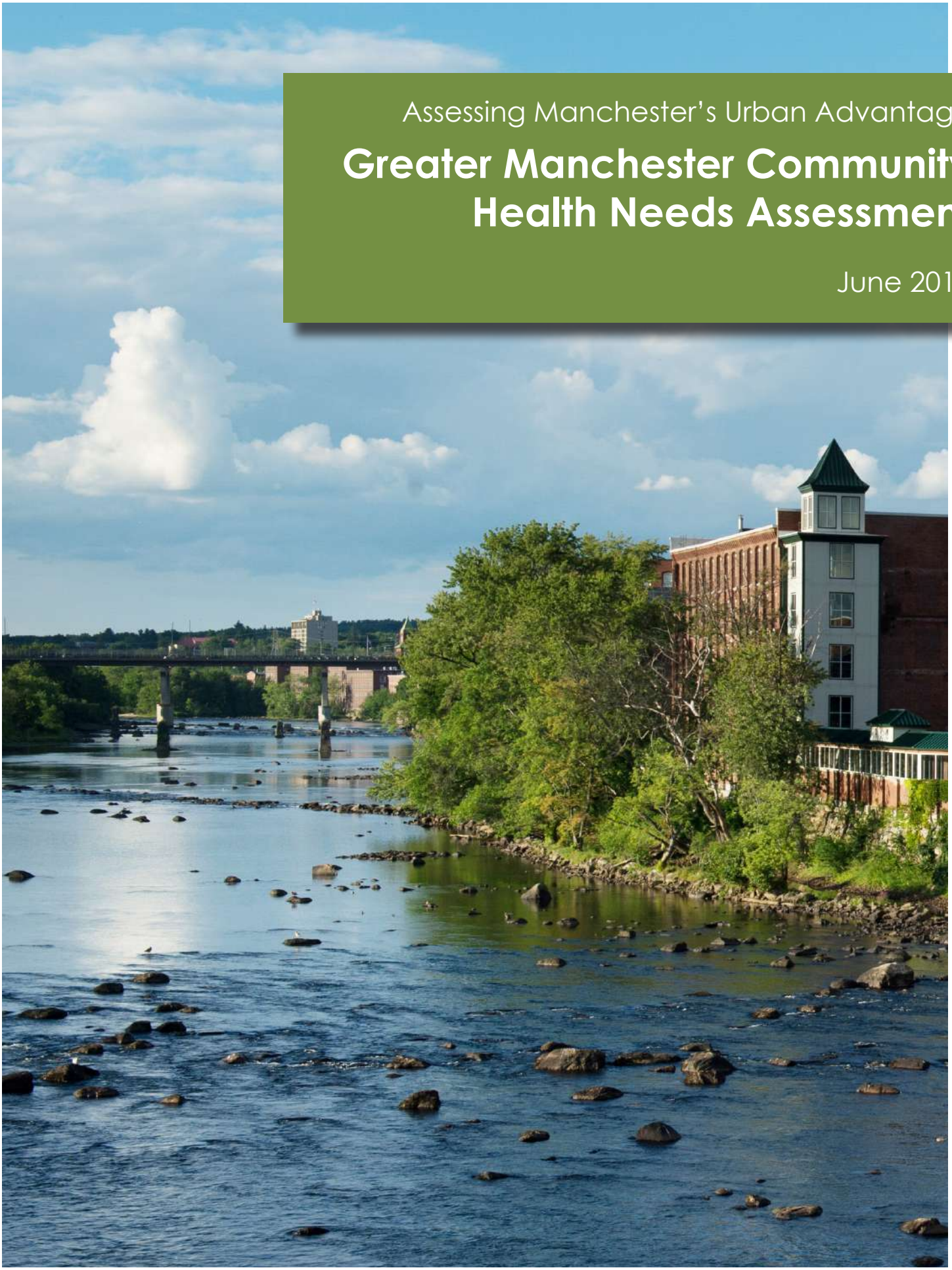
Assessing Manchester's Urban Advantage

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 the 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 provides 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.

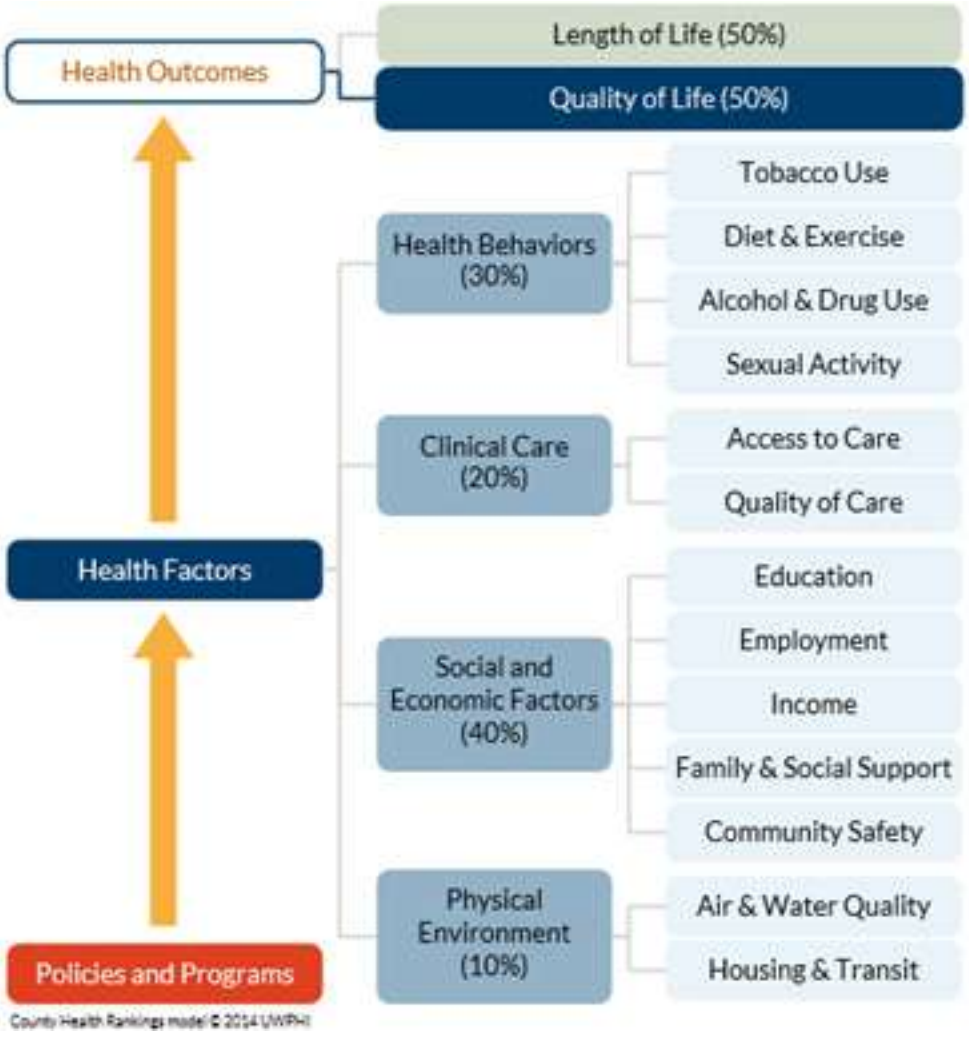
The following factors are predictors of how healthy Manchester can be in the future.

- **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. 30% of an individual's health status is determined by their health behaviors, such as tobacco use and substance misuse.

- **Clinical care:** Includes 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. 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. 40% of an individual's health status is determined by social and economic factors, such as education and income.

- **Physical environment:** Incorporates where individuals live, learn, work, and play, as well as the transportation they access to get to and from locations. Poor physical environment can affect our ability and that of our families and neighbors to live long and healthy lives. 10% of an individual's health status is determined by their physical environment, such as housing and 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. Research about the lifelong impact of ACEs underscores the urgency of prevention activities to protect children from these and other early traumas. When children do experience trauma, understanding the impact of ACEs can lead to more trauma-informed interventions that help to mitigate adverse outcomes.

Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. Academic Pediatrics. 17 (2017) pp. S86-S93. DOI information: 10.1016/j.acap.2016.12.011

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 growing up in specific neighborhoods. Therefore, 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 the research outlined above, 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 determine 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 is comprised of a developmental preschool program, 14 elementary schools, four middle schools, four high schools (including a Career and Technical Education Center), and a program for adult education. 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 as well for a total of six School Administrative Units (SAU) 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, Notre Dame College, Salter School of Nursing and Allied Health, Massachusetts College of Pharmacy and Health Sciences, and Mount Washington College.

Early Childhood Education (Preschool and Kindergarten)

Children experience significant benefits from participating in early childhood education initiatives by helping to minimize gaps that often exist in school readiness, especially among children from vulnerable 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?

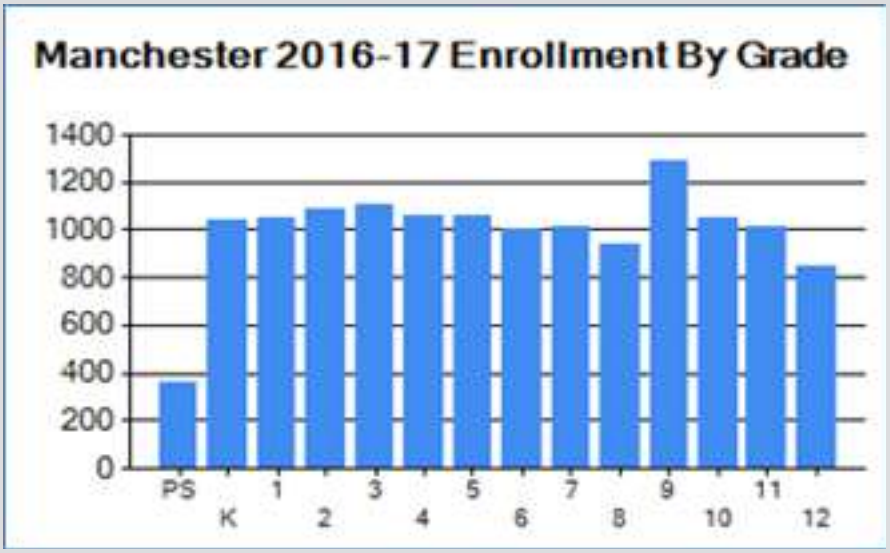
According to 2017-18 data from the Manchester School District (MSD), Manchester's Kindergarten enrollment rates are slightly less than Grade 1 and 2, indicating that some families may not be taking advantage of the optional Kindergarten program (**Table 2**). However, looking across all grade levels (**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. However; eligible families may be enrolling children in private preschools and then transitioning to public school at the Kindergarten level.

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

	October 1 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]



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 47.6%.[6]

How does the Greater Manchester Region compare?

Looking across the region at preschool enrollment rates (**Table 3**), Manchester's rate falls below the average rate, which is 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.

Table 3: Preschool Enrollment for the Region

Geography	*Preschool Enrollment*
Manchester	47.6%
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 or 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 those 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 3rd-grade students scored proficient or above on reading compared to the State rate of 54%; and only 23% of 7th-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

SY2016-2017	*Southside Middle*	*McLaughlin Middle*	*City of Manchester*	*New Hampshire*
7th Grade Math Proficiency	17%	20%	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 were also lower than Nashua and lower than the New Hampshire rate. During SY 2017-18, Manchester's 3rd-grade reading proficiency of 31% was lower than Nashua, NH's rate of 46.9%, as well as the national average among the 500 largest cities in the United States, which is 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 in an academic 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 or habitually truant due to a range of challenges, including poor health, limited transportation, or a lack of perceived safety, among other reasons.

Manchester School District's Attendance Policy aligns with New Hampshire laws relative to attendance and truancy to ensure that students are in school and learning. The Student Handbook identifies the following as examples of unexcused absences:[12]

- Absences as a result of incomplete immunization records;
- Family vacations outside of established school calendar;
- Non-medical appointments unauthorized by Administration;
- Childcare;
- Leaving school grounds without permission during normal school hours, and;
- Absences determined by the Principal or his/her designee to be unexcused for any other reason not listed above.

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), 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?

Manchester's rate of chronic absenteeism (27.4% in SY2018) was slightly higher than the Nashua, NH rate of 24.9%, and significantly higher than the average rate of 18.1% across 500 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 Manchester School District 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%). Unfortunately, however, students with IEPs are performing far below their peers in terms of academic proficiency. For example, the following **Table 13** present 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 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]

There are particular schools within Manchester better equipped to handle higher rates of English Language Learners because of their specialized programming and bilingual liaisons.[19]

Image 2

2018-19 Academic Year

Language	Number of ELs who speak language:
Spanish	1016
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 close to 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 are above 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] -- has an adverse effect on children's educational progress due to challenges accessing school and poor attendance. Also, homeless children may experience isolation 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 hard 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 Manchester School District, there were 662 homeless students across the Manchester District (**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 homeless student population, 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%
Unaccompanied	Shelter	*	0.2%
	Doubled up residence	57	9.2%
ALL		622	100%

*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 homeless student population. Based on data reported to the New Hampshire Department of Education by districts in SY2016-17, Manchester's number of homeless children (796) was more than twice as large as Nashua, the second largest urban city in NH, which had 348 students (**Table 17**). The population of homeless students was significantly higher than other districts in the region,[22] which, on average, had fewer than 10 homeless students.

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 2006-2017 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).[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% accordingly) are among the bottom ten, and Manchester School of Technology and Manchester Memorial High School rates (81.33% and 83.25%) are among the bottom 20 (**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 Regional	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 estimate is below the average high school graduation rate of 83.4% across 500 large cities across the county, as well as Nashua, NH's estimate of 87.4%.[26]

The percent of 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 across 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.

Adult Educational Achievement

According to the U.S. Bureau of Labor Statistics (BLS), workers with a bachelor's degree earned an average of $464 per week than workers with only a high school diploma.[27] BLS also 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 to 5.2% of workers with only a high school diploma. Besides the financial advantages of educational achievement, evidence from a recent Lumina Foundation report suggests that college degree holders demonstrate healthier habits than non-degree holders.[28]

Where does Manchester stand?

Among MSD's graduating class of 2017, 28.3% of male students and 45.2% of female students planned to attend a 4-year college. Another 29.7% of male students and 32% 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.

Among Manchester's adult population age 25 years and over, 30.8% are high school graduates, 19.1% have some college coursework, and 18.9% have a Bachelors degree.[29] Educational attainment is much lower within Manchester's center city neighborhoods, with less than 13% of residents in Census Tracts 13, 14, 15, 16, 19, and 20 having a Bachelor's degree or higher (**Map 1**).

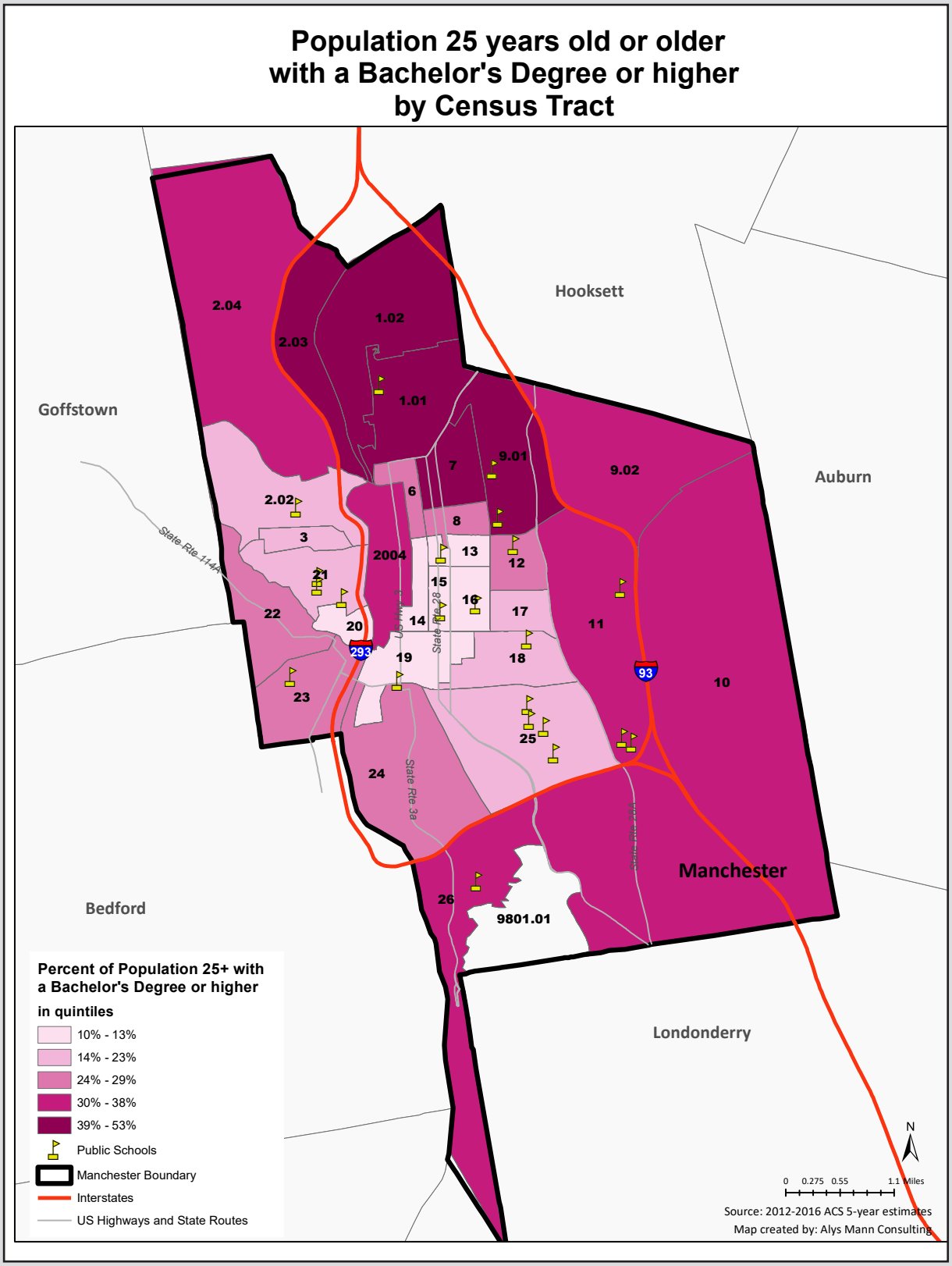
How does the Greater Manchester Region compare?

Looking across the region and the State, it is evident that a lower percentage of Manchester high school graduates plan to attend four-year colleges (**Table 19**). Also, a more significant percentage of Manchester's male students intend to enter the workforce or enlist in the Armed Forces than other male students across the State and region.

Table 19: Students Plans After Graduation for the Region

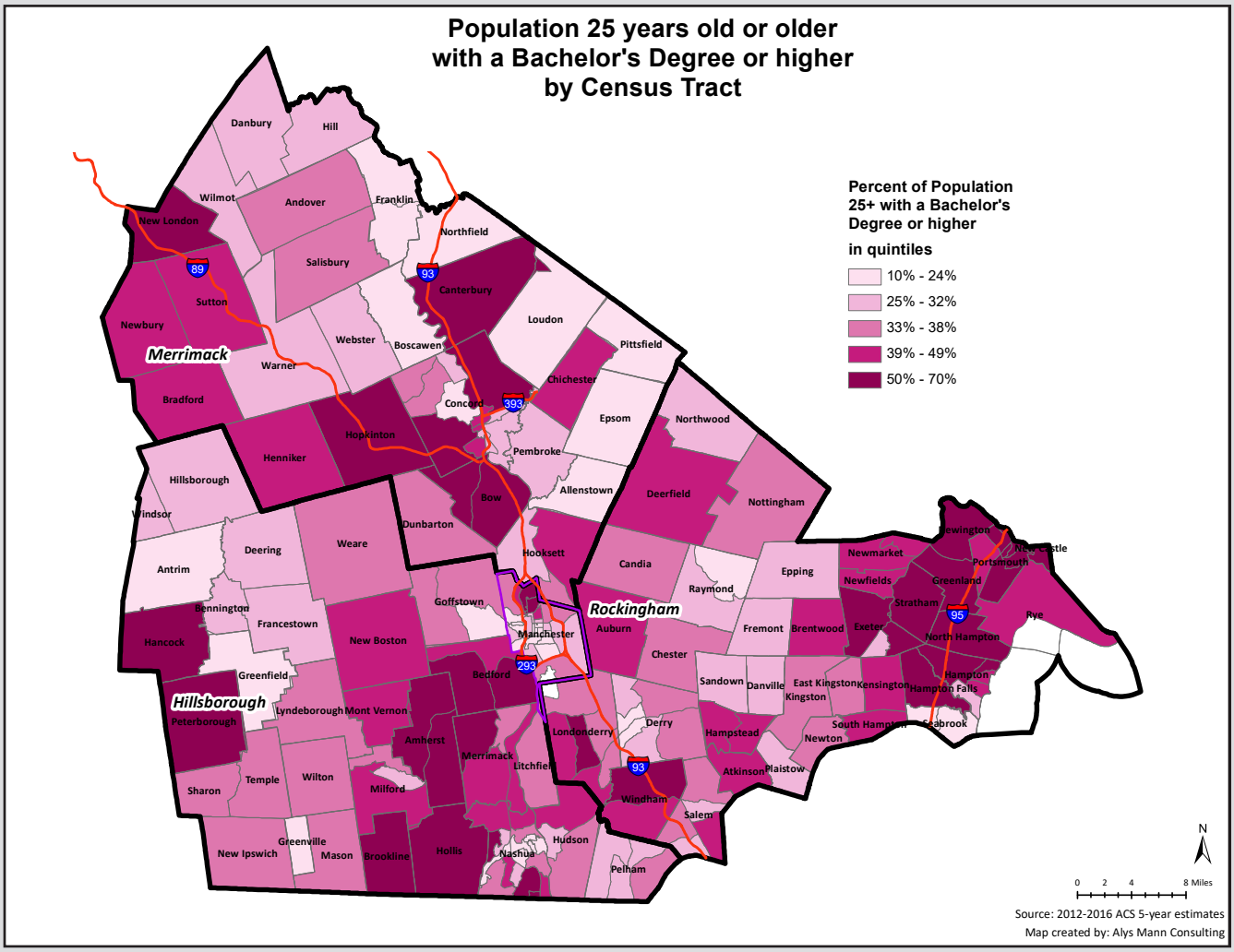
School Administrative Unit	*4-year College*		*College <4 Year*		*Employed*		*Armed Forces*	
	Male	Female	Male	Female	Male	Female	Male	Female
Manchester	28.3%	45.2%	29.7%	32%	24.4%	12.9%	6.5%	1.5%
Bedford	73.2%	83.1%	8.9%	8.4%	4.2%	2.2%	3.7%	0.6%
Londonderry	48.2%	67.5%	36.1%	26.9%	8.4%	3%	2.6%	0%
Goffstown	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
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 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 25 years and older with a Bachelors degree (18.9%) is lower than the State rate of 22.3% with a Bachelors degree. Looking across the region, Manchester's center city area and only portions of Goffstown have a low percentage (less than 25%) of residents with a Bachelor's degree or higher (**Map 2**).

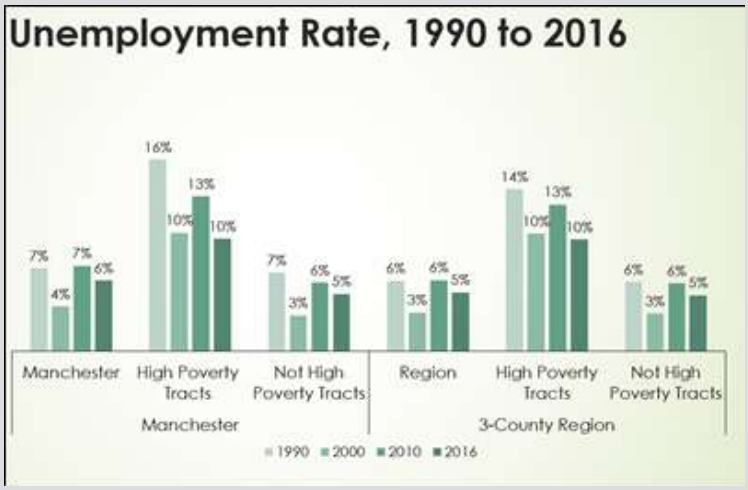
Map 2



FACTOR 2: EMPLOYMENT

Stable employment leads to a healthier life. An individual with a good-paying job can afford to live in a healthier neighborhood with quality education for their children, as well as access to health care, nutritious food, education, childcare, support services, and recreational activities. Conversely, an unemployed or underemployed individual not only lacks access to these resources but may also develop a stress-related health condition. Moreover, unemployment has also been linked to unhealthy coping behaviors such as substance use disorders, as well as increased depression.[30] According to the U.S. Census Bureau, in 2017 a family of four people that earned $25,094 or less annually was considered to be in poverty.

Image 3



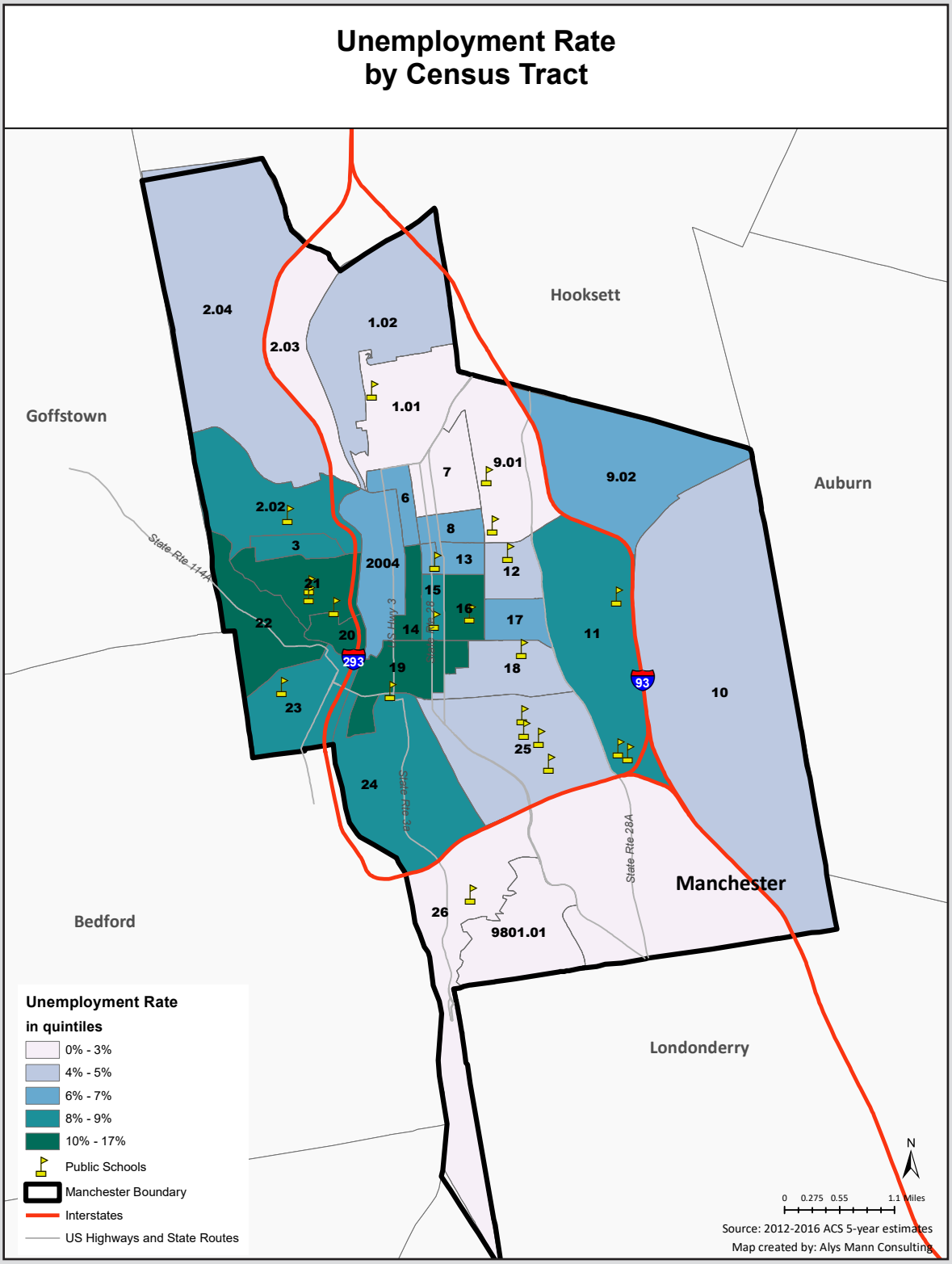
Where does Manchester stand?

Among Manchester residents age 16+, 69% are in the civilian labor workforce, a higher rate than the State average of 67.8%. Manchester's unemployment rate has remained at about 6%. However, the unemployment rate in high poverty tracts in both Manchester and throughout the region is much higher than in non-high poverty tracts (**Image 3**).

Unemployment has adversely impacted specific 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**)

While unemployment rates in Manchester have equally impacted female and male residents (4.8% vs. 4.9%), there are different rates of unemployment among particular racial and ethnic groups (**Table 20**). The percent of unemployment among Manchester's Black and Hispanic/Latino population is higher than the average percent of unemployment for these populations across the 500 cities; this unemployment rate is also significantly higher than Manchester's white population.[31]

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
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22
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14
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293
19
18
93
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23
25
24
26
9801.01
State Rte 114A
State Rte 28
State Rte 28A
U.S. Hwy 3
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
Map created by: Alys Mann Consulting

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?

In 2017, Manchester's estimated unemployment rate of 5.5% was consistent with Nashua's unemployment rate, which is also 5.5%. Manchester's rate is, however, higher than the unemployment rate in New Hampshire (4.5%) and across the region (**Table 21**). Interestingly, Manchester's unemployment rate is lower than the average rate of 7.2% in 500 large cities across the country.[32] As mentioned previously, unemployment increases in high poverty neighborhoods on the west and east side of the City.

Table 21: Unemployment Rate in the 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 not be able to afford such resources and may be forced to live in unsafe homes and neighborhoods with limited access to healthy foods, employment options, and quality schools. Moreover, the ongoing stresses associated with poverty can lead to cumulative physical and mental health challenges, including chronic illnesses.

Household Income:

Where does Manchester stand?

Based on US Census data 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. Census tract 20 on the West Side and Census tracts 6, 14, 15, 19 and 2004 on the East Side have a median income of less than $41,000 (**Map 4**).

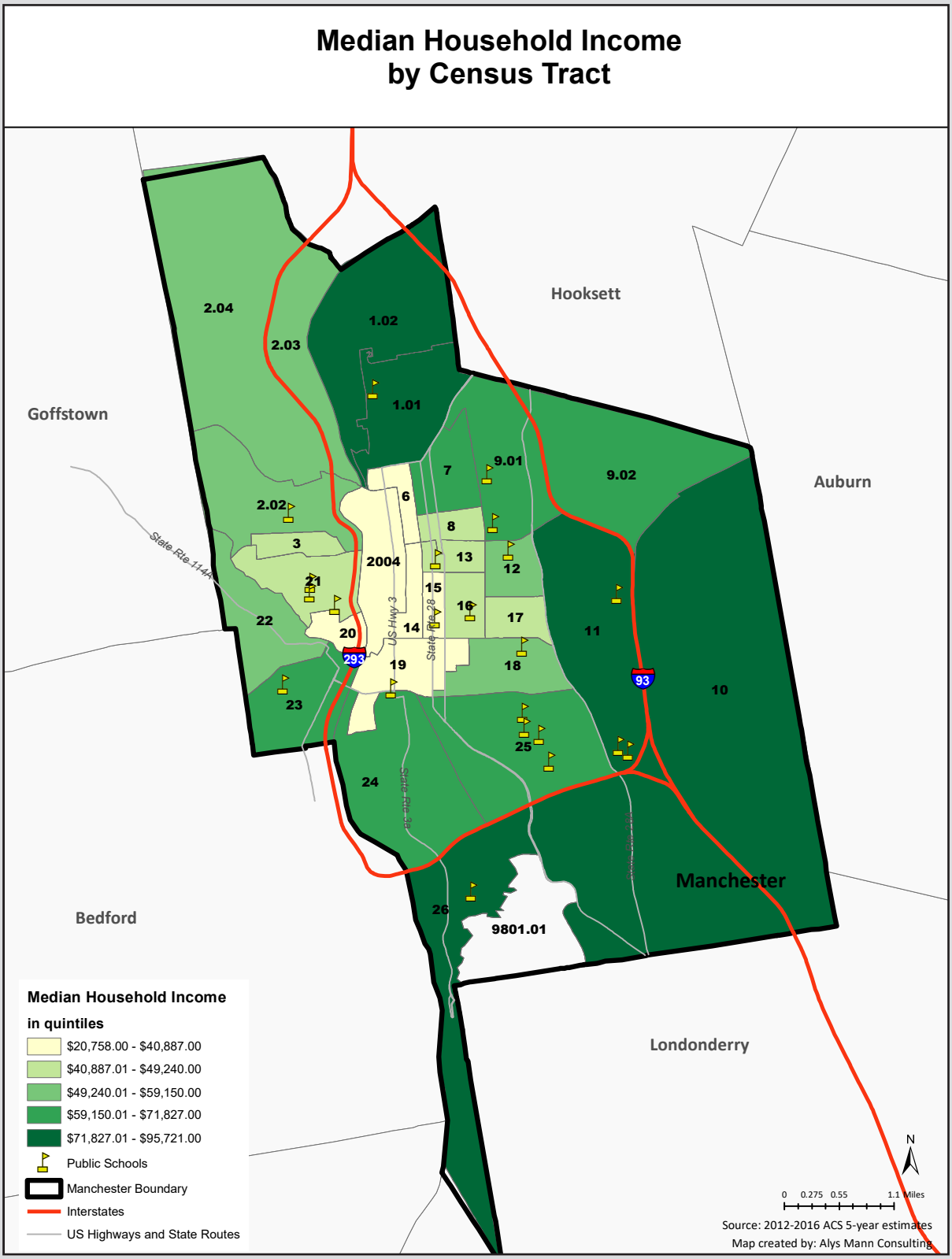
How does the Greater Manchester Region compare?

According to the 2013-2017 American Community Survey, Manchester's median income of $56,467 was considerably less than the median income in communities across the region and significantly less than Nashua's median income of $70,316 and the State median income of $71,305; Manchester's median income, however, was consistent with the national median income rate of $57,652.[33] With the exception of Manchester, all other towns in the region have median income values higher than the State rate (**Table 22**).

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
2.02
3
2004
6
7
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293
93
US Hwy 3
State Rte 28
State Rte 114A
State Rte 3A
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% and the bottom 20%. The scoring 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. Based on 2017 data, Manchester has an income inequality score of -7.8 compared to an income inequality score of 3.7 in Nashua, NH, and an income inequality score of -5.5 across 500 US cities.[34] This result indicates that Manchester does not have equal distribution between the top 20% and bottom 20% of households with more households falling into the deprived category.

Poverty:

The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is living in poverty. Income is based on earnings, unemployment compensation, social security benefits, supplemental security income, public assistance, veterans assistance, pension or retirement income, among other sources. In 2018, a family of four with a household income of less than $25,000 met the poverty criteria. High poverty areas are census tracts where 20% or more of the population lives in poverty; extreme poverty areas are census tracts where 40% or more of the population lives in poverty.

Where does Manchester stand?

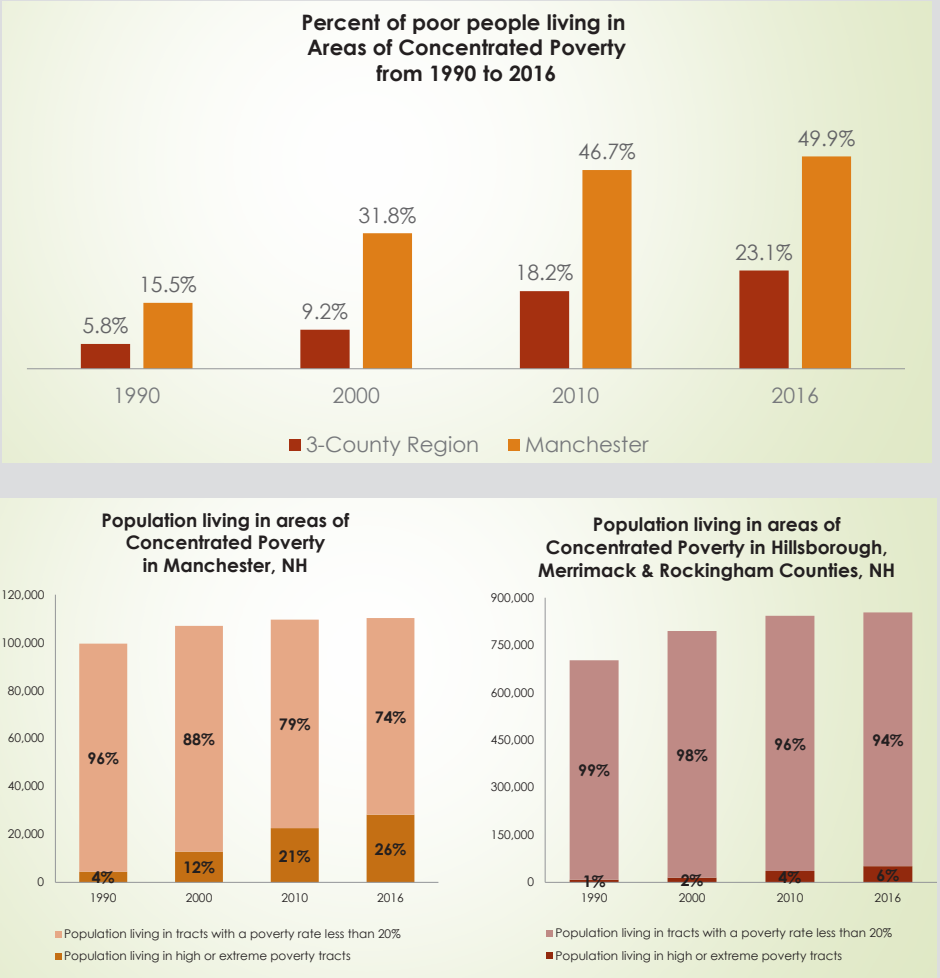
According to the US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates, Manchester has 16,104 residents (14.9% of the total population) living below the poverty level. Distinct racial and ethnic groups in Manchester are disproportionately impacted by poverty; while 13.7% of the White population is 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 population living in poverty is on the rise in Manchester; in 2016 there were 15,700 Manchester residents living in poverty, up 81% since 1990. Also, Manchester's areas of high and extreme poverty have increased since 1990 as well with 7,826 people living in high or extreme poverty tracts. In fact, based on 2016 data, nearly half of all poor people live in a high poverty neighborhood (**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?

Manchester has a significantly higher rate of individuals living in poverty when compared against the region and the State of New Hampshire (**Table 24**); however, Nashua, NH's rate is comparable at 10.8%.[35]

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 well being.[36] Such risks are most significant among children who experience poverty when they are young and among those who suffer persistent and deep poverty.[37]

The United States Food and Nutrition Service (USDA) National School Lunch Program provides subsidized free and reduced-price meals to income-eligible students, as well as to children in foster care and children receiving services under the Runaway and Homeless Youth Act. Free/reduced price meal data is frequently used as a proxy for school poverty.

Where does Manchester stand?

One in five of Manchester's children (21.4%) is living at or below 100% of the federal poverty level. Manchester's Black and Hispanic children 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%

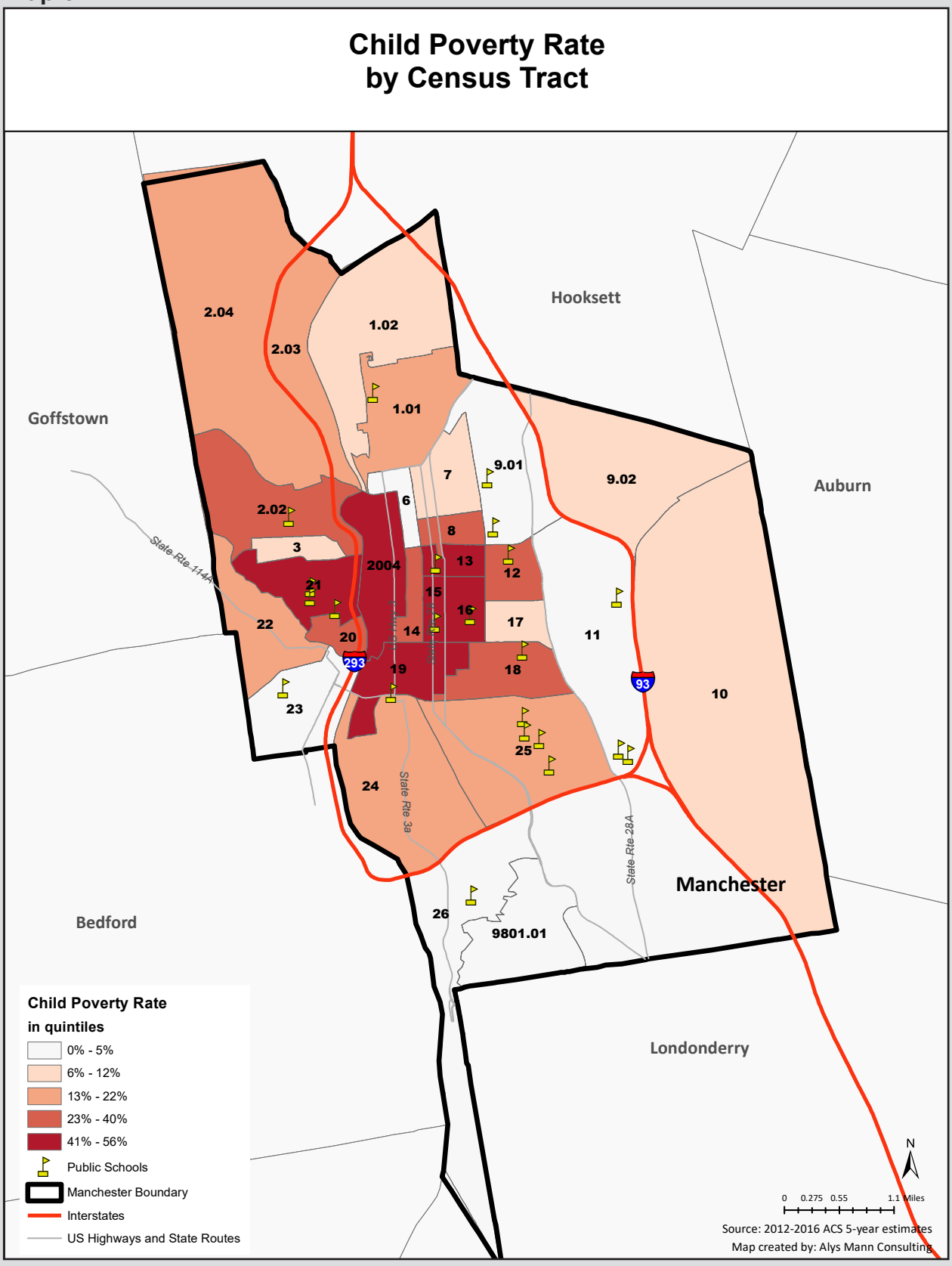
Close to 60% of students in the Manchester School District are enrolled in the National School Lunch Program (NSLP). There are particular schools within Manchester that have higher numbers of students enrolled in the free/reduced lunch program (**Table 26**).

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%

Nearly 35,000 children are being raised in Manchester's five center city neighborhoods that surpass the concentrated poverty definition yet making up less than 1.5 square miles of the City's geographic footprint (**Map 5**).

Map 5


Child Poverty Rate
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
2.02
3
2004
21
22
20
23
24
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9.01
9.02
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18
11
10
25
26
9801.01
293
93
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] Manchester's rate of enrollment in the free and reduced meals program is notably higher than the rates across the region and is considerably higher than the State rate of 27.3% (**Table 27**). While Nashua's rate of students enrolled in the free and reduced meals program (42.2%) is higher than the State rate, it is still notably less than Manchester.

Table 27: Free & Reduced 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 U.S. Census data, Manchester has 21.4% of children living in poverty, which is consistent with national rates across 500 US cities (22.6%); yet significantly higher than Nashua, NH's rate of 15.7%.

FACTOR 4: FAMILY AND SOCIAL SUPPORT

Social support may include relationships with family members, friends, colleagues, and acquaintances. Individuals who have social support live longer and healthier lives than those who are socially isolated.[39] Socially isolated individuals have an increased risk for poor health outcomes because they are vulnerable to the effects of stress, which include chronic disease 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?

Of households with children under 18 years old, 41% are headed by a single parent. In addition, there are higher rates of single-parent households among particular neighborhoods in Manchester. The highest rate of single-parent households was in the center city neighborhoods of Census tracts 8, 15, 21, 2004 and 19, where single-parent headed between 56-85% of households (**Map 6**).

According to Manchester birth indicators, of the 7,206 births in 2017, 45% of mothers were unmarried. There were significantly higher rates of unmarried mothers within particular center city Census Tracts ranging from 54%-71% in these neighborhoods (**Table 28**).

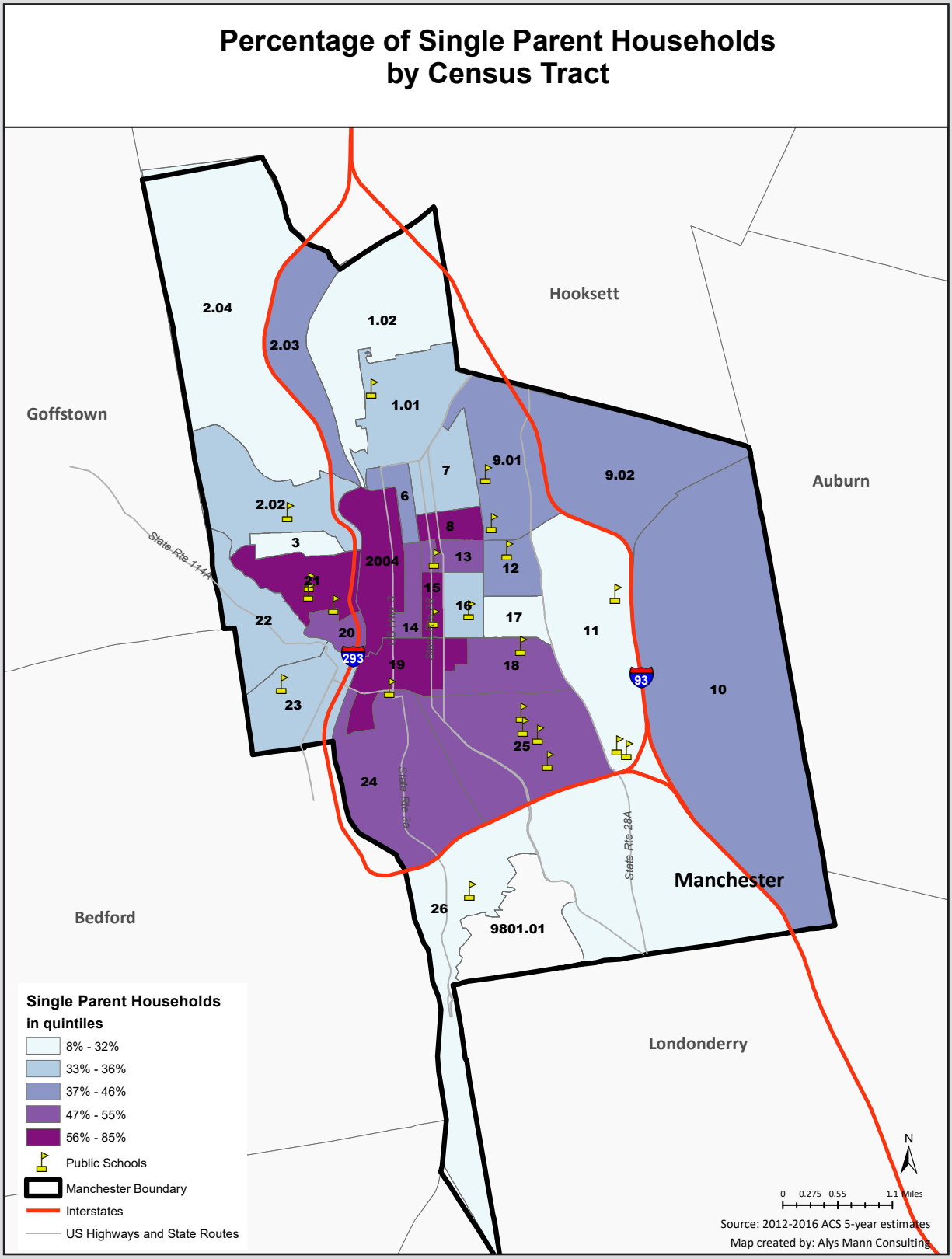
Table 28: Unmarried New Mothers, Manchester, 2013-2017

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, parts of Goffstown, Hooksett, and Londonderry have higher rates of single headed households consistent with the rates seen in Manchester.

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
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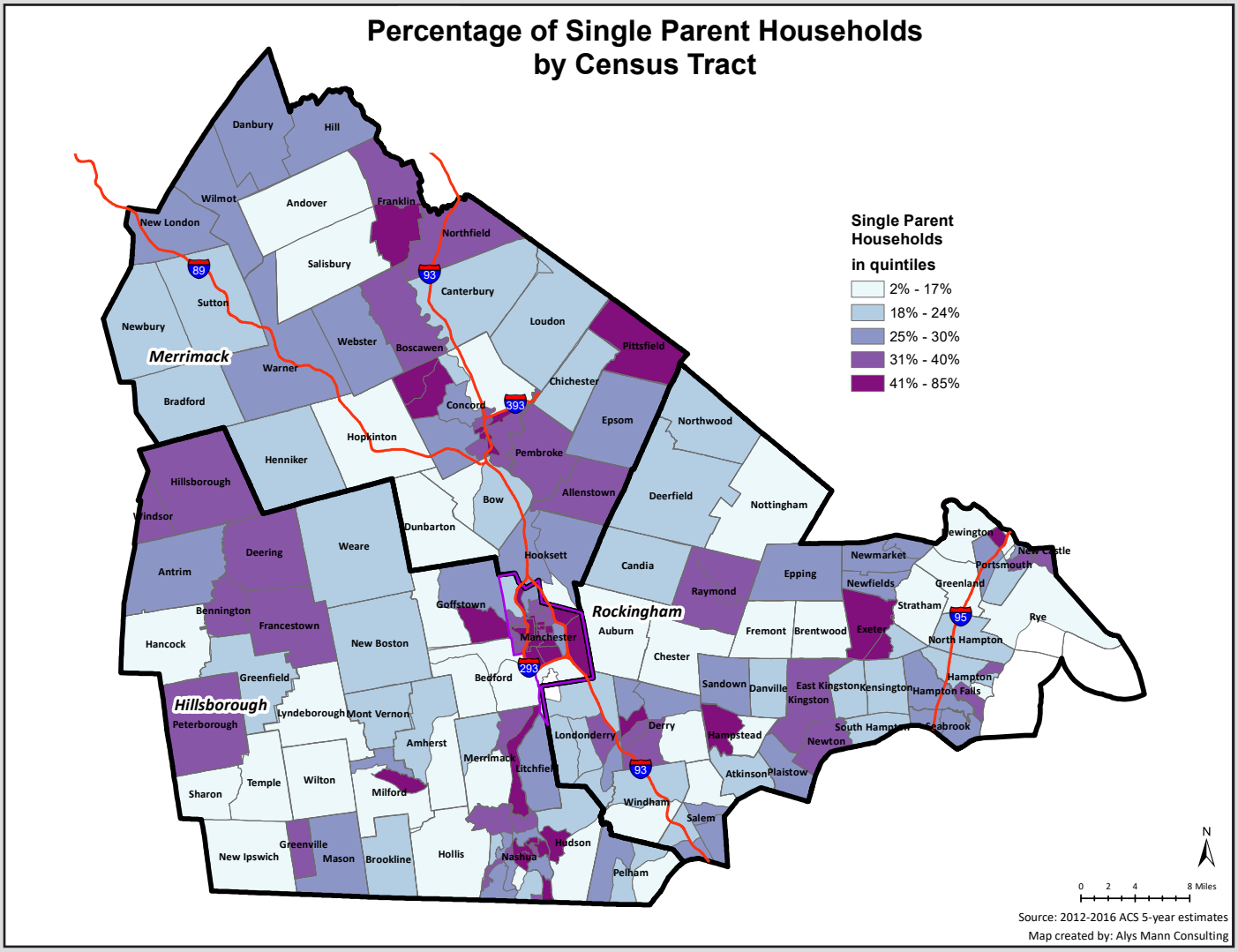
20
14
11
293
19
18
93
10
23
25
24
26
9801.01
State Rte 114A
State Rte 3a
State Rte 28A
Single Parent Households
in quintiles
8% - 32%
33% - 36%
37% - 46%
47% - 55%
56% - 85%
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: 2012-2016 ACS 5-year 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
Hillsborough
Rockingham
Danbury
Hill
Wilmot
Andover
Franklin
New London
Northfield
Salisbury
Canterbury
Loudon
Sutton
Newbury
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Henniker
Pembroke
Hillsborough
Allenstown
Deerfield
Nottingham
Bow
Dunbarton
Windsor
Weare
Deering
Hooksett
Candia
Newmarket
Antrim
Raymond
Epping
Newfields
Goffstown
Greenland
Stratham
Bennington
Francestown
Auburn
Fremont
Brentwood
Exeter
Rye
Manchester
Hancock
New Boston
Chester
North Hampton
Bedford
Sandown
Danville
East Kingston
Kingston
Hampton
Hampton Falls
Greenfield
Lyndeborough
Mont Vernon
Peterborough
Londonderry
Derry
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
N
0 2 4 8 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

FACTOR 5: COMMUNITY SAFETY

Community safety reflects unintentional injuries such as drowning, motor vehicle accidents, and unintentional poisoning. Nationwide, such preventable injuries were the leading cause of death among individuals ages 1 through 44. Community safety is also reflective of violent crimes, such as assault, robbery, and rape; as well as domestic violence and child maltreatment. Children in unsafe circumstances suffer post-traumatic stress disorder as a result of these adverse childhood experiences and are at higher risk for aggressive behavior, substance misuse, and sexual risk-taking. Not surprisingly, the stress associated with living in unsafe neighborhoods results in adverse health outcomes. Living in unsafe neighborhoods can cause anxiety and depression; and has been linked to adverse maternal child health outcomes. Moreover, fear of school and community violence may keep residents indoors and socially isolated.

Violent Crime Rate

Violent crimes compromise physical safety and psychological well being and may deter residents from pursuing healthy behaviors. Also, exposure to crime and violence increases stress, which may lead to or exacerbate chronic disease and stress-related disorders. While crime can be broken into many distinct categories, this report utilizes Part 1 Crime data and Violent Crime data. Part 1 Crime is defined as murder and nonnegligent homicide, rape (legacy and revised), robbery, aggravated assault, burglary, motor vehicle theft, larceny-theft, and arson, according to the U.S. Department of Justice. In the Federal Bureau of Investigation's Uniform Crime Reporting (UCR) Program, violent crime is composed of four offenses: murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault.

Where does Manchester stand?

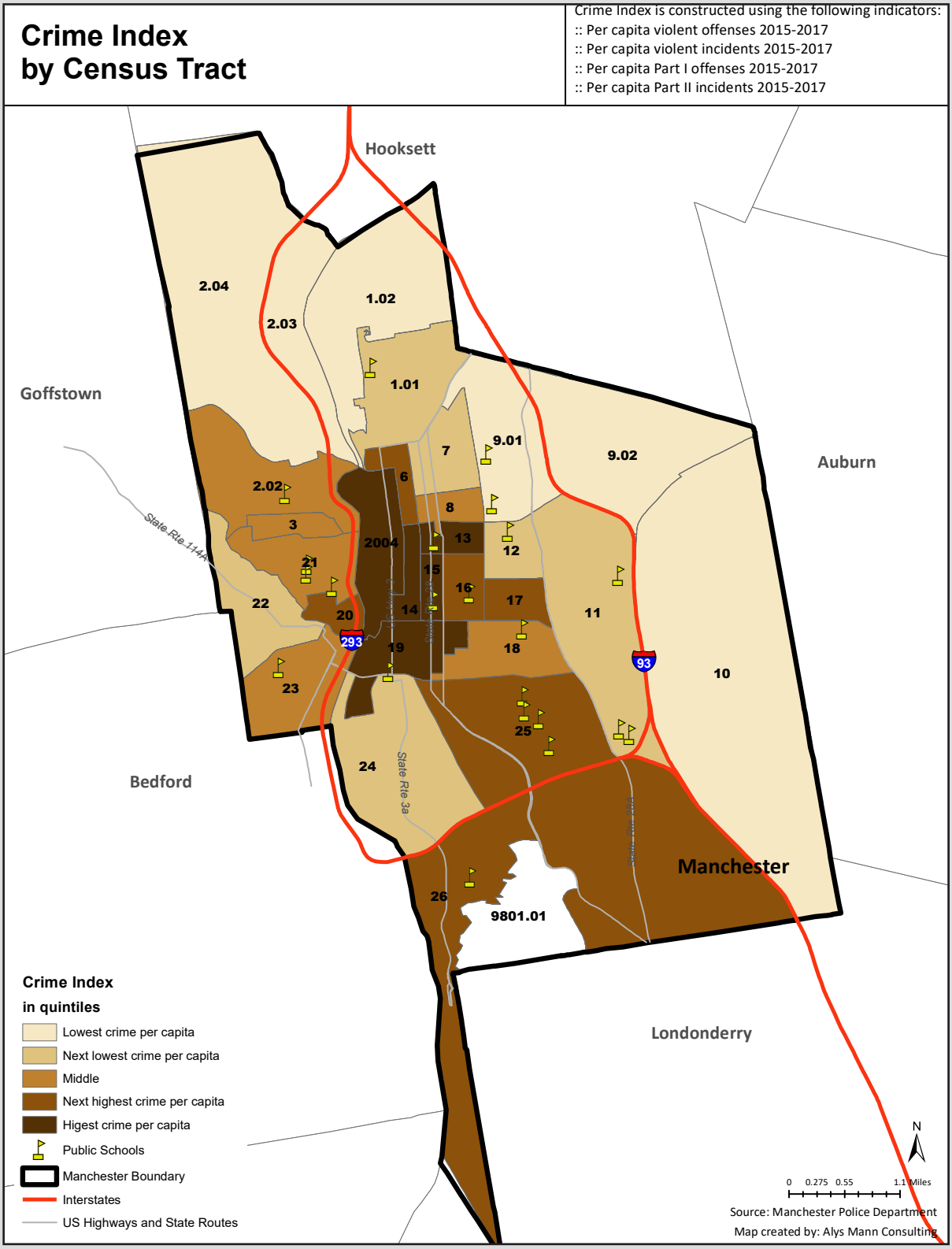
Overall, Manchester's violent crime rate was significantly higher than the State rate (635.9 vs. 197.8, respectively) during 2015-2017. In addition, Part 1 Crime was also elevated in Manchester when compared to the State rate during the same time period (3447 vs. 1945.1, respectively). Several neighborhoods in the center of the city experience elevated rates of both Violent Crime and Part 1 Crime. Two neighborhoods are displayed below for illustrative purposes (**Image 5**).

Image 5

ADVERSE NEIGHBORHOOD ENVIRONMENTS	Beech Street Neighborhood	Gossler Park Neighborhood	City of Manchester	New Hampshire
Housing Built 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%	N/A	N/A
Part One Crime Rate Per 100,000 Population (2015 and 2016 FBI UCR Data, MPD)	6552.1	4376.2	3447.0	1945.1
Violent Crime Rate Per 100,000 Population (2015-2017, MPD)	1040.2	1610.4	635.9	197.6

In addition, the following map was created by combining violent incidents and offenses AND part 1 crime incidents and offenses to generate a Crime Index Score by Census Tract. Five neighborhoods on Manchester's East side have the highest crime rate index scores (**Map 8**).

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
Hooksett
Goffstown
Auburn
Bedford
Londonderry
Manchester
State Rte 114A
State Rte 3a
293
93
2.04
2.03
1.02
1.01
2.02
3
2004
6
7
8
9.01
9.02
12
13
15
16
17
18
11
10
21
22
20
14
19
23
24
25
26
9801.01
Crime Index
in quintiles
Lowest crime per capita
Next lowest crime per capita
Middle
Next highest crime per capita
Higest crime per capita
Public Schools
Manchester Boundary
Interstates
US Highways and State Routes
N
0 0.275 0.55 1.1 Miles
Source: Manchester Police Department
Map created by: Alys Mann Consulting

Manchester's crime rate is impacting the perceived safety of Manchester residents, with approximately 60% of residents in the Beech Street and Gossler Park neighborhoods feeling that violence is a problem, and less than half these residents feeling the neighborhood is safe to walk in at night[40] (**Table 29**).

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

	Bakersville	*Beech Street*	*Gossler Park*	*Total*
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 cCiminal 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 ont he 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 675.9 violent crimes per 100,000 population, compared to an average of 513.3 across Dashboard's 500 cities. This includes all violent criminal offenses such as murder, aggravated assault, robbery, and forcible rate. Manchester's violent crime rate was significantly more than Nashua's rate, which was only 179.9 per 100,000.

School Safety

Across the country, more and more, there have been incidents of violence in our schools. School safety is critical for our students to feel that he or she is in a safe learning environment. A child that is fearful of the classroom is distracted from the learning process. Also, school safety issues contribute to higher rates of absenteeism, which, in turn, leads to poor academic performance and a loss of community connection.

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 in the city, as shown below (**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 in New Hampshire during SY2016-17, close to 15% occurred within the Manchester School District (**Table 31**). The number of incidents in Manchester far exceeds the rates among other school districts in the region, as well as in Nashua, NH.[41]

Table 31: School Safety Incidents in the 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

Based on the recent Youth Risk Behavior Survey results, Manchester had a more significant percentage of high school aged youth who did not go to school because they felt unsafe at school or on their way to or from school that students across New Hampshire (7.6% of Manchester students vs. 5.2% of students across NH). It is important to formally note, however, that the % of students who felt unsafe - both in Manchester and across the State – has stayed relatively consistent, as shown in the trend data (**Image 6**).

While Manchester's percentage of high school age youth who were in a physical fight on school property one or more times was higher than the State rate (7.9% in Manchester vs. 6.4 across the state), it is essential to note that physical fighting on school property has reduced consistently since 2011 (**Image 7**).

One in five students in Manchester, and in the State, have been bullied on school property (**Image 8**) with nearly 18% of Manchester students indicating they have experienced electronic bullying as well (**Image 9**).

Image 6

Image 7

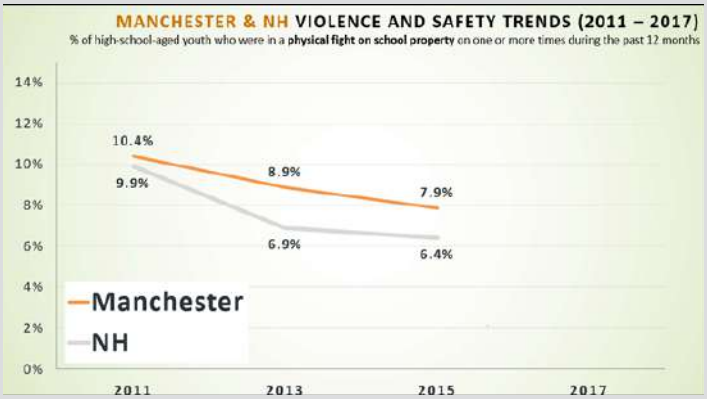
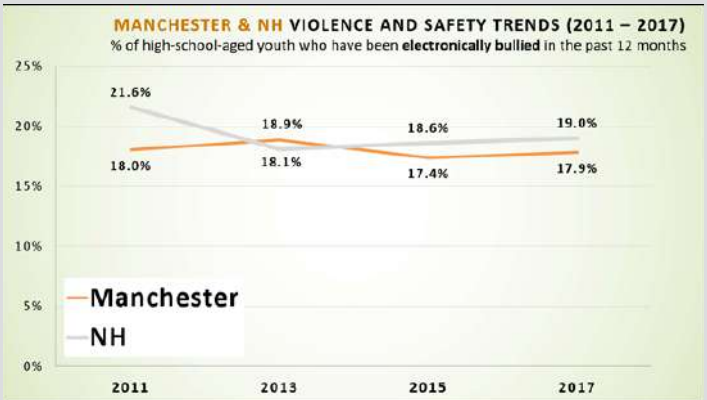


Image 8

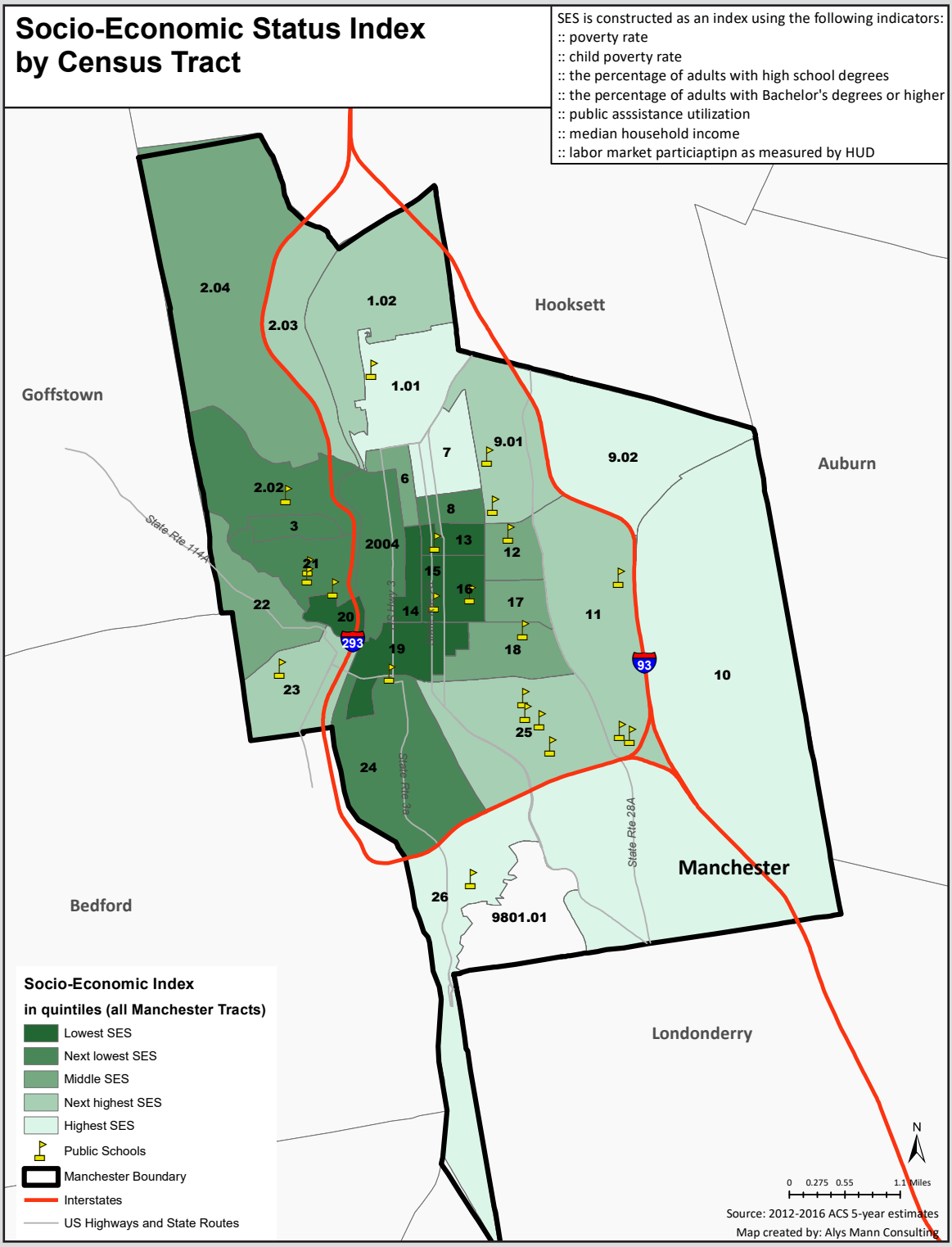
Image 9



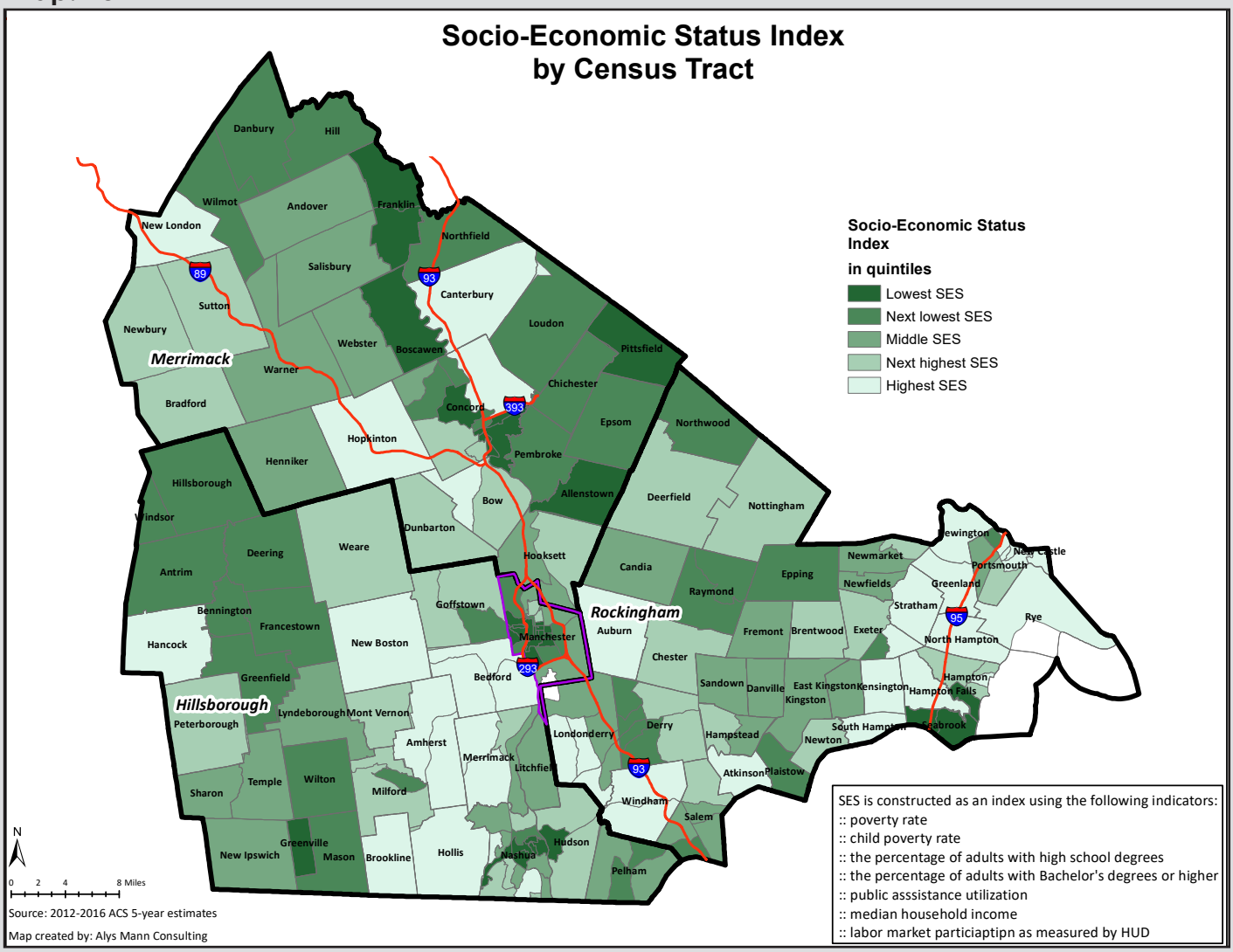
Summary of Manchester Social and Economic Factors:

As presented in this section, and indicated in the following maps, Manchester's center city neighborhoods have a high prevalence of poverty, lower median incomes, and low rates of educational attainment compared to the rest of the city, and the Greater Manchester Region. Using a socio-economic status index based on rates of poverty, child poverty, adults with high school degrees and bachelor's degree, public assistance utilization, median household income, and labor market participation – all social and economic factors that impact health outcomes – there are apparent health disparities within Manchester's center city area. This is especially evident in Census Tracts 13, 14, 15, 16, and 19 on the East Side and Tract 20 on the West side, which has the lowest socio-economic 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
Goffstown
Hooksett
Auburn
Bedford
Manchester
Londonderry
2.04
2.03
1.02
1.01
2.02
3
2004
21
22
20
23
24
7
6
8
9.01
9.02
13
12
15
16
17
14
19
18
11
10
25
26
9801.01
293
93
State Rte 114A
State Rte 28A
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
Loudon
Sutton
Newbury
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Pembroke
Henniker
Hillsborough
Bow
Allenstown
Deerfield
Nottingham
Windsor
Dunbarton
Newington
Deering
Weare
Hooksett
Candia
Newmarket
New Castle
Antrim
Epping
Portsmouth
Raymond
Newfields
Greenland
Goffstown
Stratham
Bennington
Auburn
Rye
Francestown
Manchester
Fremont
Brentwood
Exeter
North Hampton
Hancock
New Boston
Chester
Bedford
Sandown
Danville
East Kingston
Kensington
Hampton
Greenfield
Kingston
Hampton Falls
Peterborough
Lyndeborough
Mont Vernon
Londonderry
Derry
Hampstead
Seabrook
Amherst
Newton
Merrimack
Litchfield
Atkinson
Plaistow
Sharon
Temple
Wilton
Milford
Windham
Salem
New Ipswich
Greenville
Mason
Brookline
Hollis
Nashua
Hudson
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 socioeconomic factors that determine 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 the City 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, specifically 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	47.6%	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%	83.4%
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	$57,652
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	10%	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 include actions individuals take that may lead to either improved health or actions that that may increase one's risk of disease. In fact, many leading causes of death and disease are attributed to unhealthy behaviors such as poor nutrition and tobacco use. Social and economic factors, such as education and poverty, often impact whether individuals have the means and the opportunity to make healthy decisions. According to research conducted by County Health Rankings and Roadmaps project, 30% of an individual's health status is determined by their health behaviors.

FACTOR 1: ALCOHOL AND DRUG USE

According to the Centers for Disease Control and Prevention (CDC), excessive alcohol consumption, which includes both the amount consumed and the frequency of consumption, increases the risk for high blood pressure, heart disease, liver disease, cancer, and alcohol poisoning.[42] Also, there is a correlation between excessive alcohol consumption and intimate partner violence and risky sexual behaviors.[43] Moreover, excessive alcohol consumption has contributed to significant rates of motor vehicle crashes and resulting deaths.

While drug use may include cocaine, hallucinogens, and marijuana, the United States in general, and New Hampshire in particular, has seen a significant increase in prescription drug misuse and Heroin or other opioid use. In addition to the adverse health outcomes, alcohol and drug use have significant economic costs resulting from lost productivity, health care, and criminal justice expenses.

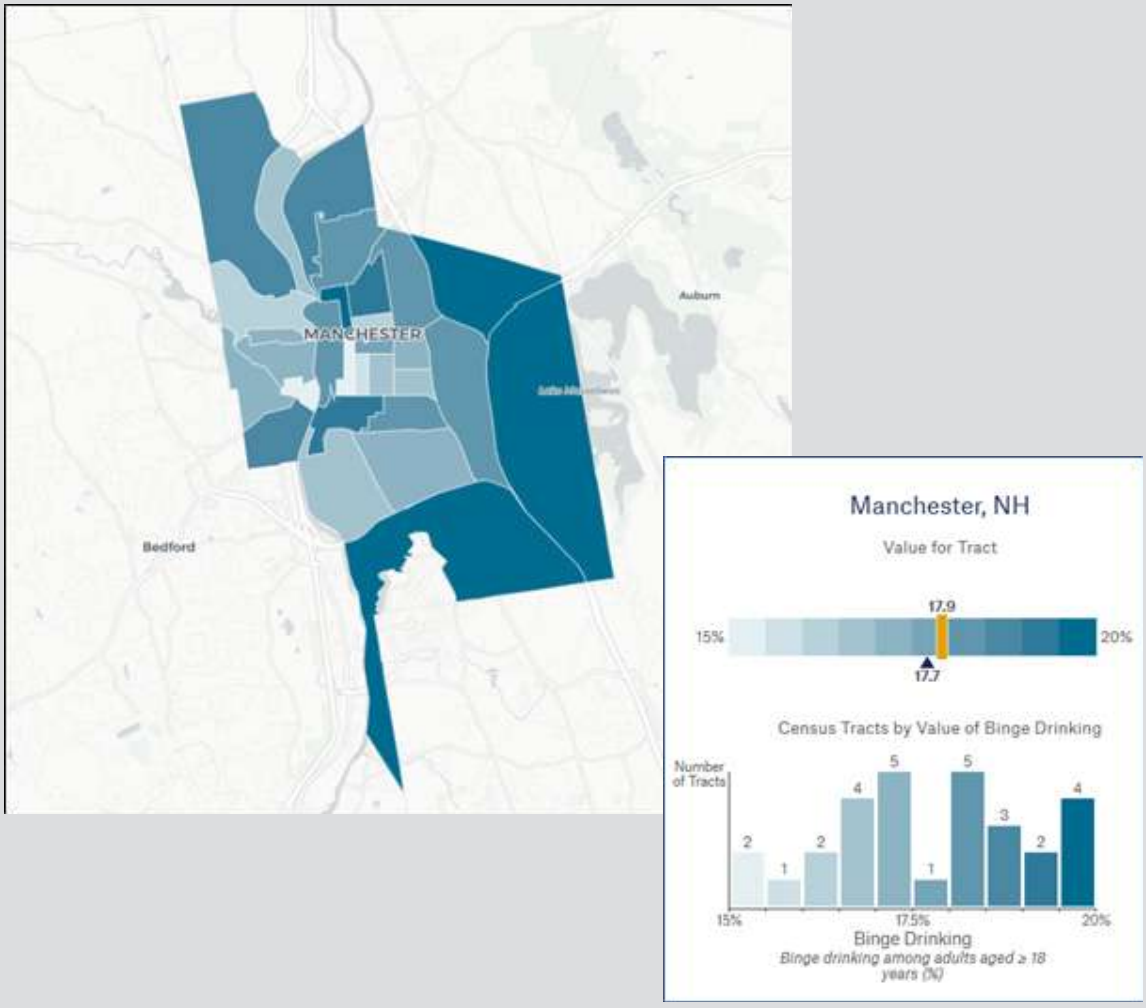
Excessive or Binge Drinking

The 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] Heavy drinking is defined, by the CDC, as a woman drinking more than one drink on average per day or a man drinking more than two drinks on average per day. Those who drink are more likely to be involved in motor vehicle accidents, falls, burns, alcohol poisoning, and violence. Approximately 80,000 deaths are attributed annually to excessive drinking, and it is the third leading lifestyle-related cause of death in the United States.[45]

Where does Manchester stand?

Overall, 17.9% of Manchester adults reported binge drinking. This rate is higher in particular Census Tracts including Tract 6, 7, 26, 19, 9.02, 19, 10, where the rate is over 19% (**Map 11**). Neighborhoods at higher risk for binge drinking are located outside the center city area where local colleges are situated and where there is less poverty. Given that the CDC asserts binge drinking is most common among younger adults age 18-34 and among people with household incomes of $75,000 or more,[46] Manchester's geographic variation among binge drinkers aligns with national indicators.

Map 11: Binge Drinking – Adults (2016)



How does the Greater Manchester Region compare?

Among New Hampshire's ten counties, Hillsborough County ranks fifth for binge drinking. Rockingham County has the highest reported rate at 22%. Based on the 500 Cities Project Data from the CDC, Manchester's rate of adults reporting binge drinking (17.9%) is similar to Nashua, NH (17.6%) and the average rate across 500 cities nationwide of 17.7%.

Underage Drinking

Although underage drinking is illegal, according to the Office of Juvenile Justice and Delinquency Prevention, youth alcohol consumption accounts for 11% of all alcohol consumed in the United States.[47] While the health consequences for youth alcohol use are similar to adult use, youth who drink alcohol are also more likely to experience academic challenges, social difficulties, and legal problems. Also, youth who drink may experience changes in brain development that may have life-long effects, as well as disruption of healthy growth and sexual development.[48]

Where does Manchester stand?

According to the 2017 Youth Risk Behavior Survey (YRBS), 12.1% of Manchester high school age students reported having their first drink of alcohol before age 13. While this was an increase from 11.5% reported during the 2015 YRBS, this rate was consistent with early alcohol use reported during the 2013 survey (12.3%).

Also conveyed in the 2017 YRBS, 7.6% of high school students in Manchester reporting driving a car or other vehicle after drinking alcohol during the past 30 days. Fewer than 40% of Manchester students (38.9%) felt people are at considerable risk of harming themselves if they have five or more drinks of alcohol once or twice a week. In addition, one out of every three high school students in Manchester feels it would be "very easy" to get a beer, wine, or liquor if they wanted it.

How does the Greater Manchester Region compare?

The City of Manchester's rates of underage alcohol use is slightly higher than the rates across the Greater Manchester region and the Greater Nashua region, and are higher than NH's overall rate (**Table 32**).

Table 32: Underage Alcohol Use in the Region, 2017

2017 Youth Risk Behavior Survey	*City of Manchester*	*Greater*	*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%

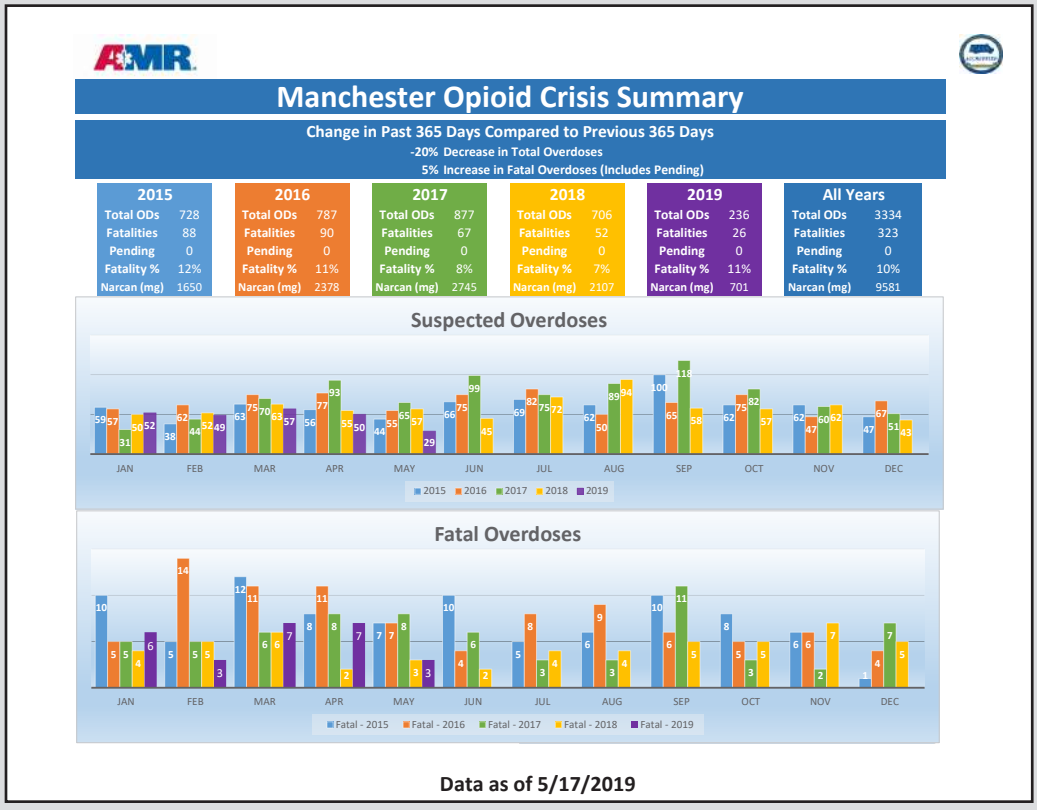
Opioid Misuse

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 release. However, opioids have properties that make them addictive, thereby resulting in overuse and abuse. Across the country, from 1999 to 2017, overdose deaths from prescription pain medications increased fivefold, with 218,000 deaths from overdoses related to prescription opioids during this time period. As prescription access decreased and the cost of getting pills illegally increased, people have turned to other sources of opioids, such as heroin. NH has experienced a significant increase in heroin use with Manchester at the epicenter of this epidemic.

Where does Manchester stand?

While Manchester has faced significant challenges and cross-cutting impact of the State's opioid crisis, the city has seen a 20% decrease in opioid overdoses over the past year. In 2019, Manchester is projected to experience 629 overdoses; while in 2018, Manchester witnessed 706 overdoses and 877 overdoses in 2017. However, despite the decrease in overdoses, the rate of fatal overdoses has increased by 5% in 2019 (**Image 10**).

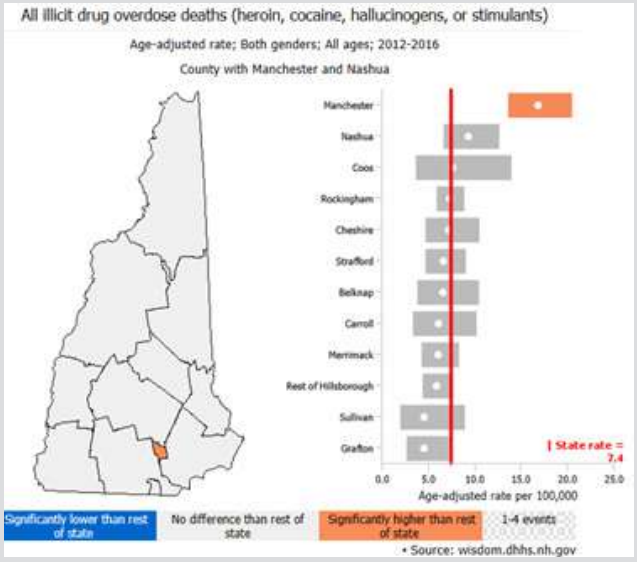
Image 10

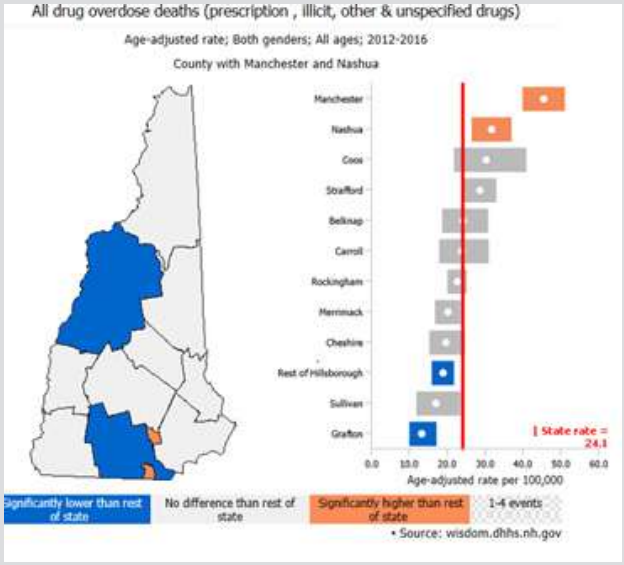


How does the Greater Manchester Region compare?

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

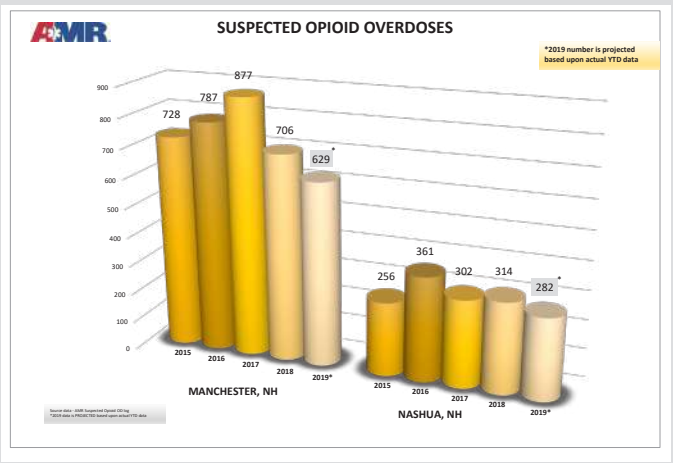
Image 11

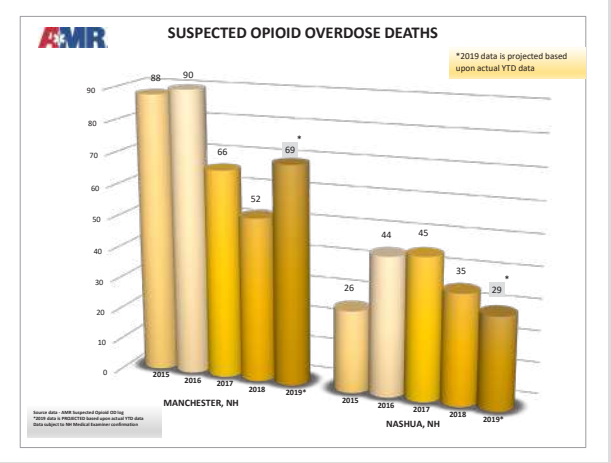




When comparing Manchester's opioid overdoses and death rates to nearby Nashua NH, it is evident that Manchester has been disproportionately impacted by overdoses and by overdose deaths. In 2019, Nashua, NH is projected to have 282 overdoses with 29 fatal overdoses. This is more than 50% less than the projected rates for Manchester in 2019. Beyond New Hampshire, Manchester's opioid overdose death rate is significantly higher than the average rate of deaths across the nation's largest cities (**Image 12**).

Image 12





When considering access to treatment services, Manchester serves as the primary access point for the region and beyond through its Safe Station program located within the Manchester Fire Department. Among all of the clients served by Safe Station since its inception in 2016, half do not live in the Greater Manchester area. Between January and May of 2019, 59% of Safe Station clients report 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

Nutritious foods consumed in appropriate quantities are essential for health. While inadequate nutrition can hinder growth and development, excessive calorie consumption can lead to overweight and obesity. Physical activity is a critical component of healthy weight management; a lack of activity contributes to increased risk for chronic diseases, such as heart disease.

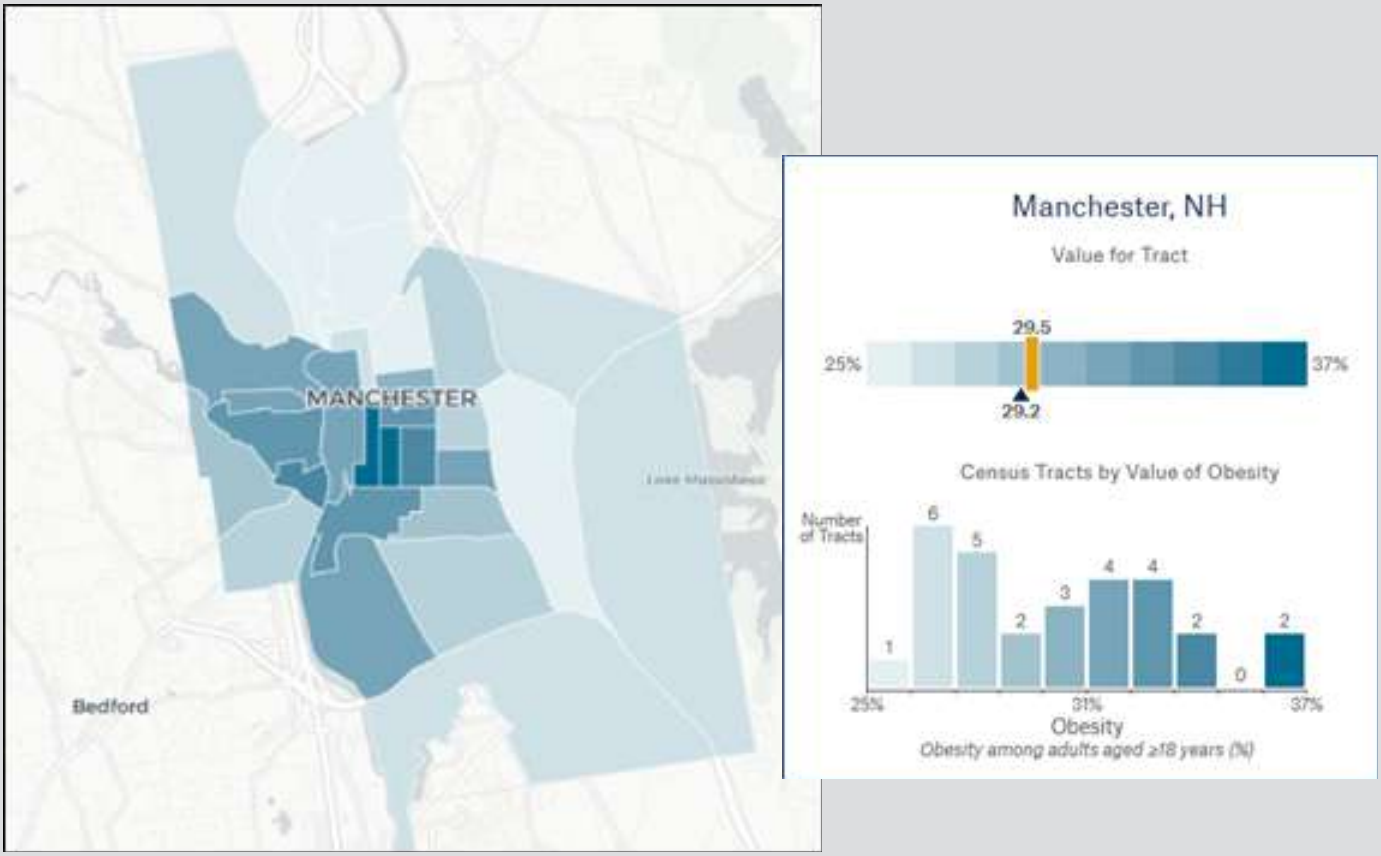
Adult Obesity

Overweight is defined as a body mass index (BMI), calculated from a person's weight in relation to their height, of 25 or higher and obesity is defined as a BMI of 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, 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, a rate slightly higher than New Hampshire's rate of 26.2%. Moreover, several neighborhoods in Manchester have significantly higher rates than the state rate with Census Tract 14 experiencing the highest rate of obesity at 36.6% (**Map 12**).

Map 12: Obesity – Adults (2016)



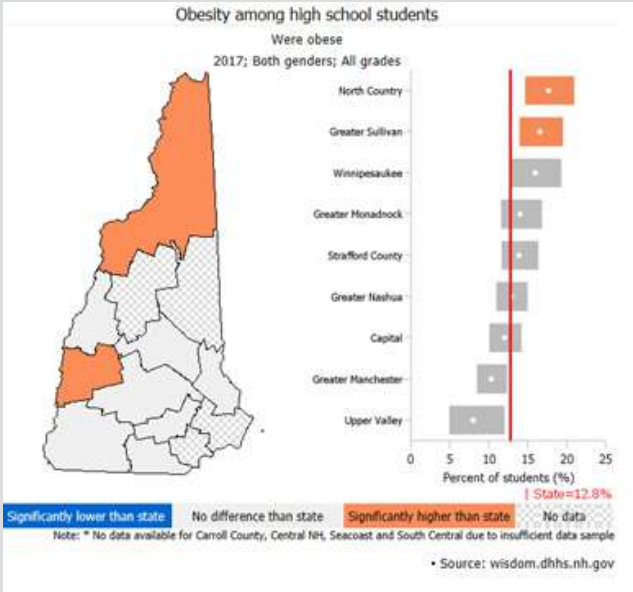
How does the Greater Manchester Region compare?

Based on the 500 Cities Project Data from the CDC, Manchester's rate of adult obesity (29.5%) is consistent with Nashua's obesity rate (28.2%), consistent with other public health regions in NH, and consistent with the average rate across 500 cities in the United States (29.2%). However, as mentioned above, some neighborhoods in Manchester have elevated rates, including 12 Census Tracts with rates over 31%, which is higher than the median rate.

Youth Obesity

According to the CDC, the percentage of children and adolescents in the United States affected by obesity has more than tripled since the 1970s, with data indicating that nearly 1 in 5 youth age 6-19 has obesity.[53] Like adults, youth obesity can be linked to genetics and metabolism; however, obesity in youth is often the outcome of poor eating and a lack of physical activity.

Image 13



Where does Manchester stand?

According to the 2017 YRBS, 15.1% of Manchester students were obese. Manchester's rate is higher than the state rate (12.8%).

How does the Greater Manchester Region compare?

Based on statewide data, 12.4% of Greater Manchester youth were obese (**Image 13**). Greater Manchester's rate of obesity among high school students is 12.4%; this is slightly less than Greater Nashua's rate (12.9%) and New Hampshire overall rate (12.8%).

Adult Physical Inactivity

Decreased physical activity is related to chronic disease and contributes to obesity. Moreover, as a leading cause of preventable death, physical inactivity causes 11% of premature mortality in the United States.

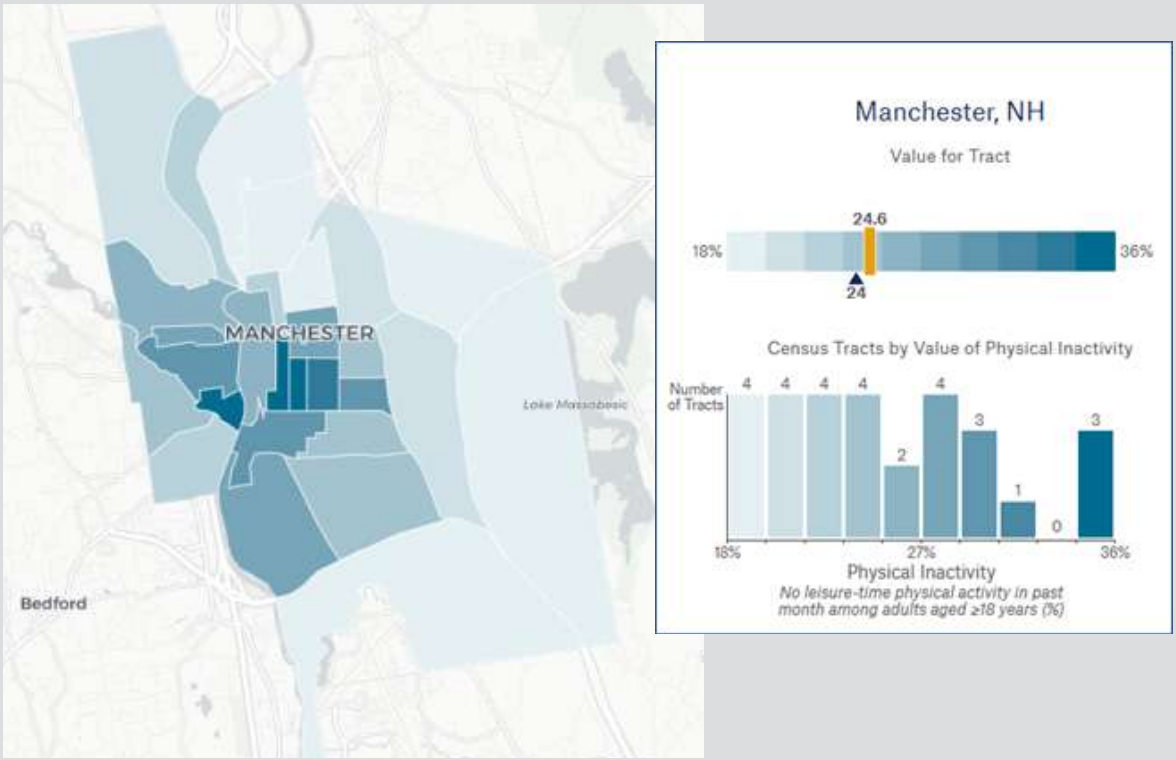
Where does Manchester stand?

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 at least 35% of residents are physically inactive (**Map 13**). Some reserach has shown that elevated crime rates in neighborhoods may deter physical activity among residents.

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%) and is consistent with the rate across 500 cities in the United States (24%).[54]

Map 13: Physical Inactivity – Adults (2016)



Youth Screen Time Use

While regular physical activity among youth is essential for lifelong health and wellbeing, many children and adolescents are not meeting physical activity guidelines and recommendations.[55] This is due, in part, to the increased amount of screen time resulting from television viewing, cell/smartphones, and video games. As sedentary activities, watching television or playing video games not only limits physical activity but also exposes youth to a number of media messages that may negatively impact academic success, enriching relationships, strong self-esteem, and a healthy lifestyle.[56]

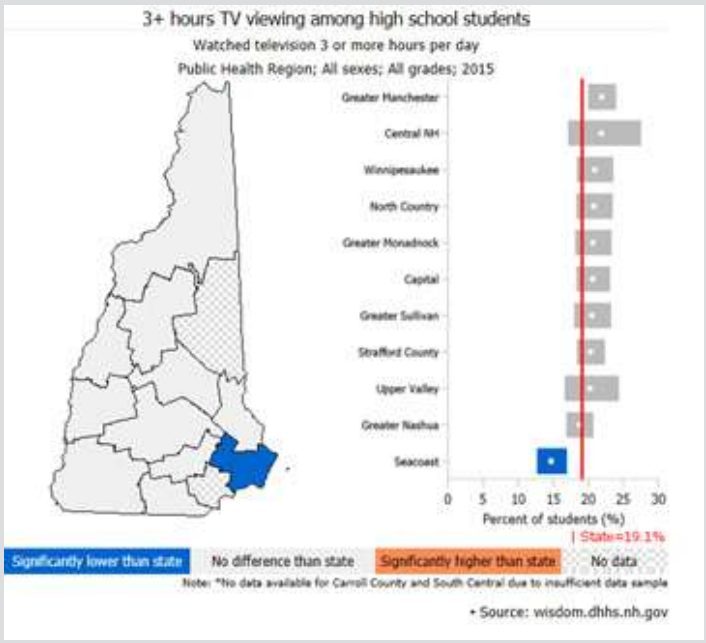
Where does Manchester Stand?

Among the 1,588 Greater Manchester high school students who participated in the YRBS in 2015, 21.9% reported watching television three or more hours per day. In 2017, among the 3,104 students who participated in the YRBS, 46.8% of high school students reported playing video or computer games or using a computer at least three hours each day. Moreover, only 46% of Manchester youth are getting enough physical activity according to the guidelines (60 minutes or more on 5+ days per week).

How does the Greater Manchester Region compare?

Looking at statewide data, high school students within Manchester's public health region watched television and played video games at rates consistent with the State rate (**Image 14**).

Image 14



Insufficient Sleep:

According to the Office of Disease Prevention and Health Promotion, sleep is a critical determinant of health and wellbeing, and yet 25% of US adults report insufficient sleep or rest at least 15 out of every 30 days.[57] Insufficient sleep is associated with a range of chronic diseases and conditions, including diabetes, heart disease, and obesity. Moreover, sleepiness can reduce productivity and quality of life.

Where does Manchester Stand?

According to the BRFSS data, at least 38% of Manchester residents report 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 of the CDC indicates that residents in Manchester's center city neighborhoods are sleeping less, with rates as high as 40% of residents reporting insufficient sleep in Census Tracts 14, 15, 16 and 20 (**Map 14**).

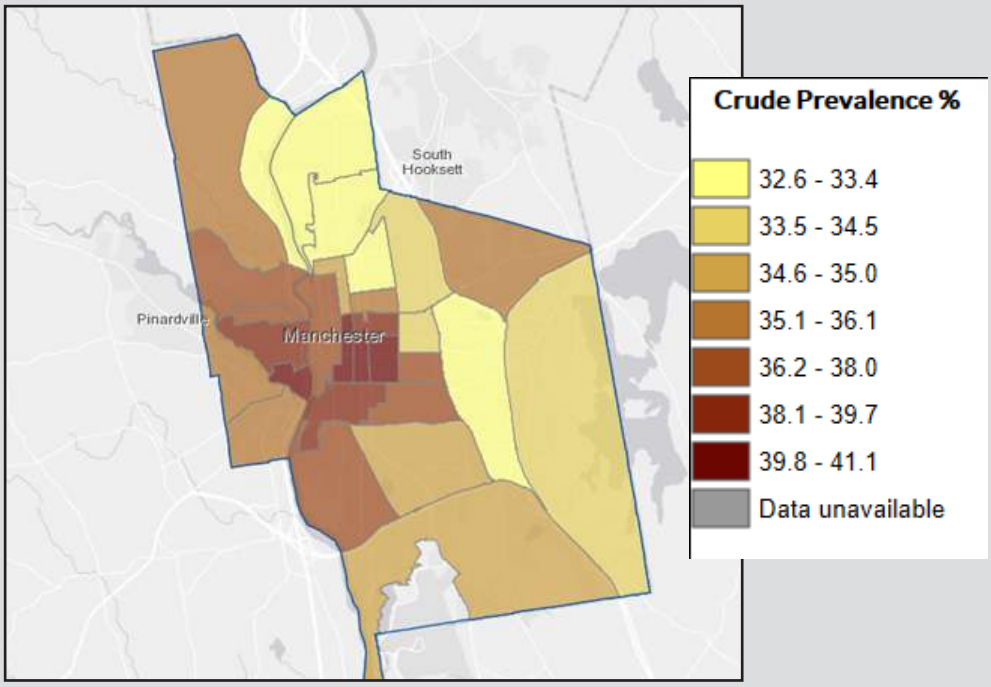
How does the Greater Manchester Region compare?

Manchester's rate for insufficient sleep (38%) is higher than the rate for the Greater Manchester Region (35.1%) and the rate for the State of New Hampshire (33.2%).

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 tobacco use to adverse health outcomes. Smoking is harmful to the entire body, causing cardiovascular diseases, cancer, pulmonary diseases, and adverse reproductive outcomes. Moreover, tobacco use exacerbates other illnesses and chronic conditions. Even with the recent decline in smoking rates locally and nationally, tobacco use continues to have a significant impact on health. Among the 480,000 people who die each year from smoking-related diseases in the U.S., these deaths include non-smokers who are exposed to secondhand tobacco smoke.

Map 14: Insufficient Sleep – Adults (2016)



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. There are particular Census tracts in Manchester with disparate rates of smoking, including Tracts 21, 20, 19, 14, 16, 15, and 13 that all have rates higher than 25% [58] (**Map 15**).

Map 15: Smoking – Adults (2016)

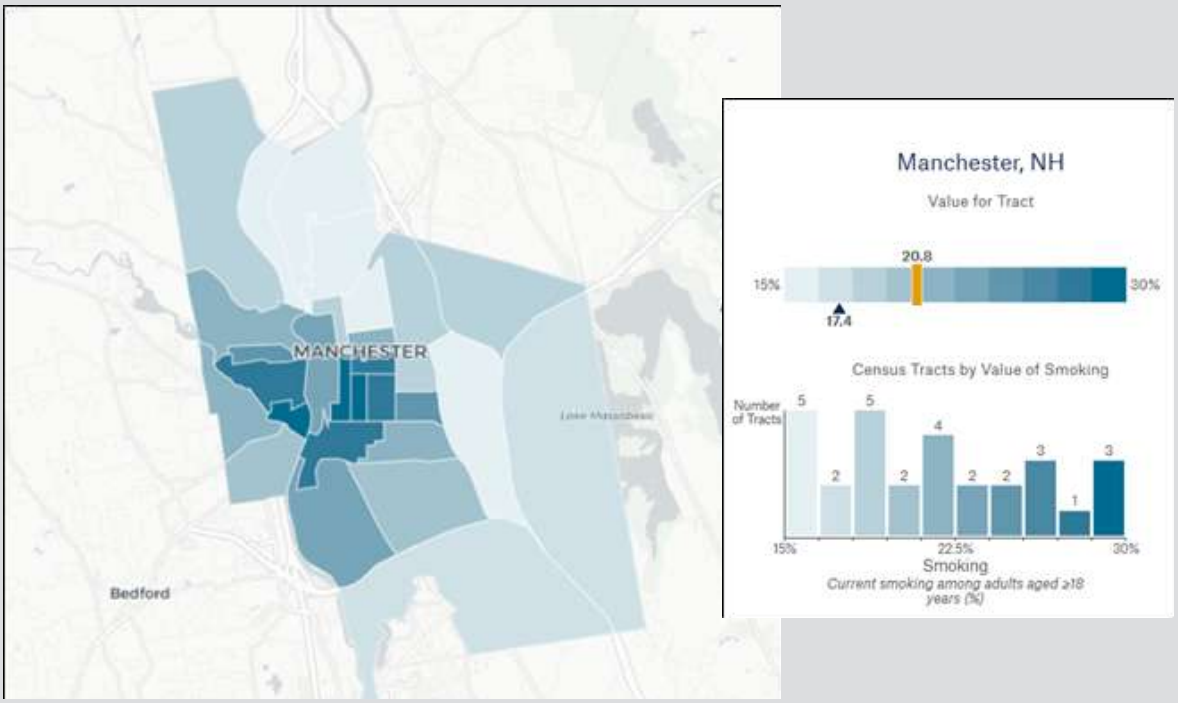
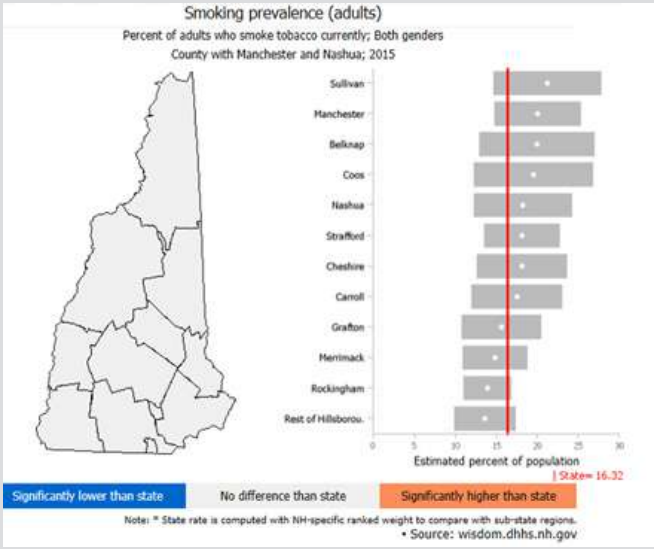


Image 15



How does the Greater Manchester Region compare?

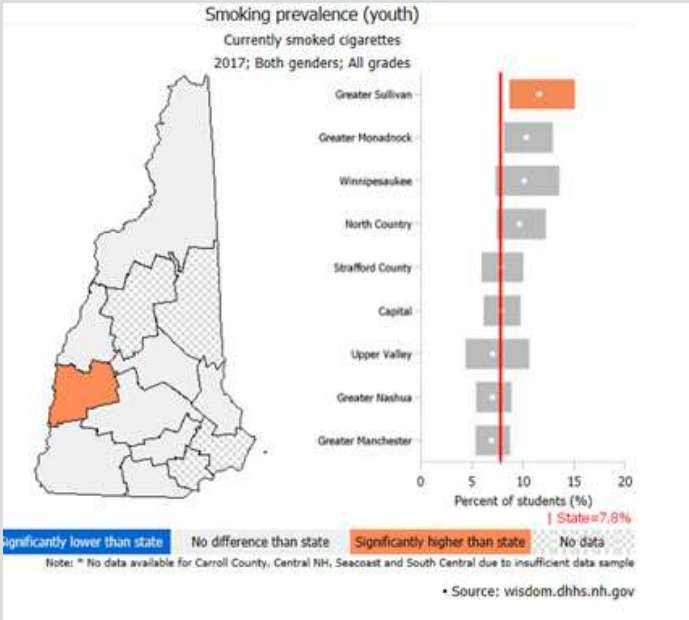
The rate of adult smoking in Hillsborough County (without Manchester or Nashua, NH included) is lower than the City and State rates. Based on the 500 Cities Project Data from the CDC, Manchester's adult smoking rate of 20.8% is slightly higher than Nashua's rate of 18.2% and higher than the average rate of 17.4% across 500 large cities in the United States.

Manchester's smoking prevalence among adults is consistent across the State of New Hampshire (**Image 15**).

Youth Tobacco Use

According to the CDC, tobacco product use is usually established during adolescence. Given this fact, the tobacco industry often targets youth through flavored tobacco products that are more appealing to young people. Data has also shown recent increases in the use of e-cigarettes or vaping, which is driving increases in tobacco product use among youth.[59] These products are unregulated, and more extensive research needs to be conducted on unintended health risks. Although it is widely known clinically that excessive levels of nicotine can cause physical health concerns and even acute health distress among youth.

Image 16



Where does Manchester stand?

Based on 2017 YRBS for the city of Manchester, 8.8% of all students who smoked a whole cigarette for the first time before age 13 years, and 6.5% of youth had smoked a cigarette at least once over the past 30 days. YRBS data for the entire region indicates that 39.3% of youth within Greater Manchester have ever used an electronic vapor product, and 19.7% had used one at least once over the past 30 days.

How does the Greater Manchester Region compare?

Manchester's smoking prevalence among youth is consistent across New Hampshire (**Image 16**). However, as mentioned above, regional rates of youth vaping are high (19.7%).

FACTOR 4: SEXUAL ACTIVITY

High-risk sexual practices can have an immediate and long-term health impact and can also affect the economic and social wellbeing of individuals and families. Engaging in unprotected sex can lead to sexually transmitted infections (STIs), and the United States has seen increasing rates of gonorrhea and chlamydia infections. Unprotected sex can also lead to unintended pregnancies, which is associated with delayed prenatal care. Children from unintended pregnancies are more likely to experience 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 are 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. Moreover, parenting teens are less likely than their peers to complete high school, and more likely to live below the poverty level.

Where does Manchester stand?

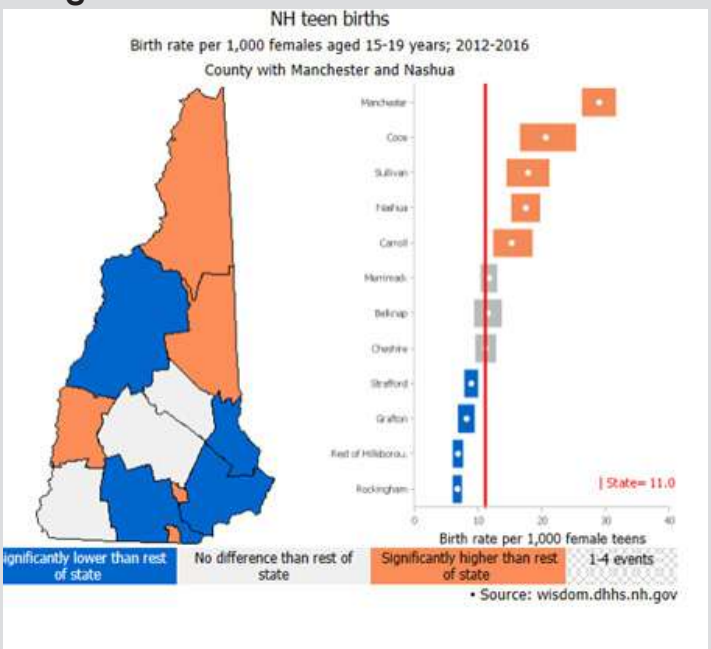
Manchester's teen birth rate is 25.4 births per 1000 females aged 15-19 years. This rate historically has been shown to be elevated among center city neighborhoods. Also, the rate of teen births among Hispanic teens (33.4 births per 1000) is significantly higher than the rate of births among Black teens (14.9) and White teens (11.7 births per 1000).[61]

How does the Greater Manchester Region compare?

Manchester's rate of births to teen mothers (25.4 teen births per 1000 females) is significantly higher (more than twice the rate) than the State rate (11 teen births per 1000 females). (**Image 17**)

Manchester's rate of teen births is slightly higher than the rate across other large cities in the United States (25.4 births per 1000 vs. 23.6 birth per 1000). In addition, Manchester's rate of teen births is significantly higher than Nashua, NH's rate of 12.8 teen births per 1000 females aged 15-19 years.

Image 17



Sexually Transmitted Infections

Chlamydia, the most common STI, can infect men and women, yet it can cause severe and permanent damage to a woman's reproductive system, including infertility and ectopic pregnancies. Rates of chlamydia have been rising locally and nationally, as have rates of Gonorrhea. A common STI that can infect men and women, Gonorrhea can cause infections in the genitals, rectum, and throat.

Where does Manchester stand?

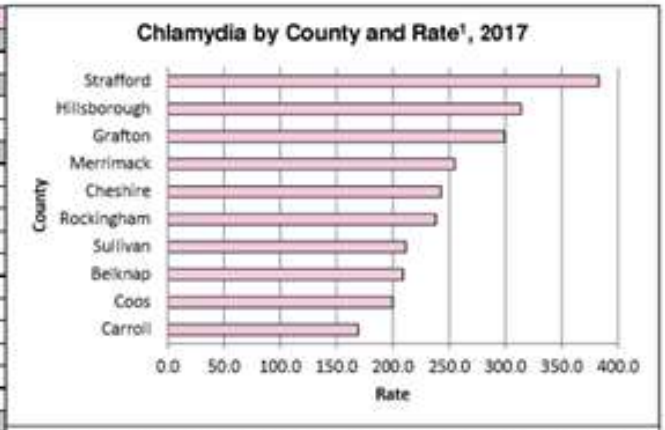
During 2013-2017, 2,896 individuals in Manchester were diagnosed with Chlamydia, and 405 were diagnosed with Gonorrhea.

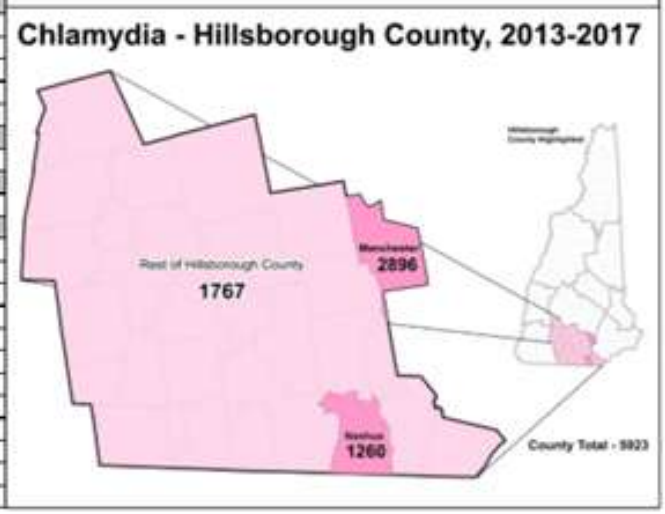
How does the Greater Manchester Region compare?

Hillsborough County in general and the City of Manchester, in particular, bear the most considerable burden for both Chlamydia (**Image 18**) and Gonorrhea (**Image 19**) in the State.

Image 18

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	3663	276.9	4047	303.1	3686	274.5
GENDER	Cases	Rate[1]	Cases	Rate[1]	Cases	Rate[1]	Cases[2]	Rate[1]	Cases[2]	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	2465	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	1827	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	1.8	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[3]	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	249.8	100	166.2	164	272.2	169	278.9	127	208.9
Carroll	97	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	186.0	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	291	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

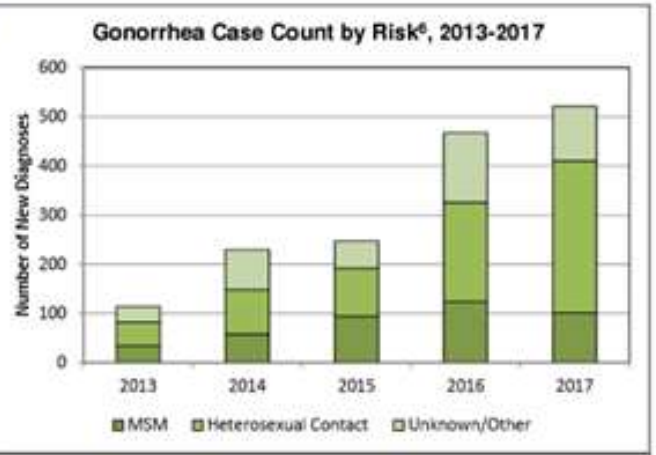


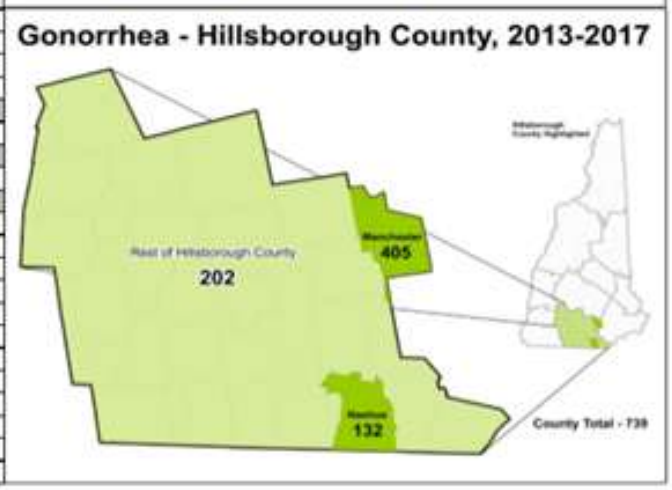


[1]Cases excluded due to unknown gender in 2016 (2) and 2017 (1)
[^]Cases excluded due to unknown county in 2013 (1), 2014 (17), 2015 (18), 2016 (4), and 2017 (5)

Image 19

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	36	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	1.8	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	48.6	19	98.5	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[3]	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[2]	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	36.5	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	8.6	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

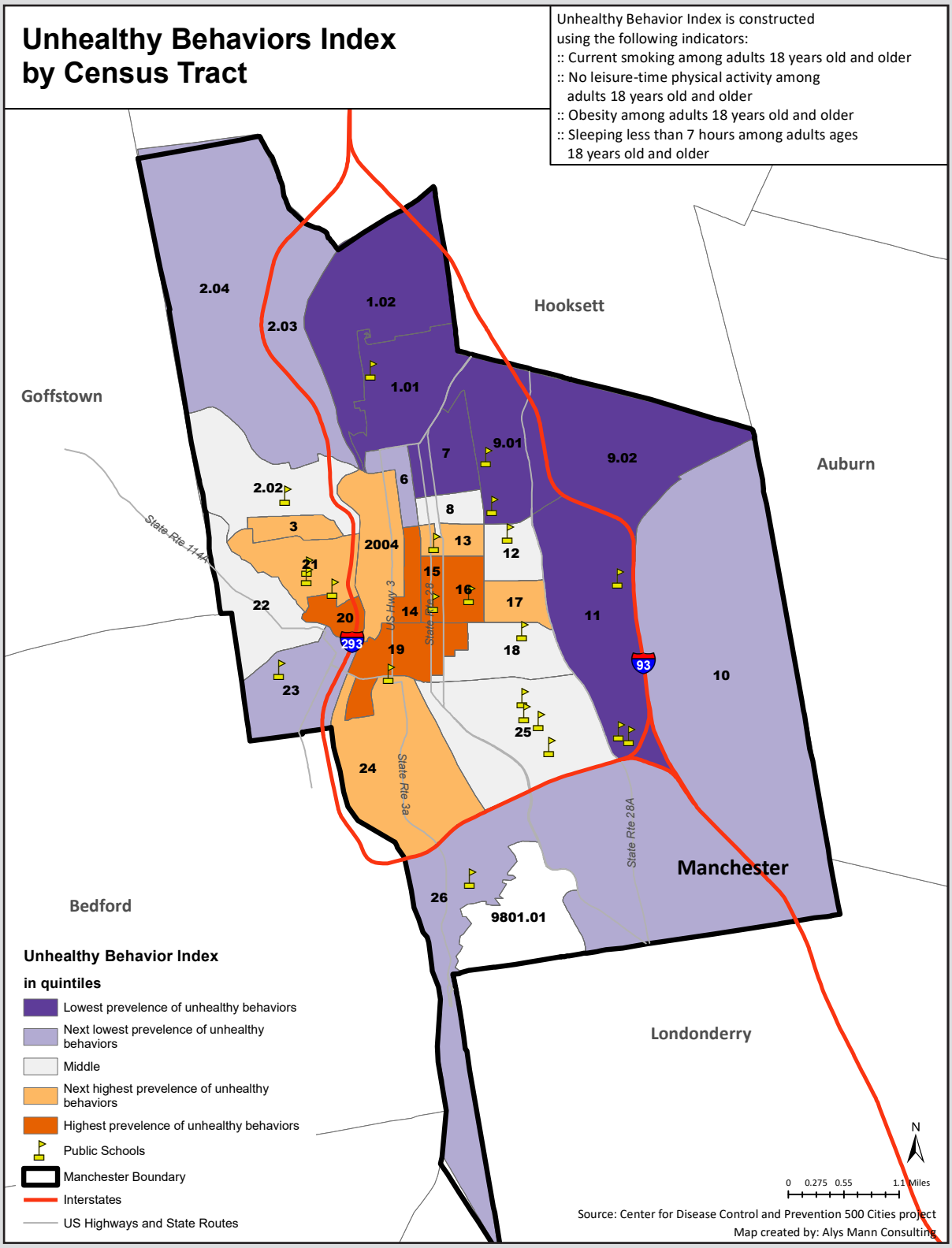




Summary of Manchester Health Behaviors:

As presented in this section, and indicated in the following map, Manchester's center city neighborhoods have the highest prevalence of unhealthy behaviors, including smoking, physical inactivity, obesity, and lack of adequate sleep. These behaviors, along with others, determine the extent to which Manchester's residents will have positive health outcomes, including a long healthy life and high quality of life. The following map displays a combination of unhealthy behaviors into one measure of risk at a neighborhood level. The highest prevalence of unhealthy behaviors is shown in dark orange with the lowest prevalence of unhealthy behaviors in dark purple. The center city neighborhoods on the East and West side of the City have the highest prevalence of unhealthy behaviors (East Tracts 14, 15, 16, and 19; West Tract 20).

Map: 16


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
Bedford
Londonderry
Manchester
2.04
2.03
1.02
1.01
2.02
3
2004
21
22
20
23
24
26
9801.01
6
7
9.01
8
13
12
15
16
17
14
19
18
11
9.02
10
25
293
93
State Rte 114A
State Rte 3a
State Rte 28
State Rte 28A
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

The behaviors that determine health 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	3686 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 are more likely to prevent illness and detect health issues sooner, thereby enabling them to live longer and lead healthier lives. Clinical care can be measured in two categories:

- **Access to Care**, including measures such as a community's number of primary care providers and number of residents who have health insurance; and
- **Quality of Care**, with measures of preventing hospital visits and disease monitoring.

According to research conducted by the County Health Rankings and Roadmaps initiative, access to, and the quality of, clinical care accounts for 20% of an individual's health status.

FACTOR 1: ADEQUATE ACCESS

Access to care is dependent on someone's ability to obtain the right care, at the right time, in the right setting. Many people face challenges entering the health care system due to wait lists for providers or confusing registration and enrollment processes. Often the care is not available close to home and may place an added burden on an individual or family to travel beyond their neighborhood for necessary services.

New Hampshire, like many areas across the United States, lacks sufficient providers to meet patient needs. Access challenges also result from the high cost of care, especially for those who lack health insurance. Uninsured individuals are less likely to have primary care providers than the insured, and therefore receive less preventive care and chronic disease management. Moreover, those without insurance tend to get diagnosed at later, less treatable disease stages than those with insurance; and as a result, have worse health outcomes. Even those with insurance may face expensive out of pocket costs for co-pays, insurance premiums, or prescriptions.

Medically Underserved Area

A Medically Underserved Areas (MUA) is a designation from the U.S. Health Resources and Services Administration (HRSA) in which there are too few primary care providers. According to HRSA, MUAs are based on the index of medical "underservice," which is calculated using four criteria: the population-to-provider ratio, the percent of the population below the federal poverty level, the percent of the population over age 65, and the infant mortality rate.[62]

Where does Manchester Stand?

Neighborhoods within East Manchester (specifically Census tracts 6, 13, 14, 15, 16, and 2004) have been designated as an MUA by HRSA. Neighborhoods in West Manchester, specifically Census Tracts 2.02, 3, 20, and 21, are considered an Exceptional Medically Underserved Population by HRSA based on a special designation by the Governor of New Hampshire (**Map 17**).

How does the Greater Manchester Region Compare?

There are eleven neighborhoods in Manchester that receive some form of medically underserved designation; however; Manchester is one of only two non-rural communities in New Hampshire to receive MUA status.

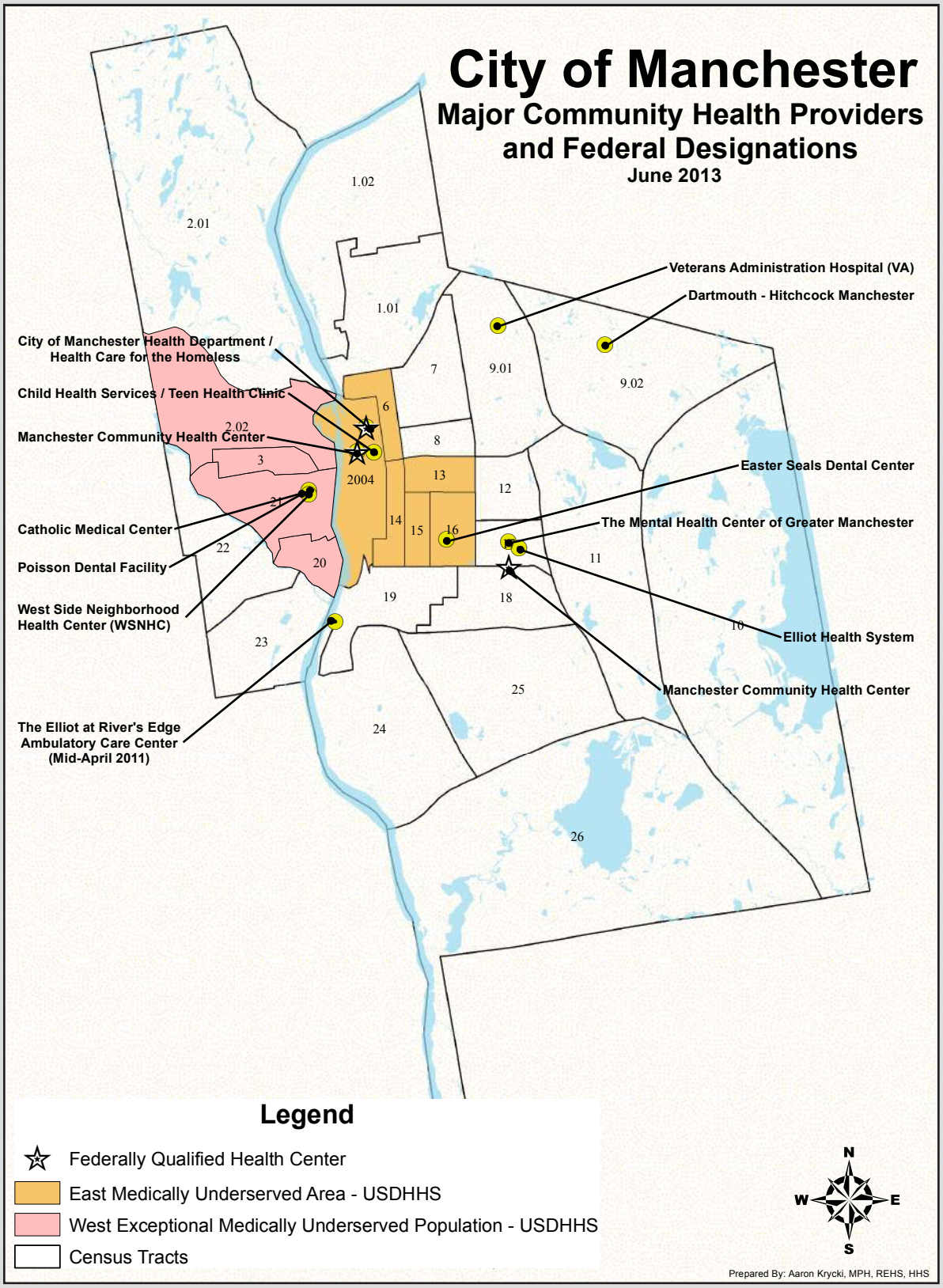
Uninsured

According to the Kaiser Family Foundation, "going without coverage can have serious health consequences for the uninsured because they receive less preventive care, and delayed care often results in serious illness or other health problems. Being uninsured can also have serious financial consequences, with many unable to pay their medical bills, resulting in medical debt."[63]

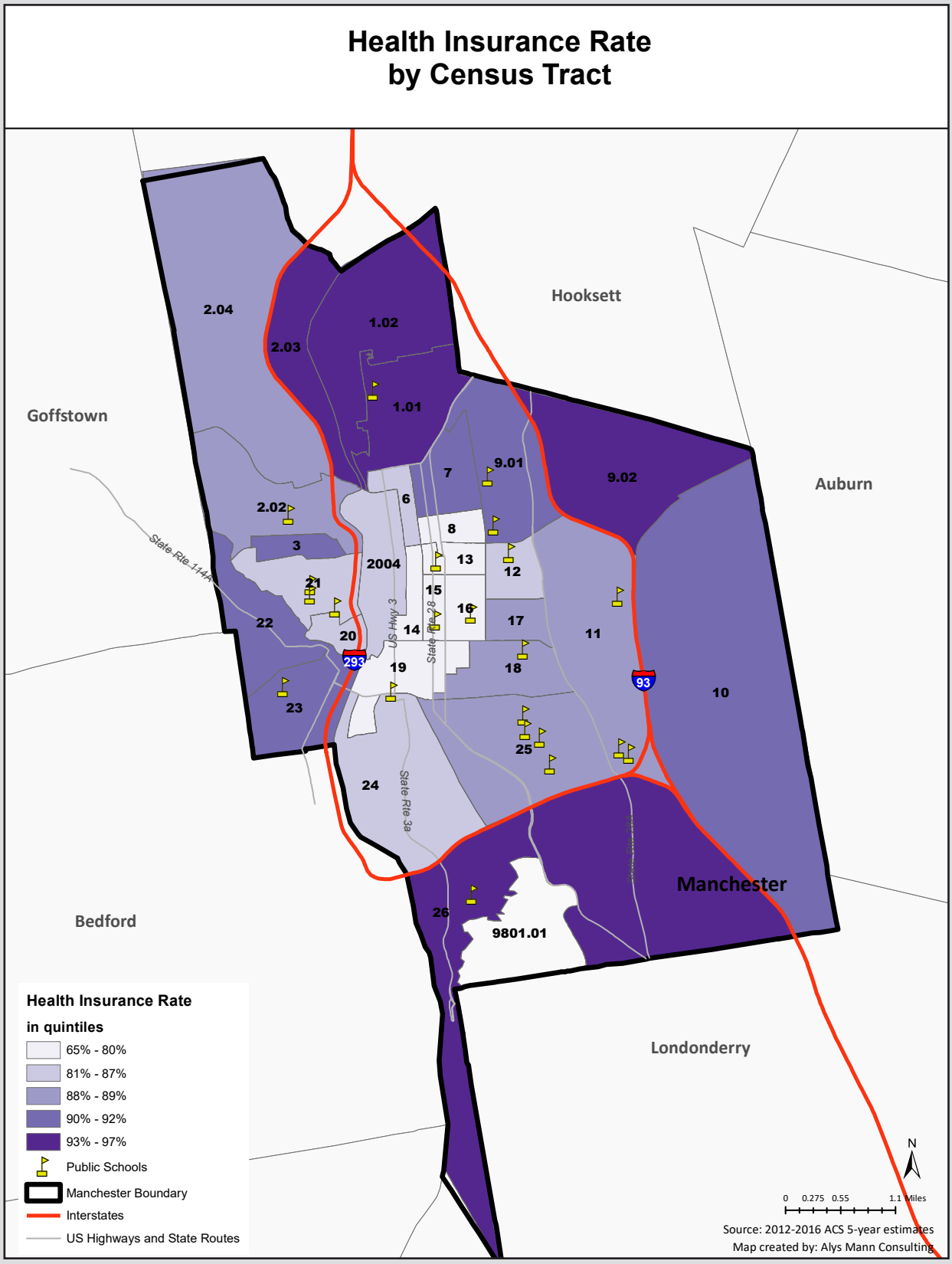
Where does Manchester stand?

Based on 2016 data, 13.3% of Manchester adults aged 18-64 lacked health insurance. This number decreased slightly in 2017 to 12.6%. Within Manchester, the rate of uninsured is significantly higher in center city neighborhoods on the East and West sides of the City. In specific neighborhoods on the East side, as many as 35% of residents are uninsured as depicted in **Map 18** below.

Map: 17


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: 18


Health Insurance Rate
by Census Tract
Hooksett
Goffstown
Auburn
Bedford
Manchester
Londonderry
2.04
1.02
2.03
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 3a
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 vary among racial/ethnic groups, with disparate rates of uninsured among the City's Asian, Black, and Hispanic residents. Nearly one in four Hispanic residents in Manchester is uninsured (**Table 33**).

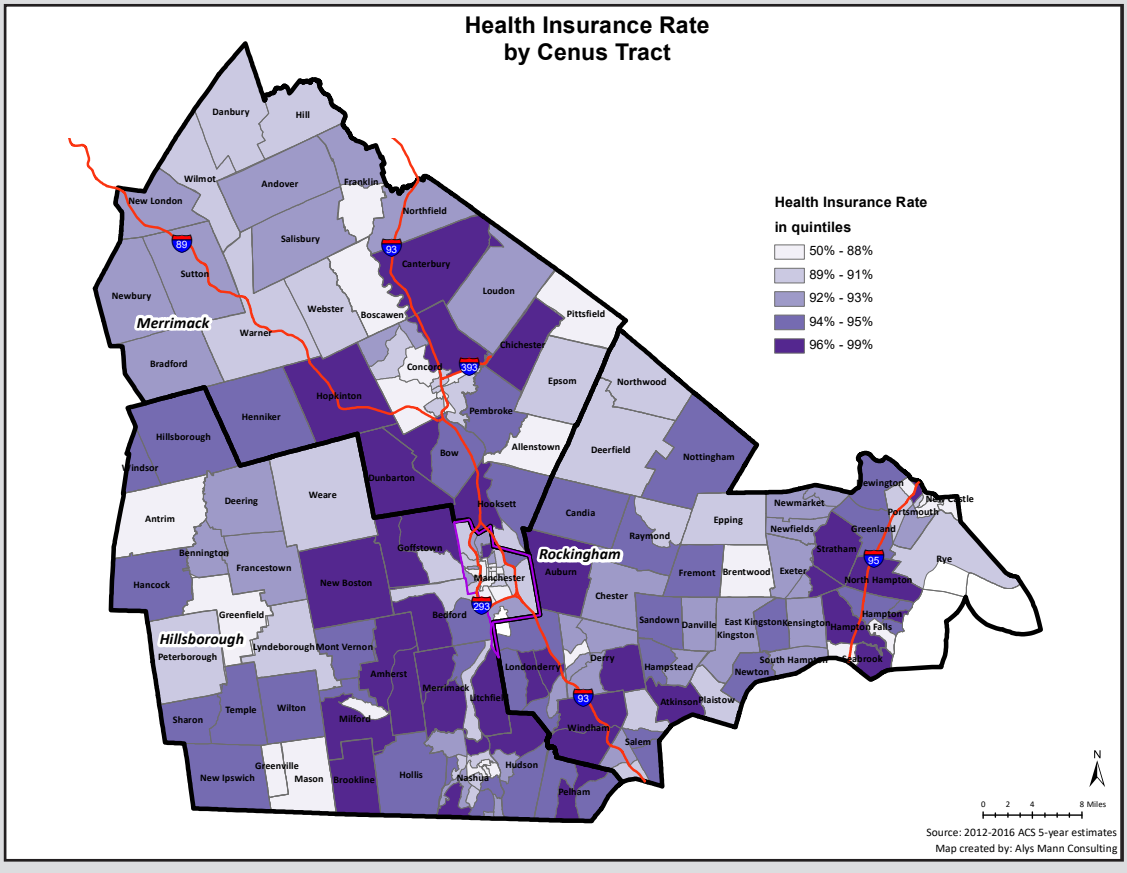
Table 33: Uninsured by Race/Ethnicity, Manchester, 2017

Population	*% Uninsured*
Asian	15.6%
Black	17%
Hispanic	22.4%
White	11.3%
Other	11.3%

How does the Greater Manchester Region compare?

Manchester's adult uninsured rate is consistent with the average estimate for the largest 500 cities in the U.S. (12.8 vs. 12.9%) and is slightly higher than Nashua, NH's rate of 9.5%. There is the variability of insurance status across the region; with Manchester's center city neighborhoods among the lowest. The majority of the Manchester region has rates of uninsured of 11% or below. **Map 19** depicts health insurance estimates by Census Tract during 2012-2016.

Map: 19



Preventive Health Care

Preventive care, which includes vaccinations and cancer screenings, allows for the early detection of chronic and infectious diseases and allows individuals to receive treatment often before symptoms arise. However, given access-to-care challenges, each year, millions of people do not receive the preventive services recommended by national experts for their age group. Not surprisingly, people with lower incomes and those without health insurance are less likely to use preventive services than other populations.

Where does Manchester stand?

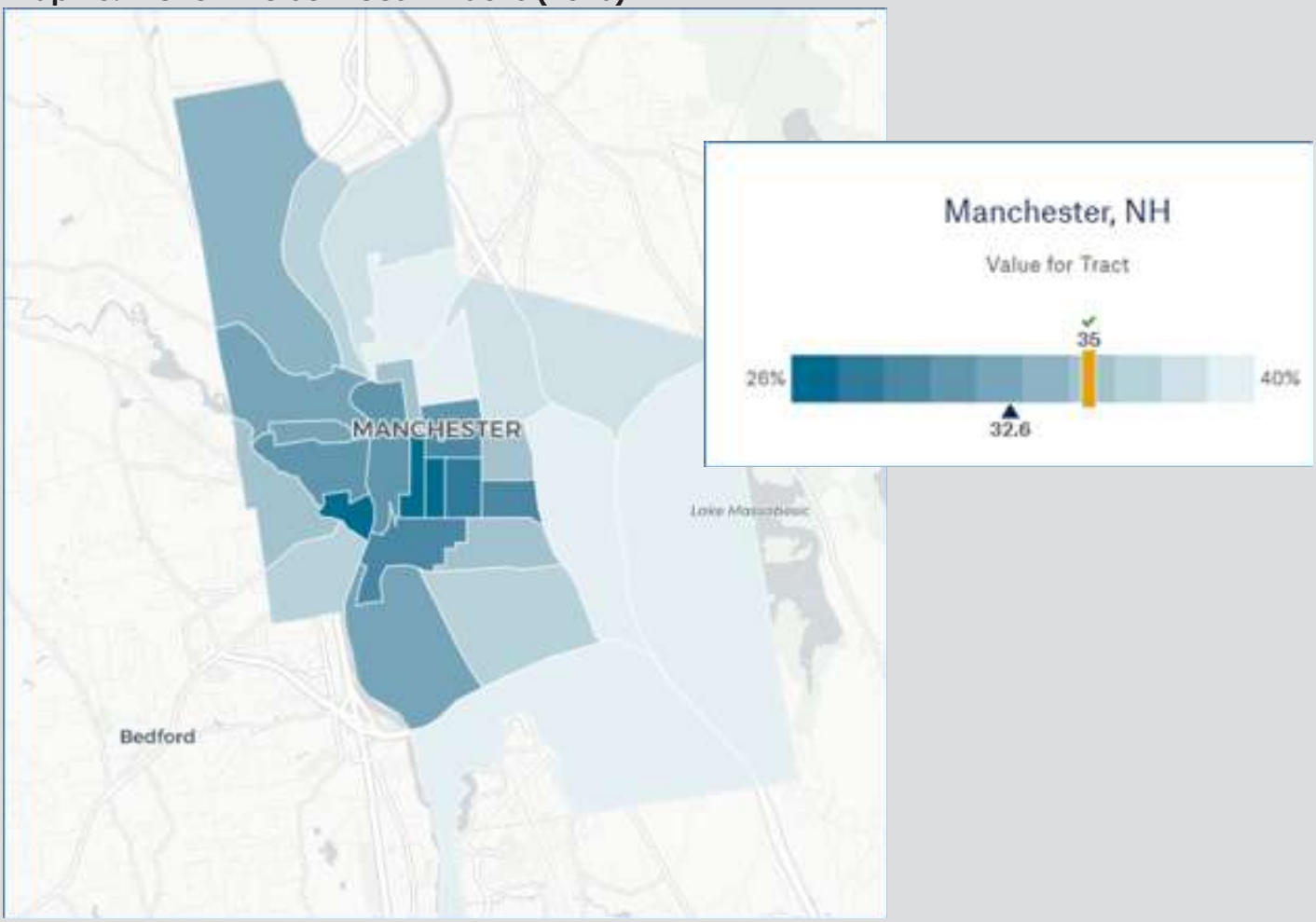
The majority of Manchester adults age 18+ (71.8%) visited their doctor for a routine checkup within the past year. Older adults are less likely to receive their core set of preventative services. In 2016, only 37.8% of Manchester's older men age 65+ received their flu shot, Pneumococcal polysaccharide vaccine (PPV), and colorectal cancer screening aligning with recommended frequency. Even fewer older women received their preventive services, with only 32.6% of women age 65+ receiving their flu shot, PPV, colorectal screening, and mammogram aligning with recommended frequency.

How does the Greater Manchester Region compare?

Based on BRFSS data,[64] the percentage of adults who had a routine checkup within the past year (70.6%) was less than the rate for the Greater Manchester region (74.7%) and the state (74.1%).

Among all Manchester older adults age 65+, 35% reported receiving preventive services, which is slightly better than the average rate of 32.6% across the 500 largest cities in the U.S. and is consistent with Nashua's rate of 36.8%. Adults within the center city neighborhoods are less likely to be up to date on their preventive services, with 14 neighborhoods having rates of under 33% (**Map 20**).

Map 20: Preventive Services – Adults (2016)



Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions (ACSC) are health conditions in which appropriate outpatient care (medication, home care, and a healthy lifestyle) can prevent or reduce the need for emergency room visits. Acute ACSCs include infections or illnesses managed in a primary care setting, such as ear infections. Other ACSCs are chronic, such as diabetes or asthma, in which case the patient will have to manage their illness long-term or for the rest of their lives. While accessing care in a preventive manner for ACSCs is more appropriate and far less expensive than an emergency room visit, often patients lack the ability or access to manage their conditions in a primary care setting. Elevated rates of ACSCs can be an indication of the lack of access to adequate primary care within a community.

Where does Manchester stand?

Based on hospital discharge data from the emergency department, between October 2012 and September 2015, Manchester residents had 19,164 visits to the emergency room for Acute ACSCs and 7,905 visits for Chronic ACSCs. The rate of Acute ACSC was 5808.5 visits per 100,000 residents, and the rate of Chronic ACSC was 2395.9 visits per 100,000 residents.

How does the Greater Manchester Region compare?

Manchester's rate of emergency room visits for both Acute and Chronic ACSCs was significantly higher than the rate for Greater Manchester's Hospital Service Area and the State of New Hampshire. Of note, although Manchester's rate was elevated for Acute ACSCs, the Greater Manchester Hospital Service Area's rate of Acute ACSCs was significantly lower than Manchester and State of NH suggesting that Manchester residents, in particular, are accessing the emergency department at an increased level than residents in the region (**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

With appropriate access to primary care, many residents can reduce reliance on hospital emergency department (ED) visits and hospitalizations. However, for acute and life-threatening conditions, individuals must rely on emergency rooms and hospitals for necessary care. Also, hospitals are the most popular location for giving birth in the United States given that many expectant parents view hospitals as the safest option with access to pain relief, an operating room if needed, and the most advanced technology should babies require medical care.[65]

Where does Manchester stand?

The most common reasons Manchester residents visited an emergency room was 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 sprains/strains (5,874 patients). Among Manchester residents who were admitted to the hospital, the most common reasons were 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?

When comparing the top five reasons why Manchester residents visited the emergency department over a three-year period (2012-2015) against the region and the State, Manchester residents have a slightly higher rate of reliance on the emergency department for upper respiratory infections than residents across Greater Manchester and the State of New Hampshire (**Table 35**). These infections most likely 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

When comparing the top five reasons why Manchester residents were hospitalized over this same three-year period, both chronic conditions that typically affect aging populations at a higher rate, such as congestive heart failure and osteoarthritis, are prevalent at all geographic levels. Conversely, childbirth is the number one reason for hospitalizations at all geographic levels (**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	4376	11%	1326.3
	2	Septicemia (except in labor)	1809	4.6%	548.3
	3	Congestive heart failure; nonhypertensive	1151	2.9%	348.9
	4	Pneumonia	1151	2.9%	348.9
	5	Osteoarthritis	1111	2.8%	336.7
Greater Manchester (HSA)	1	Childbirth	6135	10.6%	1116.1
	2	Septicemia (except in labor)	2694	4.7%	490.1
	3	Osteoarthritis	1978	3.4%	359.8
	4	Congestive heart failure; nonhypertensive	1732	3%	315.1
	5	Pneumonia	1685	2.9%	306.5
NH	1	Childbirth	35359	9.4%	888.1
	2	Osteoarthritis	16413	4.4%	412.2
	3	Septicemia (except in labor)	14529	3.9%	364.9
	4	Congestive heart failure; nonhypertensive	11119	3%	279.3
	5	Pneumonia	10829	2.9%	272

Dental Care

Consistent and habitual dental care is essential to detect oral diseases, as well as other health conditions that are linked to poor oral health, such as cancer, diabetes, high blood pressure, and cardiovascular disease. Poor oral health is often the result of an unhealthy diet and tobacco use and can be the first indication of child maltreatment.

Where does Manchester stand?

In 2016, only 64.2% of Manchester adults visited the dentist or dental clinic. This rate varied in particular neighborhoods, with nine Census Tracts having a rate less than 60% and one neighborhood as low as 45.3% (**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 in the Greater Manchester Region (71.9%) was consistent with rates across New Hampshire (72%). When comparing Manchester's rate of adults reporting receiving dental care across the 500 cities the rates were reasonably consistent (64% vs. 63.2%); yet, Manchester's rate is slightly less than Nashua, NH's rate of 67.9%.

Late or No Prenatal Care

The care a woman receives when she is pregnant is essential for her health and the health of her infant. Early and regular prenatal care increases the chances of a healthy pregnancy and healthy birth.[67]

Where does Manchester stand?

Based on 2013-2017 data among women who gave birth, 5.4% of women (388 women) received late or no prenatal care. This rate was significantly higher in specific East side center city neighborhoods, including Census Tracts 13, 14, and 2004 (**Table 38**). These numbers are especially critical when considering the rate of births with a Neonatal Abstence Syndrome (NAS) diagnosis that are occurring in Manchester (122 births total in 2017). NAS is a group of medical problems caused when a baby withdraws from certain drugs through exposure in the womb before birth.

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 care*
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%) is higher than the State rate of 4% and is consistent with the national average, which was 6%.[68]

FACTOR 2: QUALITY OF CARE

High-quality care results when health care providers make evidence-based decisions, assess their performance, involve patients in care decisions, and work diligently to reduce errors. Despite local and national efforts towards quality care provision, many patients do not receive recommended screenings and treatment, or they experience poor care coordination.

Health Screenings

Mammograms are the most effective evidence-based strategy to detect breast cancer, and therefore, reduce breast cancer mortality. Current recommendations are that women ages 45-54 receive mammograms every year, and women 55 and older receive mammograms every 2 years.

Cholesterol Screening can assess for lipid disorders, heart disease, and other signs of cardiovascular risk. A cholesterol screening measures the amount high-density lipoproteins (HDL) in the blood, as well as of low-density lipoproteins (LDL), which are considered the “bad” cholesterol because they cause an accumulation of plaque along the walls of the blood vessels.

Colon Cancer Screening tests are incredibly effective and can detect problems early. The most common screening method is a fecal occult blood test to determine if you have blood in the stool. Sigmoidoscopy and colonoscopy can examine all or part of the colon for polyps, lesions, or other issues. A colonoscopy is considered the recommended screening for adults 50 years or older.

Where does Manchester stand?

Based on 2016 data, 75.4% of Manchester women aged 50-74 have received a mammogram; 75.6% of adults age 18+ received cholesterol screening; and 68.4% of adults ages 50-75 received either a fecal occult blood test, sigmoidoscopy, or colonoscopy to screen for colon cancer.

How does the Greater Manchester Region compare?

Manchester rates of health screenings are reasonably consistent with the rates in Nashua, NH, and across the country,[69] as shown in the following **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 aged 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 facilitate 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 adequate prenatal care.[70]

Where does Manchester stand?

Based on 2013-2017 data, among the 7,206 women who gave birth, 71.7% or 5,166 women received prenatal care in the first trimester of pregnancy. The rate of early prenatal care was lower in all center city neighborhoods, including Census Tract 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?

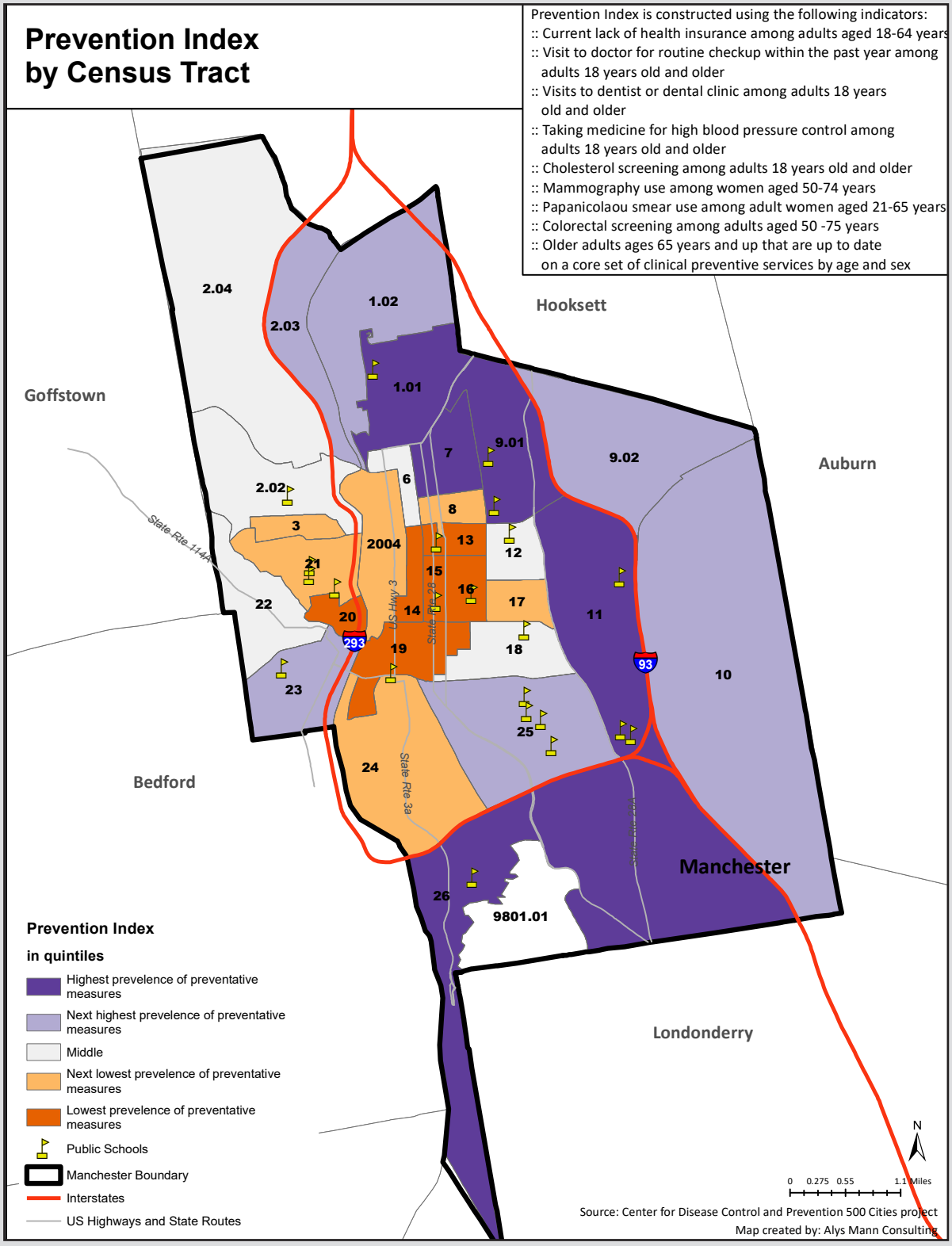
When considering estimates for only 2017, Manchester's rate of women receiving prenatal care in the 1st trimester was 80.2%, which less than the rate for Nashua, NH (84.8%); however, it was better than the average rate of 78.4% across the 500 cities.

Unfortunately, Manchester exhibits racial disparities when it comes to prenatal care, with the percentage of adequate prenatal care among Manchester's Black population (63.8%) significantly lower than the rate among the Asian (84.6%), Hispanic (82.8%), and White population (86%). Of note, the percentage of Manchester's Black population receiving adequate prenatal care fell lower than the average percentage of adequate prenatal care for the Black population across the 500 cities.

Summary of Clinical Care in Manchester:

As presented within this section and indicated in the following map, Manchester's center city neighborhoods have the lowest prevalence of prevention measures that will contribute to their clinical care. These Manchester residents have lower rates of insurance coverage, lower rates of regular visits to their medical and dental providers, and lower rates of preventive screenings and vaccines. The following map displays a combination of clinical care indicators into one measure of health access at a neighborhood level. The lowest prevalence of preventive measures is shown in dark orange with the highest prevalence of preventive measures in dark purple. The center city neighborhoods on the East and West side of the City have the lowest prevalence of health access for prevention (East Tracts 13, 14, 15, 16, and 19; West Tract 20).

Map: 21


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
2.02
3
2004
21
22
20
14
19
23
24
26
9801.01
6
7
9.01
8
13
12
15
16
17
18
11
9.02
10
25
293
93
State Rte 114A
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/HEALTH CARE AND HEALTH OUTCOMES

Input from Community and Resident Leaders

The clinical care and health outcomes that determine health include access and quality of care as well as specific outcomes for targeted chronic diseases. 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
• 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					
Adult Uninsured Rate	12.8%		9.5%		12.9%
Adults who had routine checkups within the past year	70.6%	74.5%	-	74.1%	-
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

Since individuals interact with their physical environment through the homes they live in or the transportation they access, a poor physical environment can negatively impact health. Stable, affordable housing in well-designed neighborhoods must provide a safe environment for families to live, learn, and grow; especially given that housing is often their single most considerable expense. The neighborhoods in which homes are located have an impact on our health depending on the availability and accessibility of health-promoting assets, such as public transportation, grocery stores, and safe spaces to exercise. According to research conducted by the County Health Ranking and Roadmaps project, 10% of an individual's health status is determined by their physical environment.[71]

FACTOR 1: HOUSING

The safety and quality of housing impacts health outcomes. Lead-based paint and lead-contaminated dust in older buildings can contribute to lead poisoning, especially in children.[72] Indoor allergens, such as mold and dust, as well as residential crowding, can increase the risk for physical illness such as asthma, infectious disease, and psychological distress. The availability of affordable housing in neighborhoods is also considered a critical health promoting asset. The lack of affordable housing can lead to excessive housing costs, and consequently, an increased risk of homelessness.

High Potential Lead Risk

Elevated blood lead levels are associated with impaired brain and nerve functioning, slowed development in children, and behavior problems. Individuals and families who live in low-income areas with older housing stock are particularly vulnerable to lead poisoning. Elevated blood lead levels may also indicate poor quality housing.

Where does Manchester stand?

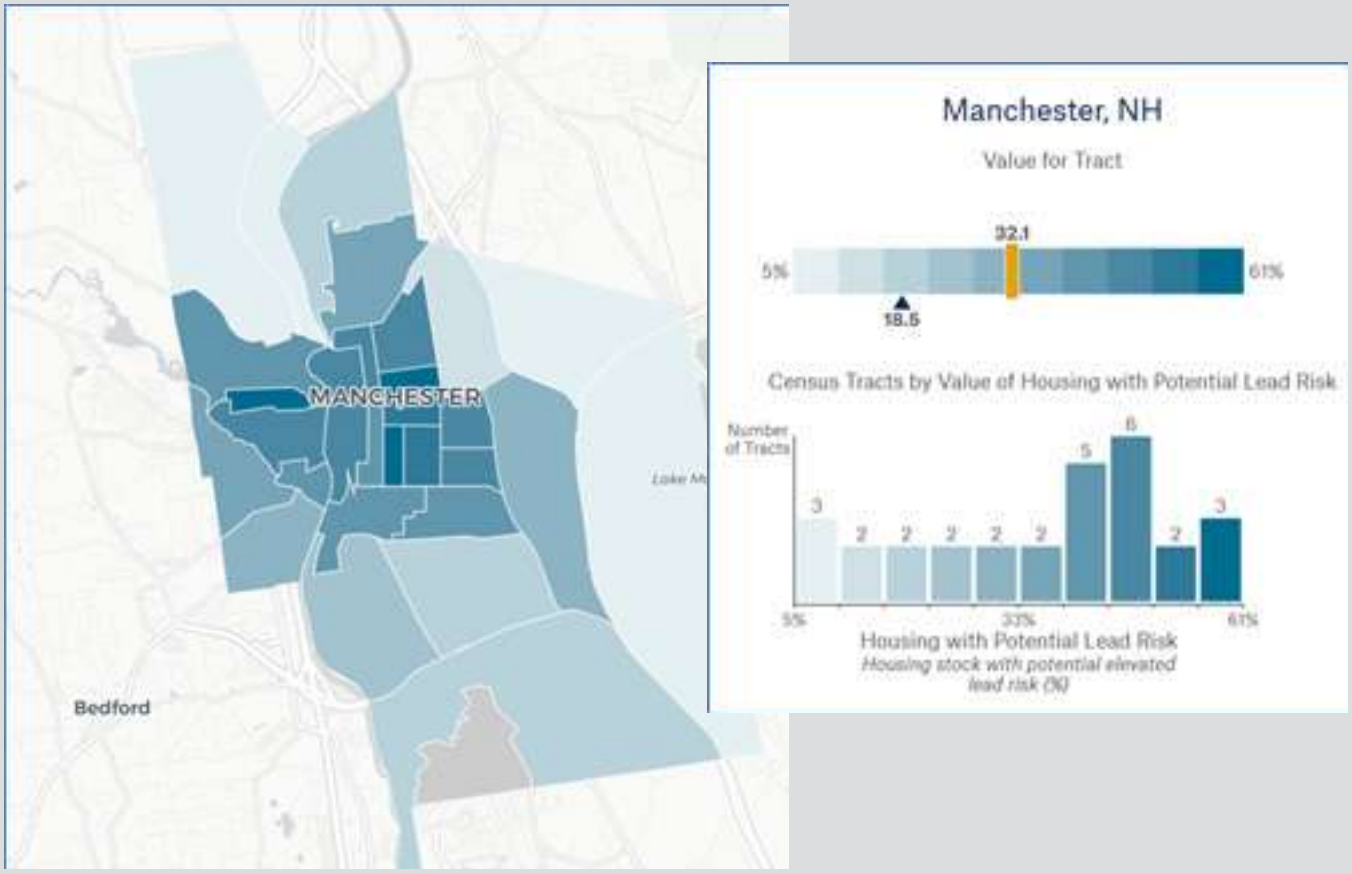
In 2017, the percentage of Manchester's housing stock with a high potential lead risk based on the age of the housing stock was 32.1%, which is significantly higher than the 500 cities average rate of 18.5%. In specific neighborhoods, this risk was even more significant, as shown in the following **Table 41**, with approximately half of the housing stock posing a high potential risk. Housing with a potential lead risk is determined by weighted estimates for the likelihood of lead exposure in housing 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 rates of housing with potential lead risk with the percentage of people who live in poverty in the City or Census Tract (**Map 22**). The risk score is calculated on a scale of 1-10, where 10 indicates the highest risk of exposure. Overall, Manchester's risk index is elevated at a score of 8 out of 10. Additionally, there are five Manchester neighborhoods where the lead exposure risk index is at the highest risk level of 10 (Tracts 10, 14, 15, 16, and 2004), and an additional five neighborhoods with a risk index of 9 (Tracts 3, 13, 17, 20, and 21). This risk calculation was created by NYU Lagone Health.

Map 22: Lead Exposure Risk Index – Manchester (2017)



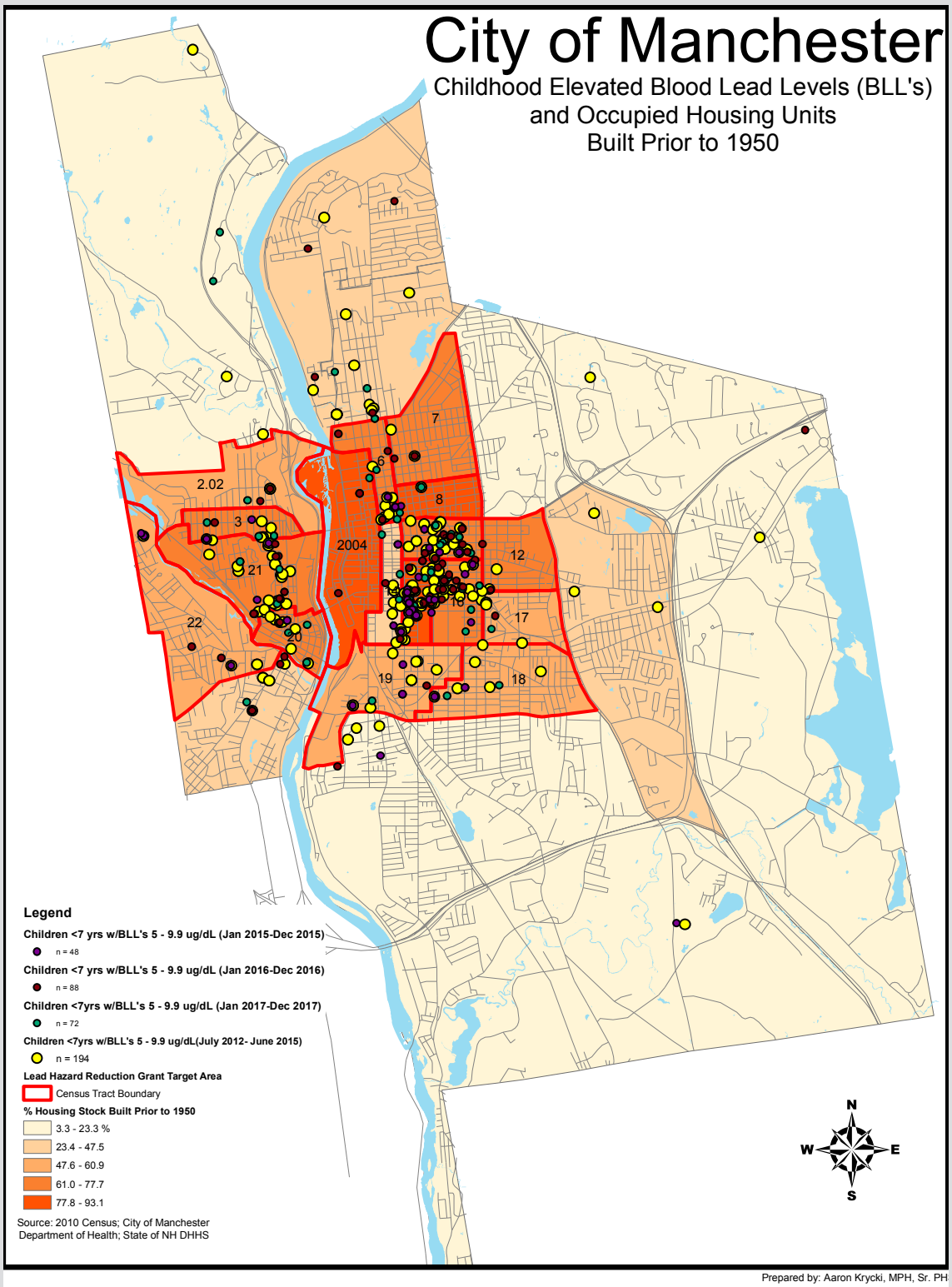
Moreover, Manchester's rates of confirmed lead elevations among children mirror the location and density of older housing stock within center city neighborhoods. In 2017, 72 children in Manchester had blood lead level elevations between 5.0-9.9 ug/dL (**Map 23**).

How does the Greater Manchester Region compare?

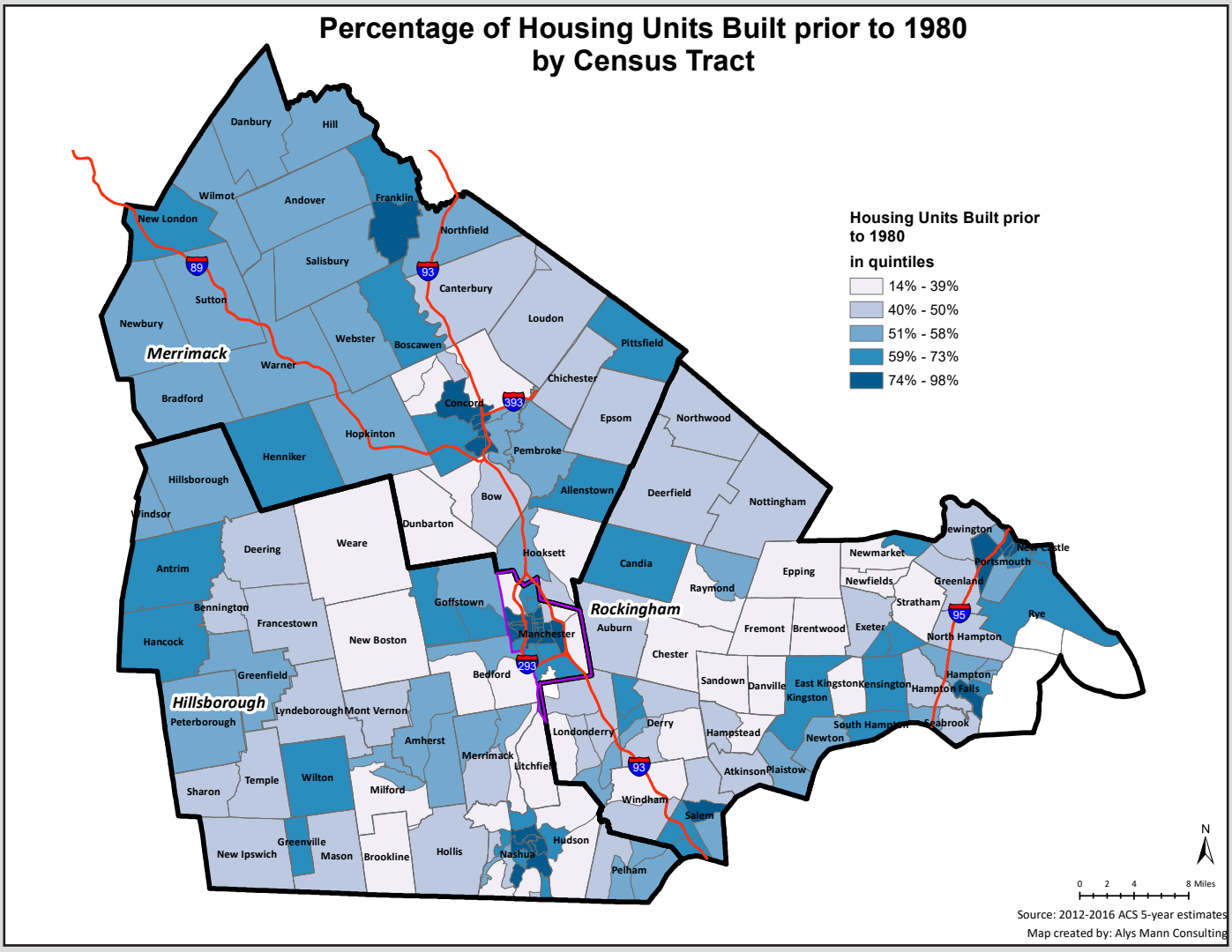
The percentage of Manchester's housing stock with a high potential lead risk (32.1%) was higher than the percentage of housing with high potential lead risk in Nashua, NH (21.4%) and significantly higher than the 500 cities average rate of 18.5%. Also, Manchester's Lead Risk Index of 8 was higher than Nashua's rate of 5 and the 500 cities average rate of 5.5.

Within the region, when considering the risk of exposure to lead increases with older housing, Auburn (40-50%), Candia (59-73%), Deerfield (40-50%), Goffstown (51-73%), have many housing units built prior to 1980 (**Map 24**).

Map 23


City of Manchester
Childhood Elevated Blood Lead Levels (BLL's)
and Occupied Housing Units
Built Prior to 1950
2.02
3
21
22
20
2004
6
7
8
12
16
17
18
19
Legend
Children <7 yrs w/BLL's 5 - 9.9 ug/dL (Jan 2015-Dec 2015)
n = 48
Children <7 yrs w/BLL's 5 - 9.9 ug/dL (Jan 2016-Dec 2016)
n = 88
Children <7yrs w/BLL's 5 - 9.9 ug/dL (Jan 2017-Dec 2017)
n = 72
Children <7yrs w/BLL's 5 - 9.9 ug/dL(July 2012- June 2015)
n = 194
Lead Hazard Reduction Grant Target Area
Census Tract Boundary
% Housing Stock Built Prior to 1950
3.3 - 23.3 %
23.4 - 47.5
47.6 - 60.9
61.0 - 77.7
77.8 - 93.1
Source: 2010 Census; City of Manchester
Department of Health; State of NH DHHS
N
W
E
S
Prepared by: Aaron Krycki, MPH, Sr. PH

Map 24


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
Loudon
Sutton
Newbury
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Pembroke
Henniker
Hillsborough
Allenstown
Deerfield
Nottingham
Windsor
Bow
Dunbarton
Deering
Weare
Hooksett
Candia
Newmarket
Newington
Antrim
Epping
Portsmouth
Raymond
Newfields
Greenland
Bennington
Goffstown
Stratham
Francestown
Auburn
Fremont
Brentwood
Exeter
Rye
Hancock
Manchester
New Boston
North Hampton
Chester
Bedford
Sandown
Danville
East Kingston
Kensington
Hampton
Greenfield
Kingston
Hampton Falls
Peterborough
Lyndeborough
Mont Vernon
Londonderry
Derry
Hampstead
Seabrook
Amherst
Merrimack
Newton
South Hampton
Litchfield
Atkinson
Plaistow
Sharon
Temple
Wilton
Milford
Windham
Salem
Greenville
New Ipswich
Mason
Brookline
Hollis
Nashua
Hudson
Pelham
N
0 2 4 8 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

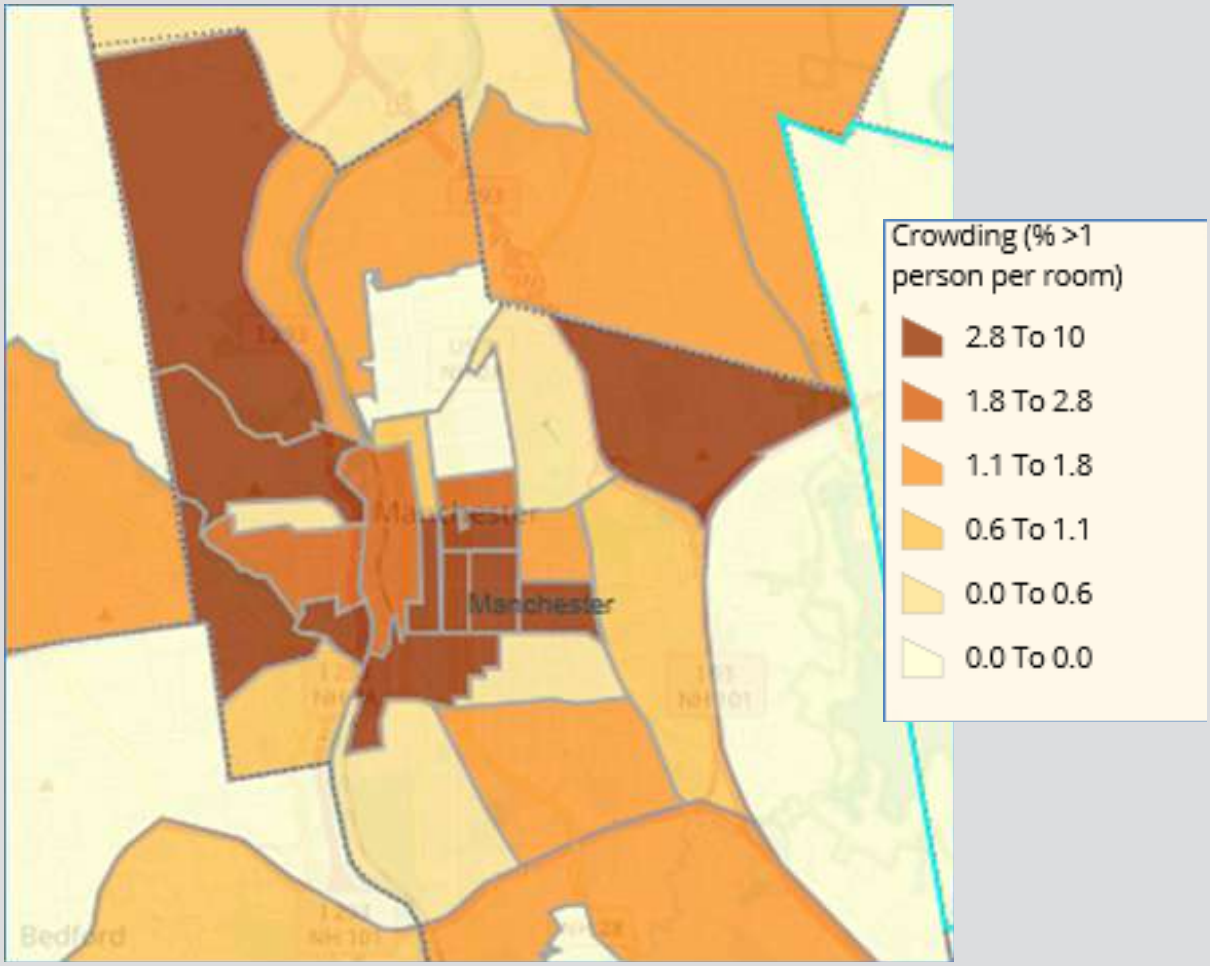
Crowding

Crowding is defined by housing units with more than one person per room.[73] Given the high cost of housing and estimated numbers of residents burdened by housing costs, crowded housing is most common among low-income families and is frequently a response to unaffordable 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 the significant rates of crowding within Manchester's neighborhoods. As shown on **Map 25**, the neighborhoods within Manchester's center city often house 2.8 to 10 people per room, clearly meeting the crowding threshold.

Map 25: Crowding – Manchester (2011-2015)



How does the Greater Manchester Region Compare?

Looking across the region, Manchester is the only community with significant rates of crowding, as defined as 2.8 to 10 persons per room[75] (**Map 26**).

Map 26: 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; anything higher than 30% results in a significant financial strain. Yet, given rising housing costs, the price of housing weighs heavily on low-income families who struggle to find affordable housing.[76] Based on cost of living estimates, the livable wage for single-parent families with two children in NH is $27/hour, nearly four times the current minimum wage of $7.25.[77] When families pay a significant portion of their income on housing, there are limited resources for other necessities, such as childcare, food, health care, and transportation, never mind the ability to save and achieve financial stability. A household is considered cost burdened when more than 30% of household income is spent on housing costs (mortgage or rent payment, insurance, and taxes), and severely cost burdened when more than 50% of income is spent on housing costs.

Where does Manchester stand?

Based on US Census data from 2013-2017, there are 45,799 households in Manchester. Among these households, 40% have excessive housing costs. At a national level, communities with rates at or above 40% of the population experiencing housing cost burden are at serious risk of increasing homelessness. Specific neighborhoods have disparate rates of excessive housing costs. Among owner-occupied households, more than 45% of households in Census Tracts 20 and 21 on the West Side and Census Tracts 6, 13, and 15 on the East Side are housing cost burdened. At least 15% of homeowners in Census Tracts 3, 20, 2.03, 15 and 16 are severely cost burdened **(Image 20)**.

Among renters, more than 50% are housing cost burdened in Census Tracts 3, 15, 1.01, 22, and 23 **(Image 20)**.

Based on data from the U.S. Census Bureau 2013-2017, in looking at the number of households that are housing cost burdened, the most significant percentage is among the lowest income earners (**Table 42**).

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

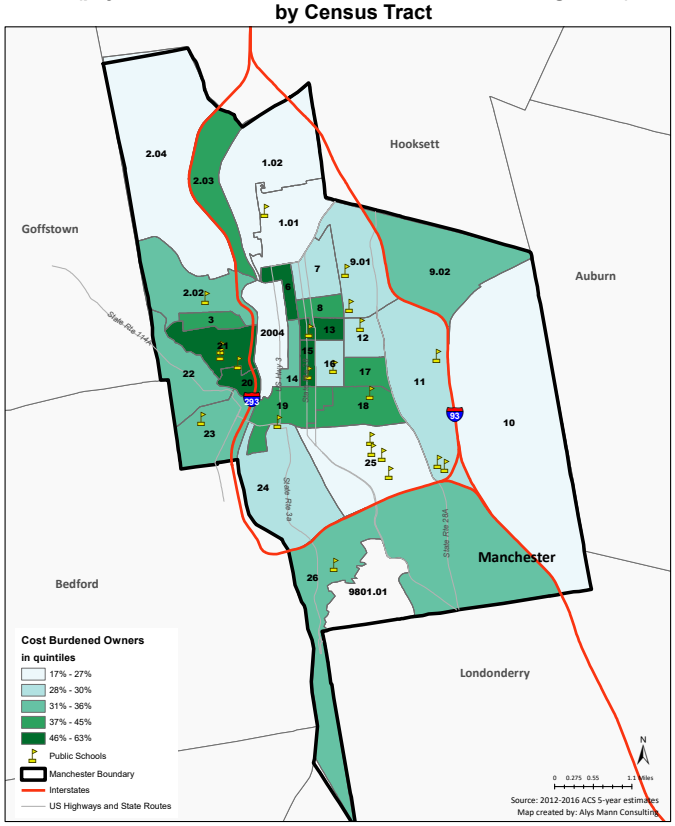
Income Range	*Total # of occupied housing units*	*% of total housing units in Manchester*	*Monthly housing costs less than 20% of income*	*Monthly housing cost 20-29% of income*	*Monthly housing cost more than 30% of income*
<20,000	6804	14.9%	.5%	1.5%	12.9%
$20,000-$34,999	6777	14.8%	.6%	1.6%	12.6%
$35,000-$49,999	5784	12.6%	.9%	5%	6.7%
$50,000-$74,999	9341	20.4%	6.1%	8.6%	5.6%
>$75,000	16197	35.4%	24.2%	9.0%	2.2%

How does the Greater Manchester Region compare?

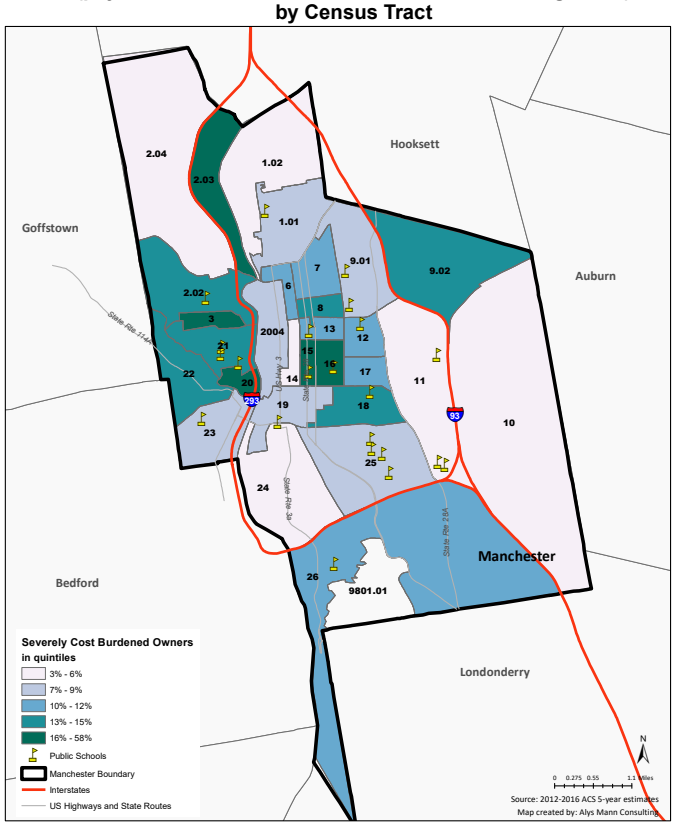
40% of Manchester's households have excessive housing costs, compared to an average of 34.4% in Nashua, NH, and 37% across 500 US cities.

Image 20

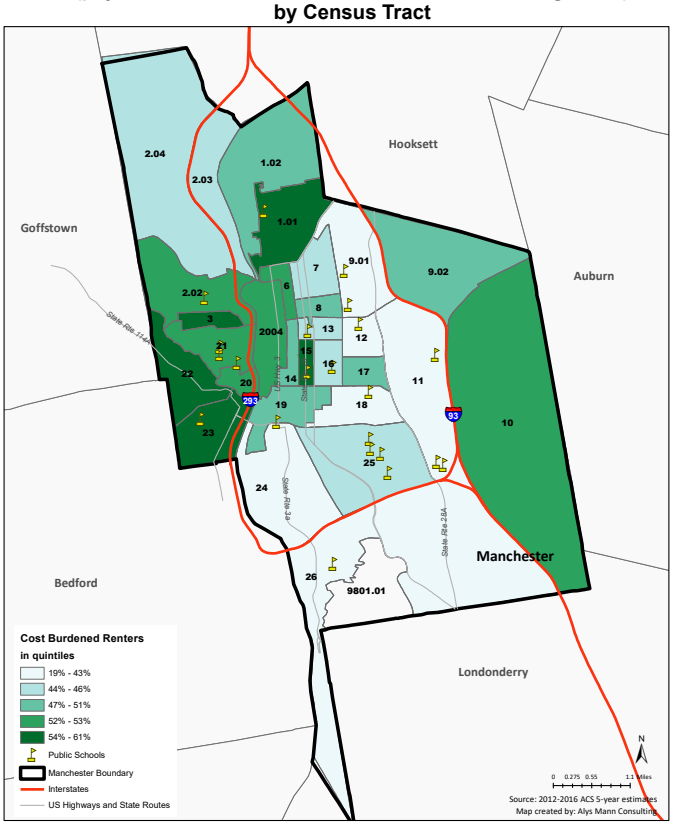
Percent of Owners that are Housing Cost Burdened (pay 30% or more of their income towards housing costs) by Census Tract



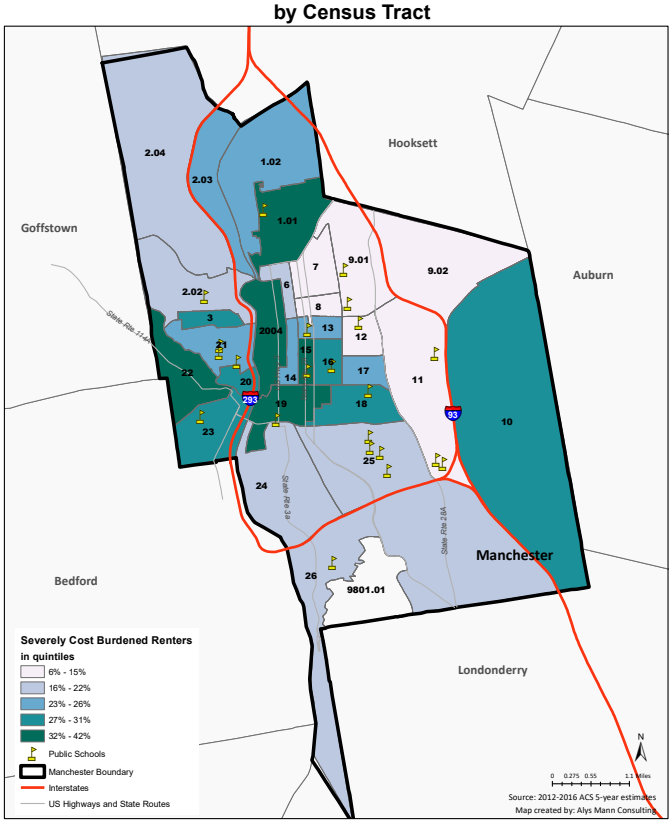
Severely Cost Burdened Owners (pay 50% or more of their income towards housing costs) by Census Tract



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

A recent Columbia University/Urban Institute Report, Urban Blight and Public Health claims that vacant and abandoned properties are one of the primary indicators of neighborhood-level distress.[78] The research presented in this report shares the negative impacts of abandoned buildings and vacant lots on public health and safety including their association with lower literacy, and higher rates of violence, chronic illness, unhealthy eating and exercise habits, and a breakdown of social networks and capital.

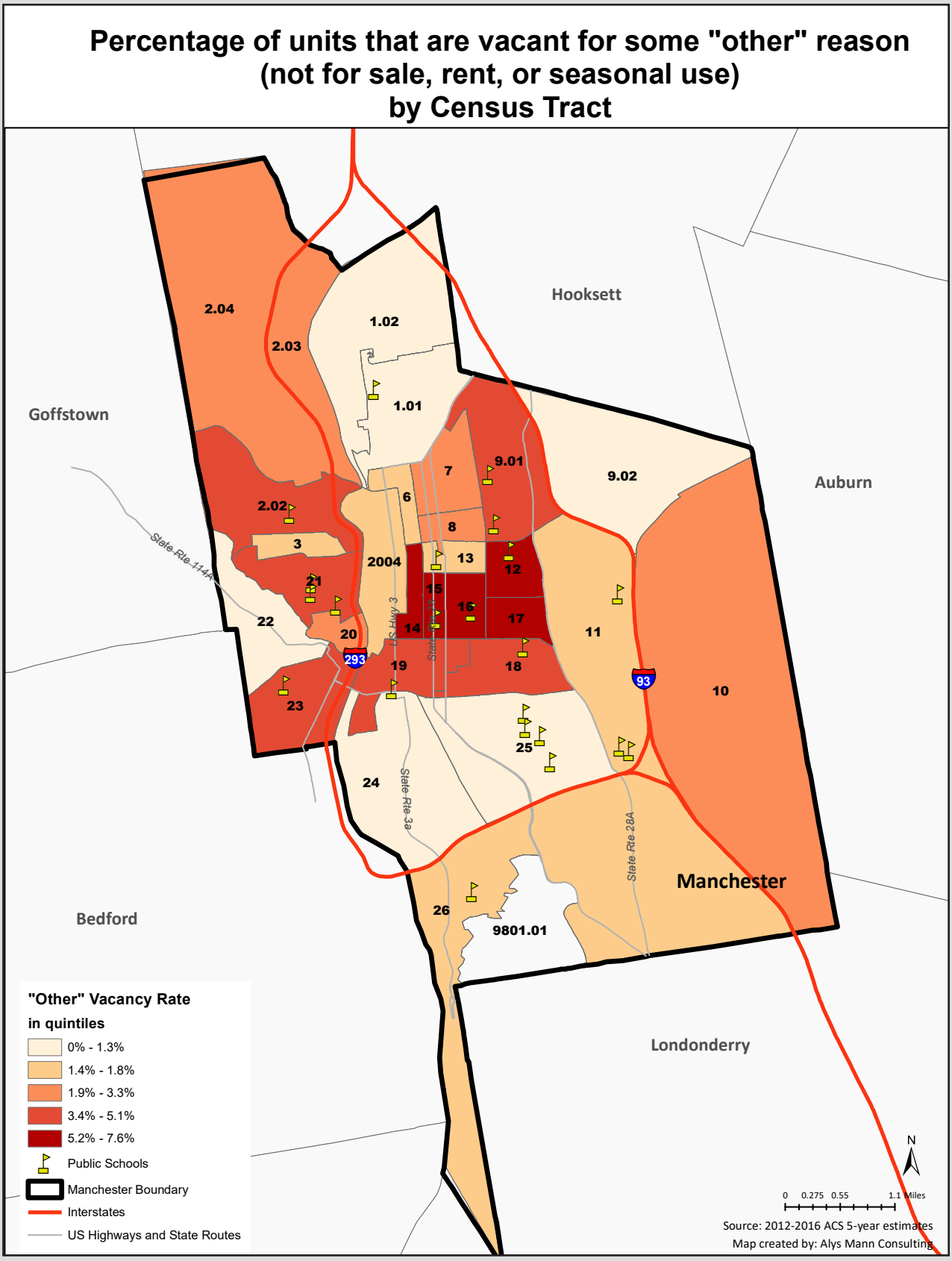
Where does Manchester Stand?

Manchester's center city neighborhoods, including Census tracts 12, 14, 15, 16 and 17 have higher rates of vacant units than other areas of the city (**Map 27**).

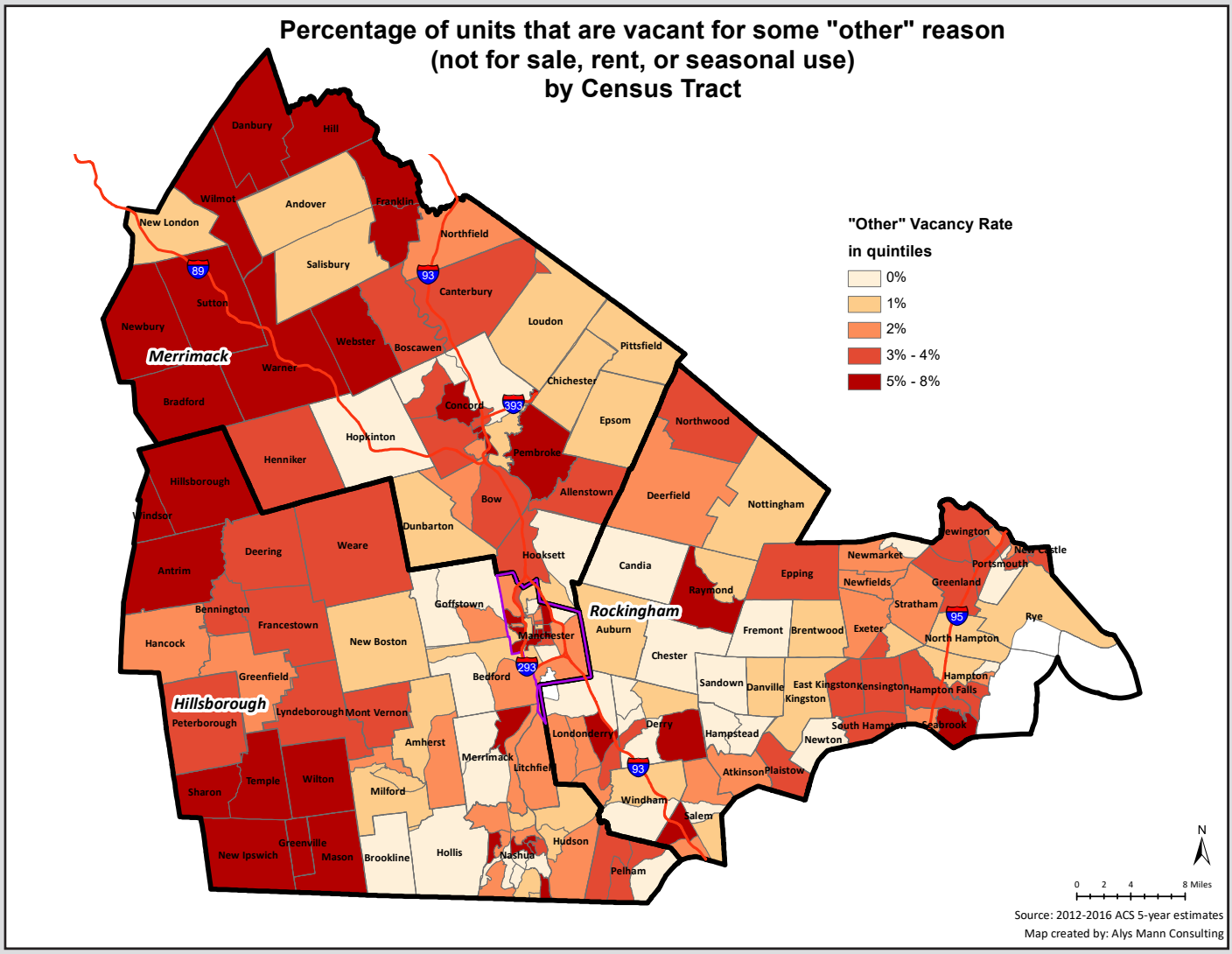
How does the Greater Manchester Region Compare?

Manchester is the only community in the region with high rates of vacant units (5-8%) with surrounding towns falling predominately within the 0-2% rate of units that are vacant. Hooksett, however, does indicate areas with a rate of 3-4% vacancies (**Map 28**).

Map 27


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
2.02
3
2004
7
6
8
9.01
9.02
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 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 28


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
Loudon
Pittsfield
Sutton
Newbury
Webster
Boscawen
Warner
Chichester
Concord
Bradford
Hopkinton
Epsom
Northwood
Henniker
Pembroke
Hillsborough
Allenstown
Deerfield
Nottingham
Bow
Dunbarton
Windsor
Deering
Weare
Hooksett
Candia
Antrim
Goffstown
Raymond
Epping
Newmarket
Newfields
Greenland
Portsmouth
Bennington
Francestown
Auburn
Manchester
Fremont
Brentwood
Exeter
Stratham
Rye
Hancock
New Boston
Chester
North Hampton
Greenfield
Bedford
Sandown
Danville
East Kingston
Kingston
Kensington
Hampton
Hampton Falls
Peterborough
Lyndeborough
Mont Vernon
Amherst
Londonderry
Derry
Hampstead
Newton
Seabrook
Merrimack
Litchfield
Atkinson
Plaistow
Sharon
Temple
Wilton
Milford
Windham
Salem
Greenville
New Ipswich
Mason
Brookline
Hollis
Nashua
Hudson
Pelham
N
0 2 4 8 Miles
Source: 2012-2016 ACS 5-year estimates
Map created by: Alys Mann Consulting

FACTOR 2: TRANSPORTATION

When we look at the transit system of a community, we must consider 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

Each year the average United States resident drives more than 10,000 miles,[79] with 74% of all short motor vehicle trips (two miles or less) being traveled by car.[80] While access to a personal vehicle affords a sense of independence and control, dependence on driving leads to traffic-related injuries and deaths, as well as exposure to air pollution. Also, driving leads to physical inactivity and obesity with each hour spent in a car per day associated with a 6% increase in the likelihood of obesity.[81]

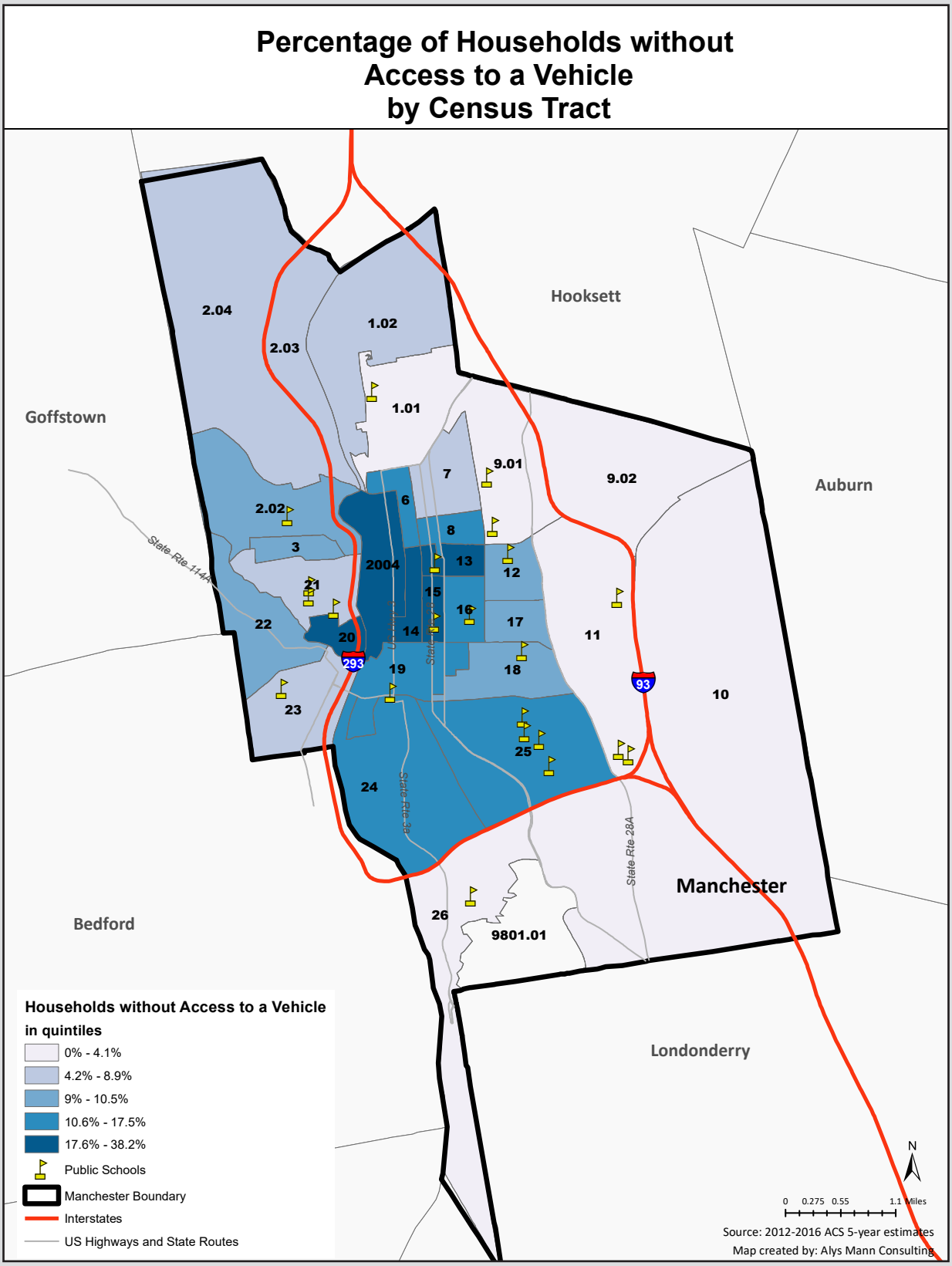
Where does Manchester stand?

While the majority of Manchester residents have access to a vehicle, a significant population within the center city neighborhoods lacks access. Between 10.6% and 17.5% of residents in Census Tracts 6, 8, 16, 19, 24 and 25 lack access to a vehicle; and between 17.6% and 38.2% of residents in Census Tracts 13, 14, 15, 29 and 2004 lack access to a vehicle (**Map 29**).

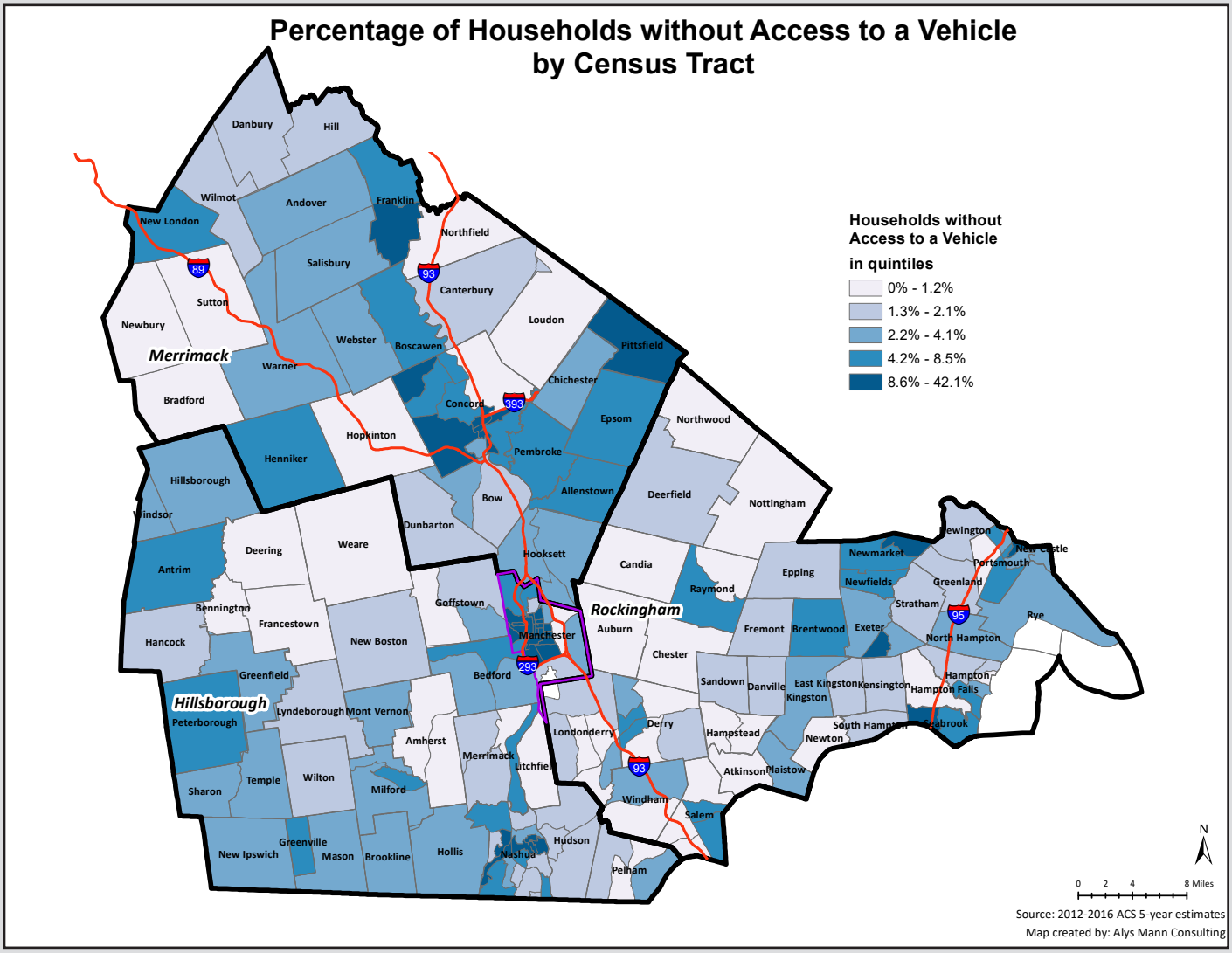
How does the Greater Manchester Region compare?

Across the Region, Manchester is the only community with high rates (8.6%-38.2%) of households without access to a vehicle. A portion of Bedford has a slightly increased rate of households without access to a vehicle (4.2%-8.6%) compared to the rest of the region (besides Manchester). The remaining communities in the region have a small percentage (0-4.1%) of households without access to a vehicle (**Map 30**).

Map 29


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
2.02
3
2004
6
7
8
9.01
9.02
12
13
15
16
17
11
10
21
22
20
14
19
18
23
24
25
26
9801.01
293
93
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 30



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 with less reliance on vehicle use. Walkability is measured by the density of intersections and residences, as well as the accessibility on foot to grocery stores, parks, and restaurants in a neighborhood.

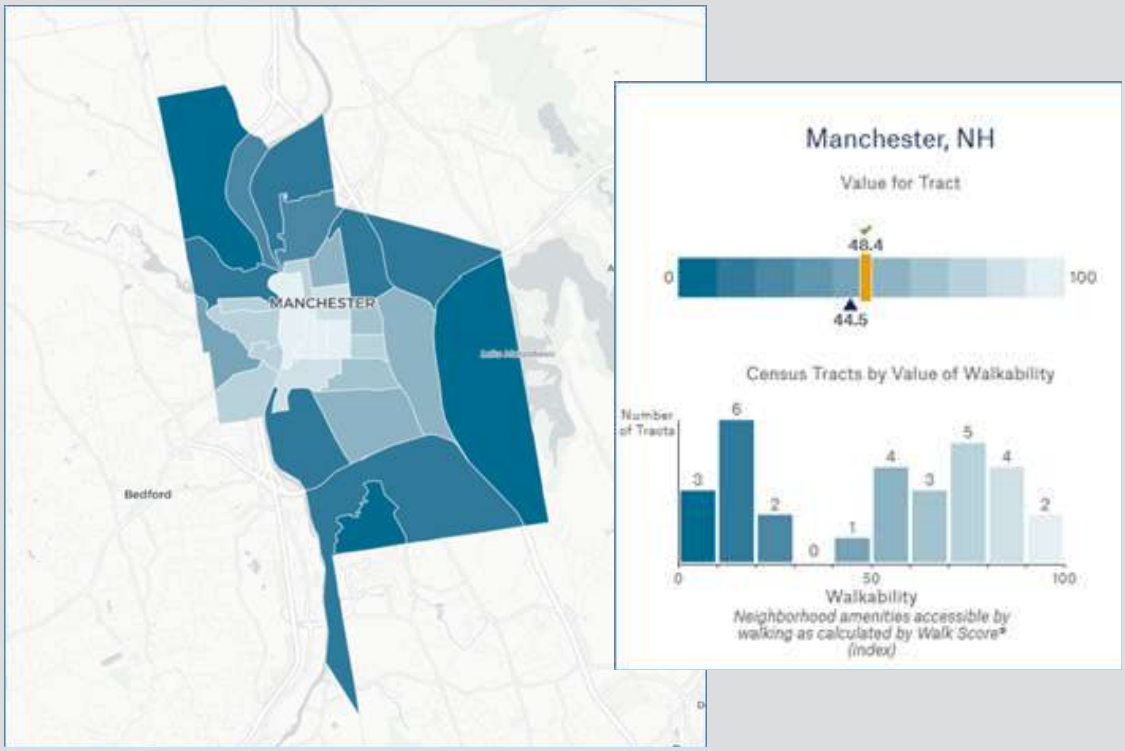
Where does Manchester Stand?

Manchester has a walkability score of 48.4, which means it falls on the cusp of being a car-dependent community (scores 25-49) and a somewhat walkable community (scores 50-69). Manchester has a better walkability score within its center city neighborhoods than within the outskirts, with scores above 85 in Census Tracts 14, 15, 16, and 2004. Census Tracts 2.04 and 10 have walkability scores of less than 10 (**Map 31**).

How does the Greater Manchester Region compare?

Manchester's walkability score of 48.4 is slightly better than the average walkability score among the average for the 500 cities, which is 44.5, and higher than the city of Nashua, NH, which has a walkability score of 37.

Map 31: Walkability – Manchester (2018)



FACTOR 3: HEALTH PROMOTING ASSETS

Numerous studies have explored the association between access to healthy food and proximity to green space/parks and their impact on health outcome, proving a strong correlation to health promotion and disease reduction. Increased physical activity and a nutritional diet are associated with lower risks of type 2 diabetes, cancer, stroke, hypertension, and cardiovascular disease.[82]

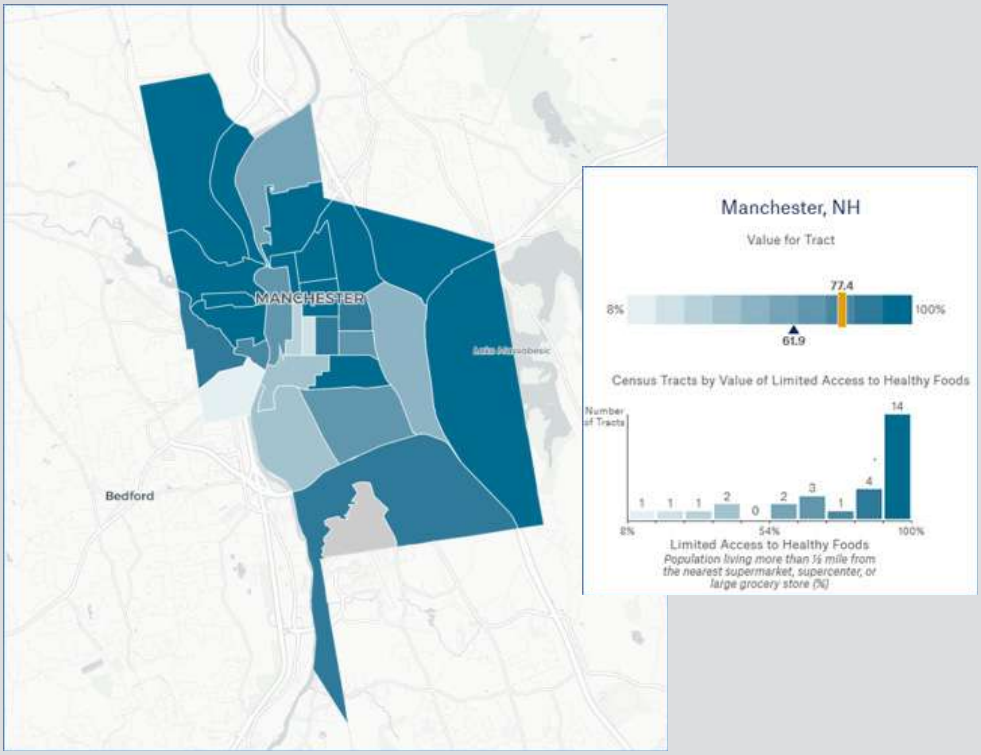
Access to Healthy Foods

A number of factors can impact an individual's access to healthy foods, such as the distance to grocery stores and restaurants, local food prices, and the availability of nutrition assistance programs. Living in an environment with limited access to supermarkets that offer fresh meat, fish, and produce combined with a high number of fast food restaurants increases the risk of developing obesity and related health consequences.

Where does Manchester stand?

To determine the extent to which Manchester residents have access to healthy foods, this assessment used a metric to determine the percentage of residents who live more than a ½ mile from a supermarket and found that 77.4% residents lack access to healthy foods. Since certain Census Tracts are located more than ½ mile from a supermarket, 100% of residents in Tracts 1.01, 2.02, 2.03, 3, 7, 9.02, 9.01, 10, 13, and 21 lack access to healthy foods. Moreover, all but one neighborhood on the West side of the City has more than 50% of its residents with limited food access (**Map 32**).

Map 32: Limited Access to Healthy Food – Manchester (2015)



Among Manchester's diverse community, Manchester's Asian population has the most significant percentage of the population with limited access to healthy foods than other racial/ethnic group (**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 rate of Manchester residents with limited access to healthy foods (77.4%) was slightly less than Nashua's rate of 78.5%, yet higher than the average rate across 500 cities, which was 61.9%.

Park Access

Parks provide public spaces for residents to be physically active and to connect with the community. Evidence suggests that living in close proximity to a park is a predictor of physical activity[83] and that those who live within a half mile of a park are likely to engage in physical activity . Green spaces also create a restorative environment that can moderate stress levels and promote physical well-being.

Where does Manchester stand?

More than 61.2% of Manchester residents live within a 10-minute walk to a park. Manchester's significant park access was illustrated as part of the Active Recreation Inventory completed in ten NH communities by the Healthy Eating Active Living (HEAL) NH Active Recreation Workgroup as part of the NH Healthy People Healthy Places (HPHP) Plan[84] (**Images 21 & 22**).

How does the Greater Manchester Region compare?

The percentage of Manchester residents with park access is consistent with rates across the 500 cities (61.2% vs. 60.6%). Park access is better in Manchester as compared to Nashua, NH, where park access is only 53.3%.

Image 21

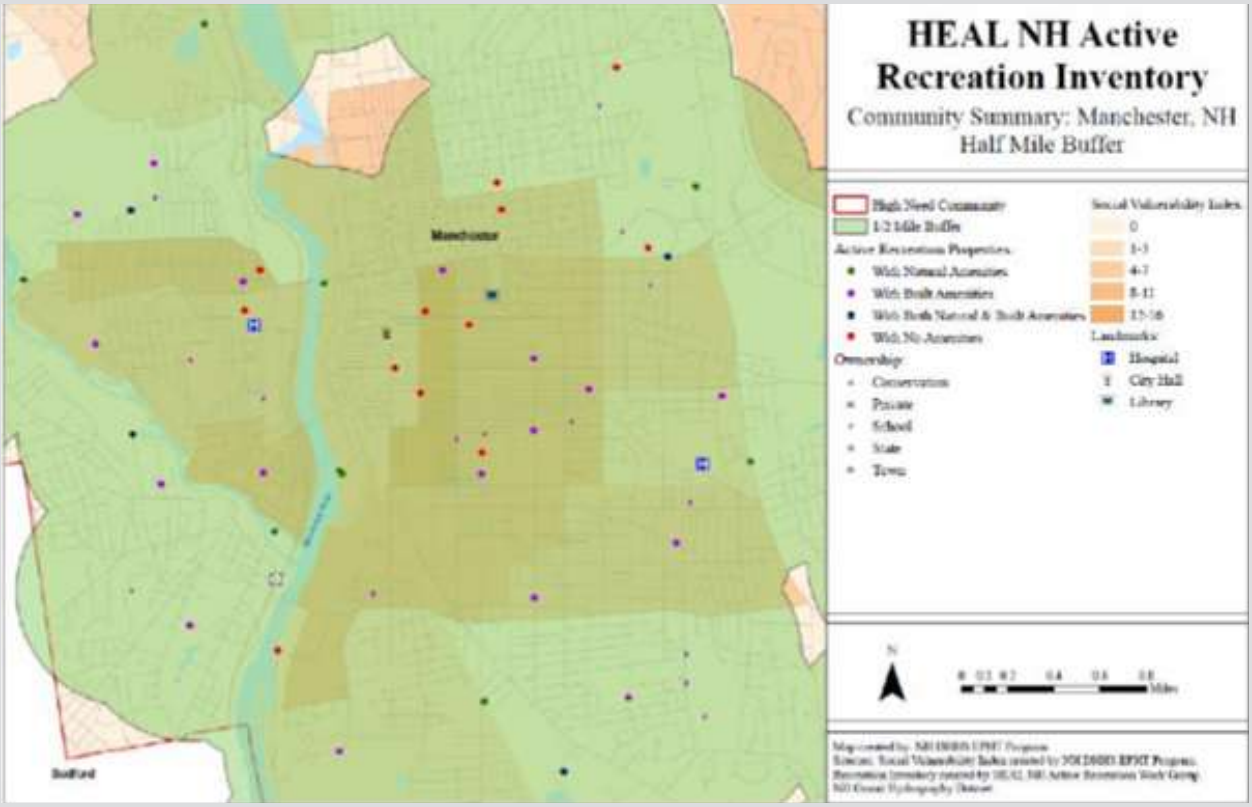
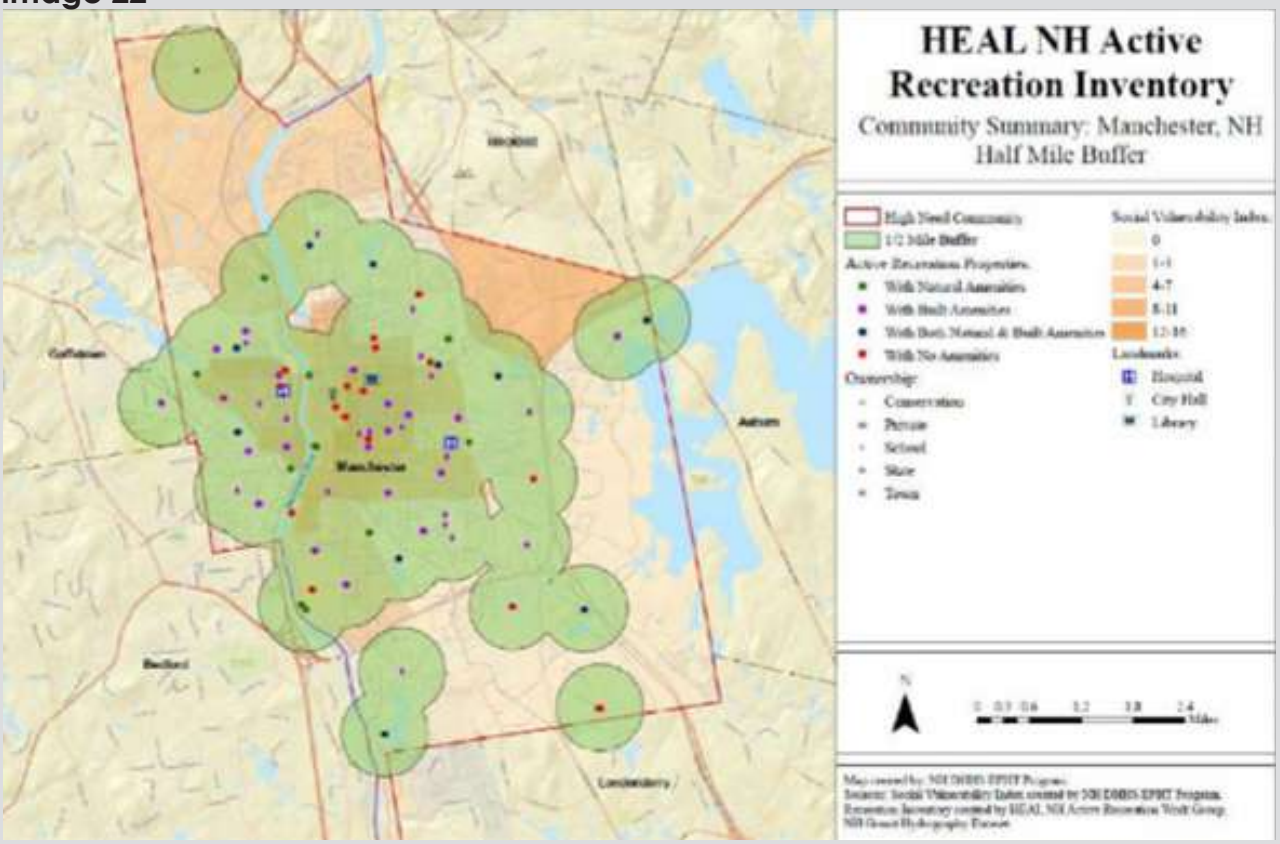


Image 22



PHYSICAL ENVIRONMENT

Input from Community and Resident Leaders

The physical environmental factors that determine health include air and water quality, housing, 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%	69.6%

Manchester Health Improvement Goal #5:

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

VII. HEALTH OUTCOMES & OPPORTUNITY

Health Outcomes present a picture of the current status of the physical and mental health of residents. All of the health factors previously explored in this assessment – health behaviors, clinical care, social and economic factors, and the physical environment – contribute to health outcomes. By looking at health outcomes with consideration for length of life and quality of life, we can determine whether people are living long, healthy lives, and how they felt while alive.

FACTOR 1: LENGTH OF LIFE

The County Health Rankings and Roadmaps provides recommended measures to assess the length of life, including life expectancy, to help to determine if people in one community are dying earlier than those in other communities, or if variation exists based on income, race, and ethnicity.

Life Expectancy

Life expectancy is a measure of the average time a person is expected to live based on a range demographic indicators and health factors, including access to medical care, physical environment characteristics, employment opportunities, social inequalities, health behaviors, and preventable health conditions.[85] According to the National Center for Health Statistics, in 2016, the life expectancy at birth for the total population in the U.S. was 78.6 years.[86]

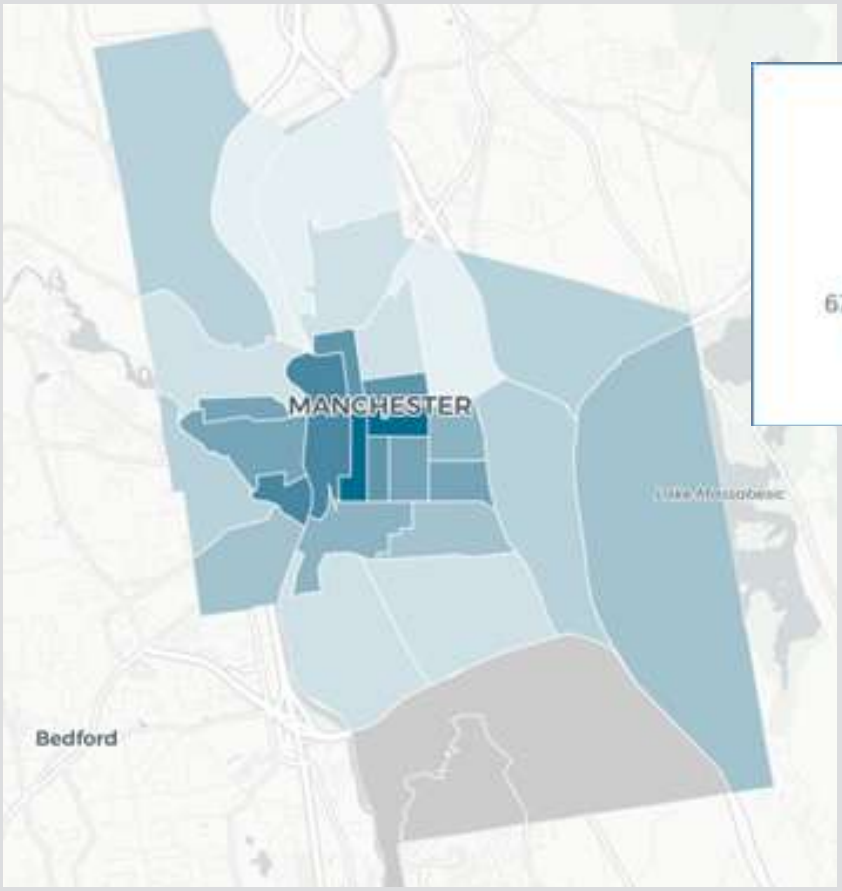
Where does Manchester stand?

Manchester's life expectancy rate in 2015 was 77.6 years, which is the average number of years a person in Manchester can expect to live from birth. Life expectancy was lower for residents in particular neighborhoods. Specifically, it was less than 70 years for residents in Census Tracts 13 and 17 and was between 70-74 years for Census Tracts 6, 8, 15, 20 and 2004 (**Map 33**).

How does the Greater Manchester Region compare?

Manchester's average life expectancy at birth of 77.6 years is lower than Nashua, NH's life expectancy rate of 79.7 years, and lower than the average of 78.8 years across the 500 cities nationally.

Map 33: Life Expectancy, Manchester Neighborhoods, 2015



Premature Death

Premature death is defined as years of potential life lost before age 75 per 100,000 population (age-adjusted).[87] County Health Rankings and Roadmaps recommends measuring premature mortality, rather than overall morality, because it also focuses on deaths that could have been prevented.

Where does Manchester Stand?

Manchester had 8,900 years of potential life lost per 100,000 population, compared to an average of 7,431 years across the 500 cities nationally and 6,900 years in Nashua, NH. This suggests that Manchester has a higher rate of deaths that are for preventable causes. The leading preventable deaths are typically related to health behaviors, such as substance misuse or obesity.

How does the Greater Manchester Region compare?

Looking across the New Hampshire at years of potential life lost before age 75 per 100,000 (age adjusted), Hillsborough County has a premature death rate of 6,800 years, which fell within the average range of other counties in the State (**Table 44**).

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

Geography	*Years of Potential Life Lost Rate*
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

Based on 2016 data from the National Center for Health Statistics, the leading causes of death in the United States for individuals of all age groups were heart disease, cancer, and unintentional injuries.[89] From 1999 to 2016, the rate of opioid overdose deaths quadrupled in the country, and now account for the majority of all drug overdose deaths.[90]

Where does Manchester stand?

Based on 2016-2018 mortality data provided by the New Hampshire Department of Health and Human Services,[91] the top five leading causes of death among Manchester residents of all ages were heart disease, cancer, unintentional injuries, chronic lower respiratory diseases, and Alzheimer's disease (**Table 45**). Nearly one in every four deaths in Manchester is related to diseases of the heart. Common diseases of the heart include coronary artery disease (artery blockage), heart attack, high blood pressure, and heart failure. Of note, Accidents (unintentional injuries), which is the 3rd leading cause of death in Manchester, includes deaths due to substance misuse as an unintentional poisoning.

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

Rank	*Cause*		*%*	*Rate per 100,000 population*
1	Diseases of heart	756	23.1%	227.9
2	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

Among Manchester's youngest residents, age birth-6, the top five causes of death were conditions originating in the perinatal period (represents 54.8% of all deaths for this age group), accidents (unintentional injuries), congenital malformations/deformations/chromosomal abnormalities, cancer, and assault (homicide). For children age 7-17 in Manchester, the top three causes of death were accidents (unintentional injuries), aortic aneurysm and dissection, and intentional self-harm (suicide). Among younger populations of Manchester residents, the top five causes of death among young adults age 18-24 were accidents (unintentional injuries), intentional self-harm (suicide), cancer, assault (homicide), and diabetes. Accidents represent 56.8% of all deaths for this age group.

When examining mortality data for adults age 25-64, the number one cause of death was unintentional injuries. As mentioned above, this cause includes overdose deaths related to substance misuse **(Table 46)**. Also, among the top five causes were intentional self-harm (suicide), resulting from Manchester's high rates of mental distress discussed later in this section, and chronic liver disease and cirrhosis, resulting in part to Manchester' high rates of alcohol and substance use presented earlier in this assessment document.

Table 46: Leading Causes of Death, 25-64 years, Manchester, 2016-2018

Rank	*Cause*	*Death*	*%*	*Rate*
1	Accidents (unintentional injuries)	256	26.3%	138.8
2	Cancer	169	17.4%	91.6
3	Diseases of heart	137	14.1%	74.3
4	Intentional self-harm (suicide)	64	6.6%	34.7
5	Chronic liver disease and cirrhosis	37	3.8%	20.1

In looking at particular age groups, there was variation in the cause of death. Among older adults, age 65+, the leading causes of death were heart disease, cancer, chronic lower respiratory diseases, Alzheimer's disease, and cerebrovascular disease.

How does the Greater Manchester region compare?

The Greater Manchester region is consistent with Manchester for the leading causes of death for all ages. However, the Greater Manchester region differs from NH in its leading cause of death, which is heart disease not cancer like the rest of the State. Additionally, Alzheimer's disease is among the fifth leading cause of death in the region while it is Cerebrovascular disease for the rest of NH **(Table 47)**.

Table 47: 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***
Heart Disease	227.9	1	205.8	1	192.4	2
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					34	5

Among children birth-6 years, the rate of certain conditions originating in the perinatal period is significantly higher in Manchester than Greater Manchester and NH (**Table 48**). The perinatal period is defined as time period immediately before, during, and after birth. Examples of these conditions include, but no limited to, fetus and newborn affected by maternal factors and by 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. Given the lower rates of prenatal care access in Manchester, the difference in this rate from the rest of NH is notable.

Table 48: 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

For youth ages 7-17 years, the leading cause of death at all geographic levels was accidents (unintentional injuries, **Table 49**).

Table 49: 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

Among young adults age 18-24, the leading cause of death was accidents (unintentional injuries) and intentional self-harm (suicide) at the City, Region, and State level **(Table 50)**.

Table 50: Leading Causes of Death, 18-24 years, 2016-2018

Cause of Young Death Adults 18-24	*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 rate size*

Mortality data for adults age 25-64 was consistent in cause and rank when comparing Manchester data with the Greater Manchester Region. However, at the State level, there were more people who died from cancer than accidents; and the fifth leading cause of death was chronic lower respiratory diseases as compared to chronic liver disease and cirrhosis at the City and Region **(Table 51)**.

Table 51: Leading Causes of Death, 25-64 years, 2016-2018

Cause of Death Adults 25-64	*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 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

Mortality data for older adults age 65+ was consistent in cause and rank when comparing Manchester data with the Greater Manchester Region and New Hampshire **(Table 52)**.

Table 52: Leading Causes of Death, 65+ Years, 2016-2018

Cause of Death Adults 65+	*Manchester*		*Greater Manchester (HSA)*		*New Hampshire*	
	Rate	*Rank*	*Rate*	*Rank*	*Rate*	*Rank*
Diseases of 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

Assessing the quality of life indicators can inform communities about how residents perceive their health – whether they feel healthy and satisfied. By exploring such quality of life indicators as physical and mental distress, or adverse childhood experiences, communities can better understand how such factors impact other areas of wellbeing.[92] Evidence suggests adversity in childhood, such as child maltreatment, continues to affect the mental and behavioral health trajectory of adults and therefore impacts the perceived quality of life.[93,94] Given that intentional self-harm was among the leading causes of death among adults age 18-64, it is clear that many Manchester residents are impacted by trauma and mental distress.

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. ACEs include domestic violence, substance abuse by a caregiver, emotional and sexual abuse, maternal depression, physical and emotional neglect, a divorce of parents, mental illness among parents or caregivers, incarceration of a parent, and homelessness. As the number of ACEs increases, so does the risk for adverse outcomes.[95]

Where does Manchester stand?

Based on BRFSS data, 9.5% of Manchester residents or nearly 1 in 10 adults reported having experienced four or more adverse childhood experiences.

How does the Greater Manchester Region compare?

Manchester's rate of adults who experienced four or more adverse childhood experiences was slightly higher than the rate for the Greater Manchester Region (9.1%) and the rate of New Hampshire (9.1%).

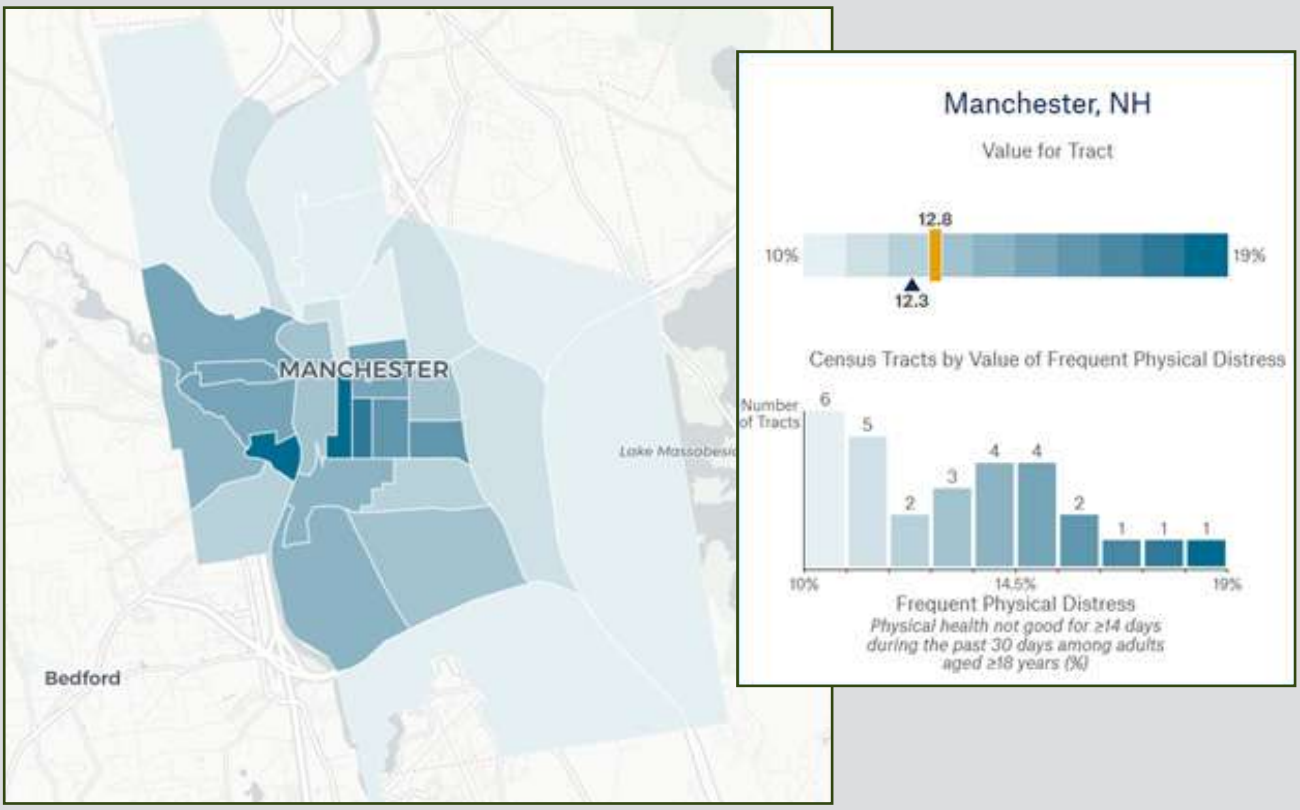
Frequent Physical and Mental Distress

Frequent Physical and Mental Distress are self-reported measures to determine the extent to which someone is experiencing chronic physical and mental conditions. According to the Centers for Disease Control and Prevention (CDC), those 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 is linked to such chronic conditions such as 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?

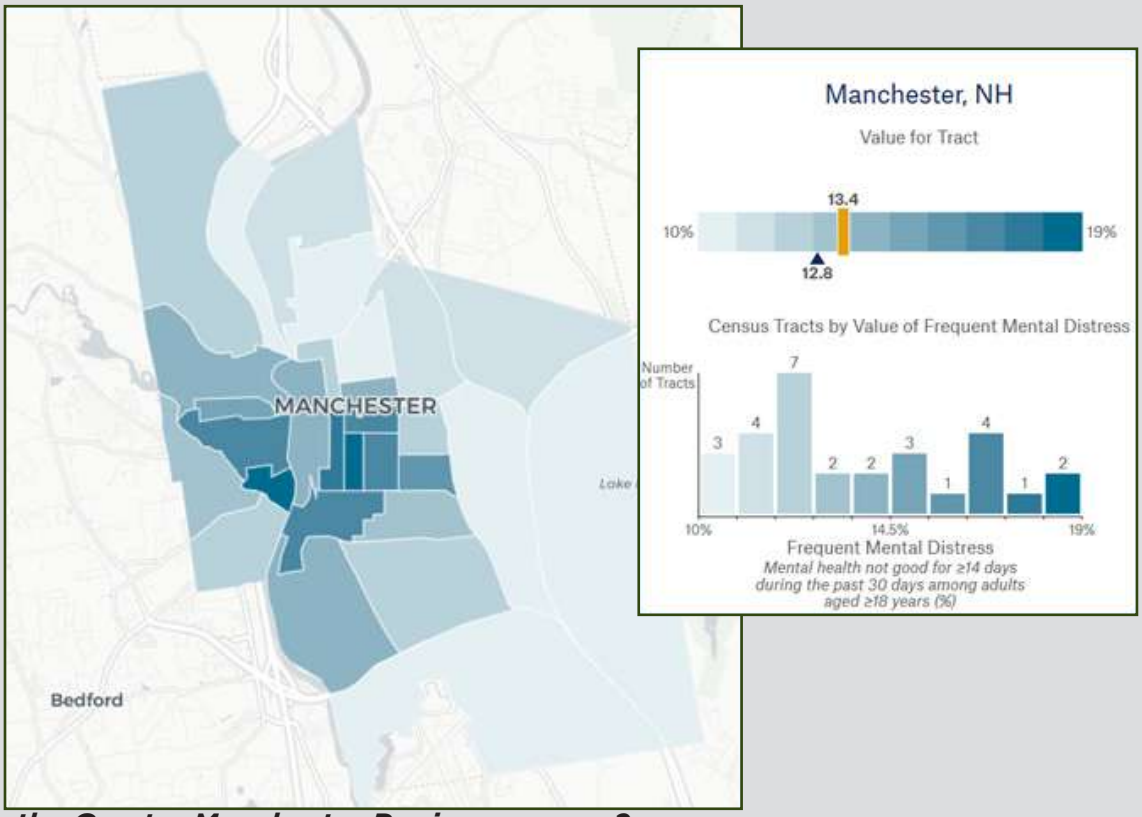
During 2016, 12.8% of Manchester adults reported frequent physical distress where their physical health was not good for more than 14 days during the past 30 days. Frequent physical distress was most significant among residents in Census Tracts, 14, 15, and 20 in which between 17-18% of the population reported frequent physical distress (**Map 34**).

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



During this same time period, 13.4% of Manchester adults reported frequent mental distress where their mental health was not good for more than 14 days during the past 30 days. Frequent mental distress was most significant among residents in Census Tracts 15 and 20 in which at least 18% or nearly 1 in 5 residents reported frequent mental distress (**Map 35**).

Map 35: Frequent Mental Distress – Manchester Neighborhoods (2016)



How does the Greater Manchester Region compare?

The percentage of Manchester adults who reported frequent mental distress was higher than the rate in Nashua, NH, and consistent with the average rate across the 500 cities nationally. Manchester rates of physical distress are consistent with the average rate across the 500 cities nationally and in Nashua, NH. However, as outlined above, rates are even higher in specific neighborhood areas in the City.

Child Abuse and Neglect

The Federal Child Abuse Prevention and Treatment Act (CAPTA) 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 (including sexual abuse as determined under section 111), or an act or failure to act which presents an imminent risk of serious harm".[97] Unfortunately, New Hampshire has seen a 33% increase in the number of accepted referrals for child abuse and neglect assessments between 2013-2017, with more than 12,000 reports of child maltreatment Statewide.[98]

Where does Manchester stand?

In 2016, DCYF accepted 11,197 assessments that were assigned to District Offices for investigation, with Manchester receiving the largest number of assessments in the State (1,691 cases). Of these Manchester-assigned cases, 57.3% were assessments in which substance misuse was determined to be a risk factor for the maltreatment. Also, in 2016, DCYF had an increase of 27% of children/youth involved in cases (both placement and in-home) Statewide (1,403). The most significant increase was seen in Manchester with 69%.

How does the Greater Manchester Region Compare?

Across the State, 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. District offices with the highest number of assessments included Manchester (1,691 cases), Nashua (1,532 cases), Concord (1,485 cases), and the Seacoast (1079 cases). In all of these communities, approximately half of these assessments included a substance abuse risk factor (**Image 23**).

Image 23

	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

The Urban Institute asserts that persistent poverty and limited economic opportunity remain a challenge for far too many Americans, especially given that one in six children are living in poverty in the United States.[99] Experts agree that persistent intergenerational poverty is a complex and daunting problem with evidence suggesting conditions in low-income neighborhoods undermine children's opportunities for success.[100]

Persistent Poverty

Identifying areas of long-term, concentrated poverty is important because it can be related to other issues such as poor housing and health conditions, higher crime rates, poor child development and educational outcomes, and employment dislocation. Persistent poverty is defined as an area that has had 20% or more of its population living in poverty over the past 30 years, as measured by the 1990, 2000, and 2010 decennial census.

Where does Manchester stand?

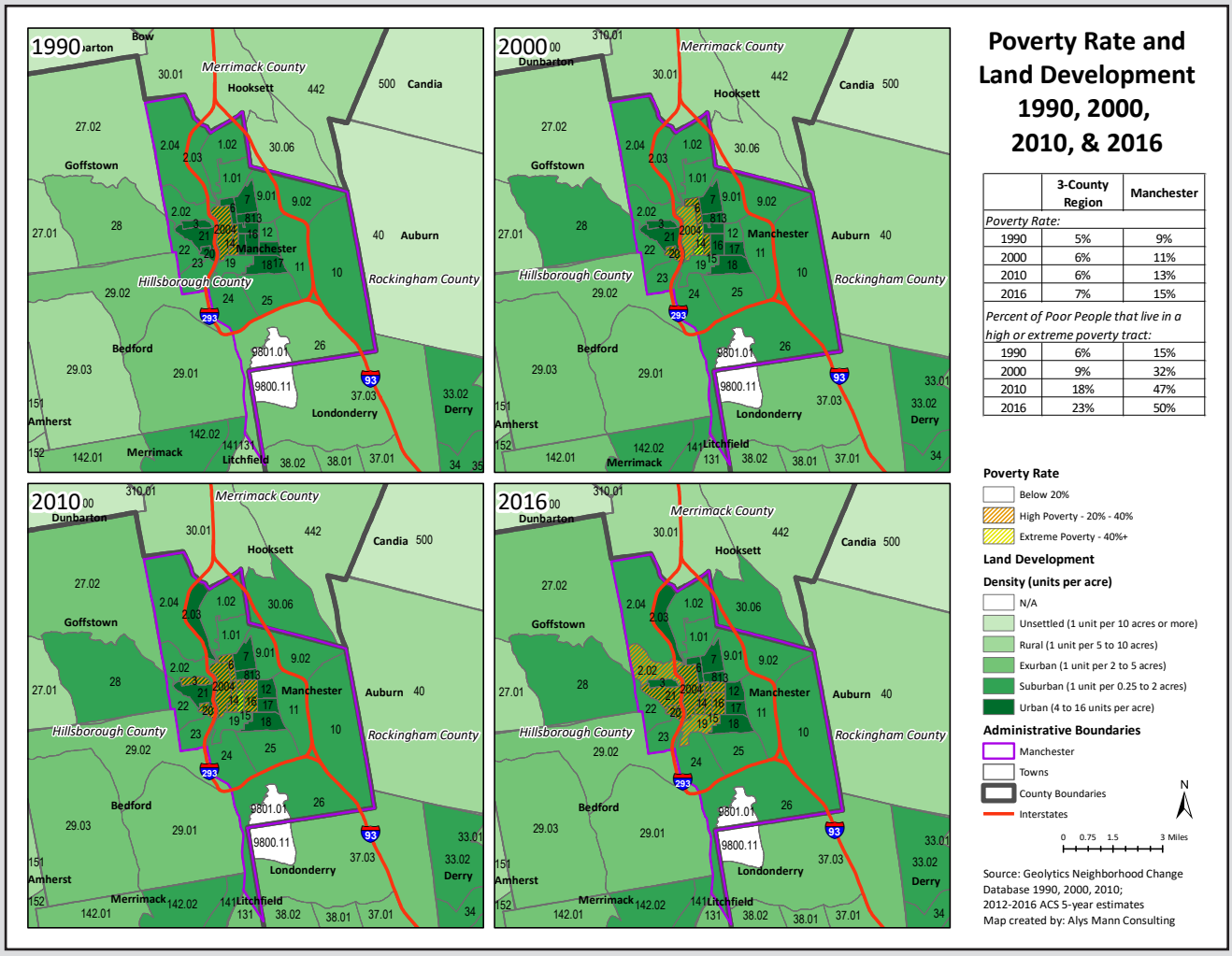
Since 1990, Manchester's center city neighborhoods have experienced high (20%-40% poverty) and extreme (40%+ poverty) poverty rates. Over time, Manchester has only seen an increase in the number of neighborhoods with high and extreme poverty, as shown in the following **Table 53** and subsequent map series. The West side, in particular, has seen a more recent growth in poverty rates at high or extreme levels. Census Tracts 14 and 2004 have had high poverty rates since 1990, and consequently, meet the definition of a neighborhood area that is experiencing 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 United States, 14% of persistent poverty counties are metropolitan areas like Manchester.

Current Levels of Opportunity

Low labor market engagement, high transportation costs, low rates of school proficiency, and low socioeconomic status are indicators that point to persistent poverty and limited future opportunity for residents. In the Urban Institute's Report, Tacking Persistent Poverty in Distressed Urban Neighborhoods, the authors claim that breaking the cycle of persistent poverty requires strategies focusing on increasing high-quality educational opportunities, reducing crime and violence, providing health-promoting services, supporting social networks, and expanding opportunities for financial stability **(Image 26)**.

Where does Manchester stand?

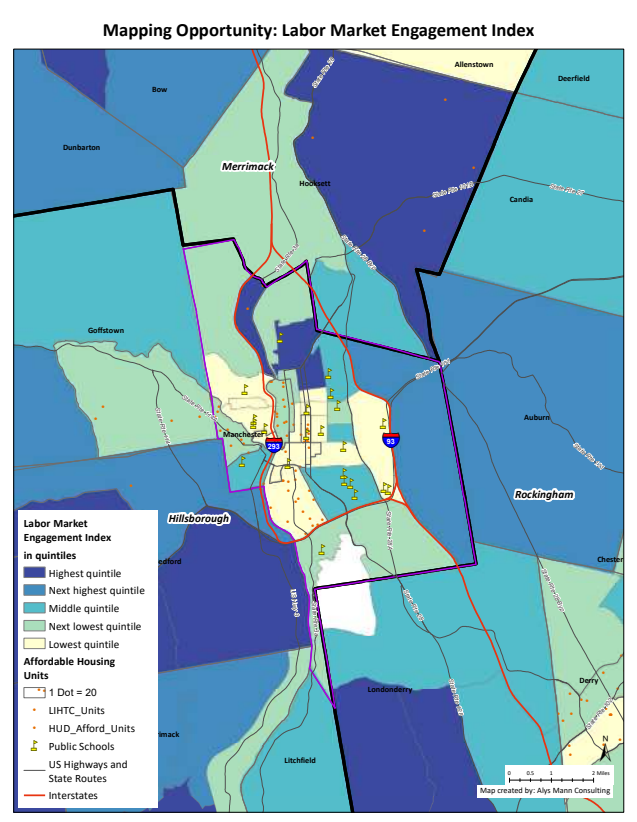
Manchester is currently challenged by low rates of educational attainment, low school proficiency rates, and a low socio-economic index – all of which limit opportunities for residents. However, Manchester is also the primary location for low income housing access; increasing the volume of low income populations residing in neighborhood areas that are already struggling with low opportunity.

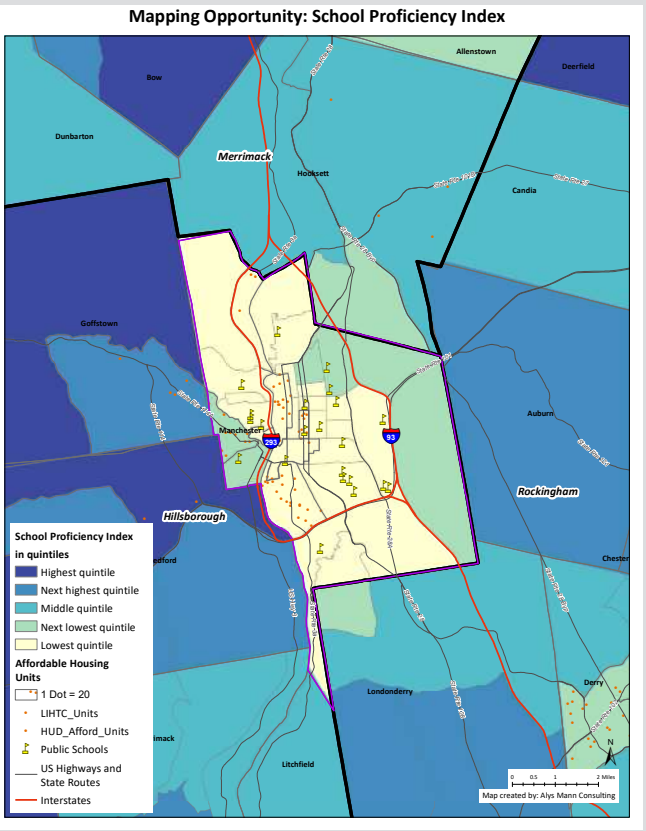
On a positive note, Manchester has the lowest transportation costs in the region **(Image 26)**.

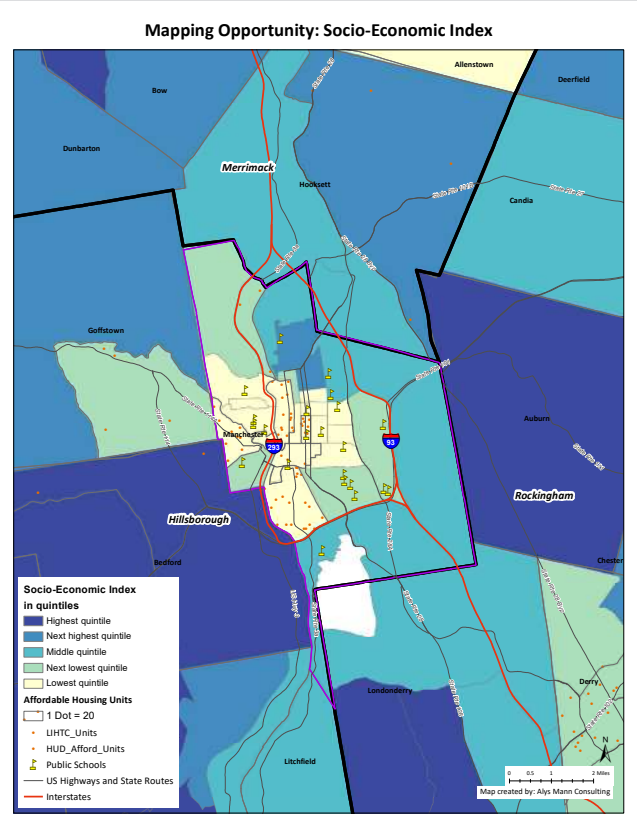
How does the Greater Manchester Region compare?

The following **map 36** displays scores for all 5 opportunity indices – school proficiency index; jobs proximity index, labor market participation index; low transportations cost index; and socio-economic index. In the region, Manchester has the lowest rates of opportunity across all of these factors, while parts of Bedford and Londonderry have the highest opportunity rating.

Image 25


Mapping Opportunity: Labor Market Engagement Index
Allenstown
Deerfield
Bow
Dunbarton
Merrimack
Hooksett
Candia
Goffstown
Manchester
Auburn
Rockingham
Hillsborough
Chester
Londonderry
Derry
Litchfield
Labor Market Engagement 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
Map created by: Alys Mann Consulting


Mapping Opportunity: School Proficiency Index
Allenstown
Deerfield
Bow
Dunbarton
Merrimack
Hooksett
Candia
Goffstown
Manchester
Auburn
Rockingham
Hillsborough
Chester
Londonderry
Derry
Litchfield
School Proficiency 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
Map created by: Alys Mann Consulting


Mapping Opportunity: Socio-Economic Index
Allenstown
Deerfield
Bow
Dunbarton
Merrimack
Hooksett
Candia
Goffstown
Manchester
Auburn
Rockingham
Hillsborough
Bedford
Chester
Londonderry
Derry
Litchfield
Socio-Economic 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
Map created by: Alys Mann Consulting

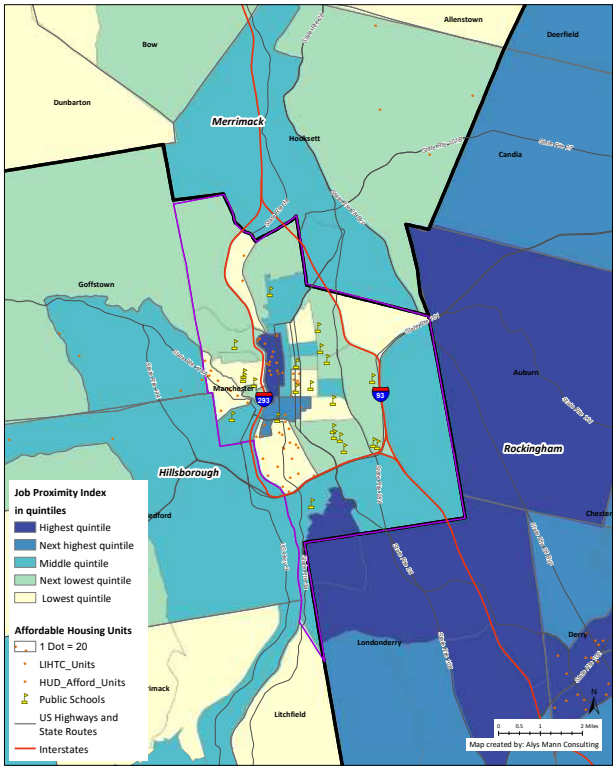
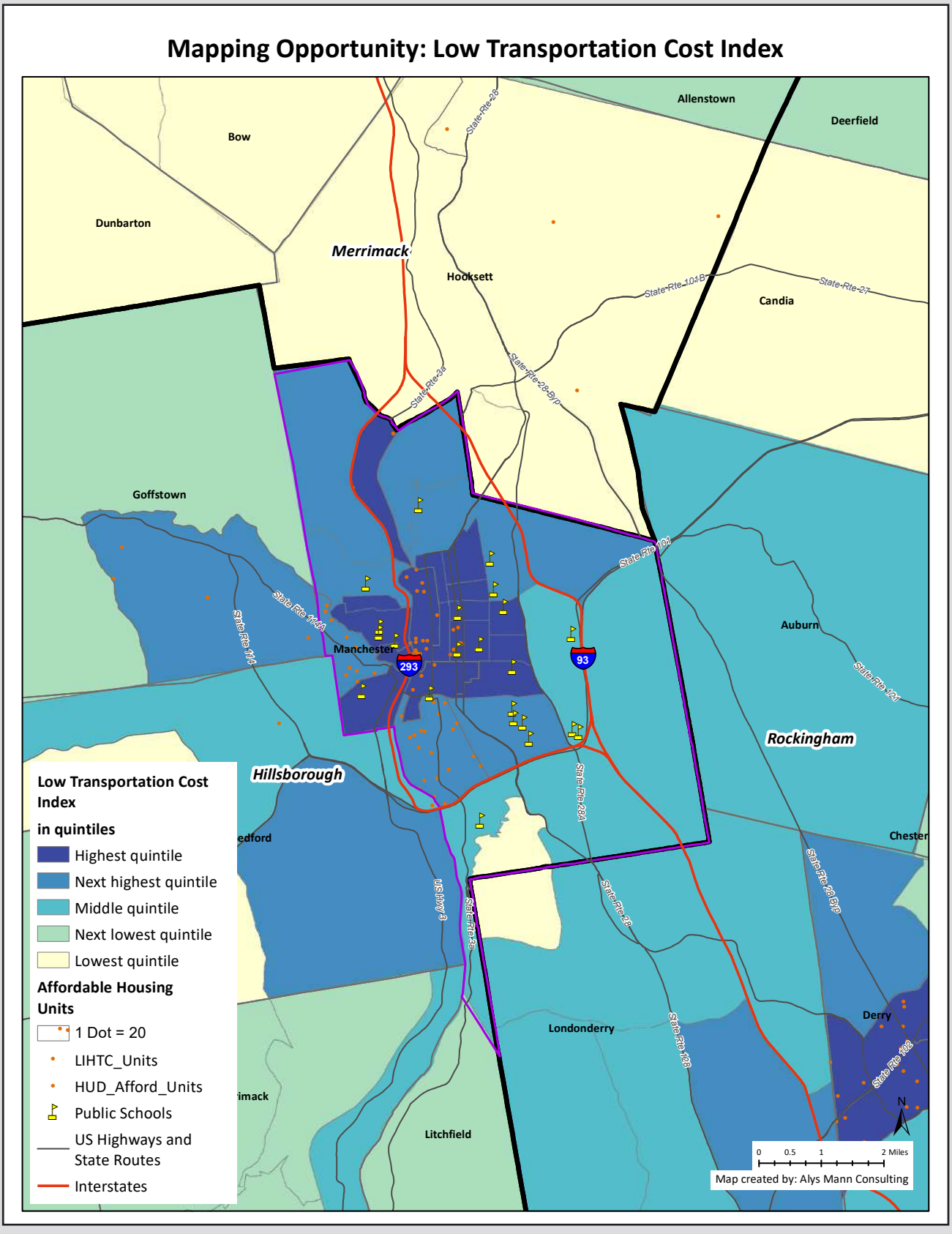
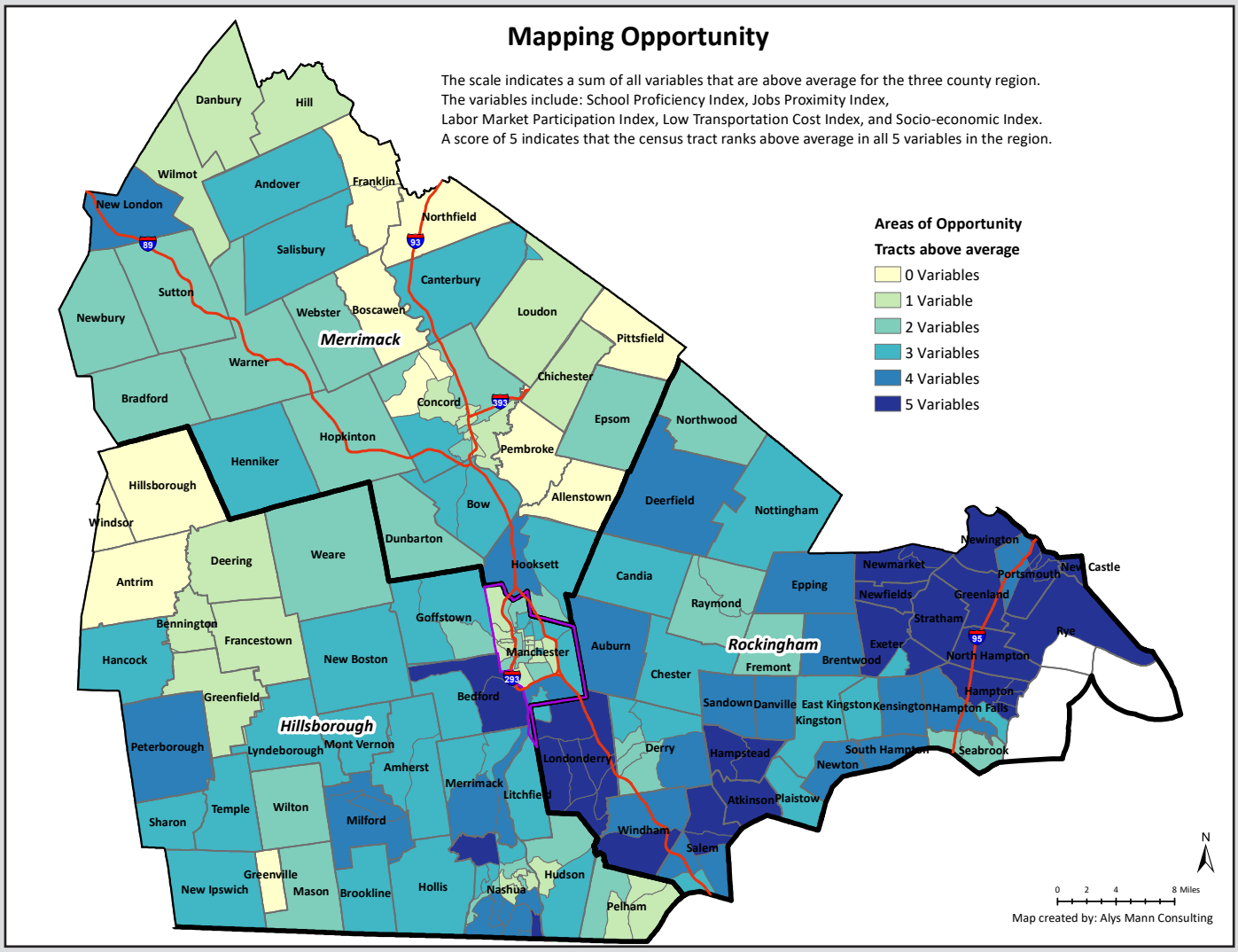

Mapping Opportunity: Jobs Proximity Index
Allenstown
Deerfield
Bow
Dunbarton
Merrimack
Hooksett
Candia
Goffstown
Manchester
Auburn
Rockingham
Hillsborough
Chester
Londonderry
Derry
Litchfield
Job Proximity Index
in quintiles
Highest quintile
Next highest quintile
Middle quintile
Next lowest quintile
Lowest quintile
Affordable Housing Units
1 Dot = 20
LIHTC_Units
HUD_Afford_Units
Public Schools
US Highways and State Routes
Interstates
Map created by: Alys Mann Consulting

Image 26


Mapping Opportunity: Low Transportation Cost Index
Allenstown
Deerfield
Bow
Dunbarton
Merrimack
Hooksett
Candia
Goffstown
Manchester
Auburn
Rockingham
Hillsborough
Londonderry
Derry
Litchfield
Chester
State Rte 28
State Rte 28-Byp
State Rte 3a
State Rte 101
State Rte 101A
State Rte 101B
State Rte 27
State Rte 114
State Rte 114A
State Rte 28A
State Rte 28 Byp
State Rte 128
State Rte 102
US Hwy 3
293
93
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 36


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
Loudon
Sutton
Newbury
Webster
Boscawen
Pittsfield
Warner
Chichester
Bradford
Concord
Epsom
Northwood
Hopkinton
Henniker
Pembroke
Hillsborough
Allenstown
Deerfield
Nottingham
Windsor
Bow
Dunbarton
Newington
Antrim
Deering
Weare
Hooksett
Candia
Newmarket
Portsmouth
New Castle
Epping
Raymond
Newfields
Greenland
Bennington
Goffstown
Stratham
Francestown
Auburn
Exeter
Rye
Hancock
New Boston
Manchester
Fremont
Brentwood
North Hampton
Chester
Greenfield
Bedford
Hampton
Sandown
Danville
East Kingston
Kensington
Hampton Falls
Kingston
Peterborough
Mont Vernon
Lyndeborough
Londonderry
Derry
Hampstead
South Hampton
Seabrook
Amherst
Newton
Merrimack
Litchfield
Atkinson
Plaistow
Sharon
Temple
Wilton
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

Many sources, such as the opportunity indices outlined above, rely on current data to highlight a moment in time that can be used to say something about the current status of health in a neighborhood, community, or region. While this level of analysis is helpful, it lacks the ability to estimate or project future trends for a neighborhood, community, or region over time. Recent studies have established that the neighborhood in which a child grows up has substantial causal effects on his or her prospects of upward mobility, whereas where one lives as an adult has smaller effects. The Opportunity Atlas is the first dataset that provides such longitudinal information at a detailed neighborhood level. Using the Atlas, you can see not just where the rich and poor currently live – which was possible in previously available data from the Census Bureau – but whether children in a given area tend to grow up to become rich or poor. This focus on mobility out of poverty across generations allows us to trace the roots of outcomes, such as poverty and incarceration, back to where kids grew up, potentially permitting much more effective interventions.

Where does Manchester stand?

In Manchester, Census Tract 14 had the lowest estimate of household income for children growing up in this neighborhood ($26,000 annually). Unfortunately, these estimates are forecasting continued generational poverty as adults for children who are growing up in center city neighborhoods. Conversely, Manchester's North End neighborhood area (Census Tract 1.01) has the highest rate of household income at $62,000 annually among children growing up in this area.

How does the Greater Manchester Region compare?

When comparing household income estimates for children growing up in the region, Bedford has the highest earnings for children growing up in this community at $70,000 annually.

Image 27

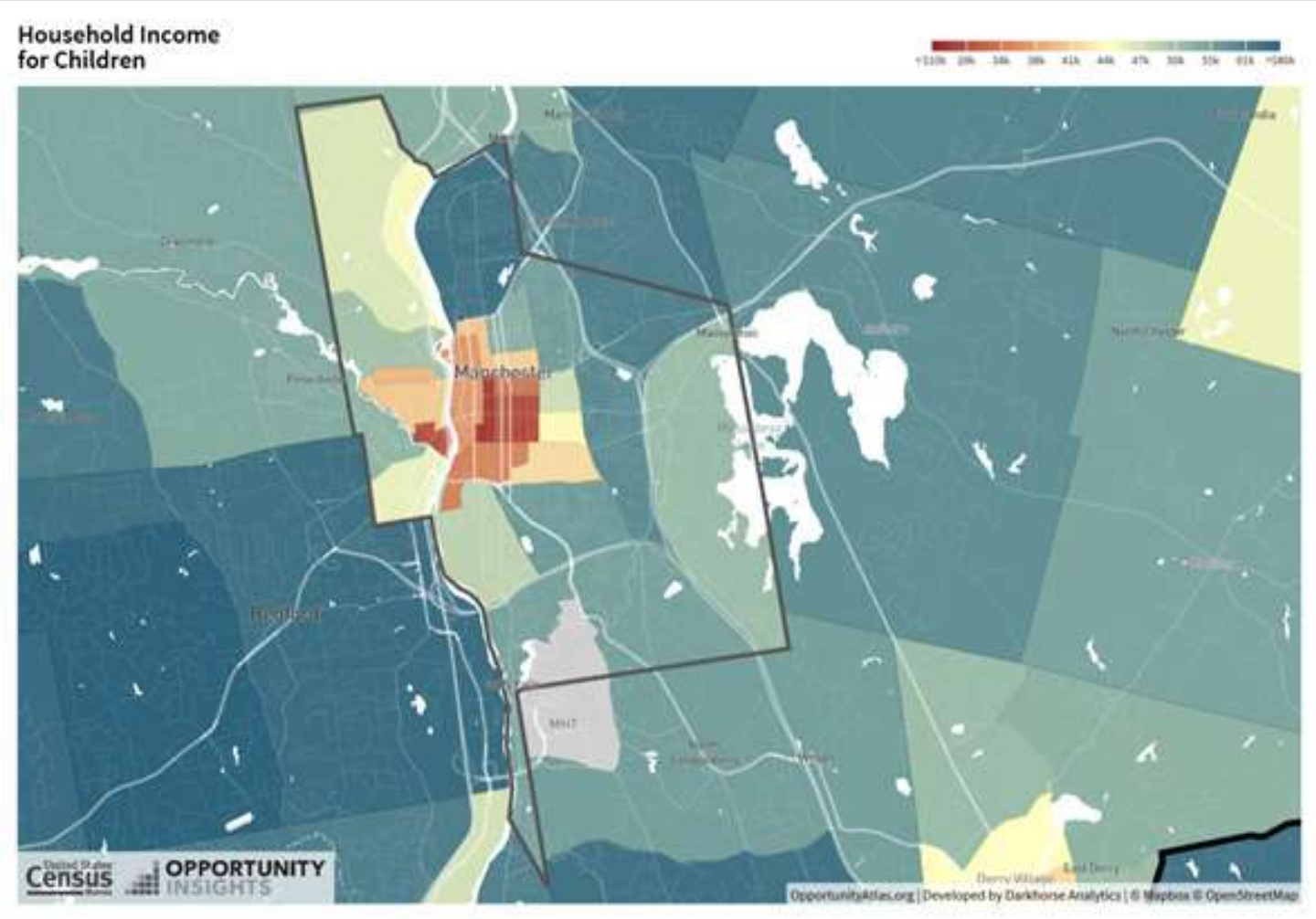
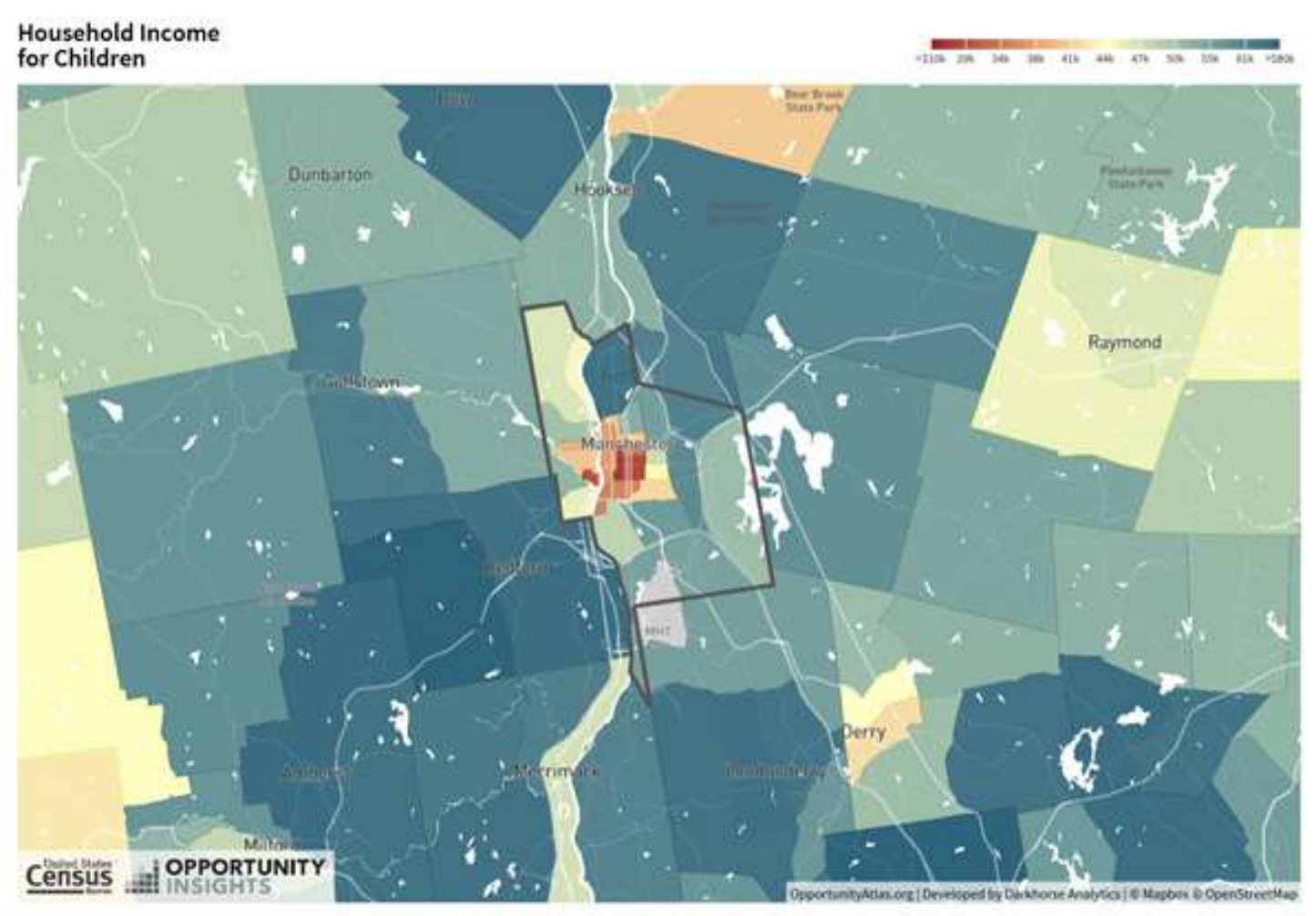

Household Income
for Children
Manchester
Census
OPPORTUNITY
INSIGHTS
OpportunityAtlas.org | Developed by Darkhorse Analytics | © Mapbox © OpenStreetMap

Image 28


Household Income
for Children
Dunbarton
Raymond
Derry
United States Census
OPPORTUNITY INSIGHTS
OpportunityAtlas.org | Developed by Darkhorse Analytics | © Mapbox © OpenStreetMap

FACTOR 4: AGING POPULATION

According to the Population Reference Bureau, the number of Americans ages 65 and older is projected to more than double from 46 million in 2017 to over 98 million by 2060 due, in part, to increases in life expectancy.[101] The aging of the population may fuel higher demand for nursing home care, including specialized care for the increased number of residents with Alzheimer's disease, which is expected to triple by 2020 to 14 million nationwide.

Where does Manchester stand?

New Hampshire has the highest median age in the nation, second only to Maine, with 20% of the state population age 60+.[102] In Manchester alone, there are 14,552 residents 65 or older, and this population is expected to grow. Among the age 65+ population, more than half (58.8%) are female, and the vast majority (95.9%) are White with a small (3.8%) Hispanic/Latino population. More than half (56.3%) completed high school and almost a quarter (23.6%) have a college degree.

Based on the Healthy Aging Data Report, Highlights from New Hampshire 2019, Manchester has 45 health indicators with rates worse than the State average that have negative implications for the health of older residents. The following **Table 54** highlights the health indicators in which Manchester had worse rates than the State average for older adults by geographic areas created for the Healthy Aging Report.

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?

Based on the Healthy Aging Data Report, Nashua, NH has 35 health indicators with rates worse than the State average that have negative implications for the health of older residents (Manchester has 45 indictors). The following **Table 55** outlines selected indicators for which Manchester's rate was worse than the State rate, and for comparison purposes, also provides the rates for Nashua, NH as the second largest city.

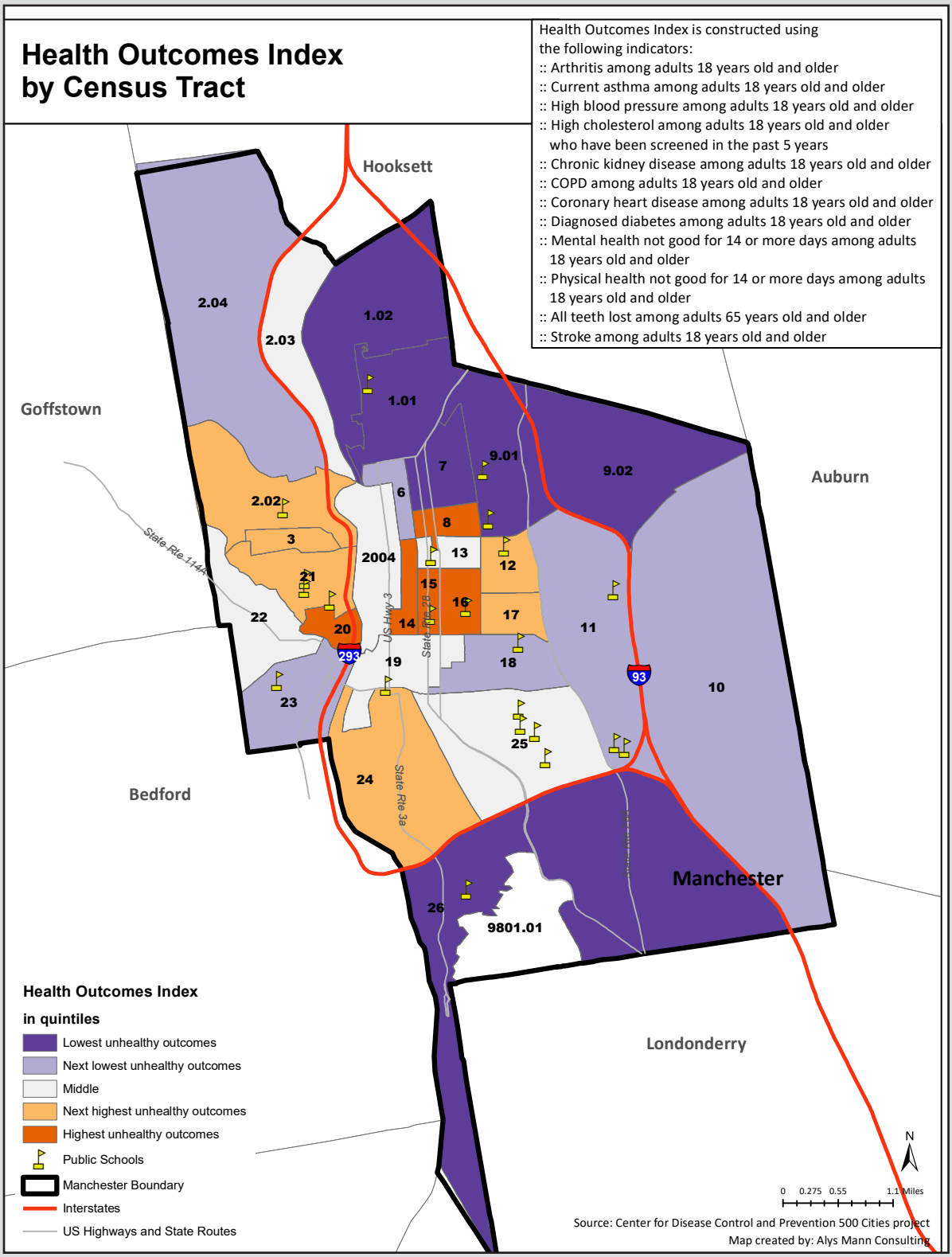
Table 55: Selected Indicators for Comparison, 65+ years

Indicator	*Manchester Rate*	*Nashua Rate*	*New Hampshire Rate*
% 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:

As presented within this section and indicated in the following Health Outcomes Index map **(Map 37)**, the highest prevalence of adverse health outcomes is shown in dark orange with the lowest prevalence in dark purple. Health Outcomes include conditions such as arthritis, asthma, and diabetes, as well as indicators of wellbeing such as mental distress. In Manchester, the neighborhoods with the highest unhealthy outcomes are Census Tracts 8, 14, 15, 16, and 20.

Map 37


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
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%	-

VIII. Voices of Community and Neighborhood Leaders

BACKGROUND AND METHODS:

Over the course of 5 months at the beginning of 2019, a local consultant group known as the Community Health Institute (CHI) interviewed twelve key leaders from the city, identified by their peers as leaders who understand the current and emerging issues of Manchester. Overall, key leaders represented government, the education 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 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 issue 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 integrity of participants' 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; 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 market 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 & 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

VOICES OF COMMUNITY & NEIGHBORHOOD LEADERS: SUMMARY OF FINDINGS

June 24, 2019

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CONTENTS

The findings reported herein are opinions and perspectives of participants interviewed for this assessment, and do not necessarily reflect the opinions of funders. The contents were not fact-checked for accuracy, but reported as provided to maintain integrity of participants' input.

INTRODUCTION

Based on the findings from this community needs assessment process, Manchester Health Department (MHD) will work with local funders, community partners, policy makers, school administrators, City departments and most importantly, the residents themselves, to design a health improvement strategy centered around Manchester's most vulnerable children and families; starting first in clearly identified local neighborhoods (to be determined based on criteria developed to establish the feasibility of success and best return on investment).

As the Chief Health Strategist, MHD was charged to assess, revise, update and improve its neighborhood and City health information to include more current population health data, and community input regarding recommendations for future program and service delivery priorities. In an effort to facilitate this process, the Community Health Institute (CHI) was contracted by MHD to provide technical assistance and support through the process of: conducting 12 key leader interviews and analyzing/summarizing findings; and by administering seven focus group meetings and analyzing/summarizing findings.

Manchester Health Department seeks to update and improve their neighborhood health strategic plan for the city. The new strategy will present a shared vision for the production of health within neighborhood populations. It will serve as the overarching guidance document for establishing the potential collective impact of community based health improvement efforts for the next five years.

The following narrative offers a summary of findings from these key leader interviews and focus groups. We thank all those persons in Manchester who participated. We will forever be touched by the stories we heard during this process. We hope that through this report we are able to capture the insights and knowledge we gained to advocate for a strong strategic plan for the City's health.

A MODEL FOR STRATEGIC PLANNING

Health and social needs have changed radically over time, as has our ability to respond and plan for systems that meet these needs. Globally, we have moved from applying a simple medical model of cause and effect to population health to a more complex model that demands consideration of the interrelationships of multiple causes and effects. In support of our increased knowledge about health production, Public Health has made great strides in its ability to measure population health from the perspective of multiple dimensions. In addition, medicine has increasingly recognized and developed systems to address the sometimes symbiotic relationship between physical and mental health, as well as the influence of social and physical environments, health behaviors, and prosperity on the continued well-being of a population.

This assessment was framed and informed by the County Health Rankings and Roadmaps (https://www.countyhealthrankings.org/), a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute . The County Health Rankings uses county-level data to rank the health of populations by counties across the United States. The County Health Rankings Model identifies the following four modifiable health factors and their weight (%) of contribution to overall population

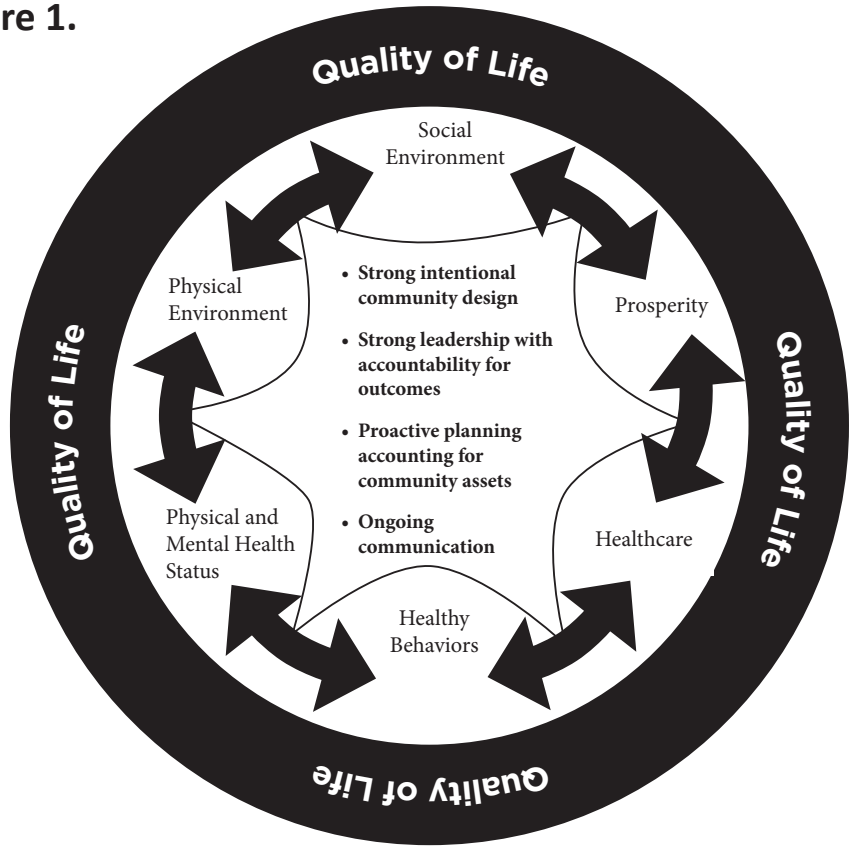
health outcomes: 1) social and economic factors (40%), physical environment (10%), health behaviors (30%), and clinical care (20%). We used the County Health Rankings Model as the framework both for our data collection as well as for our data summary. The Roadmaps portion of this collaboration provides insight on evidence-based policies and practices associated with improvement of health outcomes and will be a useful resource to Manchester as it begins its work of strategic planning for health improvement.

Through our discussions with key leaders and community members it became clear that participants recognized that improving the determinants that "produce health" can only be accomplished when there exists a foundation of strong and informed leadership, proactive and focused strategic planning, and clear values that reflect the importance of community design on health production. To accommodate this forward thinking and insight, we developed a Manchester specific health production model, illustrated in its simplest form in Figure 1 below.

The Manchester Model depicts the major determinants of health in a circular design with arrows illustrating that each determinant is connected to all others. The strong influence of intentional community design is located in the center of the model and described as strong leadership with accountability for outcomes, proactive strategic planning that accounts for community assets, and ongoing communication. Both key leaders and community members mentioned these key attributes as being essential for driving processes and actions that influence the determinants of health. This Model is similar to that developed for Manchester in 2009.

This Manchester Model has been useful in guiding the discussion of our findings from the key leader interviews and focus groups and will be helpful as City leaders work to develop a strategic plan for future improvement.

Figure 1.



METHODS: KEY LEADER & FOCUS GROUP DISCUSSIONS

Between January and May of 2019, the Community Health Institute (CHI) staff interviewed twelve key leaders from the city, identified by their peers as leaders who understand well the current and emerging issues of Manchester. Overall, key leaders represented city and town government, the education system, the health delivery system, non-profit social organizations, and police. In addition, CHI administered seven focus group sessions that included veterans, senior citizens, 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 health of a community population: (a) social and economic factors, (b) physical environmental factors, (c) health behaviors, and (d) clinical care and health outcomes. The following section summarizes findings from these discussions, including prioritized issues and actions steps to address these issues. In all cases, we tried to honor participant voice while protecting participant privacy.

Additionally, we asked participants 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 issue 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.

KEY FINDINGS: DETERMINANTS OF HEALTH FACTORS

SOCIAL AND ECONOMIC FACTORS

The socioeconomic factors that determine 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 the City should invest resources over the next five 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, specifically 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 [Note: although participants identified this as a priority issue, few actions steps were offered]

RECOMMENDED ACTIONS FOR PRIORITY ISSUES

PRIORITY 1: IMPROVE OUR SCHOOLS

- Hire a school advocate.
- 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 in NH. Manchester has great economic potential and we need more state funding for our schools.
- Look into having a school board separate from the Mayor and Alderman (e.g., Concord School Board). Concord residents have two different bodies that the community can lobby – the School Board and the City Board.
- Everything with education should start early. Thus, we need affordable preschool access across the spectrum as well as affordable summer and after school programming (e.g., free summer program is very limited and although there are other programs available, many people cannot pay the $200/week fee).
- Teachers should be accountable for school outcomes but need support through better pay and training.
- Make schools smaller enabling individual attention for kids, and facilitating parent involvement.
- Focus education on teaching values and respect and development of youth resiliency. Engage youth in this work.
- Those who home school would like Manchester to have a curriculum to follow – such a program does not exist currently.

PRIORITY 2: DECREASE VIOLENT CRIME

- Increase funding for the Police Department and decrease its need to rely on State and Federal Grants.
- Increase communication between community members and the police to build a more trusting environment. Sometimes community members witness crimes but do not report them because they are afraid of the police department. People need to feel confident that when they report a crime they will not have to serve as a witness to the crime and/or that their own status in the community (if undocumented) will not be jeopardized.
- Legislate gun control. Guns should be registered and training provided on responsible handling and safety of guns. Do not allow bump guns.
- Increase police presence in neighborhoods, and ensure rapid response by the justice system to enforce consequences for violent actions.

PRIORITY 3: DECREASE INCOME INEQUALITY AND POVERTY

- Keep jobs in the city; the City needs better paying jobs with living wages.
- Some of the highest rates of poverty exist on the West Side. The river divides us. The West Side would benefit from having a Boys & Girls Club. Engage existing resources in a collaborative partnership to make that happen.
- Foster a perception among organizations of themselves as part of the larger community, rather than separate entities.
- Ensure affordable preschool access across the spectrum. Start with the state and advocacy. We have good data defining the link between education and income.

PHYSICAL ENVIRONMENT

The physical environmental factors that determine health include air and water quality, housing, housing and transit.

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

RECOMMENDED ACTIONS FOR PRIORITY ISSUES

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.
- Think about imposing rent control in the City.
- Hold absentee property owners accountable for the condition of their properties.
- Control loan interest for homeowners.
- 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.
- Be mindful of the implications of building more affordable housing on the neighborhoods and schools.
- City residents should have priority for enrollment in elderly housing.

PRIORITY 2: IMPROVE ACCESS TO HEALTHY FOODS

- Improve the quality of food at food pantries, including fresh food that can be stored for a few days.
- Ensure that healthy meals are available to kids in school.
- Some communities have implemented traveling farmers market 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.
- Increase available grocery stores in some areas, for example, the West Side. Having the new Market Basket on Elm is helping to revitalize the City.
- Expand hours when the grocery stores are open.
- Mobile food trucks may also address this issue, in part.
- Ensure that all residents, including those who are undocumented, feel safe accessing services (for example, the food pantry), and their doctors, churches – everybody that they encounter should communicate that message.
- Distribute food banks across the City so that families and community members living on the outskirts have access to these resources.

PRIORITY 3: SAFETY

- Screen applicants to elderly housing, and limit eligibility to the elderly. Stop taking people in to elderly housing from off streets.
- Start community watch groups in elderly housing.
- Increase communication between community members and the police to build a more trusting environment. People need to feel confident that when they report a crime they will not have to serve as a witness to the crime and/or that their own status in the community (if undocumented) will not be jeopardized.
- 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.
- Educate community members about strategies to protect them from fraud and scams.
- 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.
- Address safety in schools and improve communication with parents.

HEALTHY BEHAVIORS

The healthy behaviors that determine health include tobacco, alcohol and drug use, diet and exercise and sexual activity.

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

RECOMMENDED ACTIONS FOR PRIORITY ISSUES

PRIORITY 1: ADDRESS AND PREVENT SUBSTANCE MISUSE

- Develop policies that ensure oversight of prescribers and pharmaceutical representatives.
- Promote alternative pain control methods.
- Enhance prevention and early detection of substance misuse.
- Remove abandoned buildings, which provide a space for people to use drugs.
- Make safe spaces for teenagers that keeps them busy and enables a level of supervision and monitoring.
- Address the expanding needs of the growing numbers of kids who are homeless or living with aunts, uncles, or in foster care. Many kids are placed into group homes due to inadequate foster care resources.

PRIORITY 2: PROMOTE / FACILITATE PHYSICAL ACTIVITY

- More exercise groups in elderly housing, for example, chair exercise; yoga. Make exercise programs relevant to participants.
- Get kids engaged in healthy behaviors, for example, encourage road races, biking etc.
- Kids need to see a real graphic difference that will occur if they choose unhealthy versus healthy behaviors (for example, wrinkled skin from sun damage or smoking).
- 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. While a person can safely bike on a footbridge on the West Side, many road surfaces are bad and there are no internal city bike paths. Continue to build the rail trail to link up to others. These efforts will also facilitate socialization and help to create a "community" feeling on this non-vehicle traffic pattern.

PRIORITY 3: HEALTH EDUCATION AND MESSAGING

- The City needs a campaign for helping people understand healthy behaviors, which could include using the Verizon sign to reach many people.
- Use state funds (such as dollars from the multi-state lawsuit on the producers of OxyContin) for marketing to reach sub-communities and connect people with available resources.
- 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. In addition, people with substance use disorder in recovery might talk about their own experiences.
- Engage our youth. The student voice is important, driving discussions behind some of the most successful programs. Discussions start now in middle school, but we need to raise those conversations in a developmentally appropriate way in elementary school.
- Parents should have the essential information to be able to talk effectively about substance misuse.

CLINICAL/HEALTH CARE AND HEALTH OUTCOMES

The clinical care and health outcomes that determine health include access and quality of care as well as specific outcomes for targeted chronic diseases.

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 afford-ability, focus on the whole person **3** Obesity

RECOMMENDED ACTIONS FOR PRIORITY ISSUES

PRIORITY 1: IMPROVE ACCESS TO CARE

- Provide information about services using a wide range of methods. Some people do not know what services are available or how to access them. Many elderly feel excluded from communication because they have no access to computers etc.
- 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.
- Ensure that Safe Stations accept anyone accessing services, regardless of whether they are residents. Manchester is where the resources are, so it attracts people who need these services.
- Increase capacity for substance use disorder treatment, including drop-in centers, day treatment centers, and rehab beds.
- Recognize that oral health, general health, and mental health are not separate lanes. Each of these lanes need 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 services 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.
- Support, through funding, utilization of the IDN social determinants of health assessment tool.

PRIORITY 2: EXPAND HEALTH COVERAGE & SUPPORT PREVENTION

- Develop a system and build incentives to track patients' care across medical providers.
- Residents should have access to universal health care.
- Make health insurance affordable.
- 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.

PRIORITY 3: REDUCE 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.

KEY FINDINGS: OPEN-ENDED QUESTIONS

MANCHESTER IS A CARING COMMUNITY

> "Manchester is a city with a great vibe."

Manchester City has a long history of protecting and assuring the health and well-being of those who live and work in the city. In the late 19th century, the largest employer, Amoskeag Manufacturing Company, collaborated with the City to promote the health and well-being of the people who worked for them. They set up an Accident Department, provided in-home nursing care for sick workers, and even helped new mothers learn to care for their new infants.

Amoskeag manufacturing Company Hospital Room
MHA Collection (AMCGN 0624)

VISION OF THE IDEAL MANCHESTER

Before Manchester leadership dives into the details of its health data to develop its plan for improving the health and well-being of its population it is wise that they consider first – with no barriers – what the "Ideal Manchester" might look and feel like. Below we summarize this picture as painted by your key leaders and community members.

During our discussions of factors that make a community the best place to live, we found that community members and leaders were able to paint a clear picture of the "Ideal Manchester". This vision of an ideal city continues to express the "heart" of the City residents and leaders, and their desire to look out for, and care for one another. It is this vision and dream of an ideal community that will continue to guide the City toward the future of its better and best self.

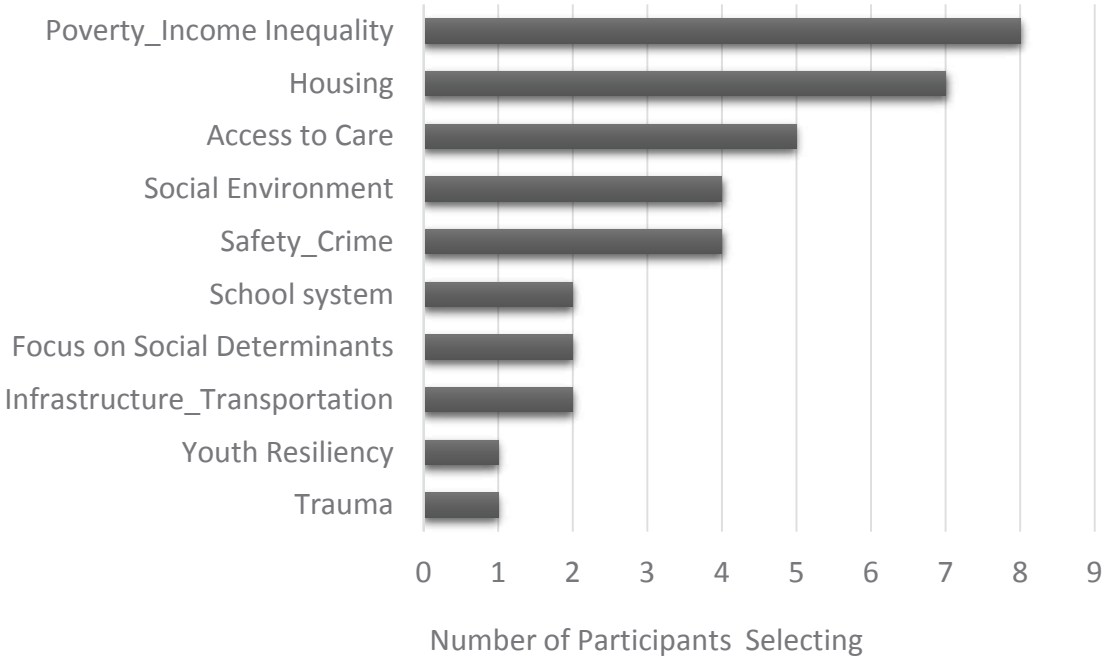
Key leaders and Community Members Describe the Ideal Manchester

Participants described the ideal community as one that is- first, and foremost – safe, without crime, violence or drug use. Residents of all ages, but especially young people, engage with the community and each other, and there are spaces and opportunities for socializing. The city is clean, with green spaces and adequate housing. Residents have access to affordable, quality services and healthy food. The ideal city is a community where residents help each other, and share a common purpose and common pride.

PRIORITY ISSUES FACING THE COMMUNITY

After discussions of the determinants of health and their impact on the local population, and after describing the ideal Manchester; leaders and community members were poised to name the priority issue facing the City. Figure 2 below represents frequency of mentions from most mentioned issue to least mentioned issue. When asked to choose one topic they would speak to community leadership the top issues were basic needs, income and housing.

Figure 2. Single Most Important Issues Facing the City as Identified by Participants (n=36)



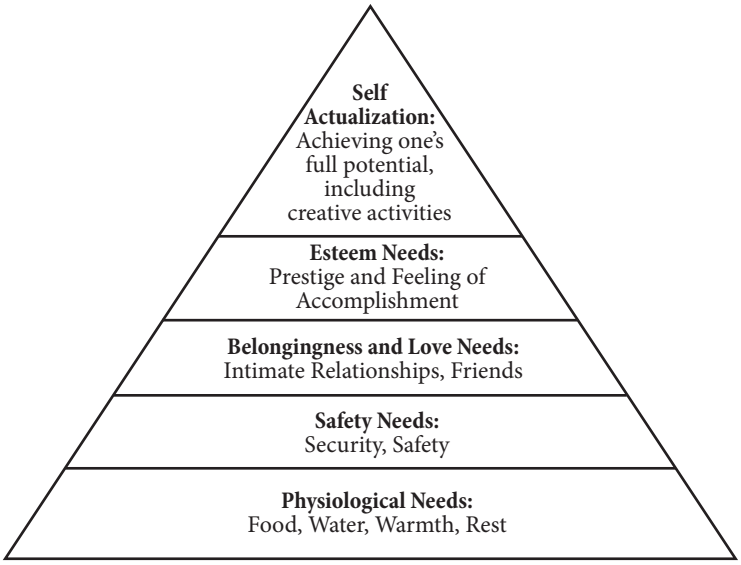
PRIORITIES FOR POLICY MAKERS AND COMMUNITY LEADERS TO CONSIDER

> "Manchester is a great city. It does have city problems but it is a vibrant city with a city vibe. I am a huge advocate for this city."

OUR BASIC NEEDS MUST BE MET FIRST

Both focus group participants and key leaders mentioned that people's basic needs for housing, food and safety must be met before they can focus on higher-level improvements – like behavior change. This thinking is consistent with the psychology research and is depicted clearly in the graphic below of Maslow's hierarchy pyramid.

http://personalityspirituality.net/articles/the-hierarchy-of-human-needs-maslows-model-of-motivation/



Needs lower down in the hierarchy must be satisfied before individuals can attend to needs higher up. From the bottom of the hierarchy upwards, the needs are physiological, safety, love and belonging, esteem and self-actualization. https://www.simplypsychology.org/maslow.html

BASIC NEEDS: HOUSING IN RELATIONSHIP TO WAGES

> "Affordable housing is a top priority going back to the basics of food, shelter, clothing, safety.."

- Manchester residents suffer from housing insecurity. Right now, rent for low-income housing exceeds 31 or 32% of the median wage. We need better low-income housing and to increase wages so we can pay for housing.
- We need a housing mix that can raise the right revenue.
- Manchester needs to figure out how to capture federal money for housing, and to collaborate with businesses for housing. We need a roadmap to understand the available funding, and then we need to develop a plan.
- How we design property taxes does not work in Manchester: if a rental does not have high value it attracts people with lots of kids, and we do not collect enough taxes to build schools for these kids. The City needs to get rid of the tax cap that prohibits increasing the budget by a certain percentage.
- Can the City add a tax for hotels – for example, $2/room, and use those dollars toward housing?

SAFETY: KIDS AND SECURITY FOR THE FUTURE

Focus group participants and key leaders indicated that many of Manchester's children are impacted by adverse childhood events. The overarching theme that arose as participants talked about children and schools was that we need to do the work now to support our children to become healthy productive adults, or we will face a huge crisis within our population when these kids become adults.

> "Open school-based mental health and health centers in every school to reach the next generation."

Additionally, it is clear from our discussions that both key leaders and community members see links between low-income levels, poor housing, unsafe neighborhoods, and overstressed schools. Key leaders provided many examples of professionals working in Manchester, but choosing to live elsewhere based on a perception that the schools in the City were not as good as those located outside of the City. This outward migration of professionals perpetuates the neighborhood and school inequality issues.

- We need to start talking about ACES, particularly with children. In the next 5-10 years we will be facing an ACES crisis that is much larger than the current opioid crisis if adverse childhood experiences are not addressed. Beech Street School had a 65% transition rate of children coming in and out of school.
- Open school-based mental health and health centers in every school to reach the next generation and their parents. Establish or enhance existing integrated behavioral health and primary health services in the school. Students are a captive population, and their school is the safest and most stable place for many of these kids.
- We are seeing more students who have experienced traumatic events, and this impacts the teachers and staff who work with them. We need to provide support for teachers, as well as students.
- Cultivate student leadership development, similar to the Gossler School program.

BELONGING: ISOLATION

In almost every focus group participants talked about isolation. Participants reported that they did not have family here to rely on for socialization and that there was no place for them to go in Manchester to make new friends, to share in activities with others or to even offer help to others. Overall, there was the sense that people who felt isolated are harder to reach as they stay in their homes, thus participants suggested a "proactive" effort to find these persons and actively help them engage in positive community life.

- The City is different now than it was generation ago – many of these problems were solved within extended families where there was support and people were not so isolated. Without this foundation of multi-generational homes, some people feel very isolated.
- Isolation is pervasive. It is less friendly here. I would talk to the Mayor about how Worcester has addressed isolation.
- People that really need the help are not going to look for it. Establish an outreach committee to find out where isolated people are living, and check on them. Someone needs to find these people.
- Those who may benefit from mental health services need to have somebody go and support them to take advantage of City services.

- Sharing activities helps establish friendships. We should establish neighborhood-based drop-in places to go and meet people from other communities, and from other countries. If we speak the same language, we can talk. If we find out we have the same issues, we can help each other. The cost of organizing the gathering opportunity does not have to fall to any organization; people could bring a cultural dish to share. They could have time to share together and learn about each other. People can share their talents and abilities, for example, making jewelry or baking.

SELF ESTEEM: HEALTHY BEHAVIORS – DRUG USE AND OBESITY

Across all discussions, the sentiment was expressed that basic needs of all residents must be addressed before we can expect major improvements in other health determinant factors.

> "Major problems like the opioid crisis tie into homelessness and mental health issues. These problems are all intertwined."

- If you do not address basic services, you are not going to get healthy behaviors.
- Health is not determined by the health system, it is determined by multiple interacting factors including healthy behaviors.
- Learning about healthy behaviors is complex. The City and providers of care need to spend more time with people to understand their needs.
- Expand existing wraparound services, especially for families affected by substance misuse.

IMMIGRANTS/REFUGEES AND PRODUCTIVITY

Focus group participants expressed mixed feelings about refugees and immigrants. While some participants associated refugee and immigrant populations with poverty, bedbugs and the opioid crisis, others felt that the City should be doing a better job helping these persons to feel safe and valued in the community. Several key leaders described immigrants and refugees as "an asset to the City".

> "Immigrants and refugees are an asset to the city."

- It is important that people feel safe asking for services (for example, accessing the food pantry). They should hear from their doctors, their churches – everybody that they encounter should have and share the information that it is safe for them to go for services.
- We need to see more sensitivity for immigrants. They are not asking for anything for free, but for services to be accessible, like going to food pantries and agencies where you can get help. It is more difficult now for both documented and undocumented. People live with more fear; some people are starving because they are afraid to go out and get help.
- Improve the economy. One way to do this would be to make changes in policy to allow undocumented residents to get a driver's license. This would help the economy because undocumented persons would pay for the license, would be able to get a job, and would pay taxes on their income. Additionally, they would not be breaking the law.

- It is difficult to help refugees/immigrants work up to their full potential, as the U.S. does not recognize foreign training and degrees.

EVERYONE NEEDS TO WORK TOGETHER IN A FOCUSED WAY

- Sometimes there is so much great work going on in the city, but right now, I do not feel like there is always synergy, as in everyone working together.
- We have been doing a good job of pulling in local restaurants into the homelessness discussion. They are invested in the plight of individuals who are panhandling or laying in the streets downtown.
- We need a Task Force around housing and school issues. We need everyone to work on the same issue.

> "There's a lot going on and there are some of us that are sitting at all of those tables, and it's exhausting. I'd love to see alignment of the work. Let's stop creating all of these different pockets of work, and build a Russian nesting doll structure, rolling all of these things up under some umbrella."

STRATEGIC PLANNING:

THE LEADERSHIP AND INFRASTRUCTURE NEEDED TO MOVE THE CITY FROM ASSESSMENT TO PLANNING AND ACTION

> "Manchester is tough. Every one of the players wants to lead, but no one is big or powerful enough to get people to the table."

WHAT HAVE WE LEARNED FROM PAST WORK?

Key leaders recognize the need to develop a strong central planning infrastructure focused on health improvement of the City's population. Both Key leaders and community members discussed this need within the context of the complex funding, decision making, and service development structure that currently exists.

First, participants report that there were too many forums, councils, projects, and meetings and that these are not being coordinated under any one City Vision.

- "There is a lot going on and there are some of us that are sitting at all of those tables, and it's exhausting. I would love to see alignment of the work and say: let's stop creating all of these different pockets of work. Instead, let's build a 'Russian nesting doll' structure and roll all of this work up under some umbrella. I hope that there is opportunity during this process or your engagement with stakeholders to get at that.
- There are too many forums, too many councils, gazillion different groups, with a lot of overlap, diluting focus. We have1000 quasi-good services and programs.
- We have lots of great programs and great ideas but we cannot move anything to scale.

Second, many leaders expressed a desire to re-structure/reactivate the leadership council.

- Our leadership council is not active now. There is no buy-in; there is no common agenda.
- The Neighborhood Health Improvement Strategy and its corresponding leadership team was established in 2014. That group now oversees a number of projects, like the regional public health network and Project LAUNCH. However, they have not met in over a year. Nevertheless, the few times that the group has met, it has largely been information sharing rather than action-oriented.
- If we did a Venn diagram of people sitting on the leadership of the Integrated Delivery Network (IDN), those on the NHIS group, Manchester Proud, and the youth council for Project LAUNCH, there is tremendous overlap.

Third, there is a recognition that many of the issues the City faces regarding structure and process of improvement, directly tie to the fact that most programs and projects are still driven by grant funding. This is closely associated with duplication of services and lack of sustainability for long-term impactful change.

- Project goals in the City are directly related to funders.
- We have little flexibility for how to use grant funds.
- Grant funded projects like The Sustainable Access Project die out when funding is over.

- The State's responses to grant funding are problematic. For example, the 1115 waiver makes some resources available, but we expect that the waiver will die in year and a half.
- A few years ago, the Promise Neighborhoods grant brought together many organizations to improve the health and well-being of neighborhoods. We felt like we could get this initiative to work, but the City is so strapped and underfunded that we soon felt like we were paddling upstream.

> "I dislike top down central planning, but if it is informed by the community then it might be good."

WHAT LEADERSHIP STRUCTURE IS BEST FOR MANAGING THE CITY'S VISION FOR HEALTH?

Key leaders agreed that everyone should have a place at the leadership table and that leadership should be associated with authority to get the work done. However, there was no consensus as to where the hub of leadership should live.

- The leadership council should be in the Mayor's office with the Mayor as convener. The Mayor's office might convene our Vision for 2025.
- We need an unbiased group, maybe like the Manchester Health Department, to say that they are coordinating XYZ projects in support of the Mayor's Office. This group needs strong leadership and authority, which is reflected in their job description. I feel that the Manchester Health Department is somewhat hamstrung because of the way they have to report out to the Board of Selectmen and Board of Alderman, etc.
- In Manchester, leadership must come from business. Business is the only sector with muscle to bring people to the table. In other places, I have seen civic and elected folks leading together.
- It does not matter who convenes the group or starts the work, but it is good to have a mix of people around the table including large employers, social service agencies, and healthcare and clinical organizations.
- The City should replicate the central leadership/decision making model at the neighborhood level. Include leaders of small groups – diverse groups – and have on-going and regular conversations, similar to these focus group meetings now. Find out what refugees, working class, upper class need/want. Bring that information back to the Central Planning Leadership Team.

> "Having said that, how do you prioritize the work?"

HOW DO WE DESIGN A CLEAR PROCESS FOR DECISION-MAKING AND ACTION?

- Both key leaders and community members were able to define a clear process for strategic planning.
- We need buy in and engagement from the beginning.
- Use a broad definition of health to frame this work
- Agree on a common vision, and develop tactics to fit this vision, i.e., clear goals and objectives

- Lay out a logic model – must do X to get to Y – a model that cannot fail. We need to start with things that are very transactional, get credibility on those tasks, and then move to less transactional, more aspirational work.
- Create a position/job to move goals forward and to hold us accountable.
- Develop an action-oriented model of leadership in which we work together.
- Each organization on the leadership council should be required to execute on the vision.
  - » Similar to the Sustainable Access Project
  - » It should be mandatory that everyone show up committed to action and resource sharing.
- Take advantage of the community organizing work through Manchester Proud, and The Doorway, the emerging hub and spoke model serving individuals with substance use disorder, and broaden the scope of that public-private partnership and dialogue to include a wider berth of issues beyond just education.
- At the community level, we need to engage youth and the entire community from the roots.
  - » Have listening sessions (former chief of police used to do this), and forums for constituents- find the quiet ones and write down their concerns and ideas. Keep minutes of these gatherings.
  - » Find ways to score this data and information.
  - » Develop a format for sharing the information that community members can understand. Look for the brilliant nugget within the information collected.
  - » Provide feedback to community members so that they do not just see problems but begin to see solutions. These community-level data, as they are collected and used overtime, will shift understanding from individual, siloed perspective to community engagement.

> “No one, by themselves, is going to make a dent on the work that we need to accomplish.”

HOW DO WE CREATE A PLAN THAT ACCOUNTS FOR ALL COMMUNITY ASSETS?

Manchester City has many assets that should be engaged at the highest level of planning. However, it was clear from leadership that planning becomes fruitless without funding.

- We should develop a map of resources illustrating what every partner brings to the table. We would have to define “resource”. Then we can pair organizations together to match each other’s needs and strengths as a way to help organizations and partners see themselves as part of the larger community. For example:
  - » On the West Side, we need a Boys and Girls Club and we could use a partner to make that happen.
  - » Elliott Hospital staff would like to be engaged in volunteer work but are not connected to the needs in the community – we need to make this an easy match of skills to need.
  - » We wish the clinical organizations would consider providing money for housing development.
- We know that the Manchester Health Department is a leader in planning.

- We need to use all media to engage community members and leadership in the work of improving the City. Social media has created a world where we do not get our information form varied places – we need to create those sources.
- Strategic funding requires assessment of all funding sources, and allocating resources more creatively.
- Use all data sources for input, including the Manchester Proud data.
- We can only do so much. Need infusion of funds from outside area. If this were an infectious disease, CDC would be here; NIH would be here; FEMA: everyone would be here.

> “Manchester is good about addressing the crisis of the day, but not at anticipating the crisis of tomorrow.”

HOW DO WE PROACTIVELY PLAN FOR THE FUTURE?

- Leaders and community members expressed a need for the city to be more proactive in thinking about the future. “Manchester is good about addressing the crisis of the day, but not at anticipating the crisis of tomorrow.”
- We should not have to stop our work every few years to write the State mandated community benefit plan. Rather, we should have a system in place of ongoing data collection – in real time. In addition, we should use that data iteratively for citywide improvement work.
- Every day in the papers or on the media news, we should read or hear a discussion about what the City is going to do or is doing about its issues – how it is working toward improvement.
- We need to help business see their role in the process of improvement and delineate the mechanics of this process for them.

CONCLUSION

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. They also expressed a desire to connect with others at personal, community, and leadership levels to advance these efforts and further promote the vibrancy of this caring 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
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3428861/.

- 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.
- 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.
- 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.
- 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.
- 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.

APPENDICES

APPENDIX 1:
KEY LEADERS

Key leader	Title	Agency	Interviewer	Date
Kris McCracken	President & CEO	Manchester Community Health Center	Dotty Bazos	4/15/19
Patrick Tufts	President & CEO	Granite United Way	Dotty Bazos	4/17/19
Dr. Joseph Pepe	President & CEO	Catholic Medical Center	Dotty Bazos	4/19/19
Robert Tourigny	Executive Director	NeighborWorks Southern NH	Dotty Bazos	4/19/19
Dr. Steve Paris	Medical Director	Dartmouth-Hitchcock	Dotty Bazos	4/22/19
Cathy Kuhn	Vice President of Research & Training	Families in Transition	Dotty Bazos	4/22/19
Amy Allen	Asst. Superintendent	City of Manchester School District	Dotty Bazos	4/22/19
Borja Alvarez de Toledo	President & CEO	Waypoint	Dotty Bazos	4/24/19
Dr. Greg Baxter	President & Executive VP of Solution Health	Elliot Health System	Dotty Bazos	4/29/19
Joyce Craig	Mayor	City of Manchester	Dotty Bazos	5/13/19
Bill Rider	President & CEO	Mental Health Center of Greater Manchester	Dotty Bazos	5/13/19
Carlo Capano	Chief of Police	City of Manchester Police Department	Dotty Bazos	5/13/19

APPENDIX 2
FOCUS GROUP PARTICIPANTS

Focus group	# of Participants	Date
Focus Group 1	3	4/30/19
Focus Group 2	2	4/30/19
Focus Group 3	10	5/9/19
Focus Group 4	2	5/9/19
Focus Group 5	0	5/9/19
Focus Group 6	1	5/14/19
Focus Group 7	7	5/14/19
Focus Group 8	1	5/14/19

Outreach efforts aimed to include representation from Manchester's diverse population. Focus group participants included veterans, senior citizens, people with chronic health conditions, differently abled persons, and community members from diverse backgrounds representing families from the East and West side.

APPENDIX 3
KEY LEADER SCRIPT

Community Health Institute

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Bow
New Hampshire
03304

Voice: 603.573.3300

Fax: 603.573.3301

A Division of
JSI Research & Training
Institute, Inc.
A Nonprofit Organization

April 8, 2019

Dear Community Leader,

The City of Manchester Health Department (MHD), in partnership with the local health care organizations, is conducting an update of the community health needs assessment, as required for NH Charitable Trusts. As part of this process, MHD has contracted with CHI to conduct focus groups and key leader interviews to inform the development of the new needs assessment.

Your insight and expertise as a key community leader is vital to the successful creation of a meaningful document that will guide community action. We respectfully request a telephone interview with you (or your designee) to best capture your thoughts. This phone call should take 45-60 minutes to complete. Courtney Castro from the Community Health Institute will contact your office by phone next week to set up an interview time that is convenient for you. We hope to complete all interviews in April.

To assist leaders in preparing for the phone interview AND to expedite the conversation, we have attached the Key Leader Interview Packet for you to review before our phone meeting. This document contains the following elements:

- Key Leader Survey (**Please complete this survey prior to the Key Leader call as we shall ask for your responses during our phone meeting)**
- Data Dashboard and 16 Discussion Questions focused on the key health determinants summarized in the Data Dashboards
- Four open ended questions designed to capture your vision for the City of Manchester as it works over the next five years to improve the health and well-being of its population.

Thank you for your consideration! We know that you have many responsibilities and obligations, and we appreciate your time.

Dorothy A. Bazos, Ph.D, RN

Lea Ayers LaFave, Ph.D., RN

Courtney Castro (Phone: 603.573.3308

Healthy New Hampshire

New Hampshire's Public Health Institute

Key Leader Discussion Questions

KEY LEADER DISCUSSION QUESTIONS: DETERMINANTS OF HEALTH

We would like to talk to you about some of the leading indicators that are known to determine/influence the health of populations. Our list of indicators is derived from the RWJF Roadmaps and County Health Rankings Framework. Our data benchmarks are derived from the City Health Dashboard **https://www.cityhealthdashboard.com/.**

The City Health Dashboard

More than 80 percent of the United States population lives in urban areas. A key ingredient for thriving communities is healthy people, yet neighborhoods right next to each other can provide drastically different opportunities for health and well-being. Adding to the challenge of differences in opportunities for health and health outcomes among populations is that for mayors, city managers, community development staff and local health officials seeking to drive health improvements, there has been no standardized tool for understanding and benchmarking a city's performance and relative standing on indicators of health and health risk.

The City Health Dashboard bridges this gap by measuring and comparing health at the city -- rather than at the county and state -- level. It equips the largest 500 cities in the U.S., those with populations of about 66,000 or greater, with a one-stop resource allowing users to view and compare data from multiple sources on health and the factors that shape health to guide local solutions that create healthier and more equitable communities. The project is led by NYU School of Medicine's Department of Population Health with support from the Robert Wood Johnson Foundation and in partnership with NYU's Robert F. Wagner School of Public Service, the National Resource Network, the International City/County Management Association, and the National League of Cities.

The City Health Dashboard allows you to see where the nation's 500 largest cities stand on 37 key measures of health and factors affecting health across five areas: Health Behaviors, Social and Economic Factors, Physical Environment, Health Outcomes, and Clinical Care. These categories align with those used in the County Health Rankings & Roadmaps, a well-known program that provides health data at the county level.

Data come from federal, state, and other datasets with rigorous standards for collection and analysis. The Dashboard team chose these measures, with guidance from a City Advisory Committee, because cities can act on them, they were collected within the last four years, they are updated regularly, and they are backed by evidence. Below, you will find information on each metric including a metric description, data source, years of data, how the measure is calculated, and a link to more information.

SOCIAL AND ECONOMIC FACTORS

The following indicators represent areas in which Manchester as a whole experiences poorer outcomes than other cities nationally.*

Indicator	Manchester Average/Rate	500 Cities Average/Rate
High School Graduation On Time (completion within 4 years of entering 9th Grade)	74.9%	83.4%
Chronic School Absenteeism (≥ 15 days of school missed in academic year, 2015-16)	27.4%	18.1%
Income Inequality (more households in the bottom 20% of income, 2017)	-7.8	-5.5
Violent Crime Rate (murder, aggravated assault, robbery, forcible rape, 2017)	675.9 offenses per 100,000	513.5 offenses per 100,000
Third Grade Reading Proficiency (students reading at or above grade level in 3rd grade)	30.5%	46.2%
Households with Excessive Housing Costs (≥ 30% of income on housing, 2017)	40%	37%

*Comparison values were generated for each of the indicators from data provided by 500 of the largest cities from across the country. (Source: City Health Dashboard, https://www.cityhealthdashboard.com/

In addition, some of Manchester's neighborhoods experience poorer outcomes than other cities:

- ***Children Living at 100% of Federal Poverty Level, 2017*** (as high as 51.4% in one neighborhood; 14 neighborhoods have elevated child poverty rates as compared with other cities)
- ***Unemployment Rates, 2017*** (as high as 14.4% in 1 neighborhood; more than 25% of all neighborhoods in Manchester have elevated unemployment rates compared with other cities)

THINKING ABOUT SOCIAL AND ECONOMIC FACTORS…

Question 1: What improvements in services or resources to families has Manchester made in the past five years?

Question 2: What do you think Manchester could do better in regard to this factor?

Question 3: What are the **top 3** areas where Manchester could/should take action and invest resources over the next five years?

Question 4: What would be needed to make action possible around issues mentioned above and in general regarding social and economic factors?

PHYSICAL ENVIRONMENT

The following indicators represent areas in which Manchester as a whole experiences poorer outcomes than other cities nationally.*

Indicator	Manchester Average/Rate	500 Cities Average/Rate
Housing with a High Potential Lead Risk *(based on age of housing stock, 2017)*	32.1%	18.5%
Lead Exposure Risk Index (based on age of housing stock and poverty rates, 2017)	8 out of 10	5.5 out of 10
Limited Access to Healthy Foods (residents who live more than ½ mile from supermarket, 2015)	77.4%	61.9%

*Comparison values were generated for each of the indicators from data provided by 500 of the largest cities from across the country. (Source: City Health Dashboard, https://www.cityhealthdashboard.com/

In addition, some of Manchester's neighborhoods experience poorer outcomes than other cities:

- ***Walkability, 2018*** (11 neighborhoods have walkability scores lower than other cities)

THINKING ABOUT THE PHYSICAL ENVIRONMENT…

Question 5: What improvements in services or resources to families has Manchester made in the past five years?

Question 6: What do you think Manchester could do better in regard to this factor?

Question 7: What are the **top 3** areas where Manchester could/should take action and invest resources over the next five years?

Question 8: What would be needed to make action possible around issues mentioned above and in general regarding physical environment factors?

HEALTH BEHAVIORS

The following indicators represent areas in which Manchester as a whole experiences poorer outcomes than other cities nationally.*

Indicator	Manchester Average/Rate	500 Cities Average/Rate
Adult Binge Drinking (4+ drinks for women and 5+ drinks for men, 2016)	17.9%	17.7%
Teen Birth Rate (births among teens age 15-19 years, 2014-2016)	25.4 births per 1,000	23.6 births per 1,000
Adult Physical Inactivity (no leisure time physical activities in past month, 2016)	24.6%	24%
Adult Tobacco Use (100 cigarettes in lifetime or currently smoking, 2016)	20.8%	17.4%
Opioid Overdose Deaths (confirmed deaths due to opioids, 2014-2016)	56.5 deaths per 100,000	11.7 deaths per 100,000

*Comparison values were generated for each of the indicators from data provided by 500 of the largest cities from across the country. (Source: City Health Dashboard, https://www.cityhealthdashboard.com/

The following indicators represent Youth Health Behaviors from the Youth Risk Behavior Survey, 2017.

- ***Teen Binge Drinking*** *(15.4% - 4 or more drinks for females and 5 or more drinks for males)*
- ***Teen Tobacco Use*** *(8.7% smoked cigarettes during the past 30 days)*
- ***Teen Heroin Use*** *(3.1% have used heroin at least once in their lifetime)*

THINKING ABOUT HEALTH BEHAVIORS…

Question 9: What improvements in services or resources to families has Manchester made in the past five years?

Question 10: What do you think Manchester could do better in regard to this factor?

Question 11: What are the **top 3** areas where Manchester could/should take action and invest resources over the next five years?

Question 12: What would be needed to make action possible around issues mentioned above and in general regarding health behavior factors?

CLINICAL CARE AND HEALTH OUTCOMES

The following indicators represent areas in which Manchester as a whole experiences poorer outcomes than other cities nationally.*

Indicator	Manchester Average/Rate	500 Cities Average/Rate
Adult Obesity (as defined by Body Mass Index – BMI, 2016)	29.5%	29.2%
Adults in Frequent Physical Distress (14 or more days per month, 2016)	12.8%	12.3%
Adults in Frequent Mental Distress (14 or more days per month, 2016)	13.4%	12.8%
Life Expectancy (average life expectancy at birth, 2010-2015)	77.6 years	78.8 years
Premature Death (in a population before the age of 75 years, 2014-2016)	8900 years	7431 years

*Comparison values were generated for each of the indicators from data provided by 500 of the largest cities from across the country. (Source: City Health Dashboard, https://www.cityhealthdashboard.com/

In addition, some of Manchester's neighborhoods experience poorer outcomes than other cities:

- ***Uninsured Adults, 2017*** (One neighborhood is as high as 25.7%; five neighborhoods are > 20%)
- ***Adults with Diabetes, 2016*** (Five neighborhoods are over 10%)
- ***Adults with High Blood Pressure, 2015*** (10 neighborhoods are over 30%)
- ***Adults Receiving Dental Care, 2016*** (One neighborhood is as low as 45.3%; eight are under 63%)
- ***Adults Receiving Preventive Services, 2016*** (Four neighborhoods are under 32%)

THINKING ABOUT CLINICAL CARE…

Question 13: What improvements in services or resources to families has Manchester made in the past five years?

Question 14: What do you think Manchester could do better in regard to this factor?

Question 15: What are the **top 3** areas where Manchester could/should take action and invest resources over the next five years?

Question 16: What would be needed to make action possible around issues mentioned above and in general regarding clinical care factors?

WRAP UP – WHAT IS YOUR VISION FOR AN IDEAL MANCHESTER?

QUESTION 17: What is the single most important issue facing your community?

QUESTION 18: What do you believe makes a community the best place to live?

QUESTION 19: If you could talk to the Mayor about one new or emerging health and safety issue in your community, what would it be?

QUESTION 20: DO YOU HAVE ANYTHING YOU WOULD LIKE TO ADD TO THIS DISCUSSION?

THANK YOU IN ADVANCE FOR YOUR TIME AND INPUT

BACKGROUND RESOURCES

- **County Health Rankings and Roadmaps Model: http://www.countyhealthrankings.org/**
- **City Health Dashboard: https://www.cityhealthdashboard.com/**
- **IHI Pathways to Population Health: http://www.ihi.org/resources/Pages/OtherWebsites/Pathways-to-Population-Health.aspx**
- **Manchester Community Schools - Neighborhood survey tools from 2012**
- **2009 Manchester Community Needs Assessment**

APPENDIX 4
FOCUS GROUP SCRIPT

WELCOME AND INTRODUCTION

Welcome, we are so glad to have you here! My name is Dotty Bazos and my colleagues are Lea LaFave and Courtney Castro. We have been asked by the Manchester Health Department to conduct several different focus groups on their behalf in an effort to learn more about Manchester City from a resident's perspective. We are excited that you are interested in helping us better understand the supports and resources you rely on as you care for your young children in this City. Your voice is truly unique and valuable and we look forward to learning more about your experiences of parenting in Manchester City. Please note that there is no right or wrong answer to any of our questions as you are our expert parents here today.

Before we get started I would like to go over some guidelines for a respectful discussion. First of all, please speak up so everyone can hear, but also be mindful that you are not talking out of turn or over someone else. This is especially important because we want to be sure we can hear everyone and we do not want our note taking to be distorted. Courtney will be taking notes during this session and these notes will be summarized with notes from all other focus groups into "general findings". This input will be used by the Manchester Health Department to develop an updated Neighborhood Health Improvement Strategy that will outline new efforts to meet your needs as parents of the City's most valuable assets – its children. While we will be on a first name basis, rest assured that your name will not be attached in any report we create. All of your responses will be kept confidential and the paper notes we are taking will be deleted once the data is entered.

Again, remember that what is said during this Focus Group session, remains in this room. *Of course, if I were to learn that somebody was hurting you or your child, I might need to talk to others to ensure that everyone stays safe. Our discussion will last about an hour and a half, and while we will not be taking any formal breaks, you are more than welcome to take care of your needs as necessary. Bathrooms and drinking fountains are located_____. Does anyone have any questions before we begin? Let's begin!

FOCUS GROUP PROCESS

We have a lot of material to cover during our discussion, thus we shall observe the following process:

Focus Group Leadership: The following leaders will run the focus group

Group Leader: Will lead all discussion topics

Facilitator/Timekeeper: Will keep the discussion moving and on time and will assure that everyone has an opportunity to provide equal input. For each discussion point, we shall go around the group circle and call on each individual for his/her comments so that everyone has an opportunity to provide input. The timekeeper will have to ask you to wrap up your response if the group needs to move on to the next person or topic.

Recorder: Will take notes of the Discussion and will collect all flip chart notes for review after our meeting.

Focus Group Process Steps

1. **Discussion of Health Factors:**
    a. Welcome and Introduction
    b. The following discussion format will be followed for each of the four major Health Factors (Socio-economic, Physical Environment, Health Behaviors, Clinical Care and Health Outcomes)
        i. Definition of each Health Factor
        ii. Discussion of data about the Health Factor
        iii. Prioritize work to be done to improve each Health Factor (DOT VOTING)
        iv. List action-steps to be taken to start improvement work
2. **Discuss your vision for an Ideal Community**
3. **Complete 18-question written survey (15 min)**
4. **Receive gift card and thank you for participation.**

SOCIAL AND ECONOMIC FACTORS: The **socioeconomic factors** that determine health include: **employment, education, income, family and social support and community safety.**

Although Manchester hopes to further improve its social and economic factors, the City has done a great deal of work over the past five years to improve employment, education, income, family support and community safety of the City's population.

Question 1: When you think about the last five years, have you or your family experienced any improvements in services or resources around these social and economic factors?

Manchester City is committed to improving social and economic factors of its City's residents. Some specific areas for improvement for which we have good data and information are listed below. As compared to 500 cities across the United States, Manchester falls below average on the following indicators:

- **High school graduation rates**
- **School Absenteeism**
- **Income**
- **Violent Crime**
- **Third Grade Reading Proficiency**
- **Housing Costs**
- **Children living in poverty (in some neighborhoods)**
- **Unemployment rates (in some neighborhoods)**

Question 2: Are there any other social or economic factors of importance to you that should be added to this list? (List is up on flip chart and we add thoughts to list.)

Question 3: Based on the list of indicators where Manchester is below average, what would you list as the **top 3** areas where Manchester could/should take action and invest resources over the next five years? (DOT Voting)

Question 4: What specifically would be needed to make action possible around these issues (start with Top Three) and in general regarding social and economic factors?

PHYSICAL ENVIRONMENT FACTORS: The **physical environmental factors** that determine health include: **air and water quality, housing and transit**.

Although Manchester hopes to further improve its physical environmental factors, the City has done a great deal of work over the past five years to improve its housing and transportation systems.

Question 5: When you think about the last five years, have you or your family experienced any improvements in services or resources around these physical environmental factors?

Manchester City is committed to improving physical environmental factors of its City's residents. Some specific areas for improvement for which we have good data and information are listed below. As compared to 500 cities across the United States, Manchester falls below average on the following indicators:

- **Housing with Potential Lead Risk**
- **Lead Exposure Risk Index**
- **Access to Healthy Foods**
- **Walkability is poor in some neighborhoods**

Question 6: Are there any other physical environmental factors of importance to you that should be added to this list? (List is up on flip chart and we add thoughts to list.)

Question 7: Based on the list of indicators where Manchester is below average, what would you list as the **top 3** areas where Manchester could/should take action and invest resources over the next five years? (DOT Voting)

Question 8: What specifically would be needed to make action possible around these issues (start with Top Three) and in general regarding physical environmental factors?

HEALTH BEHAVIORS: The **health behaviors** that determine health include **tobacco, alcohol and drug use, diet and exercise and sexual activity.**

Although Manchester hopes to further improve the health behaviors of the City's population, the City has done a great deal of work over the past five years to improve health behaviors of the City's population.

Question 9: When you think about the last five years, have you or your family experienced any improvements in services or resources around tobacco, alcohol and drug use, diet and exercise and sexual activity?

Manchester City is committed to improving health behaviors of its City's residents. Some specific areas for improvement for which we have good data and information are listed below. As compared to 500 cities across the United States, Manchester falls below average on the following indicators:

- **Adult Binge Drinking**
- **Teen Births**
- **Adult Physical Inactivity**
- **Adult Tobacco Use**
- **Opioid Overdose Deaths**

Question 10: Are there any other health behavior factors of importance to you that should be added to this list? (List is up on flip chart and we add thoughts to list.)

Question 11: Based on the list of indicators where Manchester is below average, what would you list as the **top 3** areas where Manchester could/should take action and invest resources over the next five years? (DOT Voting)

Question 12: What specifically would be needed to make action possible around these issues (start with Top Three) and in general regarding health behaviors?

CLINICAL CARE AND HEALTH OUTCOMES: The **clinical care and health outcomes** that determine health include **access and quality of care as well as specific outcomes for targeted chronic diseases.**

Although Manchester hopes to further improve its clinical care and health outcomes, the City has done a great deal of work over the past five years to improve quality and access to health care services as well as specific health outcomes of the City's population.

Question 13: When you think about the last five years, have you or your family experienced any improvements in services or resources around clinical care or health outcomes for a chronic disease?

Manchester City is committed to improving clinical care and health outcomes of its City's residents. Some specific areas for improvement for which we have good data and information are listed below. As compared to 500 cities across the United States Manchester falls below average on the following indicators:

- **Obesity**
- **Frequent Physical Distress**
- **Frequent Mental Distress**
- **Life Expectancy**
- **Premature Death**
- **Uninsured – some neighborhoods**
- **Diabetes - some neighborhoods**
- **High Blood Pressure – some neighborhoods**

Question 14: Are there any other clinical care and health outcomes of importance to you that should be added to this list? (List is up on flip chart and we add thoughts to list.)

Question 15: Based on the list of indicators where Manchester is below average, what would you list as the **top 3** areas where Manchester could/should take action and invest resources over the next five years? (DOT Voting)

Question 16: What specifically would be needed to make action possible around these issues (start with Top Three) and in general regarding clinical care and health outcomes?

WRAP UP – WHAT IS YOUR VISION FOR AN IDEAL MANCHESTER?

QUESTION 17: What is the single most important issue facing your community?

QUESTION 18: What do you believe makes a community the best place to live?

QUESTION 19: If you could talk to the Mayor about one new or emerging health and safety issue in your community, what would it be?

QUESTION 20: DO YOU HAVE ANYTHING YOU WOULD LIKE TO ADD TO THIS DISCUSSION?