



New Bedford Health Department

Community Health Needs Assessment, 2019



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- Improve public understanding of critical policy issues.
- Provide educational and research opportunities to our faculty and students.
- Connect the resources of the University of Massachusetts to the communities we serve.

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The New Bedford Health Department Mission

The mission of the Health Department is to prevent disease and to promote and protect the health and wellbeing of New Bedford's residents and visitors. The Health Department is responsible for leading a broad public health mandate including Environmental Health (e.g., housing sanitation, childhood lead poisoning prevention, food safety, trash/nuisance, and environmental clean-up), Public Health Nursing, Substance Abuse and Violence Prevention (e.g., tobacco and alcohol), Municipal Marine Lab Testing, and Health and Wellness.

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EXECUTIVE SUMMARY

The Community Health Needs Assessment (CHNA) documents the major demographic, socioeconomic, and health trends among New Bedford residents, with a focus on health access, substance use disorder, wellness and chronic disease, and health disparities. The goal of the assessment is to inform data-driven objectives and strategies that can be used to improve the overall health of New Bedford residents. The analysis is enhanced by qualitative data gathered through focus groups and key stakeholder interviews conducted by the UMass Dartmouth College of Nursing (CON) during the development of a Community Health Improvement Plan (CHIP).

Key Findings

Health Equity and the Social Determinants of Health

Income, education, race, and other socioeconomic indicators are factors that affect health outcomes and are among the best predictors of health status and health equity. New Bedford continues to lag behind the state as a whole in most socioeconomic metrics, with lower levels of educational attainment, higher poverty levels, and higher unemployment rates. Previous research conducted by the PPC notes that New Bedford residents face a myriad of challenges that make it difficult to maintain overall health and to adopt healthy habits that help to prevent or manage disease. For many residents, health and wellness fit within a larger framework of day-to-day obligations, ranging from issues such as housing, finances, and childcare, to transportation, employment, immigration, and safety.

The key findings that follow provide a more detailed look at various health issues in New Bedford, including both health data and themes drawn from conversations with residents and key informants.

Health Systems and Health Care Access

People who do not have access to health care are at a greater risk of having poor overall health and negative health outcomes. New Bedford has a higher percentage of residents aged 18-64 years who report they lack health insurance (12.9%) in comparison to the state average (5.7%), although this percentage is near the U.S. average (11.6%). New Bedford residents are also somewhat less likely to get routine checkups and screenings in comparison to their state and national counterparts; just under three-quarters (74.1%) of New Bedford adults report that they have had a cholesterol screening, which compares to 86.2 percent of adults statewide and 77.0 percent of adults nationally.

Substance Use Disorder

Qualitative activities undertaken in developing the CHIP clearly confirm that the opioid crisis is a top health issue in New Bedford. Key informants noted that the opioid issue is exacerbated by the fact that there is not enough substance abuse treatment or counseling available. New Bedford experienced 54 opioid-related deaths in 2018. During the five-year span ranging from 2014–2018, the number of deaths in New Bedford increased by

26, or 92.9 percent. This compares to an increase of 45.1 percent statewide over this period.

Number of Opioid-Related Overdose Deaths by
Southcoast Communities, 2014–2018

	2014	2015	2016	2017	2018	# Change '14-'18	% Change '14-'18
New Bedford	28	53	57	45	54	+26	92.9%
Massachusetts	1,362	1,710	2,100	1,966	1,976	+614	45.1%

Source: Massachusetts Department of Public Health, Current Opioid Statistics.
Data represents deaths by city/town of residence for the decedent.

Behavioral Health

Behavioral health is an issue that connects many of the priority health issues presented in this report. This is especially true of individuals with substance use disorder, as evidenced by a growing population of patients with dual diagnosis, that is, individuals who experience a substance use issue along with a mental health issue. This patient population presents a new set of challenges to health care systems, which are often not equipped to effectively care for these patients both in terms of adequate staff training or the health care settings themselves. This patient population is also prone to chronic medical conditions due to, and exacerbated by, the chronic neglect of self-care such as chronic obstructive pulmonary disease (COPD), lung cancer, hepatitis, malnutrition, Type 2 diabetes, obesity, and cancer.

Mental Health

Mental health issues were cited by key informants as a primary health challenge in New Bedford, particularly since mental health is so closely linked with many of the other health and community issues faced by residents, including drug use. This is supported by available data, which show that a greater percentage of New Bedford (18.3%) residents report having more than 14 days per year with poor mental health in comparison to the national average (11.7%) (data for Massachusetts not available).

Wellness and Chronic Disease

As noted, health and wellness compete with more immediate day-to-day priorities for many New Bedford residents. Consequently, health and wellness indicators for New Bedford are often below state and national averages. This includes higher rates of diabetes, coronary heart disease, and Chronic Obstructive Pulmonary Disease.

These rates are partly affected by unhealthy behaviors. For example, the smoking prevalence in New Bedford remains higher than that of the state and country as a whole; 26.6 percent of New Bedford residents report that they smoke, compared to 13.6 percent of Massachusetts residents and 16.4 percent of residents nationwide. In addition, 31.1 percent of New Bedford’s residents report they have not engaged in any form of physical activity in the past 30 days, which is greater than both the statewide (20.0%) and national (24.2%) percentages.

Maternal, Infant, and Child Health

Women who have access to adequate resources and information are more likely to have healthy infants and be able to successfully care for their children immediately following birth, as well as later on in their child’s life. In addition, the nutrition, health, and well-being of a child are all affected by maternal care at the earliest stages of infancy. Levels of neonatal care and neonatal outcomes in New Bedford are somewhat less favorable compared to Massachusetts as a whole.

- The percentage of mothers receiving adequate prenatal care is lower in New Bedford (74.6%) in comparison to the statewide average (82.1%).
- The percentage of babies born with a low birth weight (defined as being born weighing less than 2,500 grams) is higher in New Bedford (8.8%) in comparison to the statewide average (7.5%) and this percentage has increased since 2010.
- The prevalence of gestational diabetes in New Bedford is higher (6.7%) in comparison to the statewide average (5.6%) and this percentage has increased since 2010.

Neonatal Outcomes, 2010–2016

	Adequate Prenatal Care		Low Birthrate (<2,500 g)		Gestational Diabetes	
	2010	2016	2010	2016	2010	2016
New Bedford	76.4%	74.6%	7.6%	8.8%	4.9%	6.7%
Massachusetts	84.9%	82.1%	7.8%	7.5%	4.7%	5.6%

Source: Massachusetts Birth Report, via Massachusetts Perinatal Quality Collaborative.

1 OVERVIEW

The mission of the New Bedford Health Department (NBHD) is to prevent disease and to promote and protect the health and well-being of New Bedford's residents and visitors. NBHD is responsible for leading a broad public health mandate including Environmental Health, Public Health Nursing, Substance Abuse and Violence Prevention, Municipal Marine Lab Testing, and Health and Wellness.

The NBHD is preparing to apply for national accreditation. The Community Health Needs Assessment (CHNA) lays the groundwork for this process by documenting the major demographic, socioeconomic, and health trends among New Bedford residents. The analysis is enhanced by qualitative data gathered through focus groups and key stakeholder interviews conducted by the UMass Dartmouth College of Nursing (CON) during the development of a Community Health Improvement Plan (CHIP) on behalf of NBHD. The CHIP identifies improvement strategies and provides time-framed targets for community health improvement.

The CHNA includes three primary components:

1. **Demographic and Profile:** Understanding the community by examining its people in terms of population, race, education, income, wages, and employment.
2. **Health Equity and Social Determinants of Health:** Highlighting disparities among residents in terms of income, education, and race, all of which are factors that affect health outcomes and are among the best predictors of health status.
3. **Health Assessment:** Identifying major health issues and needs by analyzing a variety of health indicators.

1.1 METHODS

The CHNA presents data on a variety of health indicators. The analysis, however, goes a step further, where possible, by presenting these data in the context of social determinants of health and by highlighting disparities in terms of income, education, and race, all of which are factors that affect health outcomes. The document also incorporates lessons learned from key informant interviews and focus groups conducted in support of the CHIP.

Data, where available, are reported for the City of New Bedford, Massachusetts, and the nation. Data for the CHNA are derived from several sources. Where available, confidence intervals are included to address the levels of sampling error.¹ Data sources include:

- Centers for Disease Control and Prevention, 500 Cities Project
- Massachusetts Bureau of Substance Abuse Services

¹ The Massachusetts Department of Public Health is currently developing a Population Health Information Tool (PHIT), which will be a portal for Massachusetts health data. The tool will provide various health data for each community, but importantly, will also include community-specific health data framed by social determinants of health. The tool is currently in development and was not available at the time of this needs assessment.

- Massachusetts Center for Health Information and Analysis
- Massachusetts Department of Elementary and Secondary Education
- Massachusetts Department of Public Health, Environmental Public Health Tracking
- Massachusetts Executive Office of Labor and Workforce Development
- U.S. Census Bureau and U.S. Census Bureau American Community Survey

2 DEMOGRAPHIC PROFILE OF THE REGION

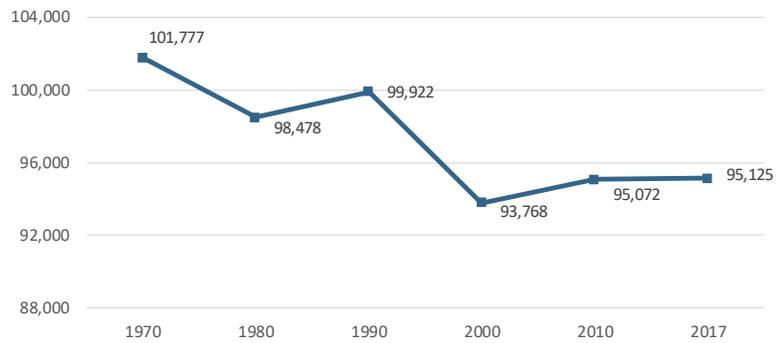
The demographic and economic profile presents a snapshot of New Bedford residents in terms of population, race, education, income, wages, and employment. Where applicable, data are presented for both New Bedford and state averages.

2.1 POPULATION TRENDS

New Bedford’s current population is 95,125. The city’s population has declined since 2017, although it has increased modestly since 2000 (see Figure 1). Figure 2 displays New Bedford’s population change by decade in relation to the state population change.

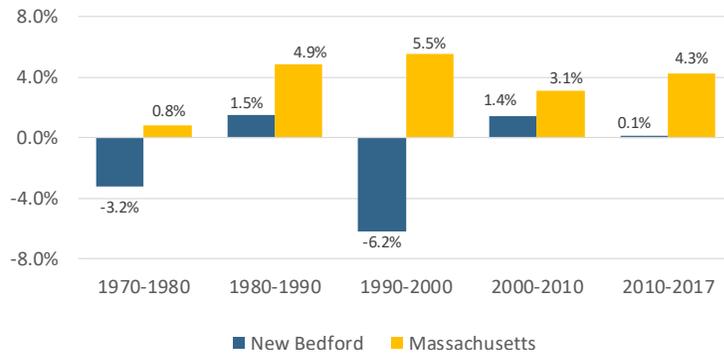
New Bedford’s current population is 95,125. The city’s population has been increasing modestly since 2000.

Figure 1
Historical Population of New Bedford by Decade, 1970–2017



Source: 1970 through 2010, U.S. Census STF3 file, Annual Estimates of the Resident Population; 2017, U.S. Census Bureau, Population Division.

Figure 2
Population Change by Decade



Source: 1970 through 2010, U.S. Census STF3 file, Annual Estimates of the Resident Population; 2017, U.S. Census Bureau, Population Division.

2.2 MEDIAN HOUSEHOLD INCOME

New Bedford's median household income in 2017 (\$40,626) was only 54.8 percent of the statewide median (\$74,167).

New Bedford's median household income in 2017 (\$40,626) was only 54.8 percent of the statewide median (\$74,167). New Bedford's inflation-adjusted median household income increased by 0.3 percent from 2011 to 2017, while median income increased by 2.7 percent statewide over this period (see Figure 3).

Figure 3
Inflation-Adjusted Median Household Income by Community, 2011–2017



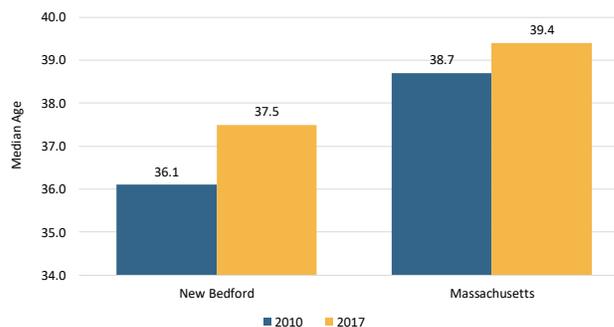
Source: ACS 5-Year Estimates, Table S1903, 2007–2011 & 2013–2017.

2.3 MEDIAN AGE AND AGE COHORT

New Bedford's population is aging slightly. The age cohorts in New Bedford generally reflect their counterparts at the state level.

The nation's population is aging and this trend is evident both in New Bedford and Massachusetts (see Figure 4).² There are health care implications inherent in this trend, particularly in terms of how health care systems manage chronic conditions such as cancer, dementia, falls, obesity, and diabetes. The age cohorts in New Bedford generally reflect their counterparts at the state level (see Figure 5).

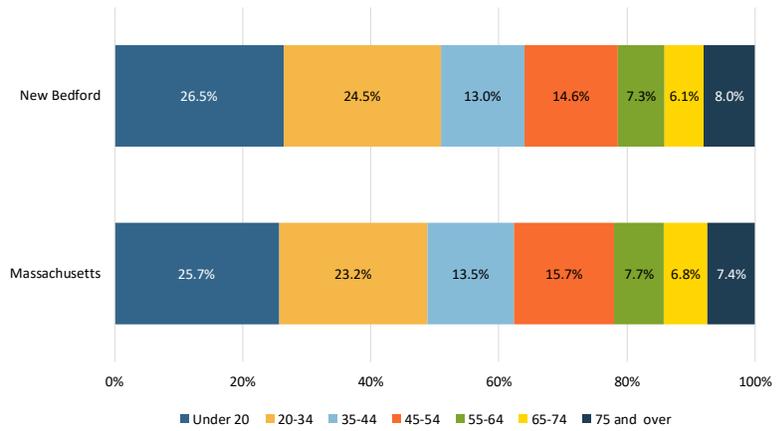
Figure 4
Median Age by Community, 2010 and 2017



Source: 2010–2014 & 2013–2017 ACS 5-Year Estimates, Table B01002.

² For more information on the increase in the national median age, see: <https://www.census.gov/newsroom/press-releases/2018/popest-characteristics.html>.

Figure 5
Age Cohorts, 2017



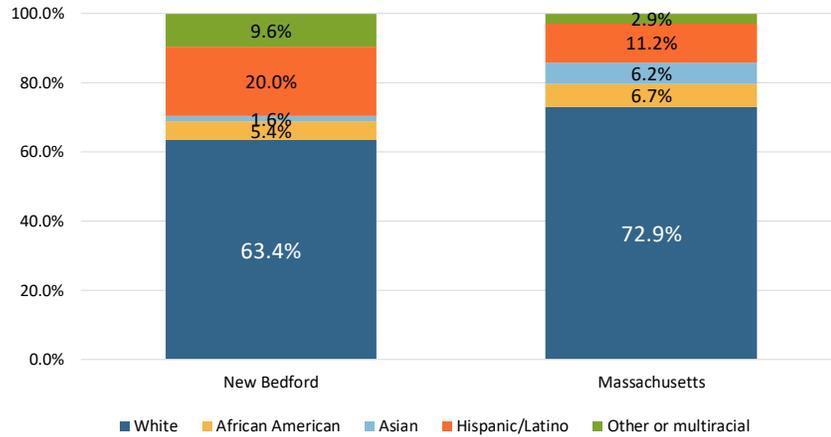
Source: 2013–2017 ACS 5-Year Estimates, Table S010.

2.4 RACE

New Bedford is more diverse than the Commonwealth; 63.4 percent of New Bedford residents are White-non-Hispanic, compared with 72.9 percent of residents in Massachusetts (see Figure 6).

New Bedford is more diverse than the Commonwealth as a whole, although the majority of its residents are White, non-Hispanic.

Figure 6
Race/Ethnicity



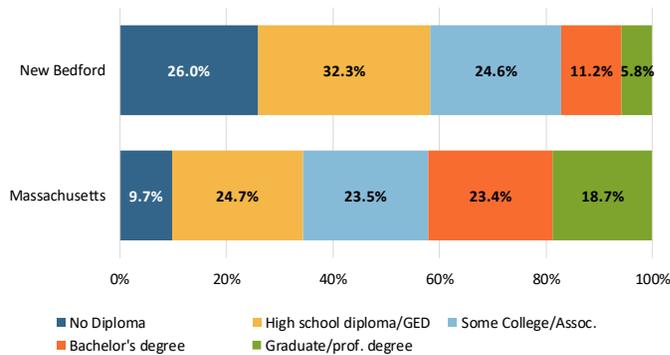
Source: ACS 5-Year Estimates, Table DP05.

2.5 EDUCATIONAL ATTAINMENT

New Bedford has long struggled with low levels of educational attainment.

New Bedford has long struggled with low levels of educational attainment. The majority of New Bedford residents 25 years of age or older has never attended a college or university (see Figure 7). Additionally, when compared to the adult population statewide, New Bedford has nearly three times the percentage of adults who have not completed high school (26.0% and 9.7%, respectively).

Figure 7
Educational Attainment for the Population
25 Years of Age and Older, 2017



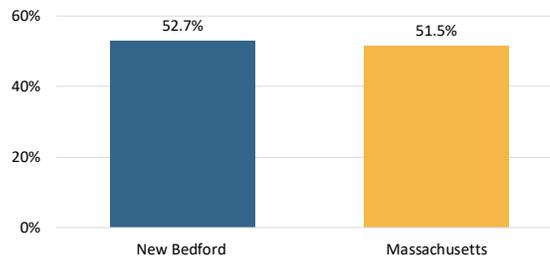
Source: American Community Survey 5-Year Estimates, Table S1501, 2012–2016.

2.6 PROPORTION OF WOMEN

Women account for 52.7 percent of New Bedford’s population, compared with 51.5 percent of the population statewide.

Women play an essential role in maintaining family health, and are more likely than men to access the health care systems for their needs and the needs of their children. In addition to the unique health care needs of women related to childbirth and care, their longer life expectancies mean that women are more affected by long-term and elder care issues than are men.³ In New Bedford, women account for 52.7 percent of the population, compared with 51.5 percent of the population statewide (see Figure 8).

Figure 8
Proportion of Women, 2017



Source: ACS Survey 5-Year Estimates, Table DP05, 2013–2017.

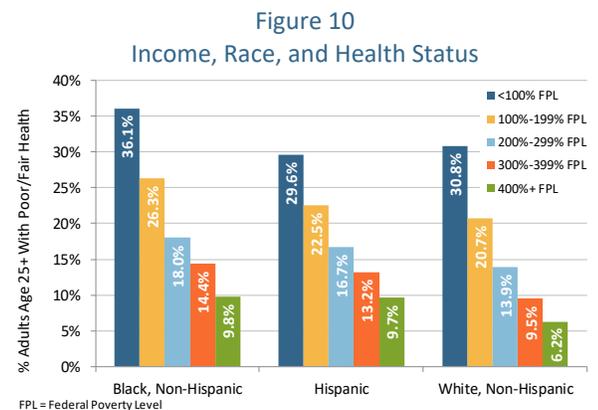
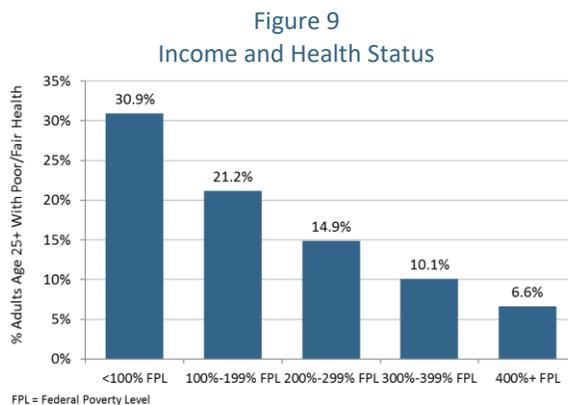
³ Wheeler, J.B.; Foreman, M.; & Rueschhoff, A. (2013) “Improving Women’s Health: Health Challenges, Access and Prevention” *Improving Women’s Health Series Brief No. 3*. National Conference of State Legislatures, Washington D.C.

3 HEALTH EQUITY AND SOCIAL DETERMINANTS OF HEALTH

On average, individuals who are poor, less educated, and a minority have lower levels of health than those with higher incomes, higher levels of education, or who are White.

This section highlights disparities among community members in terms of various socioeconomic indicators, including poverty and race, all of which are factors that affect health outcomes and are among the best predictors of health status and health equity. Social determinants of health, which are described as “the conditions in which people are born, grow, work, live, age, and the wider set of forces and systems shaping the conditions of daily life,”⁴ are responsible for most health inequalities. On average, individuals who are poor, less educated, and a minority have lower levels of health than those with higher incomes, higher levels of education, or who are White. These factors place unique stresses on health systems, particularly those operating in urban areas.⁵

For example, the Robert Wood Johnson (RWJ) Foundation’s Commission to Build a Healthier America notes that health status improves as income rises (see Figure 9). This pattern holds true for African Americans, Hispanics, and Whites (see Figure 10). While adults who are poor are most likely to report being in poor or fair health, the report notes that “even adults with middle class incomes are less healthy than those with higher incomes.” This pattern is known as the socioeconomic gradient in health.⁶



Source: RWJ Foundation Commission to Build a Healthier America, 2009.

Behaviors are often cited as primary factors in explaining the socioeconomic gradient. For example, poor people are more likely to engage in risky behaviors such as binge drinking and smoking, have poorer diets, and exercise less.⁷ However, others highlight that quality of care and access to care are equally important factors that affect health. Racial and ethnic minorities, the poor, and the less educated often face more barriers to care and receive poorer quality of care when accessible. The National Healthcare Disparities Report from the Agency for Healthcare Research and Methodology (mandated annually by

⁴ World Health Organization. Social determinants of health. 2018. Accessed at www.who.int/social_determinants on November 9, 2018.

⁵ Fox, C., Morford, T. G., Fine, A., & Gibbons, C. (2004). The Johns Hopkins Urban Health Institute: a collaborative response to urban health issues. *Academic Medicine*. 79:1169–1174.

⁶ Robert Wood Johnson Foundation. (April 2009). *Issue brief 5: race and socioeconomic factors*. Commission to Build a Healthier America.

⁷ North Carolina Institute of Medicine. (February 2013). *Prevention for the health of North Carolina: prevention action plan*. Healthy North Carolina 2020.

Congress), concludes that while quality of care is improving, issues regarding access to care are increasing. The report states that “these disparities may be due to differences in access to care, provider biases, poor provider-patient communication, or poor health literacy.”⁸

3.1 AREA DEPRIVATION INDEX

The Area Deprivation Index (ADI) is based on a measure created by the U.S. Health Resources and Services Administration. Combining seventeen indicators, the ADI measures social vulnerability (e.g. Income, employment, education, and housing conditions) and has been linked to poorer health outcomes.^{9,10} Figure 11 shows the Census tracts in which New Bedford’s most vulnerable residents reside.

Figure 11
Southcoast Region ADI



⁸ Agency for Healthcare Research and Quality. (2012). *National healthcare disparities report*. Publication # 13-0003.

⁹ Singh, G. K., Williams, S. D., Siahpush, M., & Mulhollen, A. (2011). Socioeconomic, Rural-Urban, and Racial Inequalities in US Cancer Mortality: Part I—All Cancers and Lung Cancer and Part II—Colorectal, Prostate, Breast, and Cervical Cancers. *Journal of Cancer Epidemiology*, 2011, 1–27.

¹⁰ Singh, G. K., Azuine, R. E., Siahpush, M., & Kogan, M. D. (2012). All-Cause and Cause-Specific Mortality among US Youth: Socioeconomic and Rural–Urban Disparities and International Patterns. *Journal of Urban Health*, 90(3), 388–405.

3.2 POVERTY

The share of the population living below the poverty level in New Bedford is more than twice the state average.

Poverty is a major social determinant of health. Those in poverty often have less opportunity and less access to resources that can assist in improving and maintaining one’s health. Resources that contribute to educational attainment, employment, housing status, health care opportunities, and social activities are all less accessible to those living in poverty. The share of the population living below the poverty level in New Bedford is more than twice the state average and increased by 1.5 percent from 2012 to 2017 (see Table 1). This translates to more than 21,500 New Bedford residents living below the poverty level.

Table 1
Share of the Population Living Below the Poverty Level

	2012	2017	% Change
New Bedford	21.6%	23.1%	1.5%
Massachusetts	11.0%	11.1%	0.1%

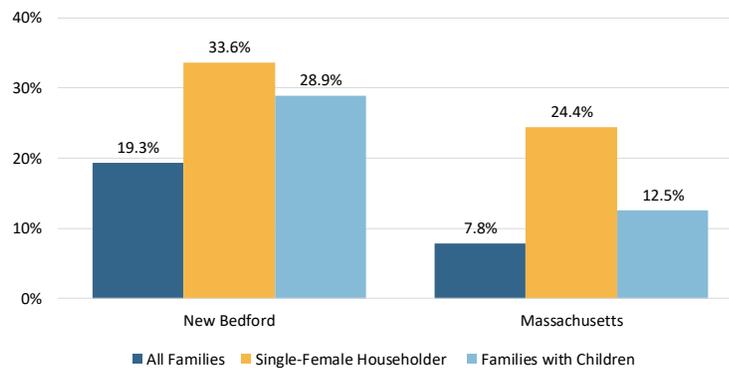
Source: 2012-2017 American Community Survey 5-year Estimates (Table S1701)

Family Poverty

New Bedford has higher poverty rates for all categories, with single-female led families as the most likely to be in poverty when compared to other families.

The children of families living in poverty are more likely to have negative health outcomes. Figure 12 outlines the poverty rates for all families, those led by a female with no spouse, and those with children. Similar to individual measure of poverty, New Bedford has higher poverty rates for all categories, with single-female led families as the most likely to be in poverty when compared to other families.

Figure 12
Family Poverty in Selected Areas, 2017



Source: ACS 5-Year Estimates, Table S1702, 2012–2016.

Student Poverty

More than two-thirds (66.1%) of New Bedford Public Schools students and 37.9 percent of New Bedford Voc-Tech students were classified as economically disadvantaged by the Department of Elementary and Secondary Education (DESE) in the 2017-2018 school year. This compares to 31.2 percent of students statewide (see Table 2).¹¹

Table 2
Students Classified as Economically Disadvantaged Students,
2017–2018 School Year

District	Percent
New Bedford	66.1%
New Bedford Voc-Tech	37.9%
Massachusetts	31.2%

Source: Massachusetts Department of Elementary and Secondary Education.

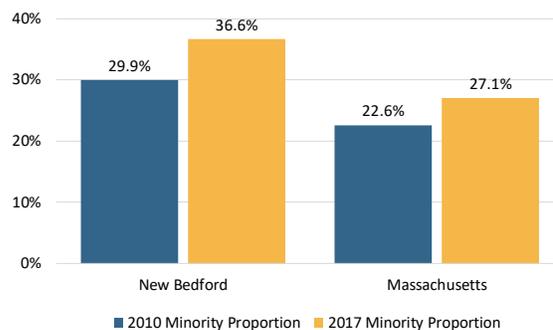
3.3 MINORITY POPULATION

New Bedford's population is becoming more diverse.

People of color face significant disparities in access to and utilization of care. Health care providers in the Southcoast need to ensure that they are attuned to the needs of different racial groups as the region's population grows increasingly more diverse. African-Americans in particular fare worse than Whites with regard to most health outcomes, which is partly a result of increased barriers to accessing care and lower utilization of care.

New Bedford's population is becoming more diverse. From 2011 to 2017, the minority population in New Bedford increased by 6.7 percent, which compares to an increase of 4.5 percent statewide (see Figure 13).

Figure 13
Change in Minority Population



Source: ACS 5-Year Estimates, Table DP05.

¹¹ Economically disadvantaged students are defined as those who participate in one or more of the following state-administered programs: the Supplemental Nutrition Assistance Program (SNAP); the Transitional Assistance for Families with Dependent Children (TAFDC); the Department of Children and Families' (DCF) foster care program; and MassHealth (Medicaid).

3.4 FOREIGN-BORN POPULATION AND ENGLISH LANGUAGE ABILITY

“There are many people here from other countries that want to work but can’t because of the language barrier.” – CHIP key informant

New Bedford has long been an attractive place to settle for immigrants, as evidenced by foreign-born residents representing 20.8 percent of the region’s population, compared to 16.2 percent of the population statewide (Source: ACS 5-year estimates, 2013-2017). New Bedford has been a traditional destination for new arrivals to America since the late 18th century. Portuguese immigrants make up the majority of the foreign-born residents. However, as emigration from Europe to the U.S. has slowed, Latin American, South American, and Asian immigrants make up increasing shares of the population.

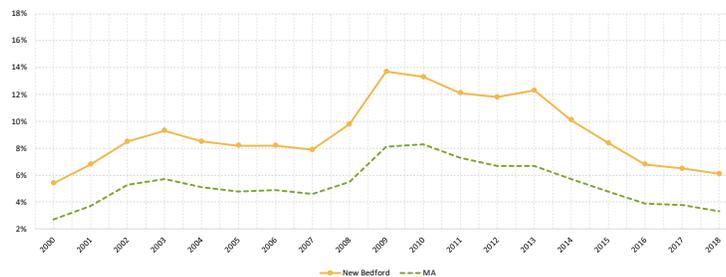
A changing immigrant population can create challenges for service providers. As the foreign-born population in the region begins to shift away from Lusophone countries of origin, health care providers will need to employ staff who can both engage with new arrivals in their native languages and understand cultural barriers to care. In New Bedford, 17.5 percent of the population five years of age and older speaks English less than “very well,” which compares to a Massachusetts average of 9.1 percent.

3.5 EMPLOYMENT AND WAGES

Having a job and earning a living wage can be critical for maintaining health. Apart from the fact that many individuals and families receive health insurance through their employer, a job makes it easier for individuals and families to live in healthier neighborhoods, send their children to better schools, and buy more nutritious food, all of which contribute to living a more healthy lifestyle. Conversely, not having a job leads to more economic stresses that contribute to negative health, including higher rates of depression and stress-related conditions such as stroke and heart disease.¹²

Although unemployment rates across the state have declined from their 2009 peaks, New Bedford continues to have unemployment rates above that of the Commonwealth (see Figure 14). The latest unemployment rates available for this report show that in April 2019, the unemployment rate in New Bedford was 4.4 percent, compared to 2.6 percent statewide (not seasonally adjusted).

Figure 14
Unemployment Rate 1990–April, 2019



Source: Massachusetts Executive Office of Labor and Workforce Development LAUS Reports (Not Seasonally Adjusted).

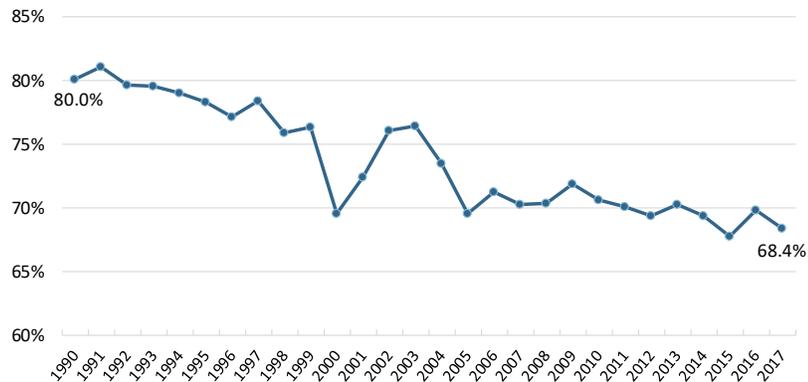
¹² Robert Wood Johnson Foundation. See <https://www.rwjf.org/en/library/research/2012/12/how-does-employment--or-unemployment--affect-health-.html>.

Wage Gap

The gap between the state and New Bedford average annual wage has been persistent for decades, and has continued to widen.

Average annual wages in New Bedford are well below the state average; in 2017, the annual average wage in New Bedford was \$47,594, compared to \$69,447 statewide. As Figure 15 demonstrates, the gap between the state and New Bedford average wage has been persistent for decades, and has continued to widen.

Figure 15
Annual Average Wage in Selected Areas as a Percentage of State Average, 1990–2017



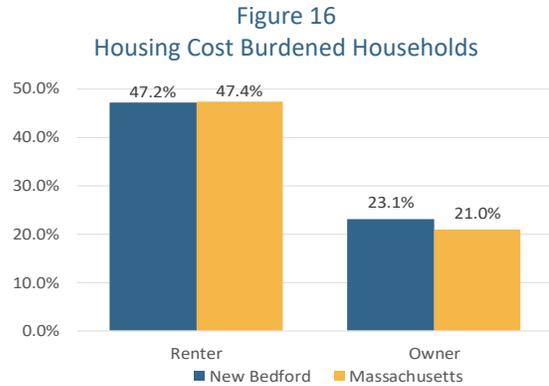
Source: Authors' Calculations from Massachusetts Executive Office of Labor and Workforce Development ES-202 Data, 1990–2017.

Housing and Homelessness

While not directly a health issue, housing stability and quality can have a great effect on health outcomes. Housing issues identified by key informants center primarily around quality, affordability, and availability. While rents and home prices in New Bedford are relatively affordable compared to statewide median housing costs, many households in the city still struggle to find affordable housing. A key informant noted that “We have a waiting list of over 4,000 people to get housing. Waiting time could be anywhere between from six months to ten years,” while another stated, “People can’t afford their rent.”

In order to secure housing, some households have to rent or buy at costs that are above their means, increasing the cost-of-living burden on low-income households. Over 47 percent of renters (47.2%) and 23.1 percent of homeowners in New Bedford are housing cost burdened (see Figure 16). HUD defines cost-burdened families as those “who pay more than 30 percent of their income for housing” and “may have difficulty affording necessities such as food, clothing, transportation, and medical care.”¹³

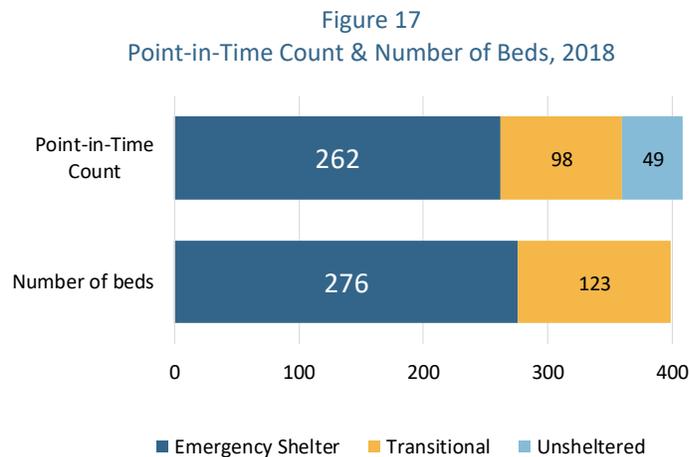
¹³ See https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html. Retrieved June 11, 2019.



Source: 2013-2017 American Community Survey 5-Year Estimates, Table DP04.

Some key informants and focus group members identified homelessness as a significant issue in the region, which is partly a result of a shortage of affordable housing. Mental health and substance abuse issues, which are highly prevalent among the homeless population, are also key factors in the homelessness equation.¹⁴ One key informant noted “There aren’t enough homeless shelters and programs in place. It is really difficult to access shelters without having gone through the channels.”

There were a total of 409 homeless individuals in New Bedford counted during the 2018 point-in-time count. The majority were in an emergency shelter during the count (see Figure 17).



Source: HUD Annual Homeless Assessment Report, 2007 – 2018 Point-in-Time Estimates by CoC.

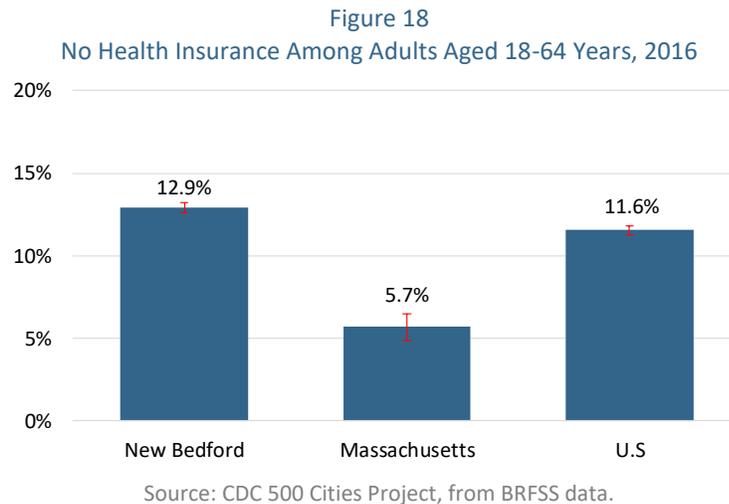
¹⁴ See <https://www.nationalhomeless.org/factsheets/addiction.pdf>. Retrieved December 17, 2018.

4 HEALTH SYSTEMS AND HEALTH CARE ACCESS

People who do not have access to health care are at a greater risk of having poor overall health and negative health outcomes. This includes access to a wide variety of health services such as preventative care, dental care, mental health services, and emergency services. Regular access to health services is essential in managing health conditions, preventing new conditions from arising, and promoting and maintaining overall good health.¹⁵ A suggestion made by multiple key informants was the need to establish a school-based health center in New Bedford, which would serve to reduce barriers to accessing preventative care and treatment.

4.1 HEALTH INSURANCE COVERAGE

New Bedford has a higher percentage of residents aged 18-64 years who report they lack health insurance (12.9%) in comparison to the state average (5.7%), although this percentage is near the U.S. average (11.6%) (see Figure 18).



4.2 PREVENTATIVE CARE

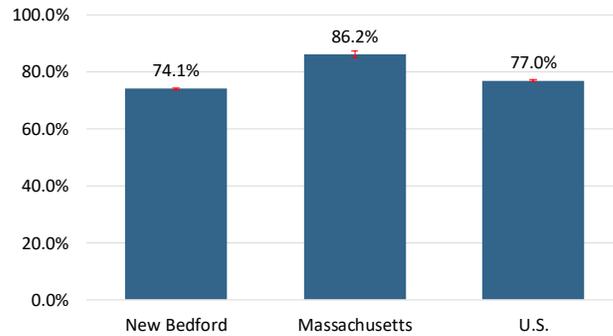
Regularly seeing a health practitioner and undergoing routine screenings can identify health issues before they start or worsen. Annual checkups and screenings also allow health practitioners to screen for social determinants of health that may present barriers to good health. Overall, New Bedford residents are somewhat less likely to get routine checkups and screenings in comparison to their state and national counterparts.

¹⁵ Some data in this section was obtained from the Center for Disease Control & Prevention 500 Cities Project, which uses small area estimation methods for 27 chronic disease measures covering the 500 largest American cities. While multi-year data is available, the current modeling procedure does not support using the estimates to track changes at the local level over time.

Just under three-quarters (74.1%) of New Bedford adults report that they have had a cholesterol screening, which compares to 86.2 percent of adults statewide and 77.0 percent of adults nationally (see Figure 19).

Figure 19

Table: Cholesterol Screening Among Adults Aged >=18 years, 2015



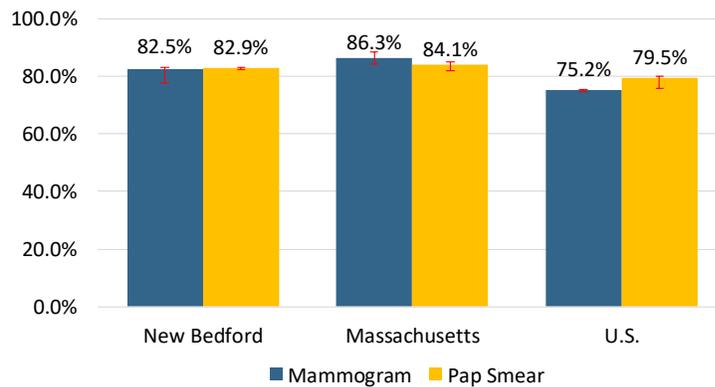
Source: CDC 500 Cities Project, from BRFSS data.

Overall, New Bedford residents are somewhat less likely to get routine checkups and screenings in comparison to their state and national counterparts.

Over 82 percent (82.5%) of New Bedford women aged 50 to 74 report that they have had a mammogram within the past two years, which is below the Massachusetts average (86.3%) but above the national average (75.2%). The percentage of women aged 21 to 65 in New Bedford (82.9%) who report that they have had a Pap smear screening is similar with the state (84.1%) and national (79.5%) averages (see Figure 20).

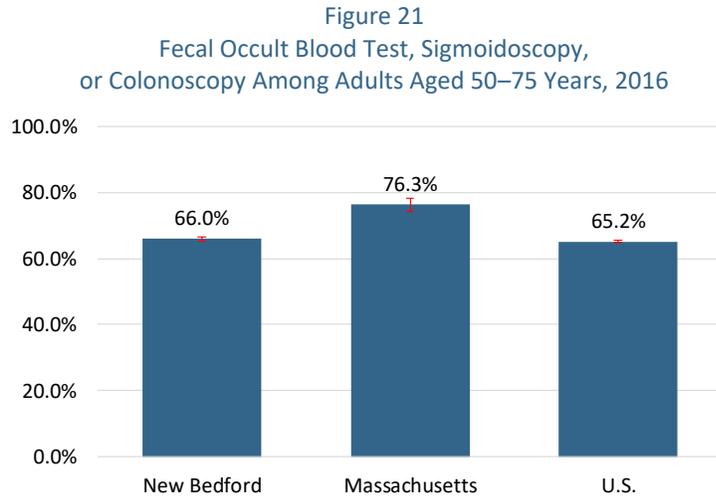
Figure 20

Women Aged 50-74 Who Have Had a Mammogram in the Past Two Years and Women Aged 21 to 65 Who Have Had a Pap Smear in the Past Three years, 2016



Source: CDC 500 Cities Project, from BRFSS data.

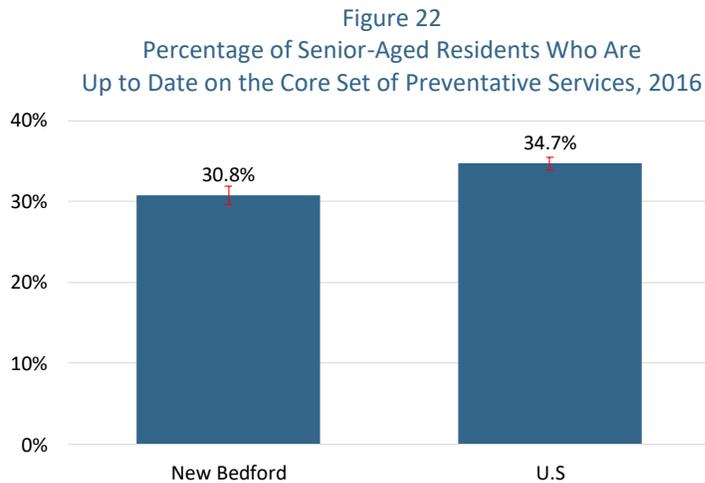
The percentage of New Bedford residents aged 50 to 75 who report that they have had a colonoscopy or fecal blood test (66.0%) is similar to the national average (65.2%), but below the Massachusetts average (76.3%) (see Figure 21).



Source: CDC 500 Cities Project, from BRFSS data.

New Bedford seniors lag behind the share of seniors nationally who are up to date on preventative services.

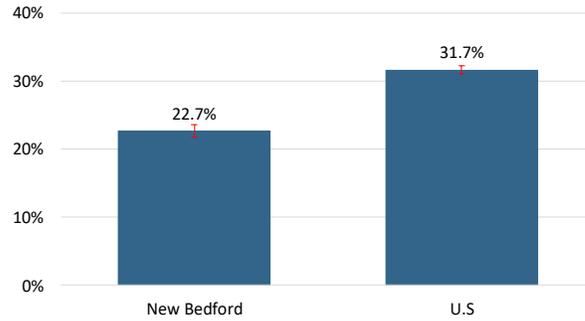
New Bedford seniors lag behind the share of seniors nationally who are up to date on preventative services (see Figure 22 and Figure 23). The CDC’s criteria for being up to date with clinical preventative services includes having a flu shot within the past year, having a PPV shot within one’s lifetime, and having a colorectal screening. Notably, the percentage of senior-aged females who are up to date with these services is lower than their male counterparts at both the city and national level. This may be due to the fact that women are less likely to have a colorectal screening.



Source: CDC 500 Cities Project, from BRFSS data.

Figure 23

Females Aged ≥ 65 Years Who Are Up to Date on a Core Set of Clinical Preventive Services: Flu Shot Past Year, PPV Shot Ever, Colorectal Cancer Screening, 2016



Source: CDC 500 Cities Project, from BRFSS data.

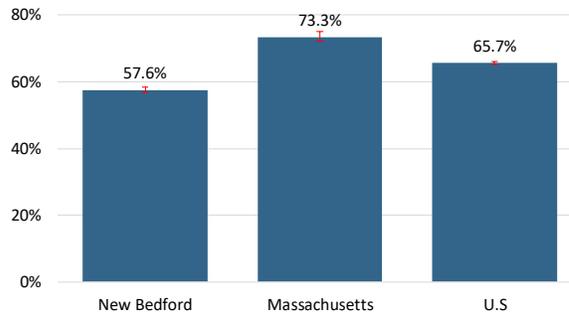
4.3 ORAL HEALTH

The percentage of New Bedford residents 18 years of age and older who reported visiting a dentist in the past twelve months is lower than that of the state or nation.

Poor dental health, and gum disease in particular, is linked to negative health outcomes such as diabetes, heart disease, and stroke. The percentage of New Bedford residents 18 years of age and older who reported visiting a dentist in the past twelve months is lower than that of the state or nation (see Figure 24). In addition, the percentage of senior-aged residents who report that they have lost all of their teeth is also much higher than the share of U.S. or Massachusetts seniors (see Figure 25).

Figure 24

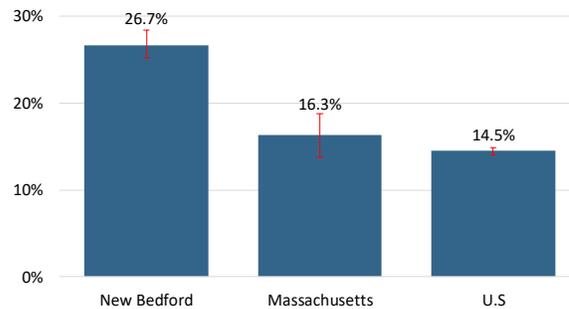
Visited a Dentist in the Past Year, 2016



Source: CDC 500 Cities Project, from BRFSS data.

Figure 25

All Teeth Lost Among Adults Aged ≥ 65 Years, 2016



Source: CDC 500 Cities Project, from BRFSS data.

5 SUBSTANCE USE DISORDER

There is a critical and growing drug abuse and addiction problem throughout much of the United States. In Massachusetts alone, there were 1,928 confirmed cases of opioid-related deaths in 2017 and the number of confirmed opioid-related overdose deaths increased by 246 percent from 2010 to 2017. For the first nine months of 2018, there were 1,233 confirmed opioid-related overdose deaths statewide, and DPH estimates that there will be an additional 252 to 318 deaths by the end of the year.¹⁶

The economic consequences of opioid use are also dire. The Massachusetts Taxpayers Foundation estimates that the opioid epidemic cost Massachusetts \$15.2 billion in 2017. The Foundation reports that lost productivity alone cost the state and its employers more than \$2.5 billion, while excess health care costs related to opioid usage are estimated to exceed \$2.0 billion.¹⁷

5.1 OPIOID-RELATED DEATHS

New Bedford is not immune to the substance use disorder crisis, and many key informants noted that drug use is the most dire challenge for the city. Key informants noted that the issue is exacerbated by the fact there is not enough substance abuse treatment or counseling available.

New Bedford experienced 54 opioid-related deaths in 2018. During the five-year span ranging from 2014–2018, the number of deaths in New Bedford increased by 26, or 92.9 percent. This compares to an increase of 45.1 percent statewide over this period (see Table 3).

During the five-year span ranging from 2014–2018, the number of opioid-related deaths in New Bedford increased by 26, or 92.9 percent.

Table 3
Number of Opioid-Related Overdose Deaths by
Southcoast Communities, 2014–2018

	2014	2015	2016	2017	2018	# Change '14-'18	% Change '14-'18
New Bedford	28	53	57	45	54	+26	92.9%
Massachusetts	1,362	1,710	2,100	1,966	1,976	+614	45.1%

Source: Massachusetts Department of Public Health, Current Opioid Statistics.
Data represents deaths by city/town of residence for the decedent.

5.2 OPIOID-RELATED HOSPITAL UTILIZATION

The Massachusetts Health Policy Commission notes that the opioid epidemic is significantly impacting the Massachusetts health care system due to the high number of patients seeking opioid-related care and treatment at Massachusetts hospitals. For example, Massachusetts had the highest rate of opioid-related emergency department

¹⁶ Data Brief: Opioid-Related Overdose Deaths among Massachusetts Residents. Massachusetts Department of Public Health. November, 2018.

¹⁷ The Massachusetts Opioid Epidemic. An Issue of Substance. Massachusetts Taxpayers Foundation. 2018.

(ED) visits in the U.S. and the second highest rate of opioid-related inpatient stays in 2014.¹⁸

Table 4 presents the number of opioid-related hospital discharges for New Bedford and in 2011 and 2015 by ZIP code, as well as the overall number of discharges for Massachusetts.¹⁹ The number of opioid-related hospital discharges in New Bedford increased by 73.5 percent over this period, which compares to 56.3 percent statewide.

Table 4
Number of Opioid-Related Hospital Discharges

	2011	2015	% Change
New Bedford ZIP:			
02745	160	269	68.1%
02746	127	238	87.4%
02740	551	904	64.1%
02744	100	216	116.0%
New Bedford Total:	938	1,627	73.5%
Massachusetts	40,994	64,084	56.3%

Source: HPC Analysis - CHIA Hospital Inpatient Discharge Database and Emergency Department Database, 2015.

Although data are not available at the local level, it is clear that the opioid crisis is impacting newborns in Southeast Massachusetts at a greater rate than elsewhere in the state.

5.3 NEONATAL ABSTINENCE SYNDROME (NAS)

Neonatal abstinence syndrome (NAS) is a group of conditions that babies experience after being exposed to narcotics in the womb. While some drugs are more likely to cause NAS than others, nearly all narcotics have some effect on the infant. Infants born with NAS can have low birth weight, respiratory distress, feeding difficulty, tremors, increased irritability, diarrhea, and seizures.

NAS is highly prevalent in Massachusetts compared to the nation. Although data are not available at the local level, it is clear that the opioid crisis is impacting newborns in Southeast Massachusetts at a greater rate than elsewhere in the state. As of 2015, the region had the highest rate of infants diagnosed with NAS, with 27.3 babies per 1,000 live births suffering from the syndrome.²⁰ Comparatively, 14.5 infants per 1,000 births were diagnosed with NAS statewide in 2015. Moreover, these rates are on the rise. Southeast Massachusetts saw a rate of 20.2 NAS diagnoses per 1,000 infants in 2011, indicating a 35 percent increase over this period (see Figure 26).

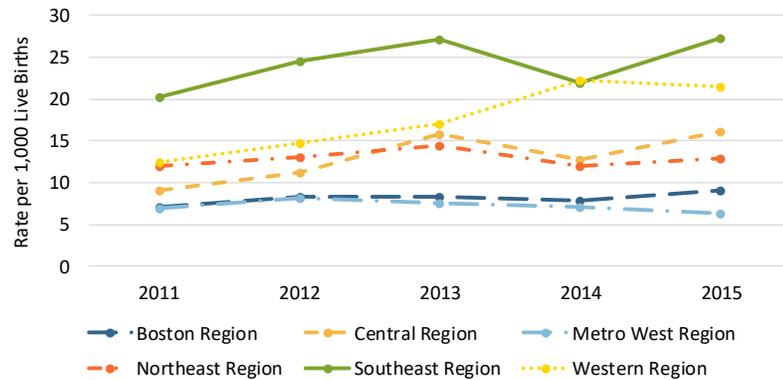
¹⁸ Massachusetts Health Policy Commission’s analysis of the Center for Health Information and Analysis (CHIA), Hospital Inpatient Discharge and Emergency Department Databases, 2011 and 2015. See <https://www.mass.gov/info-details/hpc-datapoints-issue-4-opioid-epidemic>.

¹⁹ Hospital discharges include both ED discharges and inpatient discharges and are based on a resident’s ZIP code, not hospital address.

²⁰ The Southeast region includes the counties of Bristol, Plymouth, Dukes, Barnstable, and Nantucket. Refer to the Neonatal Abstinence Syndrome Dashboard for more data at <https://cognos10.hhs.state.ma.us/cv10pub/cgi-bin/cognos.cgi/repository/sid/cm/rid/i52F1713856BF460093E5C97D64EA10C4/oid/default/content/mht/content>.

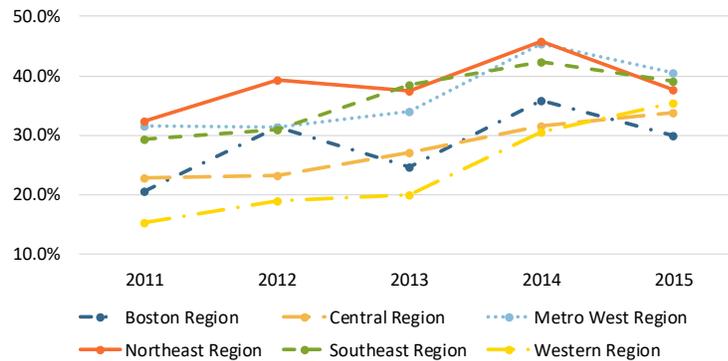
The cost of treating an infant affected by NAS is estimated to be three times that of treating an otherwise healthy newborn.²¹ However, all infants diagnosed with NAS are able to receive Early Intervention (EI) services, which come with no out-of-pocket costs. Unfortunately, only 36.7 percent of infants diagnosed with NAS in Massachusetts were enrolled in an EI program. Southeast Massachusetts had slightly better enrollment in comparison to the state as a whole in 2015, with 39 percent of all infants diagnosed with NAS enrolled in the EI program (see Figure 27).

Figure 26
Number of Infant Diagnosed with NAS per 1,000 Live Births by Region, 2015



Source: Pregnancy to Early Life Longitudinal Data System (PELL). Retrieved from the Neonatal Abstinence Syndrome Dashboard. Report generated with the latest available data on May 18, 2018.

Figure 27
Percent of Infants with NAS Enrolled in an Early Intervention Program Within 1 Year After Birth, 2015



Source: Pregnancy to Early Life Longitudinal Data System (PELL). Retrieved from the Neonatal Abstinence Syndrome Dashboard. Report generated with the latest available data on May 18, 2018.

²¹ Corr, T. & Hollenbeak, C. (2017). "The economic burden of neonatal abstinence syndrome in the United States." *Addiction*. 112(9). Retrieved from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/add.13842>.

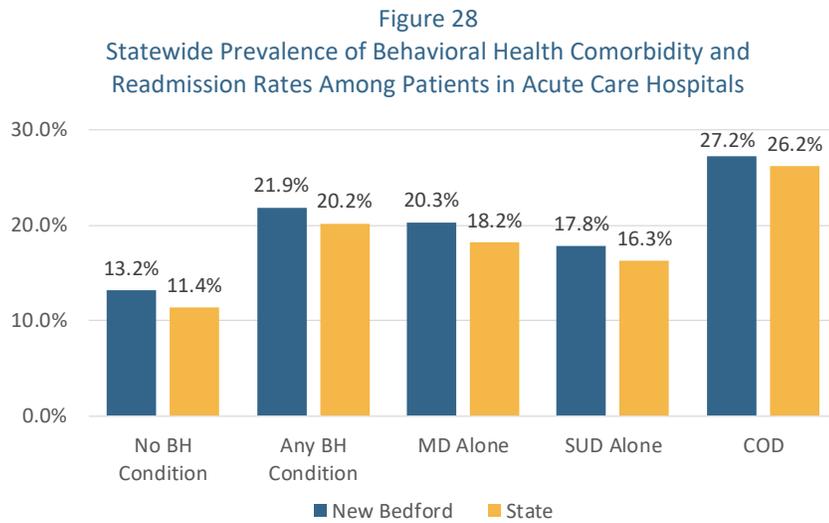
5.4 SUBSTANCE USE DISORDER AND BEHAVIORAL HEALTH

There is a growing population of patients with dual diagnosis, that is, individuals who experience a substance use issue along with a mental health issue. In fiscal year 2016, 52 percent of treatment admissions reported to the Massachusetts Department of Public Health Bureau of Substance Addiction Services (BSAS) had a history of mental health treatment.²²

As a whole, patients with comorbid behavioral health conditions also are at higher than average risk of readmission. An analysis by the Massachusetts Center for Health Information and Analysis (CHIA) found that there is a high prevalence of behavioral health comorbidities among hospitalized adults in Massachusetts acute care hospitals and that readmission rates for patients with behavioral health comorbidities were substantially higher than for patients without any behavioral health comorbidity.²³

Readmission rates for New Bedford are similar to the statewide percentages. For New Bedford, 27.2 percent of acute hospital readmissions were for patients with co-occurring mental/substance abuse disorders, which compares to 26.2 percent statewide. These percentages are more than twice the percentage of hospital readmissions for patients with no behavioral health condition (13.2% and 11.4% respectively) (see Figure 28).

In fiscal year 2016, 52 percent of treatment admissions reported to the Massachusetts Department of Public Health Bureau of Substance Addiction Services (BSAS) had a history of mental health treatment.



Source: Massachusetts Hospital Inpatient Discharge Database, July 2013 - June 2014. Analysis by Massachusetts CHIA. Analyses include discharges for adults with any payer, excluding discharges for obstetric. BH=Behavioral Health, MD=Mental disorders, SUD=Substance use disorders, COD=Co-occurring mental/substance use disorders.

²² Massachusetts Department of Public Health. *Massachusetts State Health Assessment*. Boston, MA; October 2017.

²³ Behavioral Health & Readmissions in Massachusetts Acute Care Hospitals. August 2016. Center for Health Information and Analysis (CHIA).

6 WELLNESS AND CHRONIC DISEASE

In Massachusetts, chronic disease contributes to 56 percent of overall mortality and accounts for approximately \$30.9 billion in health care expenditures alone.²⁴ While some chronic conditions are genetic, social and environmental factors can elevate the risk of contracting chronic diseases such as cancer, diabetes, respiratory disease, and cardiovascular disease.

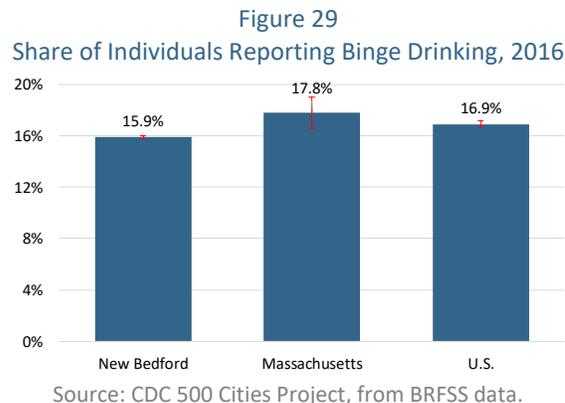
As demonstrated earlier in Section 3 of this report, the region exhibits many health inequities as a result of the social determinants of health, including much higher poverty rates and lower levels of education in comparison to the state overall. Therefore, it is not surprising that the following health outcomes related to wellness and chronic disease are generally poor when compared to state and national averages. Indeed, turning these health trends around will require more than just offering treatment and preventive care; it will also require addressing the social environment that contributes to such health inequities.

New Bedford's health outcomes related to wellness and chronic disease are generally poor when compared to state and national averages.

6.1 ALCOHOL AND TOBACCO USE

Binge drinking, defined by the CDC as drinking five or more drinks on an occasion for adult men or four or more drinks on an occasion for adult women, is associated with an increased risk of many health problems, such as liver disease, stroke, cancer, and unintentional injuries. The harmful effects of smoking are well known, with nearly one in five deaths linked to smoking.²⁵

The percentage of New Bedford adults (15.9%) who report binge drinking is similar to adults across Massachusetts (17.8%) and the nation (16.9%) (see Figure 29). Conversely, smoking prevalence in New Bedford (26.6%) is much higher than that of the state (13.6%) and nation as a whole (16.4%) (see Figure 30).²⁶

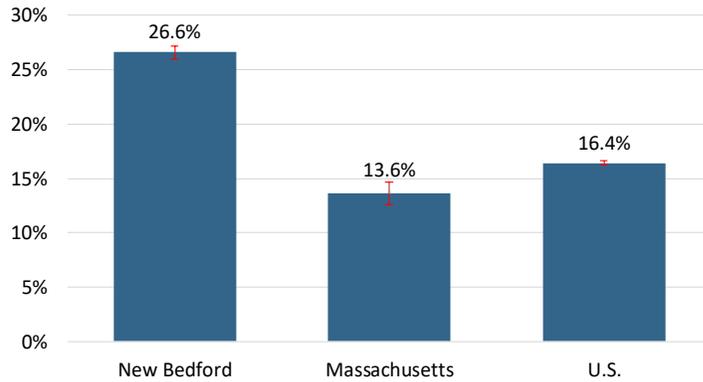


²⁴ Massachusetts Department of Public Health. *Massachusetts State Health Assessment*. Boston, MA; October 2017.

²⁵ U.S. Department of Health and Human Services. (2014). *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Atlanta.

²⁶ A smoker is defined as someone who smokes every day or some days.

Figure 30
Smoking Prevalence, 2016

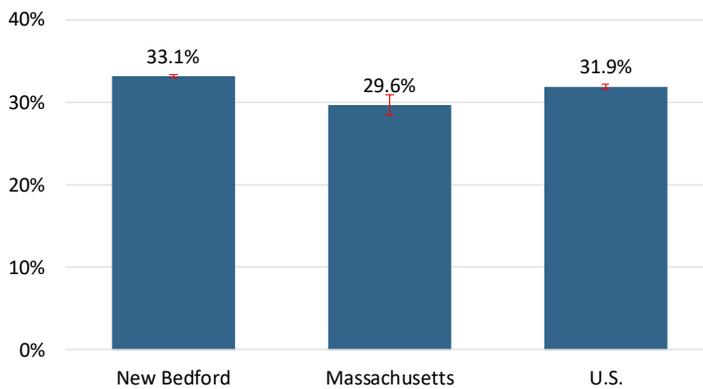


Source: CDC 500 Cities Project, from BRFSS data.

6.2 HIGH BLOOD PRESSURE AND HIGH CHOLESTEROL

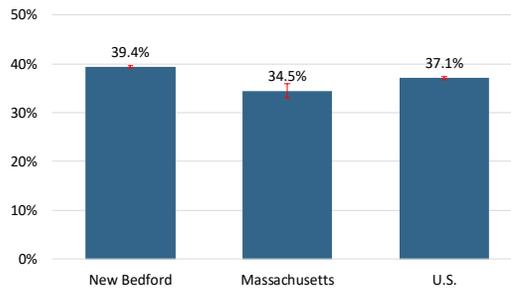
High blood pressure and cholesterol are strongly linked to other negative health outcomes such as heart disease. The percentage of individuals reporting high blood pressure is generally similar in New Bedford (33.1%), Massachusetts (29.6%), and the U.S. (31.9%) (see Figure 31). Additionally, the percentage of adults reporting having high cholesterol is slightly higher in New Bedford (39.4%) in comparison to Massachusetts (34.5%) and the nation (37.1%) (see Figure 32).

Figure 31
Adults Report Having High Blood Pressure, 2015



Source: CDC 500 Cities Project, from BRFSS data.

Figure 32
High Cholesterol Among Adults Aged ≥ 18 Years
Who Have Been Screened in the Past 5 Years, 2015



Source: CDC 500 Cities Project, from BRFSS data.

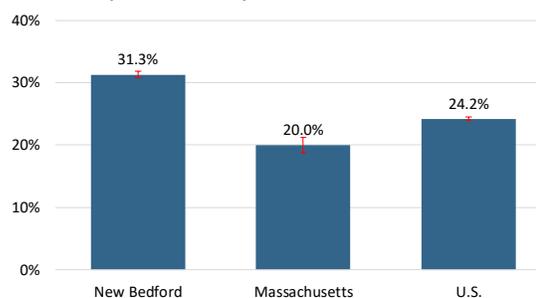
6.3 PHYSICAL ACTIVITY AND OBESITY

A comparatively large proportion of New Bedford residents report they have not been physically active during their leisure time in the past month. Not surprisingly, therefore, obesity rates are also much higher when compared to state and national averages.

Along with a poor diet, a lack of physical activity can lead to a person being overweight or obese. Individuals who are obese are at a higher risk for a variety of health factors including high blood pressure, coronary heart disease, stroke, sleep apnea, and some cancers.²⁷ Obesity can also be a factor in higher rates of mental illness such as clinical depression, anxiety, and other mental disorders.^{28,29}

Relative to the state (20.0%) and nation (24.2%), a comparatively large proportion of residents living in New Bedford (31.3%) report they have not been physically active during their leisure time in the past month (see Figure 33). Not surprisingly, therefore, obesity rates are also much higher; 31.6 percent of New Bedford adults are obese, which compares to 23.6 percent of Massachusetts residents and 29.6 percent of adults nationally (see Figure 34). Key informants also noted that there is a lot of food insecurity among students, and that “the only times kids eat is when they are at school.”

Figure 33
Adults Aged ≥ 18 Years Who Reported Little or
No Physical Activity in the Past Month, 2016



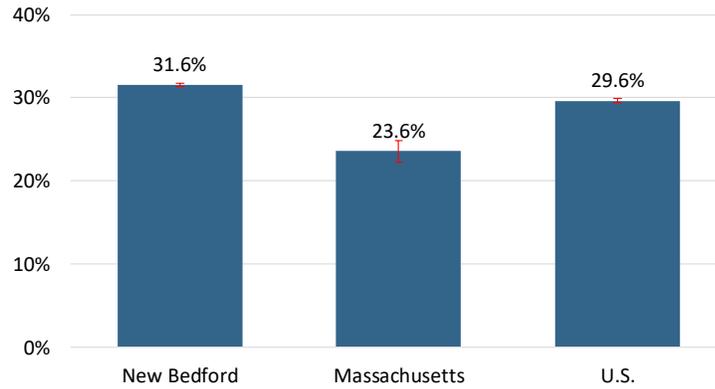
Source: CDC 500 Cities Project, from BRFSS data.

²⁷ NHLBI. 2013. Managing Overweight and Obesity in Adults: Systematic Evidence Review from the Obesity Expert Panel.

²⁸ Kasen, Stephanie, et al. “Obesity and psychopathology in women: a three decade prospective study.” *International Journal of Obesity* 32.3 (2008): 558-566.

²⁹ Luppino, Floriana S., et al. “Overweight, obesity, and depression: a systematic review and meta-analysis of longitudinal studies.” *Archives of general psychiatry* 67.3 (2010): 220-229.

Figure 34
Obesity Among Adults Aged ≥ 18 Years, 2016



Source: CDC 500 Cities Project, from BRFSS data.

6.4 POOR PHYSICAL HEALTH

With a higher percentage of New Bedford residents who smoke, are less physically active, and are obese, it is not surprising that a higher percentage of these residents report having more than 14 days per year with poor physical health in comparison to the national average (see Figure 35).

Figure 35
Adults Reporting Poor Physical Health for at Least 14 Days, 2016



Source: CDC 500 Cities Project, from BRFSS data.

6.5 DISEASE PREVALENCE

Table 5 compares disease prevalence for eight types of diseases. In nearly each instance, the disease prevalence is higher in New Bedford in comparison to the state and national averages. Higher rates of disease prevalence can be linked to many of the unhealthy behaviors presented in the previous sections, including higher rates of smoking, poor nutrition, and lack of exercise.

Table 5
Disease Prevalence, 2015

	2016	Low Conf. Limit	High Conf. Limit	Low Conf. Limit	High Conf. Limit
Arthritis among adults aged >=18 Years					
Fall River	31.3%	32.4%	33.0%	31.0%	31.6%
New Bedford	31.0%	32.1%	32.6%	30.7%	31.2%
Massachusetts	25.2%	26.3%	28.4%	24.0%	26.5%
U.S.	25.4%	25.4%	25.9%	25.1%	25.6%
Cancer (excluding skin cancer) among adults aged >=18 Years					
Fall River	7.1%	7.2%	7.4%	7.1%	7.2%
New Bedford	7.0%	7.0%	7.2%	6.9%	7.1%
Massachusetts	6.8%	7.0%	8.1%	6.1%	7.5%
U.S.	6.6%	6.3%	6.6%	6.4%	6.7%
Chronic kidney disease among adults aged >=18 Years					
Fall River	3.4%	3.3%	3.4%	3.3%	3.4%
New Bedford	3.5%	3.4%	3.5%	3.4%	3.5%
Massachusetts	2.4%	2.7%	3.6%	2.0%	2.9%
U.S.	2.9%	2.7%	2.9%	2.9%	3.0%
Chronic obstructive pulmonary disease among adults aged >=18 Years					
Fall River	10.6%	11.2%	11.9%	10.3%	10.9%
New Bedford	10.4%	11.0%	11.5%	10.1%	10.6%
Massachusetts	5.4%	5.9%	7.1%	4.7%	6.0%
U.S.	6.5%	6.5%	6.7%	6.4%	6.6%
Coronary heart disease among adults aged >=18 Years					
Fall River	8.1%	8.2%	8.5%	7.9%	8.3%
New Bedford	8.1%	8.2%	8.6%	8.0%	8.3%
Massachusetts	No data	No data	No data	No data	No data
U.S.	6.6%	6.5%	6.8%	6.5%	6.7%
Current asthma among adults aged >=18 Years					
Fall River	13.0%	14.3%	14.8%	12.8%	13.2%
New Bedford	13.0%	14.4%	14.7%	12.9%	13.2%
Massachusetts	10.3%	11.1%	12.8%	9.4%	11.2%
U.S.	8.9%	8.7%	9.1%	8.7%	9.0%
Diagnosed diabetes among adults aged >=18 Years					
Fall River	11.2%	12.2%	12.6%	11.0%	11.4%
New Bedford	11.8%	12.9%	13.2%	11.6%	11.9%
Massachusetts	9.3%	9.0%	10.4%	8.5%	10.1%
U.S.	10.8%	10.3%	10.7%	10.6%	10.9%
Stroke among adults aged >=18 Years					
Fall River	4.1%	3.7%	3.9%	4.0%	4.2%
New Bedford	4.2%	3.8%	4.0%	4.1%	4.3%
Massachusetts	No data	No data	No data	No data	No data
U.S.	3.2%	3.0%	3.2%	3.1%	3.3%

Source: CDC 500 Cities Project, from BRFSS data.

Higher rates of disease prevalence in New Bedford can be linked to many of the unhealthy behaviors presented in the previous sections, including higher rates of smoking, poor nutrition, and lack of exercise.

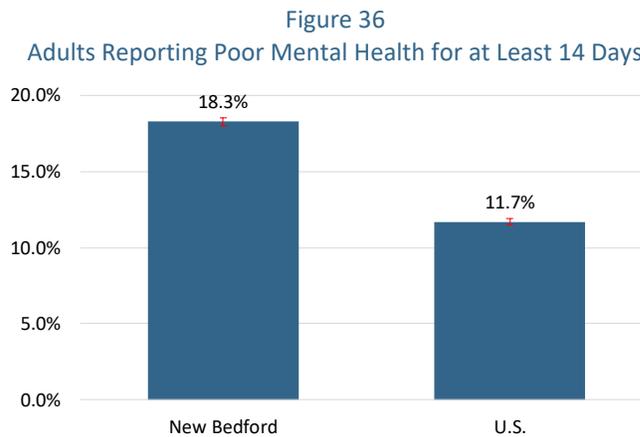
6.6 MENTAL HEALTH

Social inequities have been associated with increased risk of common mental health disorders, and the stigma associated with seeking treatment for mental and behavioral health issues often prevents those in need of care from seeking it.³⁰ In a region with low levels of educational attainment and high levels of poverty, there are many social factors that influence not only mental health but community perceptions on receiving treatment.³¹ Moreover, addressing mental health needs is an important undertaking for local health care providers because evidence shows that common mental health disorders, such as depression, are associated with an increased risk of poor physical health and chronic illness.³²

Almost every key informant interviewed for the CHIP reported that mental health was a problem in the communities they serve.

Key informants interviewed for the CHIP provided many discussions related to mental health. One noted that “Immigrants are living in constant fear and self-medicate,” while another stated that “...mental illness is the core of the opioid problem. If they don’t fix the mental health crisis, they aren’t going to fix the opioid crisis.” Key informants also revealed that there are not enough emergency response treatment programs in place for mental illness crisis, including for students; “Students are waiting up to three months on a waiting list to receive these services.” It was also noted that mental health providers need to focus on the fishing industry and immigrant communities, particularly since there is a mental health stigma to reaching out for services among these groups.

Data show that a greater percentage of New Bedford (18.3%) residents report having more than 14 days per year with poor mental health in comparison to the national average (11.7%) (data for Massachusetts not available) (see Figure 36).



Source: CDC 500 Cities Project, from BRFSS data.

³⁰ World Health Organization & Calouste Gulbenkian Foundation. (2014). *Social determinants of mental health*. Geneva, WHO.

³¹ Mechanic, D. & McAlpine, D. (2002). “The Influence of Social Factors on Mental Health.” *Principles and Practice of Geriatric Psychiatry*.

³² Refer to the Office of Disease Prevention and Health Promotion’s Healthy People 2020 resources on mental health at <https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Mental-Health>.

7 MATERNAL, INFANT, AND CHILD HEALTH

Women who have access to adequate health resources and health information are more likely to have healthy infants and be able to successfully care for their children immediately following birth, as well as later on in their child’s life. Family planning centers or doctors’ offices for women and infants are important community resources for women to have access to before, during, and after their pregnancy. The nutrition, health, and well-being of a child are all affected by maternal care in utero and at the earliest stages of infancy. For example, health care providers in the region are increasingly treating infants with neonatal abstinence syndrome (NAS), as these infants will often face significant health problems in the early years of their lives.³³

Levels of neonatal care and neonatal outcomes in New Bedford are less favorable in comparison to Massachusetts as a whole.

Infant and maternal mortality rates can highlight disparities among regions that have high or low social, economic, and environmental factors within them that might affect the health and safety of mothers and infants. In Massachusetts, factors such as race, ethnic background, and economic status play a role in determining which resources mothers and their children will have access to. This can lead to increased or decreased success in the child’s opportunities to remain healthy and to practice healthy behaviors.

7.1 NEONATAL OUTCOMES

Levels of neonatal care and neonatal outcomes in New Bedford are less favorable in comparison to Massachusetts as a whole.

- The percentage of mothers receiving adequate prenatal care is lower in New Bedford (74.6%) in comparison to the statewide average (82.1%).
- The percentage of babies born with a low birth weight (defined as being born weighing less than 2,500 grams) is higher in New Bedford (8.8%) in comparison to the statewide average (7.5%) and this percentage has increased since 2010.
- The prevalence of gestational diabetes in New Bedford is higher (6.7%) in comparison to the statewide average (5.6%) and this percentage has increased since 2010 (see Table 6).

Table 6
Neonatal Outcomes, 2010–2015

	Adequate Prenatal Care		Low Birthrate (<2,500 g)		Gestational Diabetes	
	2010	2016	2010	2016	2010	2016
New Bedford	76.4%	74.6%	7.6%	8.8%	4.9%	6.7%
Massachusetts	84.9%	82.1%	7.8%	7.5%	4.7%	5.6%

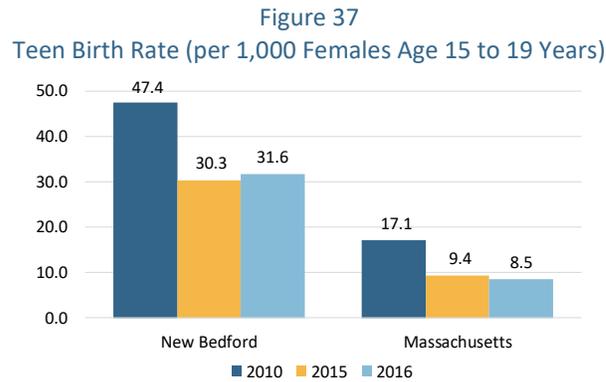
Source: Massachusetts Birth Report, via Massachusetts Perinatal Quality Collaborative.

³³ More information about NAS can be found in Section 7.4.

7.2 TEEN BIRTHS

The teen birth rate declined in New Bedford from 2010 to 2016, although the rate is still significantly higher than the statewide rate (see Figure 37).³⁴ While data are not available at the local level, disparities are evident at the state level, with Hispanic teen birth rate more than seven times that of White, non-Hispanic teens.³⁵

The teen birth rate declined in New Bedford from 2010 to 2016, although the rate is still significantly higher than the statewide rate.



Source: Massachusetts Birth Report, via Massachusetts Perinatal Quality Collaborative.

7.3 LEAD EXPOSURE

Massachusetts lead regulation (105 CMR 460.050) requires that all children be tested for blood lead between the ages of nine and twelve months, and again at ages two and three. Additionally, it is recommended that children should be tested again at age four if they live in a high-risk community. Table 7 presents childhood lead screening percentages, prevalence by blood lead levels, and prevalence for estimated and confirmed blood lead levels. The number of reported lead poisoning cases among children aged nine to forty-seven months of age dropped in New Bedford from 2010 to 2017. However, the share of children tested during this period also declined (see Table 7).

Table 7
Number of Children 9-47 Months of Age Diagnosed with Lead Poisoning, 2010–2017

	2010	2011	2012	2013	2014	2015	2016	2017
New Bedford	Number ³⁶	48	29	32	33	26	26	33
	% Screened ³⁷	89.0%	90.0%	88.0%	88.0%	86.0%	85.0%	84.0%

Source: Childhood Lead Poisoning Prevention Program, via Massachusetts Bureau of Environmental Health.

³⁴ Rates are per 1,000 females ages 15-19 per city/town. MADPH calculates city/town birth rates using DPH’s Race Allocated Census 2010 Estimates. Importantly, if the population of a community increased from 2010 to 2015, the rates listed may overestimate the actual rate. If the population in your community declined from 2010 to 2015, the rates given in the publication may underestimate the actual rate.

³⁵ *Massachusetts Births, 2015*. Massachusetts Department of Public Health. March 2017.

³⁶ The Childhood Lead Poisoning Prevention Program defines lead poisoning as a blood lead level ≥ 10 $\mu\text{g}/\text{dL}$.

³⁷ The percentage of children 9 to 47 months of age who were screened for lead poisoning in the given calendar year.

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