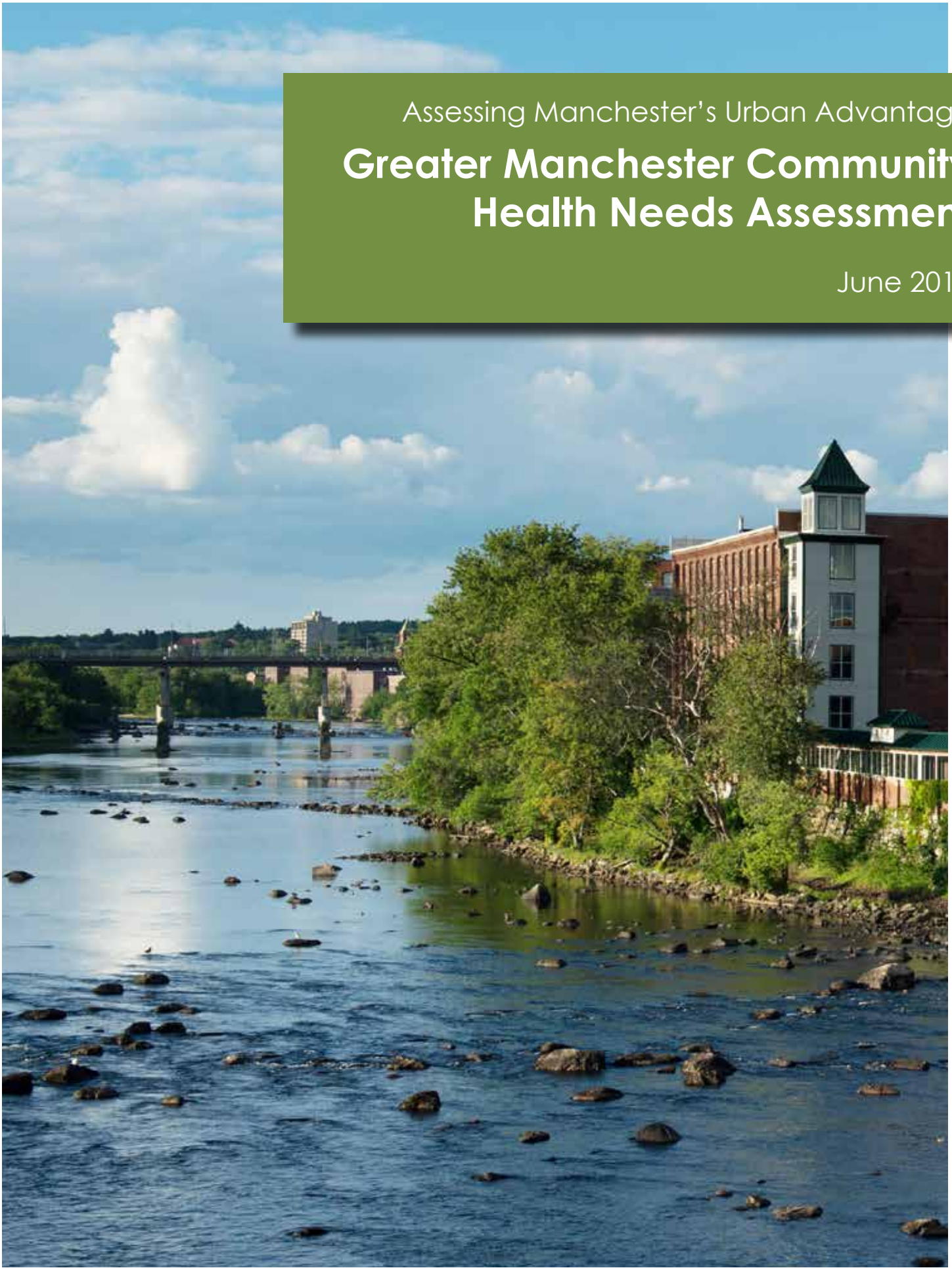
Assessing Manchester's Urban Advantage

Greater Manchester Community Health Needs Assessment

June 2019



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I. INTRODUCTION

This report provides a snapshot of the health, wellbeing, and major issues facing the population in the Manchester region at various levels of geography depending on the data source – Manchester neighborhoods, City of Manchester, and Greater Manchester. Greater Manchester includes both the Greater Manchester Public Health Region (Auburn, Bedford, Candia, Deerfield, Goffstown, Manchester, and New Boston), as well as the Hospital Service Area (Public Health Region Towns plus Londonderry). Sources are noted accordingly throughout the report; including when the data is for the Hospital Service Area (HSA) specifically.

The development of this report was a joint community effort spearheaded and guided by the City of Manchester Health Department in partnership with Catholic Medical Center and Elliot Health System. Among other things, this report is intended to satisfy the requirements for all Manchester area health care charitable trusts in connection with the periodic development of a community health needs assessment as required by the Affordable Care Act, as well as State law. Funding for this project was provided by all three partner organizations, including grant funding from The Kresge Foundation. Technical assistance and support to this effort, including the development and summary of all qualitative data and report design, were provided through a contract with the Community Health Institute of Bow, New Hampshire. Additionally, technical assistance was provided in the drafting of report narrative through a contract with Pear Associates of Wellesley, Massachusetts, and maps on social, economic, and opportunity factors were created through a contract with I Squared Community Development Consulting of Dorset, Vermont.

REPORT AIM

This report is part of a collaborative community health improvement process and has been developed to meet two primary aims: (1) provide a common data resource for the City's non-profit, health care organizations for the development of a Community Benefits Report; and (2) provide an updated comprehensive needs assessment to guide community level action, as well as the creation of implementation plans by the health care entities in compliance with applicable rules. More specifically, this report will be utilized to support the creation of an updated version of the Manchester Neighborhood Health Improvement Strategy that was published in 2014.

REGIONAL GEOGRAPHY

As mentioned above, when possible, data sources were highlighted at many geographic levels to allow for enhanced comparison and targeted action. The Greater Manchester area includes the following communities in **Table 1.**

Table 1: Greater Manchester Region by Population Totals, 2013-2017

City/Town	*Population Estimate*
Auburn	5,293
Bedford	22,019
Candia	3,932
Deerfield	4,422
Goffstown	17,899
Manchester	110,601
New Boston	5,503
Londonderry (included in Hospital Service Area data only)	25,114

PRIMARY DATA SOURCES & LIMITATIONS

This report utilizes various data elements as tracked and monitored by the Health Department on an on-going basis, as well as other national data points. In addition, focus groups were held throughout the spring of 2019 to solicit information from residents. Key leader interviews were conducted with various community leaders, including those involved in public-sector work, as well as key leaders who spearhead non-profit health care work in the community, including from CMC and Elliot. Depending on the level of geography and type of data required, the following provides a listing of the most common data sources utilized within this report. For a more in-depth view of each of these data sources, including limitations, please visit the links provided below. *Please see the "Voices of Community & Resident Leaders" section of this report to view methodology for qualitative data collection, as well as the Appendix section of this report for the interview scripts utilized during these sessions.

Quantitative Data Sources

- U.S. Census/American Community Survey (https://www.census.gov/programs-surveys/acs/methodology.html)
- Behavioral Risk Factor Surveillance System (BRFSS - https://www.cdc.gov/brfss/index.html)
- Youth Risk Behavior Surveillance System (YRBSS - https://www.cdc.gov/healthyyouth/data/yrbs/index.htm)
- City Health Dashboard Estimates by RWJF and NYU Lagone Health (https://www.cityhealthdashboard.com/about)
- CDC 500 Cities Data (https://www.cdc.gov/500cities/index.htm)
- NH State sources, such as hospital discharge, birth, and mortality data (https://wisdom.dhhs.nh.gov/wisdom/#main)
- Manchester local sources, such as Manchester School District data

Qualitative Data Sources*

- Key Leader Interviews
- Focus Groups

HOW TO READ THIS REPORT

The primary sections of this report are organized into several chapters that summarize quantitative and qualitative data by the Strategic Framework (as proposed in Chapter 2 of this report). This report does not explicitly prescribe action that should be taken in response to the data. It presents the data that can be used to help make decisions and shape plans for community health improvement strategies.

Chapter I: Introduction

Provides the reader of the report with the overall aim, regional geography covered with population estimates, common data sources, and a short description of each chapter.

Chapter 2: Strategic Framework for Health Improvement

Provides a description of the research sources and literature that was utilized to guide the structure of the needs assessment. The report is organized into 5 goal areas – Social and Economic Factors; Health Behaviors; Clinical Care; Physical Environment; and Health Outcomes.

Chapter 3: Social & Economic Factors

Social and economic factors includes data that highlights income, education, employment, community safety, and social supports within Greater Manchester.

Chapter 4: Health Behaviors

Health behaviors includes data that highlights drug and alcohol use, diet and exercise, tobacco use, and sexual activity within Greater Manchester.

Chapter 5: Clinical Care

Clinical care includes data that highlights both the access to, and quality of, health care services in the Greater Manchester region.

Chapter 6: Physical Environment

Physical environment includes data that highlights housing, transportation, and health-promoting assets within Greater Manchester.

Chapter 7: Health Outcomes

Health outcomes includes data that highlights the length and quality of life, persistent poverty and opportunity, and health issues for the aging population within Greater Manchester.

Chapter 8: Voices of Community and Neighborhood Leaders

Provides an overview of the methodology utilized to capture qualitative data via key leader interviews and focus groups, as well as a summary of findings.

Chapter 9: Next Steps

Identifies next steps for action planning as it pertains to the priority data findings with this report.

II. Strategic Framework for Health Improvement

The Institute of Medicine defines health as "a state of well-being and the capability to function in the face of changing circumstances." Based on this definition, health is more than the presence or absence of disease. It is rooted in interactions among individual characteristics and the surrounding environment, such as a person's place of residence or their social support network. As a community, the City of Manchester and its partners have worked diligently to embrace this broad definition of health as a pillar of population health.

Subsequently, the framework for this report is a compilation of the latest research findings to ensure that efforts to address community needs are targeted at the root causes of poor health for maximum impact and long-term prevention. Specifically, the City of Manchester and its partners used County Health Rankings and Roadmaps, Healthy People 2020, Adverse Childhood Experiences, and the Opportunity Atlas to guide the approach to identifying health needs and determining priority areas of interest.

County Health Rankings and Roadmaps: To assess community health status, Manchester has utilized the County Health Rankings model, which is collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The Rankings provide a framework of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work, and play.

Manchester has aligned its health improvement strategy with the health factors identified in the Rankings model. Such health factors influence how well and how long we live and represent those things we can modify to improve the length and quality of life for Manchester residents.

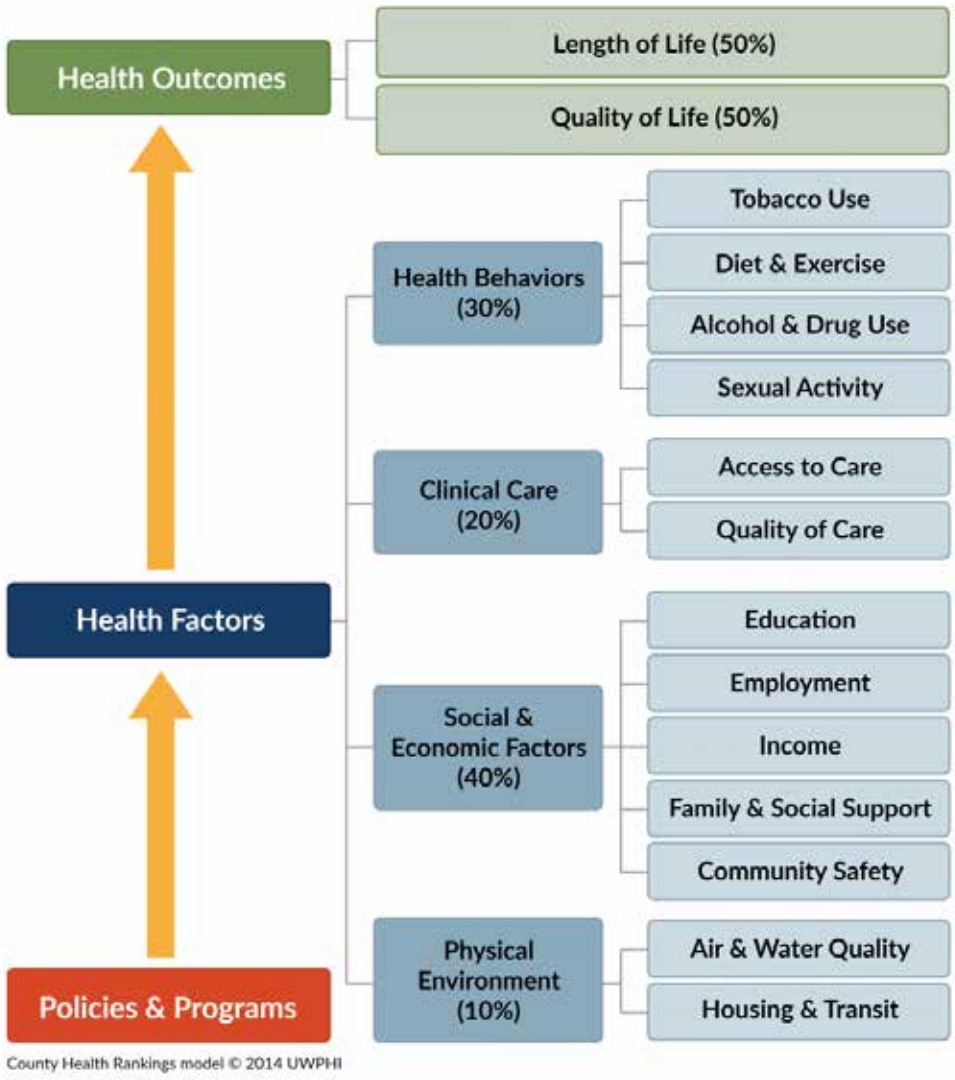
The following factors are predictors of how healthy Manchester can be in the future.

- **Health Behaviors:** Actions individuals take that affect their health, such as eating well and being physically active; health behaviors also include actions that increase one's risk of diseases, such as smoking or substance use. It is estimated that 30% of an individual's health status is determined by their health behaviors.

- **Clinical Care:** The extent to which residents have access to affordable, quality, and timely health care, can help prevent diseases and detect issues sooner, enabling individuals to live longer, healthier lives. It is estimated that 20% of an individual's health status is determined by access to, and quality of, clinical care.

- **Social and Economic Factors:** Income, education, employment, community safety, and social supports can significantly affect how well and how long we live. These factors affect our ability to make healthy choices, afford medical care and housing, manage stress, and more. It is estimated that 40% of an individual's health status is determined by social and economic factors.

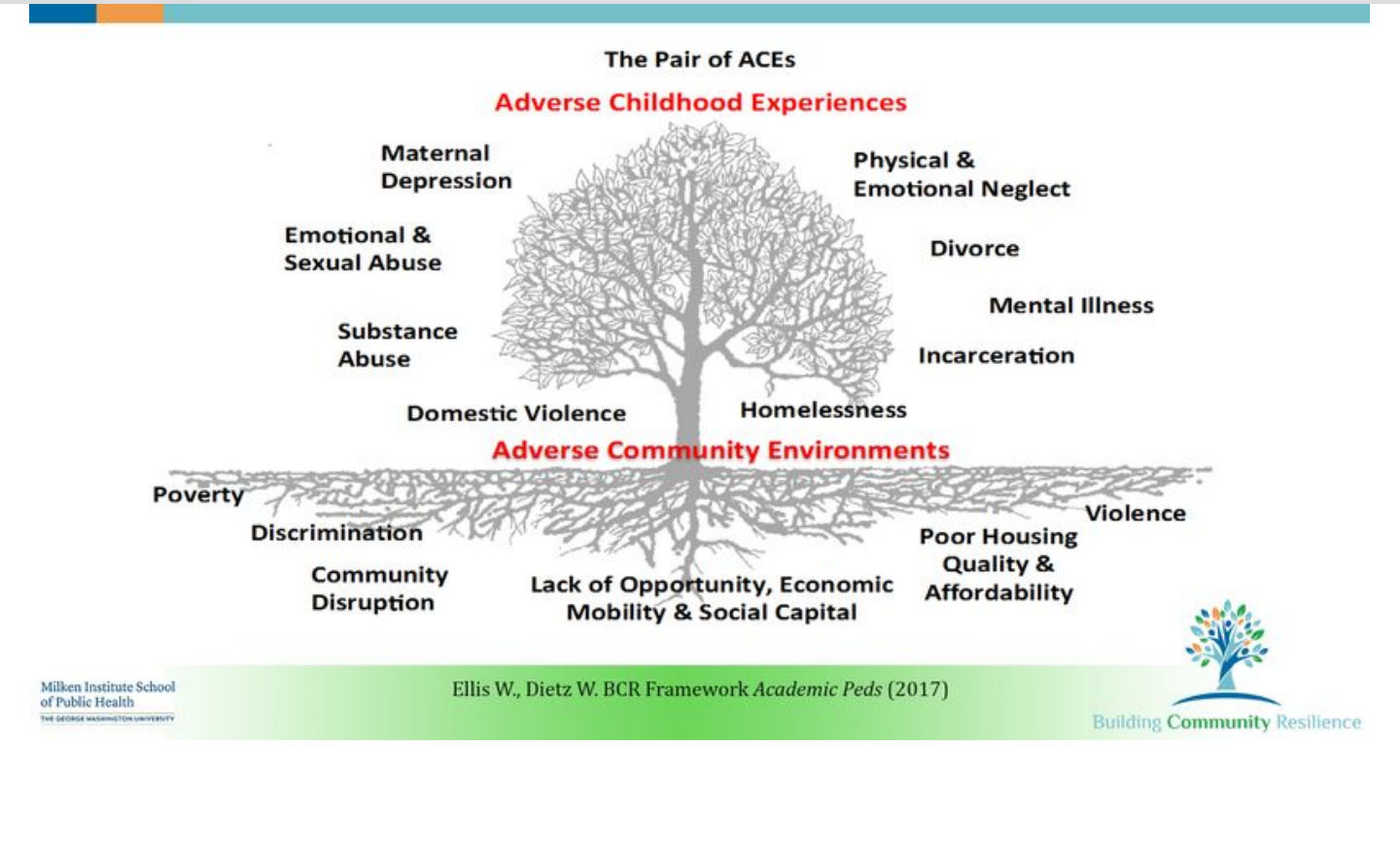
- **Physical environment:** Characteristics of the environments in which individuals live, learn, work, and play can have an impact on their overall health. A poor physical environment can affect our ability, and that of our families and neighbors, to live long and healthy lives. It is estimated that 10% of an individual's health status is determined by their physical environment, such as substandard housing and poor neighborhood walkability.



While exploring these factors that influence health, Manchester has also looked at health outcomes, which represent how healthy we are right now. Such outcomes reflect the physical and mental well-being of residents by measuring the length of life and quality of life.

Healthy People 2020: Aligning with the County Health Rankings Model, Manchester explored health improvement opportunities through the social determinants of health (SDOH) lens. This includes exploring the conditions in the environments in which people live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Healthy People 2020 highlights the importance of addressing the SDOH by encouraging communities to create social and physical environments that promote good health for all.

Adverse Childhood Experiences: Adverse childhood experiences (ACEs) are traumatic events occurring before age 18 that increase the risk for poor health and behavioral outcomes later in life. As the number of ACEs increases, so does the risk for adverse outcomes.[1] ACEs include all five types of abuse and neglect, as well as household challenges such as mental illness, substance misuse, divorce, incarceration, and domestic violence. These ACEs can also play out within a neighborhood and can manifest further with adverse community environments, such as neighborhood poverty and poor housing quality and affordability. Research about the lifelong impact of ACEs underscores the urgency of prevention activities to protect children from these and other early traumas. When children experience trauma, understanding the impact of ACEs can better support the use of trauma-informed interventions that help to mitigate adverse outcomes.



Opportunity Atlas: It is critical for Manchester to be informed not only by what is currently happening, but what could happen in the near future based on data projections and estimates over time. Emerging research and available data are beginning to provide a longitudinal look at the health and opportunity of children growing up in Manchester. For example, the Census Bureau has partnered with several academic institutions to develop the Opportunity Atlas, which allows communities to estimate the social and economic viability of children being raised in specific neighborhoods. The concept of building neighborhoods of opportunity is paramount in Manchester's ability to truly embrace an SDOH lens to guide local public health activities within the City.

Based on this research, this report has adopted a framework to critically assess the health status of Manchester children and families under five goal areas that are necessary to produce health at a population level:

1. All residents are economically self-sufficient and are socially connected to their community;
2. All residents are engaged in healthy behaviors;
3. All residents have access to quality health care and preventive health services;
4. Neighborhoods are designed to support healthy living for all residents; and
5. Systems are designed to foster neighborhoods of opportunity for generations to come.

Manchester Health Improvement Goal #1:

All Residents are Economically Self-Sufficient and are Socially Connected to their Community.

III. SOCIAL AND ECONOMIC FACTORS

Of all the factors impacting the health of Manchester residents, it is the social and economic factors that are shown to have the most significant impact on health outcomes. In fact, according to research conducted by the County Health Rankings and Roadmaps Project[2], 40% of an individual's health status is determined by their social and economic health. To examine the extent to which Manchester residents are economically self-sufficient and socially connected, this assessment looks at the community's education, employment, and income indicators, as well as the presence of supportive social networks and community safety.

FACTOR 1: EDUCATION

County Health Rankings and Roadmaps asserts educational status is a significant predictor of health outcomes. Evidence suggests that better-educated individuals live longer and healthier lives than those with less education; furthermore, their children are more likely to thrive.[3] Numerous factors account for these advantages to educational attainment, including improved access to health information and increased socioeconomic status that results from higher paying employment. The social and psychological impact of education also bolsters personal control and social standing. Educational attainment can have multi-generational implications given that better-educated and healthy parents are able to provide their children with access to quality schooling and expanded supports.

New Hampshire's largest and oldest public school system is located within the Health Service Area (HSA); specifically in the City of Manchester. The Manchester School District (MSD) is comprised of a developmental preschool program, 14 elementary schools, four middle schools, four high schools (including a Career and Technical Education Center known as Manchester School of Technology). Across the district, MSD serves nearly 14,000 students and their families. Other surrounding towns in the HSA, including Auburn, Bedford, Candia, Deerfield, Goffstown, Hooksett, New Boston, and Londonderry, have their own individual school district structures for a total of six School Administrative Units (SAUs) within the region.

The Greater Manchester area is also home to several institutions of higher education that provide undergraduate and graduate studies through certificate and degree programs. These include Manchester Community College, the University of New Hampshire at Manchester, Southern New Hampshire University, Saint Anselm College, New Hampshire Institute of Art, Salter School of Nursing and Allied Health, Massachusetts College of Pharmacy and Health Sciences, and Franklin Pierce University at Manchester, and Granite State College at Manchester.

Early Childhood Education (Preschool and Kindergarten)

Children experience significant benefits from participating in early childhood education initiatives by helping to minimize the gaps that often exist in school readiness, especially among children from low income communities. Through preschool programs, children learn to develop social, emotional, cognitive, and gross/motor skills in an environment that encourages learning. Kindergarten serves as the bridge from preschool, providing a critical adjustment to elementary school.

Where does Manchester stand?

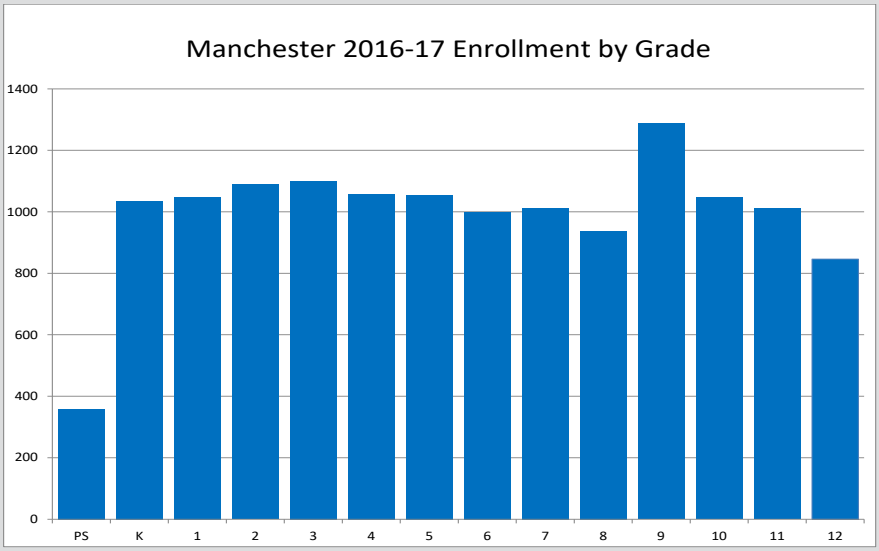
According to 2017-18 data from the Manchester School District (MSD), Manchester's Kindergarten enrollment rates are slightly less than Grade 1 and 2, indicating that some families may not be taking advantage of the optional Kindergarten program (**Table 2**). However, looking across all grade levels (**Image 1**), Kindergarten enrollment figures are consistent.

Preschool enrollment rates are significantly less than Kindergarten rates (**Table 2**), indicating that only a fraction of families are taking advantage of early learning opportunities offered through the MSD.

Table 2: Preschool & Kindergarten Enrollment, 2017-18[4]

	October 1st Enrollment	
Grade(s)	**District**	**State**
PreSchool	359	3,894
Kindergarten	1036	11,422
Readiness	0	65
Grade 1	1,049	12,378
Grade 2	1,089	12,885

Image 1: Manchester 2016-17 Enrollment By Grade [5]



How does the Greater Manchester Region compare?

Based on the 2013-2017 American Community Survey, Manchester's total preschool enrollment in public and private schools among children age 3 and 4 years old was 47.7%.[6] Looking across the region at preschool enrollment rates (**Table 3**), Manchester's rate falls below the average rate in the region of 60.4%. Less than half of Manchester's early learners are taking advantage of this critical opportunity for social development and skill building at the preschool level. Hooksett has the highest rate of preschool enrollment in the region at nearly 82%

Table 3: Preschool Enrollment for the Region

Geography	***Preschool Enrollment***
Manchester	47.7%
Auburn	63.6%
Bedford	47.6%
Candia	73.1%
Deerfield	62.4%
Goffstown	71.2%
Hooksett	81.6%
New Boston	41.5%
Londonderry	54.9%
Total Region	60.4%

Manchester's preschool enrollment is slightly lower than the State rate of 51.7%; however, it is slightly higher than the City of Nashua's rate, which is 45.8%[7] (**Table 4**).

Table 4: Preschool Enrollment Comparison

Geography	*Preschool Enrollment*
Manchester	47.6%
Nashua, NH	45.8%
New Hampshire	51.7%

Among families enrolling their children in preschool, the majority are choosing private schools indicated by the low preschool enrollment in the public school system, which was only 3,894 students in FY2017.[8] The five largest school districts in NH only account for 26.32% of the total enrollment of preschool students. Among these districts, Manchester enrolls the largest number of preschool students (**Table 5**).

Table 5: Preschool Enrollment as a Percentage of NH Total

Geography	*Total Preschool Enrollment*	*NH Total Preschool Enrollment*	*% of Total Preschool Enrollment*
Manchester	359	3894	9.22%
Concord	92		2.36%
Nashua	307		7.88%
Derry	86		2.21%
Bedford	66		1.69%
Londonderry	115		2.95%

Academic Proficiency

Reading proficiency by the end of third grade is a critical marker in a child's educational development because it marks when children switch from learning to read, to reading to learn.[9] Children who reach fourth grade without being able to read proficiently are more likely to struggle academically, repeat a grade, or eventually drop out of school. Not surprisingly, adults with poor reading skills are less likely to be literate about health and may find it challenging to understand their conditions and make informed decisions about their health. Math is also a strong predictor of positive outcomes for young adults, given that students need basic math in order to do high school and university courses.[10] Undoubtedly, early reading and math proficiency can have a long term impact on health outcomes.

Where does Manchester stand?

Children in Manchester are underperforming on their content-area assessments. Based on MSD 2016-17 data, only 28% of third grade students scored proficient or above on reading compared to the State rate of 54%; and only 23% of seventh grade students scored proficient or above on math compared to the State rate of 50% (**Table 7**). When compared to the 500 largest cities across the country, Manchester falls within the bottom quartile of the lowest performing school districts nationally for third grade reading proficiency.

Table 6: Manchester School District, 2015-16 & 2016-2017

Grade	Content Area	2015-2016		2016-2017	
		N	%	N	%
3	Reading	988	29	977	28
	Mathematics	998	33	990	30
4	Reading	945	33	933	31
	Mathematics	955	31	946	28
5	Reading	938	37	938	36
	Mathematics	946	23	946	22
6	Reading	852	30	819	27
	Mathematics	852	24	821	20
7	Reading	665	28	742	37
	Mathematics	667	22	748	23
8	Reading	695	32	623	28
	Mathematics	708	20	630	19
11	Reading	805	53	752	49
	Mathematics	809	28	760	29

Table 7: State of NH, All Public Schools, 2015-16 & 2016-2017

Grade	Content Area	2015-2016		2016-2017	
		N	%	N	%
3	Reading	13,139	56	13,051	54
	Mathematics	13,265	57	13,097	55
4	Reading	13,360	57	13,298	56
	Mathematics	13,353	51	13,385	51
5	Reading	13,378	63	13,425	61
	Mathematics	13,397	48	13,457	47
6	Reading	13,653	59	13,249	57
	Mathematics	13,671	47	13,300	46
7	Reading	13,435	62	13,444	61
	Mathematics	13,478	52	13,501	50
8	Reading	13,517	62	13,334	58
	Mathematics	13,537	47	13,357	45
11	Reading	12,878	66	12,677	66
	Mathematics	12,891	40	12,702	44

There are particular schools within Manchester that are challenged by disparate rates of adverse academic indicators. A sample of selected schools is below (**Tables 8 & 9**).

Table 8: 3rd Grade Reading Proficiency - Selected Schools

SY2016-17	***Beech Street***	***Gossler Park***	***Henry Wilson***	***Bakersville***	***City of Manchester***	***New Hampshire***
3rd Grade Reading Proficiency	10%	27%	14%	13%	31%	56%

Table 9: 7th Grade Math Proficiency – Selected Schools

SY2016-17	***Southside Middle***	***McLaughlin Middle***	***Hillside Middle***	***Parkside Middle***	***City of Manchester***	***New Hampshire***
7th Grade Math Proficiency	17%	20%	33%	23%	23%	50%

How does the Greater Manchester Region compare?

In comparing academic proficiency across the region based on the NH Department of Education data from SY2017 (**Table 10**), Manchester's rates are significantly below all communities in both 3rd Grade Reading and 7th Grade Math. Manchester's rates are also lower than Nashua and lower than the New Hampshire rate. Based on modeled estimates, Manchester's third grade reading proficiency of 31% was lower than Nashua, NH's rate of 46.9%, as well as the national average among the 500 large cities in the United States, which was 46.2%.

Table 10: Academic Proficiency in the Region, SY2016-2017

Geography	***3rd Grade Reading Proficiency***	***7th Grade Math Proficiency***
Manchester	28%	23%
Auburn	73%	64%
Bedford	72%	79%
Candia	76%	47%
Deerfield	35%	50%
Goffstown	66%	66%
Hooksett	61%	56%
New Boston	59%	N/A
Londonderry	69%	56%
Nashua, NH	46.9%	39%
State of NH	54%	50%

Absenteeism

Students who are "chronically absent," defined as missing at least 15 days of school or 10% of the school year for any reason,[11] are at serious risk of falling behind in school. According to the US Department of Education's report, ***Chronic Absenteeism in the Nation's Schools- A Hidden Educational Crisis***, being consistently absent from school not only impacts academic achievement, it also negatively affects a student's ability to connect with peers, caring adults and necessary resources. Students become chronically absent due to a range of challenges, including but not limited to, poor health, limited transportation, and/or a lack of perceived safety.

Where does Manchester stand?

More than one out of every four students is chronically absent from school in Manchester (SY2018).[13] While absenteeism rates are consistent among female and male students (26.7 vs. 28.2, respectively), there are disparities among Manchester's racially diverse student body as shown in the **Table 11** below.

Table 11: Chronic Absenteeism by Race/Ethnicity, 2017-18

Race/Ethnicity	*% of Total District Enrollment*	*Absenteeism Rate*
Asian	5.3%	12.3%
Black	8.3%	25%
Hispanic	20.1%	37.9%
White	61%	25.7%
Other	5.3%	26.3%

How does the Greater Manchester Region compare?

Based on modeled estimates, Manchester's rate of chronic absenteeism (27.4%) was slightly higher than the Nashua, NH rate of 24.9%, and significantly higher than the average rate of 18.1% among 500 largest cities across the country.[14]

Special Educational Needs

The Individuals with Disabilities Act (IDEA) is a federal law that entitles all children with learning disabilities to a free, appropriate education.[15] Children who qualify for special education must be provided with an educational plan that meets their unique needs, provides access to the general education curricula, and aligns with grade-level academic standards. Qualifying students have an Individualized Education Program (IEP), which is a legal document that clearly defines how the school intends to meet the child's educational needs that result from their disability. A 504 plan is a blueprint for how the school will provide supports and remove barriers for the student to ensure they have equal access to the general education curriculum.

Where does Manchester stand?

According to the New Hampshire Special Education District Report for SY2016-17, the MSD enrolled 2,583 children and youth with disabilities. At the preschool level, Manchester enrolled 321 special education students in district preschool programs.

More recent data from MSD for the SY2017-18 provides a breakdown of the 2,774 students enrolled that had some form of physical, emotional, or behavioral disability (**Table 12**). As the data indicates, more than a quarter of these students (28%) has a specific learning disability, and another 20% had some form of health impairment.

Table 12: Disability	**SY2017-18**
Developmental delay	371
Emotional disturbance	255
Hearing impairments	15
Intellectual disability	110
Multiple disabilities	26
Orthopedic impairment	9
Other health impairments	547
Specific learning disability	774
Speech-language impairments	359
Traumatic brain injury	14
Visual impairments	9
Autism	284
Deaf-blindness	1
Total	**2774**

During SY2016-17, MSD enrolled 1,793 students across all elementary, middle, and high schools with an IEP plan. Close to one quarter (23%) of these (407) were enrolled at Gossler Park Elementary School, and another 20% (373) were enrolled at Beech Street Elementary School.

How does the Greater Manchester Region compare?

Fortunately, the percentage of Manchester youth with IEPs graduating from high school with a regular diploma surpassed the State rate (78% vs. 72.7%, respectively). Unfortunately, however, students with IEPs are performing far below their peers in terms of academic proficiency. For example, **Table 13** presents outcome data among students at Manchester Memorial High School compared to the State.[16]

Table 13: Academic Achievement for Students with IEPs in Manchester, SY2015-16
c. Proficiency rate for children with IEPs against grade level, modified and alternate achievement standards.

District	*Reading State Target*	*State*	*District*	*Math State Target*	*State*
8%	19.31%	20.06%	6%	13.29%	14.25%

Indicator 1: Graduation Rate: Percent of youth with IEPs graduation from high school with regular diploma: 2015-2016

Youth with Disabilities	*District*	*State Target*	*State*
Manchester Memorial High School	78%	95%	72.73%

Students with Limited English Proficiency

There is an increasing number of students with limited English proficiency who not only require learning in the English language, but also need supportive services and resources that reflect their language challenges and their diversity. Schools must recognize these students have to work harder than native English-speaking peers to become proficient in both the English language and the academic content areas.

Where does Manchester stand?

As the most racially and ethnically diverse city in NH, with hundreds of immigrants and refugees moving into the community each year, Manchester's schools are witnessing changing demographics. Among the 2018-2019 student population, Manchester had 1,968 English Learners representing 15% of the total school district enrollment. Manchester's English Learner population represents 38% of the entire state population of 5,135 English Learners.[17] The most common language spoken by English learners is Spanish.[18]

Image 2.

2018-2019 Academic Year	
Language	Number of ELs who speak language
Spanish	1,016
Arabic	164
Swahili	124
Nepali	111
French	64
Vietnamese	60
Maay	57
Bosnian	43
Somali	40
Portuguese	36

How does the Greater Manchester Region compare?

Based on 2017 data from the NH Department of Education (**Table 14**), Manchester's population of nearly 1500 Limited English Proficient students presents a stark contrast to other communities across the region whose combined total of LEP students is less than 100. Nashua, however, does enroll 798 Limited English Proficient students, with a rate closer to Manchester's of 7.2%; both cities have rates higher than the State rate of 2.1%.

Table 14: Limited English Proficiency in the Region, SY 2017-18

Geography	***Limited English Proficient Count***	***% Limited English Proficient***
Manchester	1477	10.6%
Auburn	3	0.5%
Bedford	17	0.4%
Candia	Not available	Not available
Deerfield	0	0
Goffstown	31	1.1%
Hooksett	30	2.3%
New Boston	0	0
Londonderry	15	0.3%

Homelessness Among Students

Homelessness – defined by the McKinney Vento Act as the lack of a fixed, regular, and adequate nighttime residence[20]- may have an adverse effect on a child's educational progress by creating challenges in accessing school resulting in poor attendance. Also, homeless children may experience isolation and trauma due to their family circumstances. Children living in inadequate housing conditions also have a higher risk of developing long-term health problems.[21] It is often difficult to measure the extent to which homelessness impacts children and families given the challenge of tracking families who are highly mobile or homeless over time.

The federal McKinney-Vento Act requires schools to accommodate the needs of homeless students. MSD has an appointed Homeless Liaison to provide necessary assistance to homeless children and families to ensure equal access to educational opportunities.

Where does Manchester stand?

According to data collected on November 15, 2017, from the MSD, there were 662 students across the Manchester District that were known to be living at some level of homelessness (**Table 15**). This is likely an underestimated number as many students are not formally identified as homeless due to stigma and other barriers. More than 50% of the known students living in homelessness within the district are at an elementary school level.

Table 15: Students who are Homeless/Displaced, SY2017-18

MSD Grade Level	*Homeless-Student Count*	*Total School Enrollment*	*% of Students who are Homeless*
Manchester District	622	13,528	4.6%
Elementary School Students	332	6,387	5.2%
Middle School Students	141	2,950	4.8%
High School Students	149	4,191	3.6%

According to this November 15, 2017 MSD count, among Manchester's student population who are homeless, most are living with their family in a doubled-up residence or a shelter (**Table 16**).

Table 16: Living/Housing Arrangements, SY2017-18

Status	***Living arrangements***	***Total***	***% of the Homeless Population***
With Family	Shelter	116	18.6%
	Doubled up residence	415	66.7%
	Unsheltered (car, park, campground)	16	2.6%
	Hotel/motel	17	2.73%
Unaccompa-nied	Shelter	*	*
	Doubled up residence	57	9.2%
ALL		622	

*Total suppressed; less than 10 students

How does the Greater Manchester Region compare?

All schools experience some level of homelessness within their student population. However, Manchester's rate of homelessness represents 22% of the State's total student population living in homelessness. Based on data reported to the New Hampshire Department of Education by districts in SY2016-17, Manchester's number of children in homelessness (796) was more than twice as large as Nashua, which had 348 students living in homelessness (**Table 17**). This population of students was significantly higher than other districts in the region,[22] which, on average, had fewer than 10 students living in homelessness.

Table 17: Student Homelessness in the Region, SY2016-17

Geography	***# of Students who are Homeless***
Manchester	796
Auburn	<10
Bedford	22
Candia	<10
Deerfield	0
Goffstown	12
Hooksett	<10
New Boston	<10
Londonderry	<10
Nashua, NH	348
State of NH	3350

High School Graduation

Research from County Health Rankings and Roadmaps asserts that high school graduation leads to higher earnings for individuals, as well as improved personal and social well-being. Data presented in the College Board's report, *Education Pays 2016,* supports that having a high school diploma has become increasingly important in the labor market and provides a critical pathway to higher education.[23] Students with a high school diploma are more likely to earn above the minimum wage, live above the poverty line, and have access to employer-supported benefits, such as health insurance and tuition reimbursement.

Where does Manchester stand?

Based on MSD 2016-2017 data, Manchester's graduation rate was lower than the State rate, with 76% of students graduating within four years compared to 89% at the State level. Moreover, Manchester's high school drop-out rate was almost twice the State rate (2.1 vs. 1.1, respectively).[24]

How does the Greater Manchester Region compare?

Among the 77 high schools in New Hampshire, Manchester West High School and Manchester Central High School graduation rates (73.11% and 75.39%, respectively) are among the bottom ten schools, and Manchester School of Technology and Manchester Memorial High School rates (81.33% and 83.25%, respectively) are among the bottom 20 schools (**Table 18**).

Table 18: 2016-2017 Graduation Rates Among the Bottom 20 Districts[25]

District	*School*	*Class Cohort*	*# Graduated*	*Graduation Rate*
Rochester	Bud Carlson Academy	39	3	7.69%
Franklin	Franklin High School	81	55	67.90%
Pittsburg	Pittsburg School (High)	10	7	70.00%
Pittsfield	Pittsfield High School	40	29	72.50%
Manchester	**Manchester West High School**	**212**	**155**	**73.11%**
Newport	Newport Middle High School (High)	77	58	75.32%
Manchester	**Manchester Central High School**	**386**	**291**	**75.39%**
Hillsboro-Deering Cooperative	Hillsboro-Deering High School	84	65	77.38%
Milton	Nute High School	46	36	78.26%
Claremont	Stevens High School	129	101	78.29%
Northumberland	Groveton High School	33	26	78.79%
Monadnock	Monadnock Regional High School	124	99	79.84%
Raymond	Raymond High School	102	82	80.39%
Manchester	**Manchester School of Technology (High School)**	**75**	**61**	**81.33%**
Somersworth	Somersworth High School	119	98	82.35%
Laconia	Laconia High School	147	122	82.99%
Manchester	**Manchester Memorial High School**	**388**	**323**	**83.25%**
Berlin	Berlin Senior High School	110	92	83.64%
Concord	Concord High School	372	313	84.14%

Looking beyond New Hampshire, Manchester's SY2017-18 data estimates for on-time high school graduation rate were 78.2%. This modeled estimate is below the average high school graduation rate of 83.4% for the 500 large cities across the county, as well as Nashua, NH's estimate of 87.4%.[26]

High school graduation among Manchester's Hispanic population is only 64.5%, which is lower than the average percentage of high school graduation from the Hispanic population for the 500 cities (79.7%) and compared to Manchester's White population, which has a graduation rate of 81.2%. Also, among the Manchester population of limited English proficient students, only 63.9% will graduate high school, which is less than the rate of high school graduation among Limited English proficient students across the 500 cities, which is 70%.

Adult Educational Achievement

According to recent data from the U.S. Bureau of Labor Statistics, workers with a bachelor's degree earn an average of $464 more per week than workers with only a high school diploma.[27] The Bureau compared 2018 unemployment rates and earnings by educational attainment and found that only 2.7% of workers with a bachelor's degree are facing unemployment, compared with 5.2% of workers with only a high school diploma. Having a college degree is also associated with better health habits, accournding to a recent Lumina Foundation report.[28]

Where does Manchester stand?

In 2017, only 28.3% of male students and 45.2% of female students in MSD planned to attend a 4-year college or university. Another 29.7% of male students and 32.0% of female students were intending to enroll in a two-year college. In addition, 24.4% of male students and 12.9% of female students planned to work full-time, while another 6.5% of male students and 1.5% of female students planned to enlist in the Armed Forces after graduation.

Only 18.9% of Manchester adults aged 25 years and older hold a Bachelor's degree, while 19.1% have completed some college-level coursework and 30.8% have only a high school diploma.[29] Educational attainment is much lower within Manchester's center city neighborhoods, where fewer than 13% of residents in a number of Census tracts have a Bachelor's degree or higher (**Map 1**).

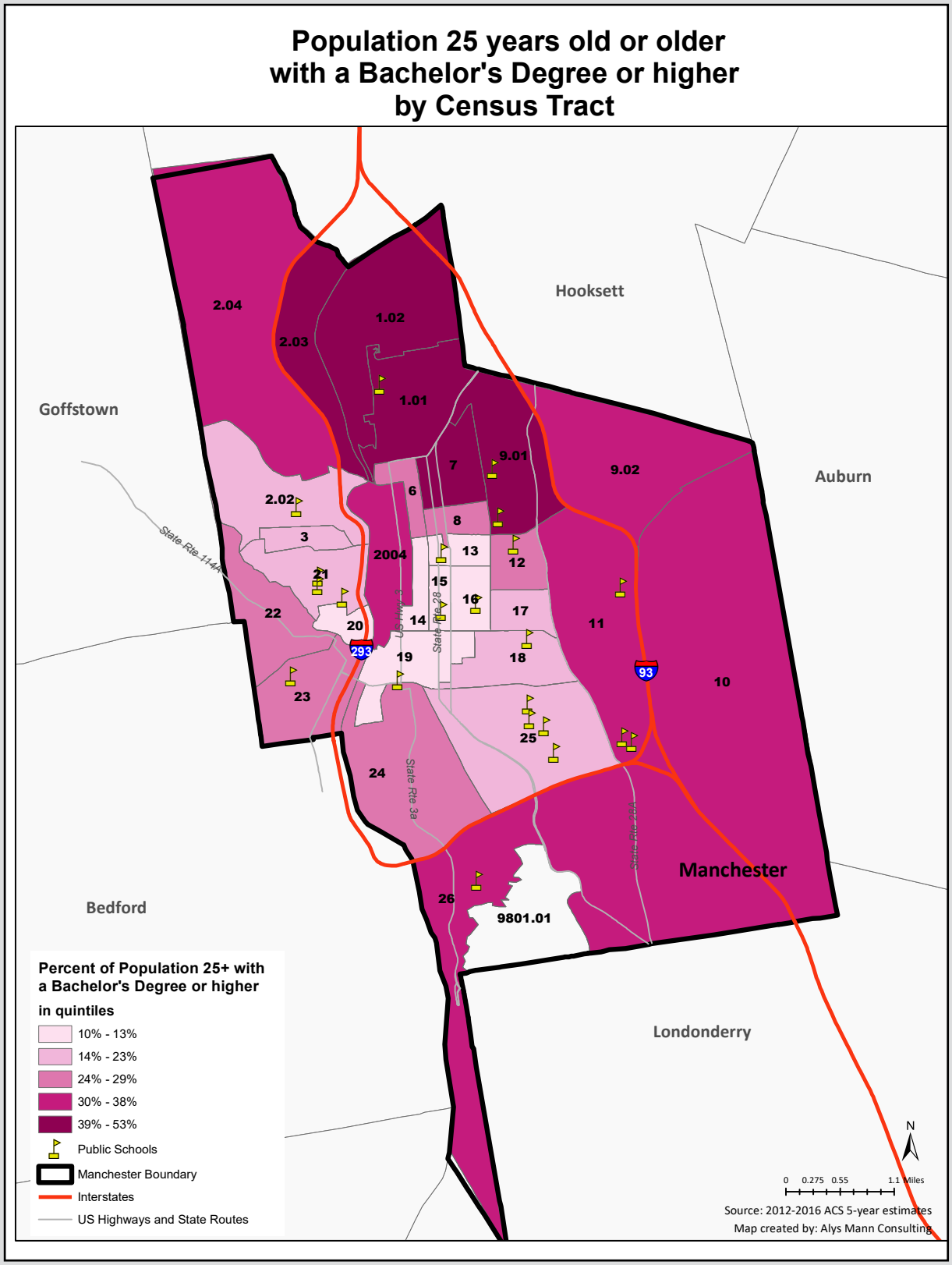
How does the Greater Manchester Region compare?

Manchester high school graduates are less likely to plan to attend four-year colleges after graduation than are students in other districts in the Greater Manchester Region or in the state as a whole (**Table 19**). Of note, Manchester's male students are significantly more likely to plan to either work full-time or enlist in the Armed Forces after graduation than are male students in other Greater Manchester school districts or in the state as a whole.

Table 19: Students Plans After Graduation for the Region

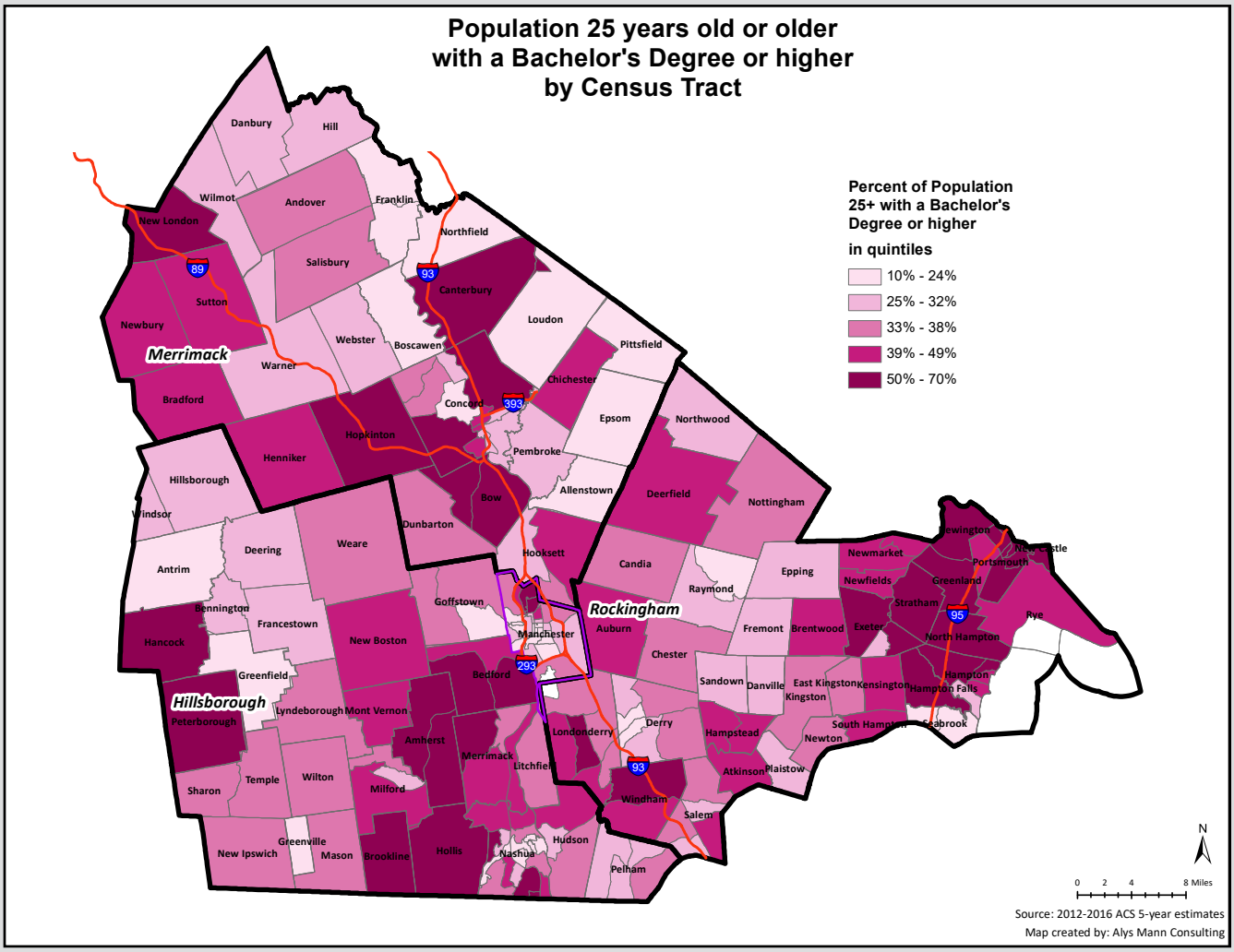
School Administrative Unit	*4-year College*		*College <4 Year*		*Employed*		*Armed Forces*	
	Male	**Female**	**Male**		**Male**	**Female**	**Male**	**Female**
Manchester	28.3%	45.2%	29.7%	32%	24.4%	12.9%	6.5%	1.5%
Bedford	73.2%	83.1%	8.9%	8.4%	4.2%	2.2%	3.7%	0.6%
Londonderry	48.2%	67.5%	36.1%	26.9%	8.4%	3.0%	2.6%	0.0%
Goffstown	45%	61.6%	30%	23.9%	16.7%	12.6%	5.8%	1.3%
Nashua, NH	42.6%	54.1%	23.9%	26.2%	22.6%	14.9%	6.4%	0.8%
State of NH	42.8%	57.5%	22.1%	21.9%	21.3%	13.5%	5.2%	1%

Map 1


Population 25 years old or older
with a Bachelor's Degree or higher
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Londonderry
Manchester
2.04
2.03
1.02
1.01
9.01
9.02
7
6
2.02
3
8
2004
13
12
21
15
16
17
22
20
14
11
293
19
18
93
10
23
25
24
26
9801.01
State Rte 114A
State Rte 28
State Rte 3a
Percent of Population 25+ with
a Bachelor's Degree or higher
in quintiles
10% - 13%
14% - 23%
24% - 29%
30% - 38%
39% - 53%
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

The percentage of Manchester adults aged 25 years and older with a Bachelors degree (18.9%) is lower than the State rate of 22.3%. Looking across the Greater Manchester region, you can see that low levels of educational achievement (less than 25% of adults with a Bachelor's degree) are concentrated in Manchester's center city area and some portions of Goffstown (**Map 2**).

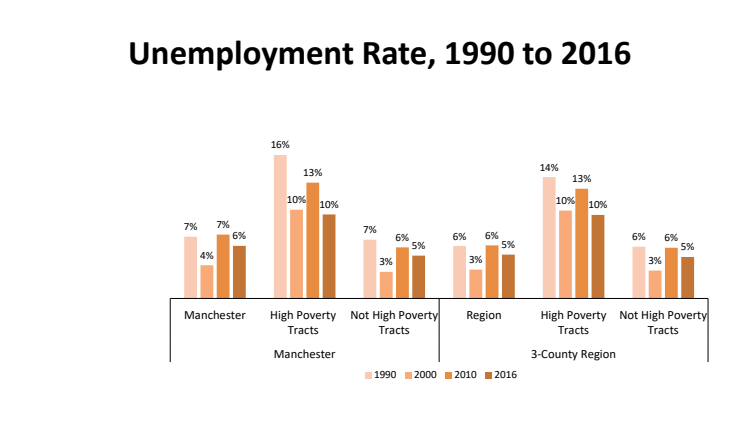
Map 2



FACTOR 2: EMPLOYMENT

Stable employment is associated with a healthier life. An individual with a well-paying job can afford to live in a neighborhood with access to quality health care and education, nutritious food, childcare, social supports, and recreational activities. Conversely, un- or under-employment is associated with a lack of access to these resources and an increased likelihood of developing stress-related health conditions. Unemployment and poverty have also been linked to unhealthy coping behaviors, such as substance use disorders, and increased levels of anxiety and depression.[30] According to the US Census Bureau, in 2017 a family of four people with a combined annual income of $25,094 or less was considered to be living in poverty.

Image 3

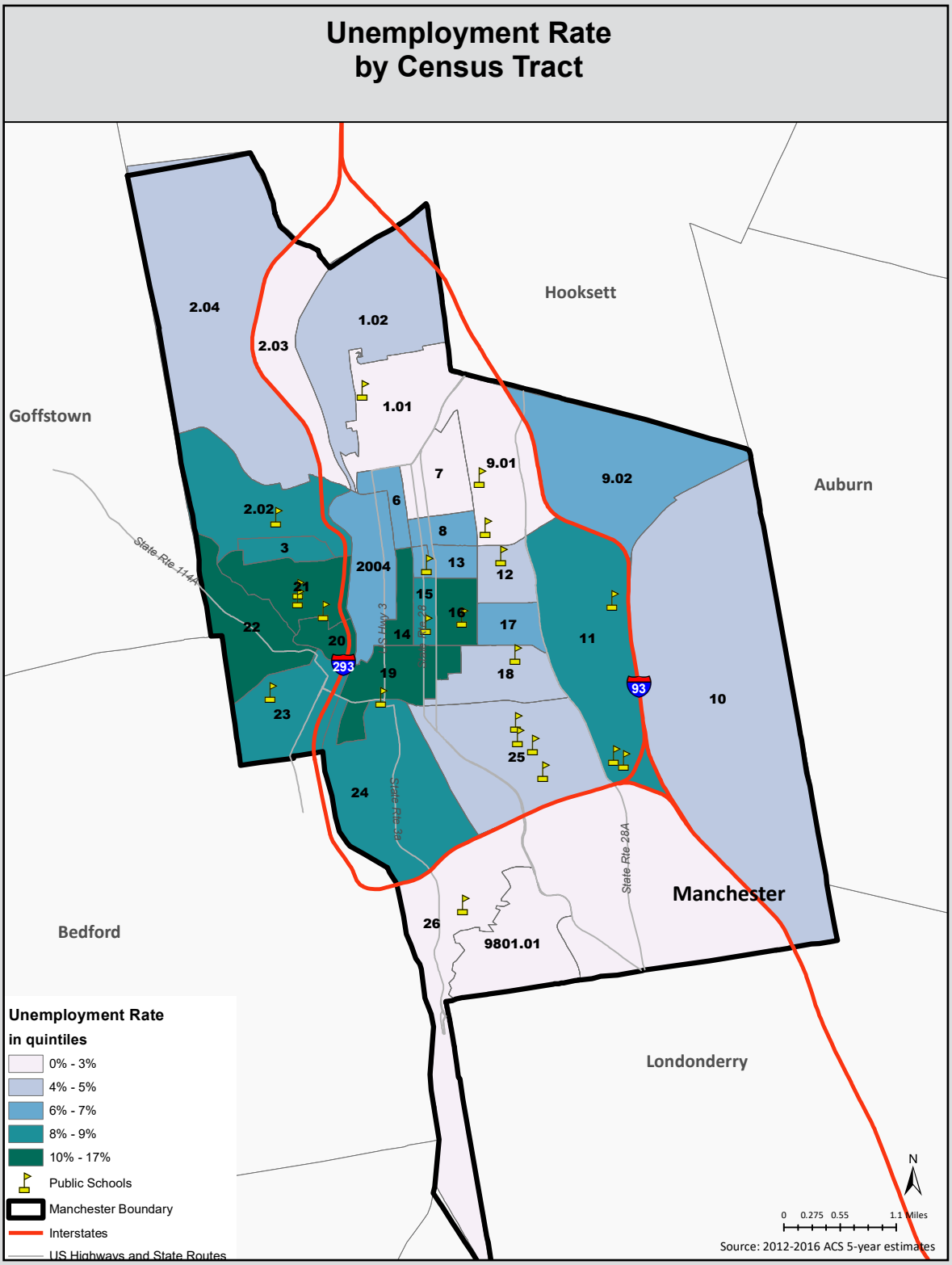


Where does Manchester stand?

Among Manchester residents aged 16 years and older, 69.0% are employed in the civilian labor workforce compared with 67.8%. of residents in this age group in the state as a whole. While Manchester's unemployment rate is, on average, 6%, residents living in high poverty Census Tracts (more than 20% of residents live in poverty) are twice as likely to be unemployed as those living in low poverty Census Tracts (fewer than 20% of residents live in poverty) in both Manchester and the Greater Manchester region (10% and 5%, respectively (**Image 3**).

Unemployment is concentrated in center city neighborhoods in Manchester, in particular Census Tracts 20, 21, and 22 on the West Side, and Census Tracts 14, 15, 16, and 19 on the East Side (**Map 3**)

Map 3


Unemployment Rate
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
8
2.02
3
2004
13
12
21
15
16
17
22
20
14
11
293
19
18
93
10
23
25
24
26
9801.01
State Rte 114A
US Hwy 3
State Rte 28
State Rte 28A
Unemployment Rate
in quintiles
0% - 3%
4% - 5%
6% - 7%
8% - 9%
10% - 17%
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates

Unemployment rates in Manchester are similar in female and male residents (4.8% vs. 4.9%, respectively), but rates rates vary among racial and ethnic groups (**Table 20**). Members of Manchester's Black and Hispanic/Latino populations are significantly more likely to be unemployed than White residents of the city. Unemployment rates in these population groups are also higher in Manchester than the average of the 500 largest cities in the US.[31]

Table 20: Unemployment by Race/Ethnicity, 2017

Population	***Manchester***	***500 Cities Average***
Asian	3.7%	5.6%
Black	15%	11.3%
Hispanic	10.1%	7.4%
White	4.8%	5.9%
Other	8.6%	8.8%

How does the Greater Manchester Region compare?

While Manchester's estimated unemployment rate of 5.5% was equal to Nashua's unemployment rate in 2017, it was higher than the unemployment rates in New Hampshire (4.5%) and across the Greater Manchester region (**Table 21**). Manchester's average unemployment rate is lower than the average rate of 7.2% in 500 large cities across the country, though in some segments of the city unemployment is as high as 17% (**Map 3**)[32]

Table 21: Unemployment Rates in the Greater Manchester Region, 2017

Geography	***Unemployment Rate***
Manchester	5.5%
Auburn	3.1%
Bedford	3.4%
Candia	4.7%
Deerfield	2.8%
Goffstown	4.0%
Hooksett	4.5%
New Boston	1.8%
Londonderry	3.1%
Nashua, NH	5.5%
State of NH	4.5%

FACTOR 3: INCOME

Income provides the economic resources for housing, education, childcare, food, and medical care – all of which impact health outcomes. Low-income families and individuals may be forced to live in unsafe homes and neighborhoods with limited access to healthy foods, employment options and quality schools. The ongoing stresses associated with poverty can lead to cumulative physical and mental health challenges, including chronic illnesses.

Household Income

Household income is calculated as the combined gross income of all people living in a residence, regardless of whether or not they are related. It is commonly used as an indicator of a household's economic status.

Where does Manchester stand?

Based on US Census data from 2013-2017, the median household income for Manchester was $56,467. Specific neighborhoods within Manchester have a significantly lower median income than the city average. In particular, census tract 20 on the West Side and Census Tracts 6, 14, 15, 19 and 2004 on the East Side, had median household incomes of less than $41,000 during this same period(**Map 4**).

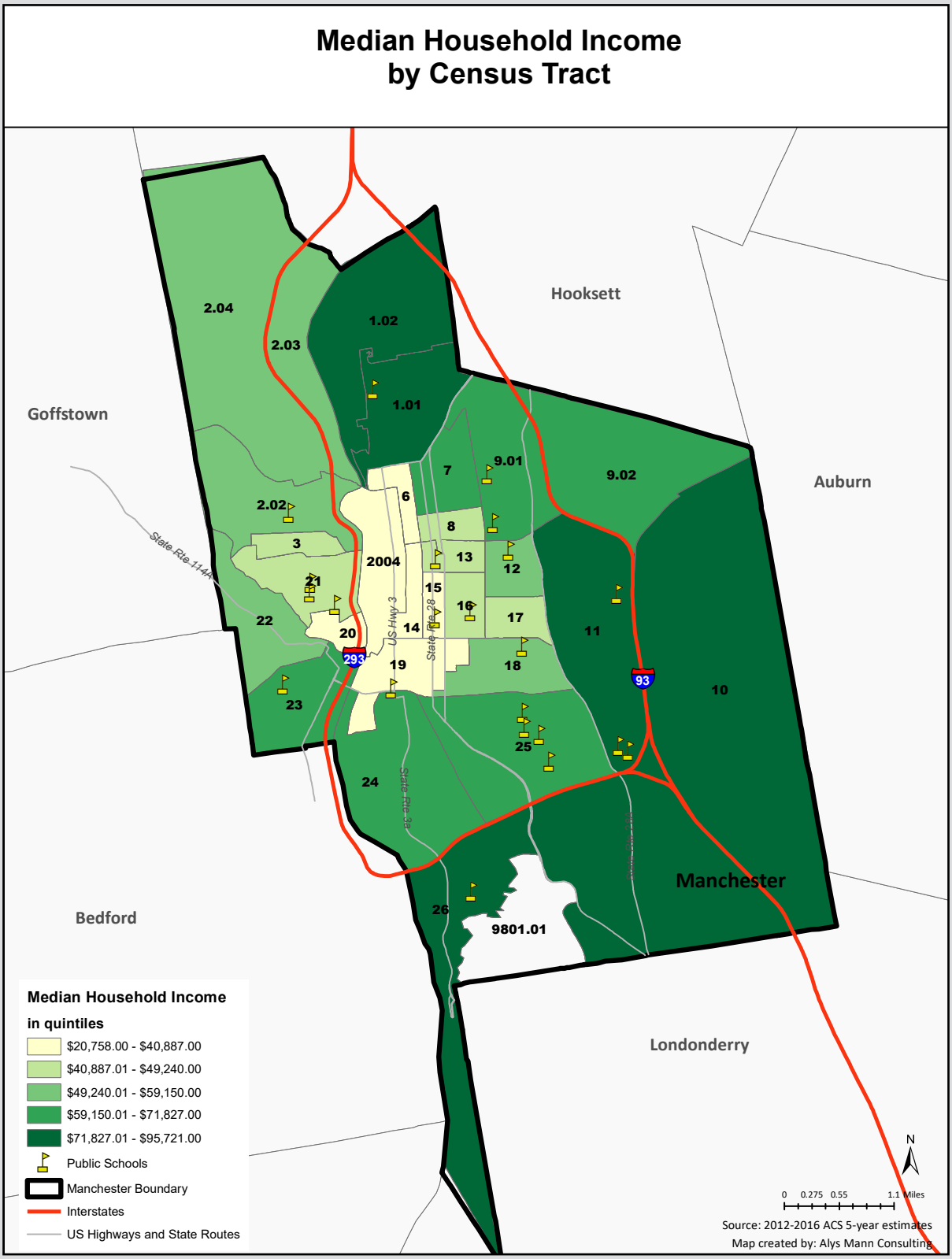
How does the Greater Manchester Region compare?

Manchester's median income of $56,467 in 2013-2017 was considerably less than the median income in communities across the Greater Manchester region, and significantly less than Nashua's median income of $70,316 and the state's median income of $71,305 (**Table 22**). Manchester's median income was, however, comparable to the national median income of $57,652.[33]

Table 22: Median Household Income in the Region, 2013-17

Geography	*Median Household Income*
Manchester	$56,467
Auburn	$114,041
Bedford	$127,975
Candia	$95,195
Deerfield	$92,767
Goffstown	$81,842
Hooksett	$85,952
New Boston	$104,241
Londonderry	$95,395
Nashua, NH	$70,316
State of NH	$71,305

Map 4


Median Household Income
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
7
9.01
9.02
6
2.02
8
3
2004
13
12
21
15
16
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14
11
19
18
23
10
25
24
26
9801.01
State Rte 114A
US Hwy 3
State Rte 28
State Rte 3A
293
93
Median Household Income
in quintiles
$20,758.00 - $40,887.00
$40,887.01 - $49,240.00
$49,240.01 - $59,150.00
$59,150.01 - $71,827.00
$71,827.01 - $95,721.00
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

Income inequality is a measure of the divide between the poor and the affluent, comparing the income distribution between the top 20% of income earners nationwide and the bottom 20%. The scale for this indicator is -100 to +100 with 0 signifying that both income groups are present in equal numbers, or that all of the households fall somewhere in the middle (they are neither privileged nor deprived categories). A negative score means that more households fall in the bottom 20% of income earners (deprived), while a positive score means that more households fall in the top 20% of income earners (privileged). In 2017, Manchester had an income inequality score of -7.8, compared to +3.7 in Nashua, and -5.5 across 500 largest US cities.[34]

Poverty

The US Census Bureau uses a series of income thresholds that vary by family size and composition to determine who is living in poverty. Income is calculated based on earnings, unemployment compensation, social security benefits, supplemental security income, public assistance, veterans assistance, pension or retirement income, and other sources. In 2019, the federal poverty rate for a family of four was $25,750.

Where does Manchester stand?

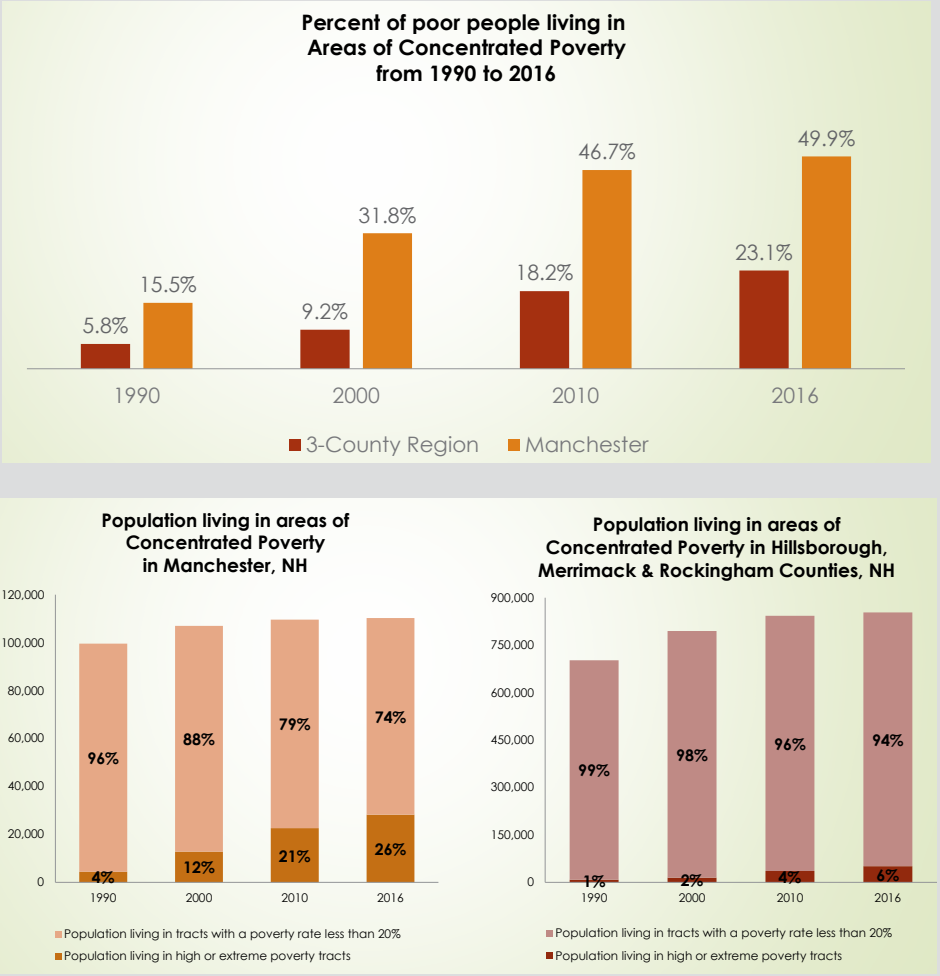
According to the US Census Bureau, there were 16,104 residents (14.9%) living in Manchester with incomes below the federal poverty level (14.9% of the total population) in the 5-year period ending in 2017. Distinct racial and ethnic groups are disproportionately impacted by poverty in Manchester. Specifically, while 13.7% of Manchester's White residents are living below the poverty level, 27.2% of Black residents, 28.9% of Hispanic/Latino residents, and 18.4% of Asian residents are living below the poverty level in Manchester (**Table 23**).

Table 23: Poverty Rates by Race/Ethnicity, 2013-2017

Population	*Total*	*Total Below Poverty*	*% Below Poverty*
White	93,078	12,745	13.7%
Black	5,308	144	27.2%
Asian	5,241	963	18.4%
Hispanic/Latino of Any race	10,163	2,938	28.9%

The proportion of people living in poverty in Manchester is on the rise. In 2016 there were 15,700 Manchester residents living in poverty, an 81% increase since 1990. Manchester's areas of high and extreme poverty have also increased since 1990, with 7,826 people living in high or extreme poverty neighborhoods. In fact, nearly half of all residents living in poverty in Manchester live in neighborhoods considered to be high or extreme poverty areas (**Image 4**).

Image 4



Source: Geolytics Neighborhood Change Database- 1990, 2000, & 2010 decennial census & 2012-2016 ACS 5-year estimates;

How does the Greater Manchester Region Compare?

The proportion of residents who live in poverty is significantly higher in Manchester (14.9%) than in the State (8.1%) and Greater Manchester region as a whole (**Table 24**).

Table 24: Poverty Rates in the Region, 2013-2017

Geography	***% Below Poverty Level***
Manchester	14.9%
Auburn	2.1%
Bedford	1.8%
Candia	6.3%
Deerfield	5.2%
Goffstown	6.3%
Hooksett	4.3%
New Boston	1.9%
Londonderry	2.9%
Nashua, NH	10.8%
State of NH	8.1%

Children and Families in Poverty

Growing up in poverty increases the likelihood that a child will be exposed to factors that can impair brain development and lead to poor academic, cognitive, and health outcomes. In fact, financial hardship is one of the greatest threats to a child's overall well being.[36] The negative impact of poverty is greatest among children who experience poverty when they are very young and among those who suffer persistent and extreme poverty.[37]

The National School Lunch Program provides subsidized free and reduced-price meals to income-eligible students. The proportion of students who qualify for free- or reduced-price meals is often used as a measure of overall poverty within a school district.

Where does Manchester stand?

More than one in five (21.4%) children in Manchester are is living in poverty. While child poverty affects all racial and ethnic groups in Manchester, Black and Hispanic children in the city are more likely to be living below the poverty level than White and Asian children (**Table 25**).

Table 25: Childhood Poverty Rates by Race/Ethnicity, 2017

Population	***% Children in Poverty***
Asian	14.8%
Black	32.4%
Hispanic	38.7%
White	17.3%
Other	25.9%

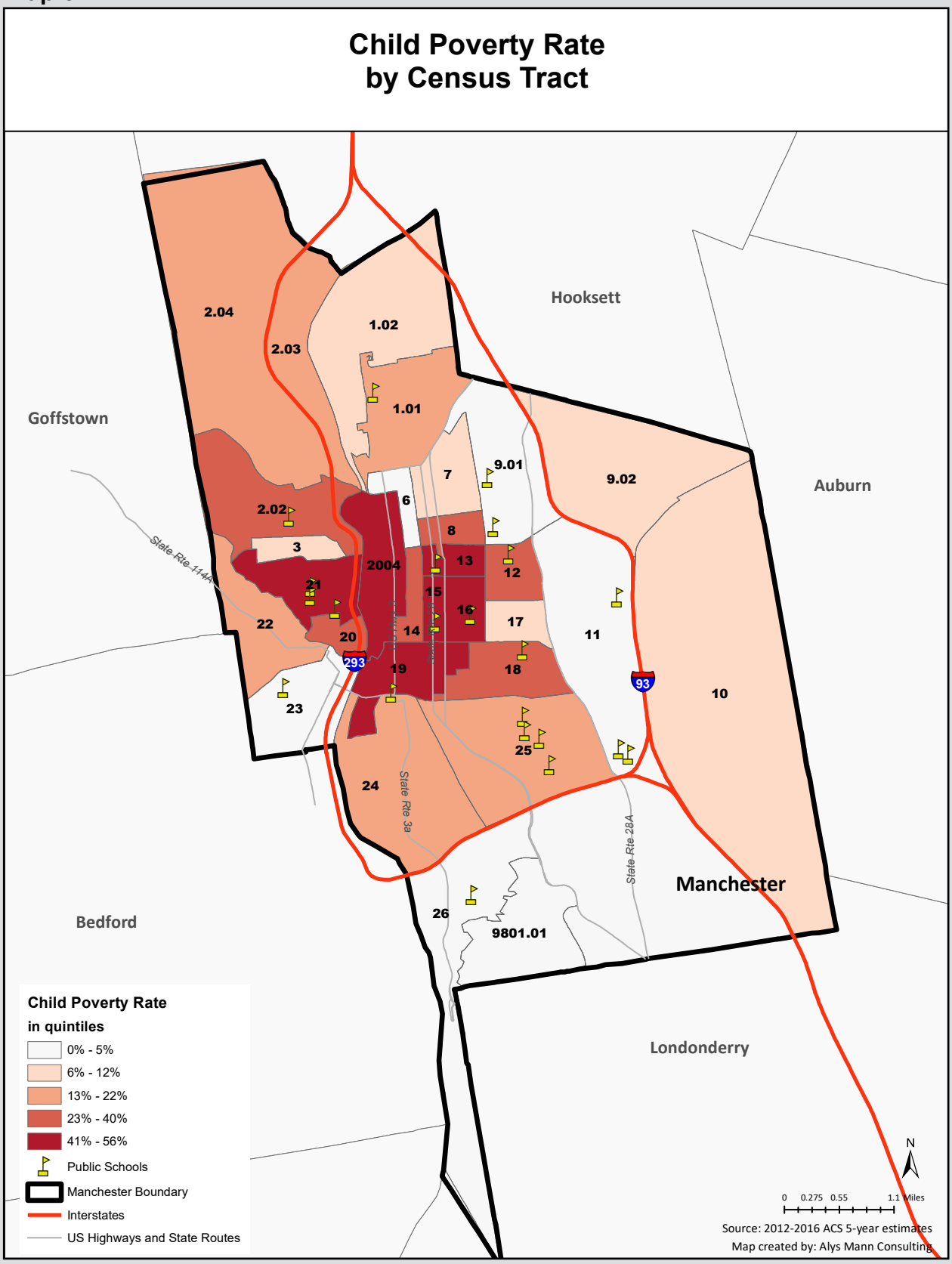
Nearly 60% of all students in the Manchester School District are enrolled in the National School Lunch Program (NSLP). In order to qualify for this program, students must live in families with incomes at or below 185% of the federal poverty level. Four elementary schools in Manchester --Beech Street, Gossler Park, Wilson and Bakersville--are particularly affected by child poverty, with more than 80% of students enrolled in the free or reduced-price meals program (**Table 26**).

Table 26: Free & Reduced Meal Enrollment, 2018-19 – Selected Schools

	Beech Street	***Gossler Park***	***Wilson***	***Bakersville***	***City of Manchester***	***New Hampshire***
Free/Reduced Lunch Enrollment	94%	81%	89%	82%	58%	26%

Approximately 2,000 children live in poverty in Manchester's center-city neighborhoods, which means that 20% of the city's children in poverty live in an area that comprises only 4% of the city as a whole (**Map 5**).

Map 5


Child Poverty Rate
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
2.02
8
3
2004
13
12
21
15
16
22
20
14
17
11
293
19
18
93
10
23
25
24
26
9801.01
State Rte 114A
State Rte 3a
State Rte 28A
Child Poverty Rate
in quintiles
0% - 5%
6% - 12%
13% - 22%
23% - 40%
41% - 56%
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

How does the Greater Manchester Region compare?

Based on SY2017-18 data from the NH Department of Education,[38] the percentage of Manchester students who are enrolled in the free and reduced-price meals program is substantially higher than in other districts in the Greater Manchester region and in the State of NH as a whole (**Table 27**). Manchester's free and reduced-price meal enrollment is also notably higher than Nashua's enrollment rate of 42.2%.

Table 27: Free & Reduced-Price Meal Enrollment in the Region, SY2017-18

Geography	***% Enrollment***
Manchester	56.9%
Auburn	11.4%
Bedford	5.7%
Candia	23.4%
Deerfield	13.6%
Goffstown	17.2%
Hooksett	19.5%
New Boston	11.5%
Londonderry	11.3%
Nashua, NH	42.2%
New Hampshire	27.3%

Based on data from the US Census, 21.4% of children in Manchester are living in poverty. This rate is similar to the average child poverty rate in the 500 largest cities of 22.6%, but significantly higher than the child poverty rate in Nashua, which is 15.7%.

FACTOR 4: FAMILY AND SOCIAL SUPPORT

Social supports include relationships with family members, friends, colleagues, and acquaintances. Individuals who have strong social support live longer and healthier lives than those who are socially isolated.[39] Socially isolated individuals are at increased risk of poor health outcomes, including chronic diseases and unhealthy behaviors such as substance use, smoking, and overeating.

Single parent households

Adults and children in single-parent households are at risk for social isolation. Single parenthood may result from divorce or separation, incarceration, military service, death of a partner, or being unmarried at the time of a child's birth.

Where does Manchester stand?

In Manchester, 41% of households with children under 18 years of age are headed by a single parent. The proportion of households headed by a single-parent is much higher in some neighborhoods in the city. The highest percentages of single-parent households were in the center-city neighborhoods of Census Tracts 8, 15, 21, 2004 and 19, where 56% to 85% of households were headed by a single parent (**Map 6**).

In 2017, nearly half (45%) of the 7,206 births in Manchester were to unmarried mothers. In center-city neighborhoods, the proprortion of births to unmarried mothers were even higher, ranging from 54% to 71% by Census tract (**Table 28**).

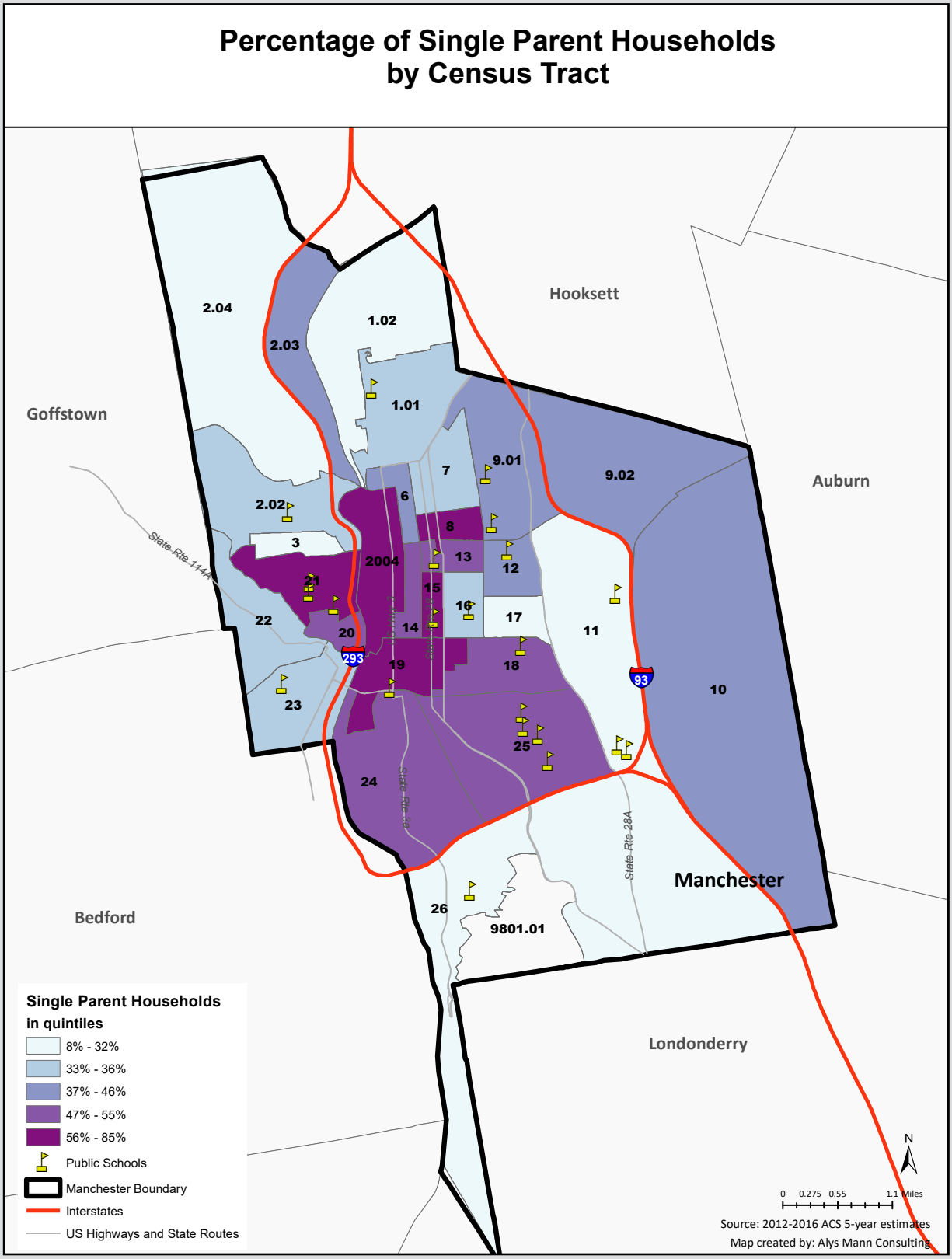
Table 28: Unmarried New Mothers, Manchester, 2013-2017

Census Tract	*Location*	*Total Births*	*% Unmarried*
14	East CC	173	71.1%
20	West CC	203	60.1%
2004	East CC	179	49.7%
13	East CC	274	65.7%
19	East CC	245	57.6%
15	East CC	332	60.8%
16	East CC	369	62.9%
21	West CC	402	53.7%

How does the Greater Manchester Region Compare?

Within the Greater Manchester region, some areas of Goffstown, Hooksett, and Londonderry have rates of single parent-headed households that are similar to Manchester's rate (**Map 7**).

Map 6


Percentage of Single Parent Households
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
2.02
8
3
2004
13
12
21
15
16
17
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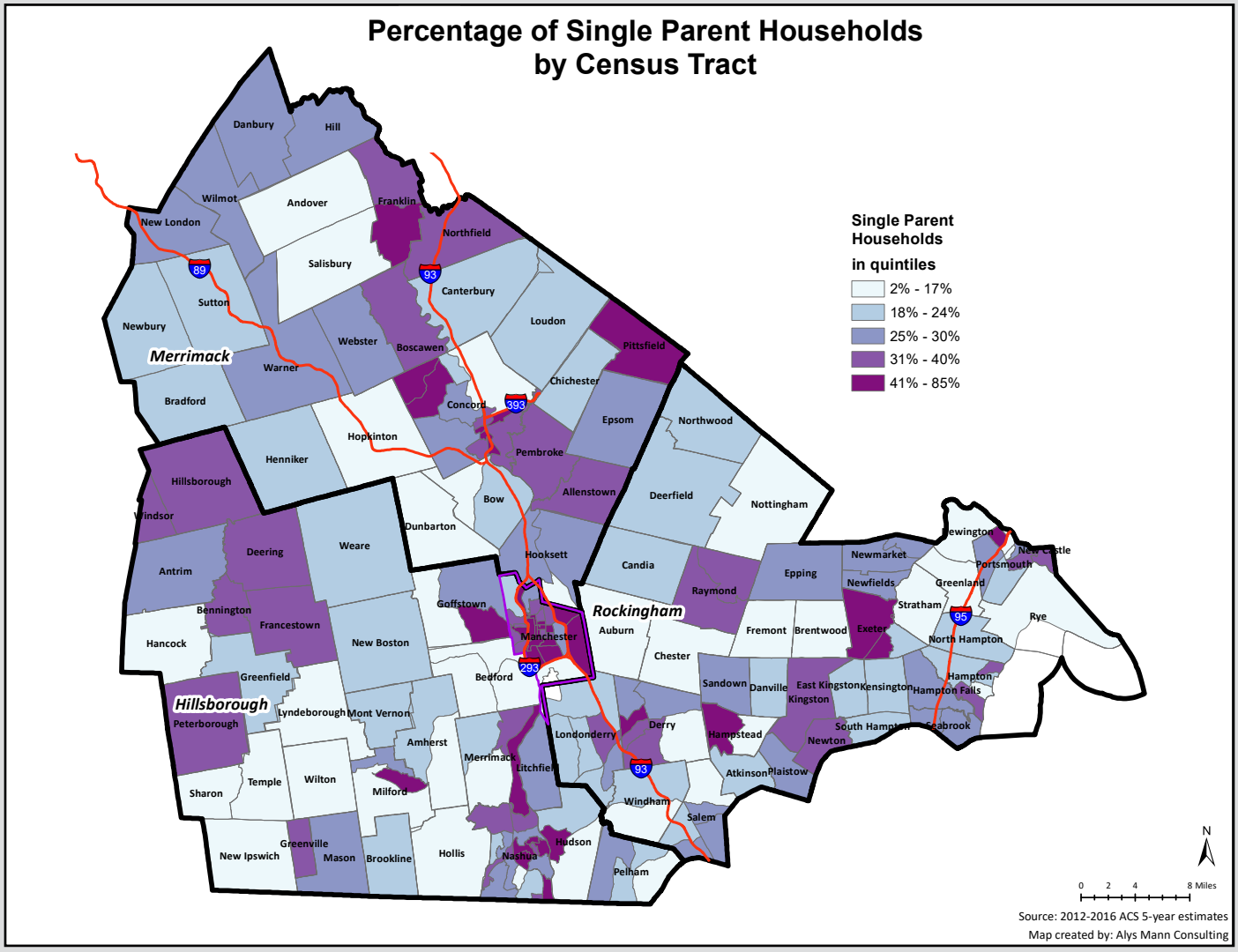
State Rte 114A
State Rte 3a
State Rte 28A
Single Parent Households
in quintiles
8% - 32%
33% - 36%
37% - 46%
47% - 55%
56% - 85%
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

Map 7


Percentage of Single Parent Households
by Census Tract
Single Parent Households
in quintiles
2% - 17%
18% - 24%
25% - 30%
31% - 40%
41% - 85%
Merrimack
Rockingham
Hillsborough
Danbury
Hill
Wilmot
Andover
Franklin
New London
Northfield
Salisbury
Canterbury
Sutton
Newbury
Loudon
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Pembroke
Henniker
Hillsborough
Bow
Allenstown
Deerfield
Nottingham
Windsor
Dunbarton
Weare
Deering
Hooksett
Newington
New Castle
Portsmouth
Antrim
Candia
Newmarket
Epping
Newfields
Greenland
Raymond
Stratham
Goffstown
Bennington
Francestown
Manchester
Auburn
Fremont
Brentwood
Exeter
Rye
Hancock
New Boston
Chester
North Hampton
Greenfield
Bedford
Sandown
Danville
East Kingston
Kingston
Kensington
Hampton
Hampton Falls
Lyndeborough
Mont Vernon
Peterborough
Londonderry
Derry
Hampstead
South Hampton
Seabrook
Newton
Amherst
Merrimack
Litchfield
Atkinson
Plaistow
Temple
Wilton
Sharon
Milford
Windham
Salem
Greenville
New Ipswich
Mason
Brookline
Hollis
Hudson
Nashua
Pelham
89
93
393
293
95
N
0 2 4 8 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

FACTOR 5: COMMUNITY SAFETY

Feeling safe in your community--the places were you work, live, play, and worship--is associated with positive health outcomes. An individual's sense of safety is affected by unintentional injuries that occur in their environment, including drowning, motor vehicle accidents, poisoning, and drug overdoses. Community safety is also a associated with intentional injuries, such as violent crimes, domestic violence and child maltreatment. Living in an unsafe environment is associated with higher rates of anxiety and depression, as well as other adverse health outcomes. Moreover, fear of school and community violence may keep residents indoors and socially isolated.

Violent Crime Rate

Exposure to crime and violence compromises physical safety and psychological well being and increases overall stress, which may lead to or exacerbate chronic disease and other health disorders. While crime can be broken down into many distinct categories, this report utilizes the categories of Part 1 Crime and Violent Crime, as defined by the US Department of Justice and the Federal Bureau of Investigation, respectively. Part 1 Crimes include murder and nonnegligent homicide, rape, robbery, aggravated assault, burglary, motor vehicle theft, larceny-theft, and arson. Violent crime is composed of four offenses: murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault.

Where does Manchester stand?

The violent crime rate was significantly higher in Manchester than in the state as a whole in 2015-17, at 635.9 violent crimes per 100,000 residents versus 197.8 violent crimes per 100,000 residents, respectively. Part 1 Crimes were also elevated in Manchester compared to the state as a whole, at 3,447 crimes per 100,000 residents versus 1,945 crimes per 100,000 residents, respectively. Several Manchester center-city neighborhoods have crime rates well above those calcuated for the city as a whole. The neighborhoods around Beech Street Elementary School and Gossler Park Elementary School are used as an illustration of this disparity in **Image 5**.

Image 5

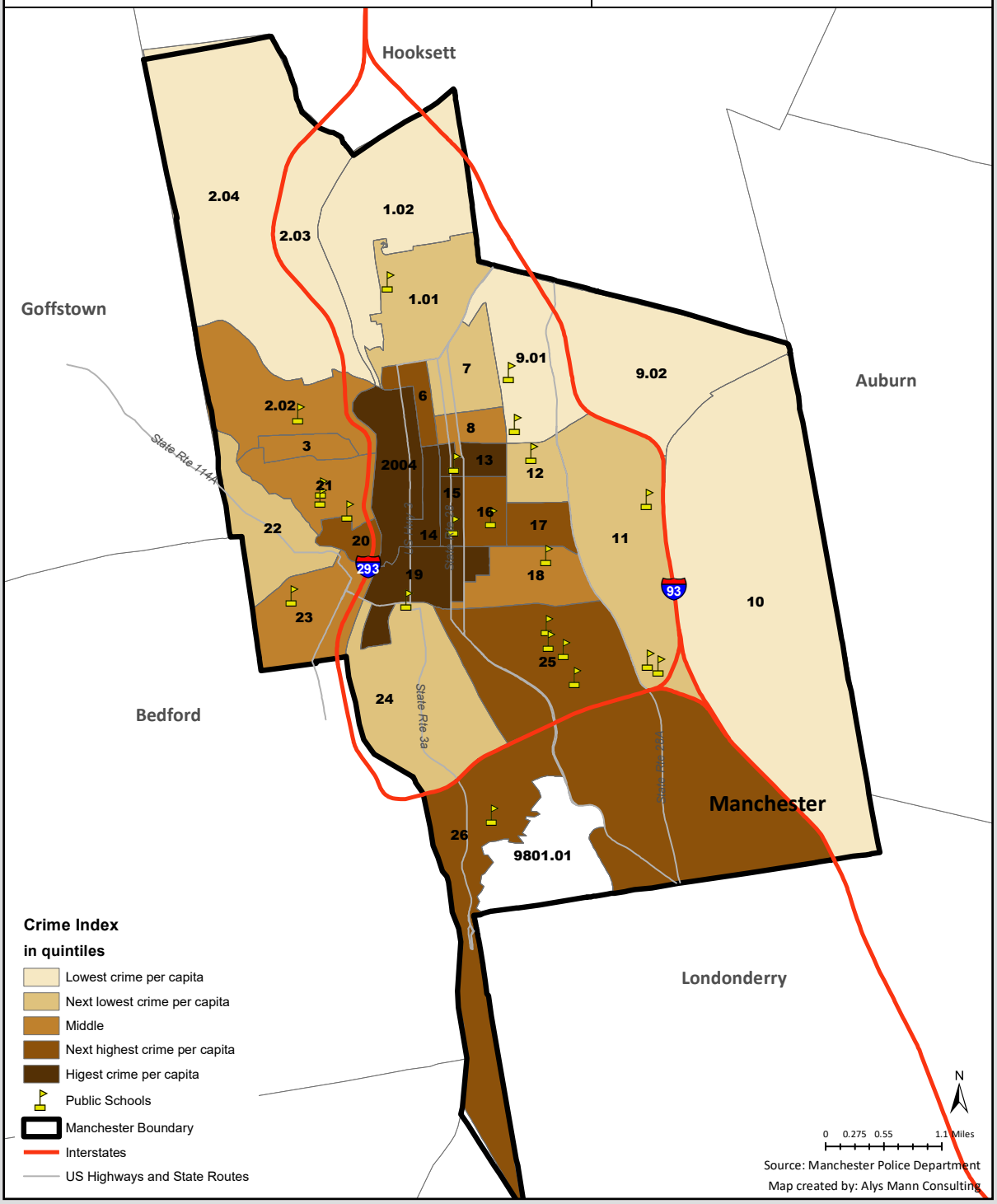
ADVERSE NEIGHBORHOOD ENVIRONMENTS	Beech Street Neighborhood	Gossler Park Neighborhood	City of Manchester	New Hampshire
Housing build before 1940 (2011-2015 US Census)	66.9%	51.2%	33.9%	20.8%
Poverty Rate (2012-2016 US Census)	34.5%	28.4%	14.6%	8.5%
Residents who believe people in their neighborhood can be trusted (2014 UNH Carsey Institute)	42.0%	48.0%	--	--
Part One crime rate per 100,000 population (2015-2016 FBI Uniform Crime Reports, MPD)	6552.1	4376.2	3447.0	1945.1
Violence Crime rate per 100,000 population (2015-2017, MPD)	1040.2	1610.4	635.9	197.6

The Federal Bureau of Investigation has identified eight primary, or index, crimes that can be used to create a Crime Index Score representative of the burden of crime in a particular geographic area. These crimes include both Violent Crimes and Part I Crimes, as defined above. As illustrated by **Map 8**, the burden of crime in Manchester is concentrated in five center-city neighborhoods on the city's East Side.

Map: 8

Crime Index by Census Tract

Crime Index is constructed using the following indicators:
:: Per capita violent offenses 2015-2017
:: Per capita violent incidents 2015-2017
:: Per capita Part I offenses 2015-2017
:: Per capita Part II incidents 2015-2017



In 2013, approximately 60% of residents in the Beech Street and Gossler Park neighborhoods said that violence is a problem in their neighborhoods. Fewer than half of these residents feel safe walking their neighborhood's at night[40] (**Table 29**).

Table 29: Perceptions of Safety and Social Connectedness, Manchester, Selected Neighborhoods, 2013

	Bakersville	*Beech Street*	*Gossler Park*	*Manchester*
NEIGHBORHOOD SAFETY	***Agree***	***Agree***	***Agree***	***Agree***
I feel safe walking in my neighborhood during the day	89%	89%	94%	90%
I feel safe walking in my neighborhood at night	**61%**	**43%**	**33%**	**50%**
I feel comfortable calling the police to report suspicious or criminal behavior	**91%**	**73%**	**81%**	**83%**
There is little I can do to prevent or reduce crime in my neighborhood	46%	51%	39%	47%
Violence is not a problem in this neighborhood	**69%**	**41%**	**36%**	**53%**
Crime is not a problem in this neighborhood	**58%**	**38%**	**19%**	**45%**
TRUST AND SOCIAL CONNECTEDNESS	***Agree***	***Agree***	***Agree***	***Agree***
If a child got hurt or scared while playing outside, there are adults nearby I trust would help	91%	69%	84%	77%
People in this neighborhood help each other out	**81%**	**58%**	**58%**	**69%**
People in this neighborhood can be trusted	**63%**	**42%**	**48%**	**53%**
People in this neighborhood are treated respectfully	77%	60%	57%	68%
People in this neighborhood are discriminated against	**22%**	**45%**	**38%**	**33%**
LOCAL ENVIRONMENT	***Agree***	***Agree***	***Agree***	***Agree***
There is a lot of trash and/or litter on the streets	**43%**	**66%**	**76%**	**56%**
Graffiti is an issue in this neighborhood	**22%**	**47%**	**53%**	**35%**
Homes and other buildings are well-maintained	**83%**	**54%**	**65%**	**69%**
Parks and playgrounds are well-maintained and safe	**74%**	**54%**	**77%**	**67%**
It is pleasant to walk or run in this neighborhood	**84%**	**57%**	**72%**	**72%**

Note: Bolded figures indicate statistical significance between neighborhoods

How does Manchester Compare?

Manchester has a violent crime rate that is higher than the average rate for the 500 largest cities in the US (675.9 violent crimes per 100,000 residents versus 513.3 violent crimes per 100,000, respectively). Manchester's violent crime rate was also significantly higher than Nashua's rate in 2015-2017, which was much lower than the 500 largest cities' average, at 179.9 violent crimes per 100,000 residents.

School Safety

A safe environment is critical for effective learning. Feeling unsafe at school has been shown to impact a variety of educational outcomes, including attendance and standardized test scores. A child that is fearful in the classroom is distracted from the learning process.

Where does Manchester stand?

There were 159 school safety incidents across the Manchester School District during SY2016-17. The majority of these incidents occurred in middle and high schools (**Table 30**).

Table 30: School Safety Incidents, Manchester, 2016-17

School	***# of School Safety Incidents***
Hallsville School	9
Henry J. McLaughlin Middle School	10
Hillside Middle School	43
Manchester Central High School	31
Manchester Memorial High School	3
Manchester School of Technology	2
Manchester West High School	25
Middle School at Parkside	17
Smyth Road School	4
Southside Middle School	4
Wilson School	11

How does the Greater Manchester Region compare?

Of the 1,073 school safety incidents that occured in New Hampshire schools during SY2016-17, close to 15% occurred within the Manchester School District (**Table 31**). The number of reported school safety incidents in Manchester far exceeds that in other school districts in the Greater Manchester region, as well as in Nashua.[41]

Table 31: School Safety Incidents in the Greater Manchester Region, 2016-17

Geography	*# of School Safety Incidents*
Manchester	159
Auburn	0
Bedford	3
Candia	2
Deerfield	0
Goffstown	6
Hooksett	3
New Boston	1
Londonderry	15
Nashua, NH	16
New Hampshire	1073

In 2017, 7.6% of Manchester high school students reported that they did not go to school because they felt unsafe at school or on their way to or from school, according to the Youth Risk Behavior Surveillance Survey. That percentage was significantly higher than in the state as a whole, where 5.2% of students reported staying home from school because they felt unsafe. This indicator of the perception of school safety has remained relatively stable in Manchester since 2011 (**Image 6**).

Manchester high school students were also more likely to report having been in a fight on school property one or more times in the past year in 2017 than students in the state as a whole, 7.9% and 6.4%, respectively). However, it is notable that the rate of reported fighting on school property has consistently declined since 2011 (**Image 7**).

Self-reported school bullying in Manchester was similar to the state as a whole in 2017. Specifically, 21.4% of high school students in Manchester reported being bullied on school property in the past year 20.5% of high school students in the state overall (**Image 8**). In the same year, nearly 18% of Manchester students said they had experienced electronic bullying in the past year, compared with 19% of students statewide (**Image 9**).

Image 6

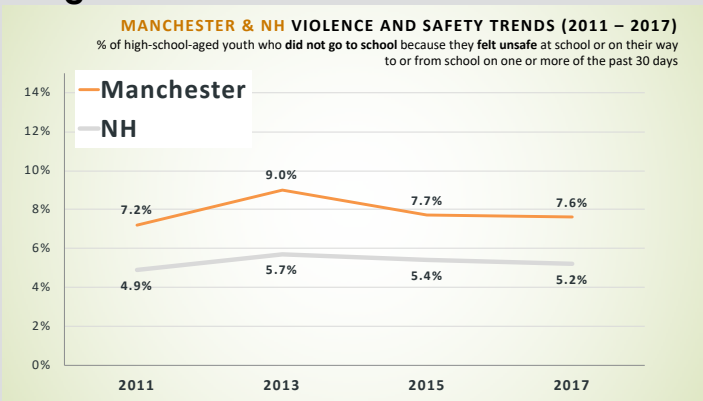


Image 7

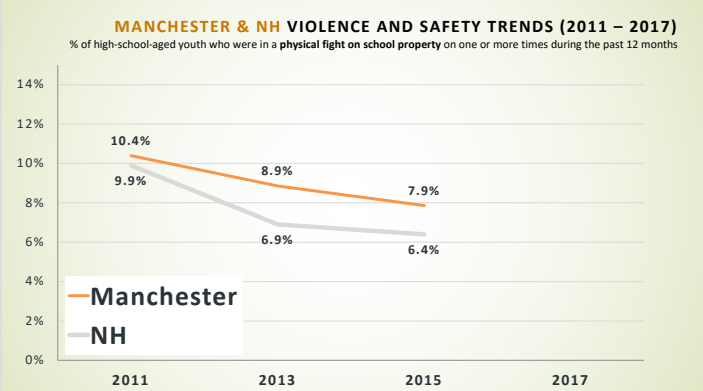


Image 8

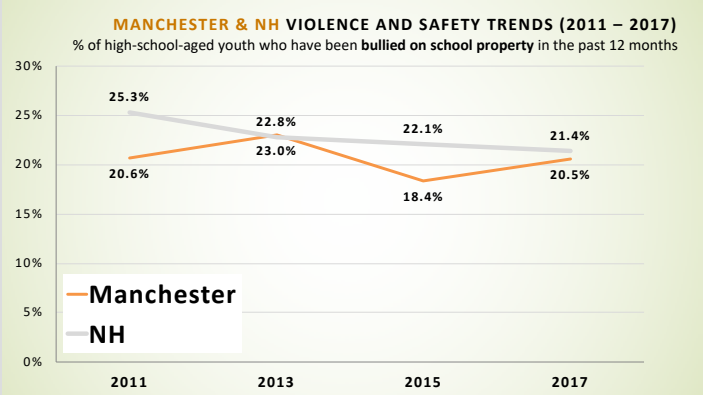
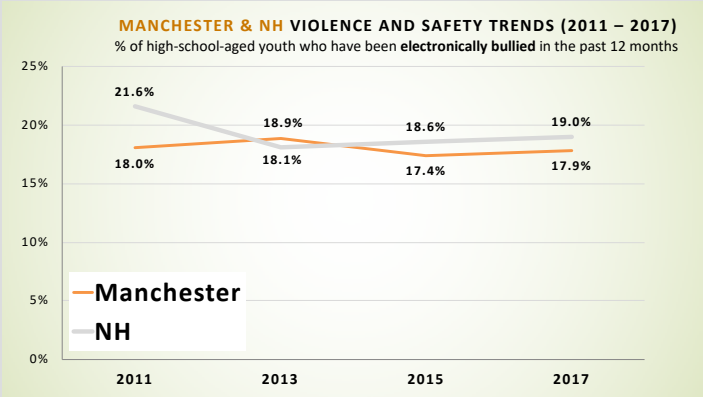


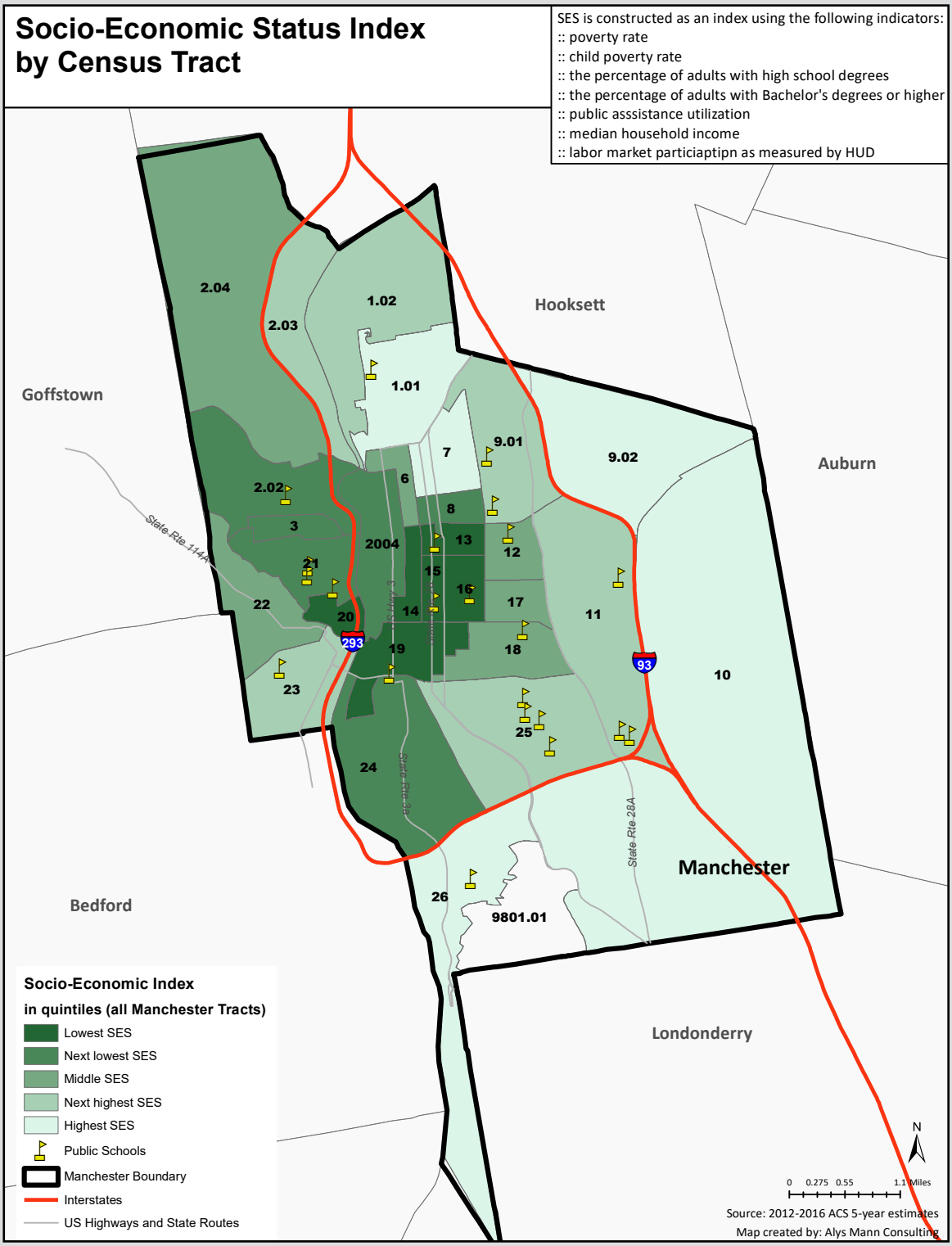
Image 9



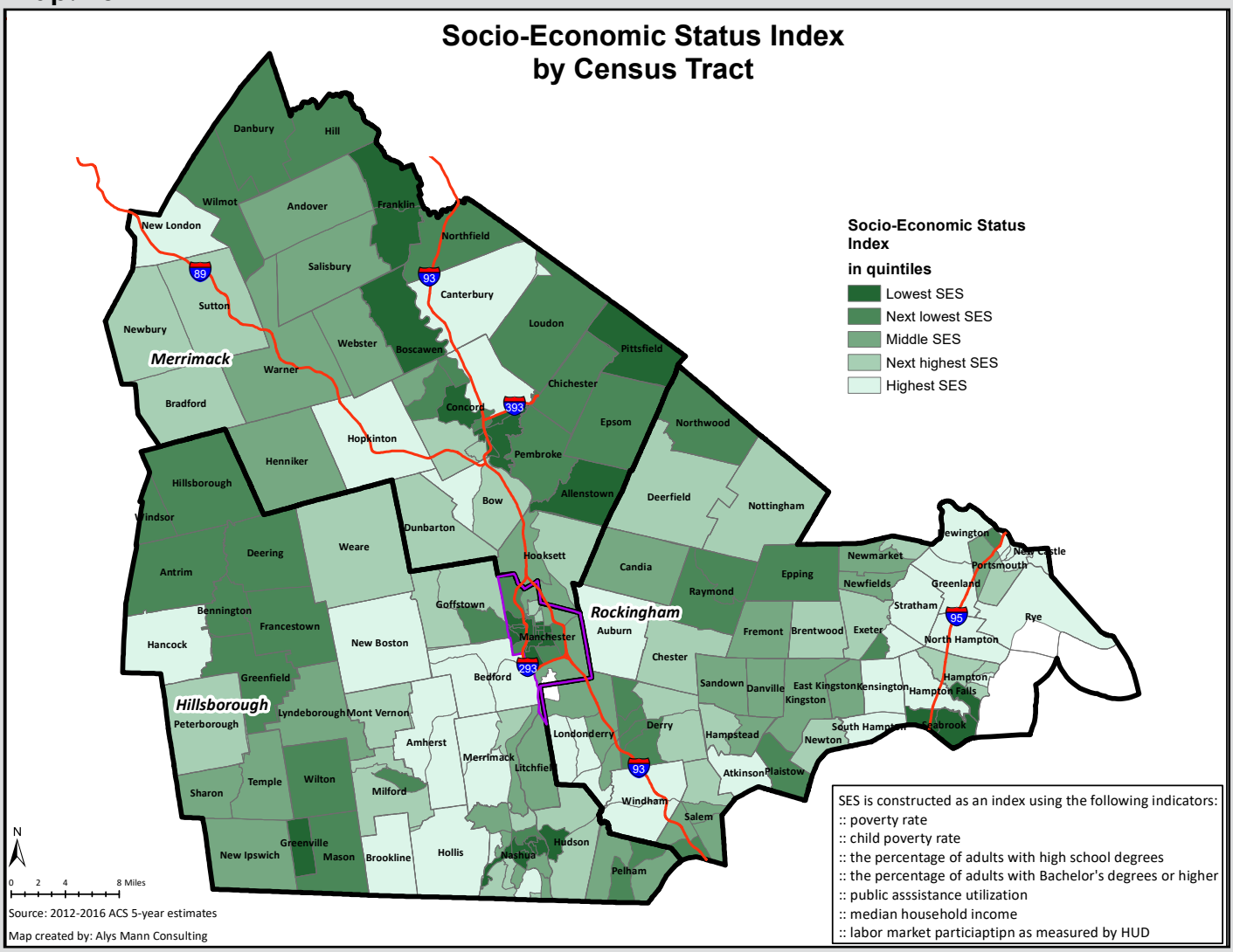
Summary of Manchester Social and Economic Factors:

As presented in this section, Manchester's center city neighborhoods have high rates of poverty, lower median incomes and lower levels of educational attainment compared to the rest of the city and the Greater Manchester Region overall. Using a Socio-Economic Status Index that is a composite of poverty rates, average educational attainment, public assistance utilization, median household income, and labor market participation, **Maps 9** and **10** demonstrate the clear disparities in social and economic factors within Manchester's center city area. This is especially evident in Census Tracts 13, 14, 15, 16, and 19 on the east side and in Tract 20 on the west side, which has the lowest Socio-Economic Status Index in the city.

Map: 9


Socio-Economic Status Index
by Census Tract
SES is constructed as an index using the following indicators:
:: poverty rate
:: child poverty rate
:: the percentage of adults with high school degrees
:: the percentage of adults with Bachelor's degrees or higher
:: public asssistance utilization
:: median household income
:: labor market particiaptipn as measured by HUD
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
State Rte 114A
State Rte 28A
293
93
2.04
2.03
1.02
1.01
7
9.01
9.02
6
2.02
8
3
2004
13
12
21
15
16
17
22
20
14
11
19
18
10
23
25
24
26
9801.01
Socio-Economic Index
in quintiles (all Manchester Tracts)
Lowest SES
Next lowest SES
Middle SES
Next highest SES
Highest SES
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

Map: 10


Socio-Economic Status Index
by Census Tract
Socio-Economic Status Index
in quintiles
Lowest SES
Next lowest SES
Middle SES
Next highest SES
Highest SES
Merrimack
Hillsborough
Rockingham
Danbury
Hill
Wilmot
Andover
Franklin
New London
Northfield
Salisbury
Canterbury
Sutton
Newbury
Loudon
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Pembroke
Henniker
Hillsborough
Bow
Allenstown
Deerfield
Nottingham
Windsor
Dunbarton
Newington
Weare
Deering
Hooksett
Newmarket
Portsmouth
Antrim
Candia
Epping
Newfields
Greenland
Raymond
Stratham
Bennington
Goffstown
Rye
Francestown
Auburn
Fremont
Brentwood
Exeter
Hancock
New Boston
Manchester
North Hampton
Chester
Greenfield
Bedford
Sandown
Danville
East Kingston
Kensington
Hampton
Hampton Falls
Kingston
Peterborough
Lyndeborough
Mont Vernon
Derry
Seabrook
Amherst
Londonderry
Hampstead
Newton
Merrimack
Atkinson
Plaistow
Sharon
Temple
Wilton
Milford
Windham
Salem
Greenville
New Ipswich
Mason
Brookline
Hollis
Hudson
Nashua
Pelham
N
0 2 4 8 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting
SES is constructed as an index using the following indicators:
:: poverty rate
:: child poverty rate
:: the percentage of adults with high school degrees
:: the percentage of adults with Bachelor's degrees or higher
:: public asssistance utilization
:: median household income
:: labor market particiaptipn as measured by HUD

SOCIAL AND ECONOMIC FACTORS

Input from Community and Resident Leaders

The social and economic factors that impact health include employment, education, income, family and social support, and community safety. The following table summarizes the top three priority areas where key leaders and community members believe Manchester should invest resources over the next three years.

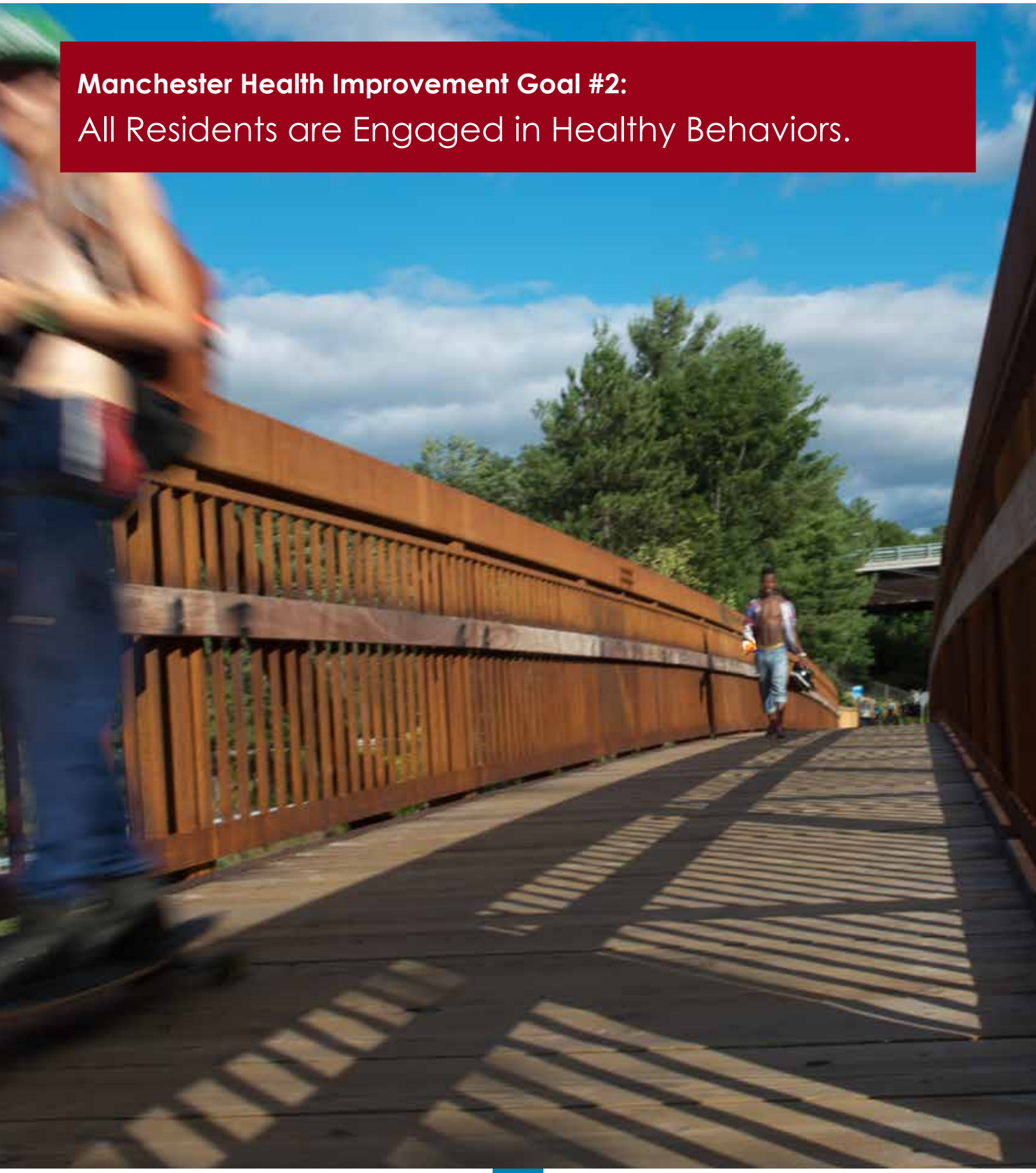
Areas for Improvement	Top Three Priority Issues
• Communication (schools with parents) • Funding • Partnering and collaboration • Central community planning • Focus on prevention, specifically around substance misuse • Housing: affordable, quality, safe • Walkability • Safety, violent crime reduction • School system: funding, high school graduation rates, third grade reading proficiency scores and absenteeism • Planning comprehensive systems of care • Sustainability planning (post IDN funding) for screening for and addressing social determinants of health. • Income inequality/meaningful wage employment; children living in poverty, unemployment rates	1 School system: high school graduation rates, third grade reading proficiency, school absenteeism 2 Violent crime 3 Income inequality

DATA SNAPSHOT: SOCIAL AND ECONOMIC FACTORS
Summary of Key Data Findings

Indicator	Manchester	Greater Manchester	Nashua, NH	State of NH	500 Cities
Education					
Preschool Enrollment	47.7%	60.4%	45.8%	51.7%	-
3rd Grade Reading Proficiency	28%	59.9%	46.9%	54%	46.2%
7th Grade Math Proficiency	23%	55.1%	39%	50%	-
Chronic Absenteeism	27.4%	-	24.9%	-	18.1%
Limited English Proficient students	10.6%	1.69%	7.2%	2.1%	-
Four-Year High School Graduation Rate	76%	-	87.4%	89%	-
Dropout Rate	2.1	-	1.5	1.1	-
Adults with Bachelor's Degree	18.9%	-	21.2	22.3%	-
Employment					
Unemployment	5.5%	3.7%	5.5%	4.5%	7.2%
Income					
Median Household Income	$56,467	$94,875	$70,316	$71,395	-
Income inequality Score	-7.8	-	+3.7	-	-5.5
Poverty					
Individuals below poverty level	14.9%	5.1%	10.8%	8.1%	-
Children living in poverty	21.4%	-	15.7%	-	22.6%
% of students enrolled in free/reduced lunch	56.9%	18.9%	42.2%	27.3%	-
Family and Social Support					
Single Parent Households	41.4%	-	35.0%	27.8%	-
Community Safety					
Violent Crime Rate	675.9	-	179.9		513.3
School safety incidents	159	-	16	1073	-

Manchester Health Improvement Goal #2:

All Residents are Engaged in Healthy Behaviors.



IV. HEALTH BEHAVIORS

Health behaviors are activities individuals undertake that can have either positive or negative impacts on their overall health and well-being. Many leading causes of death and disease are attributed to negative health behaviors, such as poor nutrition and tobacco use. Social and economic factors, such as education and poverty, can impact whether individuals have the means and the opportunities to make healthy decisions. According to research conducted by the County Health Rankings and Roadmaps project, 30% of an individual's health status is determined by their health-related behaviors.

FACTOR 1: ALCOHOL AND DRUG USE

Excessive alcohol consumption--determined by both the amount of alcohol consumed and the frequency of alcohol consumption--increases the risk for high blood pressure, heart disease, liver disease, cancer, and alcohol poisoning.[42] There is also a correlation between excessive alcohol consumption and increased rates of intimate partner violence and risky sexual behaviors.[43] Moreover, excessive alcohol consumption has contributed to significant rates of motor vehicle crashes and resulting deaths.

Drug misuse includes the use of both illegal drugs (ie., cocaine, hallucinogens, heroin, and marijuana) and the misuse of prescription drugs. New Hampshire has been particularly impacted by the national opioid epidemic, with the highest number of opioid-related overdose deaths in the state occuring in Manchester. In addition to their obvious adverse health impacts, alcohol and drug misuse have significant economic costs resulting from lost productivity, increase health care expenditures, and criminal justice expenses.

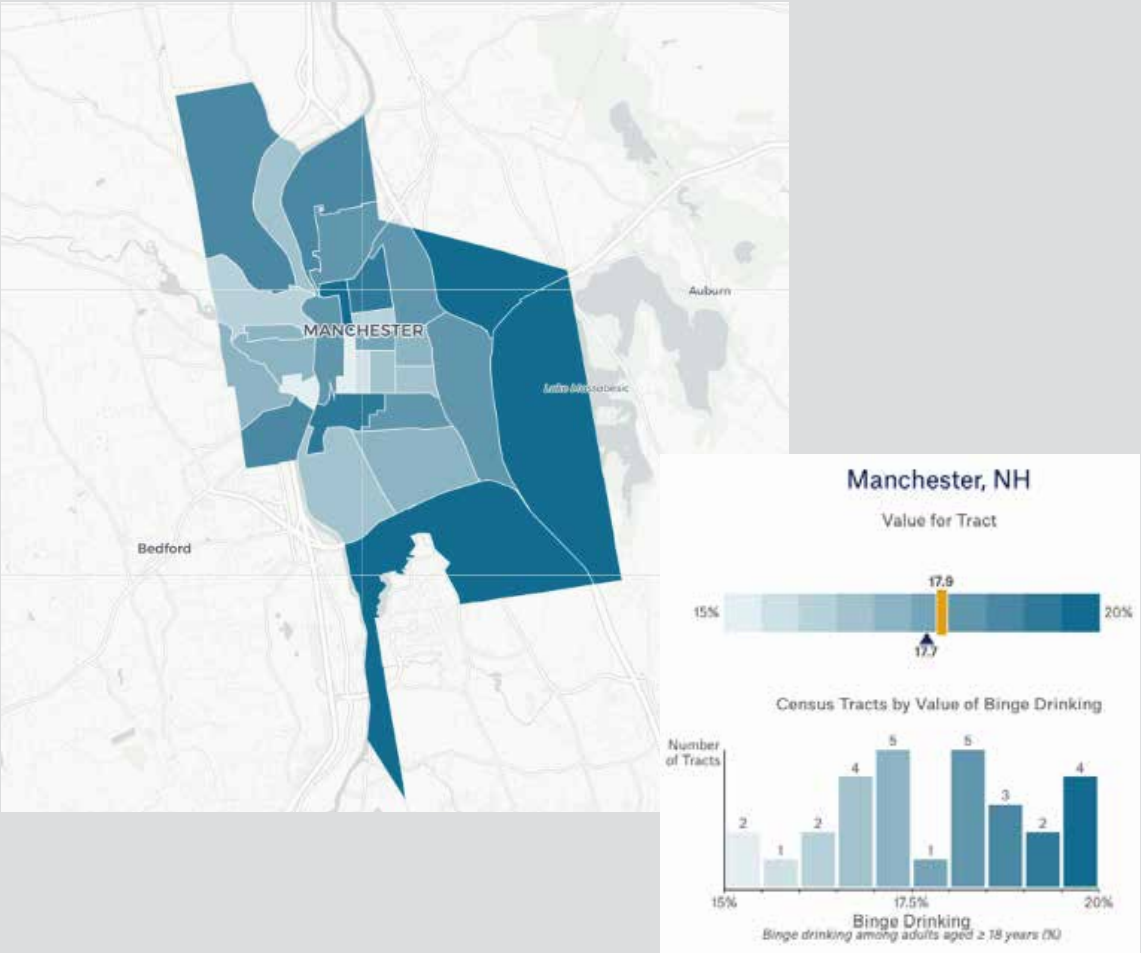
Excessive or Binge Drinking

The Centers for Disease Control and Prevention (CDC) defines binge drinking as a woman consuming more than four alcoholic drinks during a single occasion or a man consuming more than five alcoholic drinks during a single occasion.[44] The CDC defines heavy drinking as a woman drinking more than one drink on average per day or a man drinking more than two drinks on average per day. Approximately 80,000 deaths are attributed annually to excessive drinking in the US; it is the third leading lifestyle-related cause of death in the country.[45]

Where does Manchester stand?

Overall, 17.9% of Manchester adults reported binge drinking in 2016. This rate is higher in Census Tracts 6, 7, 26, 19, 9.02, 19, and 10, where between 19% and 23% of adults reported binge drinking that year (**Map 11**). The Manchester neighborhoods with the highest rates of binge drinking are located outside the center city area where local colleges are situated and where there is less poverty, consistent with national data that indicate binge drinking is most common among younger adults and those with annual household incomes of $75,000 or more.[46]

Map 11: Binge Drinking – Adults (2016)



How does the Greater Manchester Region compare?

Hillsborough County ranks fifth-highest for binge drinking out of all ten New Hampshire counties. Rockingham County has the highest reported rate of binge drinking, at 22%. The proporton of adults who report binge drinking in Manchester is similar to that in both Nashua (17.6%) and the 500 largest cities in the US (17.7%).

Underage Drinking

Despite the fact that underage drinking is illegal, the Office of Juvenile Justice and Delinquency Prevention reports that youth alcohol consumption accounts for 11% of all alcohol consumed in the US.[47] While the health consequences for youth alcohol use are similar to those associated with adult use, youth who drink alcohol face the added risks of academic difficulties, social problems, and legal issues. Youth who drink alcohol may also experience negative changes in brain development, disruption of healthy growth and impacts on sexual development.[48]

Where does Manchester stand?

According to the 2017 Youth Risk Behavior Survey (YRBS), 12.1% of Manchester high school students reported having their first real drink of alcohol (not a few sips or a taste) before age 13 years. This rate is up from 11.5% of youth who reported underage drinking in 2015, but similar to the rate of underage drinking reported in 2013 (12.3%).

Also in 2017, 7.6% of high school students in Manchester reported driving a car or other vehicle after drinking alcohol during the past 30 days. In addition, only 38.9% of Manchester students said they believed that people are at considerable risk of harming themselves if they have five or more drinks of alcohol once or twice a week. One out of every three high school students in Manchester said it would be "very easy" to get beer, wine, or liquor if they wanted it.

How does the Greater Manchester Region compare?

The proportion of high school students who report underage alcohol use is higher in Manchester than in the Greater Manchester and Nashua regions and in the state as a whole (**Table 32**).

Table 32: Underage Alcohol Use in the Region, 2017

2017 Youth Risk Behavior Survey	*City of Manchester*	*Greater Manchester*	*Greater Nashua*[50]	*New Hampshire*
% of all students who had their first drink of alcohol other than a few sips before age 13 years	12.1%	11.6%	10.8%	10.7%
% of students who drove a car or other vehicle after drinking alcohol during the past 30 days	7.6%	5.4%	2.8%	5.8%

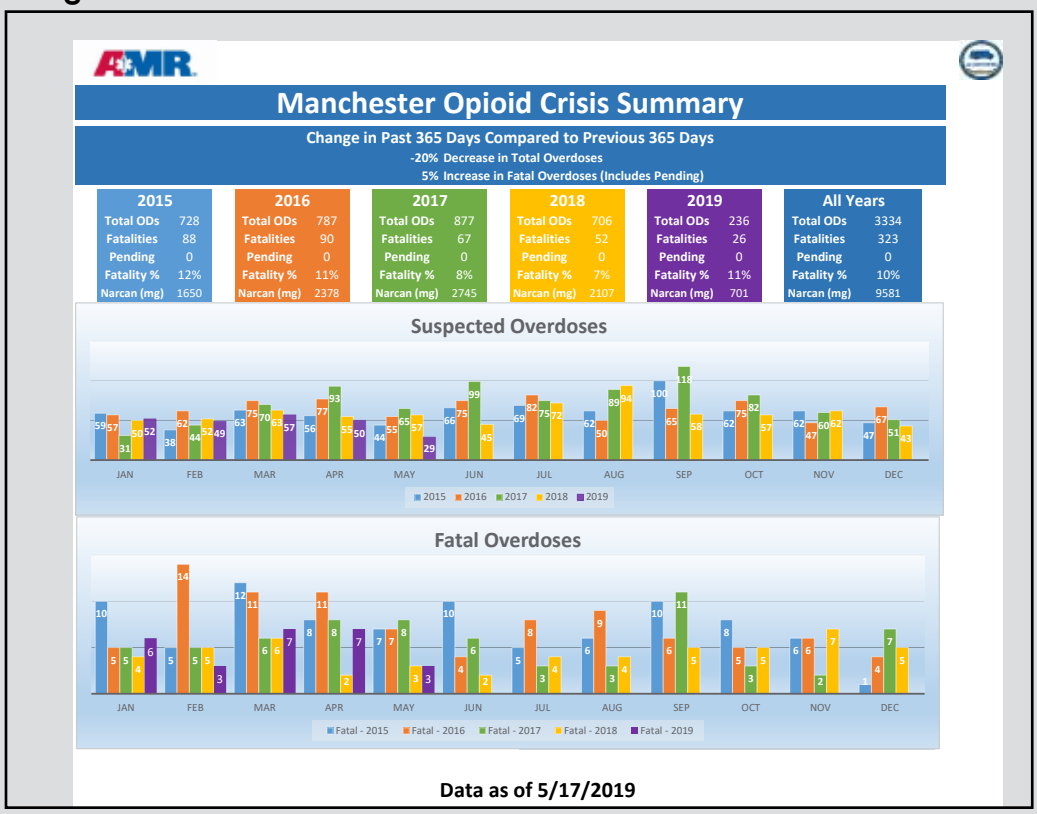
Opioid Misuse

The United States is experiencing a public health crisis resulting from opioid misuse. When used appropriately, prescription medication options such as hydrocodone, oxycodone, and fentanyl can provide much-needed pain relief. However, opioids have properties that make them addictive, resulting in high rates of overuse and abuse. Across the country, overdose deaths from prescription pain medications increased fivefold between 1999 and 2017, with 218,000 deaths from opioid-related overdose occurring during this period. While increased scrutiny of opioid prescribing patterns has reduced prescription access to these medications, alternatives such as heroin and fentanyl have become increasingly available.

Where does Manchester stand?

While Manchester has been at the epicenter of New Hampshire's opioid crisis, as of May 2019 the city has seen a 20% decrease in opioid-related overdose deaths in the past year. It is projected that there will be 629 opioid-related overdoses in Manchester in 2019, compared with 706 recorded opioid overdoses in 2018 and 877 overdoses in 2017. It is important to note, however, that despite the fact that overdoses as a whole seem to be on the decline in Manchester, the rate of fatal overdoses is not; this rate is actually projected to increase by 5% in 2019 (**Image 10**).

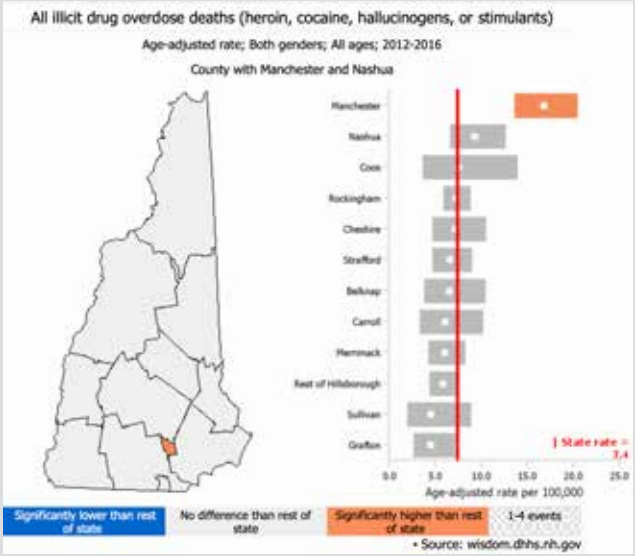
Image 10

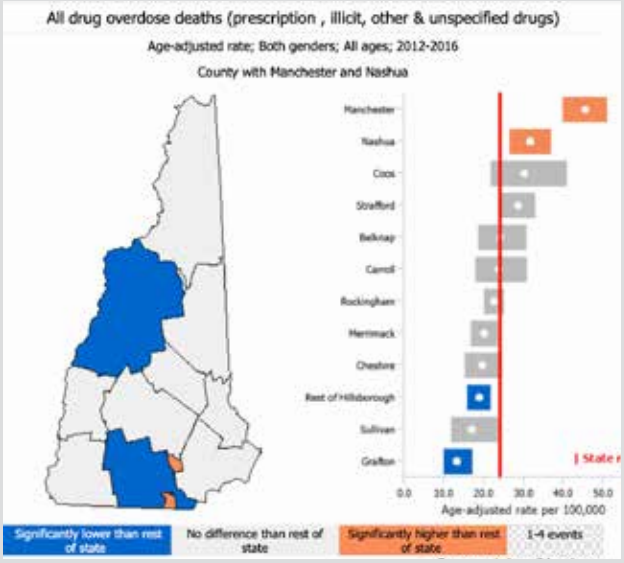


How does the Greater Manchester Region compare?

New Hampshire ranks 3rd in the nation in overdose deaths resulting from prescription and injection drug use. In 2016, the three states with the highest rates of deaths due to drug overdose were West Virginia (52.0 deaths/100,000 residents), Ohio (39.1 deaths/100,000 residents), and New Hampshire (39.0 deaths/100,000 residents).[51] In New Hampshire, deaths from all illicit drugs are significantly higher in Manchester than anywhere in the state (**Image 11**).

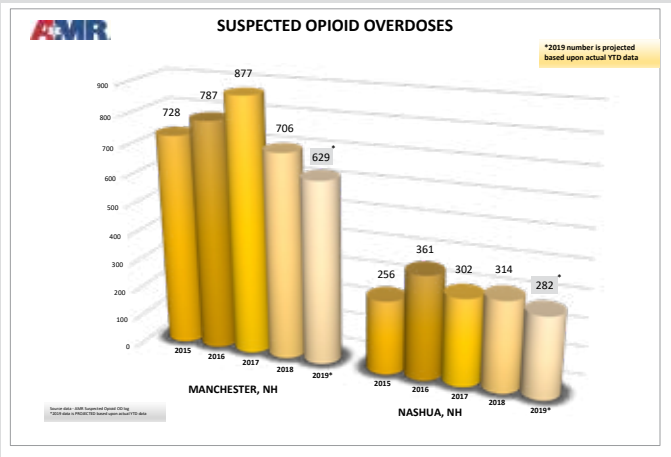
Image 11

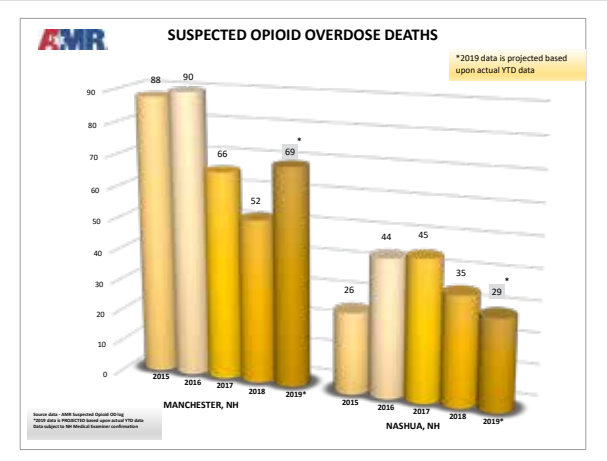




Manchester has been disproportionately impacted by the opioid crisis in New Hampshire. In 2019, it is projected that there will be 282 overdoses and 29 fatal overdoses in Nashua; this is less than half the number of overdoses predicted for Manchester in the same period. Manchester's opioid overdose death rate is also significantly higher than the average rate of overdose deaths across the nation's 500 largest cities, at 68.8 deaths per 100,000 residents versus 15 deaths per 100,000, respectively (**Image 12**).

Image 12





Manchester serves as the primary access point for the region and beyond for treament and harm reduction though Safe Station, located in the Manchester Fire Department. Approximately half of all clients served by Safe Station live outside Manchester. In fact, between January and May of 2019, 59% of Safe Station clients reported living outside the City of Manchester. Over the past 12 months, the Safe Station program has had an average of six visits per day from individuals looking for treatment services for substance misuse.

FACTOR 2: DIET AND EXERCISE

Physical activity and a balanced, nutritious diet are essential for good health. While inadequate nutrition can hinder growth and development, excessive calorie consumption can lead to weight gain and obesity. Physical activity not only helps maintain a healthy weight, it also promotes better emotional health and reduces the risks of many chronic diseases, such as heart disease.

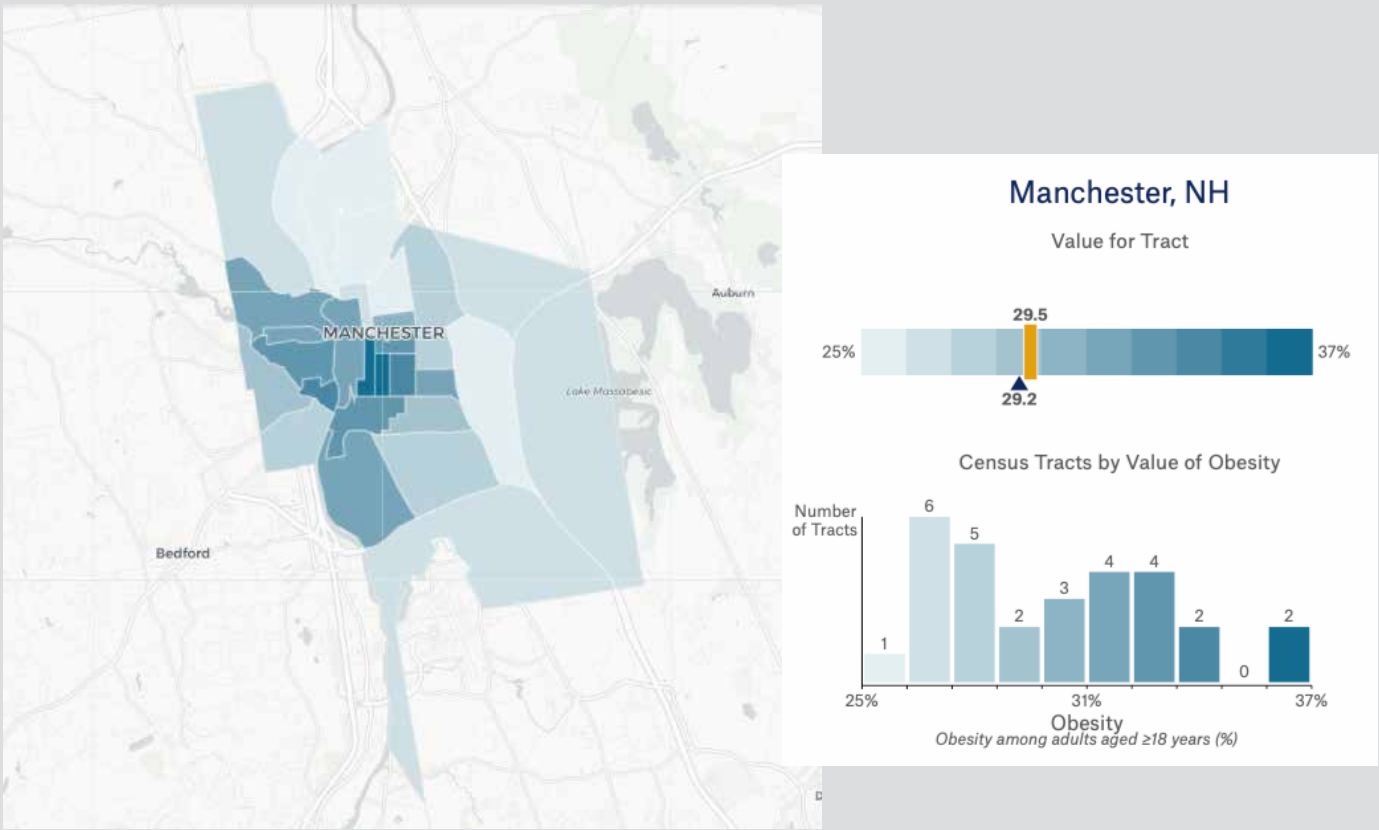
Adult Obesity

An individual is considered to be overweight when their body mass index (BMI)--calculated from a person's weight in relation to their height--is 25 or higher and obese when their BMI is 30 or higher. Being overweight or obese increases the risk for many health conditions and chronic diseases, including type 2 diabetes, heart disease, high blood pressure, and cancer, among others. Despite these health risks, more than one-third of adults in the United States are obese. While genetics is a factor in the development of obesity, it is most often the result of an unhealthy diet combined with physical inactivity. Obesity contributes to significant economic costs from medical bills and lost productivity.[52]

Where does Manchester stand?

Close to one third (29.5%) of Manchester adults report being obese, compared with 26.2% of adults in New Hampshire as a whole. Several neighborhoods in Manchester have significantly higher obesity rates than the state, with Census Tract 14 having the highest rate of obesity, at 36.6% (**Map 12**).

Map 12: Obesity – Adults (2016)



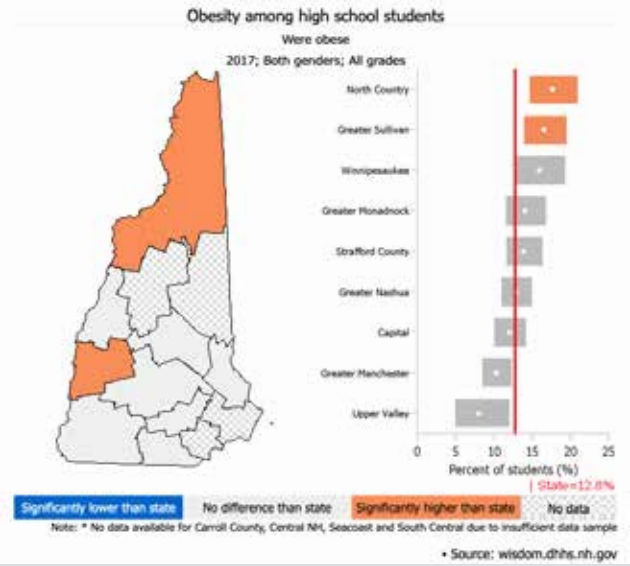
How does the Greater Manchester Region compare?

The adult obesity rate in Manchester is similar to that in Nashua (28.2%) and across the 500 largest cities in the United States (29.2%). However, there is wide variation in adult obesity within Manchester, with rates ranging from 25% to 37% by Census Tract, including 12 neighborhoods with rates above 31%.

Youth Obesity

According to the CDC, the percentage of children and adolescents in the United States with obesity has more than tripled since the 1970s, with data indicating that nearly 1 in 5 youth ages 6 to 19 years are considered to be obese.[53] As in adults, youth obesity can be linked to genetics and metabolism; however, obesity in youth is more often the result of poor eating and a lack of physical activity.

Image 13



Where does Manchester stand?

According to the 2017 YRBS, 15.1% of Manchester high school students were obese, compared with 12.8% in the state as a whole.

How does the Greater Manchester Region compare?

Based on statewide data, 12.4% of high school students in the Greater Manchester Region, were obese in 2017 (**Image 13**). This rate is similar to the Greater Nashua Region, where 12.9% of high school students were categorized as obese the same year.

Adult Physical Inactivity

Physical inactivity is associated with higher risks of a number of chronic diseases and is a leading cause of preventable death. In the Unites States, adult physical inactivity is calculated to be the cause of 11% of premature mortality each year. Some research has shown that elevated crime rates in neighborhoods may deter physical activity among residents.

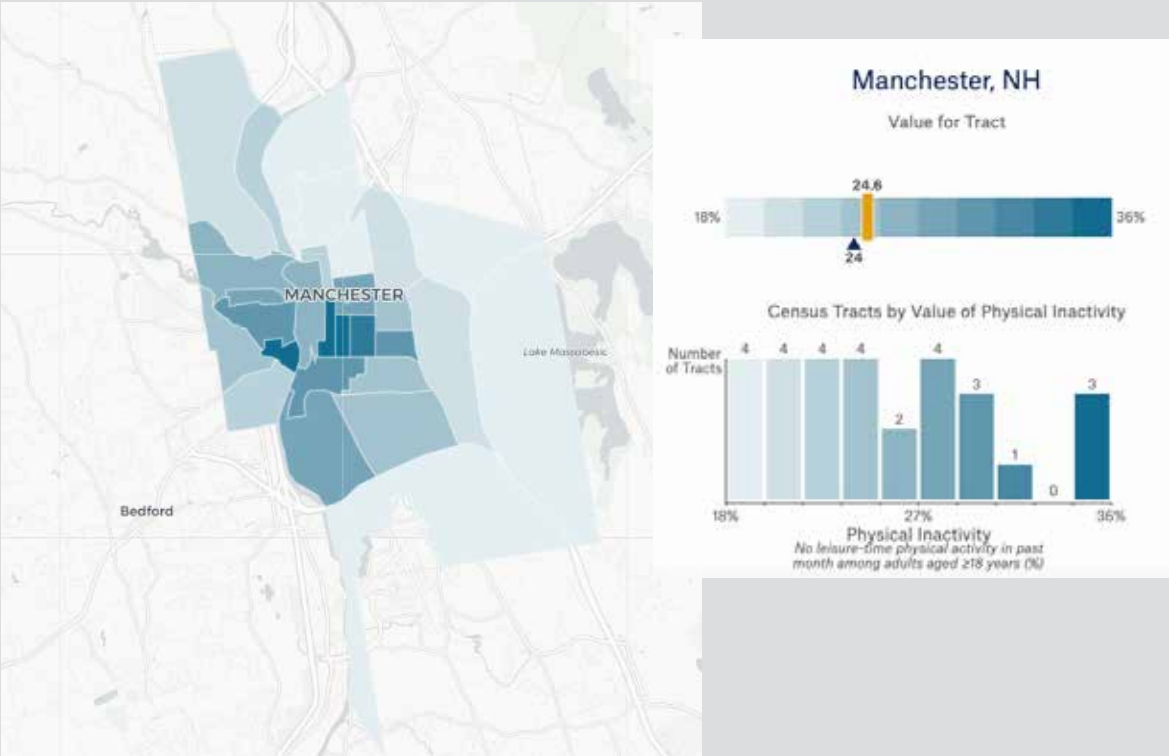
Where does Manchester stand?

In 2016, nearly one quarter (24.6%) of Manchester adults reported being physically inactive with no leisure-time physical activity in the past 30 days. There are specific neighborhoods that are disproportionately impacted by physical inactivity, including the center city Census Tracts 20, 14, and 15, in which 35% of residents or more report being physically inactive (**Map 13**).

How does the Greater Manchester Region compare?

Manchester's rate of physical inactivity among adults is 24.6%, which is slightly higher than Nashua's rate (22.8%) but similar to that in the 500 largest cities in the US (24.0%).[54]

Map 13: Physical Inactivity – Adults (2016)



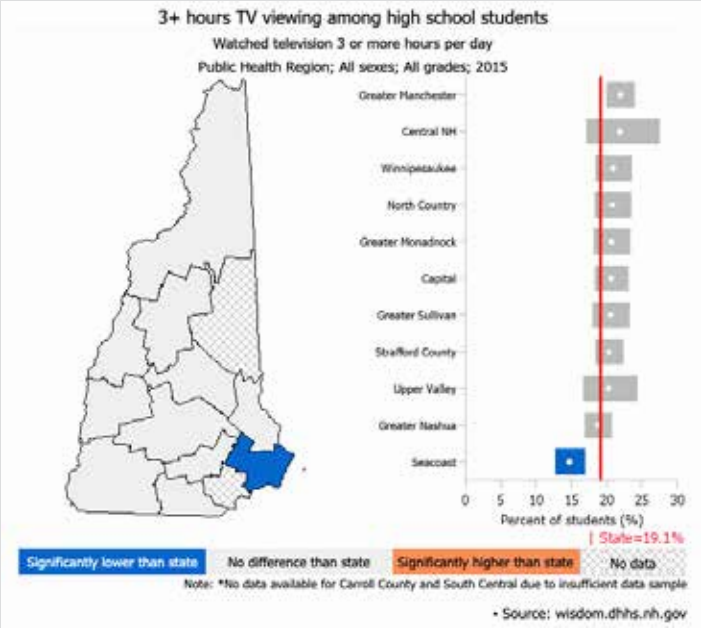
Youth Screen Time Use

While regular physical activity is essential for lifelong health and wellbeing, many children and adolescents are not meeting current physical activity guidelines and recommendations.[55] This is due, in part, to the increasing amount of time youth spend watching television, playing video games and interacting with their smartphones. It is recommended that children and youth get no more than 2 hours of screen time per day. These activities not only contribute to a sendentary lifestyle, but they may also expose youth to media messages that negatively impact academic success, healthy relationships, self-esteem, and overall well-being.[56]

Where does Manchester Stand?

In 2017, more than half (51.9%) of Manchester high school students surveyed reported playing video games or using a computer for something other than school work more than 3 hours each day, compared with 48.0% of students in the Greater Manchester Region and 47.8% of students in the state as a whole. The same year, only 46.1% of Manchester high school students reported getting the recommended amount of physical activity--60 minutes or more per day 5 or more days per week--compared with 48.5% of students in the Region and 47.2% of students statewide.

Image 14



How does the Greater Manchester Region compare?

According to data from 2015 (the most recent year for which this geographic comparison is available), the proportion of high school students within Manchester's public health region who watched television more than three hours per day was statistically similar to that in most other regions throughout the state and in the state as a whole (**Image 14**).

Insufficient Sleep

According to the Office of Disease Prevention and Health Promotion, sleep is a critical determinant of health and wellbeing. Yet 25% of adults in the US report getting insufficient sleep or rest at least 15 out of every 30 days.[57] Insufficient sleep is associated with chronic diseases and conditions, as well as injuries from car accidents and occupational errors.

Where does Manchester Stand?

In 2016, slightly more than 38% of Manchester residents reported insufficient sleep patterns defined as usually less than 7 hours of sleep, on average, during a 24 hour period. Data from the 500 Cities Project indicate that residents in Manchester's center city neighborhoods are sleeping even less, with rates as high as 41% of residents reporting insufficient sleep in some neighborhoods (**Map 14**).

How does the Greater Manchester Region compare?

The proportion of Manchester adults who report insufficient sleep (38%) is higher than the rates of insufficient sleep in both the Greater Manchester Region and the state as a whole (35.1% and 33.2%, respectively).

FACTOR 3: TOBACCO USE

Tobacco use is the leading cause of preventable disease and death in the United States, with evidence consistently linking smoking and other forms of tobacco use to adverse health outcomes. Tobacco use causes an average of 480,000 deaths each year; these deaths include non-smokers whose deaths are linked to secondhand tobacco smoke exposure.

Where does Manchester stand?

In 2016, more than 20% of Manchester adults reported smoking (defined as smoking at least one hundred cigarettes in their lifetime and currently smoking either every day or most days). An even higher proportion of residents in Manchester's Census Tracts 21, 20, 19, 14, 16, 15, and 13 reported smoking; adult smoking rates in these neighborhoods are at least 25% and as high as 30% [58] (**Map 14**).

How does the Greater Manchester Region compare?

Based on data from the 500 Cities Project, the proportion of adults who report smoking is higher in Manchester than in Nashua (20.8% and 18.2%, respectively). Both cities have higher than average smoking rates among adults when compared to the 500 largest cities in the US (17.4%).

Of note, the percentage of adults who report smoking in Hillsborough County is lower than the state average when you remove Manchester and Nashua residents from that region (**Image 15**).

Map 14: Smoking – Adults (2016)

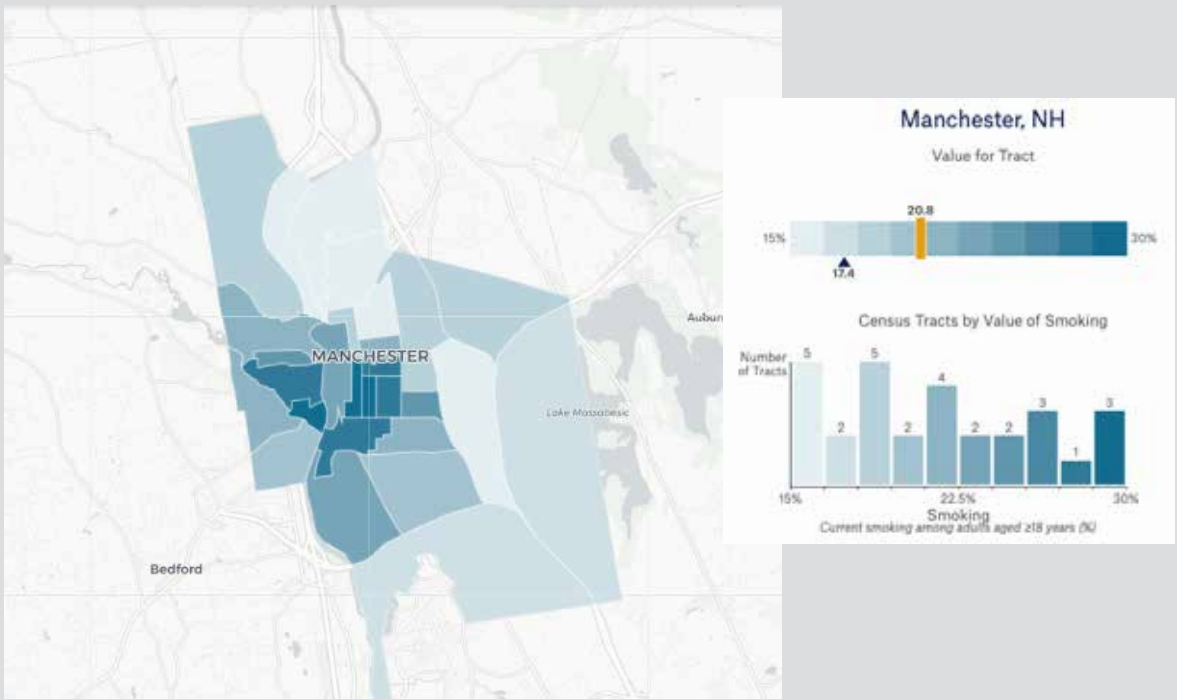
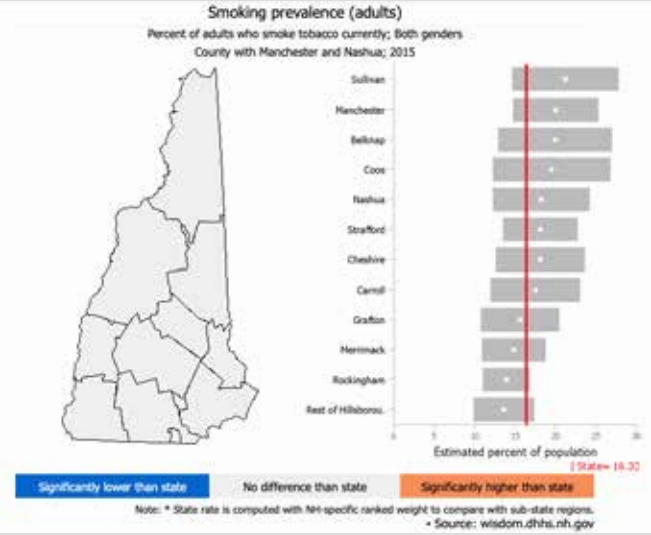


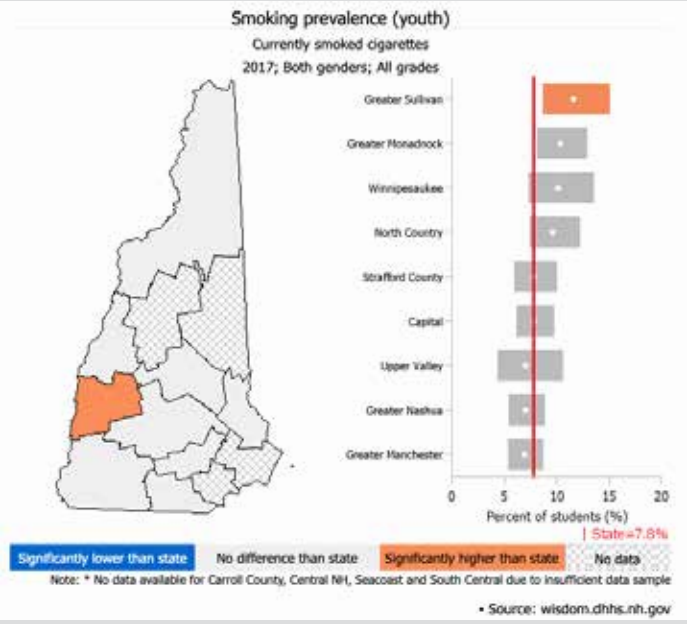
Image 15



Youth Tobacco Use

According to the CDC, tobacco product use is usually initiated and established during adolescence. Given this fact, the tobacco industry often targets youth through flavored products that are more appealing to young people. Data indicates that recent increases in tobacco use by teens is the result of rising e-cigarette use or vaping in this population.[59] Unfortunately, these products remain largely unregulated, despite clear evidence that excessive levels of nicotine can cause physical health concerns and even acute health distress in young people.

Image 16



Where does Manchester stand?

Data from 2017 indicate that 8.8% of Manchester high school students had smoked a whole cigarette for the first time before age 13 years, and 6.5% had smoked a cigarette at least once over the past 30 days. In the Greater Manchester region, 39.3% of high school students reported having used an electronic vapor product and 19.7% said they had used one at least once in the past 30 days.

How does the Greater Manchester Region compare?

The prevalence of cigarette smoking among youth is similar in the Greater Manchester region, the Greater Nashua region and the state as a whole (**Image 16**).

FACTOR 4: SEXUAL ACTIVITY

High-risk sexual activity can have both immediate and long-term health consequences and can affect the economic and social wellbeing of individuals and families. Engaging in unprotected sex can lead to sexually transmitted infections (STIs) such as gonorrhea and chlamydia, both of which are on the rise in the United States. Unprotected sex can also lead to unintended pregnancy, which is associated with delayed prenatal care and poor mental and physical health during childhood.

Teen Birth Rate

Approximately 75% of teen births in the United States are unintended.[60] While the teen birth rate has decreased across the country, there remain significant health consequences for teen mothers and their babies. Pregnant teens are less likely to access prenatal care, are more likely to have pre-term or low birthweight babies, and are at increased risk for STIs and repeat pregnancies. Teen parents are also less likely than their peers to complete high school, and more likely to live below the poverty level.

Where does Manchester stand?

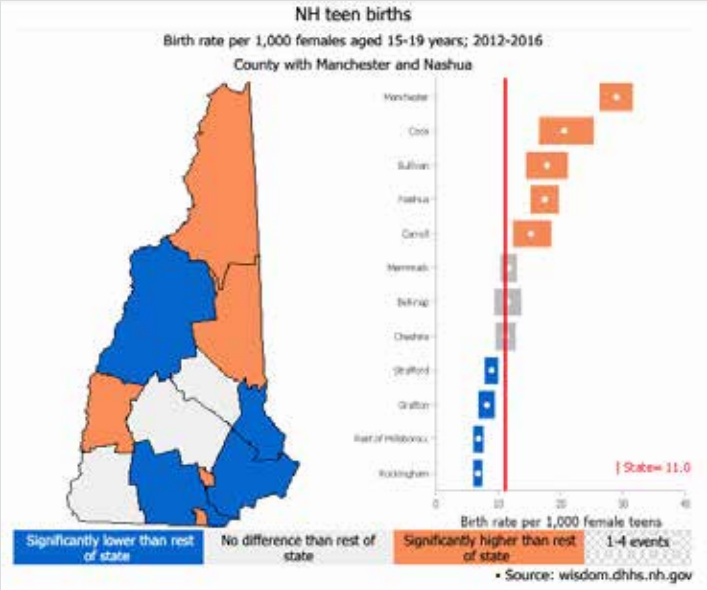
Manchester's teen birth rate is 25.4 births per 1,000 females ages 15-19 years. This rate is significantly higher among Hispanic teens (33.4 births per 1,000 females) than among Black or White teens in the city (14.9 and 11.7 births per 1,000 females, respectively).[61]

How does the Greater Manchester Region compare?

The teen birth rate in Manchester is significantly higher than the rate in the state as a whole, at 25.4 births per 1,000 females ages 15-19 years compared with 11 teen births per 1,000 females, respectively--a two-fold difference (**Image 17**). Manchester's teen birth rate is also significantly higher than Nashua's rate, at 12.8 births per 1,000 females ages 15-19 years.

The teen bith rate in Manchester is slightly higher than the 500 largest cities average (23.6 births per 1,000 females).

Image 17



Sexually Transmitted Infections

Chlamydia, the most common STI, affects both men and women but can cause severe and permanent damage to a woman's reproductive system, including infertility and ectopic pregnancy. Gonorrhea infections are also common and can affect the genitals, rectum and throat. Rates of both chlamydia and gonorrhea are on the rise locally and nationally.

Where does Manchester stand?

In 2017, there were 2,896 diagnoses of chlamydia and 405 cases of gonorrhea in the City of Manchester.

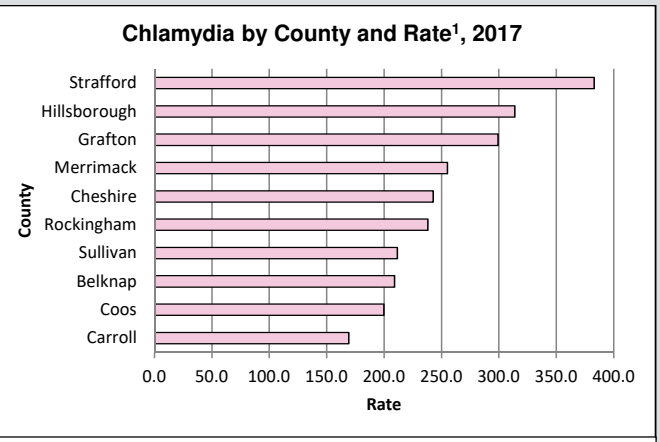
How does the Greater Manchester Region compare?

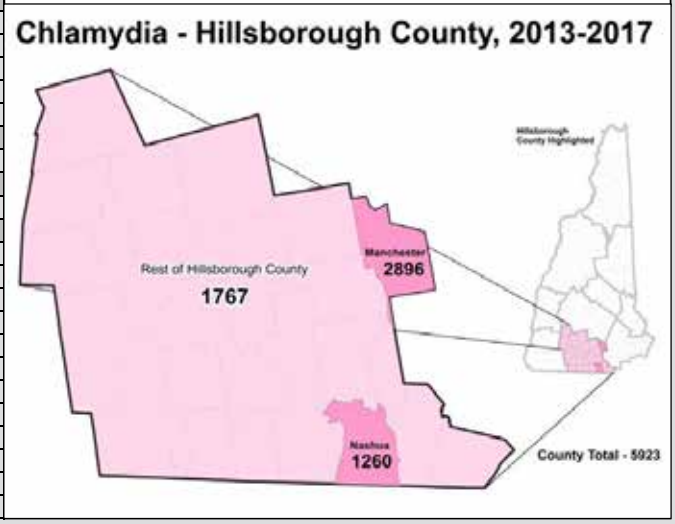
Hillsborough County in general, and the City of Manchester in particular, bear much of the burden for both chlamydia (**Image 18**) and gonorrhea (**Image 19**) in New Hampshire.

Image 18

New Hampshire Infectious Disease Surveillance Section
STD/HIV Summary Report
2013-2017
Chlamydia

YEAR	2013		2014		2015		2016		2017	
	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
TOTAL	3095	234.0	2316	174.3	3683	276.9	4047	303.1	3686	274.5
GENDER	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases[#]	Rate[1]	Cases[#]	Rate[1]
Male	920	140.8	747	113.7	1198	182.0	1325	200.5	1258	189.2
Female	2175	324.9	1569	233.6	2485	369.9	2720	403.5	2427	358.1
AGE-SPECIFIC	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
0-12	1	*	1	*	5	2.7	0	0.0	1	*
13-19	809	658.6	574	474.6	891	750.0	963	821.8	899	774.8
20-24	1436	1617.6	1029	1136.0	1611	1768.3	1789	1963.6	1627	1798.9
25-29	470	620.4	374	4754.0	655	829.4	716	889.3	628	755.6
30-34	207	276.5	167	219.7	255	331.5	290	369.5	261	325.0
35-39	69	95.2	82	112.8	117	159.2	142	188.5	129	166.9
40-44	50	55.9	39	45.5	70	85.9	57	73.9	56	74.9
45-49	27	26.6	25	25.5	39	40.8	42	44.5	35	37.9
50-54	19	16.8	20	17.8	20	18.1	19	17.8	27	26.0
55-59	5	4.8	3	*	15	13.8	19	17.2	17	15.4
60+	2	*	2	*	5	1.6	10	4.4	6	1.8
RACE	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
White	2559	205.2	1717	137.6	2498	199.9	2675	213.7	2365	188.2
Black	117	605.7	102	518.1	127	640.8	154	759.9	160	753.3
Asian/Pacific Isl.	25	76.6	25	72.7	28	78.9	37	101.5	57	150.7
AmInd/AlaskNat	10	265.5	4	*	10	257.4	7	178.3	5	125.7
Other/Unknown[2]	384	1949.5	468	2029.8	1020	4797.3	1174	5221.5	1099	4787.8
ETHNICITY		Rate[1]		Rate[1]		Rate[1]		Rate[1]		Rate[1]
Hispanic[3]	154	366.7	117	268.7	155	339.8	160	339.6	169	341.0
HIV INFECTED[4]		Rate[1]		Rate[1]		Rate[1]		Rate[1]		Rate[1]
Total	11	NC	15	NC	12	NC	16	NC	25	NC
COUNTY/CITY[5]	Cases^	Rate[1]	Cases^	Rate[1]	Cases^	Rate[1]	Cases^	Rate[1]	Cases^	Rate[1]
Belknap	150	249.6	100	166.2	164	272.2	169	278.9	127	208.9
Carroll	37	77.9	42	88.7	74	156.4	93	196.2	80	166.4
Cheshire	188	245.5	169	221.6	230	302.5	211	278.7	184	242.2
Coos	62	194.1	26	79.3	70	216.5	60	188.0	64	202.3
Grafton	229	256.0	140	156.6	237	266.8	250	279.9	266	297.6
Hillsborough	1082	268.2	848	209.4	1255	309.1	1458	357.6	1280	312.4
Manchester	521	472.3	430	389.4	624	565.8	700	632.1	621	558.5
Nashua	247	284.0	165	189.1	283	322.7	288	327.5	277	313.6
Merrimack	363	246.8	281	190.5	436	295.5	423	285.6	379	254.0
Rockingham	515	172.2	394	130.9	695	230.9	773	254.3	722	235.7
Strafford	346	277.6	229	181.7	414	327.9	497	390.5	488	379.4
Sullivan	122	283.6	70	162.4	90	213.7	109	253.3	91	211.2



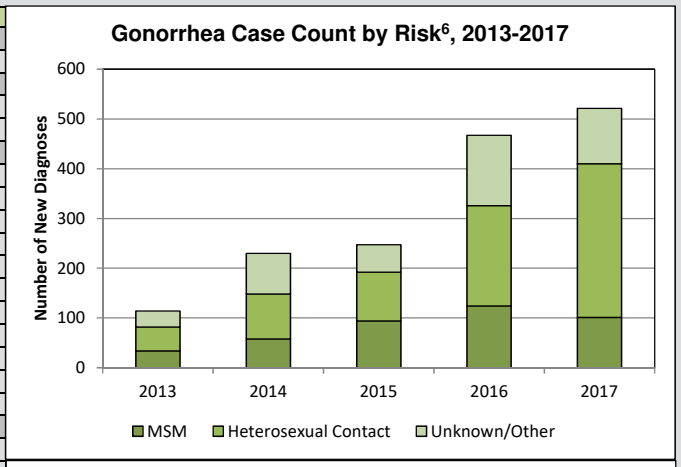


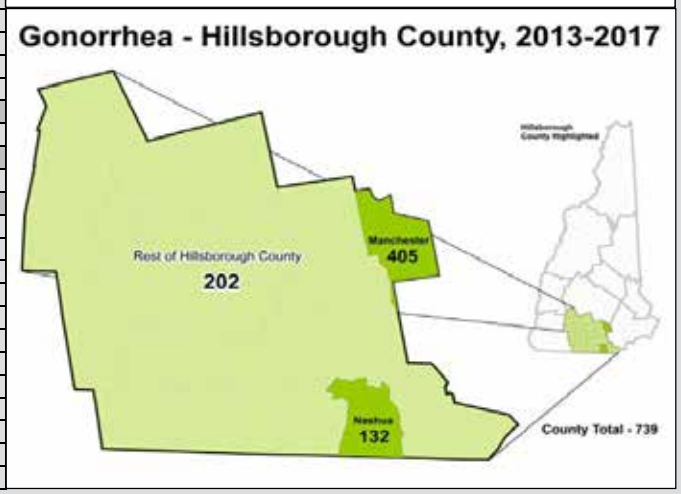
[#]Cases excluded due to unknown gender in 2016 (2) and 2017 (1)
^Cases excluded due to unknown county in 2013 (1), 2014 (17), 2015 (18), 2016 (4), and 2017 (5)

Image 19

New Hampshire Infectious Disease Surveillance Section
STD/HIV Summary Report
2013-2017
Gonorrhea

YEAR	2013		2014		2015		2016		2017	
	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
TOTAL	114	8.6	230	17.3	247	18.6	467	35.0	521	38.8
GENDER	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
Male	66	10.1	136	20.7	181	27.5	333	50.4	333	50.1
Female	48	7.2	94	14.0	66	9.8	134	19.9	188	27.7
AGE-SPECIFIC	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
0-12	0	0.0	0	0.0	0	0.0	1	*	0	0.0
13-19	9	7.3	27	22.3	31	26.1	48	41.0	42	36.2
20-24	38	42.8	66	72.9	74	81.2	105	115.2	111	122.7
25-29	22	29.0	60	762.7	41	51.9	92	114.3	116	139.6
30-34	7	9.3	38	50.0	38	49.4	70	89.2	65	80.9
35-39	9	12.4	13	17.9	11	15.0	42	55.7	65	84.1
40-44	9	10.1	7	8.2	14	17.2	26	33.7	32	42.8
45-49	11	10.8	10	10.2	19	19.9	29	30.7	31	33.6
50-54	6	5.3	5	4.5	8	7.3	25	23.4	26	25.1
55-59	0	0.0	3	*	6	5.5	19	17.2	16	14.5
60+	3	*	1	*	5	1.6	10	4.4	17	5.1
RACE	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
White	97	7.8	172	13.8	181	14.5	334	26.7	370	29.4
Black	9	46.6	19	96.5	18	90.8	24	118.4	35	164.8
Asian/Pacific Isl.	1	*	2	*	5	14.1	4	*	16	42.3
AmInd/AlaskNat	2	*	0	0.0	0	0.0	1	*	1	*
Other/Unknown[2]	5	25.4	37	160.5	43	202.2	104	462.6	99	431.3
ETHNICITY	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
Hispanic[3]	6	14.3	13	29.9	14	30.7	23	48.8	27	54.5
HIV INFECTED[4]		Rate[1]		Rate[1]		Rate[1]		Rate[1]		Rate[1]
Total	6	NC	16	NC	24	NC	29	NC	25	NC
COUNTY/CITY[5]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]
Belknap	3	*	4	*	6	10.0	12	19.8	45	74.0
Carroll	2	*	2	*	2	*	1	*	3	*
Cheshire	9	11.8	17	22.3	27	35.5	19	25.1	16	21.1
Coos	1	*	1	*	1	*	7	21.9	5	15.8
Grafton	4	*	9	10.1	10	11.3	19	21.3	23	25.7
Hillsborough	52	12.9	89	22.0	111	27.3	251	61.6	236	57.6
Manchester	25	22.7	51	46.2	72	65.3	171	154.4	86	77.3
Nashua	14	16.1	18	20.6	21	23.9	33	37.5	46	52.1
Merrimack	12	8.2	21	14.2	24	16.3	48	32.4	60	40.2
Rockingham	20	6.7	48	15.9	35	11.6	68	22.4	87	28.4
Strafford	11	8.8	33	26.2	26	20.6	34	26.7	41	31.9
Sullivan	0	0.0	6	13.9	5	11.9	8	18.6	5	11.6

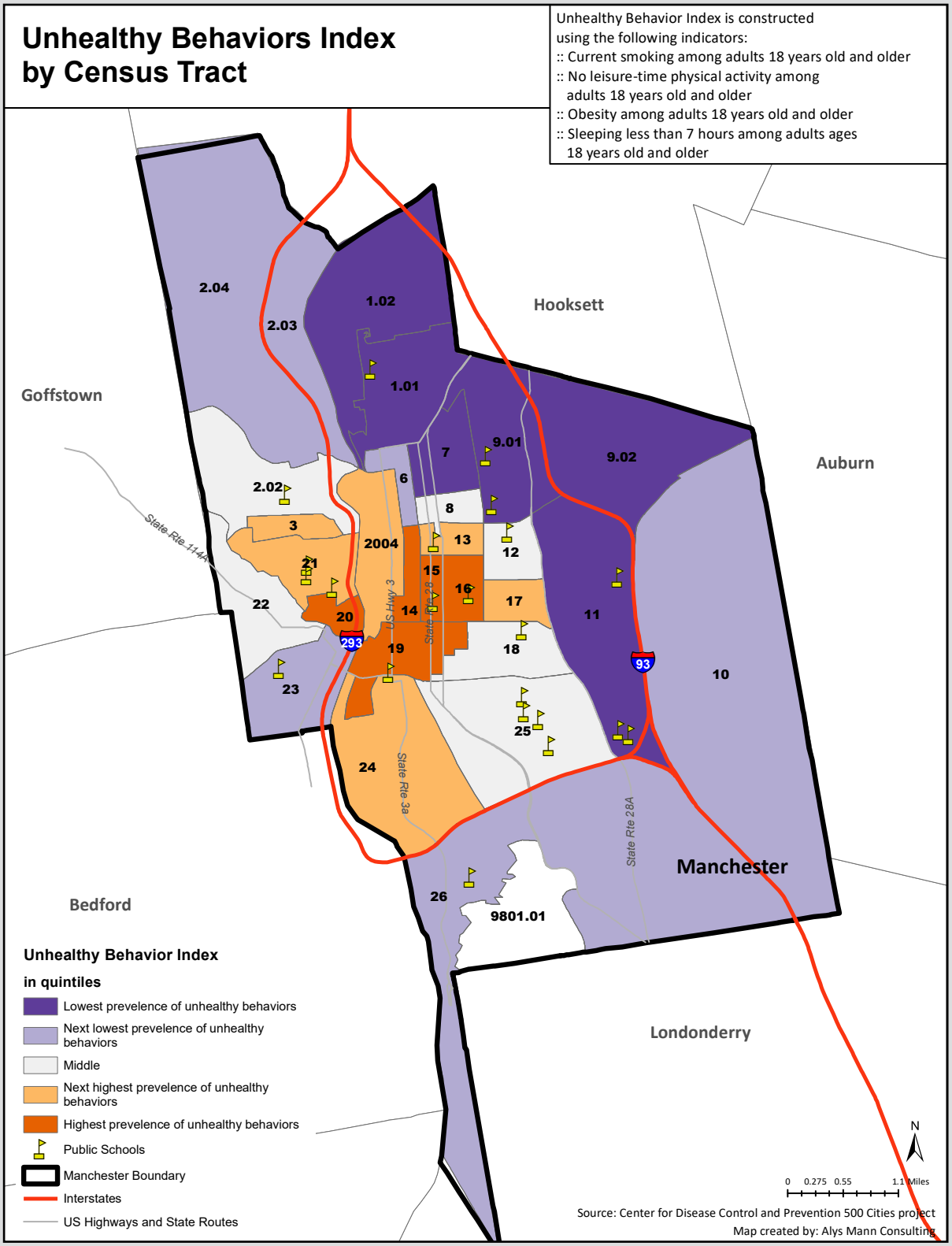




Summary of Manchester Health Behaviors:

Manchester's center city residents are disproportionately affected by unhealthy behaviors, including smoking, physical inactivity, obesity, and inadequate sleep. These behaviors have a strong impact on overall healthy outcomes, longevity and quality of life. According to a compound measure of unhealthy behaviors, the Unhealthy Behaviors Index, Census Tracts 14, 15, 16, and 19 on Manchester's east side and Tract 20 on Manchester's west side have the highest prevalence of unhealthy behaviors in the city (**Map 15**).

Map: 15


Unhealthy Behaviors Index by Census Tract
Unhealthy Behavior Index is constructed using the following indicators:
:: Current smoking among adults 18 years old and older
:: No leisure-time physical activity among adults 18 years old and older
:: Obesity among adults 18 years old and older
:: Sleeping less than 7 hours among adults ages 18 years old and older
Hooksett
Goffstown
Auburn
Manchester
Bedford
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
8
2.02
3
2004
13
12
21
15
16
17
22
20
14
11
19
18
10
23
25
24
26
9801.01
State Rte 114A
US Hwy 3
State Rte 28
State Rte 3a
State Rte 28A
293
93
Unhealthy Behavior Index in quintiles
Lowest prevelence of unhealthy behaviors
Next lowest prevelence of unhealthy behaviors
Middle
Next highest prevelence of unhealthy behaviors
Highest prevelence of unhealthy behaviors
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: Center for Disease Control and Prevention 500 Cities project
Map created by: Alys Mann Consulting

HEALTH BEHAVIORS

Input from Community and Resident Leaders

Health-related behaviors include tobacco, alcohol and drug use, diet and exercise, and sexual activity. The following table summarizes the top three priority areas where key leaders and community members believe the City should invest resources over the next three years.

Areas for Improvement	Top Three Priority Issues
• Communication and health messaging • Supporting small minority-focused agencies which lack infrastructure • Substance misuse – opioid overdose deaths • Teen birth rates • Addressing root causes of substance misuse • Prevention • Homelessness • Support for minority residents • Planning comprehensive systems of care • Supporting residents to navigate complex health and social systems/services • Engaging state support, especially for opioid crisis	1 Substance misuse: opioid crisis, adult binge drinking and tobacco use, teen vaping 2 Adult physical inactivity 3 Health education and messaging

DATA SNAPSHOT: HEALTH BEHAVIORS
Summary of Key Data Findings

Indicator	Manchester	Greater Manchester	Nashua, NH	State of NH	500 Cities
Alcohol and Drug Use					
Binge Drinking- Adults	17.9%		17.6%		17.7%
% of all students who had their first drink of alcohol other than a few sips before age 13 years	12.1%	11.6%	10.8%	10.7%	-
% of students who drove a car or other vehicle after drinking alcohol during the past 30 days	7.6%	5.4%	2.8%	5.8%	-
Diet and Exercise					
Obesity Rate – Adults	29.5%	-	28.2%	-	29.2%
Youth Obesity among High School Students	-	10.3%	12.9%	12.8%	-
Physical Inactivity – Adults	24.6%	-	22.8%	-	24%
Insufficient Sleep among Adults	38%	35.1%	-	33.2%	-
Tobacco Use					
Rate of Current Smoking – Adults	20.8%		18.2%		17.4%
Sexual Activity					
Births to Teen Mothers	25.4	-	12.8		23.6
Chlamydia, 2017	621 cases	-	277 cases	3,686 cases	-
Gonorrhea, 2017	86 cases	-	46 cases	521 cases	-

Manchester Health Improvement Goal #3:

All Residents have Access to Quality Health Care and Preventive Health Services.

V. CLINICAL CARE

When residents have access to affordable, quality, and timely care, they also have the best health outcomes, enabling them to live longer and lead healthier lives. The availability of clinical care services in a community can be divided into two categories, Access to Care and Quality of Care.

- **Access to Care** is measured by both the number of primary care providers in a community and the number of residents who have health insurance in a community.
- **Quality of Care** is measured by a combination of preventive care utilization rates and the number of preventable hospital visits that occur in a particular community.

According to the County Health Rankings and Roadmaps initiative, these two measures of clinical care account for 20% of an individual's health status.

FACTOR 1: ACCESS TO CARE

Access to care is dependent on an individual's ability to obtain the right care, at the right time, in the right setting. Location is often a barrier to care when needed services are not available close to home. New Hampshire, like many areas across the United States, is experiencing a shortage of healthcare providers amidst growing patient needs.

The high cost of care can also be a barrier to access, especially for those who lack health insurance. Uninsured individuals are less likely to have primary care providers than the insured, and therefore have less access to preventive care, routine diagnostic screening and ongoing chronic disease management. Healthcare costs can also be a barrier to care for those with insurance if they face high out of pocket costs for co-pays, insurance deductibles or prescriptions.

Medically Underserved Area

The US Health Resources and Services Administration designates areas with too few primary care providers as Medically Underserved Areas (MUAs). This designation is based on an index of medical "underservice," which is calculated using four measures: the population-to-provider ratio, the percent of the population that lives below the federal poverty level, the percent of the population that is older than age 65 years, and the infant mortality rate.[62]

Where does Manchester Stand?

Six neighborhoods in East Manchester have been designated as MUAs: Census Tracts 6, 13, 14, 15, 16, and 2004. Four neighborhoods in West Manchester--Census Tracts 2.02, 3, 20, and 21--have been identified as Exceptional Medically Underserved Areas, which is a designation for areas that do not meet the formal criteria for a MUA but have exceptional need (**Map 16**).

How does the Greater Manchester Region Compare?

A total of ten neighborhoods in Manchester have received designations as MUAs. Manchester is one of only two non-rural communities in New Hampshire to receive MUA designation.

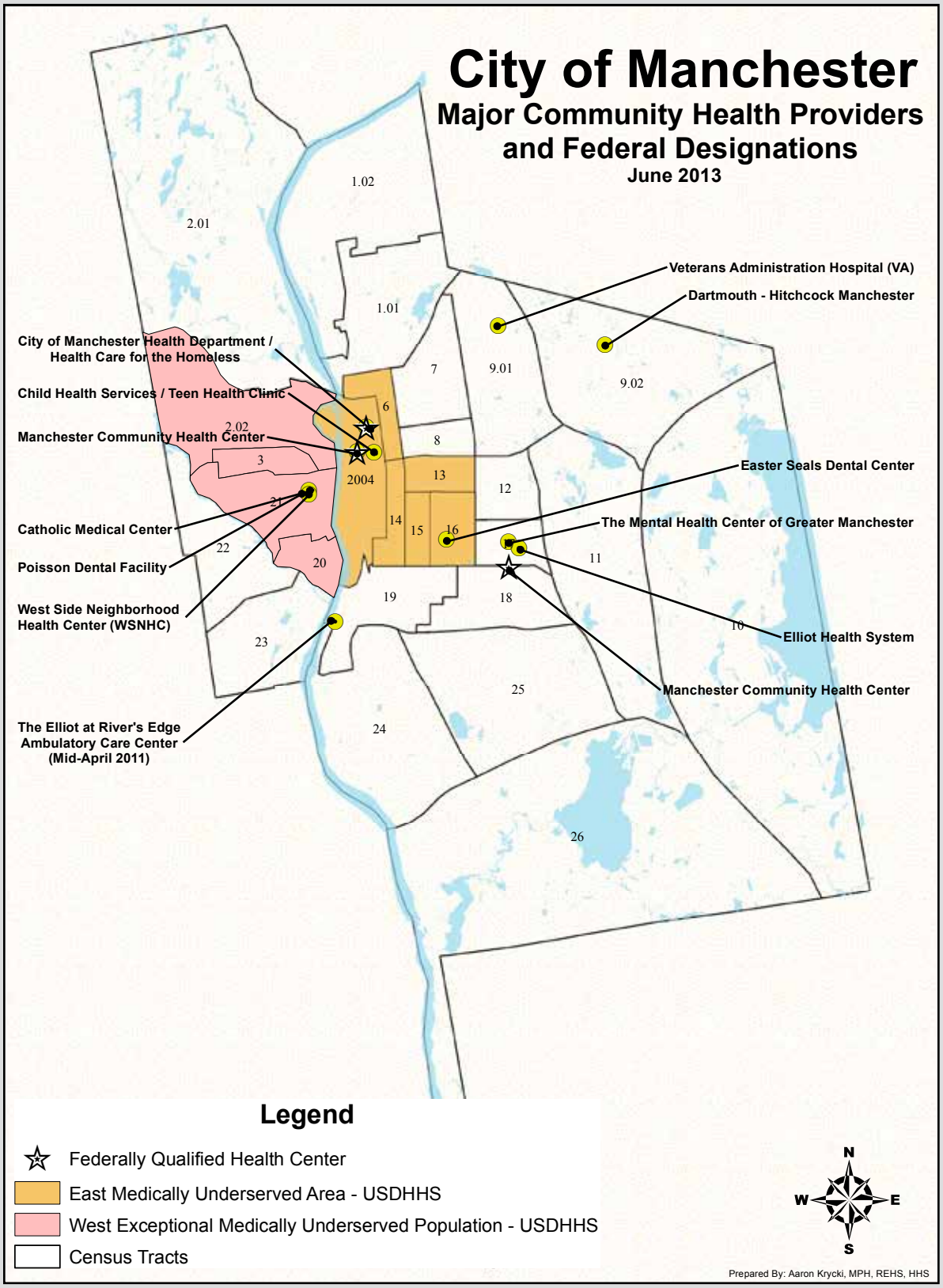
Uninsured

According to the Kaiser Family Foundation, "health insurance makes a difference in whether and when people get necessary medical care, where they get their care, and ultimately, how healthy they are." Uninsured individuals may postpone necessary care and forgo preventive care altogether, with potentially severe consequences. For many uninsured individuals, other essential expenses like food and housing will take priority over healthcare.

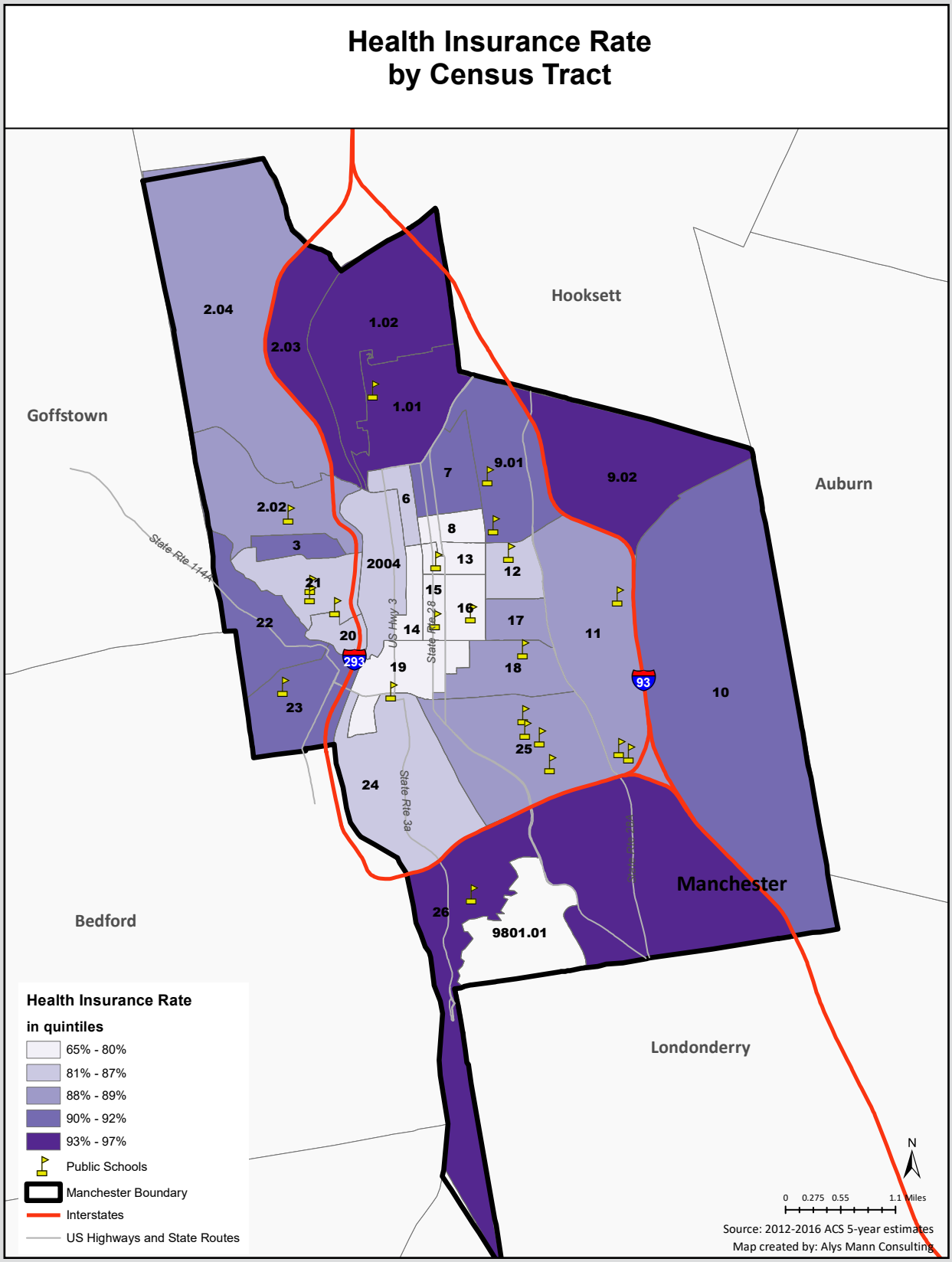
Where does Manchester stand?

Based on 2016 data, 13.3% of Manchester adults ages 18-64 years had no health insurance. This percentage varied significantly by neighborhood, with as few as 3% of residents having no insurance in some areas of the city and as many as 35% of residents being uninsured in center city neighborhoods (**Map 17)**.

Map: 16


City of Manchester
Major Community Health Providers and Federal Designations
June 2013
Veterans Administration Hospital (VA)
Dartmouth - Hitchcock Manchester
City of Manchester Health Department / Health Care for the Homeless
Child Health Services / Teen Health Clinic
Manchester Community Health Center
Easter Seals Dental Center
The Mental Health Center of Greater Manchester
Catholic Medical Center
Poisson Dental Facility
West Side Neighborhood Health Center (WSNHC)
Elliot Health System
Manchester Community Health Center
The Elliot at River's Edge Ambulatory Care Center (Mid-April 2011)
1.02
2.01
1.01
7
9.01
9.02
6
2.02
8
3
2004
13
12
21
14
15
16
22
20
11
19
18
10
23
25
24
26
Legend
Federally Qualified Health Center
East Medically Underserved Area - USDHHS
West Exceptional Medically Underserved Population - USDHHS
Census Tracts
N
W
E
S
Prepared By: Aaron Krycki, MPH, REHS, HHS

Map: 17


Health Insurance Rate
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
8
2.02
3
2004
13
12
21
15
16
22
20
14
17
11
19
18
10
23
25
24
26
9801.01
State Rte 114A
US Hwy 3
State Rte 28
State Rte 3a
293
93
Health Insurance Rate
in quintiles
65% - 80%
81% - 87%
88% - 89%
90% - 92%
93% - 97%
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

Manchester's uninsured rates also vary among racial and ethnic groups, with higher rates of uninsurance among the city's Asian, Black, and Hispanic residents, compared to White residents. Hispanic residents are particularly likely to be uninsured, at 22.4% (**Table 33**).

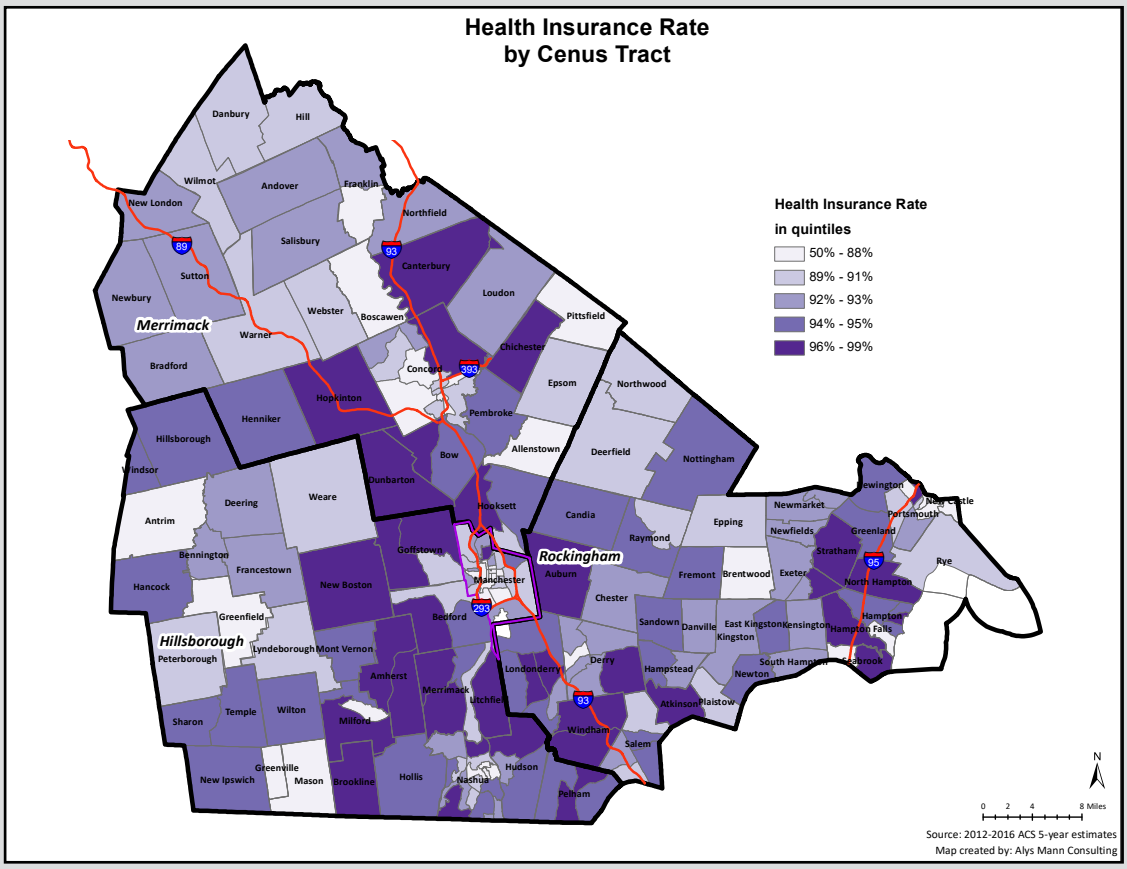
Table 33: Uninsured by Race/Ethnicity, Manchester, 2017

Population	***% Uninsured***
Asian	15.6%
Black	17.0%
Hispanic	22.4%
White	11.3%
Other	11.3%

How does the Greater Manchester Region compare?

The percentage if adults in Manchester who are uninsured is similar to that in the 500 largest cities in the US (12.8 and 12.9%, respectively). However, Manchester's adult uninsured rate is higher than in Nashua, where 9.5% of adults report being uninsured. Uninsurance rates vary across the Greater Manchester region; with Manchester's center city neighborhoods having the highest rates of uninsurance in the region (**Map 18).**

Map: 18



Preventive Health Care

Preventive care includes both disease prevention and early detection strategies. For instance, vaccination can prevent an individual from contracting a transmittable disease, while screening can identify a disease before symptoms arise and when treatment is likely to be most effective. However, each year millions of people do not receive the preventive services recommended by national experts for their age group. People with lower incomes and those without health insurance are less likely to utilize preventive health care services than other populations.

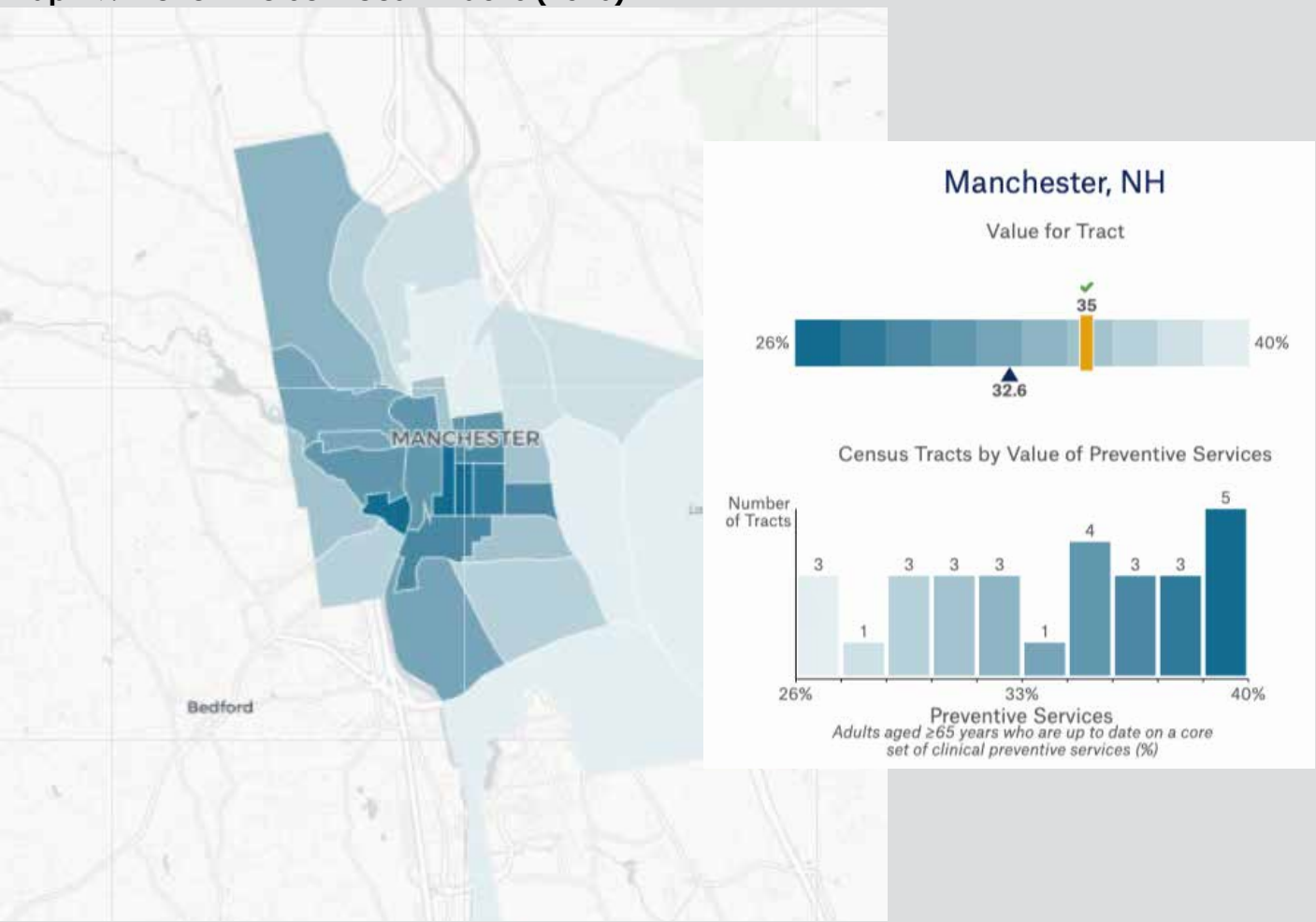
Where does Manchester stand?

The majority of Manchester adults aged 18 years and older (71.8%) report visiting their doctor for a routine checkup within the past year. However, only about a third of older adults receive a core set of preventive services on a routine basis. In 2016, only 37.8% of Manchester men aged 65 years and older reported getting all three core preventive medical services: flu vaccine, pneumonia vaccine, and colorectal cancer screening at the recommended frequency. Even fewer women in this age group received their core preventive services, with only 32.6% reporting that they received flu and pneumonia vaccines and both colorectal screening and mammography at the recommended frequency.

How does the Greater Manchester Region compare?

The percentage of older adults aged 65 years and older who report recieving core preventive services is higher in Manchester than in the 500 largest cities in the US (35.0% versus 32.6%, respectively), but slightly lower than in Nashua, where 36.8% of older adults report receiving recommended preventive care. Adults in Manchester's center city neighborhoods are less likely than those in other neighborhoods to be up to date on core preventive services (**Map 19**).

Map 19: Preventive Services – Adults (2016)



Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions (ACSCs) are health conditions for which appropriate management in the primary care setting should prevent the need for hospitalization. When patients lack adequate access to primary care, emergency room visits for ACSCs are more likely, making this an effective indicator of overall access to care in a community. Admissions for ACSCs are divided into two categories, acute ACSCs (infections and vaccine preventable diseases) and chronic ACSCs, such as diabetes and asthma.

Where does Manchester stand?

Between October 2012 and September 2015, Manchester residents had 19,164 emergency room admissions for acute ACSCs, or 5,808.5 visits per 100,000 residents. During the same period, Manchester residents had 7,905 emergency room admissions for chronic ACSCs, calculating to a rate of 2,395.9 visits per 100,000 residents.

How does the Greater Manchester Region compare?

Admissions for acute and chronic ACSCs occur at a significantly higher rate in Manchester than in the Greater Manchester Hospital Service Area and in the state. Of note, the rate of admissions for acute ACSCs was significantly higher in Manchester than in the state as a whole despite the fact that this rate was lower in the Greater Manchester Hospital Service Area than in the state as a whole (**Table 34**).

Table 34: Ambulatory Care Sensitive Conditions, 2012-2015

Indicator	*Geography*	*# of ED Visits*	*Rate per 100,000 Residents*
Acute	NH	180,994	4545.8
	Greater Manchester	24,470	4451.5
	Manchester	19,164	5808.5
Chronic	NH	65,305	1640.2
	Greater Manchester	10,157	1847.7
	Manchester	7,905	2395.9

Acute Health Care Access

While appropriate access to primary care can prevent many emergency department visits, hospitalization is necessary for some acute and life-threatening conditions. Most births in the US also occur in hospitals, as delivery complications often require immediate access to medical care.[65]

Where does Manchester stand?

Between October 2012 and September 2015, the most common emergency department visits among Manchester residents were for abdominal pain (7,833 patients), upper respiratory infections (6,219 patients), superficial injuries and contusions (6,191 patients), nonspecific chest pain (5,992 patients), and muscle sprains or strains (5,874 patients). Hospital admissions during this period were most common for births (4,376 patients), septicemia (1,809 patients), congestive heart failure (1,151 patients), pneumonia (1,151 patients), and osteoarthritis (1,111 patients).

How does the Greater Manchester Region compare?

Upper respiratory infections are the 2nd leading cause of emergency department visits in Manchester, while only the 5th cause of emergency department visits in the state as a whole. More than 83% of all patients admitted to the emergency department for upper respiratory infections in the Greater Manchester Hospital Service Area during 2012-2015 were residents of the City of Manchester (**Table 35**). It is likely that many of these infections could have been managed in a primary care setting.

Table 35: Top Reasons for Emergency Department (ED) Visits, 2012-2015

Geography	*Rank*	*Reason for Visit*	*# of ED Visits*	*% Total ED Visits*	*Rate per 100,000 Population*
Manchester	1	Abdominal pain	7833	4.7%	2374.1
	2	Other upper respiratory infections	6219	3.7%	1884.9
	3	Superficial injury; contusion	6191	3.7%	1876.4
	4	Nonspecific chest pain	5992	3.6%	1816.1
	5	Sprains and strains	5874	3.5%	1780.4
Greater Manchester (HSA)	1	Abdominal pain	10045	4.6%	1827.4
	2	Nonspecific chest pain	8419	3.8%	1531.6
	3	Superficial injury; contusion	8056	3.7%	1465.5
	4	Other upper respiratory infections	7476	3.4%	1360
	5	Sprains and strains	7393	3.4%	1344.9
NH	1	Superficial injury; contusion	68500	4.5%	1720.4
	2	Abdominal pain	65014	4.2%	1632.9
	3	Sprains and strains	64159	4.2%	1611.4
	4	Nonspecific chest pain	55059	3.6%	1382.9
	5	Other upper respiratory infections	54007	3.5%	1356.4

Not surprisingly, childbirth was the number one reason for hospitalization in Manchester, the Greater Manchester region and the state overall in 2012-2015. Chronic conditions that typically affect aging populations at a higher rate, such as congestive heart failure and osteoarthritis, were also among the top five reasons for hopitalization in all three geographic regions. (**Table 36**).

Table 36: Top Reasons for Hospitalization, 2012-2015

Geography	*Rank*	*Reason for Visit*	*# of Hospital Discharges*	*% Total Discharges*	*Rate per 100,000 Population*
Manchester	1	Childbirth	4,376	11%	1326.3
	2	Septicemia (except in labor)	1,809	4.6%	548.3
	3	Congestive heart failure; nonhypertensive	1,151	2.9%	348.9
	4	Pneumonia	1,151	2.9%	348.9
	5	Osteoarthritis	1,111	2.8%	336.7
Greater Manchester (HSA)	1	Childbirth	6,135	10.6%	1116.1
	2	Septicemia (except in labor)	2,694	4.7%	490.1
	3	Osteoarthritis	1,978	3.4%	359.8
	4	Congestive heart failure; nonhyper-tensive	1,732	3%	315.1
	5	Pneumonia	1,685	2.9%	306.5
NH	1	Childbirth	35,359	9.4%	888.1
	2	Osteoarthritis	16,413	4.4%	412.2
	3	Septicemia (except in labor)	14,529	3.9%	364.9
	4	Congestive heart failure; nonhypertensive	11,119	3%	279.3
	5	Pneumonia	10,829	2.9%	272

Dental Care

Regular dental visits are essential to maintaining healthy teeth and gums. Routine dental cleanings may also help reduce the risks of other conditions linked to oral health, such as heart disease and stroke. Dentists can also look for early signs of other diseases, like diabetes, during a regular visit. At a minimum, children and adults should visit their dentists twice a year.

Where does Manchester stand?

In 2016, only 64.2% of Manchester adults reported visiting a dentist or dental clinic in the past year. This rate varied by neighborhood, with fewer than 60% of adults in nine Census Tracts--and as few as 45.3% of adults in one Census Tract--visiting the dentist in the past year (**Table 37**).

Table 37: Adult Dental Care Access by Neighborhood, Manchester, 2016

Census Tract	*% of Adults Receiving Dental Care*
3	58.3%
2004	58.3%
17	55.6%
21	55%
13	54.5%
19	51.9%
16	50.3%
14	46.2%
15	45.3%

How does the Greater Manchester Region compare?

Based on BRFSS data,[66] the percentage of Manchester adults who visited a dentist within the past year was lower than the Greater Manchester Region and the state as a whole (71.9% and 72.0%, respectively). In the City of Manchester, the proportion of adults who received dental care in the past year was similar to that in the 500 largest cities in the US (63.2%), but somewhat lower than that in Nashua (67.9%).

Late or No Prenatal Care

Early and adequate prenatal care is essential to reducing pregnancy complications and ensuring the best health outcomes for both mother and child. [67] Late or no prenatal care, defined as prenatal care only in the third trimester or not at all, is associated with higher rates of preterm birth and low birthweight, as well as other negative maternal and child health outcomes.

Where does Manchester stand?

Between 2013 and 2017, more than 1 in every 20 Manchester women who gave birth received late or no prenatal care (388 women; 5.4%). This rate was significantly higher in some east side center city neighborhoods-Census Tracts 13, 14, and 2004-where as many as 11.0% of women who gave birth received late or no prenatal care (**Table 38**). Prenatal care can provide opportunities to identify pregnancies that may be at risk of Neonatal Abstence Syndrome (NAS), a group of medical problems that occurs after birth when a newborn experiences withdrawal from opioid exposure in the womb. In 2017, there were 122 infants born with NAS in Manchester.

Table 38: Late or No Prenatal Care by Neighborhood, Manchester, 2013-1017

Center City Census Tract	*Location*	*Total Birth*	*% Late or No Prenatal Care*	*Total Women with Late or No Prenatal Pare*
Manchester		7206	5.4%	388
13	East Side	274	9.5%	26
14	East Side	173	11.0%	19
2004	East Side	179	9.5%	17

How does the Greater Manchester Region compare?

The percentage of Manchester women who received late or no prenatal care (5.4%) in 2013-2017 was higher than the state rate of 4%, but similar to the national average, which was 6%.[68]

FACTOR 2: QUALITY OF CARE

Health care services that are timely, evidence-based and patient-centered result in the best overall health care outcomes. Despite local and national efforts to improve quality of care, many patients do not receive recommended screenings and treatment, or they experience poor care coordination.

Health Screenings

Mammograms are the most effective tool for detecting breast cancer; their routine use has been associated with up to a 30% reduction in overall breast cancer mortality. Mammograms are recommended annually for women ages 45 to 54 years and every two years for older women who are not at increased risk for breast cancer.

Cholesterol screening is used to detect lipid disorders, heart disease, and other signs of cardiovascular risk. The CDC recommends that healthy adults have their cholesterol checked every 4 to 6 years, while those with certain chronic diseases and risk factors should have it checked more often.

Three tests are used for colon cancer screening: fecal occult blood tests (FOBT), sigmoidoscopy and colonoscopy. The most common screening method is a FOBT to determine if you have blood in the stool. Sigmoidoscopy and colonoscopy allow doctors to examine all or part of the colon for polyps, lesions, or other issues. The American Cancer Society recommends colon cancer screening for all adults beginning at age 45 years.

Where does Manchester stand?

Based on 2016 data, 75.4% of Manchester women ages 50-74 years have received a mammogram in the past 2 years; 75.6% of Manchester adults aged 18 years and older have received cholesterol screening in the past 5 years; and 68.4% of Manchester adults ages 50-75 years have received some form of routine colon cancer screening (FOBT in the past year; sigmoidoscopy in the past 5 years plus FOBT in the past 3 years; or colonoscopy in the past 10 years).

How does the Greater Manchester Region compare?

The rates of preventive health screenings in Manchester are similar overall to those in Nashua and in the US as a whole **Table 39**.

Table 39: Preventive Health Screenings, 2015 & 2016

Prevention Measure	*United States*	*Manchester*	*Nashua*
Cholesterol screening among adults (2015)	75.2%	75.6%	77.1%
Mammography use among women 50-74 (2016)	77.7%	75.4%	76.9%
Fecal occult blood test, sigmoidoscopy, or colonoscopy among adults ages 50–75 years (2016)	64.2%	68.4%	70.4%

Prenatal Care in the 1st Trimester

Early initiation of prenatal care allows clinicians to identify risk factors for poor birth outcomes and initiate intervention as needed. Unfortunately, the women who are at the highest risk of experiencing problems related to childbirth are often the least likely to receive early and adequate prenatal care.[70]

Where does Manchester stand?

In Manchester, 7,206 women gave birth between 2013 and 2017, of whom 71.7% received prenatal care in the first trimester of pregnancy. Early initiation of prenatal care was lower in all center city neighborhoods during this period, including Census Tracts 13, 14, 15, 16, 19, 20, 21, and 2004 (**Table 40**).

Table 40: Prenatal Care in the 1st Trimester by Neighborhood, Manchester, 2013-2017

Census Tract	*Location*	*Total Births*	*% Prenatal Care in 1st Trimester*	*Total Women Receiving Prenatal Care in 1st Trimester*
Manchester		7206	71.7%	5166
13	East CC	274	53.3%	146
14	East CC	173	58.4%	101
15	East CC	332	63.6%	211
16	East CC	369	64.2%	237
19	East CC	245	61.6%	151
20	West CC	203	63.5%	129
21	West CC	402	68.2%	274
2004	East CC	179	63.7%	114

How does the Greater Manchester Region compare?

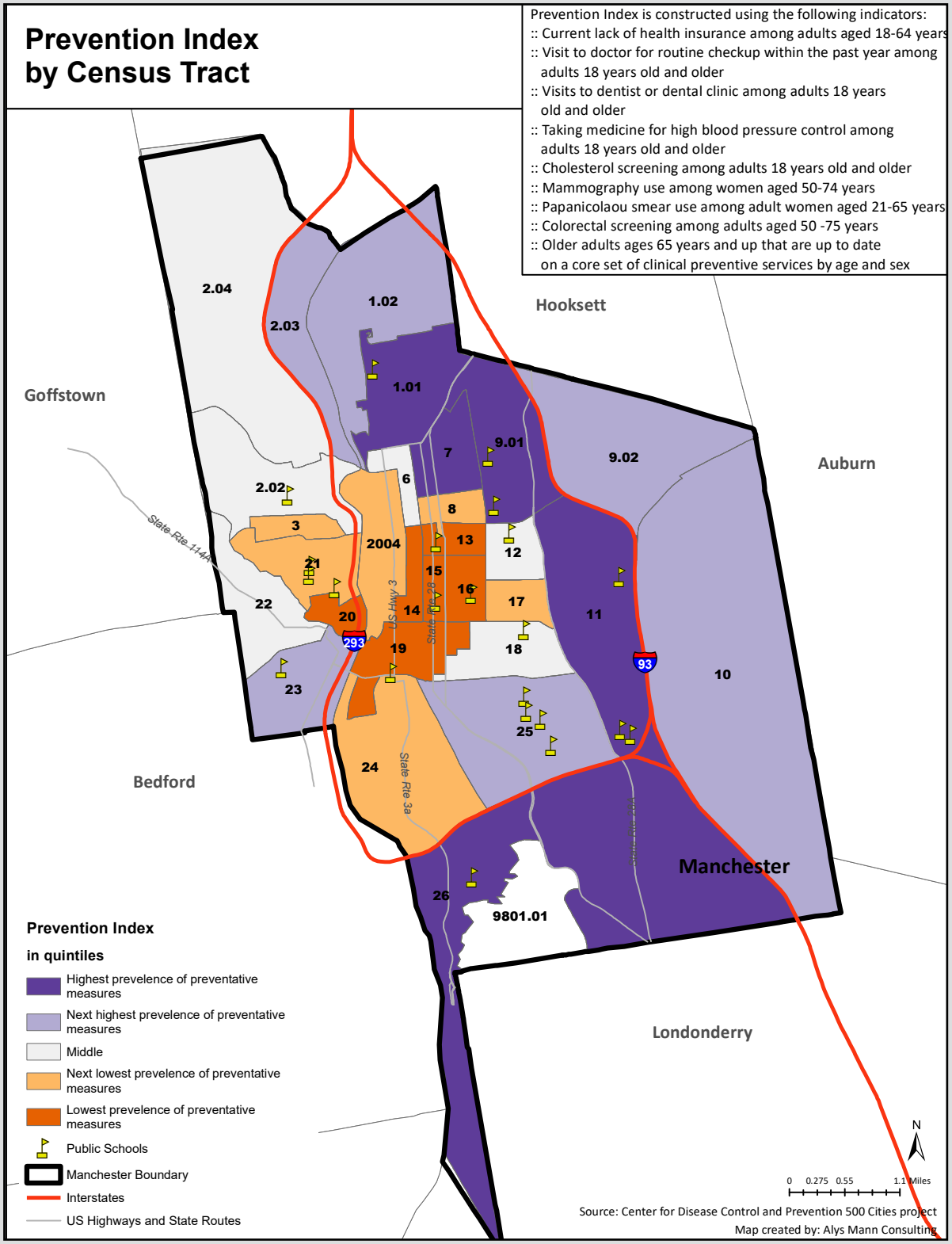
Looking at data for 2017 only, the proportion of births in which prenatal care was initiated in the first trimester was 80.2% in Manchester versus 84.8% in Nashua. Manchester's rate was higher than the average rate of 78.4% across the 500 largest cities in the US.

Unfortunately, Manchester exhibits racial disparities when it comes to prenatal care; the percentage of births that received early and adequate prenatal care in Manchester's Black population in 2016 (63.8%) was significantly lower than than in the city's Asian (84.6%), Hispanic (82.8%), and White populations (86%). Of note, the percentage of births to Black women that received early and adequate prenatal care was 70.6% in the 500 largest cities, which is substantially higher than in the City of Manchester.

Summary of Clinical Care in Manchester:

Manchester residents who live in center city neighborhoods receive fewer preventive health care services overall than residents living outside the center city area. Center city residents have lower rates of insurance coverage, routine medical and dental care, and receipt of preventive screenings and vaccines. The Prevention Index is a combination of clinical care indicators that can be used to measure a population's access to preventive care at a neighborhood level. According to **Map 20**, the center city neighborhoods in Census Tracts 13, 14, 15, 16, 19 and 20 have the lowest Prevention Index values in Manchester.

Map: 20


Prevention Index
by Census Tract
Prevention Index is constructed using the following indicators:
:: Current lack of health insurance among adults aged 18-64 years
:: Visit to doctor for routine checkup within the past year among adults 18 years old and older
:: Visits to dentist or dental clinic among adults 18 years old and older
:: Taking medicine for high blood pressure control among adults 18 years old and older
:: Cholesterol screening among adults 18 years old and older
:: Mammography use among women aged 50-74 years
:: Papanicolaou smear use among adult women aged 21-65 years
:: Colorectal screening among adults aged 50 -75 years
:: Older adults ages 65 years and up that are up to date on a core set of clinical preventive services by age and sex
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
8
2.02
3
2004
13
12
21
15
16
17
22
20
14
11
293
19
18
93
10
23
25
24
26
9801.01
State Rte 114A
State Hwy 3
State Rte 28
State Rte 3a
Prevention Index
in quintiles
Highest prevelence of preventative measures
Next highest prevelence of preventative measures
Middle
Next lowest prevelence of preventative measures
Lowest prevelence of preventative measures
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: Center for Disease Control and Prevention 500 Cities project
Map created by: Alys Mann Consulting

CLINICAL CARE

Input from Community and Resident Leaders

The clinical care factors that determine health include both access to healthcare and quality of healthcare services. The following table summarizes the top three priority areas where key leaders and community members believe the City of Manchester should invest resources over the next three years.

Areas for Improvement	Top Three Priority Issues
• Health education about taking care of yourself, available services, appropriate use of services • Obesity • Access to healthy foods • Prevention • Cancer Screening • Coordinating services/resources • Access to services : transportation, mental health, dental • Supporting children's social and emotional development • Frequent mental distress • Frequent physical distress • Life expectancy • Premature death • Uninsured (some neighborhoods) • Diabetes (some neighborhoods) • High blood pressure (some neighborhoods)	1 Access to care: integrated services, behavioral health, dental 2 Expanded healthcare coverage: insurance affordability, focus on the whole person 3 Obesity

DATA SNAPSHOT: CLINICAL CARE
Summary of Key Data Findings

Indicator	Manchester	Greater Manchester	Nashua, NH	State of NH	500 Cities
Adequate Access					
Uninsured Rate	12.8%	-	9.5%	-	12.9%
Adults who had routine checkups within the past year	71.8%	-	72.2%	69.7%	-
Older adults 65+ reporting receiving preventive services	35%	-	36.8%	-	32.6%
Emergency Room Visits for Acute Ambulatory Care Sensitive Conditions	5,808.5	4,451.5	-	4,545.8	-
Emergency Room Visits for Chronic Ambulatory Care Sensitive Conditions	2,395.9	1,847.7	-	1,649.2	-
% of adults receiving dental care	64%	-	67.9%	-	63.2%
% of women receiving late or no prenatal care	5.4%	-	-	4%	6%
Quality of care					
Mammography use among women 50-74 (2016)	75.45	-	76.9%	-	77.7%
Cholesterol screening among adults (2015)	75.6%	-	77.1%	-	75.2%
Fecal occult blood test, sigmoidoscopy, or colonoscopy among adults aged 50–75 years – 2016	68.4%	-	70.4%	-	64.2%
Rate of women receiving prenatal care in first trimester	80.2%	-	84.8%	-	78.4%

Manchester Health Improvement Goal #4:

Neighborhoods are Designed to Support Healthy Living for All Residents

VI. PHYSICAL ENVIRONMENT

Your physical environment includes where you live, learn, work, and play. People interact with their physical environments in numerous way that can affect their health, from breathing the air to playing in a park or traveling to work. Environmental factors associated with good health include clean air and water, safe and affordable housing, access to fresh food, public safety, and the availability of recreational opportunities, among others. According to research conducted by the County Health Ranking and Roadmaps project, as much as 10% of an individual's health status is determined by their physical environment.[71]

FACTOR 1: HOUSING

Safe, affordable and stable housing is important to overall well-being. Lead-based paint and lead-contaminated dust in older buildings can cause lead poisoning, especially in children.[72] Indoor allergens, such as mold and dust, and residential crowding can increase risks for asthma, infectious disease and psychological distress. Unstable or high-cost housing leads to emotional stress and directs limited family resources away from health promoting priorities such as nutritious food and medical care.

High Potential Lead Risk

Lead-based paint and contaminated dust in older housing is the most common cause of lead poisoning. Elevated blood lead levels are most common among children younger than 5 years and are associated with impaired physical and mental development and behavior problems. Individuals and families who live in low-income areas with older housing stock are particularly vulnerable to lead poisoning.

Where does Manchester stand?

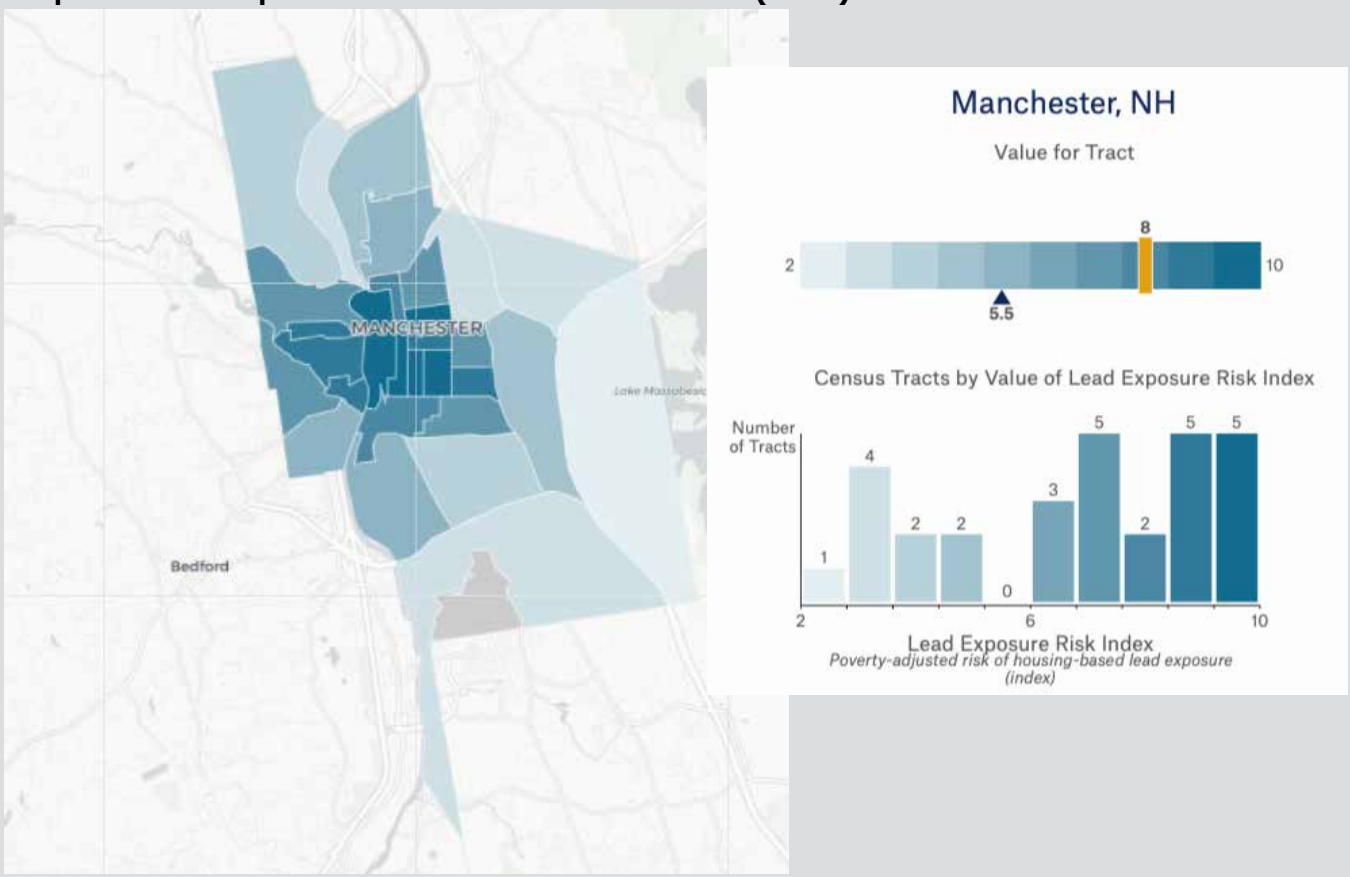
Based on 2017 data, 32.1% of Manchester's housing stock has a high potential lead risk-significantly higher than the 500 largest cities average rate of 18.5%. In specific neighborhoods, the percentage of housing stock that poses a high lead risk is even more substantial, at up to 55.9% (**Table 41**). Potential lead risk in housing is determined by weighted estimates for the likelihood of lead exposure in housing stock by era (i.e. pre-1939, 1940-59, etc.). This risk calculation was created by NYU Lagone Health.

Table 41: High Potential Lead Risk, Manchester, 2017

Census Tract	*Location*	*% of Housing Stock*
Manchester	n/a	32.1%
Tract 21	West side	48.3%
Tract 7	East side	48.4%
Tract 6	East side	48.8%
Tract 16	East side	53.8%
Tract 3	West side	55.4%
Tract 15	East side	55.9%

A lead *exposure* risk index is created by combining the percentage of housing with potential lead risk with the percentage of people who live in poverty (**Map 21**). The risk score is calculated on a scale of 1-10, where 10 indicates the highest risk of exposure. Lead exposure risk is elevated overall in Manchester, with an index score 8 out of 10. Five Manchester neighborhoods-Census Tracts 10, 14, 15, 16, and 2004-have a lead exposure risk index of 10, while an additional 5 neighborhoods have a risk index score of 9 (Census Tracts 3, 13, 17, 20, and 21). This risk calculation was created by NYU Lagone Health.

Map 21: Lead Exposure Risk Index – Manchester (2017)



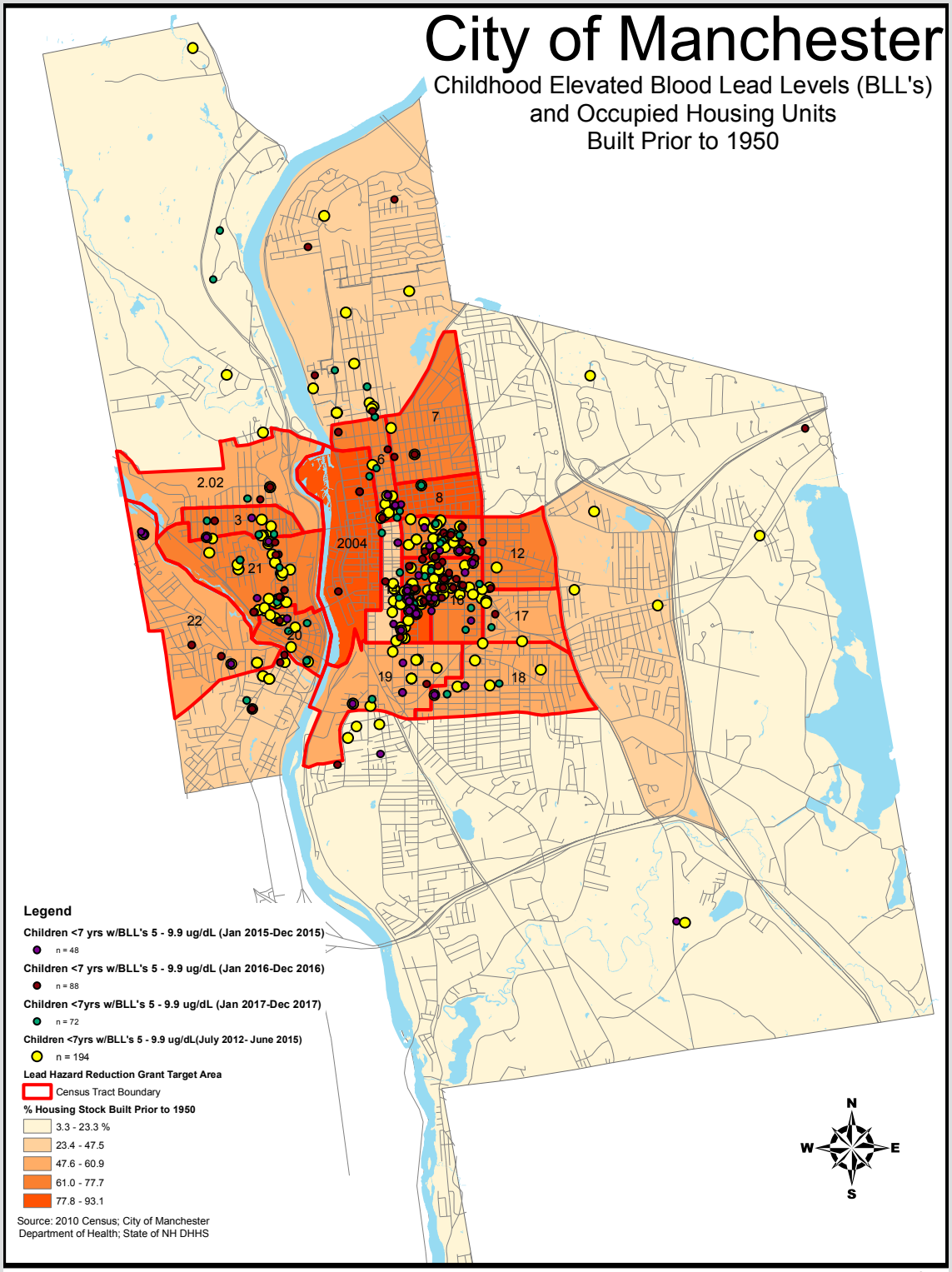
The rates of confirmed child blood lead elevations in Manchester neighborhoods mirror the location and density of older housing stock within center city neighborhoods. In 2017, more than 70 children in Manchester (72 children) had elevated blood lead levels. (**Map 22**). According to the CDC, a blood lead level at or above 5.0 ug/dL is considered elevated and requires preventive action, while a level above 10 ug/dL is considered lead poisoning and requires medical intervention.

How does the Greater Manchester Region compare?

Manchester housing stock is significantly more likely to have a high potential lead risk compared with the 500 largest cities in the US (32.1% versus 18.5%, respectively). Homes in Manchester are also more likely to have a high potential lead risk compared with homes in Nashua (21.4%). Manchester's Lead Risk Index score of 8 was substantially higher than Nashua's score of 5 and the 500 largest cities average score of 5.5.

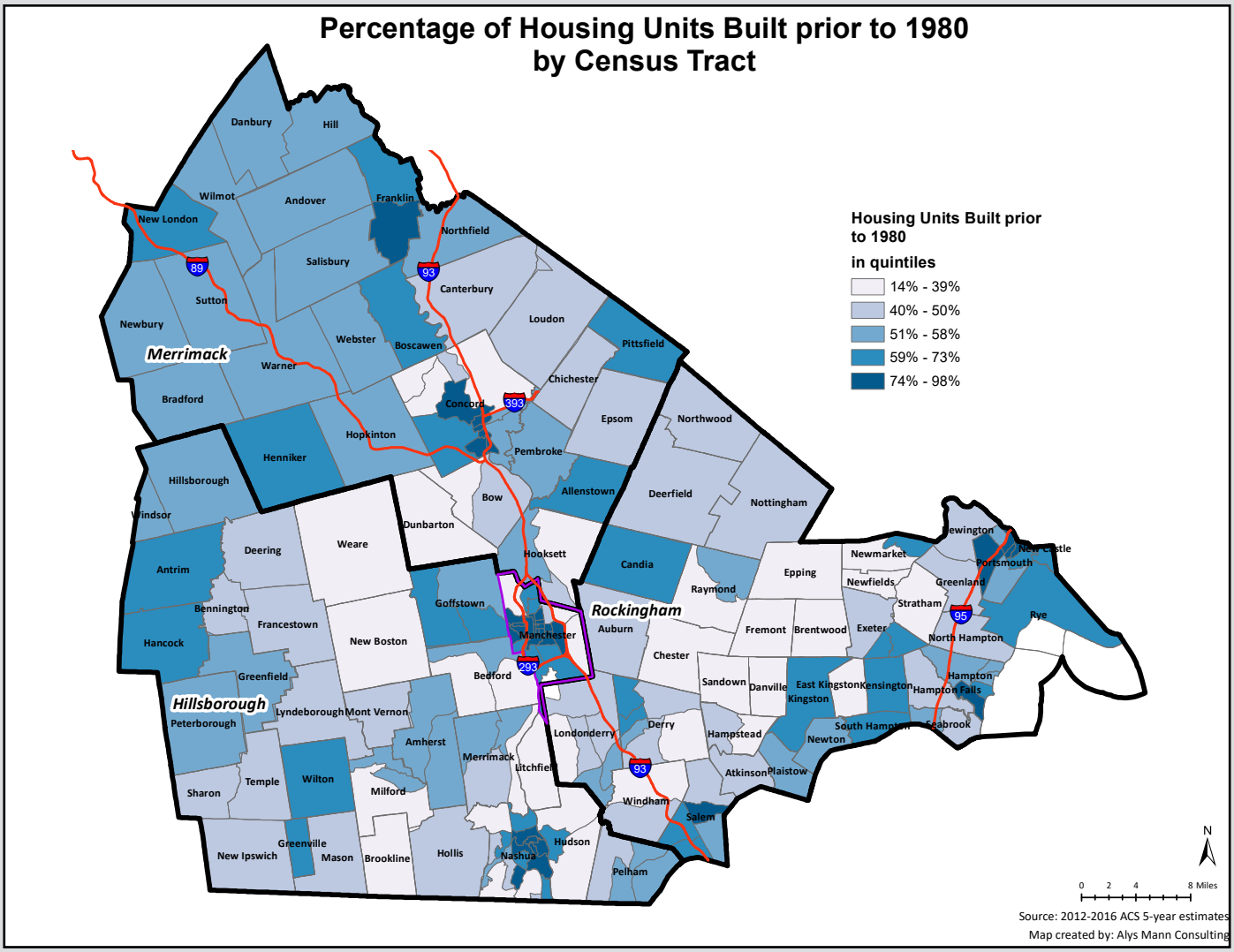
The risk of exposure to lead increases with older housing, particularly housing units built prior to 1980. In the Greater Manchester region, 40-50% of housing stock in Auburn was built prior to 1980, along with 59-73% of homes in Candia, 40-50% of homes in Deerfield, and 51-73% of homes in Goffstown (51-73%) (**Map 23**).

Map 22



Prepared by: Aaron Krycki, MPH, Sr. PH

Map 23


Percentage of Housing Units Built prior to 1980
by Census Tract
Housing Units Built prior to 1980
in quintiles
14% - 39%
40% - 50%
51% - 58%
59% - 73%
74% - 98%
Merrimack
Rockingham
Hillsborough
Danbury
Hill
Wilmot
Andover
Franklin
New London
Northfield
Salisbury
Canterbury
Sutton
Loudon
Newbury
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Henniker
Pembroke
Hillsborough
Bow
Allenstown
Deerfield
Nottingham
Windsor
Dunbarton
Deering
Weare
Newington
New Castle
Portsmouth
Antrim
Hooksett
Candia
Newmarket
Epping
Raymond
Newfields
Greenland
Stratham
Bennington
Francestown
Goffstown
Auburn
Fremont
Brentwood
Exeter
Rye
Hancock
New Boston
Manchester
North Hampton
Chester
Greenfield
Bedford
Sandown
Danville
East Kingston
Kensington
Hampton
Hampton Falls
Kingston
Peterborough
Lyndeborough
Mont Vernon
Derry
Hampstead
South Hampton
Seabrook
Newton
Amherst
Londonderry
Merrimack
Litchfield
Atkinson
Plaistow
Sharon
Temple
Wilton
Milford
Windham
Salem
Greenville
New Ipswich
Mason
Brookline
Hollis
Nashua
Hudson
Pelham
89
93
393
293
95
N
0 2 4 8 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

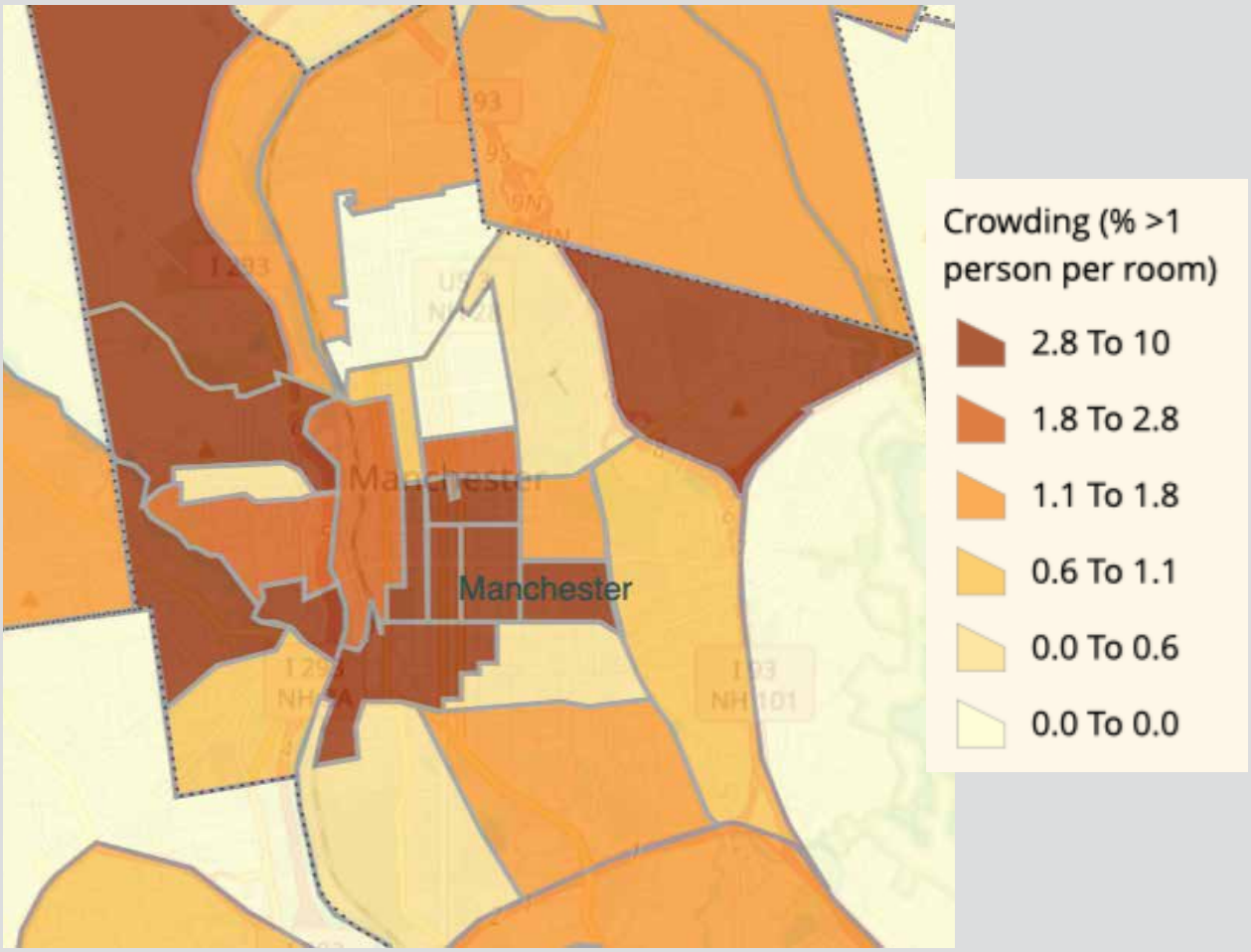
Crowding

Crowding is defined as housing occupied by more than one person per room (including living/ family rooms, offices, bedrooms and kitchen).[73] A housing unit with more than 1.5 persons per room is considered severely crowded. Crowded housing is most common in low-income families and neighborhoods and is frequently a consequence of a lack of affordable housing. Early exposure to crowding can affect health, developmental, social, and economic outcomes later in life.[74]

Where does Manchester Stand?

Social vulnerability data from the New Hampshire Department of Health and Human Services shows a disparity in crowding within Manchester. While some city neighborhoods have little to no crowding, as many as 10% of housing units in Manchester's center city neighborhoods meet the definition for crowding.

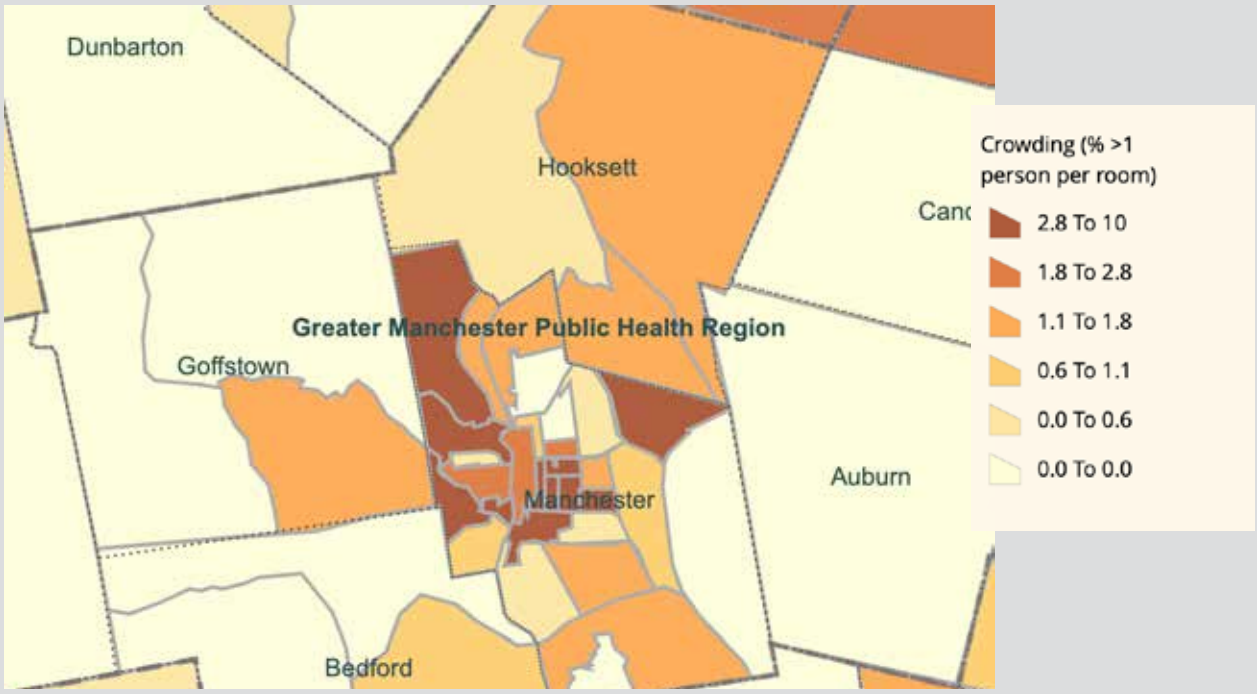
Map 24: Crowding – Manchester (2011-2015)



How does the Greater Manchester Region Compare?

Crowded housing is more common in Manchester than in other towns within the Greater Manchester region (**Map 25**).

Map 25: Crowding – Greater Manchester (2011-2015)



Excessive Housing Costs

Financial experts recommend that no more than 30% of one's household income should be devoted to housing costs; contributing more than 30% of income to housing results in a significant financial strain, or housing cost burden. A family is considered to be severely housing cost burdened when they spend more than 50% of their household income on housing. When families dedicate too-large a portion of their income to housing, they may be unable to pay for other necessities, such as childcare, food, health care, and transportation.

Based on cost of living estimates, the livable wage for a single-parent family with two children in NH is $27/hour, nearly four times the current minimum wage of $7.25/hour.[77] As housing costs in NH continue to rise, low-income families increasingly struggle to find housing that is both safe and affordable.[76]

Where does Manchester stand?

Between 2013 and 2017 in Manchester, 40% of households reported spending more than 30% of their incomes on housing costs. Nationally, communities with housing cost burden rates at or above 40% are considered to be at serious risk of increasing homelessness. Many neighborhoods in Manchester exceeded this mark, with more than 45% of owner-occupied households reporting being housing cost burdened in Census Tracts 20, 21 6, 13, and 15; more than 15% of owner-occupied households reported severe cost burdens-more than 50% of family income dedicated to housing-in Census Tracts 3, 20, 2.03, 15, and 16 (**Image 20**).

Renters in Manchester are even more impacted by housing costs; more than 50% of renter-occupied households were cost burdened in 2013-2017 in Census Tracts 3, 15, 1.01, 22, and 23, and more than 30% of renters were severely cost burdened in Census Tracts 22, 2004, 19, 15, and 1.01 (**Image 20**).

Households at the lowest income ranges are disproportionately impacted by housing costs, with 12.9% of households making $20,000 a year or less spending more than 30% of their income on housing compared with only 2.2% of households making $75,000 per year or more (**Table 42**).

Table 42: Housing Costs by Household Income, Manchester, 2013-2017

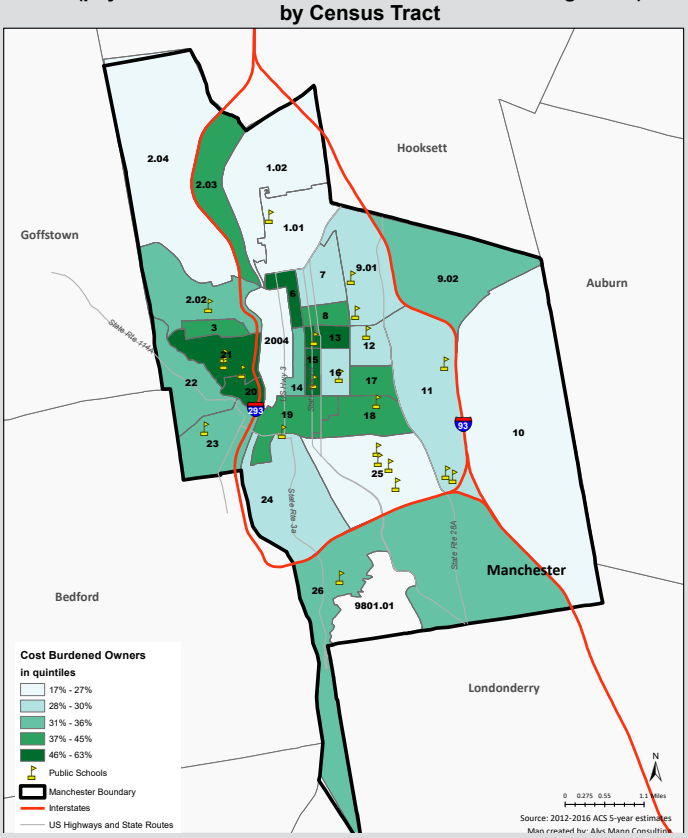
Income Range	*Total # of Occupied Housing Units*	*% of Total Housing Units in Manchester*	*Monthly Housing Costs Less Than 20% of Income*	*Monthly Housing Cost 20-29% of Income*	*Monthly Housing Cost More Than 30% of Income*
<20,000	6,804	14.9%	0.5%	1.5%	12.9%
$20,000-$34,999	6,777	14.8%	0.6%	1.6%	12.6%
$35,000-$49,999	5,784	12.6%	0.9%	5%	6.7%
$50,000-$74,999	9,341	20.4%	6.1%	8.6%	5.6%
≥$75,000	16,197	35.4%	24.2%	9.0%	2.2%

How does the Greater Manchester Region compare?

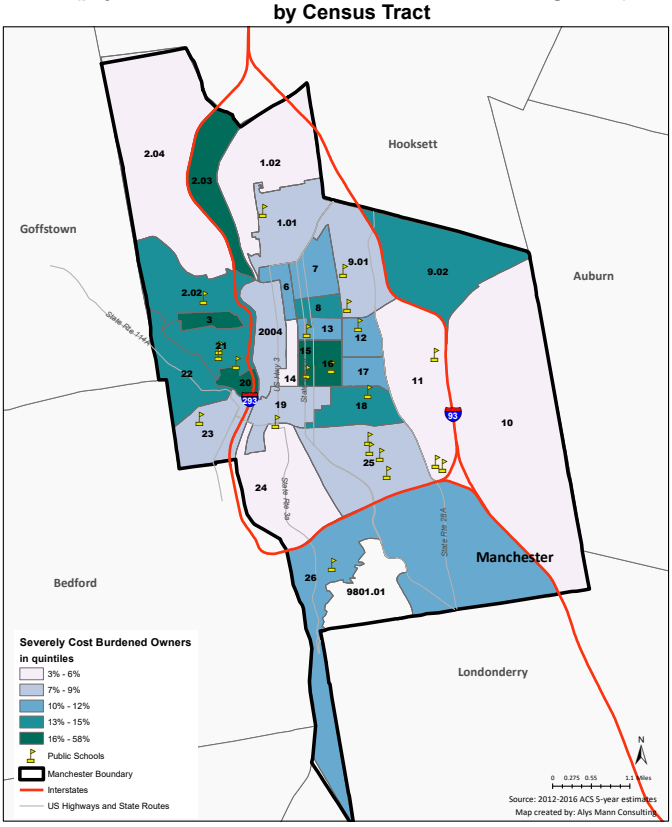
Manchester's households are more likely to be housing cost burdened (40%) than those in Nashua (34.4%) and the 500 largest US cities (37%).

Image 20

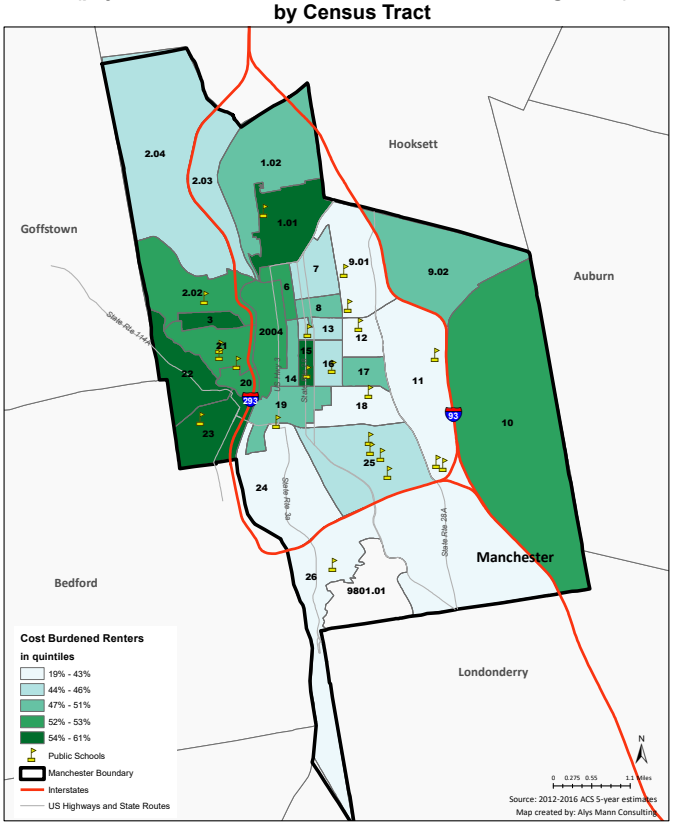
Percent of Owners that are Housing Cost Burdened (pay 30% or more of their income towards housing costs) by Census Tract



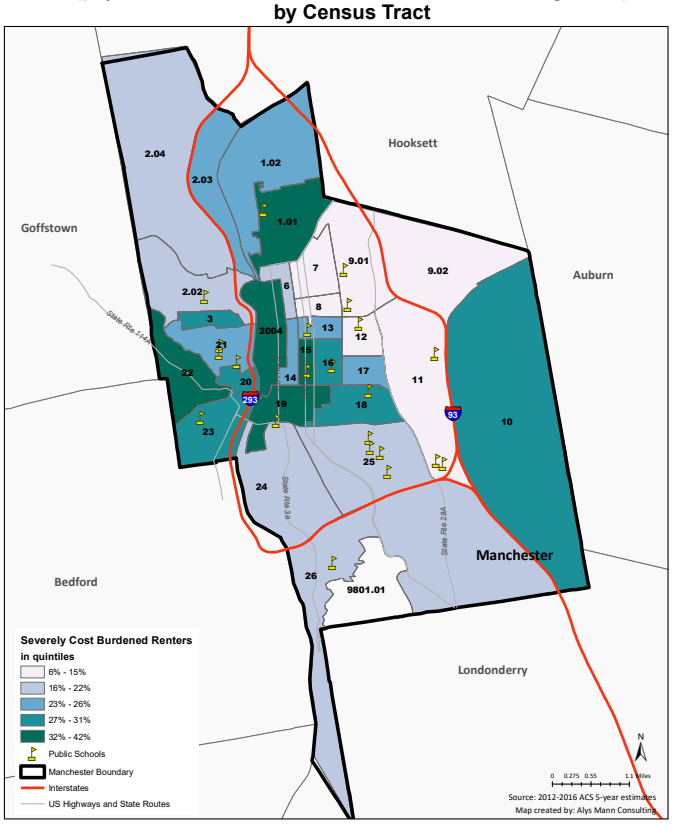
Severely Cost Burdened Owners (pay 50% or more of their income towards housing costs) by Census Tract



Percent of Renters that are Housing Cost Burdened (pay 30% or more of their income towards housing costs) by Census Tract



Severely Housing Cost Burdened Renters (pay 50% or more of their income towards housing costs) by Census Tract



Vacant Housing

Vacant and abandoned properties are one of the primary indicators of neighborhood-level distress.[78] Vacant properties are associated with lower rates of literacy in a community and higher rates of violence, chronic illness, unhealthy eating and exercise habits, as well as a lack social networks and social capital.

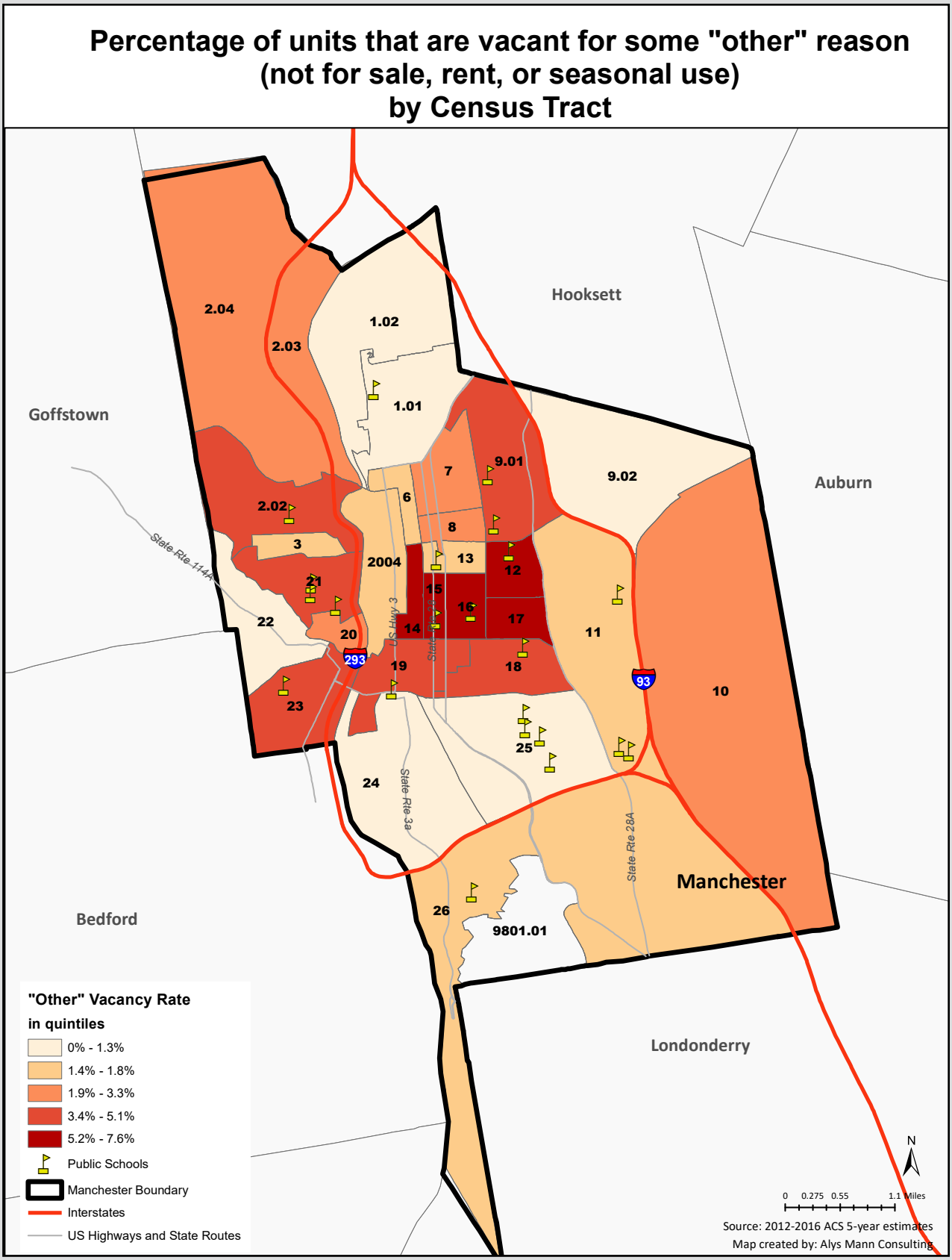
Where does Manchester Stand?

The proportion of housing units that are vacant is higher in Manchester's center city neighborhoods than in neighborhoods outside the center city, with the highest vacancy rates in Census Tracts 12, 14, 15, 16 and 17 (**Map 26**).

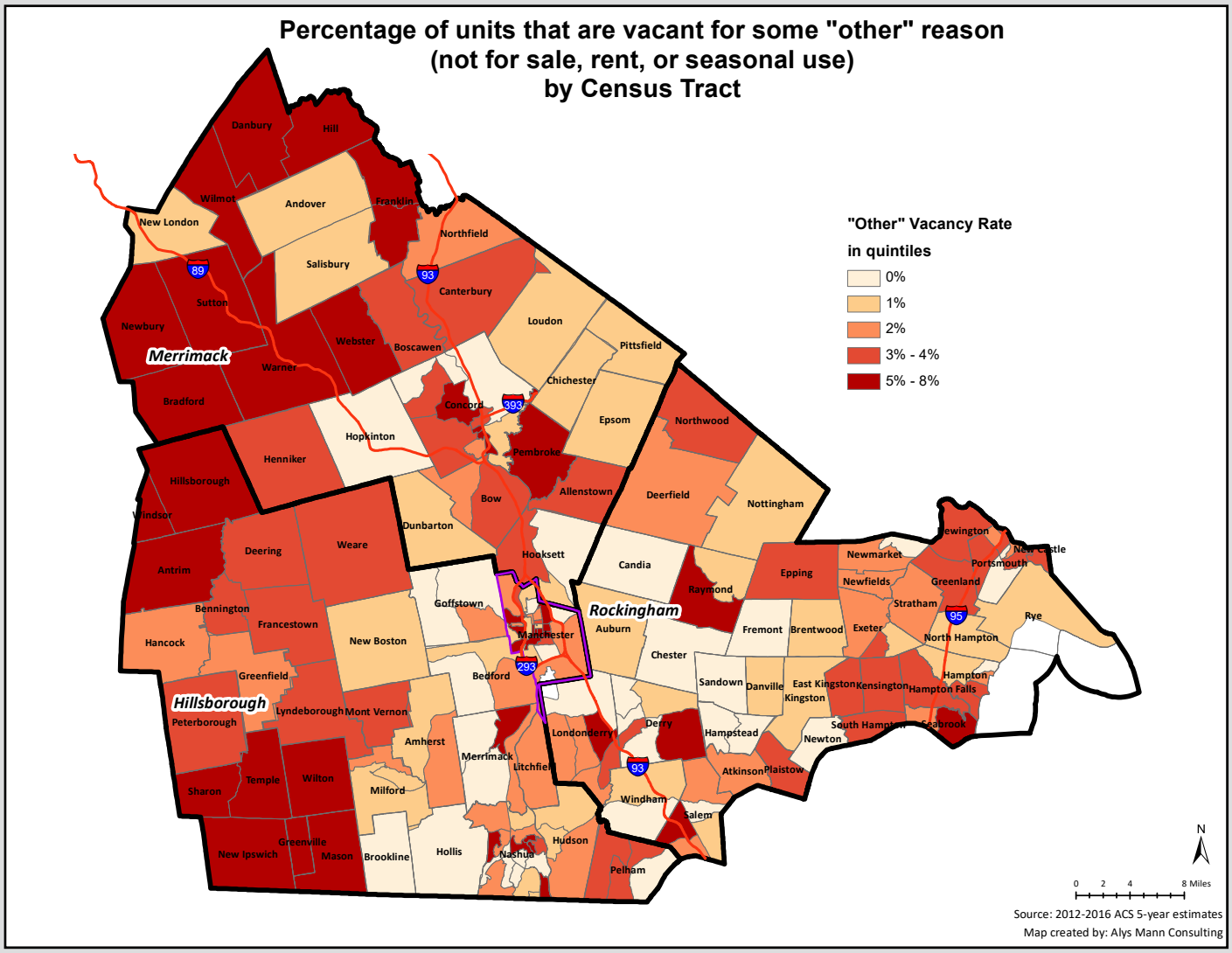
How does the Greater Manchester Region Compare?

Manchester is the only community in the Greater Manchester region with high rates of housing unit vacancy (5-8%) with surrounding towns falling predominately within the 0-2% range of housing unit vacancy. Hooksett and Londonderry, however, did have some neighborhoods with higher proportions of vacant units, at 3-4% and 3-8%, respectively (**Map 27**).

Map 26


Percentage of units that are vacant for some "other" reason
(not for sale, rent, or seasonal use)
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
8
2.02
3
2004
13
12
21
15
16
17
22
20
14
11
293
19
18
93
10
23
25
24
26
9801.01
State Rte 114A
U.S. Hwy 3
State Rte 3a
State Rte 28A
"Other" Vacancy Rate
in quintiles
0% - 1.3%
1.4% - 1.8%
1.9% - 3.3%
3.4% - 5.1%
5.2% - 7.6%
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

Map 27


Percentage of units that are vacant for some "other" reason
(not for sale, rent, or seasonal use)
by Census Tract
"Other" Vacancy Rate
in quintiles
0%
1%
2%
3% - 4%
5% - 8%
Merrimack
Hillsborough
Rockingham
Danbury
Hill
Wilmot
Andover
Franklin
New London
Northfield
Salisbury
Canterbury
Sutton
Newbury
Loudon
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Pembroke
Henniker
Hillsborough
Allenstown
Deerfield
Bow
Nottingham
Windsor
Dunbarton
Deering
Weare
Newmarket
Newington
New Castle
Portsmouth
Antrim
Hooksett
Candia
Epping
Newfields
Greenland
Raymond
Stratham
Goffstown
Bennington
Francestown
Auburn
Fremont
Brentwood
Exeter
Rye
Hancock
New Boston
Manchester
North Hampton
Chester
Greenfield
Bedford
Sandown
Danville
East Kingston
Kensington
Hampton
Hampton Falls
Kingston
Lyndeborough
Mont Vernon
Peterborough
Derry
Londonderry
Hampstead
South Hampton
Seabrook
Newton
Amherst
Merrimack
Litchfield
Atkinson
Plaistow
Sharon
Temple
Wilton
Milford
Windham
Salem
Greenville
New Ipswich
Mason
Brookline
Hollis
Nashua
Hudson
Pelham
89
93
393
293
95
N
0 2 4 8 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

FACTOR 2: TRANSPORTATION

The transportation system in a community includes public transportation such as city or regional buses, as well as cars and bikes, sidewalks, streets, bike paths, and highways. By exploring the ways this system connects people to each other, and to home, work, health care, and other services, we can determine how transportation positively or negatively impacts health outcomes.

Personal Vehicle Access

Access to transportation is essential to public health; without it, individuals lack access to basics like food, recreation and healthcare, as well as educational opportunities and better paying jobs. Since access to public transportation is limited in Manchester, access to a motor vehicle is important to an individuals overall well-being.

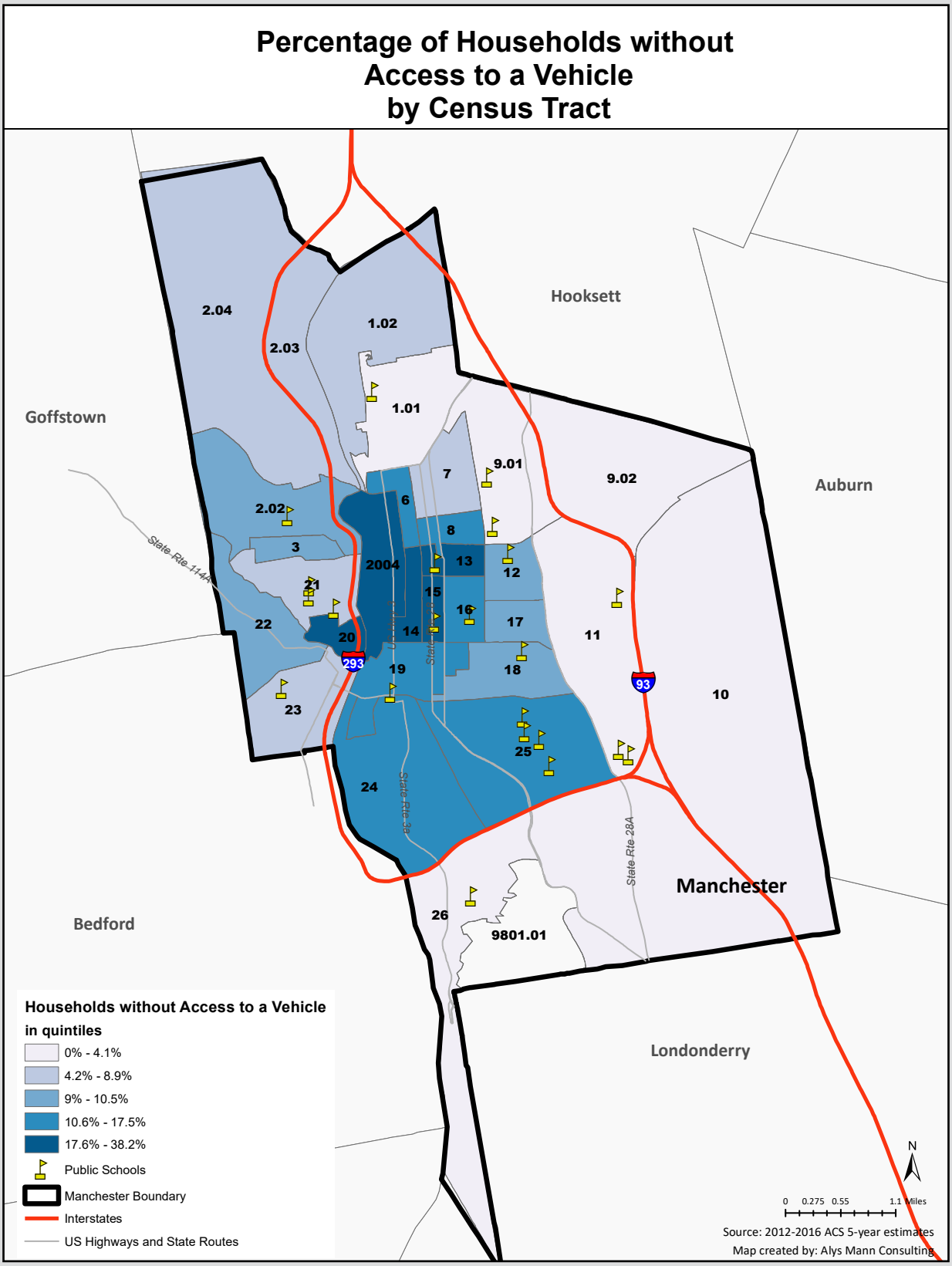
Where does Manchester stand?

In 2013-2017, the vast majority of Manchester workers aged 16 years and older had access to a vehicle (96.6%). Access was most limited in Manchester's center city neighborhoods, where more than 10% of households in Census Tracts 6, 8, 16, 19, 24, and 25 had no access to a vehicle and 17.6-38.2% of households in Tracts 13, 14, 15, 29, and 2004 had no access to a vehicle (**Map 28**).

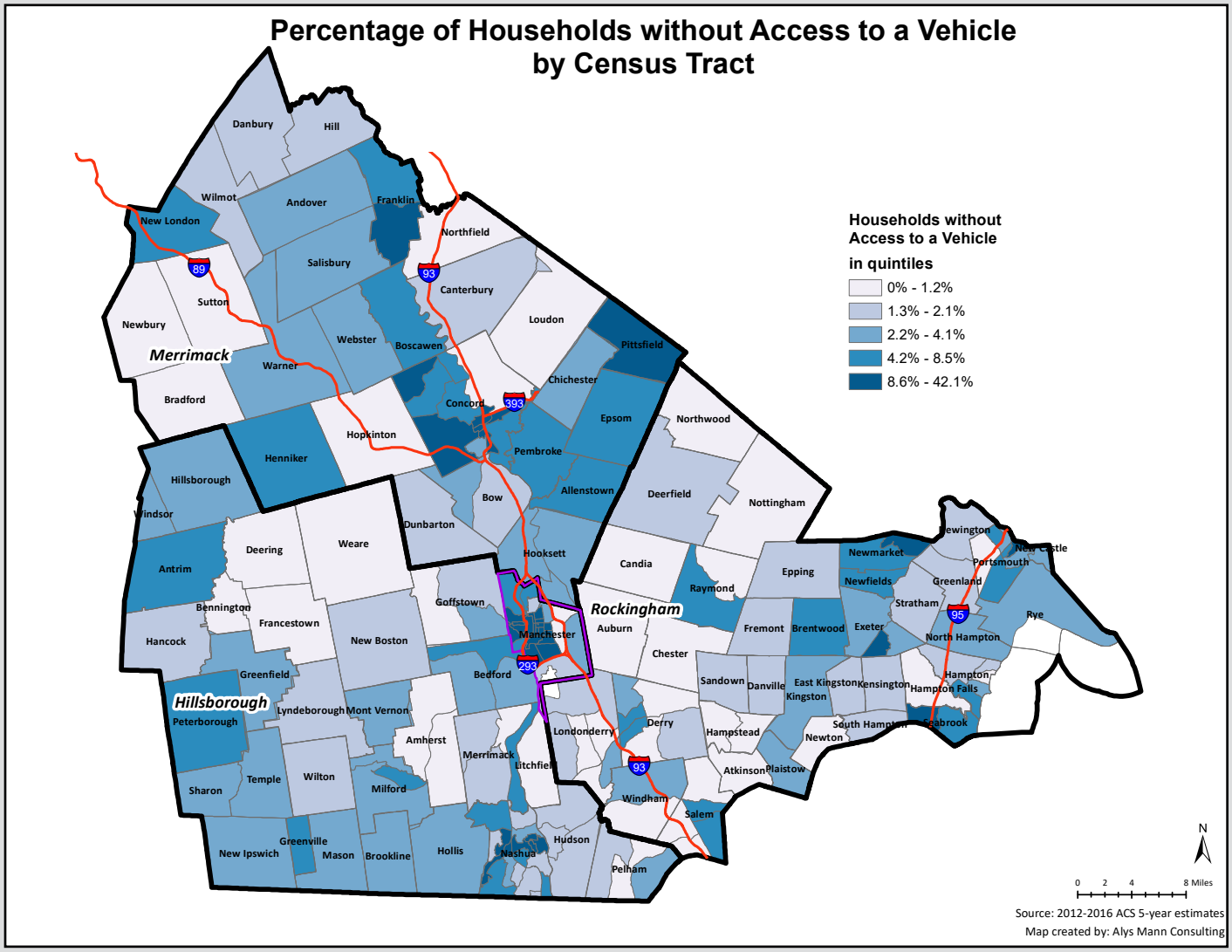
How does the Greater Manchester Region compare?

Manchester has the highest proportion of workers without access to a vehicle in the Greater Manchester region. A section of Bedford has a slightly increased prevalence of households with no access to a vehicle (4.2%-8.6%), while the remaining communities in the region have relatively small proportions (0-4.1%) of households without access to a vehicle (**Map 29**).

Map 28


Percentage of Households without Access to a Vehicle by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
2.02
8
3
2004
13
12
21
15
16
22
20
14
17
11
293
19
18
93
10
23
25
24
26
9801.01
State Rte 114A
State Rte 3a
State Rte 28A
Households without Access to a Vehicle in quintiles
0% - 4.1%
4.2% - 8.9%
9% - 10.5%
10.6% - 17.5%
17.6% - 38.2%
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

Map 29


Percentage of Households without Access to a Vehicle
by Census Tract
Households without
Access to a Vehicle
in quintiles
0% - 1.2%
1.3% - 2.1%
2.2% - 4.1%
4.2% - 8.5%
8.6% - 42.1%
Merrimack
Rockingham
Hillsborough
Danbury
Hill
Wilmot
Andover
Franklin
New London
Northfield
Salisbury
Canterbury
Sutton
Newbury
Loudon
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Henniker
Pembroke
Hillsborough
Bow
Allenstown
Deerfield
Nottingham
Windsor
Dunbarton
Deering
Weare
Hooksett
Candia
Newmarket
Newington
Portsmouth
Antrim
Epping
Newfields
Greenland
Raymond
Goffstown
Stratham
Bennington
Francestown
Auburn
Fremont
Brentwood
Exeter
Rye
Hancock
New Boston
Manchester
Chester
North Hampton
Greenfield
Bedford
Sandown
Danville
East Kingston
Kensington
Hampton
Hampton Falls
Lyndeborough
Mont Vernon
Peterborough
Derry
Hampstead
South Hampton
Newton
Amherst
Merrimack
Londonderry
Atkinson
Plaistow
Sharon
Temple
Wilton
Milford
Windham
Salem
Greenville
New Ipswich
Mason
Brookline
Hollis
Nashua
Hudson
Pelham
89
93
393
293
95
N
0 2 4 8 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

Walkability

Living in neighborhoods with high walkability encourages people to be more active and less reliant on vehicle use. Those living in communities with low walkability have higher risks of obesity and diabetes, and may be exposed to poorer air quality. Walkability is measured using the Walk Score, a metric that is based on a combination of the density of intersections and residences and the accessibility on foot to grocery stores, parks, and restaurants. Walkability scores below 50 indicate that a community is car-dependent, while scores at or above 50 indicate that a community is at least somewhat walkable.

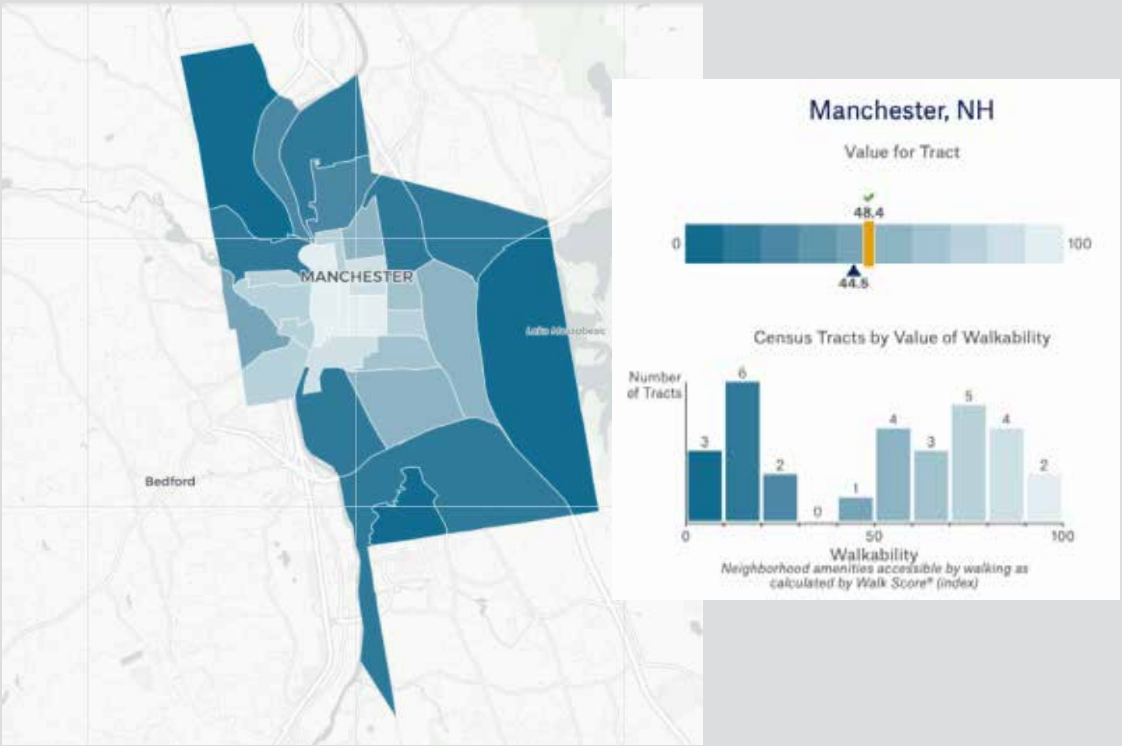
Where does Manchester Stand?

Overall, Manchester has a Walk Score of 48.4, just below the cut-off for being a somewhat walkable community. As expected, the Walk Score is higher in Manchester's center city neighborhoods, with scores above 85.0 in Census Tracts 14, 15, 16, and 2004. By comparison, Census Tracts 2.04 and 10 on the outskirts of the city have Walk Scores of less than 10 (**Map 30**).

How does the Greater Manchester Region compare?

Manchester's Walk Score of 48.4 is slightly higher than the score of 44.5 for the 500 largest cities in the US, and clearly higher than Nashua's score of 37.

Map 30: Walkability – Manchester (2018)



FACTOR 3: HEALTH PROMOTING ASSETS

Health promoting assets are factors that promote and maintain health and help reduce health disparities. Access to healthy food and proximity to parks or green space, for example, are associated with better nutrition and higher levels of physical activity; these, in turn, are linked to reduced risks of obesity, diabetes, cancer, and heart disease.[82]

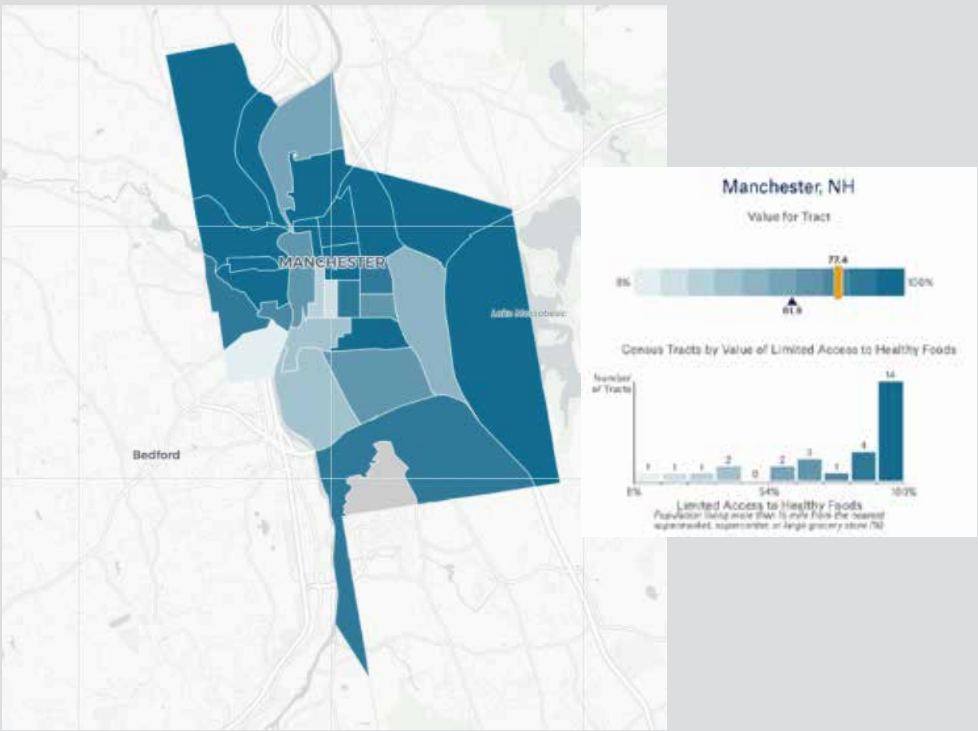
Access to Healthy Foods

A number of factors can impact an individual's access to healthy foods, including proximity grocery stores and restaurants, local food prices, and the availability of nutrition assistance programs. Limited access to fresh, nutritious foods combined with a high density of fastfood restaurants in communities increases the risk of developing obesity and related health conditions.

Where does Manchester stand?

The US Department of Agriculture considers individuals who live more than a half-mile from the nearest grocery store, supermarket or superstore to have limited access to healthy food. Based on this measure, more than three-quarters (77.4%) of Manchester residents had limited access to healthy food in 2015. Ten Census Tracts in the city are more than a half-mile from a grocery store, meaning that 100% of residents in those Tracts--1.01, 2.02, 2.03, 3, 7, 9.02, 9.01, 10, 13, and 21--lack access to healthy foods (**Map 31**).

Map 31: Limited Access to Healthy Food – Manchester (2015)



Manchester's Asian residents are more likely than other racial or ethnic groups in the city to lack access to healthy foods (**Table 43**).

Table 43: Limited Access to Healthy Foods by Race/Ethnicity, Manchester, 2015

Population	***% with Limited Access to Healthy Foods***
All	77.4%
Asian	81.6%
Black	75.2%
Hispanic	66%
White	77.8%

How does the Greater Manchester Region compare?

The percentage of Manchester residents who live in locations with limited access to healthy foods (77.4%) was similar to that in Nashua (78.5%) in 2015, while both cities had higher proportions of residents with limited access to healthy food than the 500 largest US cities (61.9%).

Park Access

Parks provide public spaces for residents to be physically active and to connect with their community. Green spaces also create a restorative environment that can moderate stress levels and promote both physical and emotional well-being.

Where does Manchester stand?

Nearly two-thirds (61.2%) of Manchester residents live within a 10-minute walk to a park. Manchester's commitment to park access was highlighted by the Healthy Eating Active Living (HEAL) NH Workgroup as part of the NH Healthy People Healthy Places (HPHP) Plan[84] (**Images 21 & 22**).

How does the Greater Manchester Region compare?

Manchester residents have similar access to parks compared with the 500 largest cities in the US, with 61.2% and 60.6%, respectively, living within a 10-minute walk from a park. Manchester residents are more likely than those living in Nashua (53.3%) to live in close proximity to a park.

Image 21

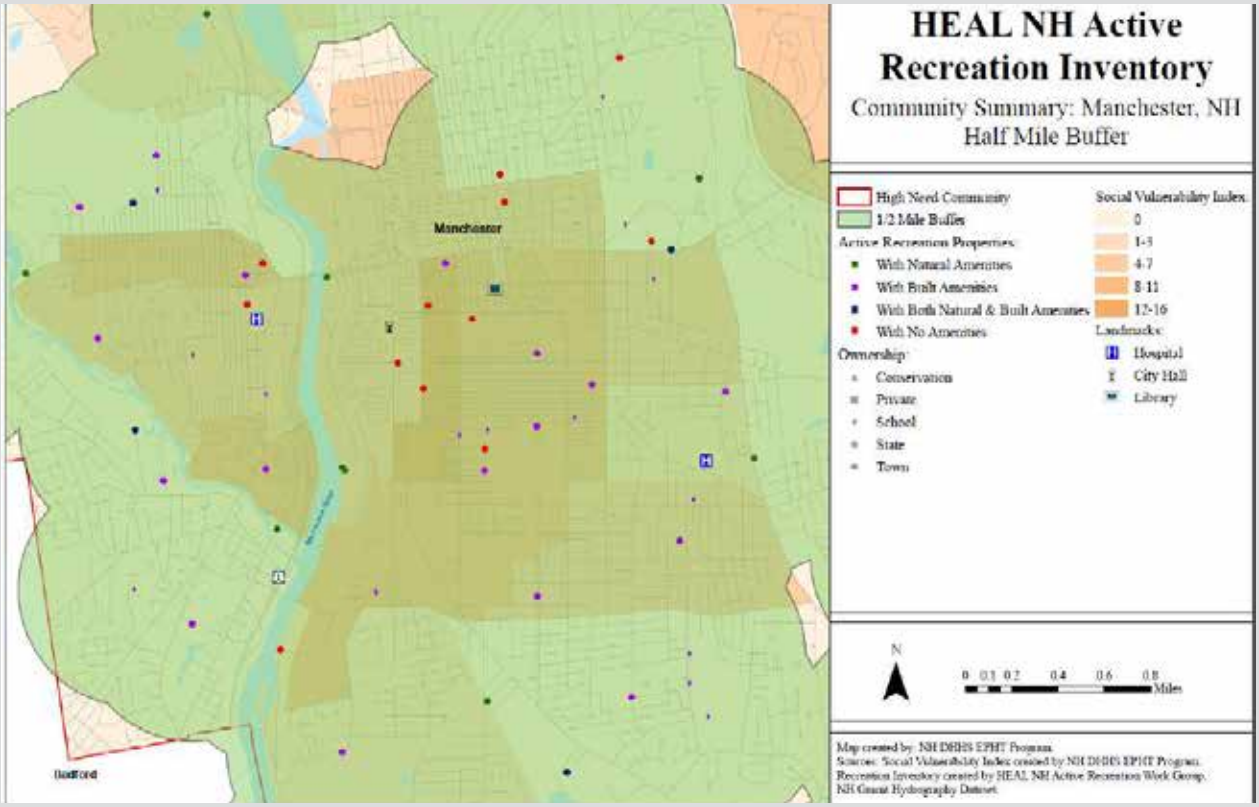
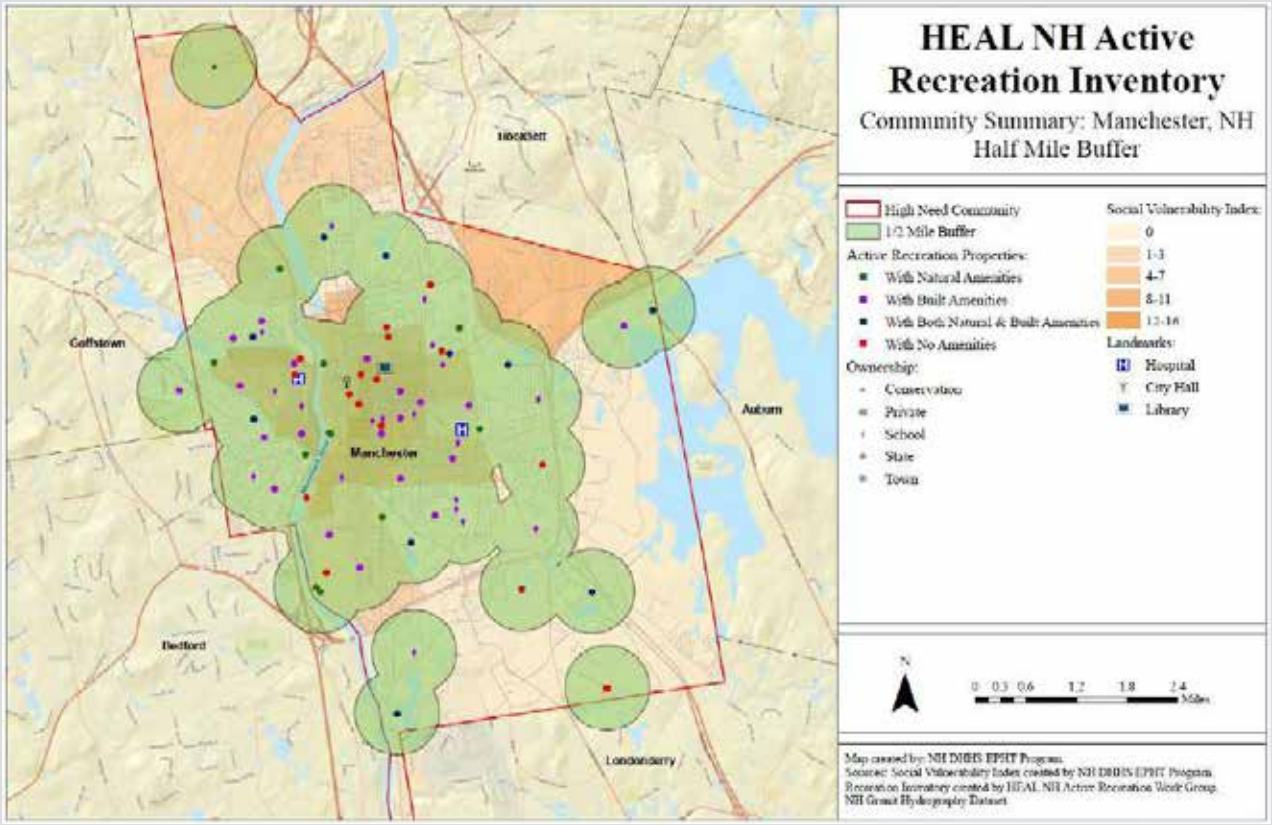


Image 22



PHYSICAL ENVIRONMENT

Input from Community and Resident Leaders

The physical environmental factors that determine health include air and water quality, housing, transportation, and health promoting assets. The following table summarizes the top three priority areas where key leaders and community members believe the City should invest resources over the next three years.

Areas for Improvement	Top Three Priority Issues
• Partnering and collaboration, engaging business • Community engagement • Meaningful data • Housing- lead risk, affordability • Walkability • Access to healthy foods • Handicap access • Infrastructure: roads, sewer, water • Places for gathering • Violent crime and safety, including undocumented	1 Quality affordable housing 2 Access to healthy foods 3 Safety

DATA SNAPSHOT: PHYSICAL ENVIRONMENT
Summary of Key Data Findings

Indicator	Manchester	Nashua, NH	500 Cities
Housing			
Housing with High Potential Lead Risk	32.1%	21.4%	18.5%
Lead Risk Index (scale 0-10 w/ 10=highest risk)	8	5	5.5
Households with Excessive Housing Costs	40%	34.4%	37%
Transportation			
Walkability (scale 0-100 w/ 100 = highest)	48.4	37	44.5
Health Promoting Assets			
Limited Access to Healthy Foods (more than ½ mile to a full-service supermarket)	77.4%	78.5%	61.9%
Access to Parks (more than 10-minute walk from park space)	61.2%	53.3%	60.6%

Manchester Health Improvement Goal #5:

Systems are Designed to Foster Neighborhoods of Opportunity for Generations to Come

VII. HEALTH OUTCOMES & OPPORTUNITY

The ultimate goal of any health improvement strategy is to maximize individual and poulation well-being. The most common health outcomes used to measure population health are the length and quality of life. For this report, we also reviewed economic opportuty and healthy aging as important health outcomes for Manchester residents.

FACTOR 1: LENGTH OF LIFE

The life expectancy of an individual is determined primarily by genetics and lifestyle choices. At the population level, life expectancy is impacted also by social and economic factors, including poverty, safety, and educational opportunity.

Life Expectancy

Life expectancy at birth is a statistical measure of the average number of years a person is expected to live based on demographic (race, ethnicity and gender) and geographic (where the person lives) characteristics. According to the National Center for Health Statistics, the average life expectancy at birth of someone born in the US in 2016 was 78.6 years.[86]

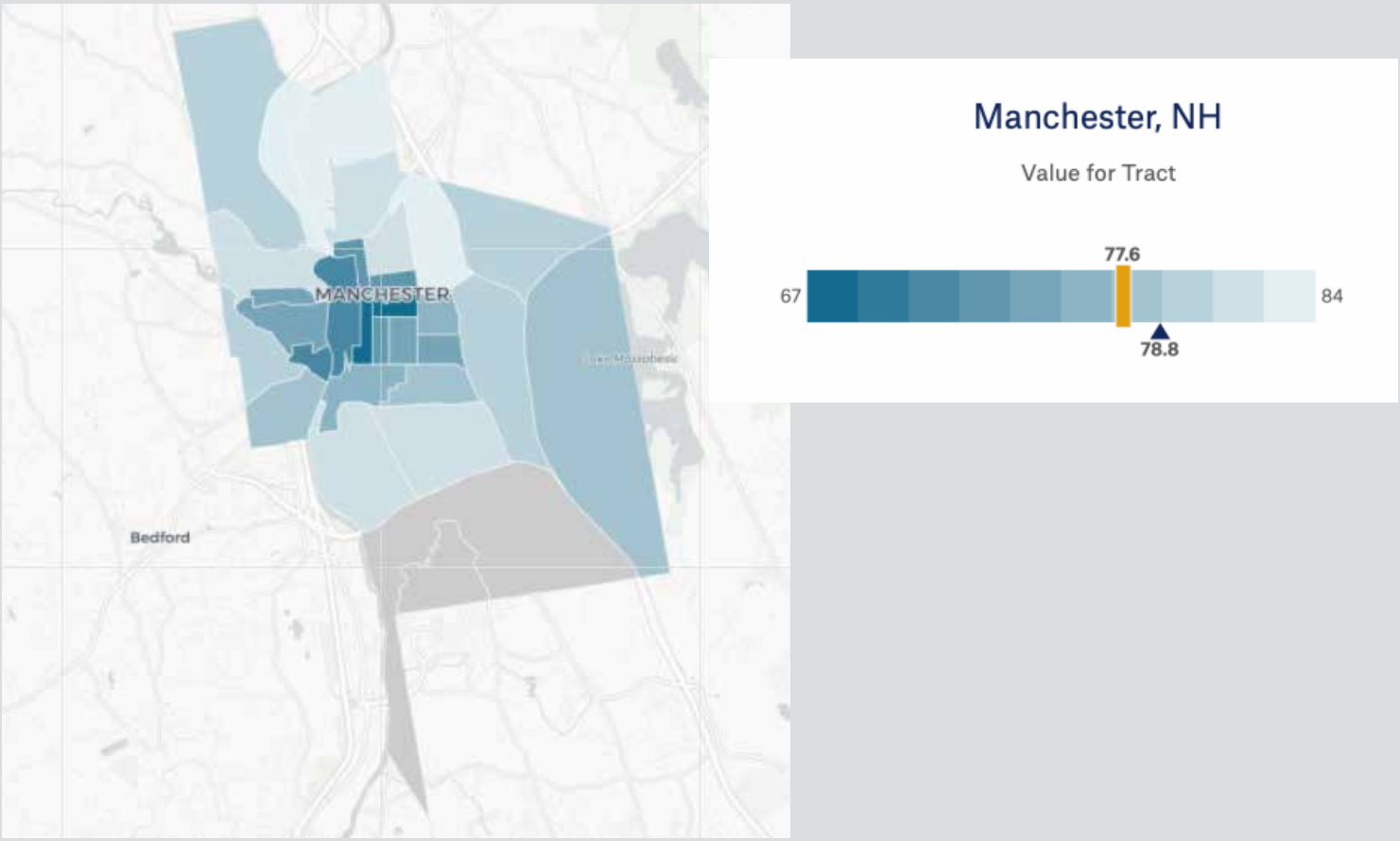
Where does Manchester stand?

The average life expectancy at birth of Manchester residents was 77.6 years in 2015. However, residents born in center city neighborhoods had much lower life expectancies. Specifically, the anticipated life span of residents born in census tracts 13 and 17 was less than 70 years in 2015, while those born in census tracts 6, 8, 20, and 2004 could expect to live between 70-74 years (**Map 32**).

How does the Greater Manchester Region compare?

The average life expectancy at birth of Manchester residents is lower than that of Nasua residents (79.7 years) and of residents of the 500 largest US cities (78.8 years).

Map 32: Life Expectancy, Manchester Neighborhoods, 2015



Premature Death

In the US, premature death is defined as death prior to age 75 years, the average life span of a US resident. Premature death is calculated as potental years of life lost per 100,000 individuals in a population. County Health Rankings and Roadmaps recommends measuring premature mortality rather than overall mortality because it is a better measure of preventable deaths and gives more weight to deaths that occur in younger populations.

Where does Manchester Stand?

In 2014-2016, there were 8,900 years of potential life lost per 100,000 residents in Manchester. By comparison, there were 6,900 years of potential life lost per 100,000 residents in Nashua and an average of 7,431 years of potential life lost per 100,000 individuals in the 500 largest US cities.

How does the Greater Manchester Region compare?

The rate of potential years of life lost per 100,000 residents was similar in Hillsborough County (6,800 years of potential life lost) and in other counties throughout the state (**Table 44**).

Table 44: Years of Potential Life Lost, County, 2015-2017[88]

Geography	***Years of Potential Life Lost per 100,000***
Belknap	7,200
Carroll	7,500
Cheshire	6,700
Coos	8,400
Grafton	5,400
Hillsborough	6,800
Merrimack	6,400
Rockingham	5,600
Strafford	7,000
Sullivan	6,700

Leading Causes of Death

In 2016, the leading causes of death in the United States for individuals of all age groups were heart disease, cancer and unintentional injuries.[89] Deaths from unintentional injuries or accidents are on the rise due to escalating numbers of drug opioid overdose deaths, which have quadrupled since 1999.[90]

Where does Manchester stand?

Between 2016 and 2018, the five leading causes of death in Manchester residents of all ages were heart disease, cancer, unintentional injuries, chronic lower respiratory diseases, and Alzheimer's disease [91] (**Table 45**). Nearly one in every four deaths in Manchester was related to heart disease, including coronary artery disease (artery blockage), heart attack, high blood pressure, and heart failure. Unintentional injuries, including drug overdoses, were the third leading cause of death in Manchester during this period.

Table 45: Manchester Leading Causes of Death, All Ages, 2016-2018

Rank	*Cause*	*#*	*%*	*Rate per 100,000 Population*
1	Diseases of the heart	756	23.1%	227.9
2	Malignant neoplasms (cancer)	572	17.5%	172.4
3	Accidents (unintentional injuries)	329	10.1%	99.2
4	Chronic lower respiratory diseases	205	6.3%	61.8
5	Alzheimer's disease	134	4.1%	40.4
6	Cerebrovascular diseases (stroke)	105	3.2%	31.6
7	Diabetes mellitus	79	2.4%	23.8
8	Intentional self-harm (suicide)	78	2.4%	23.5
9	Influenza and pneumonia	76	2.3%	22.9
10	Chronic liver disease and cirrhosis	50	1.5%	15.1

How does the Greater Manchester region compare?

Overall, the leading causes of death for all ages are similar in Manchester and the Greater Manchester region. However, heart disease is the number one cause of death in Manchester, while cancer is the leading cause of death in the state as a whole. In addition, Alzheimer's disease is the fifth leading cause of death in Manchester and the Greater Manchester Region, while cerebrovascular disease in the fifth leading cause of death in the state (**Table 46**).

Table 46: Leading Causes of Death, All Ages, 2016-2018

Cause of Death: All Ages	*Manchester*		*Greater Manchester (HSA)*		*New Hampshire*	
	Rate	*Rank*	*Rate*	*Rank*	*Rate*	*Rank*
Diseases of the heart	227.9	1	205.8	1	192.4	2
Malignant neoplasms (cancer)	172.4	2	168.7	2	194.7	1
Accidents (unintentional injury)	99.2	3	76.2	3	64.6	3
Chronic lower respiratory diseases	61.8	4	52.4	4	52.8	4
Alzheimer's disease	40.4	5	39.3	5		
Cerebrovascular disease (stroke)					34	5

Special Section: Leading Causes of Death by Age

Birth to 6 years: The number one cause of death among infants and children ages birth to 6 years in Manchester is "certain conditions originating in the perinatal period" (**Table 47**). These conditions include, but are not limited to: deaths related to maternal factors or complications of pregnancy, labor and delivery; disorders related to length of gestation and fetal growth; birth trauma; respiratory and cardiovascular disorders specific to the perinatal period; and infections specific to the perinatal period. Importantly, many of these conditions can be prevented or lessened with early and adequate prenatal care.

Manchester babies and young children (ages birth to 6 years) were more than twice as likely as that same age group in the state of NH to die due to conditions originating during the perinatal period. The prevalence of deaths due to certain conditions originating in the perinatal period is significantly higher in Manchester than in Greater Manchester and the state as a whole.

Table 47: Leading Causes of Death, Birth-6 years, 2016-2018

Cause of Death: Birth-6 Years	*Manchester*		*Greater Manchester (HSA)*		*New Hampshire*	
	Rate	*Rank*	*Rate*	*Rank*	*Rate*	*Rank*
Certain conditions originating in the perinatal period	64.3	1	50.1	1	28.4	1
Accidents (unintentional injuries)	*	2	*	2	0.8	3
Congenital malformations	*	3	*	3	5.5	2
Malignant neoplasms (cancer)	*	4	*	4	*	5
Assault (homicide)	*	5	*	5	1.8	4

. .

Ages 7-17 years: For youth ages 7-17 years, accidents and unintentional injuries were the leading cause of death at all geographic levels in 2016-2018 (**Table 48**). For children ages 7 to 17 years, the top three causes of death were accidents and unintentional injuries, aortic aneurysm and dissection, and intentional self-harm (suicide).

Table 48: Leading Causes of Death, 7-17 years, 2016-2018

Cause of Death: Youth 7-17 Years	***Manchester***		***Greater Manchester (HSA)***		***New Hampshire***	
	Rate	***Rank***	***Rate***	***Rank***	***Rate***	***Rank***
Accidents (unintentional injuries)	*	1	7.1	1	3.8	1
Aortic aneurysm and dissection	*	2	*	2	*	4
Intentional self-harm (suicide)	*	3	*	3	3.8	2
Malignant neoplasms (cancer)					1.5	3
Cerebrovascular disease (stroke)					*	5

** rate is suppressed due to small sample size*

Ages 18-24 years: In young adults, ages 18 to 24 years, the top five causes of death were accidents and unintentional injuries, intentional self-harm (suicide), cancer, assault (homicide), and diabetes. (**Table 49**). Accidents and unintentional injuries accounted for 56.8% of all deaths in this age group in 2016-2018. The leading causes of death were accidents/unintentional injuries and intentional self-harm (suicide) in young adults ages 18 to 24 years at all geographic levels in 2016-2018.

Table 49: Leading Causes of Death, 18-24 years, 2016-2018

Cause of Young Death Adults 18-24 Years	***Manchester***		***Greater Manchester (HSA)***		***New Hampshire***	
	Rate	***Rank***	***Rate***	***Rank***	***Rate***	***Rank***
Accidents (unintentional injuries)	62.7	1	54.1	1	44.9	1
Intentional self-harm (suicide)	17.9	2	20.5	2	21.9	2
Malignant neoplasms (cancer)	*	3	*	3	1.6	5
Assault (homicide)	*	4	*	4	2.1	4
Diabetes mellitus	*	5	*	5		
Diseases of the heart					2.4	3

** rate is suppressed due to small sample size*

Ages 25-64 years: The number one cause of death in Manchester residents ages 25 to 64 years in 2016-2018 was accidents and unintentional injuries, including drug overdose (**Table 50**). Also among the top five causes of death in this age group were intentional self-harm/suicide--a reflection of the high rates of mental distress in Manchester residents--and chronic liver disease and cirrhosis, which are often the result of alcohol abuse and hepatitis infection in this age group. Among adults ages 25-64 years, the top four causes of death were similar in Manchester, the Greater Manchester Region and the state in 2016-2018 (**Table 50**). However, accidents and unintentional injuries were the first leading cause of death in Manchester and the Greater Manchester Region, while cancer was the first leading cause of death in the state.

Table 50: Leading Causes of Death, 25-64 years, 2016-2018

Cause of Death Adults ages 25-64 Years	***Manchester***		***Greater Manchester (HSA)***		***New Hampshire***	
	Rate	***Rank***	***Rate***	***Rank***	***Rate***	***Rank***
Accidents (unintentional injuries)	138.8	1	98.5	1	68.3	2
Malignant neoplasms (cancer)	91.6	2	86.4	2	95.8	1
Diseases of the heart	74.3	3	58.6	3	57.1	3
Intentional self-harm (suicide)	34.7	4	25.9	4	23.4	4
Chronic liver disease and cirrhosis	20.1	5	17.4	5		
Chronic lower respiratory diseases					14.2	5

Ages 65 years and older: The top five causes of death in adults aged 65 years and older were the same across all three geographic regions in 2016-2018 (**Table 51**). These causes of death were: diseases of the heart, cancer, chronic lower respiratory diseases, Alzheimer's disease, and cerebrovascular disease (stroke).

Table 51: Leading Causes of Death, 65+ Years, 2016-2018

Cause of Death Adults 65+ Years	***Manchester***		***Greater Manchester (HSA)***		***New Hampshire***	
	Rate	***Rank***	***Rate***	***Rank***	***Rate***	***Rank***
Diseases of the heart	1,230.1	1	1,135.2	1	928.6	1
Malignant neoplasms (cancer)	794.2	2	786.1	2	820.4	2
Chronic lower respiratory diseases	336.4	3	287.9	3	259.1	3
Alzheimer's disease	266.7	4	256.2	4	184.3	4
Cerebrovascular disease (stroke)	183.1	5	193.9	5	176.5	5

FACTOR 2: QUALITY OF LIFE

Quality of life is impacted by factors ranging from physical and emotional health, to education and employment, to living in a safe and supportive community. Persistent mental and physical distress and traumatic experiences can have profound impact on an individual's quality of life.Adversity in childhood, such as child maltreatment, can negatively affect mental and behavioral health into adulthood.[93,94]

Adverse Childhood Experiences

Adverse childhood experiences (ACEs) are traumatic events occurring before age 18 years that increase the risk for poor health and behavioral outcomes later in life. Examples of ACEs include domestic violence, substance abuse by a caregiver, emotional and sexual abuse, maternal depression, physical and emotional neglect, parental divorce, mental illness among parents or caregivers, incarceration of a parent, and homelessness. As the number of ACEs increases, so does the risk for long-term adverse health outcomes.[95]

Where does Manchester stand?

In 2016, nearly one in every ten Manchester residents (9.5%) reported having experienced four or more adverse childhood experiences.

How does the Greater Manchester Region compare?

The percentage of adults who reported experiencing four or more adverse childhood experiences was slightly higher in Manchester than in the Greater Manchester region or in the state in 2016 (both, 9.1%).

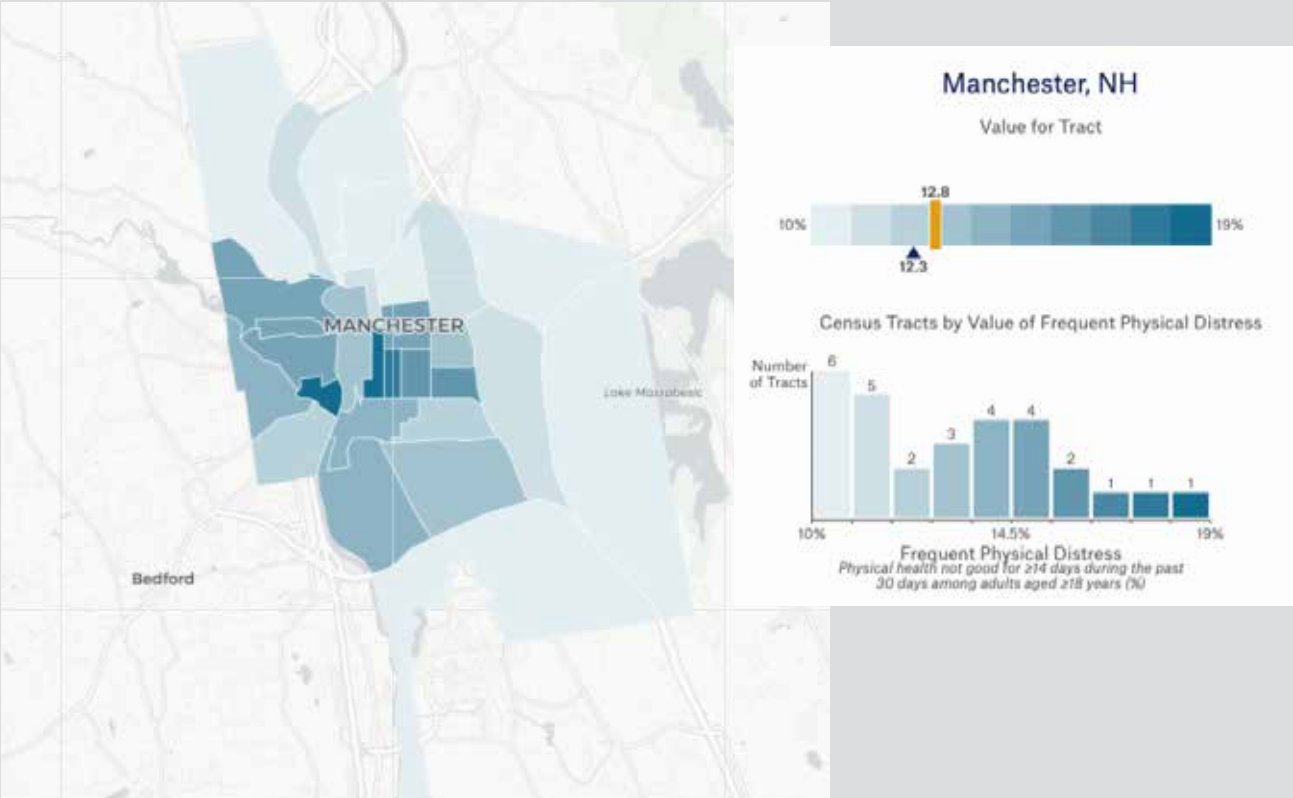
Frequent Physical and Mental Distress

According to the CDC, individuals who report frequent poor physical and mental health tend to utilize the health care system more frequently and have a higher rate of mortality.[96] Frequent mental and physical distress are linked to chronic health conditions including cancer, diabetes, obesity, and arthritis, and can be associated with health behavior risk factors, such as physical inactivity, substance misuse, and smoking.

Where does Manchester stand?

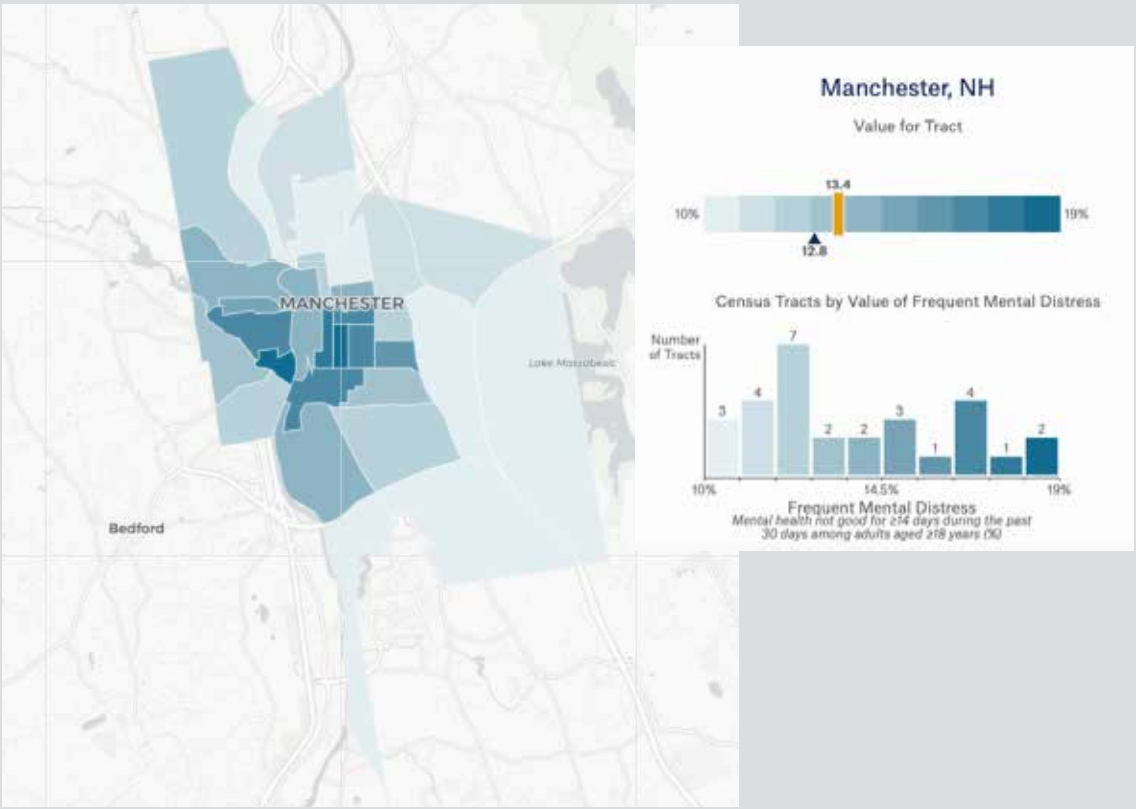
According to 2016 data, 12.8% of Manchester adults reported that their physical health was not good for more than 14 days during the past 30 days, a measure know as frequent physical distress. An even larger proportion of residents in Census Tracts, 14, 15, and 20 reported frequent physical distress, ranging from 17% to 19% of adults (**Map 33**).

Map 33: Frequent Physical Distress – Manchester Neighborhoods (2016)



During this same period, 13.4% of Manchester adults reported frequent mental distress (mental health not good for more than 14 days during the past 30 days). Adults living in Manchester's center city Census Tracts 15 and 20 were at greatest risk of frequent mental distress, with nearly one in five residents (18%) reporting their mental health was not good for more than 14 of the past 30 days (**Map 34**).

Map 34: Frequent Mental Distress – Manchester Neighborhoods (2016)



How does the Greater Manchester Region compare?

The percentage of Manchester adults who reported frequent mental distress in 2016 was higher in Manchester than in Nashua (12.1%) but similar to the 500 largest cities in the US. Rates of frequent physical distress in 2016 were similar in Manchester, Nashua and the 500 largest cities in the US.

Child Abuse and Neglect

The Federal Child Abuse Prevention and Treatment Act defines child abuse and neglect as, at a minimum, "any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm".[97] In New Hampshire, the number of accepted referrals for child abuse and neglect increased by 33% between 2013 and 2017, with more than 12,000 reports of child maltreatment statewide.[98]

Where does Manchester stand?

In 2016, the Division for Children, Youth and Families (DCYF) accepted 11,197 referrals for investigation, of which 1,691 were in Manchester--more than any other city or town in the state. Of the Manchester referrals, 57.3% involved substance misuse. The overall number of DCYF cases (both placement and in-home) in 2016 was up 27%; the most substantial increase was seen in Manchester, where cases were up 69%.

How does the Greater Manchester Region Compare?

New Hampshire has seen an increase in accepted assessments of child abuse and neglect in 10 out of 11 district offices, as well as an increase in telework cases and special investigations. The district offices with the highest number of accepted assessments were those in Manchester (1,691 cases), Nashua (1,532 cases), Concord (1,485 cases), and the Seacoast (1,079 cases). Approximately half of the accepted assessments in these offices included substance abuse as a risk factor (**Image 23**).

Image 23

TABLE 2. **ACCEPTED ASSESSMENTS OF CHILD ABUSE AND NEGLECT AND SUBSTANCE USE, BY NEW HAMPSHIRE DISTRICT OFFICE, 2013 AND 2016**

	2013		2016	
District Offices	Total Accepted Assessments	Assessments With Substance Abuse Risk Factor (percent)	Total Accepted Assessments	Assessments With Substance Abuse Risk Factor Factor (percent)
Berlin	329	44.4	352	51.7
Claremont	746	38.7	865	48.4
Concord	1,195	38.8	1,485	49.6
Conway	368	38.3	491	56.0
Keene	858	40.1	967	53.6
Laconia	675	43.1	928	49.8
Littleton	212	39.2	262	46.2
Manchester	1,278	42.3	1,691	57.3
Rochester	894	42.6	983	52.8
Seacoast	863	45.3	1,079	51.7
Southern (Nashua)	1,377	37.7	1,532	49.8
Southern Telework	386	41.7	481	48.9
Special Investigations	67	7.5	81	17.3
Total	9,248	3,755	11,197	5,771

Source: DCYF data extract from DCYF Results Oriented Management and the Statewide Automated Child Welfare Information System (NH Bridges)

FACTOR 3: PERSISTENT POVERTY & LIMITED OPPORTUNITY

Persistent poverty and limited economic opportunity remain a challenge for far too many Americans; one in six children in the US is living in poverty, according to the Urban Institute.[99] Experts agree that persistent intergenerational poverty is a complex problem, compounded by conditions in high-poverty urban neighborhoods that undermine children's long-term opportunities for success.[100]

Persistent Poverty

Persistent poverty is defined on the geographic level as an area that has had 20% or more of its population living in poverty over the past 30 years. Research shows that communities with poverty rates exceeding 20% experience more acute poverty-related issues, such as poor housing conditions and lower access to economic oppotunity, than lower poverty communities.

Where does Manchester stand?

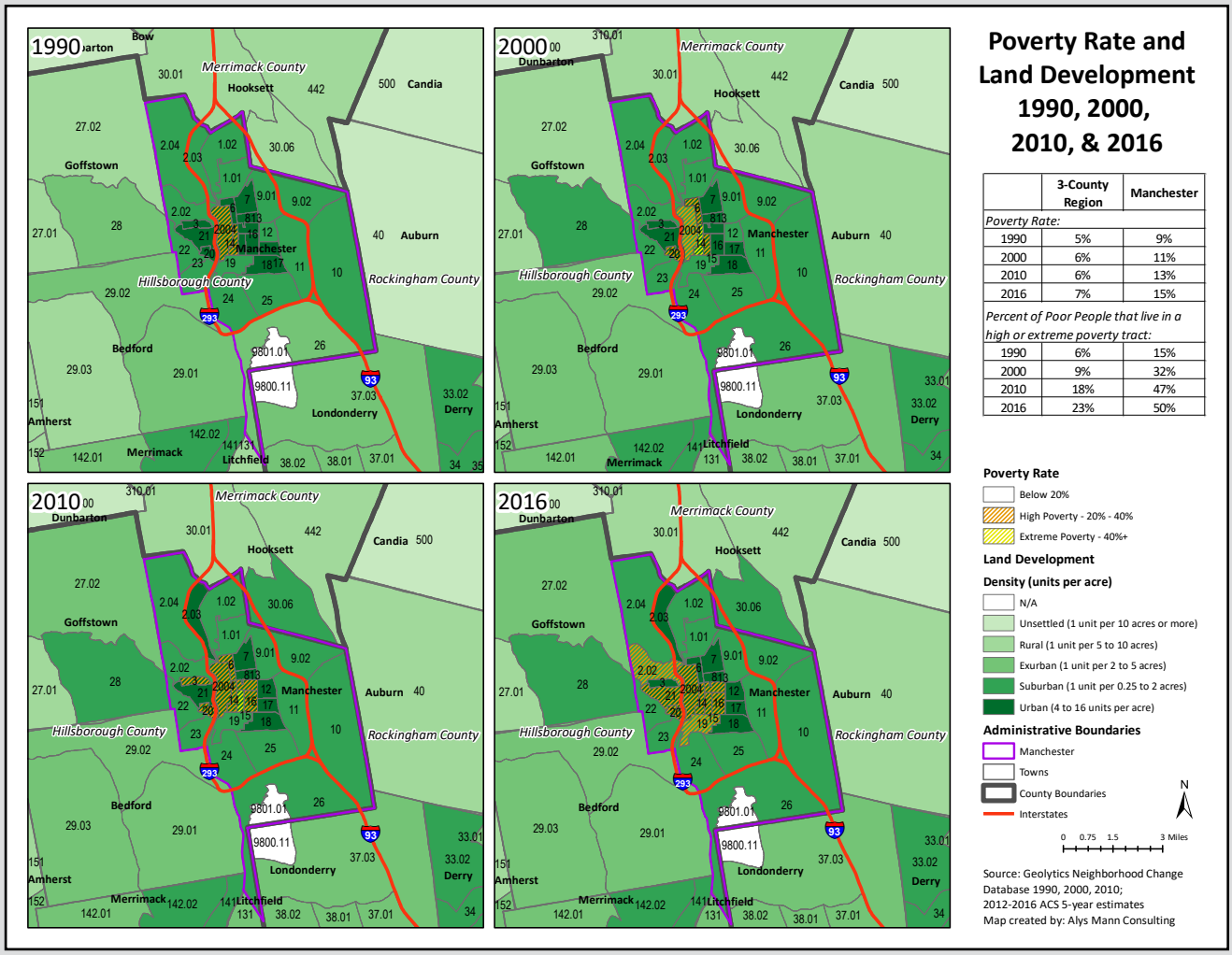
Manchester's center city neighborhoods have experienced high (20%-40% poverty) and extreme (40%+ poverty) poverty rates since 1990. In fact, the number of Manchester neighborhoods with high or extreme poverty rates has more than quardrupled since 1990, from two census tracts in 1990 to nine Census Tracts in 2016 (**Table 53**). Manchester's west side has been particularly impacted by this increase in high or extreme poverty rates. Census Tracts 14 and 2004 have experienced high or extreme poverty since 1990, therefore meeting the federal government's definition of neighborhoods with persistent poverty.

Table 53: Manchester Neighborhoods with High or Extreme Poverty

Census Tracts	*1990 Census*	*2000 Census*	*2010 Census*	*2016 Census*
14**	X	X	X	X
2004**	X	X	X	X
6		X	X	
15		X	X	X
20		X	X	X
13			X	X
16			X	X
3			X	
2.02				X
21				X
19				X

**Persistent poverty

Image 24



	3-County Region	Manchester
Poverty Rate:		
1990	5%	9%
2000	6%	11%
2010	6%	13%
2016	7%	15%
Percent of Poor People that live in a high or extreme poverty tract:		
1990	6%	15%
2000	9%	32%
2010	18%	47%
2016	23%	50%

How does the Greater Manchester Region compare?

While persistent poverty has been an enduring problem in the rural regions of the US, 14% of persistent poverty counties across the country are metropolitan areas like Manchester.

Current Levels of Opportunity

Numerous factors impact the opportunity for economic mobility within a community. Communities with low access to higher paying jobs, poor acadademic achievement in schools, and high transportation costs, for example, provide few opportunities for individuals to move up the income distribution and for families to break the cycle of poverty. Opportunity indices--composite measures of economic opportunity-related factors within a community--can be used to help governments and funders target interventions and strategies to promote economic mobility to the neighborhoods where they are needed most. Five common opportunity indices include: the labor market engagement index, the school proficiency index, the socio-economic index, the jobs proximity index, and the low transportation costs index.

Where does Manchester stand?

Compared with other towns in the Greater Manchester region, Manchester neighborhoods fall within the lowest quintile for the labor market engagement index, the school proficiency index and the socio–economic index. Eight Manchester Census Tracts were also in the lowest quintile for the jobs proximity index (**Image 25**).

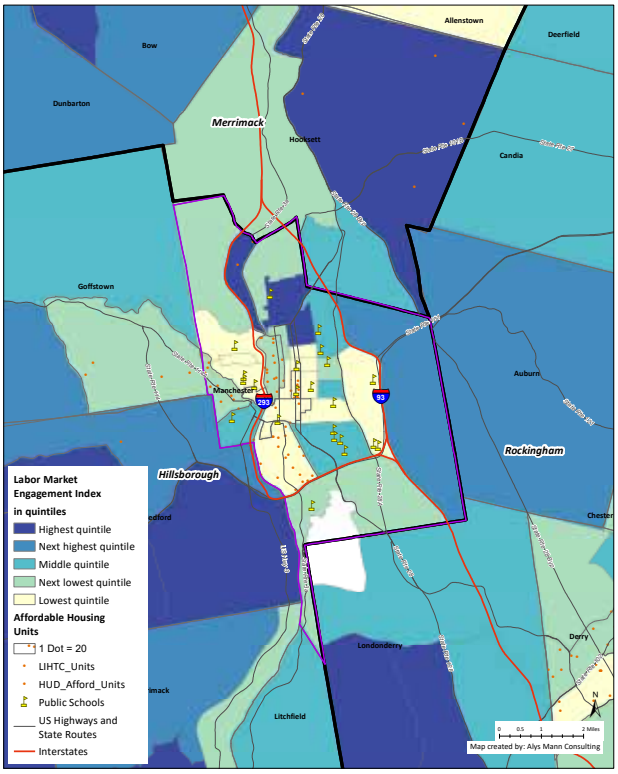
On the other hand, Manchester's center city neighborhoods were in the highest quintile for the low transportation cost index, indicating that families in these neighborhoods pay a relatively low percentage of their incomes to transportation costs (**Image 26**).

How does the Greater Manchester Region compare?

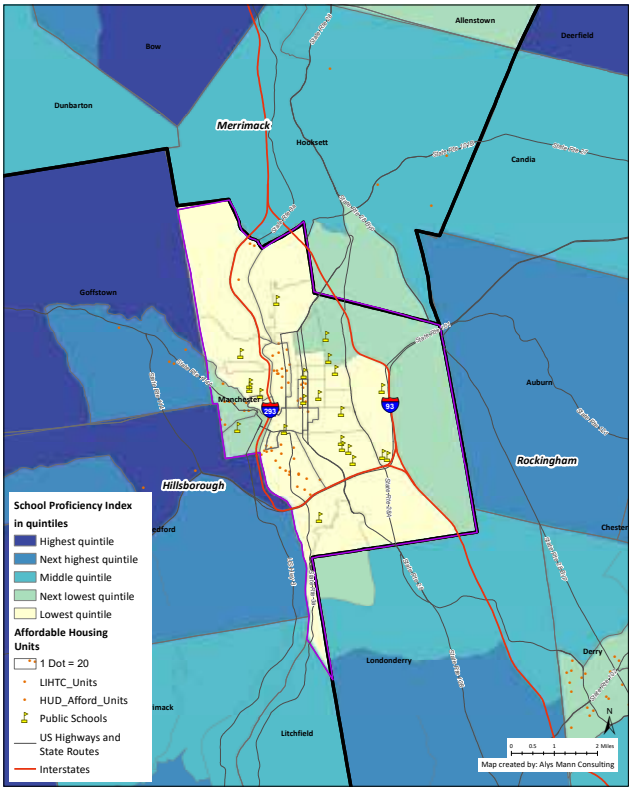
Another way to look at these opportunity indices is to measure the number of indices within a community that are above the average (better than average) for a region. Within the three-county region of Hillsborough, Rockingham and Merrimack Counties, Manchester ranks low in opportunity, with 15 Census Tracts scoring above average on only two indices-one of which is transportation cost-and seven Census Tracts scoring above average on only three indices (**Map 35**). Of note, none of the neighborhoods in Manchester received above average scores on all five opportunity idices, compared with most of Londonderry and about half of Bedford.

Image 25

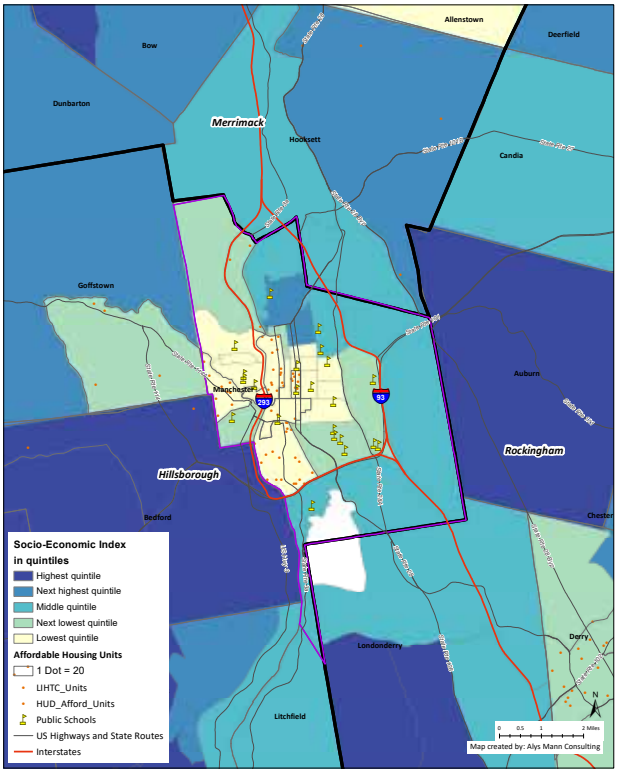
Mapping Opportunity: Labor Market Engagement Index



Mapping Opportunity: School Proficiency Index



Mapping Opportunity: Socio-Economic Index



Mapping Opportunity: Jobs Proximity Index

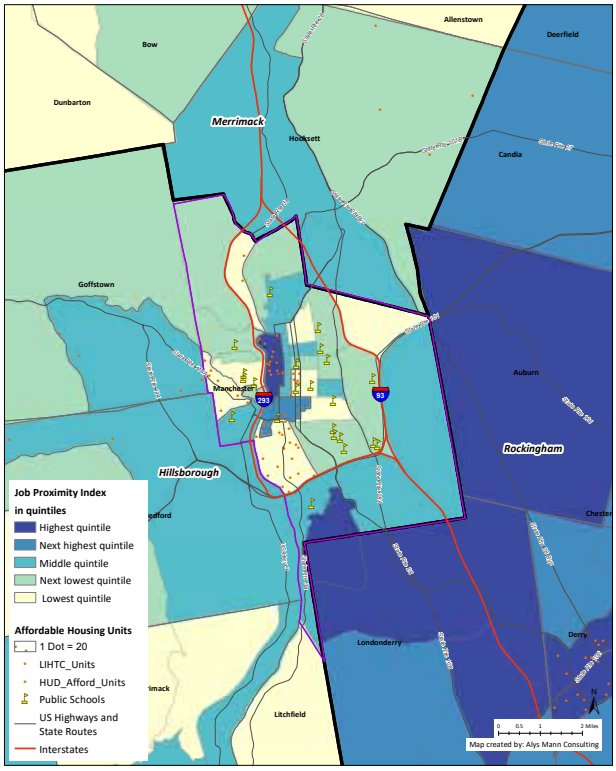
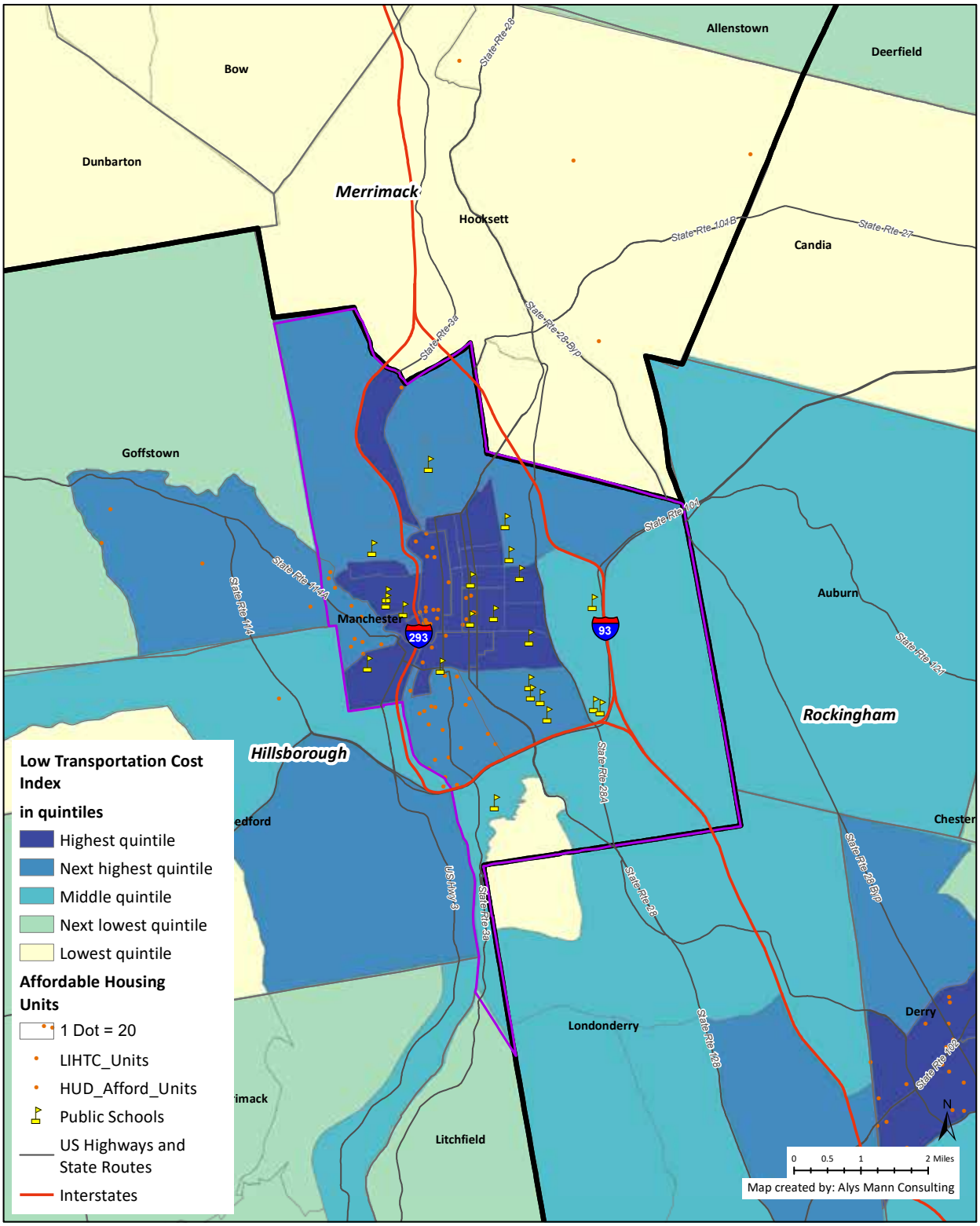
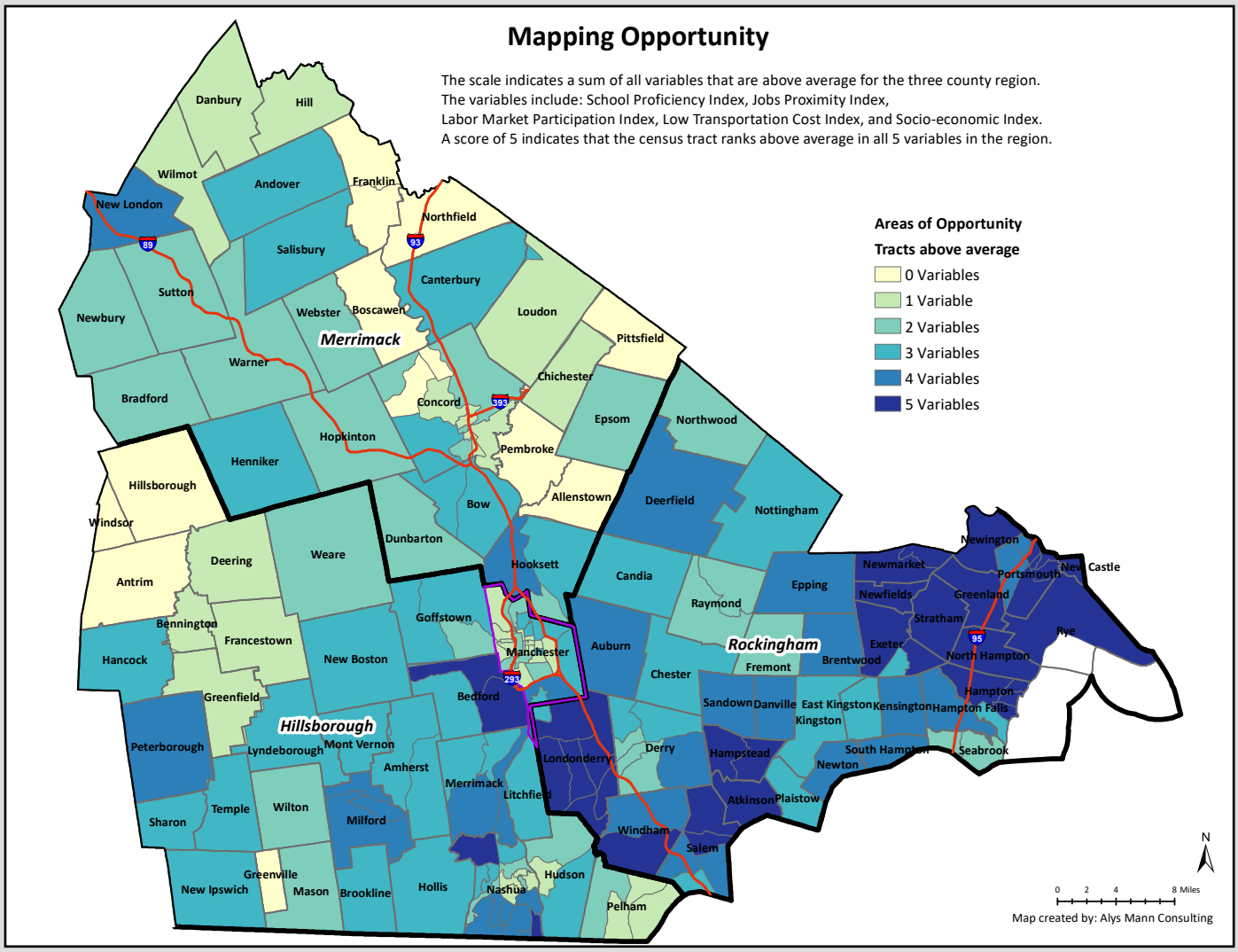


Image 26


Mapping Opportunity: Low Transportation Cost Index
Allenstown
Deerfield
Bow
Dunbarton
Merrimack
Hooksett
Candia
Goffstown
Manchester
Auburn
Rockingham
Hillsborough
Chester
Londonderry
Derry
Litchfield
293
93
State Rte 28
State Rte 3a
State Rte 28 Byp
State Rte 101B
State Rte 27
State Rte 101
State Rte 114A
State Rte 114
State Rte 101A
State Rte 28A
State Rte 28
State Rte 28 Byp
State Rte 102
State Rte 3
State Rte 3c
Low Transportation Cost Index
in quintiles
Highest quintile
Next highest quintile
Middle quintile
Next lowest quintile
Lowest quintile
Affordable Housing Units
1 Dot = 20
LIHTC_Units
HUD_Afford_Units
Public Schools
US Highways and State Routes
Interstates
0 0.5 1 2 Miles
N
Map created by: Alys Mann Consulting

Map 35


Mapping Opportunity
The scale indicates a sum of all variables that are above average for the three county region.
The variables include: School Proficiency Index, Jobs Proximity Index,
Labor Market Participation Index, Low Transportation Cost Index, and Socio-economic Index.
A score of 5 indicates that the census tract ranks above average in all 5 variables in the region.
Areas of Opportunity
Tracts above average
0 Variables
1 Variable
2 Variables
3 Variables
4 Variables
5 Variables
Merrimack
Hillsborough
Rockingham
Danbury
Hill
Wilmot
Andover
Franklin
New London
Northfield
Salisbury
Canterbury
Sutton
Newbury
Webster
Boscawen
Loudon
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Henniker
Pembroke
Hillsborough
Allenstown
Deerfield
Nottingham
Windsor
Bow
Dunbarton
Weare
Deering
Hooksett
Newington
Newmarket
Portsmouth
New Castle
Antrim
Candia
Epping
Raymond
Newfields
Greenland
Stratham
Bennington
Goffstown
Francestown
Auburn
Exeter
Rye
Hancock
New Boston
Manchester
Brentwood
North Hampton
Fremont
Chester
Greenfield
Bedford
Sandown
Danville
East Kingston
Kingston
Kensington
Hampton
Hampton Falls
Peterborough
Lyndeborough
Mont Vernon
Amherst
Londonderry
Derry
Hampstead
South Hampton
Seabrook
Newton
Merrimack
Litchfield
Atkinson
Plaistow
Temple
Wilton
Sharon
Milford
Windham
Salem
Greenville
New Ipswich
Mason
Brookline
Hollis
Nashua
Hudson
Pelham
N
0 2 4 8 Miles
Map created by: Alys Mann Consulting

Future Opportunity for Children

The neighborhood in which a child grows up has substantial causal effects on their prospects of upward mobility. The Opportunity Atlas is an innovative project that uses multiple data points from the Census Bureau collected over 30 years to predict which neighborhoods in the US provide children the most opportunity for social mobility during their lives. The Opportunity Atlas can be used to identify pockets of low opportunity for children where interventions are needed to interrupt the systemic cycle of poverty.

Where does Manchester stand?

In Manchester, children growing up in Census Tract 14 have the lowest estimated household incomes as adults compared with children growing up in other areas of the city ($26,000 annually). Children growing up in all of Manchester's center city neighborhoods have low predicted adult incomes, forecasting continued generational poverty in these neighborhoods (**Image 27**). Children growing up in Manchester's north end neighborhood (Census Tract 1.01), by comparison, have the highest predicted household incomes as adults, $62,000 annually, among all children growing up in the city.

How does the Greater Manchester Region compare?

Bedford children have the highest predicted incomes as adults in the Greater Manchester region, at $70,000 annually (**Image 28**).

Image 27

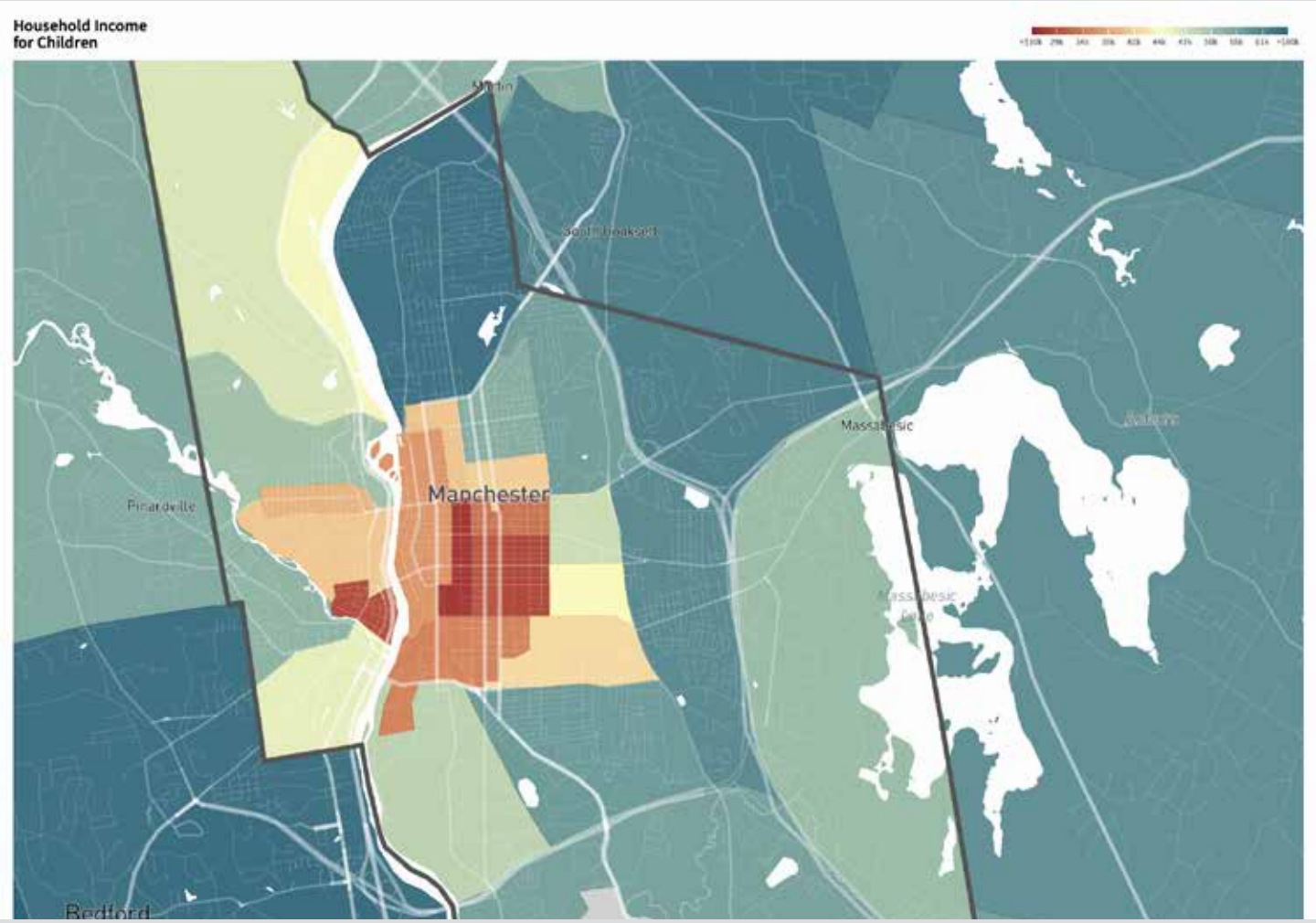
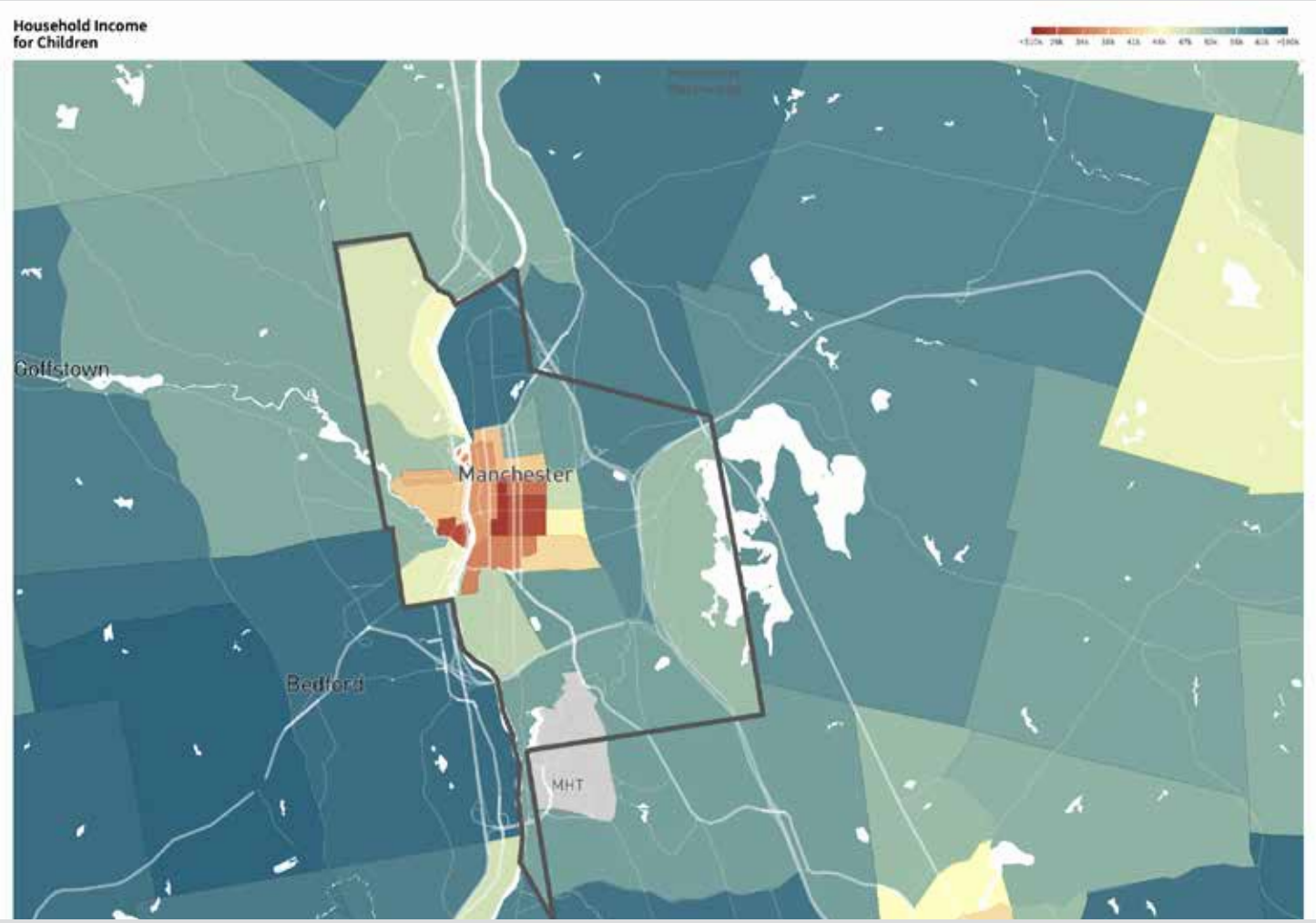

Household Income
for Children
Manchester
Pinardville
Massabesic
Bedford

Image 28


Household Income
for Children
Goffstown
Manchester
Bedford
MHT

FACTOR 4: AGING POPULATION

The number of Americans aged 65 years and older is projected to more than double by 2060, from 46 million to over 98 million.[101] The aging of the population may fuel higher demand for health care services for chronic diseases, as well as nursing home care, particularly for the rising number of adults with Alzheimer's disease.

Where does Manchester stand?

New Hampshire has the second highest median age in the nation, with 20% of the state's population aged 60 years and older.[102] In Manchester alone, there are 14,552 residents aged 65 years or older. More than half (58.8%) of these older adults in Manchester are female, and the vast majority (95.9%) are White, with a small (3.8%) Hispanic/Latino population. More than half (56.3%) of older adults in Manchester completed high school and almost a quarter (23.6%) have a college degree.

According to the 2019 New Hampshire Healthy Healthy Aging Community Profile, Manchester residents aged 65 years and older fare significantly worse than the state average on 45 Healthy Aging Idicators. **Table 54** highlights just 11 of those Healthy Aging Indicators that were worse for Manchester residents than for the state as a whole.

Table 54: Health Indicators Worse than State Average, 65+ years, Manchester Neighborhoods

Health Indicator	*Manchester: West Neighborhoods*	*Central Manchester Neighborhoods*	*Manchester: South Neighborhoods*
Asthma	X	X	
Blindness/visual impairment	X	X	
Chronic kidney disease	X	X	
Depression		X	
Diabetes		X	
Ischemic heart disease	X	X	
Mortality		X	
Multiple comorbidities	X	X	X
Personality disorders		X	
Schizophrenia and psychotic disorders		X	
Stroke	X		

How does the Greater Manchester Region compare?

Residents of Nashua had worse rates than the state on 35 Healthy Aging Indicators, versus 45 indicators that were worse than the State in Manchester. The following table, **Table 55,** presents prevalence rates for a selection of indicators for which Manchester's rate was worse than the state, with Nashua's rates included for comparison.

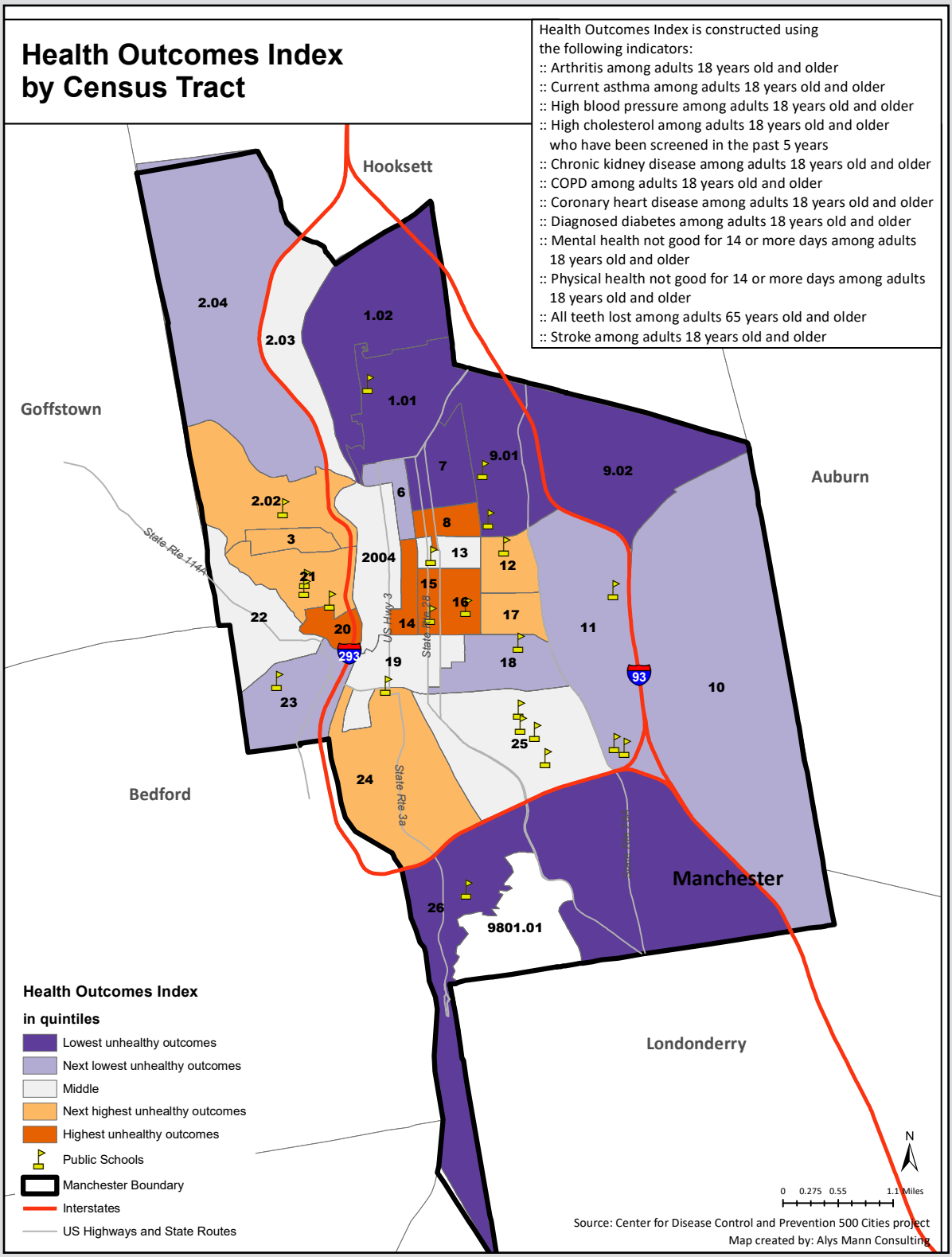
Table 55: Rates for Selected Indicators, Adults 65+ years

Indicator	*Manchester*	*Nashua*	*New Hampshire*
% injured in a fall over the past year	12.3%	12.5%	10.4%
% clinically diagnosed obese	19.6%	17.5%	16.7%
% with high cholesterol	78.0%	76.7%	72.2%
% with depression	33.9%	31.1%	28.8%
% with anxiety disorders	27.8%	24.3%	21.9%
% with diabetes	34.3%	31.3%	28.2%
% with chronic obstructive pulmonary disease	25.6%	21.3%	20.5%
% with hypertension	74.6%	73.8%	70.2%
% with ischemic heart disease	38.8%	37.1%	34.3%
% with osteoarthritis/rheumatoid arthritis	53.9%	49.8%	49.1%
% with chronic kidney disease	28.0%	28.9%	22.3%
% with 4 or more chronic conditions	62.6%	56.9%	54.4%
% with self-reported ambulatory difficulty	24.3%	20.5%	18.8%

Summary of Health Outcomes in Manchester:

The Health Outcomes Index is a measure of overall health outcomes, including chronic disease, mental health and oral health, in an adult population. In Manchester, center city Census Tracts 20, 14, 15, 16, and 8 have the highest levels of unhealthy outcomes in the city (**Map 36**).

Map 36


Health Outcomes Index by Census Tract
Health Outcomes Index is constructed using the following indicators:
:: Arthritis among adults 18 years old and older
:: Current asthma among adults 18 years old and older
:: High blood pressure among adults 18 years old and older
:: High cholesterol among adults 18 years old and older who have been screened in the past 5 years
:: Chronic kidney disease among adults 18 years old and older
:: COPD among adults 18 years old and older
:: Coronary heart disease among adults 18 years old and older
:: Diagnosed diabetes among adults 18 years old and older
:: Mental health not good for 14 or more days among adults 18 years old and older
:: Physical health not good for 14 or more days among adults 18 years old and older
:: All teeth lost among adults 65 years old and older
:: Stroke among adults 18 years old and older
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
9.01
9.02
7
6
8
2.02
3
2004
13
12
21
15
16
22
20
14
17
11
293
19
18
93
10
23
25
24
26
9801.01
State Rte 114A
US Hwy 3
State Rte 3a
State Rte 3a
State Rte 3A
Health Outcomes Index
in quintiles
Lowest unhealthy outcomes
Next lowest unhealthy outcomes
Middle
Next highest unhealthy outcomes
Highest unhealthy outcomes
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: Center for Disease Control and Prevention 500 Cities project
Map created by: Alys Mann Consulting

DATA SNAPSHOT: HEALTH OUTCOMES
Summary of Key Data Findings

Indicator	Manchester	Greater Manchester	Nashua, NH	State of NH	500 Cities
Length of Life					
Life expectancy	77.6 years		79.7 years	-	78.8 years
Premature death	8,900 years	6,800 years	6,900 years	-	7,431 years
Quality of Life					
Four or more adverse childhood experiences	9.5%	9.1%	-	9.1%	-
Frequent mental distress	13.4%	-	12.1%	-	12.8%
Frequent physical distress	12.8%	-	11.9%	-	12.3%
Total accepted assessments for child maltreatment in 2016	1,691	-	1,532	11,197	-
Child maltreatment assessments with substance abuse risk factor	57.3%	-	49.8%	51.5%	-
Aging Population					
% 60+ injured in a fall over the past year	12.3%	-	12.5%	10.4%	-
% 60+ clinically diagnosed obese	19.6%	-	17.5%	16.7%	-
% 60+ with high cholesterol	78.0%	-	76.7%	72.2%	-
% 60+ with depression	33.9%	-	31.1%	28.8%	-
% 60+ with anxiety disorders	27.8%	-	24.3%	21.9%	-
% 60+ with diabetes	34.3%	-	31.3%	28.2%	-
% 60+ with chronic obstructive pulmonary disease	25.6%	-	21.3%	20.5%	-
% 60+ with hypertension	74.6%	-	73.8%	70.2%	-
% 60+ with ischemic heart disease	38.8%	-	37.1%	34.3%	-
% 60+ with osteoarthritis/ rheumatoid arthritis	53.9%	-	49.8%	49.1%	-
% 60+ with chronic kidney disease	28.0%	-	28.9%	22.3%	-
% 60+ with 4 or more chronic conditions	62.6%	-	56.9%	54.4%	-
% 60+ with self-reported ambulatory difficulty	24.3%	-	20.5%	18.8%	-

VIII. Voices of Community and Neighborhood Leaders

BACKGROUND AND METHODS:

Over the course of 5 months in 2019, a local consultant group known as the Community Health Institute (CHI) interviewed twelve key leaders from Manchester, who were identified by their peers as leaders who understand current and emerging issues within the city. These leaders represented government, the educational system, the health delivery system, and non-profit organizations. In addition, CHI administered seven focus group sessions that included veterans, older adults, people with chronic health conditions, differently abled persons, and community members from diverse backgrounds.

A standard script and protocol were used for conducting the key leader interviews and focus groups. All key leader interviews were conducted by phone. All focus groups were conducted in person at the Manchester Health Department. Structured questions were asked to capture detailed information specific to the community's ability to address four major factors known to determine the health of a community population: (a) social and economic factors, (b) health behaviors, (c) clinical care and health outcomes, and (d) physical environmental factors.

Overall, participants were asked to identify:

1. factors that make a community the best place to live;
2. community/neighborhood priority areas;
3. new or emerging health and safety issues they would like to discuss with local policy makers; and
4. the leadership and infrastructure needed to move the city from assessment to planning and action.

In all cases, CHI tried to honor participant voice while protecting participant privacy. The findings reported herein are opinions and perspectives of participants interviewed for this assessment, and do not necessarily reflect the opinions of the City of Manchester, its partner agencies, and/or the funders of this report. The contents were not fact-checked for accuracy, but reported as provided to maintain the integrity of participant input.

The following section summarizes findings from these discussions, including prioritized issues and ideas to address these issues. The entire report of findings can be found in the Appendix of this document.

PRIORITY AREAS

Focus group participants were asked to identify the top three health priorities from each of the categories as listed below. For efficiency purposes, the health outcomes goal area was combined with clinical care. The following is a snapshot of the recommendations for action that were identified to address the priority areas.

SOCIAL & ECONOMIC FACTORS

➢ **Priority #1: Improve Our Schools**

- ✓ Develop a campaign about how our schools could be a driving force to attract people to Manchester.
- ✓ Get the attention of the State about the fact that Manchester is a leading city. Manchester has great economic potential and we need more state funding for our schools.
- ✓ Everything with education should start early. Thus, we need affordable preschool access across the spectrum, as well as affordable summer and after school programming.

➢ **Priority #2: Decrease Violent Crime**

- ✓ Increase police presence in neighborhoods, and ensure rapid response by the justice system to enforce consequences for violent actions.
- ✓ Legislate gun control. Guns should be registered and training provided on responsible handling and safety of guns. Do not allow bump guns.
- ✓ Increase funding for the Police Department and decrease its need to rely on State and Federal Grants.

➢ **Priority #3: Decrease Income Inequality & Poverty**

- ✓ Keep jobs in the city; the City needs better paying jobs with living wages.
- ✓ Ensure affordable preschool access across the spectrum. Start with the state and advocacy. We have good data defining the link between education and income.

HEALTH BEHAVIORS

➢ **Priority #1: Address and Prevent Substance Misuse**

- ✓ Enhance prevention and early detection of substance misuse.
- ✓ Make safe spaces for teenagers that keep them busy and enable a level of supervision and monitoring.
- ✓ Develop policies that ensure oversight of prescribers & pharmaceutical representatives.

➢ **Priority #2: Increase Physical Activity**

- ✓ We need to start young, and focus on changing behaviors of our youth, starting with early childhood, through education.
- ✓ Promote alternative forms of transportation, like biking or walking to work.
- ✓ More exercise groups in elderly housing, for example, chair exercise and yoga. Make exercise programs relevant to participants.

➢ **Priority #3: Increase Health Education and Consistent Messaging**
✓ The City needs a campaign for helping people understand healthy behaviors, which could include using the Verizon sign to reach many people. ✓ Educate groups of residents at their own level about issues and in ways that are relevant to them. For example, many elderly do not have or use computers, so communication and health education should not be only electronic. ✓ Engage our youth. The student voice is important, driving discussions behind some of the most successful programs.

CLINICAL CARE
➢ **Priority #1: Improve Access to Care**
✓ Provide care coordination and support to navigate the complex health system, particularly for the elderly. ✓ Improve access to affordable dental care, especially for people using substances. ✓ Recognize that oral health, general health, and mental health are not separate lanes. Each of these lanes needs to screen and consider issues related to each of the others with regard to prevention (for example, a dentist should check a patient's blood pressure, behavioral health should include blood pressure checks and basic labs). ✓ Establish centers that provide integrated services in places that are convenient to access. For example, provide integrated mental health and primary health services to people in their homes, in schools, and at community policing substations.
➢ **Priority #2: Expand Health Coverage & Support Prevention**
✓ Retool the payment system so we have time to help people. This is beginning to work. The whole thing is coming together: science and payment system. ✓ Develop a system and build incentives to track patients' care across medical providers. ✓ Make health insurance affordable.
➢ **Priority #3: Decrease and Prevent Obesity**
✓ Provide education about the linkages between lack of exercise and poor health outcomes. We must start early in schools. ✓ Providers need training in motivational interviewing (e.g. how to tell a child/and his parents that he needs to lose weight). ✓ Expand the teams for chronic illness model, which allows us to be proactive about issues like nutrition choices.

PHYSICAL ENVIRONMENT

➢ Priority #1: Improve Access to Quality, Affordable Housing

- ✓ Establish or enforce existing regulations: housing codes, lead exposure, fire alarms, inspection process to obtain certificates of compliance, and do something about bedbugs.
- ✓ We need a full range of low to high-income housing. Assess current inventory of housing neighborhood by neighborhood. Use planning and zoning requirements regarding density to inform development of low- income housing.
- ✓ Hold absentee property owners accountable for the condition of their properties.

➢ Priority #2: Improve Access to Healthy Food

- ✓ Some communities have implemented traveling farmers markets that come to specific neighborhoods at regular times. Create a mechanism to use SNAP cards through cell phones to identify scheduled van routes. This could be particularly beneficial given the walkability issues.
- ✓ Distribute food banks across the City so that families and community members living on the outskirts have access to these resources.
- ✓ Increase available grocery stores in some areas, for example, the West side.

➢ Priority #3: Improve Neighborhood Safety

- ✓ Increase police presence in neighborhoods to improve neighborhood safety. People live in houses with their door closed and locked. Living in unsafe neighborhoods is a barrier to making social connections. We need to build community social connection.
- ✓ Continue momentum on gains made in walkability in the City. We have a great river running through the City. We should build a river walk. We need to be able to gather safely on Elm Street. Ensure that neighborhoods have sidewalks that are passable in all seasons.

KEY SUMMARY OF FINDINGS

Key leaders and community members were reflective and open with their input. They want to work together to continue to revitalize and move Manchester forward for everybody. Many great health improvement strategies and initiatives are underway; however, better integration and alignment is needed to ensure the city is moving in the same direction, under one shared vision for health.

Leadership reported feeling detached from the larger community as they work to influence global issues. They expressed the need to truly create a sustainable leadership body with authority to proactively design and implement a comprehensive, cohesive, funded strategy for City revitalization and the production of health. While several leadership forums in the past have successfully addressed key health and revitalization issues of the City, concerted and coordinated leadership often is hampered by a lack of resources as grant funding dwindles. Inconsistent funding and reliance on grant funding to accomplish global, City-wide improvements does not work and may perpetuate the development of redundant projects and administrative costs. There was consensus among key leaders that the City needs to create a funded leadership forum with universal buy-in and authority to implement a strategic plan that is proactive in its scope and deep enough to effect change.

At every focus group, community members talked about loneliness in their everyday lives. They talked about not having extended family to rely on for social support, and of being isolated in their apartments where they do not know their neighbors or how to connect with them. Participants mentioned a lack of local gathering places, and lack of awareness about existing opportunities to connect with others. Community members stated that one reason they wanted to connect with others was so that they could learn from others and also help others when they were able.

Participants identified improvements in many aspects of Manchester's health and revitalization. They expressed a desire to connect with others at personal, community, and leadership levels to advance these efforts and promote the vibrancy of this caring City.

Health care organizations, City government, and community partners are working closely to address emerging health needs, such as opioid misuse and increasing homelessness. Participants identified improvements that have occurred over the last five years in many aspects of Manchester's health and City revitalization efforts. Similar to the focus group participants, they also expressed a desire to connect with others at personal, community, and leadership levels for the betterment of the City.

Manchester is well positioned to develop a robust population health improvement strategy. The City has excellent data available for tracking and monitoring improvements. Leadership and community members have identified priority issues to be addressed in the short term, as well as longer term goals and aspirations for the City. Committing now to a common purpose and vision with clearly defined goals, objectives, and processes is the next step for the City.

Measurably improving the health and well-being of local populations requires an understanding of the local landscape and its complexities to better target root causes. Cities like Manchester are multifaceted entities that need to embrace urban health strategies and approaches that transcend traditional health partners. The Healthy Cities Commission published the following key recommendations for such work, and with a shared vision and harnessing all of its resources towards a multidisciplinary strategic plan, Manchester can more intentionally move from crisis response to strategic action.

The Healthy City Commission's five key recommendations:

1. City governments should work with a wide range of stakeholders to build a political alliance for urban health. In particular, urban planners and those responsible for public health should be in communication with each other.
2. Attention to health inequalities within urban areas should be a key focus when planning the urban environment, necessitating community representation in arenas of policy making and planning.
3. Action needs to be taken at the urban scale to create and maintain the urban advantage in health outcomes through changes to the urban environment, providing a new focus for urban planning policies.
4. Policy makers at national and urban scales would benefit from undertaking a complexity analysis to understand the many overlapping relations affecting urban health outcomes. Policy makers should be alert to the unintended consequences of their policies.
5. Progress towards effective action on urban health will be best achieved through local experimentation in a range of projects, supported by assessment of their practices and decision-making processes by practitioners. Such efforts should include practitioners and communities in active dialogue and mutual learning.

(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3428861/)

IX. NEXT STEPS

In the opening pages of this report, a Strategic Framework for Health Improvement was described with the following goal areas that are necessary to improve health at a population level:

1. **All residents are economically self-sufficient and are socially connected to their community;**
2. **All residents are engaged in healthy behaviors;**
3. **All residents have access to quality health care and preventive health services;**
4. **Neighborhoods are designed to support healthy living for all residents; and**
5. **Systems are designed to foster neighborhoods of opportunity for generations to come.**

These areas guided this assessment and will continue to guide planning and action in a Community Health Improvement Process. More specifically, it is the intent of the City of Manchester Health Department and its partners to update the Manchester Neighborhood Health Improvement Strategy. This Strategy will serve as the community action plan to foster and harness collective action towards a common vision for the health and vitality of Manchester, as well as a basis for implementation plans.

To support future action planning, the major data findings/indicators under each goal area that should be prioritized for further discussion and strategic action include:

SOCIAL & ECONOMIC FACTORS

Improve Educational Outcomes

- *Preschool and kindergarten enrollment*
- *Chronic absenteeism*
- *3rd grade reading proficiency*
- *On-time graduation rates*
- *Adults with Bachelor's degrees or higher*

HEALTH BEHAVIORS

Address and Prevent Substance Misuse

- *Opioid overdoses and deaths*
- *Rates of death for unintentional accidents*
- *Tobacco use and teen vaping*
- *Excessive drinking and underage drinking*

CLINICAL CARE

Improve Access to Care

- *Prenatal care – 1st trimester care; late or no prenatal care*
- *Rates of ED visits for ambulatory care sensitive conditions*
- *Adult preventive dental access*
- *Mortality rates for intentional harm (suicide)*

PHYSICAL ENVIRONMENT

Increase Access to Quality, Affordable Housing

- *Lead housing risk*
- *Homelessness*
- *Housing cost burden*
- *Crowding*

HEALTH OUTCOMES & OPPORTUNITY

Address and Prevent Trauma

- *Persistent poverty*
- *Child abuse and neglect*
- *Frequent mental and physical distress*

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X. APPENDIX

1. Full Qualitative Report – Voices of Community and Neighborhood Leaders