medical and dental, for young adults.

Economic Barriers to Timely & Adequate Care – 2008, 2009

	Manchester	Rest of New Hampshire		Manchester Residents- Earning less than $25,000
Do not have health care coverage	**19.9%***	**13.7%**		**40.3%***
Could not see doctor because of cost	**22.3%***	**14.9%**		**46.0%***

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011
** Denotes a statistical significance difference between Manchester and the rest of New Hampshire and Manchester residents earning less than $25,000 and the rest of the city and the state*

The table above indicates that residents in the City of Manchester are much more likely not to have health care coverage than the rest of the State of New Hampshire. Residents earning less than $25,000 are more than twice as likely to **not** have health coverage as the rest of the city and almost three times as likely to **not** have coverage as the rest of the state. People who do not have health care coverage need to pay the entire costs for care themselves. The statistics are almost exactly the same for **not** being able to see a doctor because of cost. Residents earning less than $25,000 are more than twice as likely to not see a doctor because of cost than the rest of the city and almost three times as likely as the rest of the state.

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 by most providers.

NH Medicaid
as of October 2012

Top 10 Towns in NH	Members	% of Members
MANCHESTER	21,697	14%
NASHUA	11,712	8%
CONCORD	5,556	4%
ROCHESTER	5,259	4%
LACONIA	3,583	2%
DOVER	3,426	2%
DERRY	3,419	2%
KEENE	2,855	2%
CLAREMONT	2,843	2%
BERLIN	2,281	2%

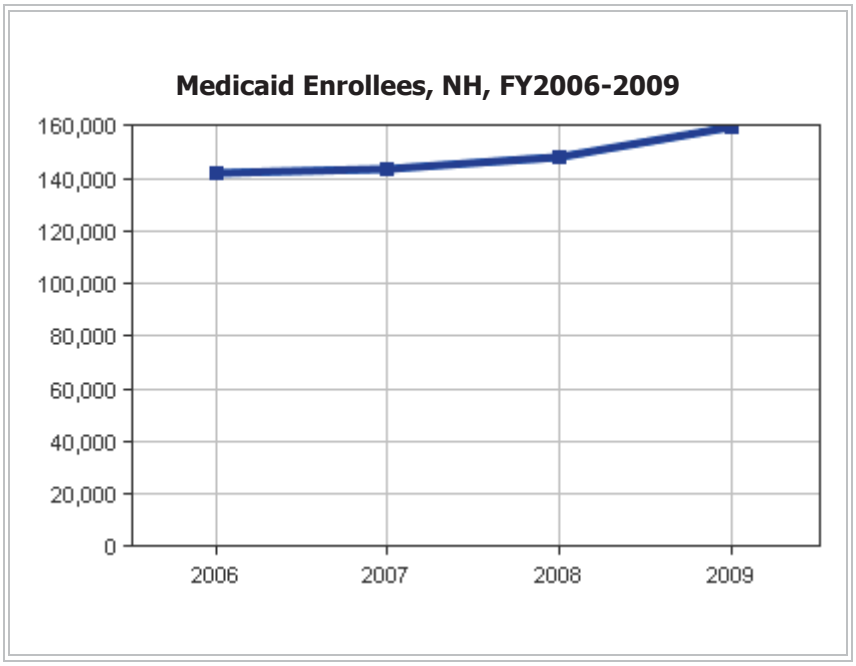
Manchester HSA Medicaid
as of October 2012

Town	Members	% of Members
MANCHESTER	21,697	84%
HOOKSETT	1,067	4%
GOFFSTOWN	1,067	4%
BEDFORD	914	4%
NEW BOSTON	326	1%
DEERFIELD	320	1%
AUBURN	317	1%
CANDIA	225	1%
Total	25,933	100%

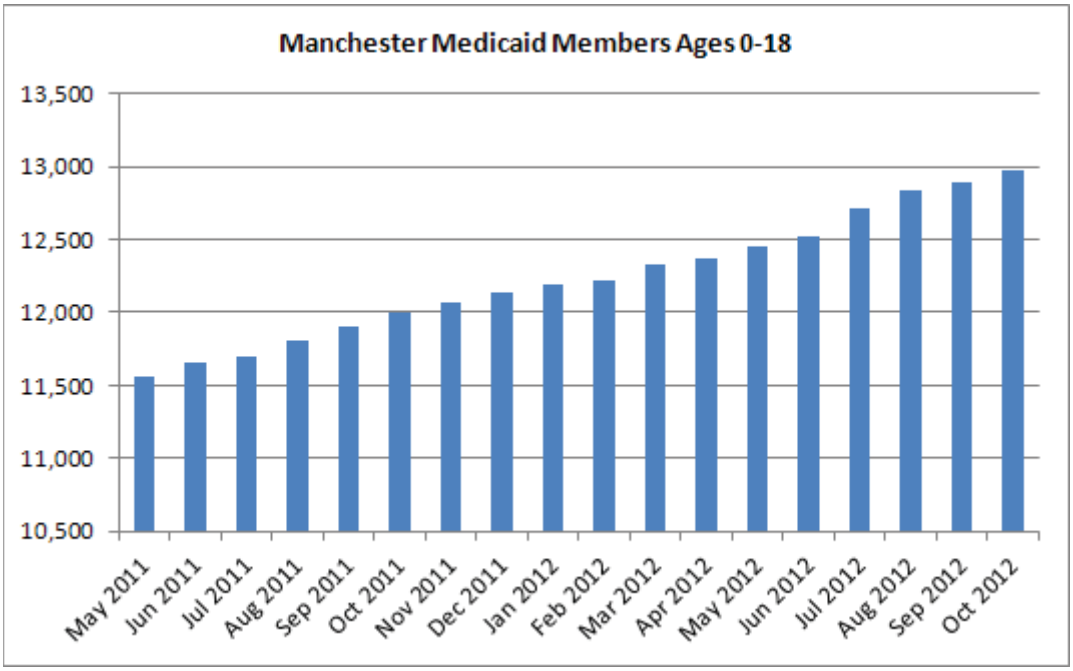
Source: Bureau of Health Care Analytics & Data Systems Office of Medicaid Business & Policy DHHS, State of NH

The City of Manchester has the largest number of Medicaid recipients in New Hampshire at 14%. In addition, 84% of Medicaid members within the Manchester HSA are from the City of Manchester.

Some community members noted that finding a provider, particularly pediatricians, that accept Medicaid is very difficult. The focus group of pregnant women complained that the cost of insurance is too high. They also said they were unable to get Medicaid because Medicaid doesn't take into account real expenses. One person observed that Medicaid doesn't reimburse well, hence it's not as good as regular insurance.



Source: the Centers for Medicare & Medicaid Services



Source: Bureau of Health Care Analytics & Data Systems Office of Medicaid Business & Policy DHHS, State of NH
Note: In July of 2012 the Child Health Insurance Program (Healthy Kids Silver) was transferred into the Medicaid Expansion Program.

The increased growth reflected in the charts above combined with the fact that Medicaid does not often cover the cost of care of its providers (because of reimbursement rates) continues to put financial stress on health care provider organizations that serve the community. As stated in the 2009 CHNA "Community providers incur financial losses every time they take care of a Medicaid patient (due to poor provider reimbursement) or a patient who is uninsured (due to costs of care not being paid for by any insurer). These losses are defined as "uncompensated care". Uncompensated Care numbers can be used as an indicator of the growing rate of the uninsured and underinsured populations in the HSA.

Below is a chart showing uncompensated care costs for Catholic Medical Center and Elliot Hospital from FY2009 through FY2012.

Uncompensated Care Costs

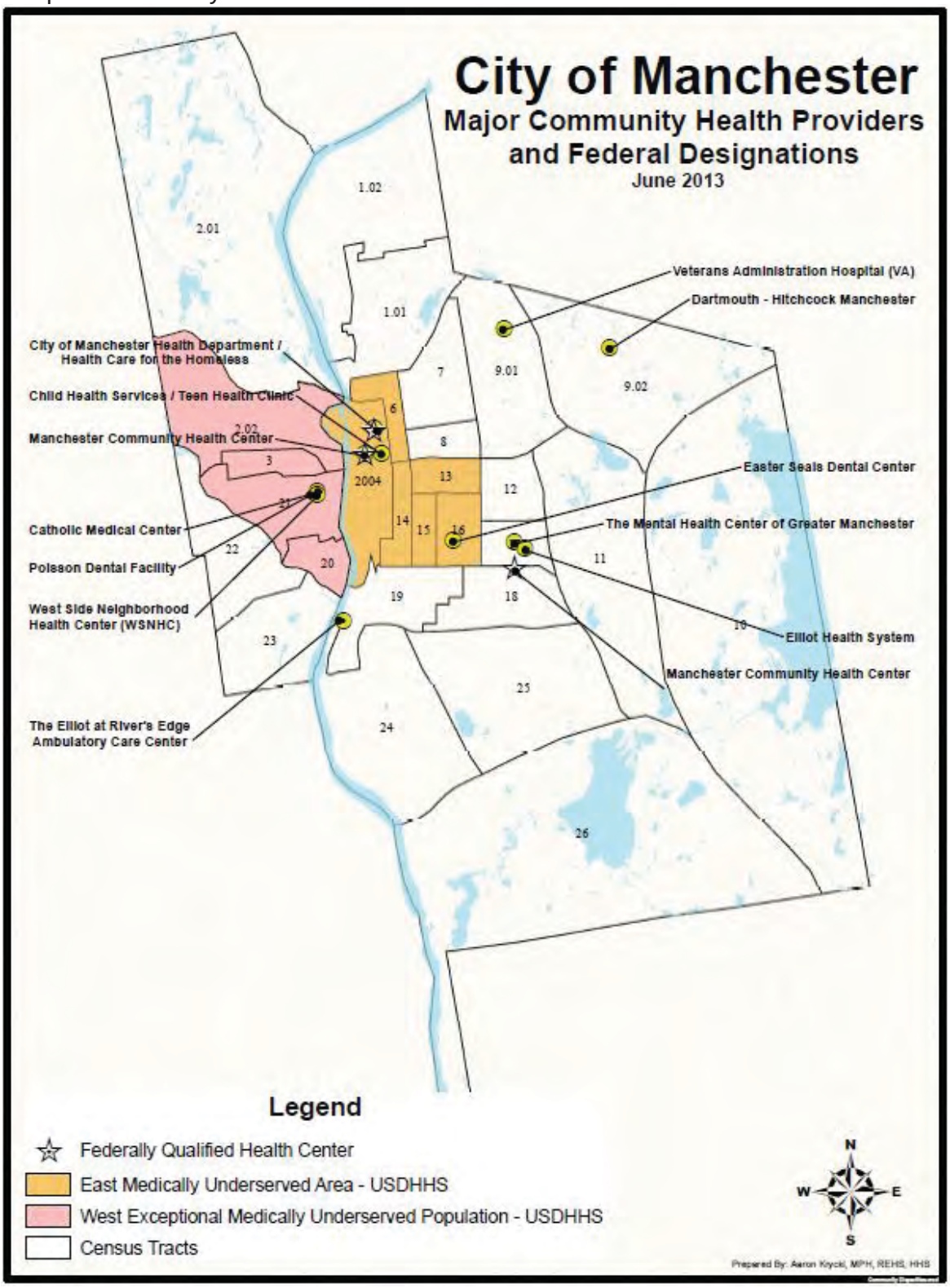
	Free/Charity Care	Medicaid (Reimbursement Shortfall)	Medicare (Reimbursement Shortfall)	Totals
CMC				
FY09	$ 7,061,269	$ 9,164,426	$ 19,760,997	$ 35,986,692
FY10	$ 8,120,695	$ 10,749,326	$ 22,329,870	$ 41,199,891
FY11†	$ 8,731,675	$ 13,811,586	$ 25,737,009	$ 48,280,270
FY12†	$ 8,928,362	$ 27,991,053	$ 28,874,357	$ 65,793,772
EHS				
FY09	$ 7,346,896	$ 12,121,313	$ 24,134,737	$ 43,602,946
FY10	$ 8,099,705	$ 21,022,155	$ 27,990,427	$ 57,112,287
FY11	$ 10,208,539	$ 23,344,812	$ 32,123,602	$ 65,676,953
FY12†	$ 8,407,347	$ 40,251,923	$ 37,077,080	$ 85,736,350

†Includes Medicaid Enhancement Tax

Uncompensated care costs have continued to increase at alarming rates as shown in the chart above. In FY12 Elliot Health System provided $85 million of uncompensated care which was a $20 million increase from the previous fiscal year. Catholic Medical Center in FY12 provided $65 million in uncompensated care also showing an increase of $17.5 million over the previous fiscal year.

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 and Exceptional Medically Underserved Areas.



Source: Manchester Health Department

Primary Care Access

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, as the CDC reports. 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.

Primary Care Physicians per 100,000 Population

	Total Population	Total Primary Care Providers	Primary Care Provider Rate (Per 100,000 Pop.)
Report Area	842,389	758	89.9
Hillsborough County	400,721	336	83.8
Merrimack County	146,445	185	126.3
Rockingham County	295,223	237	80.2
New Hampshire	1,316,470	1,286	97.6

Source: CHNA.org

The Manchester HSA flows into 3 counties, including Merrimack County, which has a provider rate well above the national rate of 84.7 and the HP 2020 target of 83.9. The State of New Hampshire rate is also well above the national and HP 2020 rates, while Hillsborough County is right in line with the HP 2020 target. However, even though both Rockingham and Hillsborough counties are slightly below the national rate in the 2011 New Hampshire Health Profile, the Greater Manchester Health Service Area was a "thumbs down area" meaning that the indicator compared unfavorably with the State. (see Appendix E)

Primary Care Usage – 2008, 2009

	Manchester	Rest of New Hampshire		Manchester Residents- Earning less than $25,000
No checkup within past year	**33.9%**	**29.4%**		**41.7%***

Source: NH DHHS, Division of Public Health Services; Behavioral Risk Factor Surveillance Survey (BRFSS) 2011
∗Indicates statistical significance between Manchester residents earning less than $25,000 and the rest of Manchester and the state

As was noted in the Manchester Community Needs Assessment from 2009, and previously in this section, not having health insurance is associated with underuse of primary care.

> Some of the community members said they miss the telephone information and referral systems, and wondered where they could call now with their medical questions.

Other Access to Care Related Issues

A couple of community members stated that when a hospital reserves interpreters they often cannot interpret properly. One noted this may be due to the interpreter meeting with the patient for the first time and not knowing about the patient. They speculated that the interpreter not knowing the patient at all can interpret only around 10 -15%.

Transportation was discussed in the focus groups, the key leader discussion group and the survey respondents. There was general consensus that there was a great need for more and better transportation options. It was a particularly big issue for the seniors.

Both survey respondents and community members noted the difficulty of getting into a nursing home due to lack of beds and waiting lists. One community member was specifically was concerned about nursing homes not taking people on ventilators.

The first responders voiced concern about contracted ambulance service in Manchester, saying surrounding towns are having to respond to emergency calls in Manchester.

Community Healthcare Services and Resources-

The Greater Manchester Community has many healthcare 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 healthcare to our patients. CMC is also the home of the New England Heart 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; West Side Neighborhood Health Center specializing in Refugee Health; Pregnancy Care Center; and Poisson Dental Facility, to name a few. Through our many outreach programs, CMC is fostering a healthier community, everyday.
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 bio-physical health care, social services and nutrition services. (2009 CNA) 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.
http://patients.dartmouth-hitchcock.org/our_locations/manchester/dh_manchester.html

Easter Seals

Easter Seals offers many services to the Greater Manchester community, including for 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.
http://nh.easterseals.com/site/PageServer?pagename=NHDR_homepage

Elliot Health System

The cornerstone of EHS is Elliot Hospital, 296 licensed-bed acute care facility located in Manchester. 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 New Hampshire's Hospital for Children.
http://elliothospital.org/_newsite/about_us.php

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, NH 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

211 Information Line

2-1-1 NH is an initiative led by United Ways of New Hampshire (UWNH), an organization that represents the 7 United Ways across the state, in partnership with Public Service of New Hampshire (PSNH), 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.

Residents in New Hampshire can contact 2-1-1 NH toll-free by dialing 2-1-1 in state or 1-866-444-4211 from out of state.
http://www.211nh.org/

Conclusion

Data Gaps

While doing research, it was found that much of the secondary data is gathered and reported on a county basis. The HSA includes one town in Merrimack County, three towns in Rockingham County and four towns in Hillsborough County. Merrimack County also includes Concord, the capital of New Hampshire; Rockingham County includes the coastal City of Portsmouth and Hillsborough County encompasses the City of Nashua. Each of these cities is unique unto themselves. If county data had been used, these cities would have skewed the data for each of their counties and the needs of the Manchester HSA would not be accurately reflected. When data, other than county data, was accessed it was often 4-8 years old. This did not always provide an up-to-date depiction of the HSA.

Other specific gaps included:

- Data is not always available at the all geographic levels and comparisons at all levels cannot always be completed.
- Data at a geographic level smaller than the state of county level can often be a challenge to obtain.
- Indicators that are available at the town/city geography or the health services geography do not often have a national indicator or healthy people target with the same definition so comparison can be difficult.
- Some key indicators were not available including (but not limited to);
    - Proportion of women who receive late or no prenatal care.
- Health status indicators for youth are limited and not as readily available as data is for the adult population.

As one of the data team members reported, "…much of the data was taken from the NH HealthWRQS website. This website allows us to pull data by county, senate district, or public health region……not city. The majority of the data on this website is updated only through 2008 at this time. The modules for Birth Indicator, Death Indicator, and Inpatient Hospital Indicator all show data only through 2008, so those are definitely gaps that are impacting our ability to assess ***more current*** needs."

The data team has learned that a new, comprehensive database is being developed by the State of New Hampshire. The Environmental Public Health Tracking (EPHT) is available now at www.nhwisdom.net. Additional data is expected to be available in the Fall of 2013. The understanding is this will address many of the current gaps.

Identified Needs

The CHNA workgroup reviewed the data collected, the surveys, key leader interviews, and focus group minutes and after much discussion has identified the following needs to be addressed in the community:

- Behavioral Health Issues: mental health services and access, substance abuse – specifically illicit drug use and tobacco use

- Obesity: diabetes, poor eating habits, lack of physical activity
- Aging Issues: stroke, Alzheimer's, pneumonia, transportation, medication coordination, caregiver support, inadequate out of home care
- Chronic disease: heart disease, cancer, COPD
- Ambulatory Care Sensitive Conditions – marker for lack of adequate preventive care: need care coordination
- Barriers to access of health care services related to poverty: lack of insurance, cost, transportation, lack of information on how to access care and what services are available if uninsured, language, lack of a medical home
- Teen Pregnancy
- STD's: specifically chlamydia
- Dental services/access: specifically for adults
- Asthma
- Violence & Crime: neglect and abuse, safe neighborhoods, suicide, youth crime

Appendix A

Secondary Data Sources

- Centers for Disease Control and Prevention
  - Behavioral Risk Factor Surveillance System (BRFSS)
  - Youth Risk Behavior Survey (YRBS)
  - Healthy People 2020
- National Institutes of Health
- New Hampshire Behavioral Risk Factor Surveillance System (BRFSS)
- New Hampshire Department of Health and Human Services
  - Division of Public Health
  - 2011 NH Regional Health Profiles
  - Services Bureau of Health Care Analytics & Data Systems Office of Medicaid Business & Policy
- The New Hampshire Health Web Reporting and Query System, or NH HealthWRQS. The HealthWRQS project is an initiative of the New Hampshire Department of Health and Human Services and the New Hampshire Institute of Health Policy and Practice at the University of New Hampshire.
- NH Governor's Commission on Alcohol and Other Drug Prevention, Intervention and Treatment; School Alcohol and Drug Policy and Procedure Recommendations 2012–2013
- New Hampshire Office of Refugee Resettlement
- New Hampshire Department of Education
- City of Manchester Health Department
- **Believe in a Healthy Community,** *Greater Manchester Community Needs Assessment 2009*
- US Census - 2010
- American Community Survey
- US Census American Fact Finder
- Neilsen/Claritas
- CHNA.org

Appendix B

Key Informants

Manchester Sustainable Access Project (MSAP)
Group Discussion Attendees

Jennifer Driscoll, Vice President, Planning & Business Development, Elliot Hospital

Raef Fahmy, DPM, Chief Medical Officer, Catholic Medical Center

Peter Janelle, President, Mental Health Center of Greater Manchester

Paul Mertzic, Executive Director of Operations, Physician Practice Association, Primary Care & Community Health Services, Catholic Medical Center

Steven Paris, MD, Medical Director, Dartmouth-Hitchcock Manchester

Tim Soucy, Public Health Director, Manchester Health Department

Anna Thomas, Deputy Public Health Director, Manchester Health Department

Other 'Key Informants'

Ted Gatsas, Mayor, City of Manchester, NH

Chris Pappas, Member of The Executive Council of the State of New Hampshire & Manchester small business owner

Appendix C

Greater Manchester Community Health Survey - 2013

Elliot Hospital and Catholic Medical Center with the assistance of the Manchester Health Dept. are conducting a Community Health Needs Assessment. We value your knowledge of and experience in Manchester therefore we would like to get your opinions about the health status, issues and needs of the greater Manchester area. To do so, we are asking that you complete this questionnaire.

General Status, Conditions and Issues:

Population Health

Are the issues listed below a concern in the greater Manchester area?	Area of Concern	Not a Concern	Don't know/ Not applicable
Alcohol abuse			
Illegal drug use/abuse – Adults			
Illegal drug use/abuse – Teens			
Illegal drug use/abuse – Children			
Prescription drug abuse – Adults			
Prescription drug abuse – Teens			
Prescription drug abuse – Children			
Tobacco use			
Immunization rates			
Sexually transmitted diseases			
Obesity			
Poor eating habits			
Lack of physical activity			
Dental care			
Family/domestic violence			
Child abuse			
Juvenile delinquency			
Mental Health issues			
Suicide			
Driving/riding in a car without a seatbelt/car seat			
Housing Affordability			
Homelessness			
Air quality			
Lead paint			
Work safety			
Teen pregnancy			
Youth activities			
Crime			

GMCHS -2013

Health Access

Please look at the list of services below and at the list of reasons why someone might have a problem accessing those services. Please put the corresponding letters of the top **3** reasons next to the Service, (ex. _a_ _c_ _i_ Annual health care visits)

Service

___ ___ ___ Annual health care visits
___ ___ ___ Preventative screenings/services
___ ___ ___ Hospital services
___ ___ ___ Dental care
___ ___ ___ Mental health/counseling
___ ___ ___ Urgent medical care
___ ___ ___ Pharmacy/drug stores
___ ___ ___ Drug and Alcohol treatment
___ ___ ___ Food assistance
___ ___ ___ Obtaining medical equipment
___ ___ ___ Housing assistance
___ ___ ___ Help with electricity, fuel bills
___ ___ ___ Long term care facilities
___ ___ ___ Pre-natal care
___ ___ ___ Childhood immunizations
___ ___ ___ Child care
___ ___ ___ Car seats for infants and children

Reasons for inability to access

a. Cost of services/lack of insurance
b. Lack of information
c. Lack of transportation
d. Inconvenient times
e. Lack of childcare
f. Inconvenient location
g. Too long a wait for services
h. Concerns about confidentiality
i. Language barriers
j. Prior bad experience
k. Unfriendly staff
l. Lack of handicap access
m. Racial/ethnic discrimination
n. Overall bad quality of care

Specific Status, Conditions and Issues:

Community wide issues - Check the top 5 most important

The next questions are about community wide issues in the Greater Manchester area as defined by the map you've been given. Remember this is your opinion and your choices will not be linked to you in any way. If you do not see a health problem you consider one of the most important please check the Other box and add it there.

_____ Availability of child care
_____ Affordability of health services
_____ Availability of healthy food choices
_____ Lack of or inadequate health insurance
_____ Lack of culturally appropriate health services
_____ Lack of health care providers
What kind?_____
_____ Neglect and abuse (specify type below)
_____ Elder abuse
_____ Spouse abuse
_____ Child abuse
_____ Violent crime (murder, assault, etc.)
_____ Rape/sexual assault
_____ Pollution (air, water, land)
_____ Animal control issues
_____ Dropping out of school
_____ Lack of recreational facilities (parks, playgrounds, community centers, etc.)
_____ Availability of healthy family activities
_____ Availability of positive teen activities
_____ Safe neighborhoods or streets
_____ Low income/poverty
_____ Inadequate/unaffordable housing
_____ Homelessness
_____ Racism
_____ Lack of transportation options
_____ Unemployment
_____ Other:_____

Health Problems - Check the top 5 most important

Please look at this list of health problems in the Greater Manchester area as defined by the map you've been given. Remember this is your opinion and your choices will not be linked to you in any way. If given options, please circle the major one. If you do not see a health problem you consider one of the most important please check the Other box and add it there.

_____ Aging problems (Alzheimer's, arthritis, hearing/vision loss, etc.)
_____ Asthma
_____ Birth Defects
_____ Cancer
What kind?_____
_____ Dental Health
_____ Diabetes
_____ Obesity/overweight
_____ Heart disease/heart attacks
_____ Autism
_____ Infant Death
_____ Infectious/Contagious Diseases (TB, Salmonella, Pneumonia, Flu, etc.)
_____ Lung disease (emphysema, etc.)
_____ Kidney disease
_____ Liver disease
_____ Mental health (anxiety, depression, Schizophrenia, suicide, etc)
_____ Motor vehicle deaths
_____ Neurological disorders (Multiple Sclerosis, Muscular Dystrophy, ALS, etc.)
_____ Other injuries (drowning, choking, falls) (home or work related)
_____ Sexually transmitted Diseases
_____ HIV/AIDS
_____ Stroke
_____ Teenage Pregnancy
_____ Other _____

Unhealthy Behaviors - Check the top 5 most important

These next questions are about unhealthy behaviors in the Greater Manchester area as defined by the map you've been given. Remember this is your opinion and your choices will not be linked to you in any way. If you do not see a health problem you consider one of the most important please check the Other box and add it there.

_____ Alcohol abuse
_____ Drug abuse
_____ Having unsafe sex
_____ Not getting immunizations
_____ Not using child safety seats
_____ Not using seat belts
_____ Not going to the dentist
_____ Not going to a Primary Care Physician – annual check-up
_____ Not getting regular screenings (cholesterol, colonoscopy, etc)
_____ Not getting pre-natal care
_____ Poor eating habits
_____ Lack of exercise
_____ Smoking/other tobacco use
_____ Suicide
_____ Violent behavior
_____ Other_____

GMCHS -2013

What specific populations in the greater Manchester area do you feel are not being adequately served by the healthcare facilities? (hospitals, health centers, etc)

a. _____
b. _____
c. _____

Are there any emerging health issues or trends that you are aware of?

a. _____
b. _____
c. _____

Are there any other health issues or concerns that you feel need to be addressed? (that have not already been listed previously)

a. _____
b. _____
c. _____

Are there any recommendations, suggestions or ideas you have to improve the health of the greater Manchester area?

a. _____
b. _____
c. _____

In your opinion, how would you rate the health of greater Manchester.

_____ Excellent
_____ Very Good
_____ Good
_____ Fair
_____ Poor

Do you feel the health of greater Manchester is better, about the same or worse than 5 years ago?

_____ Better
_____ About the same
_____ Worse
_____ Did not live/work in Manchester 5 years ago

Thank you!

4

Appendix D

Caron Lanouette specializes in helping hospitals come into compliance with the IRS Schedule H. She is acutely aware of the challenging and diverse hurdles hospitals face in implementing this initiative having assisted close to 20 hospitals in four states. Caron has worked with a variety of healthcare facilities; from small community hospitals to large health care systems. Her depth of knowledge and wide ranging experience is invaluable in helping hospitals plan, organize and set up their Community Benefit programs to comply with the new IRS 990, Schedule H requirements.

Her services include:

- Compiling the data for and completing the IRS 990, Schedule H
- Facilitating and Project Managing Community Health Needs Assessments that responds to each hospitals individual communities and resources
- Developing Implementation Strategies and Plans
- Creating hospital/community collaborations, partnerships and coalitions
- Evaluating policies related to Schedule H requirements including financial assistance, billing and collection policies
- When applicable working with hospitals individual states community benefit reporting requirements
- Organizing and facilitating committees involved in the Community Benefit project, including Board, Steering/Oversight, Finance and Community Advisory committees
- Tailoring and managing the Lyon Software CBISA on-line database to individual hospital needs
- Tutoring Reporters, Finance and Facility Coordinators on the Lyon Software CBISA on-line database
- Working with hospital departments to determine what activities and programs count as Community Benefit
- Developing in-house staff communications plans and materials
- Designing and editing annual Community Benefit Reports

Caron Lanouette holds a BA in Communications from Southern Connecticut State University and has been Principal of Community Benefit Consulting, LLC since 2008.

Appendix E

Other Resources available to identify Greater Manchester Community Needs

Community needs are reviewed, evaluated and reported on by various agencies and organizations within the State of New Hampshire. Listed below are links to some of the many reports that describe and evaluate the needs of the Greater Manchester Area.

1. In 2011 the New Hampshire division of Public Health Services released the New Hampshire State and Regional Health Profiles. Per their website the document intent was to describe the health of the people in New Hampshire and be used as a guide when setting the state and regional health priorities. Data and health indicators in these reports are available to the State of NH, Public Health Regions, Counties and the cities of Manchester and Nashua. These reports are available to the following URL: http://www.dhhs.nh.gov/dphs/

2. State of New Hampshire Public Health Improvement Plan Priority Areas

3. In 2009 a very detailed community needs assessment titled "Believe in a healthy community" was conducted by various organizations in the Greater Manchester Area, including Elliot Health System and Catholic Medical Center. This assessment provides valuable information about the needs of the Greater Manchester Community. This document in available on the Manchester Health Departments website at the following URL: http://www.manchesternh.gov/Departments/Health/DataandReports/tabid/700/Default.aspx

4. A 2008 report from the Manchester Sustainable Access Project (MSAP) titled "Manchester's Primary Care Safety Net 'Intact but Endangered' A CALL TO ACTION" discusses Access to Primary Care in the City of Manchester. It is available at the following URL: http://www.manchesternh.gov/Departments/Health/DataandReports/tabid/700/Default.aspx

5. The Community Health Needs Assessment (CHNA) Toolkit is available on-line to assist organizations seeking to better understand the needs and assets of their communities, and to collaborate to make measurable improvements in community health and well-being. http://assessment.communitycommons.org/CHNA/

6. YRBS 2011 Survey results comparing NH and US http://apps.nccd.cdc.gov/youthonline/App/Results.aspx?TT=G&OUT=0&SID=HS&QID=QQ&LID=NH&YID=2011&LID2=XX&YID2=2011&COL=&ROW1=&ROW2=&HT=QQ&LCT=&FS=1&FR=1&FG=1&FSL=&FRL=&FGL=&PV=&C1=NH2011&C2=XX2011&QP=G&DP=1&VA=CI&CS=N&SYID=&EYID=&SC=DEFAULT&SO=ASC&pf=1&TST=True

15

Greater Manchester Public Health Region Profile

KEY INDICATORS AT-A-GLANCE

Key Indicators	Region	NH	Comparison to State
Health Behaviors			
Current smoking, percent of adults (2008–2009)[1]	16.5	16.5	
Fruits and vegetables five or more times per day, percent of adults (2007, 2009)	28.3	28.0	
Obese, percent of adults (2008–2009)[1]*	26.8	25.8	
Overweight, percent of adults (2008–2009)[1]	35.6	37.2	
Moderate or vigorous physical activity, percent of adults (2007, 2009) [1]	49.7	53.5	
Heavy drinking, percent of adults (2008–2009)[1]	6.2	6.0	
Binge drinking, percent of adults (2008–2009)[1]	17.3	16.1	
Teen birth rate per 1,000 females age 15–19 (2008)	24.6	18.4	
Always use seatbelt, percent of adults (2006, 2008)[1]	64.0	65.6	
No health insurance, percent of adults (2008–2009)[1]	11.5	10.8	
Unable to see doctor when needed due to cost, percent of adults (2008–2009)[1]	11.1	10.9	
Have primary care provider, percent of adults (2008–2009)[1]	88.3	88.9	
Flu shot in past year, percent of adults age 65 and older (2008–2009)[1]	76.8	74.9	
Acute ambulatory care sensitive condition hospital discharges, age-adjusted per 100,000 population (2003–2007)*	779.8	697.3	
Chronic ambulatory care sensitive condition hospital discharges, age-adjusted per 100,000 population (2003–2007)	668.7	605.4	
Community and Environment			
Children under 6 years of age with elevated blood lead level, percent among children tested (2009)	1.28	0.78	
Health Outcomes			
Premature death, years of potential life lost before age 75 per 1,000 population (2003–2007)	59.3	56.7	
Low birthweight per 1,000 births (2007)	6.5	6.2	
Substance abuse-related emergency hospital discharges, age-adjusted per 10,000 population (2003–2007)*	80.5	68.3	
Activities limited due to health in at least 14 of previous 30 days, percent of adults (2008–2009)[1]	5.8	5.4	
New cancer diagnoses, age-adjusted per 100,000 population (2003–2007)[2]	491.4	499.8	

2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services

Greater Manchester Public Health Region Profile

KEY INDICATORS AT-A-GLANCE

Key Indicators	Region	NH	Comparison to State
Cancer deaths, age-adjusted per 100,000 population (2003–2007)[2]	181.5	185.0	
Mammogram in past two years, percent of women age 40 and older (2006, 2008)[1]	84.0	81.0	
Colonoscopy or sigmoidoscopy in past five years, percent of adults age 50 and older (2006, 2008)[1]	63.3	58.2	
Access to Care			
Pap test in past three years, percent of women age 18 and older (2006, 2008)[1]*	88.9	87.1	
Ever told had diabetes, percent of adults (2008–2009)[1]	6.9	7.2	
Ever told blood pressure was high, percent of adults (2007, 2009)*	29.2	27.6	
Cholesterol tested past five years, percent of adults (2007, 2009)[1]	85.5	81.9	
Current asthma, percent (2007, 2009)[1]	12.0	10.2	
Unintentional injury-related emergency hospital discharges, age-adjusted per 1,000 population (2003-2007)	99.9	110.2	

Greater Manchester Public Health Region: Auburn, Bedford, Candia, Deerfield, Goffstown, Hooksett, Manchester, New Boston

Focus on Health Priorities

For each region, a "thumbs up" is used when the region, city, or county value is statistically different from and compares favorably to the state value. A "thumbs down", notes areas of concern, when the indicator compares unfavorably with the state value. These are health indicators that the region may want to focus on. But these are not the only health issues of concern.

There are several indicators for which the state trend is going in the wrong direction and which warrant attention as well. An asterisk has been placed next to these indicators in this report. Regions should examine how their region fares compared to the state on these indicators. Additionally, there are a number of priorities identified in the 2011 New Hampshire State Health Profile requiring further attention. Regions should consider these priorities, listed below, as they develop health improvement plans

Health Factors	Health Outcomes
1. Obesity among adults and children and related behaviors (diet and physical activity)	1. Late diagnosis of breast and colorectal cancer
2. Smoking among adults and high school students	2. Asthma
3. Alcohol and illicit drug use	3. Unintentional injuries
4. Seat belt and bike helmet use	4. Youth suicide

Data References:

1. Behavioral Risk Factor Surveillance System, www.cdc.gov/brfss or from NH Department of Health and Human Services, Bureau of Public Health Surveillance and Informatics, www.dhhs.nh.gov/dphs/hsdm
2. CDC, National Program of Cancer Registries, http://apps.nccd.cdc.gov/uscs/

For indicators with no reference number, the data are from the Division of Public Health Services, Health Statistics and Data Management Section.

2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services

City of Manchester Health Profile
KEY INDICATORS AT-A-GLANCE

Key Indicators	Region	NH	Comparison to State
Health Behaviors			
Current smoking, percent of adults (2008–2009)[1]	20.6	16.5	
Fruits and vegetables five or more times per day, percent of adults (2007, 2009)	27.7	28.0	
Obese, percent of adults (2008–2009)[1]*	27.4	25.8	
Overweight, percent of adults (2008–2009)[1]	37.4	37.2	
Moderate or vigorous physical activity, percent of adults (2007, 2009) [1]	48.2	53.5	
Heavy drinking, percent of adults (2008–2009)[1]	5.5	6.0	
Binge drinking, percent of adults (2008–2009)[1]	15.5	16.1	
Teen birth rate per 1,000 females age 15–19 (2008)	39.4	18.4	
Always use seatbelt, percent of adults (2006, 2008)[1]	60.4	65.6	
No health insurance, percent of adults (2008–2009)[1]	15.2	10.8	
Unable to see doctor when needed due to cost, percent of adults (2008–2009)[1]	15.1	10.9	
Have primary care provider, percent of adults (2008–2009)[1]	85.4	88.9	
Flu shot in past year, percent of adults age 65 and older (2008–2009)[1]	75.2	74.9	
Acute ambulatory care sensitive condition hospital discharges, age-adjusted per 100,000 population (2003–2007)*	906.5	697.3	
Chronic ambulatory care sensitive condition hospital discharges, age-adjusted per 100,000 population (2003–2007)	797.5	605.4	
Community and Environment			
Children under 6 years of age with elevated blood lead level, percent among children tested (2009)	1.52	0.78	
Health Outcomes			
Premature death, years of potential life lost before age 75 per 1,000 population (2003–2007)	68.6	56.7	
Low birthweight per 1,000 births (2007)	6.8	6.2	
Substance abuse-related emergency hospital discharges, age-adjusted per 10,000 population (2003–2007)*	110.8	68.3	
Activities limited due to health in at least 14 of previous 30 days, percent of adults (2008–2009)[1]	7.1	5.4	
New cancer diagnoses, age-adjusted per 100,000 population (2003–2007)[2]	496.7	499.8	

2011 NH Regional Health Profiles, NH DHHS, Division of Public Health Services

City of Manchester Health Profile

KEY INDICATORS AT-A-GLANCE

Key Indicators	Region	NH	Comparison to State
Cancer deaths, age-adjusted per 100,000 population (2003–2007)[2]	189.7	185.0	
Mammogram in past two years, percent of women age 40 and older (2006, 2008)[1]	81.2	81.0	
Colonoscopy or sigmoidoscopy in past five years, percent of adults age 50 and older (2006, 2008)[1]	63.3	58.2	
Access to Care			
Pap test in past three years, percent of women age 18 and older (2006, 2008)[1]*	88.4	87.1	
Ever told had diabetes, percent of adults (2008–2009)[1]	6.6	7.2	
Ever told blood pressure was high, percent of adults (2007, 2009)*	29.2	27.6	
Cholesterol tested past five years, percent of adults (2007, 2009)[1]	82.5	81.9	
Current asthma, percent (2007, 2009)[1]	11.4	10.2	
Unintentional injury-related emergency hospital discharges, age-adjusted per 1,000 population (2003-2007)	118.0	110.2	

Focus on Health Priorities

For each region, a "thumbs up" is used when the region, city, or county value is statistically different from and compares favorably to the state value. A "thumbs down", notes areas of concern, when the indicator compares unfavorably with the state value. These are health indicators that the region may want to focus on. But these are not the only health issues of concern.

There are several indicators for which the state trend is going in the wrong direction and which warrant attention as well. An asterisk has been placed next to these indicators in this report. Regions should examine how their region fares compared to the state on these indicators. Additionally, there are a number of priorities identified in the 2011 New Hampshire State Health Profile requiring further attention. Regions should consider these priorities, listed below, as they develop health improvement plans

Health Factors	Health Outcomes
1. Obesity among adults and children and related behaviors (diet and physical activity)	1. Late diagnosis of breast and colorectal cancer
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3. Alcohol and illicit drug use	3. Unintentional injuries
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Data References:

1. Behavioral Risk Factor Surveillance System, www.cdc.gov/brfss or from NH Department of Health and Human Services, Bureau of Public Health Surveillance and Informatics, www.dhhs.nh.gov/dphs/hsdm
2. CDC, National Program of Cancer Registries, http://apps.nccd.cdc.gov/uscs/

For indicators with no reference number, the data are from the Division of Public Health Services, Health Statistics and Data Management Section.

Appendix F

Community Members and Survey Respondents Suggestions and Ideas

- More mental health providers
- Coping Skills for mentally ill
- Additional substance abuse services
- Coordination across agencies to promote better services and programs
- Collaborate as a community w/other like organizations and support each other - so all groups can share w/people
- More shelters
- More homeless housing
- Open a free/low cost dental care facility
- Low cost dental clinics
- Better dental care for Medicare/Medicaid people w/out insurance
- Health Providers giving inadequate time/Attention to patients
- Increase healthcare options for low income/uninsured people
- Expand medication bridge programs to help more people get access to patient assistance programs
- improved access for affordable health insurance to low income/non disabled
- People should have enough food and access to more food pantries
- More assistance for the elderly
- Volunteers to visit nursing home residents
- More gyms geared toward 65+ population
- Improve housing conditions & options -hold landlords accountable for deplorable conditions, decrease wait list time
- Clean out the lead painted old multi-family units, especially the ones with poor heating systems
- Clean up the run-down areas (trash, dog fouling, graffiti, etc)
- Educate new immigrants coming into Manchester and help them learn household habits that are more clean
- Low cost weight management programs outside of bariatric surgery
- Make Manchester a smoke free city
- Affordable public transportation
- Transportation for appointments
- Increase funding for schools
- Work for change in American beliefs & attitudes re: how health is valued & what it means to be healthy, what it takes
- Need something like the [Stop & Shop] Pea Pod, grocery stores do the shopping for you and delivering