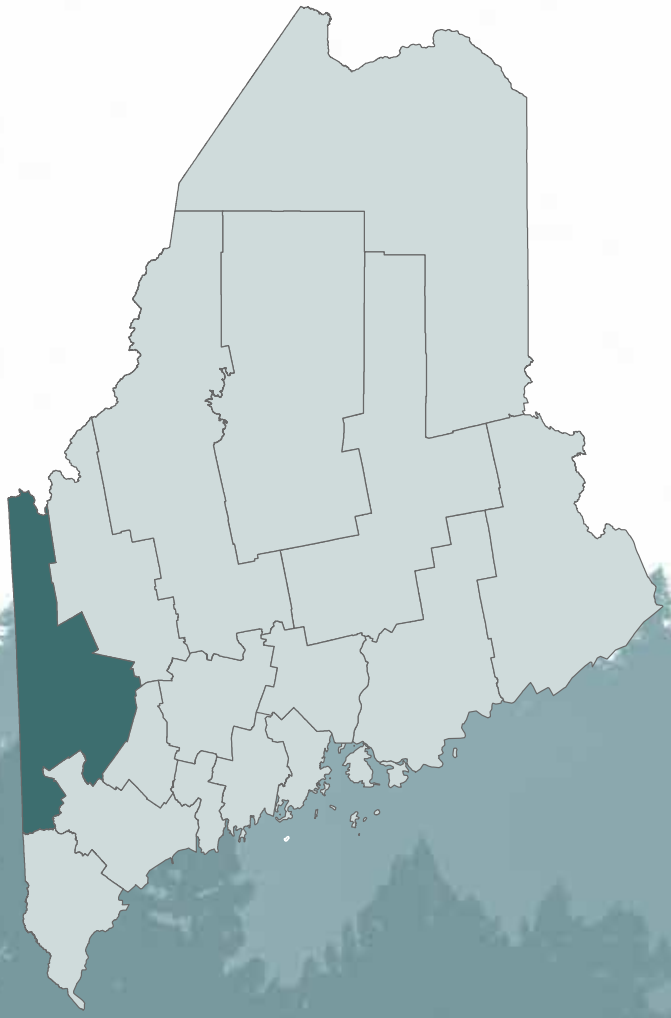
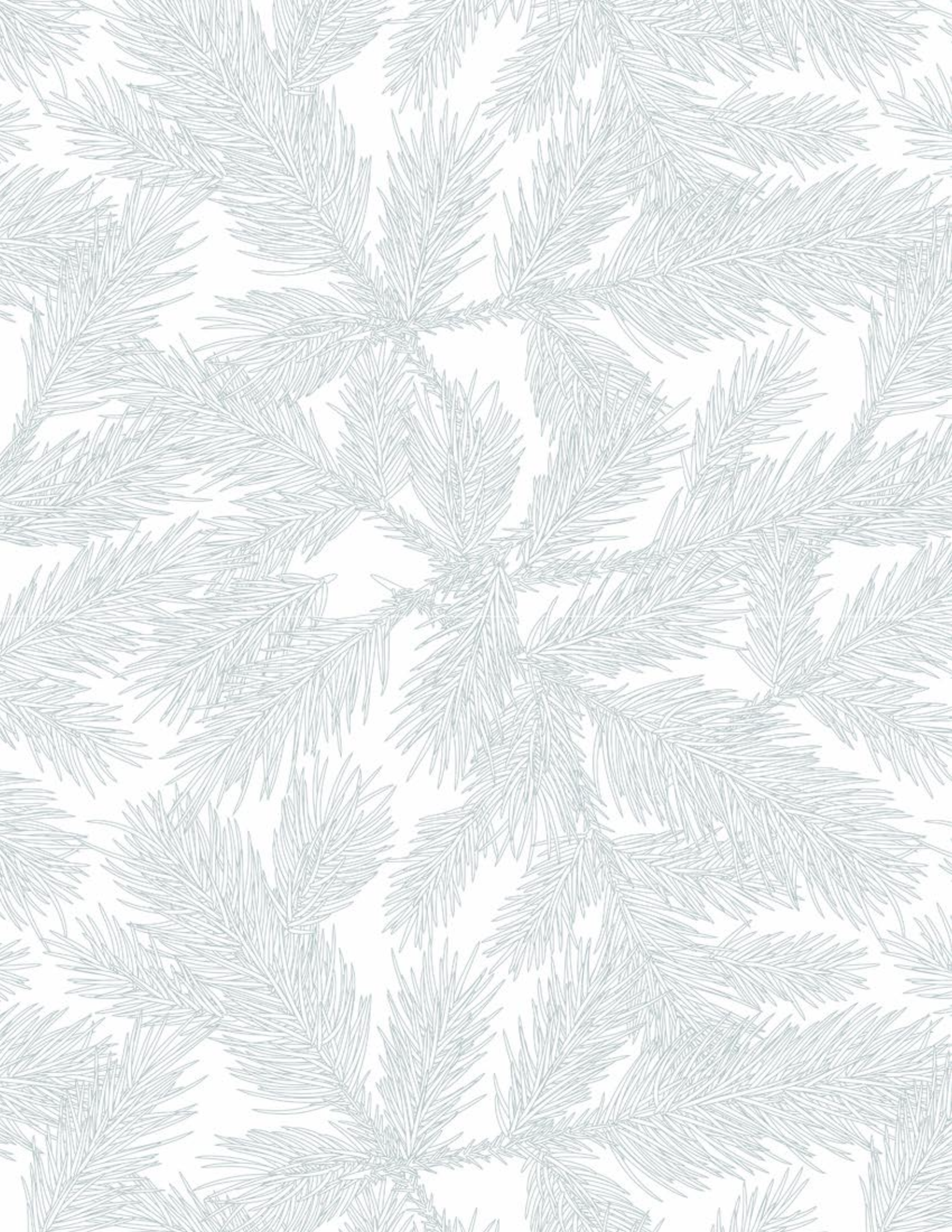
OXFORD COUNTY

2019 Maine Shared Community Health Needs Assessment Report





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Key companion documents available at www.mainechna.org:

- Oxford County Health Profile
- Western District Profile
- Maine State Health Profile
- Health Equity Data Summaries, including state-level data by race, Hispanic ethnicity, sex, sexual orientation, educational attainment, and income

EXECUTIVE SUMMARY

PURPOSE

The Maine Shared Community Health Needs Assessment (Maine Shared CHNA) is a collaborative effort amongst Central Maine Healthcare (CMHC), MaineGeneral Health (MGH), MaineHealth (MH), Northern Light Health (NLH), and the Maine Center for Disease Control and Prevention (Maine CDC). This unique public-private partnership is intended to assess the health needs of all who call Maine home.

- **Mission:** The Maine Shared CHNA is a dynamic public-private partnership that creates shared Community Health Needs Assessment reports, engages and activates communities, and supports data-driven health improvements for Maine people.
- **Vision:** The Maine Shared CHNA helps to turn data into action so that Maine will become the healthiest state in the US.

DEMOGRAPHICS

Oxford County is one of three counties that make up the Western Public Health District. The population of Oxford County is 57,299 and 19.2% of the population is 65 years of age or older.The population is predominantly white (96.7%), 1.7% of the population is two or more races, and 1.2% are Hispanic.The average household income is $42,197. Educational attainment measures for high school graduation (84.5%) and associates' degree or higher (27.7%) are lower than the state average (86.9% and 37.3%, respectively).

TOP HEALTH PRIORITIES

Forums held in Oxford County identified a list of health issues in that community through a voting methodology. See Appendix C for a description of how priorities were chosen.

Table 1: Oxford County Health Priorities

PRIORITY AREA	% OF VOTES
Mental Health*	22%
Substance Use*	20%
Social Determinants of Health*	19%
Access to Care*	17%

Also a statewide priority. For a complete list of statewide priorities, see state health profile on our website, **www.mainechna.org*

NEXT STEPS

This assessment report will be used to fulfill the Internal Revenue Service (IRS) requirements for non-profit hospitals as well as the Public Health Accreditation Board (PHAB) requirements for state and local public health departments. Required activities include:

- Obtaining input from the community, including providers and communities served, on leading health issues and unmet needs
- Evaluating previous actions taken to address needs identified in previous assessments
- Choosing (with justification) which health needs should be addressed
- For hospitals, creating an informed implementation strategy designed to address the identified needs
- For District Coordinating Councils, creating District Health Improvement Plans
- For the Maine CDC, creating an informed State Health Improvement Plan

In the coming months and years, policymakers, non-profits, businesses, academics, and other community partners may also use these reports for their own strategic planning purposes.

ACKNOWLEDGEMENTS

Funding for the Maine Shared CHNA is provided by Central Maine Healthcare, MaineGeneral Health, MaineHealth, and Northern Light Health, with generous in-kind support from the Maine Center for Disease Control and Prevention, an office of the Department of Health and Human Services and countless community partners and stakeholder groups. These stakeholder groups include the Metrics Committee, Data Analysis Workgroup, Community Engagement Committee, Local Planning Committees, and the Steering Committee. Special thanks to the Maine Health Data Organization for working with us to access their data. For a listing of committee members please visit **www.mainechna.org** and click on "About Maine CHNA."

Significant analysis was conducted by epidemiologists at the Maine CDC and the University of Southern Maine's Muskie School of Public Service. John Snow, Inc. provided analysis, methodology, and design support.

In addition, the Steering Committee gratefully acknowledges the countless community volunteers who gave their time and passionately committed to hosting, facilitating, attending, and engaging in this effort. From Aroostook to York, Oxford to Washington County, over 2,000 Mainers gave their time and talent to this effort. Thank you.

HEALTH PRIORITIES

Health priorities were developed through community participation and voting at community forums. The forums were an opportunity for review of the County Health Profile, discussion of community needs, and prioritization in small break-out sessions followed by a forum session vote. Table 2 lists all eight priorities which arose from group break-out sessions at forums held in Oxford County. The priorities shaded are the five priorities which rose to the top.

This section provides a synthesis of findings for each of the shaded top priorities. The following discussion of each priority are from several sources including the data in the county health data profiles, the information gathered at community engagement discussions at the community forums, and key informant interviews. See Appendix C for the complete methodology for all of these activities.

Table 2: Oxford County Forum Voting Results

PRIORITY AREA	% OF VOTES
Mental Health*	**22%**
Substance Use*	**20%**
Social Determinants of Health*	**19%**
Access to Care*	**17%**
Physical Activity, Nutrition, and Weight	6%
Cancer	5%
Oral Health	5%
Older Adult Health/Healthy Aging	5%

Also a statewide priority. For a complete list of statewide priorities, see state health profile on our website,* **www.mainechna.org

MENTAL HEALTH

Mental health affects all segments of the population, regardless of age, socioeconomic status, race/ethnicity, or gender. Poor mental health contributes to a number of conditions that affect both individuals and communities. Mental health conditions, when left unmanaged, may affect an individual's ability to form and maintain relationships with others, cope with challenges, and lead a healthy and productive life. Individuals with serious mental illness (e.g., major depression or schizophrenia) are at a higher risk of developing other medical conditions, including cardiovascular disease, diabetes, stroke, and Alzheimer's disease. While the reason for this link is unclear, research suggests that those with mental illness may experience more barriers to medical care and prevention strategies may find it harder to care for themselves.[1]

More than 25% of adults with a mental health disorder also have a substance use disorder; this comorbidity occurs more among adults with depression, anxiety disorders, schizophrenia, and personality disorders. While mental health conditions may lead to drug or alcohol use, the reverse can also be true—the use of certain substances may cause individuals to experience symptoms of a mental health disorder.[2]

QUALITATIVE EVIDENCE

Depression and anxiety were identified as the two leading concerns amongst community forum participants. Participants offered many ideas on the reason community members feel depressed or anxious, including isolation, stigma, lack of providers, lack of education, and bullying.

One challenge identified by many participants was the mental health effects of Adverse Childhood Experiences, commonly referred to as ACEs. ACEs are stressful or traumatic events, such as abuse, neglect, and substance abuse or mental illness within the household, that are strongly correlated to the development of physical and mental health conditions for those who are exposed.[3]

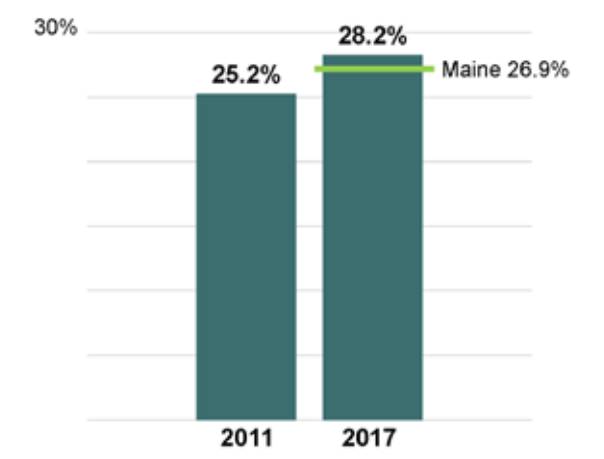
A final key theme from discussions on mental health was lack of community cohesion. Several forum participants identified social isolation as a critical determinant of poor mental health. There were several needs identified in this area, including the need for free community building and social events, common community spaces (e.g., community centers), and spaces specifically geared toward the engagement of youth (e.g., Boys and Girls Club, Big Brother/Big Sister programs).

QUANTITATIVE EVIDENCE

In Oxford County:

- The percentage of adults with current symptoms of depression was 10.1% in 2014–2016, slightly higher than the state overall (8.4%).
- The percentage of high school students who reported being sad or hopeless for more than two weeks in a row increased between 2011 and 2017, from 25.2% to 28.2%.
- The percentage of high school students who reported that they had seriously considered suicide increased between 2011 and 2017, from 13.3% to 16.2%.

Figure 1: Sad/Hopeless for 2+ Weeks in a Row (High School)



See Key Indicators on page 16 as well as companion Health Profiles on our website www.mainechna.org. Those documents also include information on data sources and definitions.

COMMUNITY RESOURCES TO ADDRESS MENTAL HEALTH

The table below is a summary of the assets and needs identified through the community engagement process, including review by local teams. It is important to note that this is not a complete list of available resources or existing needs in the community; other resources, like 211 Maine, and local/county resource guides should be referenced as a more comprehensive inventory.

Table 3: Assets and Gaps/Needs (Mental Health)

ASSETS	GAPS/NEEDS
• Public Health sector is recognizing its impact on mental health • Sense of community in Norway and Bethel • More mental health providers that are trauma informed • Oxford County Mental Health Services • Center for Mental Health Services • Tri-County Mental Health Services • Crooked River Counceling • Common Ground Counceling • Law enforcement support	• Education programs • Cyberbullying prevention • More mental health providers • Reduction of stigma • Lack of insurance • Focus on impact of isolation • Community center • Big Brothers/Big Sisters • Boys and Girls Club • YMCA • Community networking & collaboration • Expanded services in primary care • Integrated inpatient services • Psychiatry/med management providers • Masters level clinicians • University internship partnerships

SUBSTANCE USE

The Substance Abuse and Mental Health Services Administration (SAMHSA) estimated that 8% of adults in the United States have had a substance use disorder in the past year.[4] Tobacco, alcohol, marijuana, and nonmedical use of prescription pain relievers (e.g., OxyContin, Vicodin) are the leading causes of substance use disorders for adults.[5] Tobacco, alcohol, and marijuana are the most common substances misused by adolescents, followed by amphetamines (e.g., Adderall) and nonmedical use of prescription pain relievers.[6] Those with substance use disorders often face a number of barriers that limit access and hinder engagement in care; one study estimates that more than 50% of individuals with both mental health and substance use issues are not engaged in needed services.[7]

Barriers to care include a lack of education, awareness, and understanding around the signs, symptoms, risk factors, and consequences associated with substance use, social stigma, and workforce shortages. Statewide, many forum participants and key informant interviewees identified gaps in access to substance use treatment and recovery services. Finally, those who are uninsured or underinsured are more likely to face barriers to care, and historically, coverage for substance use services has been less comprehensive than for physical health services. This is further complicated by the cost of co-pays, transportation, and medications, even for those who are eligible for free or discounted services, or for those with commercial insurance, as many private substance use treatment providers do not accept insurance and require cash payments.

QUALITATIVE EVIDENCE

Opioid use was the leading substance use issue discussed in community forums. Participants discussed the need for more comprehensive and accessible services to help those in need. The need for local inpatient services, residential care, counselors/peer recovery coaches, and education were identified specifically.

Key informants identified a number of priority health issues for substance users and those in treatment/recovery: education and outreach around how to access healthcare and treatment options, routine basic health care (primary care, dental care), and care that addresses co-occurring mental health and substance use issues. Informants also identified needs specific to youth, including information on where and how to access treatment and better access to confidential services. Another key theme was the need to provide better access to many of the resources that make up the social determinants of health: affordable, safe, and supportive housing; transportation; and nutritious foods.

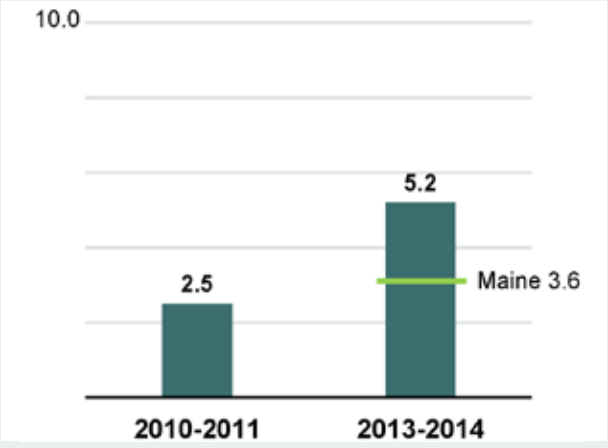
Finally, some participants identified marijuana use as an emerging issue—there is a lack of clarity on health effects, recreational vs. medicinal use, and the short-term and long-term impacts on both individuals and communities.

QUANTITATIVE EVIDENCE

In Oxford County:

- The opiate poisoning emergency department rate per 10,000 population more than doubled between 2010–2011 and 2013–2014, from 2.5 to 5.2.
- Past-30-day cigarette smoking among high school students was significantly higher than the the state overall (10.6% vs. 8.8%).

Figure 2: Opiate Poisoning ED rate per 10,000



- Environmental tobacco smoke exposure was higher among both high school (39.1%) and middle school (29.0%) students compared to the state overall (31.1% and 22.8%, respectively) in 2017.

See Key Indicators on page 16 as well as companion Health Profiles on our website **www.mainechna.org**. Those documents also include information on data sources and definitions.

COMMUNITY RESOURCES TO ADDRESS SUBSTANCE USE

The table below is a summary of the assets and needs identified through the community engagement process, including review by local teams. It is important to note that this is not a complete list of available resources or existing needs in the community; other resources, like 211 Maine, and local/county resource guides should be referenced as a more comprehensive inventory.

Table 4: Assets and Gaps/Needs (Substance Use)

ASSETS	GAPS/NEEDS
• Emily Eastman • Stephens/Rumford Physicians Trained in integrated medication assisted treatment • River Valley Healthy Communities Coalition • Healthy Oxford Hills • Western Maine Addiction Recovery Initiative • Availability of Narcan • Law enforcement support • Beacon House	• Communication between kids and parents • Licensed alcohol and drug counselors • Standing prescription for Narcan • No local inpatient treatment • Emergency Rooms providing Suboxone • Neonatal treatment • Local residential care • Substance Use Disorder treatment providers • Support groups • Inpatient treatment • More recovery coaches • More education/awareness • Maternity program

SOCIAL DETERMINANTS OF HEALTH

The social determinants of health are the conditions in which people live, work, learn, and play that affect their health; factors include socioeconomic status (e.g., education, income, poverty), housing, transportation, social norms and attitudes (e.g., racism and discrimination), crime and violence, literacy, and availability of resources (e.g.,food, health care). These conditions influence an individuals' health and define quality of life for many segments of the population, but specifically those that are most vulnerable. According to the Kaiser Family Foundation, social factors like education, racism, and poverty accounted for over a third of total deaths in the United States.[8]

QUALITATIVE EVIDENCE

A dominant theme from community forums was the tremendous impact that the underlying social determinants, such as transportation, poverty, job loss, social interaction/community cohesion, food access, and ACEs have on residents in Oxford County.

Poverty and financial instability are inextricably linked to poor health. Those who are uninsured or underinsured and lack the ability to pay for co-pays, treatment, and/or medications often avoid or delay care, which can cause minor issues to escalate. Those in poverty often face unique challenges in maintaining healthy behaviors; financial hardship is associated with physical inactivity, substance misuse, cardiovascular disease, and mental health issues.[9]

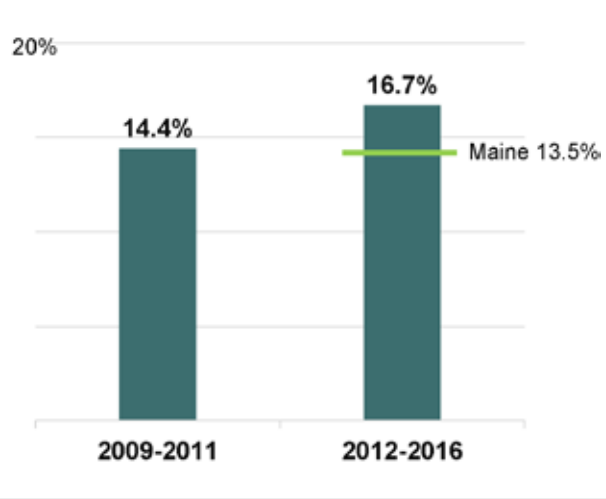
Transportation was a need identified in all Oxford engagement activities. Participants called out the need for access to affordable and reliable forms of transportation and identified this as a critical barrier to receiving health care. Lack of access to the use of a personal vehicle may be due to any number of factors including affording the vehicle itself, or the insurance, repairs, or even perhaps a license suspension or revocation. This is can be especially challenging in areas without reliable public transportation, like in rural Maine. This results in difficulty accessing health services, employment, and basic necessities (e.g., food, clothing, medication). This issue is further complicated for older adults with mobility impairments and individuals with disabilities who require specialized forms of transportation or extra assistance.

QUANTITATIVE EVIDENCE

In Oxford County:

- The unemployment rate in Oxford County is 4.7%, higher than the state overall (3.8%) in 2015-2017.
- The percentage of individuals living in poverty increased between 2009–2011 and 2012–2016, from 14.4% to 16.7%. It was is higher than the state overall (13.5%) in 2012-2016.
- The percentage of children living in poverty increased between 2007–2011 and 2012–2016, from 17.8% to 22.6%. It was higher than the state overall (17.2%) in 2012-2016.
- The percentage of high school students who reported having experienced at least 3 adverse child experiences was higher than the state overall (25.7% vs. 23.4%) in 2017.

Figure 3: Individuals Living in Poverty



See Key Indicators on page 16 as well as companion Health Profiles on our website www.mainechna.org. Those documents also include information on data sources and definitions.

COMMUNITY RESOURCES TO ADDRESS SOCIAL DETERMINANTS OF HEALTH

The table below is a summary of the assets and needs identified through the community engagement process, including review by local teams. It is important to note that this is not a complete list of available resources or existing needs in the community; other resources, like 211 Maine, and local/county resource guides should be referenced as a more comprehensive inventory.

Table 5: Assets and Gaps/Needs (Social Determinants of Health)

ASSETS	GAPS/NEEDS
• Oxford County Wellness Collaborative • County wide collaboration on grants • Western district collaboration • Rural community research project • Western Maine Pediatrics Screens for ACEs • Oxford County Resilience Project • Oxford County Mental Health Services • Center for Mental Health Services • Community Concepts Inc.	• Connecting providers • Bethel practice • Residential treatment Facilities • School based resources • Resources to handle once screened and identified • Family based understanding and knowledge

ACCESS TO CARE

Whether an individual has health insurance—and the extent to which it helps to pay for needed acute services and access to a full continuum of high-quality, timely and accessible preventive and disease management or follow-up services—is critical to overall health and well-being. Access to a usual source of primary care is particularly important, since it greatly affects the individual's ability to receive regular preventive, routine, and urgent care; and to manage chronic conditions. Though the percentage of uninsured individuals in Oxford County has declined over time (from 9.5% in 2009–2011 to 8.6% in 2012–2016), lack of insurance and underinsurance remains a leading barrier to care in the region. Medicaid expansion, which holds the promise of providing health insurance coverage for an additional 70,000 Mainers, was signed into law on January 3, 2019.

Barriers to accessing care also include the availability and affordability of care. Low-income individuals, people of color, those with less than a high school diploma, and lesbian, gay, bisexual, transgender, and/or queer/questioning (LGBTQ) populations face even greater disparities in health insurance coverage compared to those who are heterosexual, white, and well-educated. For example, in Maine, over 20% of American Indian/Alaska Natives and Black/African American adults report they are unable to receive or have delayed medical care due to cost, compared to 10% of white adults. Compared to heterosexual residents (11.6%), 19.3% of bisexual residents, and 22.5% of residents who identified as something other than heterosexual, gay or lesbian, or bisexual, were uninsured. More information on health disparities by race, ethnicity, education, sex, and sexual orientation can be found in the Health Equity Data Summaries available on **www.mainechna.org**.

QUALITATIVE EVIDENCE

Many forum participants and key informants identified the social determinants of health—particularly inability to access reliable and affordable forms of transportation and poverty/low wages—as significant barriers to accessing care. These are discussed in more details in the "Social Determinants of Health" priority area.

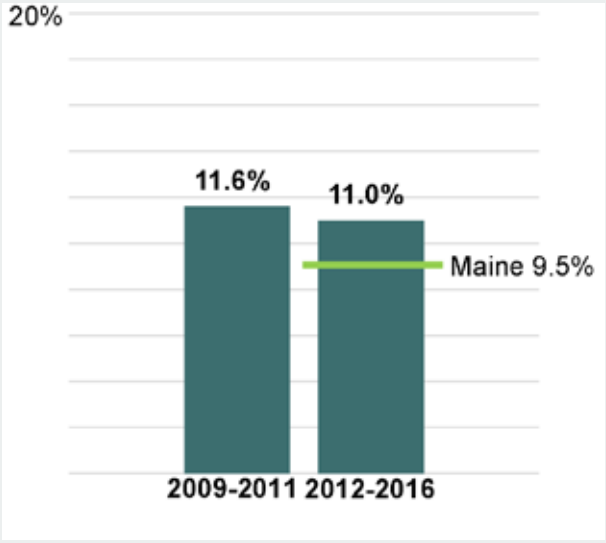
Participants discussed the need for comprehensive and affordable health services for low-income individuals, specifically dental and behavioral health services. Free care programs and MaineCare do not cover preventative oral health services for adults. Even for those with insurance, deductibles, co-pays, and prescription medications are unaffordable and prevent people from seeking care.

QUANTITATIVE EVIDENCE

In Oxford County:

- The percentage of the population that was uninsured was higher than the state overall (11.0% vs. 9.5%) in 2012-2016.
- The percentage of the population who reported being unable to obtain health care due to cost was higher than the state overall (12.1% vs. 10.3%) in 2014-2016.

Figure 4: Population of Individuals Uninsured



See Key Indicators on page 16 as well as companion Health Profiles on our website **www.mainechna.org**. Those documents also include information on data sources and definitions.

COMMUNITY RESOURCES TO ADDRESS ACCESS TO CARE

The table below is a summary of the assets and needs identified through the community engagement process, including review by local teams. It is important to note that this is not a complete list of available resources or existing needs in the community; other resources, like 211 Maine, and local/county resource guides should be referenced as a more comprehensive inventory.

Table 6: Assets and Gaps/Needs (Access to Care)

ASSETS	GAPS/NEEDS
• Western Maine Transportation Services • Maine Behavioral Healthcare • MaineAccess	• Specialty providers at the hospital one time a month • Transportation • Suicide awareness • Jobs

COMMUNITY CHARACTERISTICS

AGE DISTRIBUTION

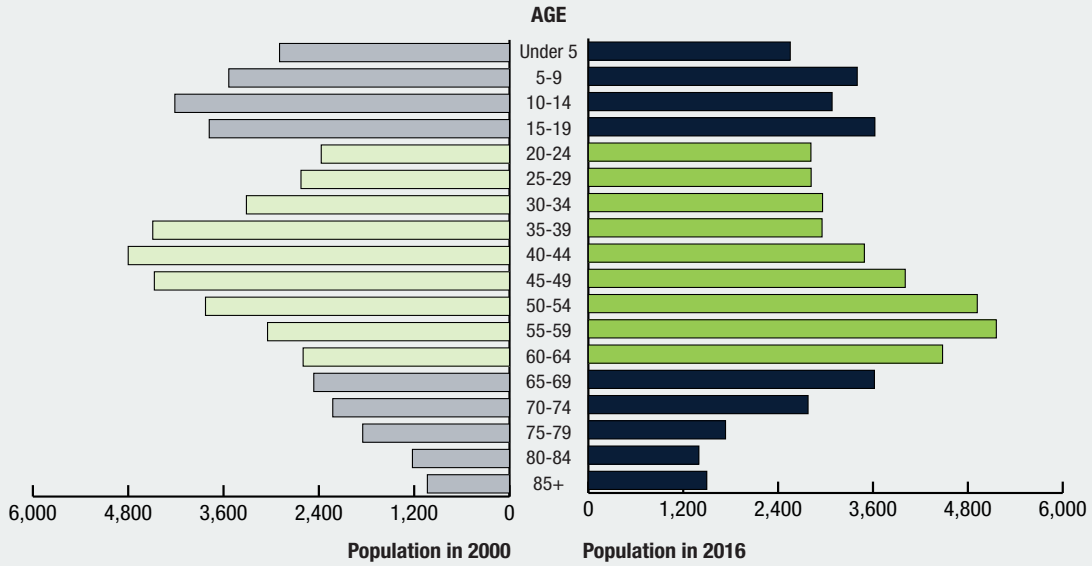
Age is a fundamental factor to consider when assessing individual and community health status; older individuals typically have more physical and mental health vulnerabilities and are more likely to rely on immediate community resources for support compared to young people.[10] With an aging population comes increased pressure on the healthcare system and shortages in the healthcare workforce, especially geriatricians, nurses, social workers, and direct care workers like home health aides and certified nursing assistants, to meet the needs of older adults.[11]

The following is a summary of findings related to community characteristics for Oxford County. Conclusions were drawn from quantitative data and qualitative information collected through forums and key informant interviews.

For key companion documents visit **www.mainechna.org** and click on "Health Profiles."

- In Oxford County, 19.2% of the population is 65 years of age or older.

Figure 5: Age Histogram of Oxford County



RACE/ETHNICITY

An extensive body of research illustrates the health disparities that exist for racial/ethnic minorities, non-English speakers, and foreign-born populations. According to the U.S. Centers for Disease Control and Prevention, non-Hispanic Blacks have higher rates of premature death, infant mortality and preventable hospitalization than non-Hispanic Whites.[12] Individuals with limited English proficiency (LEP), defined as the ability to read, speak, write or understand English "less than very well," have lower levels of medical comprehension. This leads to higher rates of medical issues and complications, such as adverse reactions to medication.[13,14] Cultural differences such as, but not limited to, the expectations of who is involved in medical decisions can also impact access to health care and to health information. These disparities show the disproportionate and often avoidable inequities that exist within communities and reinforce the importance of understanding the demographic makeup of a community to identify populations more likely to experience adverse health outcomes.

In Oxford County:

- The population is predominantly White (96.7%); 1.2% of the population identified as Hispanic, and 1.7% identified as two or more races.

Table 7: Race/Ethnicity in Oxford County 2012-2016

	PERCENT/NUMBER
American Indian/Alaskan Native	0.5% / 283
Asian	0.6% / 343
Black/African American	0.3% / 196
Hispanic	1.2% / 688
Some other race	0.2% / 101
Two or more races	1.7% / 949
White	96.7% / 55,427

SOCIOECONOMIC STATUS

Socioeconomic status (SES) is measured by such things as income, poverty, employment, education, and neighborhood characteristics. Individuals with low SES are more likely to have chronic health issues, die prematurely, and have overall poor health. Low-income status is highly correlated to a lower than average life expectancy.[15] Lack of gainful employment is linked to several barriers to care, such as lack of health insurance, inability to pay for health care services, and the inability to pay for transportation to receive services. Higher education is associated with improved health outcomes and social development at individual and community levels.[16] The health benefits of higher education typically include better access to resources, safer and more stable housing, and better engagement with providers. Factors associated with low education impact an individual's ability to navigate the healthcare system, disparities in personal health behaviors, and exposure to chronic stress. It is important to note that, while education affects health, poor health status may also be a barrier to education. Table 9, above, includes a number of data points comparing Oxford County to the state overall.

Additionally, in Oxford County:

- The estimated high school graduation rate was lower than the state overall (84.5% vs. 86.9%) in 2017.
- The percent of the population over 25 with an associates' degree or higher was lower than the state overall (27.7% vs. 37.3%) in 2012-2016.

Table 8: Socioeconomic Status

	OXFORD/MAINE
Median household income	$42,197 / $50,826
Unemployment rate	4.7% / 3.8%
Individuals living in poverty	16.7% / 13.5%
Children living in poverty	22.6% / 17.2%
65+ living alone	43.1% / 45.3%

SPECIAL POPULATIONS

Through community engagement activities, several populations in Oxford County were identified as being particularly vulnerable or at-risk for poor health or health inequities.

Youth

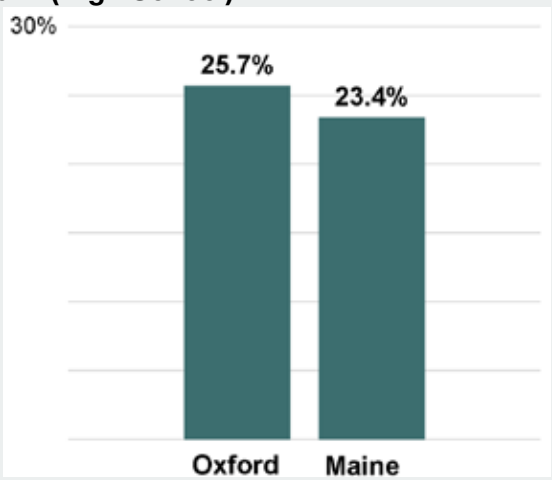
Youth were identified as a priority population in community forums. Specific issues of concern were youth mental health issues, ACEs, substance use (specifically vaping/Juuling and marijuana), and lack of mentorship/engagement opportunities (i.e. Boys and Girls Clubs, Big Brother/Big Sister programs). One key informant who works with youth throughout the state identified a need for them to be able to access low-cost and anonymous health services, specifically reproductive and substance use services, without parent permission.

Older Adults

Maine is the oldest state in the nation by median age. Older adults are more likely to develop chronic illnesses and related disabilities, such as heart disease, hypertension, diabetes, depression, anxiety, Alzheimer's disease, Parkinson's disease, and dementia. They also lose the ability to live independently at

home. According to qualitative information gathered through interviews and forums, issues around older adult health and healthy aging were priorities in Oxford County—specifically barriers to access to care for older adults, including lack of transportation, inability to pay for needed healthcare services/high cost of medications, lack of health literacy, and depression/ isolation.

Figure 6: Adverse Childhood Experiences, 2017 (High School)



In addition to the data collected and analyzed for the County Health Profiles, the Maine CDC created Health Equity Data Summaries (available at **www.mainechna.org**) which provides selected data analyzed by sex, race, ethnicity, sexual orientation, education, and income. These data are at the state level, as much of the county level data would be suppressed due to small numbers and privacy concerns, and the previous analyses have shown that health disparities found at the state level are generally similar in individual counties.

It should also be noted that during the summer months, Maine's population increases due to temporary and part-time residents with those who seek the beauty of the rocky coast, mountains, lakes, camps, and islands. For many communities, this poses unique opportunities – and challenges.

KEY INDICATORS

The Key Indicators provide an overview of the health of each county. They are a broad sampling of health topics, including health behaviors, outcomes, living conditions, and health care quality and access. See the Oxford County Health Profile for a full set of data. The table uses symbols to show whether there are important changes in each indicator over time and to show if local data is notably better or worse than the state or the nation. See the box below for a key to the symbols:

CHANGE shows **statistically significant changes** in the indicator over time, based on 95% confidence interval (see description above).

- ★ means the health issue or problem is **getting better** over time.
- ! means the health issue or problem is **getting worse** over time.
- ○ means the change was not statistically significant.
- N/A means there is not enough data to make a comparison.

BENCHMARK compares Oxford County data to state and national data, based on 95% confidence interval (see description above).

- ★ means Oxford County is doing **significantly better** than the state or national average.
- ! means Oxford County is doing **significantly worse** than the state or national average.
- ○ means there is no statistically significant difference between the data points.
- N/A means there is not enough data to make a comparison.

ADDITIONAL SYMBOLS

- * means results may be statistically unreliable due to small numbers, use caution when interpreting.
- — means data is unavailable because of lack of data or suppressed data due to a small number of respondents.

	OXFORD COUNTY DATA			BENCHMARKS			
KEY INDICATOR	**POINT 1**	**POINT 2**	**CHANGE**	**MAINE**	**+/–**	**U.S.**	**+/–**
SOCIAL, COMMUNITY & PHYSICAL ENVIRONMENT							
Children living in poverty	2007-2011 **17.8%**	2012-2016 **23.4%**	N/A	2012-2016 **17.8%**	N/A	2016 **21.1%**	N/A
Median household income	2007-2011 **$40,889**	2012-2016 **$42,197**	N/A	2012-2016 **$50,826**	N/A	2016 **$57,617**	N/A
Estimated high school student graduation rate	2014 **86.5%**	2017 **84.5%**	N/A	2017 **86.9%**	N/A	–	N/A
Food insecurity	2012-2013 **15.5%**	2014-2015 **15.4%**	N/A	2014-2015 **15.1%**	N/A	2015 **13.4%**	N/A
HEALTH OUTCOMES							
14 or more days lost due to poor physical health	2011-2013 **24.1%**	2014-2016 **19.6%**	○	2014-2016 **19.6%**	○	2016 **11.4%**	N/A
14 or more days lost due to poor mental health	2011-2013 **18.3%**	2014-2016 **17.5%**	○	2014-2016 **16.7%**	○	2016 **11.2%**	N/A
Years of potential life lost per 100,000 population	2010-2012 **6,383.7**	2014-2016 **6,345.2**	○	2014-2016 **6,529.2**	○	2014-2016 **6,658.0**	N/A
All cancer deaths per 100,000 population	2007-2011 **199.6**	2012-2016 **186.1**	○	2012-2016 **173.8**	○	2011-2015 **163.5**	!
Cardiovascular disease deaths per 100,000 population	2007-2011 **214.9**	2012-2016 **187.2**	○	2012-2016 **195.8**	○	2016 **218.2**	★
Diabetes	2011-2013 **10.0%**	2014-2016 **9.8%**	○	2014-2016 **10.0%**	○	2016 **10.5%**	○
Chronic obstructive pulmonary disease (COPD)	2011-2013 **8.7%**	2014-2016 **9.9%**	○	2014-2016 **7.8%**	○	2016 **6.3%**	!
Obesity (adults)	2011 **33.2%**	2016 **35.7%**	○	2016 **29.9%**	○	2016 **29.6%**	○
Obesity (high school students)	2011 **15.0%**	2017 **16.9%**	○	2017 **15.0%**	○	–	N/A
Obesity (middle school students)	2015 **19.2%**	2017 **18.6%**	○	2017 **15.3%**	○	–	N/A
Infant deaths per 1,000 live births	2007-2011 **4.8**	2012-2016 **4.7***	○	2012-2016 **6.5**	○	2012-2016 **5.9**	○
Cognitive decline	2012 **21.0*%**	2016 **9.3*%**	★	2016 **10.3%**	○	2016 **10.6%**	○
Lyme disease new cases per 100,000 population	2008-2012 **15.9**	2013-2017 **71.6**	N/A	2013-2017 **96.5**	N/A	2016 **11.3**	N/A
Chlamydia new cases per 100,000 population	2008-2012 **150.1**	2013-2017 **277.6**	N/A	2013-2017 **293.4**	N/A	2016 **494.7**	N/A
Fall-related injury (unintentional) emergency department rate per 10,000 population	2009-2011 **406.9**	2012-2014 **403.0**	○	2012-2014 **340.9**	!	–	N/A
Suicide deaths per 100,000 population	2007-2011 **11.6**	2012-2016 **14.0**	○	2012-2016 **15.9**	○	2016 **13.5**	○
Overdose deaths per 100,000 population	2007-2011 **10.7**	2012-2016 **12.2**	○	2012-2016 **18.1**	○	2016 **19.8**	★

	OXFORD COUNTY DATA			BENCHMARKS			
KEY INDICATOR	**POINT 1**	**POINT 2**	**CHANGE**	**MAINE**	**+/–**	**U.S.**	**+/–**
HEALTH CARE ACCESS AND QUALITY							
Uninsured	2009-2011 **11.6%**	2012-2016 **11.0%**	N/A	2012-2016 **9.5%**	N/A	2016 **8.6%**	N/A
Ratio of primary care physicians to 100,000 population	–	2017 **56.1**	N/A	2017 **67.3**	N/A	–	N/A
Ratio of psychiatrists to 100,000 population	–	2017 **0.0**	N/A	2017 **8.4**	N/A	–	N/A
Ratio of practicing dentists to 100,000 population	–	2017 **25.9**	N/A	2017 **32.1**	N/A	–	N/A
Ambulatory care-sensitive condition hospitalizations per 10,000 population	–	2016 **71.8**	N/A	2016 **74.6**	N/A	–	N/A
Two-year-olds up-to-date with recommended immunizations	2014 **73.3%**	2017 **78.1%**	N/A	2017 **73.7%**	N/A	–	N/A
HEALTH BEHAVIORS							
Sedentary lifestyle – no leisure-time physical activity in past month (adults)	2011 **24.1%**	2016 **26.1%**	○	2016 **20.6%**	○	2016 **23.2%**	N/A
Chronic heavy drinking (adults)	2011-2013 **6.5%**	2014-2016 **6.2%**	○	2014-2016 **7.6%**	○	2016 **5.9%**	N/A
Past-30-day alcohol use (high school students)	2011 **28.6%**	2017 **23.2%**	○	2017 **22.5%**	○	–	N/A
Past-30-day alcohol use (middle school students)	2011 **7.0%**	2017 **2.8%**	★	2017 **3.7%**	○	–	N/A
Past-30-day marijuana use (high school students)	2011 **22.9%**	2017 **22.7%**	○	2017 **19.3%**	○	–	N/A
Past-30-day marijuana use (middle school students)	2011 **6.2%**	2017 **4.5%**	○	2017 **3.6%**	○	–	N/A
Past-30-day misuse of prescription drugs (high school students)	2011 **6.9%**	2017 **6.4%**	○	2017 **5.9%**	○	–	N/A
Past-30-day misuse of prescription drugs (middle school students)	2011 **5.0%**	2017 **1.2%**	★	2017 **1.5%**	○	–	N/A
Current (every day or some days) smoking (adults)	2011-2012 **24.8%**	2016 **21.0%**	○	2016 **19.8%**	○	2016 **17.0%**	N/A
Past-30-day cigarette smoking (high school students)	2011 **17.2%**	2017 **10.6%**	★	2017 **8.8%**	!	–	N/A
Past-30-day cigarette smoking (middle school students)	2011 **5.0%**	2017 **2.0%**	○	2017 **1.9%**	○	–	N/A

Leading Causes of Death

The following chart compares the leading causes of death for the state of Maine and Oxford County.

RANK	STATE OF MAINE	OXFORD COUNTY
1	Cancer	Cancer
2	Heart disease	Heart disease
3	Chronic lower respiratory diseases	Chronic lower respiratory diseases
4	Unintentional injuries	Diabetes
5	Stroke	Alzheimer's disease

APPENDIX A: REFERENCES

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APPENDIX B: HISTORY AND GOVERNANCE

Maine is one of the few states in the nation that conducts a shared public-private statewide community health needs assessment—the Maine Shared CHNA—which was born out of a unique public-private partnership. The partnership began as the OneMaine Health Collaborative in 2007, involving Northern Light Health (formerly Eastern Maine Healthcare Systems), MaineGeneral Health, and MaineHealth. After conversations with the Statewide Coordinating Council for Public Health, the Maine Center for Disease Control and Prevention, an office of the Department of Health and Human Services joined in 2012. In 2013, Central Maine Healthcare (CMHC) joined the group and in 2014, leadership from the signatory partners signed a formal Memorandum of Understanding outlining mutual goals and expectations. A charter was drafted by all five partners to guide a statewide assessment process.

The Maine Shared CHNA is intended to coordinate state and county needs assessments to meet the needs of hospitals, to support state and local public health accreditation efforts, and to provide valuable population health assessment data for a wide variety of organizations across Maine. Our vision is to turn data into action so that Maine will become the healthiest state in the nation.

The Metrics Committee drafted the list of data indicators, and the Community Engagement Committee drafted a method to ensure a robust community engagement process – both of which were approved by the Steering Committee. Each committee was led by the Program Manager, who was the primary point of contact for all entities and partners and was responsible for drafting and implementing the work plans which drove this process. A more detailed outline of these efforts follows. For more information about the committee structure and our partners, please visit the, "About Us," page on our website www.mainechna.org.

The Metrics Committee is charged with updating the common set of health indicators; developing the preliminary data analysis plan reviewing that indicators on emerging health issues; making recommendations for annual data-related activities; and estimating projected costs associated with these recommendations. Members of the Metrics Committee create processes and deliverables for the Steering Committee to review and approve. Members of the Metrics Committee include representatives of the Steering Committee, public health system partners, Federally Qualified Health Centers, academia, non-profits, and others with experience in epidemiology.

Figure 7: Maine Shared CHNA Governance Structure, 2018–2019

The Community Engagement Committee is charged with making recommendations for approval by the Steering Committee outlining a consistent and robust community engagement process. This process should identify priorities among significant health issues and identify local, regional, or statewide assets and resources that may potentially address the significant health needs identified. Members of the Community Engagement Committee share their expertise create processes and deliverables for the Steering Committee to review and approve. Members of the Community Engagement committee include representatives of the Steering Committee, public health system partners, Federally Qualified Health Centers, academia, and Maine non-profits such as United Ways, Community Action Programs, and others with an interest in broad community representation and input.

APPENDIX C: METHODOLOGY

Per the Maine Shared CHNA charter, the effort was conducted by the Steering Committee, Metrics Committee, and Community Engagement Committee. The Community Engagement Committee was led by the program manager who was the point of contact for all entities and partners and was responsible for meeting planning and facilitation. These committees worked in partnership with the Maine CDC and the contracted vendor, JSI. Maine CDC and its epidemiology contractor, University of Southern Maine, provided a significant amount of data analyses, technical support, and website development. JSI was contracted to support forum facilitation, a subset of data analysis, profile development, and report writing.

The Maine Shared CHNA process was rolled out in three stages:

Data Analysis

- **County Health Profiles** were released in September 2018. Two hundred indicators were selected to describe health outcomes, health behaviors, healthcare access and quality, and the social, community, and physical environments that affect health and wellness. See Oxford County Health Profile on **www.mainechna.org**.
- **District Health Profiles** were released in November 2018.
- **City Health Profiles** for Lewiston/Auburn, Bangor, and Portland were released in January 2019.

Outreach and Engagement

- **Community outreach** was conducted between September 2018 and January 2019. Community forums with residents and service providers were held in all 16 counties. All forms of engagement included forums and key informant interviews. Some local planning teams also conducted additional targeted outreach, focus groups, and surveys. The purpose of this outreach was to gather feedback on data and to identify health priorities, community assets, and gaps in resources to be used in health improvement planning.

Final Reports

- **Final CHNA reports** for the state, each county, and districts were released in the spring of 2019. These reports included information from the health data profiles, summaries of qualitative information gathered from engagement activities, and a presentation of community health priorities.

DATA ANALYSIS

The Metrics Committee identified the approximately 200 health indicators from over 30 sources to be used for the Maine Shared CHNA. The initial list was based on the indicators from the 2016 effort. This list was first scored against the following set of criteria:

- Was it already analyzed for a MeCDC program?
- Is the data from this indicator collected within the last few years?
- Does it “round out” the description of population health?
- Does it address one or more social determinants of health?
- Does it describe an emerging health issue?
- Does it measure something “actionable” or “impactful”?
- Does the indicator measure an issue that is known to have high health and social costs?

Further refinement included ensuring a mix of Outcomes, Behaviors, Healthcare Access and Quality, as well as Social, Community, and Physical Environment Measures. The final list was then arranged under the current 24 health topics as outlined in the Data Health Profiles.

The Metrics Committee, led by Maine CDC staff, then drafted a data analysis plan that included which indicator was to be analyzed by which demographic characteristics (i.e. gender, race/ethnicity, sexual orientation, income, educational attainment, and insurance status), and geographic stratification (state, public health district, county, and city). This analysis plan was then approved by the Steering Committee.

The **Data Analysis Workgroup** used the set of indicators and the data analysis plan, as laid out by the Metrics Committee, and collected and analyzed the data. Members of the Data Analysis Workgroup shared their years of epidemiological and data analysis experience and knowledge of best practices to inform all aspects of the final health profiles at the county, public health district, city, and state level. This included not only the data analysis but recommendations on best practices for data presentation and visualization.

The Data Analysis Workgroup met weekly from March through August 2018 to discuss and coordinate an approach for analysis and data sharing between the University of Southern Maine (USM), Maine CDC, and John Snow, Inc. (JSI). The group developed rules regarding time frame (e.g., comparisons across time were to be of periods of equal duration; the most recent data used was from 2010 to present), handling complexity (e.g., how to combine years of data when an indicator's data definition changed over time, such as ICD9/ICD10 coding or BRFSS question changes), benchmarking, map and graph formats, and iconography to be used in profile tables. Some of the methodologies are documented in the Data Definitions section of each health profile. More is provided in the "2018 Maine Shared CHNA Data Analysis Technical Definitions" posted on the Maine Shared CHNA website.

OUTREACH AND ENGAGEMENT

Community outreach and engagement for the Maine Shared CHNA included coordination at both the statewide, public health district, and county level. The statewide Community Engagement Committee met monthly from March 2018 through January 2019 to review and provide input on every aspect of engagement process.

In addition to the state-level Community Engagement Committee, a **Local Community Engagement Planning Committee** in each of Maine's 16 counties planned and implemented the logistics of community forums and events within each district. These committees were comprised of hospitals, public health district liaisons, and a variety of additional partners.

Data Health Profiles include:

- 1 State Health Profile
- 16 County Health Profiles
- 5 Public Health District Profiles (for those Public Health Districts comprised of multiple counties)
- 3 City Health Profiles (Bangor, Lewiston/Auburn, and Portland)
- 6 Health Equity Data Sheets, one for each of the following demographic characteristics:
  - Sex
  - Race
  - Hispanic ethnicity
  - Sexual orientation
  - Educational attainment
  - Insurance status

*These reports, along with an interactive data form, can be found under the Health Profiles tab at **www.mainechna.org**.*

The 2018 Community Engagement Toolkit was designed to assist the Local Community Engagement Planning Committees in this effort.

Forums and Health Priorities

Criteria for visualizing data included areas identified as a health priority in the last CHNA, significant changes in the data over time, or where a county's data was notably better or worse than the state or the nation. Forum agenda items included remarks from health leaders; a review of previous health improvement efforts; a review of county-level data, discussion, and prioritization in small groups; and an overall forum-wide voting process. The Community Engagement and Steering Committees created and approved a rubric to guide the selection criteria for the subset of data to be presented in each forum's PowerPoint presentations.

Small groups had 35-45 minutes to discuss the data in the presentation and the full county profile, and to share their own experiences in order to identify their top county health priorities. Table facilitators guided these discussions using key questions and worksheets

for reporting purposes. Health priorities identified during these small groups were collated and presented to the larger plenary session, where each attendee voted for their top four priorities. Votes were tallied and a hierarchy emerged.

The summary votes for each forum were used to develop the county level priorities. If multiple forums were held in a county, the forum results for forums held with the general community were included in the total votes for the county. In cases where a forum was held with a specific population, for example, LGBTQ youth or older adults, then the results of their voting and discussion were included in the section describing the needs of that particular population. To arrive at the top countywide community health issues, votes from the broad community forums were combined for each of the priority areas to identify priority areas which fell within 70% of the combined voting total.

The community forum participants also shared knowledge on gaps and assets available in their communities to address each of the top four priorities identified. The information gathered in this report is a start for further asset and gap mapping for each priority selected by the county.

Oxford County Forums

Three community engagement activities were held in Oxford County.

Table 9: Community engagement activites in Oxford County, 2018

TYPE OF ENGAGEMENT	LOCATION & DATE	FACILITATOR	ATTENDEES
Community Forum	Bethel 10/10/2018	JSI	9
Community Forum	Rumford 10/16/2018	Local Facilitators	25
Community Forum	South Paris 10/22/2018	JSI	20

COMMUNITY ENGAGEMENT

Persons representing broad interests of the community who were consulted during the engagement process:

- Alan Day Community Garden
- Center for an Ecology Based Economy
- Center for Mental Health Services
- Central Maine HealthCare
- Community Concepts Inc.
- Healthy Oxford Hills
- Maine CDC
- MaineHealth
- MedAccess
- Oxford County Mental Health Services
- River Valley Healthy Communities Coalition
- Rumford Hospital
- Safe Voices
- The Progress Center
- Western District Coordinating Council
- Western MaineHealth
- Western Public Health District

Key informant interviews

The Steering Committee identified several categories of medically underserved and vulnerable populations to ensure their input was heard and captured. A list of 80 potential interview subjects was created with statewide input. Selected key informants had either lived experience in or worked for an organization that focused on provided services or advocacy for the identified population. The populations identified included:

- Veterans
- Adults ages 65 and older who are isolated or have multiple chronic conditions
- Non-English speakers, undocumented individuals, immigrants, and refugees
- Deaf individuals and those with other physical disabilities
- Adolescents/youth
- LGBTQ
- People with mental health conditions and developmental disabilities
- Rural individuals
- Individuals in substance use disorder recovery/substance use disorder prevention and treatment professionals

The following is a list of organizations who participated in Key Informant Interviews conducted both by JSI and local planning committee members:

- Alpha One
- Androscoggin Home Healthcare + Hospice
- Bingham Foundation
- Cary Medical Center
- Catholic Charities of Maine
- Community Concepts
- Community Caring Collaborative
- Edmund Ervin Pediatric Center, MaineGeneral Health
- EqualityMaine
- Family Medicine Institute
- Frannie Peabody Center
- Greater Portland Council of Governments
- Healthy Acadia
- Healthy Androscoggin
- Healthy Communities of the Capitol Area
- Kennebec Valley Council of Governments
- Long Creek Youth Development Center
- Maine Access Immigrant Network
- Maine Alliance for Addiction and Recovery
- Maine Alliance to Prevent Substance Abuse
- Maine Chapter Multiple Sclerosis Society
- Maine Council on Aging
- Maine Migrant Health
- Maine Seacoast Mission
- Millinocket Chamber of Commerce
- National Alliance on Mental Illness
- Nautilus Public Health
- Northern Light Maine Coast Hospital
- Office of Aging and Disability Services
- Penquis Community Action Agency
- Portland Public Health
- Seniors Plus
- Sunrise Opportunities
- Tri-County Mental Health Services
- United Ambulance Service
- Veterans Administration Maine Healthcare System
- York County Community Action Corporation

The key informant interview guide was developed with input from the Community Engagement and Steering Committee members and consisted of the following five questions.

- We are interested in learning more about the priority health needs for this population (reference population(s) of expertise of interviewee). How would you characterize the health needs for this population? How are they different than for the general population?
- From where you sit and the work you do, what do you feel are the most important health needs to address? Why?
- What do you see as the major resource gaps with respect to health and wellness for this population?
- Are you currently working on anything that contributes to community health and wellness for this population? Are there any areas of health you would like to work on in partnership with others?
- Are there any particular assets or resources to address the needs of this population that can be leveraged?

Thirty-one interviews were conducted by JSI and 11 by members of Local Community Engagement Planning Committees. Information gathered from the key informant interviews is included in discussions where applicable in the county level report within each of the county priorities. For example, when discussing substance use, a discussion of the needs of vulnerable populations within this priority was also included. The state level report provides a summary of key findings from these interviews for each of the ten vulnerable populations.

Data collection

All outcomes from these efforts were collected via the Community Outreach Reporting Tool or the Key Informant Reporting tool. Both of these collection tools were online surveys within Survey Monkey. Other data collection tools included Table Facilitators notes, forum registrations, and sign-ins.

FINAL REPORTS

Final CHNA reports for the state, each county, and districts were released in the spring of 2019. These were used to develop health improvement plans to address the identified health priorities and evaluate previous actions taken. In the upcoming years policy makers, non-profits, businesses, academics, and other community partners may also use these reports to inform their strategic planning, policy making, or grant writing purposes.

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