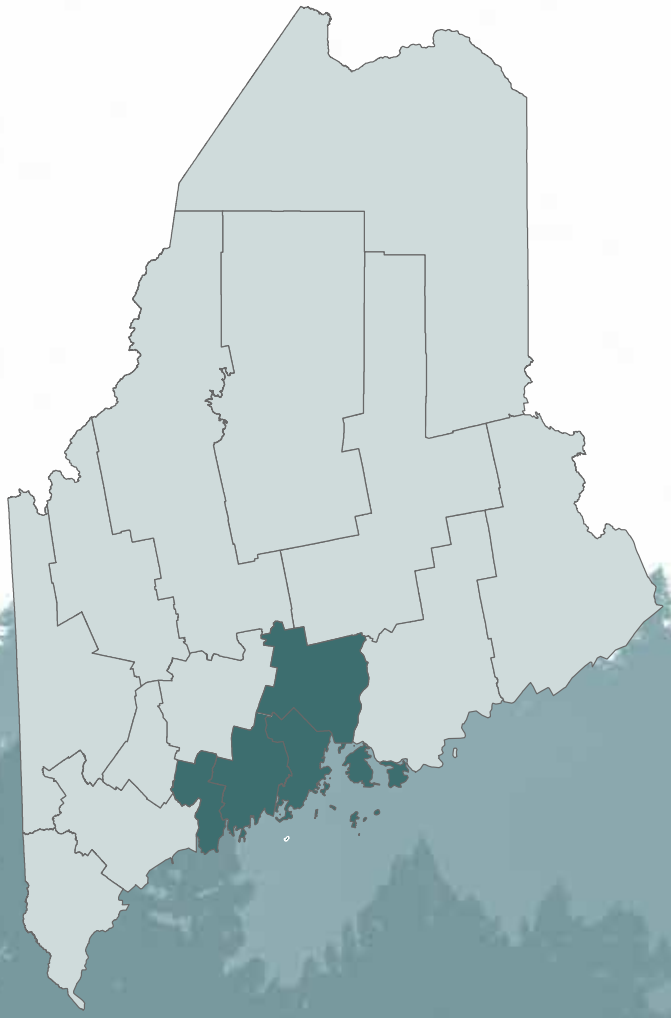
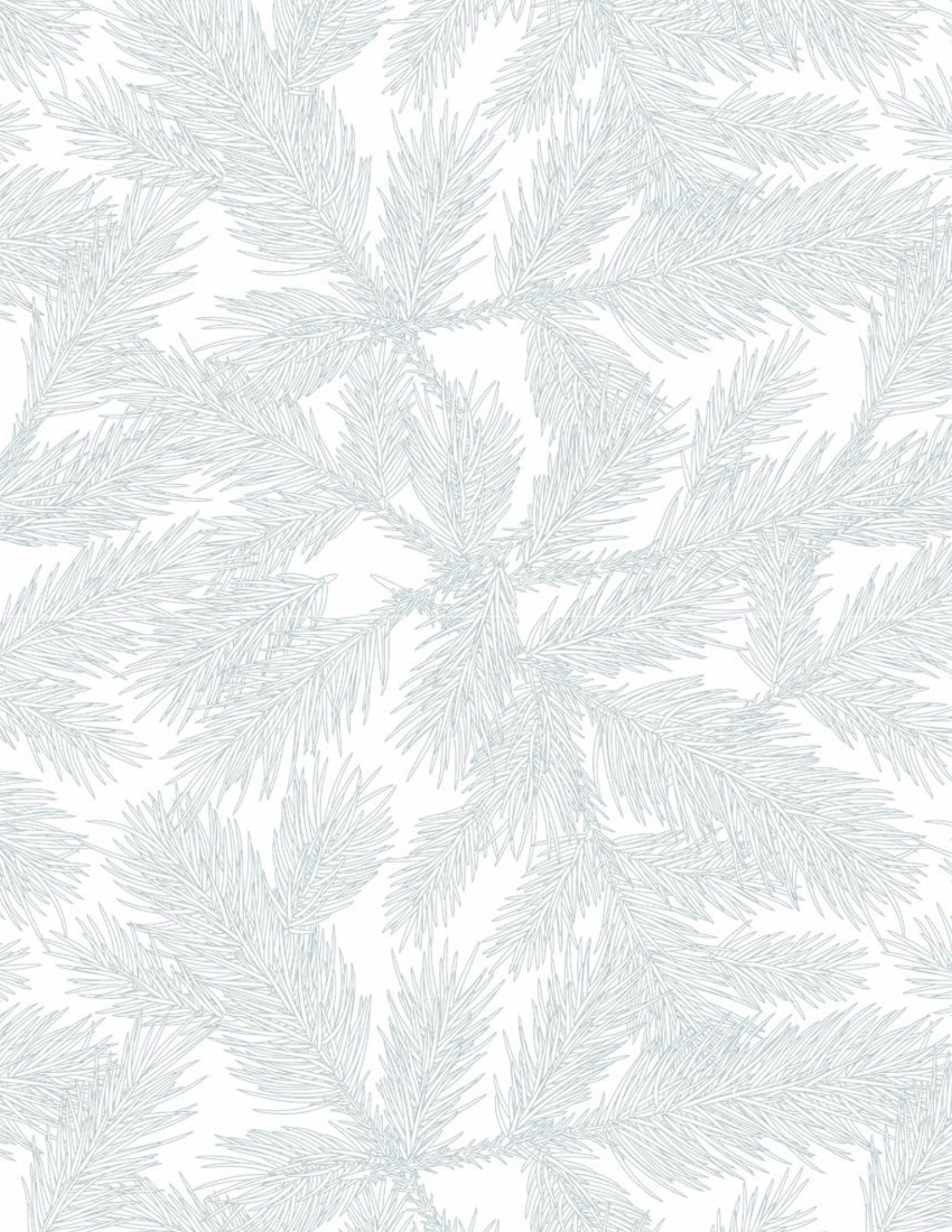
MIDCOAST DISTRICT

2019 Maine Shared Community Health Needs Assessment Report





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Key companion documents available at www.mainechna.org:

- Knox County Health Profile and CHNA Report
- Lincoln County Health Profile and CHNA Report
- Sagadahoc County Health Profile and CHNA Report
- Waldo County Health Profile and CHNA Report
- Midcoast District Health Profile
- Maine State Health Profile and CHNA Report
- 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 U.S.

Table 1: Population (2012-2016)

	KNOX COUNTY	LINCOLN COUNTY	SAGADAHOC COUNTY	WALDO COUNTY	MIDCOAST DISTRICT	MAINE
Population Count	39,717	34,165	35,134	39,071	148,087	1,329,923
Population 65 years of age or older	22.1%	25.6%	19.4%	19.4%	21.5%	18.2%
White	96.5%	97.0%	95.7%	96.7%	96.5%	94.8%
Hispanic	1.2%	1.0%	1.5%	1.1%	1.2%	1.5%
Asian	0.7%	1.5%	0.7%	0.7%	0.9%	1.1%
Two or more races	1.6%	0.8%	2.4%	1.6%	1.6%	2.0%

More information on the population characteristics of the Midocast District can be found in the Community Characteristics section on page 24.

TOP HEALTH PRIORITIES

Forums held in Knox, Lincoln, Sagadahoc, and Waldo Counties identified health issues in their communities through a voting methodology outlined in the Methodology section of this report (Appendix C). Table 2 includes a list of only those priorities that were commonly identified across all Midcoast District Counties.

Table 2: Top Priorities in Midcoast District Counties

KNOX COUNTY PRIORITY AREA	% OF VOTES
Mental Health*	26%
Substance Use*	26%
Access to Care*	25%
Social Determinants of Health	25%
LINCOLN COUNTY PRIORITY AREA	**% OF VOTES**
Mental Health*	20%
Substance Use*	17%
Access to Care*	14%
Social Determinants of Health	13%
SAGADAHOC COUNTY PRIORITY AREA	**% OF VOTES**
Mental Health*	22%
Social Determinants of Health	17%
Access to Care*	13%
Substance Use*	11%
WALDO COUNTY PRIORITY AREA	**% OF VOTES**
Social Determinants of Health	25%
Mental Health*	20%
Substance Use*	17%
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 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 for the county, public health district, and the state were developed through community participation and voting at community forums. The forums were an opportunity for review of the County Health Profiles, discussion of community needs, and prioritization in small breakout sessions followed by forum session votes. Table 3 lists all priorities that arose from group breakout sessions in each of the counties that make up the Midcoast District. The priorities in bold font represent the top priorities within each County. The shaded priorities are those that were common across Knox, Lincoln, Sagadahoc, and Waldo Counties. Please see Appendix C for full description of the methodology used in identifying top priorities.

This section provides a synthesis of findings for each of the shaded top priorities that arose in each county. The discussion of each priority includes information from several sources, including the data in the Midcoast District Health Profiles, the information gathered through community engagement discussions at the community forums, and key informant interviews. See Appendix C for the complete methodology for all of these activities.

Table 3: Midcoast District Forum Voting Results

	KNOX COUNTY	LINCOLN COUNTY	SAGADAHOC COUNTY	WALDO COUNTY
PRIORITY AREA	**% OF VOTES**	**% OF VOTES**	**% OF VOTES**	**% OF VOTES**
Mental Health*	**26%**	**20%**	**22%**	**20%**
Substance Use*	**26%**	**17%**	**11%**	**17%**
Access to Care*	**25%**	**14%**	**13%**	**17%**
Social Determinants of Health*	**25%**	**13%**	**17%**	**25%**
Older Adult Health/Healthy Aging*	**19%**	**11%**	**11%**	N/A
Chronic Disease	**19%**	7%	N/A	2%
Oral Health	10%	N/A	N/A	N/A
Infectious Disease	3%	5%	N/A	3%
Physical Activity, Nutrition, and Weight	N/A	**14%**	**13%**	11%
Tobacco Use	N/A	N/A	6%	N/A
Pregnancy and Birth Outcomes/Reproductive Health	N/A	N/A	5%	4%
Intentional Injury	N/A	N/A	3%	N/A

**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, sexual orientation, or gender. Poor mental health contributes to a number of challenges 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 and may also find it harder to care for themselves.[1]

More than 25% of adults with a mental health condition 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 with a substance use disorder experience symptoms of a mental health condition.[2]

QUALITATIVE EVIDENCE

Across the district, forum participants cited depression, social isolation, and suicide as major mental health conditions. Forum participants discussed the service needs in their communities:

- While many said there was a need for behavioral health services in general, in Knox County they identified education, screening, and crisis services as specific gaps in the spectrum of care.
- In addition to these services, inpatient services were also discussed as a need in Lincoln County.
- Sagadahoc County forum participants discussed the specific needs for additional social workers, crisis beds, and step-down care between hospitals and the home.
- In Waldo County, the discussion of service needs included additional health navigators, family supports, mindfulness programs such as medication; and more affordable/accessible pediatric mental health services.

The mental health needs of youth and adolescents were a dominant theme in the community forums.

- In Knox County, participants identified a number of underlying issues that they felt contributed to the increase in depression amongst young people, including Adverse Childhood Experiences (ACEs) and bullying. Related to ACEs, the participants discussed the need for early intervention and behavioral health screening during routine primary care.
- In Lincoln County, discussion included the need for more education around mental health conditions and coping strategies, for both youth and parent/guardians, and more school counselors. Schools and primary care are two opportunities for mental health screening and earlier intervention. Risk factors for youth mental health included stress and bullying.
- In Sagadahoc County, participants discussed the need for increased education, training, and child psychiatrists.

Other populations identified with particular mental health needs are older adults and LGBTQ individuals.

- In Lincoln County, participants discussed loneliness and social isolation as important health risk factors for older adults. Isolation may result from disability or reduced mobility; loss of a spouse or companions; a health problem; or reduced independence. To address these issues, the forum participants discussed creating more opportunities for older adults to socialize and to access needed care.
- For the LGBTQ community, Sagadahoc County participants discussed the risk for poor mental health, unique mental health needs, and access to culturally competent providers. Key informants working with the LGBTQ population explained that medical professionals are provided with little training and

education about how to meet the needs of non-heterosexual individuals. While LGBTQ populations face the same mental health conditions as the rest of the population, they are more than three times as likely to experience major depression and anxiety disorder.[3]

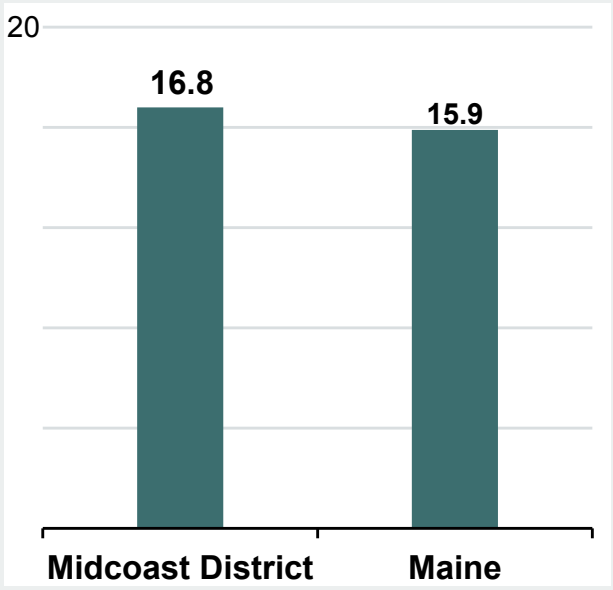
Across county forums, participants discussed stigma, or the disapproval or discrimination against a person based on a particular circumstance (e.g., mental health condition), as a major barrier to care. Stigma prevents individuals from receiving the help they need, as individuals with a mental health condition may not seek care for fear that they will be shamed or discriminated against. Community members called for more education and trainings for parents, families, teachers and providers; access to support services; and promotion of local resources.

QUANTITATIVE EVIDENCE

In the Midcoast District:

- Suicide deaths per 100,000 were higher than the state overall (16.8 vs. 15.1) in 2012-2016.
- In Sagadahoc County, the percentage of high school students who reported having seriously considered suicide was significantly higher than the state overall (17.6% vs. 14.7%) in 2017.
- In Sagadahoc County, the percentage of high school students who reported that they had been sad/hopeless for more than two weeks in a row was significantly higher than the state overall (30.2% vs. 26.9%) in 2017.

Figure 1: Suicide Deaths per 100,000 Population 2012-2016



- The ratio of psychiatrists to 100,000 population was lower than the state overall (6.7 vs. 8.4) in 2017.

See Key Indicators on page 28 as well as the Midcoast District Health Profile and individual county data reports 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. Assets and gaps/needs in bold text were identified across Knox, Lincoln, Sagadahoc, and Waldo Counties.

Table 4: Assets and Gaps/Needs (Mental Health) in the Midcoast District

KNOX COUNTY	
ASSETS	**GAPS/NEEDS**
• Care collaborative • Case management/groups • Community organizations from different sectors • Education about available services • **Maine Behavioral Health (MBH) - Crisis Team** • Maine Behavioral Health Embark program • Medication-Assisted Treatment (MAT) access • Mid-Coast Recovery Coalition • Pen Bay Medical Center (PBMC) • Psychiatric and Addiction Recovery Center (PARC) at PBMC • **Police Department Crisis Intervention Team (CIT)** • Recover Together	• Access to care • Access to recovery locally • Cohesive community coalitions • Community education • Education about programs • Mobile crisis teams • More funding • More MAT programs • **More recovery coach programs** • Primary care interventions • **Programs for youth** • Universal mental health screening at all agencies
LINCOLN COUNTY	
ASSETS	**GAPS/NEEDS**
• **School counselors/social workers** • **Sweetser** • Independent mental health clinicians • Integrated Maine Behavioral Healthcare's Behavioral Health Clinicians: located in designated Lincoln Medical Partner Practices; providing individual and group support/counseling • Adverse Childhood Experiences screenings in Lincoln Medical Partners designated practices • Mindfulness training • Trauma informed practice • Midcoast Maine Community Action Head Start Program • Healthy Kids! • Mid Coast Hospital's Addiction Resource Center • Lincoln Academy School-Based Health Center • LincolnHealth • Lincoln Medical Partner's Boothbay Region School Based Health Center	• **Parent/family education and support** • Anti-bullying campaigns • Education about resources • **More social workers in schools/communities** • **More clinicians and psychiatrists, especially for children** • **Inpatient services/facilities** • Caregiver support • Peer finding • **Faster access**

COMMUNITY RESOURCES TO ADDRESS MENTAL HEALTH (CONTINUED)

Table 4: Assets and Gaps/Needs (Mental Health) in the Midcoast District (Continued)

SAGADAHOC COUNTY	
ASSETS	**GAPS/NEEDS**
• Midcoast Community Alliance (MCA) • Teen centers in Bath & Brunswick • OUT Maine Lesbian, Gay, Bisexual, Transgender, Queer/Questioning (LGBTQ) support & trainings • Youth Mental Health Trainings – **National Alliance on Mental Health (NAMI) Maine & Mid Coast Hospital** • Mentorship programs (Big Brothers Big Sisters, Chewonki) • Teens to Trails & outing clubs • **Trained, caring law enforcement, Crisis Intervention Teams (CIT)** • **School counselors, social workers, teachers** • Caring adults • **School Resource Officers** • **Sweetser – community & school based programs** • Families CAN! • Partners in Education/Resilience (PEAR), resiliency building for youth • Youth on boards- school boards, Midcoast Community Alliance, etc. • **Maine Behavioral Health**	• More caring adults • **More access to treatment & support, and awareness of resources** • **Youth crisis beds in the Emergency Department** • Trauma informed training of teachers, health care providers • Step down care between hospital and home • **More middle and high school outing clubs** • **More screening in youth wellness checks & schools** • **Psychiatrists – for youth** • Lack of care • Parenting & family classes • LGBTQ services & trainings • Integrated mental health curriculum • **Expanded youth mental health trainings** • **More social workers in youth agencies** • **Social Determinants of Health (SDOHs) - transportation, insurance, basic needs** • **Stigma reduction**

COMMUNITY RESOURCES TO ADDRESS MENTAL HEALTH (CONTINUED)

Table 4: Assets and Gaps/Needs (Mental Health) in the Midcoast District (Continued)

WALDO COUNTY	
ASSETS	**GAPS/NEEDS**
• Home care • **National Alliance on Mental Illness (NAMI) Maine** • Public health • **School system** • **Sweetser 30-day case management** • The Game Loft • Waldo Community Action Partners (WCAP) • Waldo County General Hospital (WCGH)	• **Affordable/accessible pediatric mental health services** • Alternative forms of recreation • Comprehensive screening for homelessness, • depression, suicide, etc. • Education • **Family support** • Healthcare navigators • Homelessness shelter • Lack of services for children • **Less stigma** • Long wait time for med management • Not enough services to meet all needs • **Providers/facilities** • Social isolation • **Transportation** • **Young people not having security/abusive households**

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 substance use health issues 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 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.

Among youth, there is rising concern in tobacco use through e-cigarettes. While originally marketed as a healthier alternative to traditional cigarettes, e-cigarettes have been found to be unhealthy and addictive, and a recent study found that adolescents who vape are more likely to try other types of tobacco.[8]

QUALITATIVE EVIDENCE

Opioid misuse 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 medication for assisted treatment (MAT) and local substance use treatment service were identified specifically.

- In Knox County, forum participants were particularly concerned about the impact of substance use on young people and long-term effects of exposure to substances in-utero. As seen by the quantitative data, substance exposed newborns or infants doubled between 2010 and 2017.
- In Lincoln County, the community forum participants described the need for earlier education and prevention efforts, a stronger network of treatment services, and strong support services for those in recovery.
- In Sagadahoc County, community forum participants described the need for more education and evidence-based programming, provider trainings, and long-term treatment options. In addition, the participants discussed the importance of education programs aimed at ending stigma around substance use disorder and treatment.
- In Waldo County, participants discussed the need for more comprehensive, accessible, and affordable services, including medication for assisted treatment (MAT), needle exchange, residential treatment programs, prevention programming, and counseling.

For those in recovery, key informants identified a number of priority issues: education and outreach around how to access healthcare and treatment options, routine basic healthcare (primary care, dental care), and care that addresses co-occurring mental health and substance use disorder issues. 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; employment and job opportunities; transportation, and nutritious foods.

The increased availability and use of e-cigarettes, also referred to as “vaping” or “Juuling,” concerned forum participants. This was especially a concern for young people. While originally marketed as a cessation tool

and a healthier alternative to traditional cigarettes, these devices have evolved to become extremely popular with young people and lead to nicotine addiction.

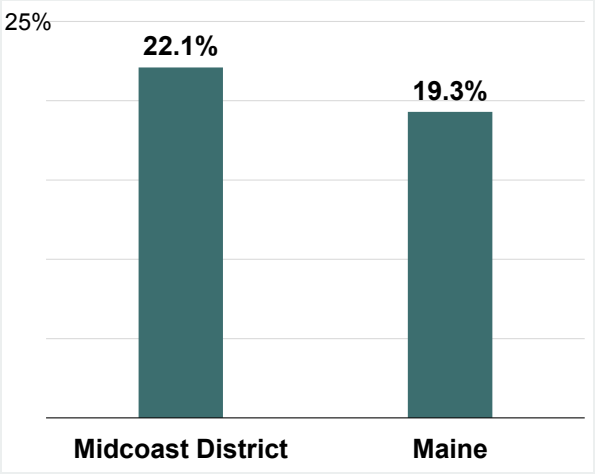
Some community forum participants identified marijuana use as an emerging issue—especially for youth. There is a lack of clarity on health effects, recent laws governing adult marijuana use, Maine's Medical Marijuana Program, and the short-term and long-term impacts on both individuals and communities.

QUANTITATIVE EVIDENCE

In the Midcoast District:

- The percentage of adults who reported chronic heavy drinking was higher than the state overall (8.3% vs. 7.6%) in 2014-2016.
- Past-30-day marijuana use amongst high school students was higher than the state overall (22.1% vs. 19.3%) in 2017.
- Past-30-day cigarette smoking amongst high school students was higher than the state overall (10.1% vs. 8.8%) in 2017.
- In Knox County, drug-affected infant reports per 1,000 births nearly doubled between 2010 and 2017, from 54.1 to 105.4.
- In Lincoln County, overdose deaths per 100,000 population more than doubled between 2007-2011 and 2012-2016, from 8.4 to 19.2.

Figure 2: Past-30-day marijuana use amongst high school students (2017)



See Key Indicators on page 28 as well as the Midcoast District Health Profile and individual county data reports 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. Assets and gaps/needs in bold text were identified across Knox, Lincoln, Sagadahoc, and Waldo Counties.

Table 5: Assets and Gaps/Needs (Substance Use) in the Midcoast District

KNOX COUNTY	
ASSETS	**GAPS/NEEDS**
• Care collaborative • Case management/groups • Community Organizations from different sectors • Education about available services • Maine Behavioral Health (MBH) - Crisis Team • MBH Embark program • Medication-assisted treatment (MAT) access • Mid-Coast Recovery Coalition • Penobscot Bay Medical Center (PBMC) • Psychiatric and Addiction Recovery Center at PBMC • Police Department Crisis Intervention Team (CIT) • Recover Together	• **Access to care** • Access to recovery locally • Cohesive community coalition • Community education • Education about programs • Mobile crisis teams • More funding • **More MAT programs** • More recovery coach programs • Primary care interventions • **Programs for youth** • Universal Mental Health (MH) screening at all agencies
LINCOLN COUNTY	
ASSETS	**GAPS/NEEDS**
• Lincoln County Recovery Collaborative • Boothbay Region Community Resource Council • Mid Coast Hospital's Addiction Resource Center • Support groups • Lincoln Medical Partners providing Integrated Medication-Assisted Treatment (IMAT) services • Local law enforcement • LincolnHealth • YMCA free membership program • Healthy Lincoln County • Faith-based groups • Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) • LincolnHealth Emergency Department's Rapid Induction Services	• Transitional housing • Programs and jobs for those in recovery • Effective prevention services • More qualified substance use disorder (SUD) educators • **Access to care** • Prescription costs • Transportation • Group programs in northern area of the county • Combined resources • Parenting - Boothbay Region School System • Medicaid expansion • Increased funding for treatment beds, etc.

COMMUNITY RESOURCES TO ADDRESS SUBSTANCE USE (CONTINUED)

Table 5: Assets and Gaps/Needs (Substance Use) in the Midcoast District (Continued)

SAGADAHOC COUNTY	
ASSETS	**GAPS/NEEDS**
• Access Health – community coalition substance use prevention services (licensee trainings, compliance checks, policy support, education of laws, youth intervention) • Mid Coast Addiction Resource Center & Emergency Department – a model for Integrated Medication-Assistance Treatment (IMAT) & other best practices • Mid Coast Tobacco Prevention & Treatment Program • Mid Coast Youth Mental Health Training programs • Midcoast Community Alliance	• Address stigma • More evidence based programming • More info on electronic devices • More marijuana information • **More education on effects of alcohol on youth and older adults** • **More youth prescriber trainings, weaning plans, discussions** • Long term treatment
WALDO COUNTY	
ASSETS	**GAPS/NEEDS**
• Arthur Jewel Community Health Center Medication-Assisted Treatment (MAT) Program • Re-Entry Center • Seaport MAT Program • Waldo County General Hospital • Waldo County Medical Partners (WCMP) MAT program	• **Access to affordable treatment options** • Transportation • Emergency Department (ER) access • Methadone clinic • **More MAT provides** • More resources and education • More treatment beds • Needle exchange • Prevention programming • Thirty-plus (30+) day residential treatment programs • **Youth substance use counselors** • **Youth treatment resources**

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 Knox County has remained steady over time (from 11.6% in 2009–2011 to 12.4% in 2012–2016), lack of insurance and being under-insured 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, questioning, and queer (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 20.3% of American Indian/Alaska Native adults report they are unable to receive or have delayed medical care due to cost, compared to 10.3% 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. One can find more information on health disparities by race, ethnicity, education, sex, and sexual orientation in the Health Equity Data Sheets, available at **www.mainechna.org**.

QUALITATIVE EVIDENCE

Many forum participants and key informants identified the social determinants of health—particularly access to reliable and affordable forms of transportation—as significant barriers to care. For more details, see the "Social Determinants of Health" section of this report.

Beyond the need for Medicaid expansion, participants discussed the need for comprehensive and affordable health services. Even for those with insurance, deductibles, co-pays, and prescription medications are unaffordable and prevent people from seeking care. Participants identified a need for consumer assistance to navigate options, costs, and coverage associated with health insurance, including MaineCare.

- In Knox County, access is needed for dental care, behavioral health care, home health, and support services (e.g., case management, navigators). Prenatal care, even for those with insurance, can be unaffordable due to deductibles, co-pays, and prescription medications.
- In Lincoln County, forum participants discussed the need for local health services, dental care, cancer treatment (e.g., chemotherapy, radiation), behavioral health services, and specialty care for older adults.
- In Sagadahoc County, there is a specific need for primary care, prenatal care, and behavioral health services.
- Discussion on access included the need to recruit and retain qualified providers, including doctors, nurses, and specialists. In Lincoln County, many felt that workforce shortages contributed to the issue of healthcare access.

In Knox County, participants discussed the need for more information on how to access existing community resources. While there were many successful community health and wellness programs and interventions, forum participants felt that efforts should be made to collaborate and share resources to maximize outreach.

In Sagadahoc County, there was significant discussion around access issues for LGBTQ individuals, especially youth. LGBTQ individuals typically have difficulty accessing health care for several reasons – they are less likely to have health insurance and may experience discrimination or prejudice from health care staff. Key informants shared that there was a serious gap in culturally competent health care services for this

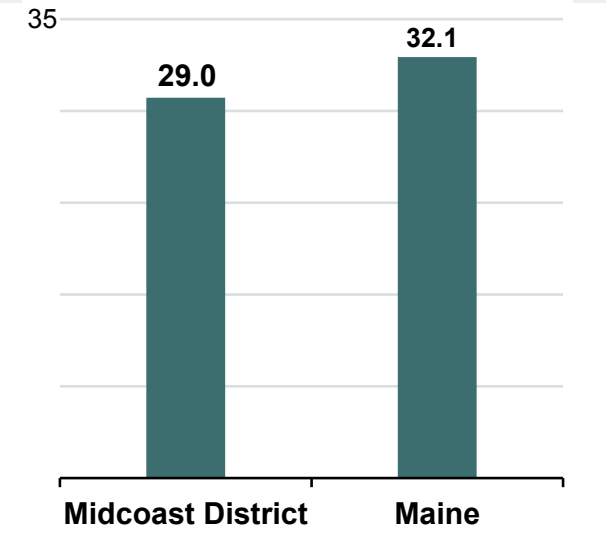
population, especially for LGBTQ youth, and a lack of training and education among health care providers. While there are no LGBTQ-specific health conditions, these individuals face a number of health disparities, including higher rates of depression and anxiety, higher prevalence of HIV and STDs, and higher rates of drug and alcohol use.[9]

QUANTITATIVE EVIDENCE

In the Midcoast District:

- The percentage of the population that was uninsured was higher than the state overall (10.9% vs. 9.5%) in 2012-2016.
- The ratio of primary care physicians to 100,000 population was lower than the state overall (56.3 vs. 67.3) in 2017.
- The ratio of psychiatrists to 100,000 population was lower than the state overall (6.7 vs. 8.4) in 2017.
- The ratio of practicing dentists to 100,000 population was lower than the state overall (29.0 vs. 32.1) in 2017.

Figure 3: Ratio of Practicing Dentists to 100,000 Population, 2017



See Key Indicators on page 28 as well as the Midcoast District Health Profile and individual county data reports 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. Assets and gaps/needs in bold text were identified across Knox, Lincoln, Sagadahoc, and Waldo Counties.

Table 6: Assets and Gaps/Needs (Access to Care) in the Midcoast District

KNOX COUNTY	
ASSETS	**GAPS/NEEDS**
• Affordable care • **MaineHealth CarePartners** • Caring providers • Community support • Local hospital partners • Medication-Assisted Treatment programs • Nazarene Compassionate Ministries (NCM) • Behavioral Health Integration (BHI) Clinicians • Pen Bay Medical Center's Physician Finder Line • Police Crisis Intervention Team • Provider awareness on available services • Telehealth • **Transportation**	• Care for undocumented folks • **Dentists**, nurses, home health • Education about programs • Good Morning Camden • **Insurance coverage/affordability/affordable care** • Mandated neighbor program • **Mental health services** • More facilities/providers • **Peer recovery groups** • **Poverty** • Primary prevention/care • Stigma • **Transportation**
LINCOLN COUNTY	
ASSETS	**GAPS/NEEDS**
• YMCAs • Boothbay Region Community Resource Council • Joint Economic Development Committee • Lincoln County Dental • LincolnHealth and Lincoln Medical Partners • Mid Coast Hospital's Addiction Resource Center • MaineHealth CarePartners • MaineHealth Accountable Care Organization (MHACO) Health Guides • **Volunteer transportation services**	• **Transportation- to all services, long-distance and locally** • Cancer support services • Workforce shortage • Local chemo-radiation treatment • **Dentists** • Local specialty medical services for older adults

COMMUNITY RESOURCES TO ADDRESS ACCESS TO CARE (CONTINUED)

Table 6: Assets and Gaps/Needs (Access to Care) in the Midcoast District (Continued)

KNOX COUNTY	
ASSETS	**GAPS/NEEDS**
• MaineCare Marketplace • 211 Maine • **CarePartner's Program (Application assistance)** • Home visit programs • Oasis Free Clinics	• **Mental health** • Prenatal care • Chronic condition self-management • **Cost and availability of insurance** • **MaineCare forms available for youth** • Points of contact for youth • Accessibility of care • Pediatric care for homeless youth • Support and for LGBTQ youth and education around the issues they face for all youth • **Consumer assistance for insurance** • **MaineCare expansion** • **No insurance options for people who make too much to qualify for MaineCare**
LINCOLN COUNTY	
ASSETS	**GAPS/NEEDS**
• Affordable healthcare • Building communities for children group • **MaineHealth CarePartners** • **Community public transit** • **MaineCare covered transit** • **Oncology patient transportation** • Spectrum Generations' schools • Waldo County Dental Care • Waldo County General Hospital Need a Doctor Referral Line • MedAccess	• **Assistance with out-of-pocket costs** • Broadband for low income folks • **Children's dentists** • **Health insurance coverage** • Health literacy • **Housing** • Laundromats • Limited resources/funds/better public policy • **Mental health workers** • New programs • Transportation • **YMCA**

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.[10]

Food insecurity refers to a lack of resources to access enough nutritional food for a household. Food insecurity has both direct and indirect impacts on health for people of all ages, but is especially detrimental to children.[11] Chronic diseases and health conditions associated with food insecurity include asthma, low birthweight, diabetes, mental health conditions, hypertension, and obesity.[12]

QUALITATIVE EVIDENCE

A dominant theme from key informant interviews and community forums was the tremendous impact that the underlying social determinants, particularly housing, and transportation, and socioeconomic status, have on residents in the Midcoast District.

Poverty is often at the root of these issues; without stable employment and a livable wage, many people struggle to secure and maintain affordable and safe housing and transportation. Many conditions that contribute to poverty, such as under-employment, lack of job training, and lack of education, were identified as issues in the Midcoast District. Finding employment opportunities for those in recovery from a substance use disorder was discussed as a particular need to support health and recovery. Forum participants identified a need for resources to combat the causes and effects of poverty, including better education, job training and improved community cohesion.

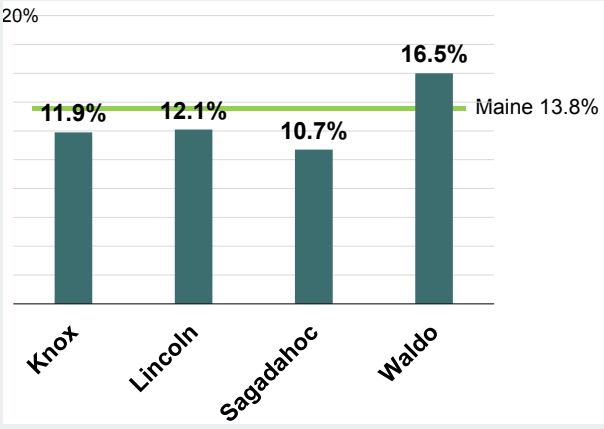
Those without access to a personal vehicle have difficulty accessing health services and employment due to transportation issues. Transportation access for older adults was a particular concern among participants of the Lincoln and Sagadahoc County forums. In Sagadahoc County, forum participants said that lack of coordination amongst different transportation services was a barrier to accessing these resources.

Forum participants also expressed the need for safe and affordable housing. In Lincoln County, forum participants said there was a need for comprehensive services for those struggling with homelessness: medical treatment, health support, and education. Participants also identified a need to address stigma associated with homelessness. In Waldo County, participants mentioned that youth homelessness and "couch-surfing" is an issue.

For older adults, social isolation was discussed as contributing to poor health, and is linked to challenges in accessing transportation, particularly in rural areas. In Waldo County, housing was discussed as a particular need for older adults who may no longer be able to stay in their homes for financial or safety reasons and have very limited options for housing.

QUANTITATIVE EVIDENCE

Figure 4: Individuals Living in Poverty, 2012-2016



In the Midcoast District:

- The percentage of children living in poverty was comparable to the state overall (17.8% vs. 17.2%) in 2012-2016.
- In Lincoln County, the percentage of individuals living in poverty increased between 2008-2011 and 2012-2016, from 10.0% to 12.1%.
- In Waldo County, the percentage of high school students who were housing insecure was significantly higher than the state overall (5.2% vs. 3.6%) in 2017.

See Key Indicators on page 28 as well as the Midcoast District Health Profile and individual county data reports 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. Assets and gaps/needs in bold text were identified across Knox, Lincoln, Sagadahoc, and Waldo Counties.

Table 7: Assets and Gaps/Needs (Social Determinats of Health) in the Midcoast District

KNOX COUNTY	
ASSETS	**GAPS/NEEDS**
• **Caring community/community coalitions** • **YMCA's/ youth and teen centers** • Downtown Area Shuttle (DASH) • General Equivalency Degree (GED) courses/public health courses • New Hope for Women • Nutrition education • OUT Maine • Pen Bay Medical Center • School support for kids, consent education • Successful downtowns • Transportation for MaineCare recipients	• **Access to mental health** • **ACEs** • **Affordable housing** • Communities promoting helping neighbors • **Economic mobility** • Education • Healthy environments, social connections, community spaces • **Senior centers** • Social supports for youth • **Transportation** • **Wages above minimum**

COMMUNITY RESOURCES TO ADDRESS SOCIAL DETERMINANTS OF HEALTH (CONTINUED)

Table 7: Assets and Gaps/Needs (Social Determinats of Health) in the Midcoast District (Continued)

LINCOLN COUNTY	
ASSETS	**GAPS/NEEDS**
• **YMCA** • Boothbay Region Community Resource Council • Low unemployment rate • Many jobs available • Food pantries • Community suppers • Healthy Kids! • Healthy Lincoln County's Summer Meals and other programs • Central Maine Community College's Nursing Program, partnering with LincolnHealth • LincolnHealth's Certified Nursing Assistant Program, administered by Central Lincoln County Adult Education • Spectrum Generation's Meals on Wheels Program • Variety of local scholarship programs	• **Workforce** • **Housing** • **Job training** • Forum on how social determinants affects all aspects of well-being • **Transportation** • Financial wellness • Risk and protective factors • 40 developmental assets

COMMUNITY RESOURCES TO ADDRESS SOCIAL DETERMINANTS OF HEALTH (CONTINUED)

Table 7: Assets and Gaps/Needs (Social Determinats of Health) in the Midcoast District (Continued)

SAGADAHOC COUNTY	
ASSETS	**GAPS/NEEDS**
• Set for Success • Food for Thought (food for kids, for weekends) • OUT Maine, Maine Trans Net, Midcoast Queer Collective, Gay-Straight Alliances (GSAs) (LGBTQ support) • Teens to Trails • Food Banks • Mid Coast Hunger Prevention Program (MCHPP) • Gathering Place • Bus/trolley system – beginnings • Tedford Housing • **National Alliance on Mental Illness (NAMI) Maine** • Sexual Assault Support Service • Supplemental Nutrition Assistance (SNAP) • Women, Infants, and Children (WIC) • Merrymeeting Food Council, Gleaning project • Oasis Free Clinics	• **Affordable, safe housing** • **Access to resources** • LGBTQ services: Safe housing, special health needs, outing clubs • **Lack of transportation – more regional, linkages** • Expand MaineCare • Need more screening for youth • **Food quantity and quality, access for youth after hours** • **Linkage to treatment** • **Homeless services: treatment, safe housing, mental health support, prevention** • Means to collected data on health outcomes around folks in danger of homelessness • **Reduce homelessness stigmas** • **Address poverty: access to resources, transportation and affordable housing; support to apply for services, job training for those with disabilities** • **Emergency food bags at schools, medical offices, community sites** • **Wage equity**

COMMUNITY RESOURCES TO ADDRESS SOCIAL DETERMINANTS OF HEALTH (CONTINUED)

Table 7: Assets and Gaps/Needs (Social Determinats of Health) in the Midcoast District (Continued)

WALDO COUNTY	
ASSETS	**GAPS/NEEDS**
• Belfast Public Health Nurse • Farm Fresh Rewards, Maine Harvest bucks, Supplemental Nutrition Assistance Program (SNAP), Women, Infants and Children (WIC) • Waldo Community Action Partners (WCAP) • Habitat for Humanity • Head Start/Early Education • Heroes 4 Hunger • Low Income Home Energy Assistance Program (LIHEAP) • Maine Farmland Trust • Maine Resilience Building Network (MRBN) • Meals on Wheels • Meditation and mindfulness in schools • **National Alliance on Mental Illness (NAMI) Maine** • Penobscot/Piscataquis Community Action Partners (PENQUIS CAP) • Reentry Center Garden • Section 8 Housing • Soup kitchen and food pantries • Workforce solutions	• Access to education • **Access to job training** • **Education about ACEs** • Community college in Waldo County • Community gardens • Education • Family planning • **Housing: More rental units, elderly housing** • **Increase in minimum wage** • **Links to food resources** • **Meals for seniors** and low-income families • More resources to fight domestic violence • **New businesses and jobs** • **More affordable housing** • Parenting classes • **Reliable transportation** • **Ride sharing, volunteer driver programs** • Training for education/school staff

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.[13] 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.[14]

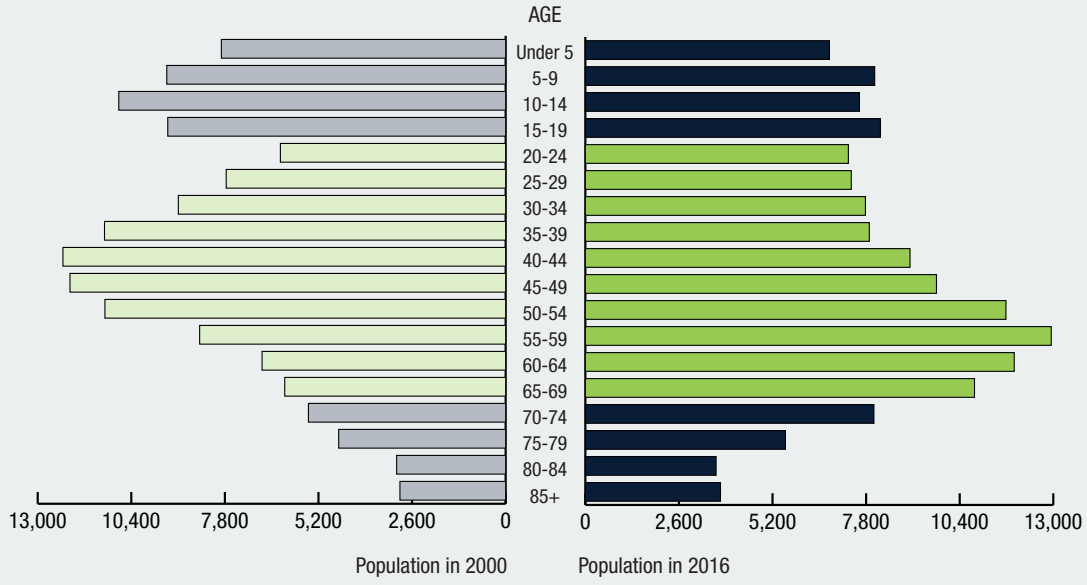
- The Knox County population over the age of 65 is 22.1%.
- In Sagadahoc County, 19.4% of the population is over the age of 65.
- The population over the age of 65 in Lincoln County is 25.6%. It is one of two counties in the state in which 24-25% of the population is over the age of 65.
- In Waldo County, 19.4% of the population is over the age of 65.

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

The following companion reports are availabe at **www.mainechna.org**.

- Knox County Health Profile and CHNA Report
- Lincoln County Health Profile and CHNA Report
- Sagadahoc County Health Profile and CHNA Report
- Waldo County Health Profile and CHNA Report
- Midcoast District Health Profile
- Maine State Health Profile and CHNA Report
- Health Equity Data Summaries

Figure 5: Age Histogram of Midcoast District



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. 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.

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 includes a number of data points comparing Midcoast District counties to the state of Maine overall.

Table 9: Socioeconomic Status in the Midcoast District

	KNOX/MAINE
Median household income	$52,239 / $50,826
Unemployment rate*	3.6% / 3.8%
Individuals living in poverty	11.9% / 13.5%
Children living in poverty	15.5% / 17.2%
65+ living alone	47.1% / 45.3%
	LINCOLN/MAINE
Median household income	$53,515 / $50,826
Unemployment rate*	3.8% / 3.8%
Individuals living in poverty	12.1% / 13.5%
Children living in poverty	18.5% / 17.2%
65+ living alone	41.5% / 45.3%
	SAGADAHOC/MAINE
Median household income	$55,766 / $50,826
Unemployment rate*	3.1% / 3.8%
Individuals living in poverty	10.7% / 13.5%
Children living in poverty	17.2% / 17.2%
65+ living alone	— / 45.3%
	WALDO/MAINE
Median household income	$45,480 / $50,826
Unemployment rate*	4.3% / 3.8%
Individuals living in poverty	16.0% / 13.5%
Children living in poverty	20.2% / 17.2%
65+ living alone	42.5% / 45.3%

Data Source: US Census Bureau, American Community Survey, 2012-2016
**US Bureau of Labor Statistics, 2015-2017*

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 (CDC), non-Hispanic blacks have higher rates of premature death, infant mortality and preventable hospitalization than non-Hispanic whites.[15] 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.[16,17] 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.

Table 8: Race/Ethnicity in the Midcoast District 2012-2016

	PERCENT/NUMBER
American Indian/Alaskan Native	0.4% / 571
Asian	0.9% / 1,298
Black/African American	0.5% / 785
Hispanic	1.2% / 1,809
Some other race	0.1% / 168
Two or more races	1.6% / 2,371
White	96.5% / 142,891

Data Source: US Census Bureau, American Community Survey, 2012-2016

SPECIAL POPULATIONS

Community engagement activities identified several populations in the Midcoast District as particularly vulnerable or at-risk for poor health or health inequities.

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 elder health and healthy aging were priorities in the Midcoast District—specifically, barriers to access to care for older adults, including lack of transportation, accessibility and affordability of housing, inability to pay for needed healthcare services/high cost of medications, depression/isolation, cognitive decline, and access to specialty services.

Youth

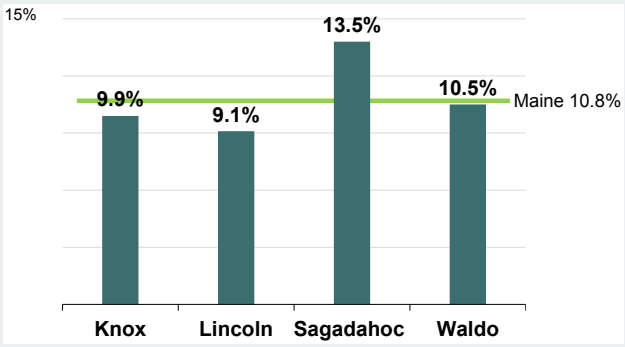
Community forums identified youth as a priority population. Specific issues of concern were youth mental health conditions (specifically depression and stress), substance use issues, oral health access, food insecurity, and lack of education and promotion around nutrition and physical activity. One key informant who works with youth identified a need for them to be able to access low-cost and anonymous health services, specifically reproductive and substance use disorder services, without parent permission.

LGBTQ youth specifically were also identified as an at-risk population. Many of their concerns mirror those of their straight or cisgender peers, but LGBTQ youth face consistently worse health outcomes including mental health, suicidal ideation, and substance use disorder, often as a result of bullying or discrimination. Lincoln County LGBTQ youth identified as priorities mental health and improved sexual education that teaches students about non-cisgender and non-heterosexual people and relationships. Most of these priorities were also identified by students who participated in forums held for high school students.

LGBTQ

LGBTQ individuals, specifically youth, were identified as a population with significant and specialized health needs in Sagadahoc County. Forum participants and interviewees discussed the need for more comprehensive and affordable mental health care for LGBTQ and non-binary adults and youth, as there is a lack of providers who have the cultural competency to treat these populations and address their health needs. Key informant interviewees identified a number of differences between the health status of LGBTQ and non-LGBTQ youth; LGBTQ youth are more likely to be depressed, experience violence, use tobacco and other substances, and self-harm. Data from the Maine Integrated Youth Health Survey analysis shows that youth who identify as bisexual, gay or lesbian, or other sexual orientation experience higher rates of feeling sad or hopeless, considering suicide, being bullied on school property, and be a victim of sexual assault, as compared to youth who identify as heterosexual. Statewide analysis of Behavioral Risk Factor Surveillance Survey confirms, among adults, higher rates of depression diagnosis over the lifetime when comparing those who identify as bisexual, gay or lesbian, or other sexual orientation to those who identify as heterosexual. Besides the need for more mental health services, there is also a need for inclusive health insurance, specifically for transgender and non-binary people; better services for individuals in rural areas of the state; LGBTQ-inclusive sexual education in schools; and surgical resources specifically for transgender youth. The number of high school students in Sagadahoc County who identified as LGBT (13.8%) is higher than the state average (10.8%) and has increased over time from 2011 (6.2%).

Figure 6: Gay, Lesbian, and Bisexual (High School, 2017)



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.

KEY INDICATORS

The Key Indicators provide an overview of the health of the district and of each county within the district. They are a broad sampling of health topics, including health behaviors, outcomes, living conditions, and health care quality and access.

The tables use symbols to show if the data for each district or each county within the district is notably better or worse than the state.

BENCHMARK, as indicated by the **+/–** in the table, compares district and county data to state data, based on 95% confidence interval.

★ means the district or county is doing **significantly better** than the state.

! means the district or county is doing **significantly worse** than the state.

○ means there is no statistically significant difference between the district or county and the state.

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.

	BENCHMARK	MIDCOAST DISTRICT									
INDICATOR	**MAINE**	**DISTRICT**	**+/–**	**KNOX**	**+/–**	**LINCOLN**	**+/–**	**SAG.**	**+/–**	**WALDO**	**+/–**
SOCIAL, COMMUNITY & PHYSICAL ENVIRONMENT											
Children living in poverty	2012-2016 **17.2%**	2012-2016 **17.8%**	N/A	2012-2016 **15.5%**	N/A	2012-2016 **18.5%**	N/A	–	N/A	2012-2016 **20.2%**	N/A
Median household income	2012-2016 **$50,826**	–	N/A	2012-2016 **$52,239**	N/A	2012-2016 **$53,515**	N/A	2012-2016 **$55,766**	N/A	2012-2016 **$45,480**	N/A
Estimated high school student graduation rate	2017 **86.9%**	2017 **87.5%**	N/A	2017 **91.8%**	N/A	2017 **88.0%**	N/A	2017 **84.8%**	N/A	2017 **86.1%**	N/A
Food insecurity	2014-2015 **15.1%**	–	N/A	2014-2015 **13.4%**	N/A	2014-2015 **13.4%**	N/A	2014-2015 **13.2%**	N/A	2014-2015 **15.1%**	N/A
HEALTH OUTCOMES											
14 or more days lost due to poor physical health	2014-2016 **19.6%**	2014-2016 **17.9%**	○	2014-2016 **15.5%**	○	2014-2016 **17.3%**	○	2014-2016 **24.1%**	○	2014-2016 **19.0%**	○
14 or more days lost due to poor mental health	2014-2016 **16.7%**	2014-2016 **13.0%**	★	2014-2016 **10.1%**	★	2014-2016 **11.8%**	★	2014-2016 **15.8%**	○	2014-2016 **16.8%**	○
Years of potential life lost per 100,000 population	2014-2016 **6,529.2**	–	N/A	2014-2016 **6,260.2**	○	2014-2016 **6,887.6**	○	2014-2016 **5,724.0**	○	2014-2016 **6,870.4**	○
All cancer deaths per 100,000 population	2012-2016 **173.8**	2012-2016 **169.0**	○	2012-2016 **166.7**	○	2012-2016 **164.4**	○	2012-2016 **183.4**	○	2012-2016 **165.5**	○
Cardiovascular disease deaths per 100,000 population	2012-2016 **195.8**	2012-2016 **190.9**	○	2012-2016 **177.8**	★	2012-2016 **187.0**	○	2012-2016 **194.3**	○	2012-2016 **208.8**	○
Diabetes	2014-2016 **10.0%**	2014-2016 **8.9%**	○	2014-2016 **7.9%**	○	2014-2016 **8.6%**	○	2014-2016 **9.8%**	○	2014-2016 **9.5%**	○
Chronic obstructive pulmonary disease (COPD)	2014-2016 **7.8%**	2014-2016 **6.8%**	○	2014-2016 **6.0%**	○	2014-2016 **6.6%**	○	2014-2016 **7.7%**	○	2014-2016 **7.3%**	○
Obesity (adults)	2016 **29.9%**	2016 **27.3%**	○	2016 **28.8%**	○	2016 **23.8%**	○	2016 **25.2%**	○	2016 **30.5%**	○
Obesity (high school students)	2017 **15.0%**	2017 **14.8%**	○	2017 **14.0%**	○	2017 **13.5%**	○	2017 **14.2%**	○	2017 **21.7%**	!
Obesity (middle school students)	2017 **15.3%**	2017 **14.3%**	○	2017 **11.4%**	○	2017 **18.7%**	○	2017 **13.5%**	○	2017 **13.1%**	○
Infant deaths per 1,000 live births	2012-2016 **6.5**	2012-2016 **6.4**	○	2012-2016 **5.2***	○	2012-2016 **6.6***	○	2012-2016 **5.4**	○	2012-2016 **8.5***	○
Cognitive decline	2016 **10.3%**	2016 **8.3%**	○	2016 **6.4*%**	○	2016 **8.2*%**	○	2016 **11.6*%**	○	2016 **7.3*%**	○
Lyme disease new cases per 100,000 population	2013-2017 **96.5**	2013-2017 **200.1**	N/A	2013-2017 **233.6**	N/A	2013-2017 **193.4**	N/A	2013-2017 **156.9**	N/A	2013-2017 **210.9**	N/A

INDICATOR	BENCHMARK MAINE	MIDCOAST DISTRICT DISTRICT	+/–	KNOX	+/–	LINCOLN	+/–	SAG.	+/–	WALDO	+/–
HEALTH OUTCOMES (CONTINUED)											
Chlamydia new cases per 100,000 population	2013-2017 **293.4**	2013-2017 **225.5**	N/A	2013-2017 **226.1**	N/A	2013-2017 **189.9**	N/A	2013-2017 **260.4**	N/A	2013-2017 **224.6**	N/A
Fall-related injury (unintentional) emergency department rate per 10,000 population	2012-2014 **340.9**	2012-2014 **360.3**	!	2012-2014 **411.5**	!	2012-2014 **294.4**	★	2012-2014 **335.0**	○	2012-2014 **387.6**	!
Suicide deaths per 100,000 population	2012-2016 **15.9**	2012-2016 **16.8**	○	2012-2016 **15.1**	○	2012-2016 **16.8**	○	2012-2016 **15.7**	○	2012-2016 **19.4**	○
Overdose deaths per 100,000 population	2012-2016 **18.1**	2012-2016 **15.8**	○	2012-2016 **15.8**	○	2012-2016 **19.2**	○	2012-2016 **10.3**	★	2012-2016 **18.2**	○
HEALTH CARE ACCESS AND QUALITY											
Uninsured	2012-2016 **9.5%**	2012-2016 **10.9%**	N/A	2012-2016 **12.4%**	N/A	2012-2016 **11.4%**	N/A	2012-2016 **7.8%**	N/A	2012-2016 **11.9%**	N/A
Ratio of primary care physicians to 100,000 population	2017 **67.3**	2017 **56.3**	N/A	2017 **62.5**	N/A	2017 **60.2**	N/A	2017 **36.3**	N/A	2017 **64.8**	N/A
Ratio of psychiatrists to 100,000 population	2017 **8.4**	2017 **6.7**	N/A	2017 **16.3**	N/A	2017 **0.0**	N/A	2017 **1.7**	N/A	2017 **7.2**	N/A
Ratio of practicing dentists to 100,000 population	2017 **32.1**	2017 **29.0**	N/A	2017 **39.8**	N/A	2017 **20.8**	N/A	2017 **37.1**	N/A	2017 **17.8**	N/A
Ambulatory care-sensitive condition hospitalizations per 10,000 population	2016 **74.6**	2016 **75.1**	N/A	2016 **59.7**	N/A	2016 **86.8**	N/A	2016 **66.0**	N/A	2016 **92.8**	N/A
Two-year-olds up-to-date with recommended immunizations	2017 **73.7%**	2017 **68.4%**	N/A	2017 **73.1%**	N/A	2017 **73.1%**	N/A	2017 **50.9%**	N/A	2017 **59.9%**	N/A
HEALTH BEHAVIORS											
Sedentary lifestyle – no leisure-time physical activity in past month (adults)	2016 **20.6%**	2016 **18.1%**	○	2016 **17.4%**	○	2016 **17.2%**	○	2016 **13.9%**	○	2016 **23.4%**	○
Chronic heavy drinking (adults)	2014-2016 **7.6%**	2014-2016 **8.3%**	○	2014-2016 **8.9%**	○	2014-2016 **9.0%**	○	2014-2016 **8.5%**	○	2014-2016 **6.6%**	○
Past-30-day alcohol use (high school students)	2017 **22.5%**	2017 **21.2%**	○	2017 **25.2%**	!	2017 **19.3%**	○	2017 **19.5%**	○	2017 **21.9%**	○
Past-30-day alcohol use (middle school students)	2017 **3.7%**	2017 **4.3%**	○	2017 **5.9%**	○	2017 **3.4%**	○	2017 **4.3%**	○	2017 **4.3%**	○
Past-30-day marijuana use (high school students)	2017 **19.3%**	2017 **22.1%**	○	2017 **25.8%**	○	2017 **21.9%**	○	2017 **19.4%**	○	2017 **21.5%**	!
Past-30-day marijuana use (middle school students)	2017 **3.6%**	2017 **3.9%**	○	2017 **5.6%**	○	2017 **2.9%**	○	2017 **4.9%**	○	2017 **3.0%**	○

	BENCHMARK	MIDCOAST DISTRICT									
INDICATOR	**MAINE**	**DISTRICT**	**+/–**	**KNOX**	**+/–**	**LINCOLN**	**+/–**	**SAG.**	**+/–**	**WALDO**	**+/–**
HEALTH BEHAVIORS (CONTINUED)											
Past-30-day misuse of prescription drugs (high school students)	2017 **5.9%**	2017 **5.7%**	○	2017 **4.7%**	★	2017 **5.3%**	○	2017 **7.1%**	○	2017 **5.3%**	○
Past-30-day misuse of prescription drugs (middle school students)	2017 **1.5%**	2017 **1.3%**	○	2017 **1.5%**	○	–	N/A	2017 **1.2%**	○	2017 **2.1%**	○
Current (every day or some days) smoking (adults)	2016 **19.8%**	2016 **18.1%**	○	2016 **14.2%**	○	2016 **19.9%**	○	2016 **17.0*%**	○	2016 **21.5%**	○
Past-30-day cigarette smoking (high school students)	2017 **8.8%**	2017 **10.1%**	○	2017 **9.5%**	○	2017 **9.6%**	○	2017 **9.5%**	○	2017 **13.7%**	!
Past-30-day cigarette smoking (middle school students)	2017 **1.9%**	2017 **2.2%**	○	2017 **3.3%**	!	2017 **1.8%**	○	2017 **2.6%**	○	2017 **1.6%**	○

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 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 to 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.
- **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 April 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.

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. Priorities that fell within the 70% combined voting total received an in-depth analysis within the Maine Shared CHNA county report.

Midcoast District Forums

Thirteen community forums were held in the Midcoast District.

Table 11: Community engagement activites in the Midcoast District, 2018-2019

KNOX COUNTY			
TYPE OF ENGAGEMENT	**LOCATION & DATE**	**FACILITATOR**	**ATTENDEES**
Community Forum	Tenants Harbor 10/15/2018	Local Planning Committee	5
Community Forum	Rockland 10/24/2018	JSI	39
LINCOLN COUNTY			
TYPE OF ENGAGEMENT	**LOCATION & DATE**	**FACILITATOR**	**ATTENDEES**
Community Forum	Newcastle 11/13/2018	JSI	84
Community Forum	Newcastle 11/30/2018	Local Planning Committee	392
Community Forum	Damariscotta 12/05/2018	Local Planning Committee	15
Community Forum	Newcastle 11/13/2018	Local Planning Committee	5
Community Forum	Wiscasset 11/13/2018	Local Planning Committee	8
SAGADAHOC COUNTY			
TYPE OF ENGAGEMENT	**LOCATION & DATE**	**FACILITATOR**	**ATTENDEES**
Community Forum	Brunswick 11/02/2018	JSI	80
Survey	Brunswick 01/02/2019	Local Planning Committee	43
WALDO COUNTY			
TYPE OF ENGAGEMENT	**LOCATION & DATE**	**FACILITATOR**	**ATTENDEES**
Community Forum	Unity 10/02/2018	Local Planning Committee	1
Community Forum	Stockton Springs 10/09/2018	Local Planning Committee	3
Community Forum	Belfast 11/01/2018	JSI	33
Community Forum	Belfast 12/06/2018	Local Planning Committee	5

Key informant interviews

The Steering Committee identified ten 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 either had lived experience in the category and/or worked for an organization that focused on providing services or advocacy to a 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 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.

For full lists of individuals representing broad interests of the community who were consulted during the engagement process, please see Kennebec and Somerset Needs Assessment Reports at **www.mainechna.org.**

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

Integrated analysis of all quantitative and qualitative activities and findings was conducted between December 2018 and January 2019. These were used to develop a full description of the risk factors underlying the health priorities for each county.

For more information, contact: **Info@mainechna.org**