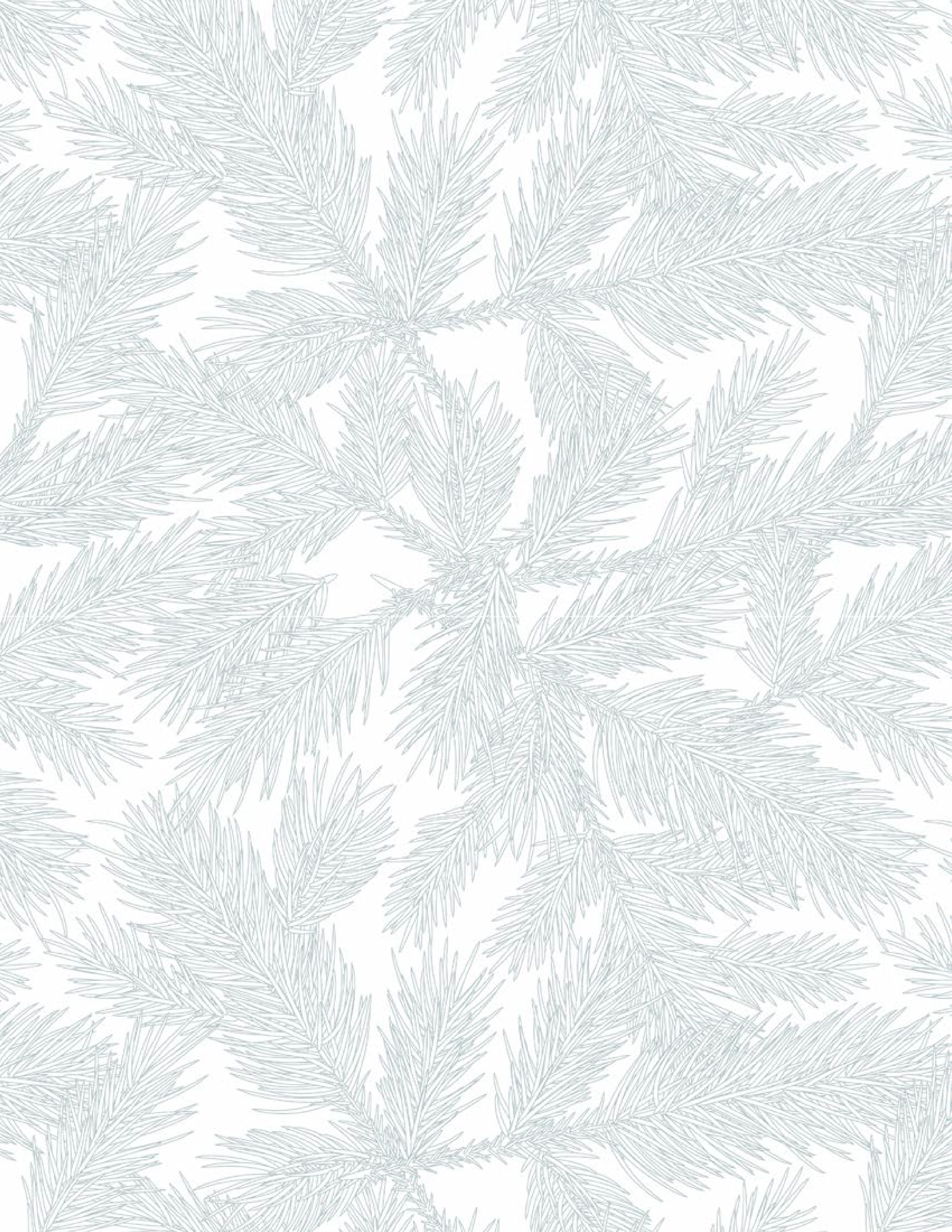
2019 Maine Shared
Community Health Needs Assessment

Cumberland County

Northern Light Health[SM]



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Key companion documents available at www.mainechna.org:

- Cumberland County Health Profile
- Sagadahoc County Health Profile
- Oxford County Health Profile
- Maine State Health Profile
- Health Equity Data Summaries, including state-level data by race, Hispanic ethnicity, sex, sexual orientation, educational attainment, and income
- In addition to these, the City of Portland has also created the Minority Health Assessment which can be found here: https://www.portlandmaine.gov/DocumentCenter/View/23309/2018-Minority-Health-Assesment-Report

EXECUTIVE SUMMARY

PURPOSE

The Maine Shared Community Health Needs Assessment (Maine CHNA) is a collaborative effort amongst Central Maine Healthcare (CMHC), Northern Light Health (NLH), MaineGeneral Health (MGH), MaineHealth (MH), 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

The Cumberland public health district covers all of Cumberland County. The population of Cumberland County is 288,204, and is one of five counties with an older population (65+)—among the lowest in the state. Although predominantly white, 2.7% of the population is black or African American, and 2.0% is Asian. Thirteen point four percent (13.4%) of the population in Portland is foreign born; 41.4% of those foreign-born residents are from Africa, and 30% are from Asia.[1] The average household income is $61,902. Educational attainment measures for high school graduation (87.7%) and associates degree or higher (53.2%) are higher than the state average.

TOP HEALTH PRIORITIES

Forums held in Cumberland 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: Cumberland County Health Priorities

PRIORITY AREA	% OF VOTES
Access to Care*	25%
Social Determinants of Health*	24%
Mental Health*	15%
Substance Use*	13%
Older Adult Health/Healthy Aging*	12%

**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

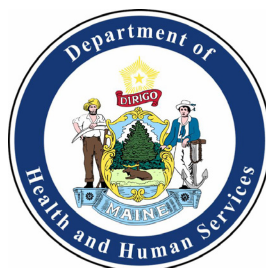
In the coming months and years, policymakers, non-profits, businesses, academics, and other community partners may also use these reports for their own strategic planning purposes.

ACKNOWLEDGEMENTS

Funding for the Maine Shared CHNA is provided by Central Maine Healthcare, Northern Light Health, MaineGeneral Health, and MaineHealth, 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, almost 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 nine priorities which arose from group break-out sessions at forums held in Cumberland 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: Cumberland County Forum Voting Results

PRIORITY AREA	% OF VOTES
Access to Care*	**25%**
Social Determinants of Health*	**24%**
Mental Health*	**15%**
Substance Use*	**13%**
Older Adult Health/ Healthy Aging*	**12%**
Oral Health	3%
Physical Activity, Nutrition, and Weight	3%
Tobacco Use	2%
Prevention	6%

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

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 Cumberland County has slightly declined over time (from 9.1% in 2009–2011 to 7.5% 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, rural residents, and lesbian, gay, bi-sexual, transgender, queer and or 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. Finally, a greater percentage of those earning less than $25,000 a year were uninsured compared to the state overall (8%). More information on health disparities by race, ethnicity, education, sex, and sexual orientation can be found in the Health Equity Data Summaries available at www.mainechna.org.

QUALITATIVE EVIDENCE

Expanding health coverage through Medicaid was identified by the community as critical for improving access to many individuals within Cumberland County. With expansion, forum participants recognized the need for enrollment supports such as the former program "Connecting Kids to Coverage".

Beyond insurance, community members discussed the need for consistent provider relationships and affordable medications. Access to affordable medications was identified as concern specifically for those with complex health conditions and disability, serious illness, and chronic illness. Continuity of care through the ability to build relationships with a single provider over time was discussed as an important part of access, and the community expressed a desire to find ways to retain providers long term. Related to provider relationships, there was an understanding to focus on communication and coordination of services in the spirit of a true patient-centered medical home. In the western part of Cumberland County, the community was concerned about access to first responder and emergency medical services. These issues were top of mind for those in the Naples Forum due to recent changes in services being provided by their local hospital.

Health literacy, navigation of health resources, and access to health care that is both culturally and linguistically competent were identified as critical barriers for immigrants and refugees. The forum participants recognized how Community Health Workers support access in a number of ways including providing cultural competence, language access, navigating resources, and acting as a bridge between providers and the immigrant community. In addition to Community Health Workers, the group discussed creating stronger relationships between health care providers and community based organizations. Some forum participants and key informants felt that healthcare providers were biased, discriminatory, and/or hostile toward immigrant and refugee patients and made assumptions about their ability to speak and understand English or understand health issues.

Community outreach and support for people that may not trust the health care system was discussed as a need across several populations. Key informants identified treatment bias for other medically underserved populations, including those with physical disabilities, mental health conditions, and substance use disorders.

For some populations, the provider capacity to serve their unique needs was identified as an additional barrier. This includes those with physical or developmental disabilities that experience limitations in specific services (e.g. providers with accessible equipment and capacity to provide dental and gynecological services).

QUANTITATIVE EVIDENCE

Cumberland County has one of the highest rates for median household income, high school graduation rates, with an associate's degree, and insured in the state. That said, Cumberland County also has some of the largest concentrations of immigrant, refugee, and other diverse populations in the state who have even greater challenges in accessing care. Despite this diversity, due to their relatively smaller numbers, their community characteristics are often missed in comparison to the general population.

The following evidence is from the Health Equity Data Summary sheets that can be found on our website www.mainechna.org. These data are at the state level, as much of the county level data is 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.

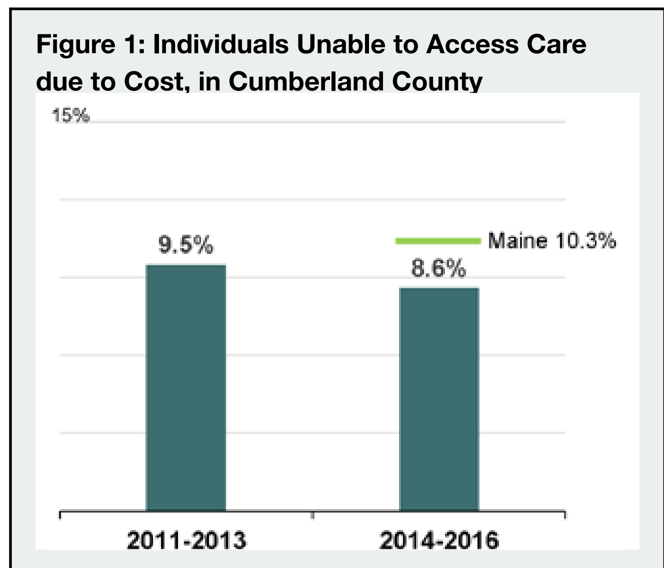
In Maine:

- Higher rates of adults who report they are unable to receive or must delay medical care due to cost are more likely to be Black or African American (22.4%), American Indian or Alaska Native (20.3%) than compared to Whites (10.3%); Hispanic (18.4%) compared to non-Hispanic (10.5%) in 2011-2016; Bisexual (21.4%), Gay or Lesbian (14.4%), compared to Heterosexuals (10.1%) in 2011-2015.
- Higher rates of uninsured are more likely to be Black or African American (14.6%), American Indian or Alaska Native (17.1%) than compared to Whites (9.2%) in 2012-2016 Hispanic (16.7%) compared to non-Hispanic (7.8%) in 2016; Bisexual (19.3%), Gay or Lesbian (12.4%), or Other sexual orientation (22.5%) compared to Heterosexuals (11.6%) in 2011-2015.
- Higher rates of unemployed are more likely to be Black or African American (15.1%), American Indian or Alaska Native (12.1%) than compared to Whites (5.8%) in 2012-2016; Hispanic (16.9%) than compared non-Hispanic (8.9%) in 2011-2016; or Bisexual (22.1%), Gay or Lesbian (10.5%) than compared to Heterosexual (9.6%) in 2011-2015.
- Lower rates of Hispanic high school students who report they visited a dentist in the past year (75.1%) compared to Non-Hispanic (80.9%) in 2017.

In Cumberland County

- One in eleven adults have been unable to access care due to cost.

Figure 1: Individuals Unable to Access Care due to Cost, in Cumberland County



See Key Indicators on page 21 as well as companion Health Profiles, including the Health Equity Data Sheets, 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 3: Assets and Gaps/Needs (Access to Care)

ASSETS	GAPS/NEEDS
• Peer Navigator programs and models • Contract with community based organizations • Community health workers from community health organizations • Let's Go! • Improved sexual health education • Transportation • Hospital Services • American Red Cross • Oasis Clinic • Prescription Assistance • Community Dental • Maine Access Immigrant Network (MAIN) • Snap-Ed • Community Paramedics • Incorporation of nurse practioners/physician assistants for practices • Community Advocacy • Portland Public Health Programs • Interprofessional learning • Care collaborative • Community Partnership for Protecting Children (CPPC) • The Opportunity Alliance • Bridgton Hospital Recovery Center • Committed staff and community • MaineCare Expansion • Lakes Region Collective Access Network • Bridgton bus transportation • Waterboro ambulance fund/program • MaineHeath Care Partners • MedAccess • Homeless Health Partners	• Mental Health for pediatrics and home-bound older adults • Culturally sensitive care • More resources/community health programs • More funding for community organizations • Access to preventative care • Preventative action in mental health • More Primary Care Providers (PCPs) • MaineCare Expansion • Comprehensive integrated Care • Translated materials • Transportation solutions • Culturally diverse workforce • Lack of national health insurance • Health literacy training • Better coordination of Electronic Medical Records • Lack of PCPs and cost of emergency departments due to that, lack of services at local hospitals • Lack of specialists, mental health providers • Home Care/Care for older adults/Aging in Place • Transportation Services • Alzheimer's services • Lack of Dental Care • Medicare expansion • Insurance costs/access/costs for uninsured populations • Urgent Care • Mental Health/Substance Use service access • Reduce stigma* • Greater support for providers • More rural providers • Housing • Preventative Education

SOCIAL DETERMINANTS OF HEALTH

The social determinants of health are the conditions in which people live, work, learn, and play; 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.[2]

For example, 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.

QUALITATIVE EVIDENCE

A dominant theme from key informant interviews and community forums was the tremendous impact that the underlying social determinants, particularly housing, access to healthy food, transportation, social interaction/isolation, poverty/employment, and Adverse Childhood Experiences (ACEs) have on residents in Cumberland County.

For youth and adults, food insecurity was identified as a primary concern. Supplemental Nutrition Assistance Program (SNAP) benefits are an asset; however, lack of access to transportation challenges families' ability to access stores and markets. The forum also recognized a link between food insecurity and isolation for some families. Isolation, which will be discussed further in the Older Adults/Healthy Aging section, was identified as a social determinant of health that impacts youth as well as older adults.

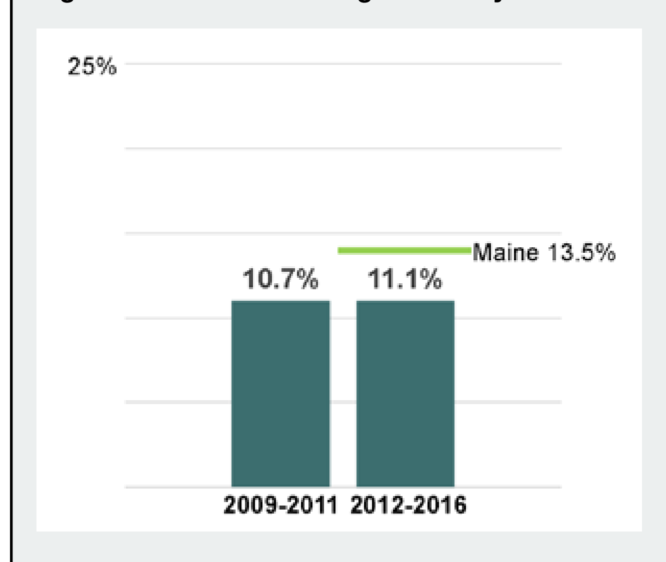
There was discussion of ACEs as a needed focus in the context of opioids, substance exposed infants, and support for grandparents raising grandchildren. There was a desire to support youth wellness by screening for and addressing ACEs.

QUANTITATIVE EVIDENCE

In Cumberland County:

- The unemployment rate in Cumberland County is 2.9%, the lowest in the state (2015–2017).
- The percentage of individuals living in poverty is lower than the state overall (11.1% vs. 13.5%).
- The percentage of children living in poverty increased from 13.3% to 17.2% in 2012–2016.
- The estimated high school graduation rate was higher than the state overall (87.7% vs. 86.9%) in 2017.
- The percentage of the population with an Associate's degree or higher among those over 25 was significantly higher than the state overall (53.2% vs. 37.3%) from 2012-2016.
- The percent of households that were food insecure was slightly lower than the state overall (14% vs. 15.1%) in 2014–2015.

Figure 2: Individuals Living in Poverty



- The percentage of high school students who reported having experienced at least 3 ACEs was lower than the state overall (19.8% vs. 23.4%) in 2017.
- The percentage of children with confirmed elevated blood lead levels was significantly higher than the state overall (3.1% vs. 2.2%) in 2012–2016.

See Key Indicators on page 21 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 4: Assets and Gaps/Needs (Social Determinants of Health

ASSETS	GAPS/NEEDS
• Health environment • Social work at home • Food security work happening in health care organization • Growing awareness • Good Shepherd Food Bank programs • Community based organizations • Community outreach workers • Elders Affairs • Shelters • City of Portland Minority Health Project • Age Friendly Communities • University of Southern Maine • University of New England • Wayside Community Cafes • Maine Shared CHNA data • Preble Street Resource Center • City of Portland Public Health	• Homelessness • Lack of safe affordable housing, housing for older adults, winter rentals • Better nutrition/childhood development education • Community centers • Preventative care • Food resources • Family caregiver support • Transportation • Isolation • Employment opportunities • Nutrition counseling/healthy, affordable food options • Policies that support women in domestic violence situations • Youth education on vaping • Care coordinators or structures that align care seamlessly • Addressing stigma* • Resources for immigrant and migrant health • Increase number of culturally diverse providers • Affordable housing • Community specific education • Access to insurance • MaineCare and Medicaid expansion • Alternatives to incarceration

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 issues that affect both individuals and communities. Mental health disorders, 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.[3]

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.[4]

QUALITATIVE EVIDENCE

The mental health needs identified were across the spectrum of service including improved screening for ACES, limited access to some services, cultural competence of mental health services, continuity of service, and community knowledge and awareness of what is available.

With respect to service access, the forum discussed how continuity through the provision of integrated mental health and medical services was critical to improving both access and quality. In addition, they identified access to psychiatry and safe and accessible inpatient services as a need. For the immigrant population, more cultural competency training is needed to help providers learn additional methods to screen for and treat patients, with a specific emphasis on non-Western models of mental health treatment. There was discussion of the need to integrate more culturally appropriate mental health options such as EMDR (eye movement desensitization and reprocessing) where an individual does not need to divulge their stories and verbalize trauma.

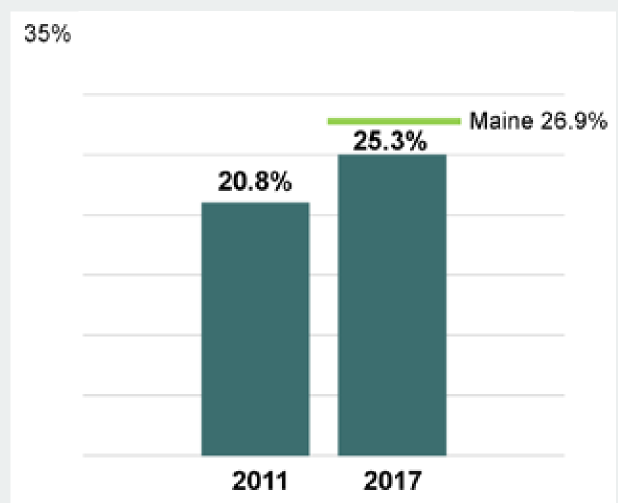
Isolation was identified as impacting healthy aging and the onset of mental illness. In addition, stigma continues to prevent community discussion and knowledge to support those in need. Stigma is the when someone is viewed in a negative way because of a mental health condition.

QUANTITATIVE EVIDENCE

In Cumberland County:

- About one in five adults have ever been told by a healthcare provider that they had a depressive disorder in 2014–2016 (22.3%).
- About one in five adults have ever been told by a healthcare provider that they had an anxiety disorder in 2014–2016 (21.4%).
- The percentage of adults receiving outpatient mental health treatment was comparable to Maine overall in 2014–2016 (18.2% vs. 17.6%).

Figure 3: Sad/Hopeless for 2+ Weeks (High School)



- The mental health emergency department rate per 10,000 declined between (2010–2011) and (2013–2014) from 372.6 to 323.5. This rate is higher than the state overall of 165.9 in 2013–2014.
- Among high school students in Cumberland County, 25.3% reported being sad or hopeless for two weeks or more in a row in 2017 compared to 20.8% in 2011.

See Key Indicators on page 21 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 AND 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. Due to the overlap of assets and gaps/needs to address both mental health (this section) and substance misuse (the next section) in Cumberland County, they are both listed in this table.

Table 5: Assets and Gaps/Needs (Mental Health/Substance Use)

ASSETS	GAPS/NEEDS
• Low Unemployment Rate • Lakes Region Substance Awareness Coalition • Easy access to Suboxone • McAuley Residence Housing • Sweetser assessments/in home counseling • Crooked River Counseling • Alcoholics Anonymous/Narcotics Anonymous • Tri-County Mental Health Services • Local Coalitions • Primary Care offices • ACEs work in community, more folks trained in ACEs • Maine Behavioral Health • Shalom House • Daycare for youth • Provider availability • Youth and mental health first aid • Spring Harbor • Milestone Recovery • Catholic Charities Counseling Services • Gateway Community Counseling • Integrated behavioral health into primary care • Healthy Generations at Memorial Community Hospital • Portland Recovery Community Center • Portland Community Free Clinic	• More Psychiatrists • Inpatient beds • Behavioral health and primary care integration • Youth Mental Health/Substance Use services • Assertive Community Treatment (ACT) team • Housing • Shortage of doctors, no urgent care • Access to Mental Health/Substance Use services • More Mental Health/Substance Use/Vaping education for youth • Support Groups • Community based services • Support for LGBTQ youth • Breaking the stigma* • Reliable transportation to and from treatment • Integrate mental health and substance use prevention and treatment into healthcare and schools • Not enough early childhood support • More community support programs based on dignity and respect • Outpatient therapy • Timely access to mental health services • Number of/access to practitioners • Access to evidence based therapies • Affordable safe childcare • Understanding of harm of social media

Table 5: Assets and Gaps/Needs (Mental Health/Substance Use) CONTINUED

ASSETS	GAPS/NEEDS
• Preble Street Resource Center • Greater Portland Health • Reducing stigma • Day One for youth/young adults • Greater Portland Addiction Collaborative • Pharmacists who are willing to dispense daily Suboxone for those who need that service	• More prosecution of violence against women and children • Medicaid expansion • Little care for the uninsured • More rural providers • Community Health Teams • Funding for uninsured patients • Lack of treatment beds • More schools with restorative policies instead of suspensions/expulsions • Access to preventative care • Peer support • Naloxone access and training • Court and legal reform • Harm reduction education • More affordable treatment • Inadequate childcare

**Stigma is when someone is viewed in a negative way because of a mental health condition.*

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.[5] Tobacco, alcohol, marijuana, and nonmedical use of prescription pain relievers (e.g. OxyContin, Vicodin) are the leading substance use health issues for adults.[6] 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.[7] 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 disorders are not engaged in needed services.[8] 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

The importance of prevention to address substance use disorder came up across all the forums and in discussions with immigrant populations as well. The prevention needs focused in particular around alcohol use as a coping strategy for other stressors, as well as the use of marijuana to address stress, especially given its recently broadened access. Issues surrounding policy changes involving access to marijuana included thinking about where it can be purchased and distributed, and proximity of retail to already vulnerable populations.

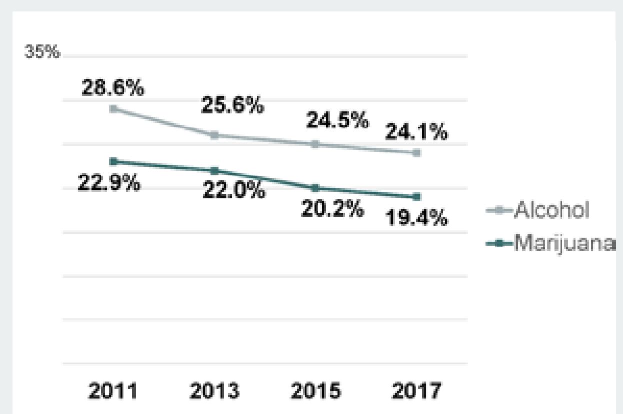
For those in need of substance use treatment, primary barriers discussed were the need for travel support to access treatment, immediate access to services in urgent care and integrated care models, and services that support patients through relapse and long term misuse. The stigma attached to substance use disorder among the community and providers was identified as a foundational barrier to access which requires community collaboration and engagement to address.

QUANTITATIVE EVIDENCE

In Cumberland County:

- The rate of overdose deaths increased between 2007–2011 and 2012–2016, from 12.2 to 18.1 per 100,000.
- The rate of overdose emergency medical service responses increased significantly between 2013–2014 and 2016–2017, from 83.5 to 95.4 per 10,000 population, and the current rate is higher than the state overall (93 per 10,000 population).
- Past 30-day alcohol use among high school students significantly decreased between 2011 and 2017 but was slightly higher than the state overall (24.1% vs. 22.5%) in 2017.

Figure 4: Past-30-Day Alcohol and Marijuana Use (High School)



- Binge drinking among high school and middle school students significantly decreased between 2011 and 2017 (from 17.2% to 12.5% for high school students, and from 2.6% to 0.9% for middle school students).
- Past 30-day misuse of prescription drugs by middle school students significantly decreased between 2011 and 2017 (3.0% to 1.4%) and is lower than the state overall (1.4% vs. 1.5%) in 2017.
- Past 30-day marijuana use in adults increased between 2011–2012 and 2013–2015 from 8.8% to 11.1% (difference could not be tested for statistical significance).

See Key Indicators on page 21 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

Due to the overlap of assets and gaps/needs to address both mental health and substance misuse in Cumberland County, please see Table 5 on page 11 in the description of Mental Health.

OLDER ADULT HEALTH/HEALTHY AGING

The World Health Organization's definition of active aging and support services are those that "optimize opportunities for health, participation and security in order to enhance quality of life as people age." Maine's older population is growing in all parts of the state, and it remains the oldest state in the nation as defined by median age; in 2017, Maine's median age was 44.7 years, compared to 38 years in the U.S. overall. Gains in human longevity create an opportunity for active lives well after age 65. As this population grows in size there is growing interest in wellness in addition to the infrastructure of health services for the older population.

QUALITATIVE EVIDENCE

The community discussed the need to improve access to physical activity for older adults, and the importance of physical activity for mental health and mobility. The benefits of continued physical activity include muscular and cardiorespiratory fitness, reduced depression, and cognitive decline. The focus on cognitive health for older adults was also identified as a need, with specific focus on gaining broader education and resources on Alzheimer's, support for caregivers, and understanding dementia and cognitive decline. Access to nursing homes and long term care were identified as a need, particularly in the western part of the county.

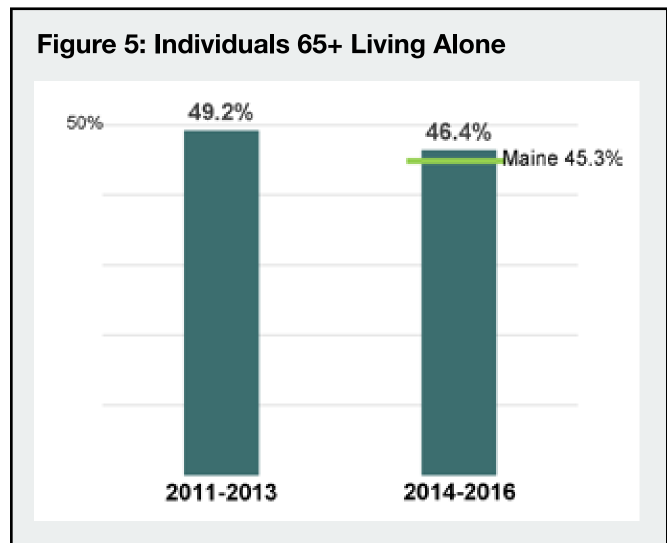
Aging in place was a popular concept, and recognized as one that reduces the need for nursing homes and specially designed older adult housing; but the group acknowledged that it is financially out of reach for many. With aging in place being a preferred lifestyle, there is a tandem concern of isolation, the impact of isolation on health, and mental health and physical risks for older adults.

QUANTITATIVE EVIDENCE

In Cumberland County:

- The percent of the population age 65 and older living alone declined from 49.2% (2007-2011) to 46.4% (2012-2016), but is slightly higher than the state rate of 45.3%.
- The percent of adults age 45 or older with cognitive decline was 8.9% in 2016 compared to the overall state rate of 10.3%.
- The percentage of adults providing regular caregiving for at least 20 hours a week was 3.3%, compared to 4.4% of the state overall in 2015.
- The percent of adults reporting arthritis was 29.0%, which was significantly lower than the state average of 32.0% in 2014–2016.

Figure 5: Individuals 65+ Living Alone



See Key Indicators on page 21 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 OLDER ADULT HEALTH/ HEALTHY AGING

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 (Older Adult Health/Healthy Aging)

ASSETS	GAPS/NEEDS
• Southern Maine Agency on Aging • Southern Maine Meals on Wheels • The Opportunity Alliance Senior Companion program	• Support for individuals living with Alzheimer's • Affordable and safe housing • Aging in place • Better service/provider availability • Support to fight social isolation

COMMUNITY CHARACTERISTICS

AGE DISTRIBUTION

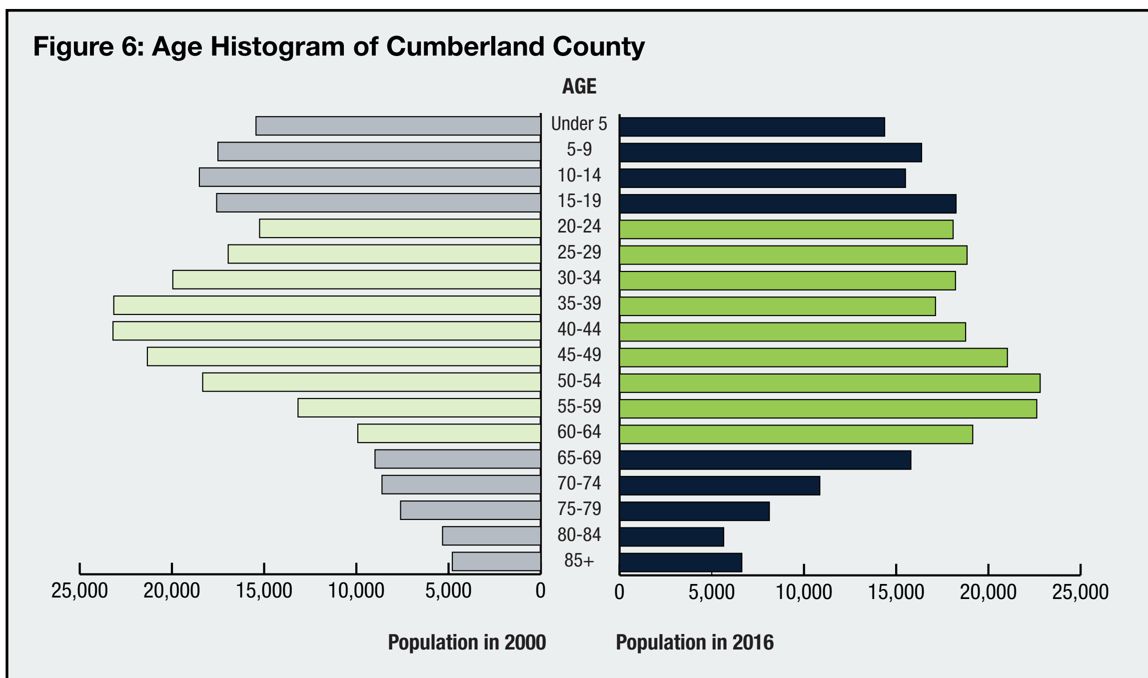
Age is a fundamental factor to consider when assessing individual and community health status; older individuals typically have more physical and mental health vulnerabilities and are more likely to rely on immediate community resources for support compared to young people.[9] With an aging population 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.[10]

The following is a summary of findings related to community characteristics for Cumberland 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."

- The population over age 65 in Cumberland County is 16.3%. It is one of five counties where 12-18% of the population is over age 65—the lowest percentages in the state.

Figure 6: Age Histogram of Cumberland County



RACE/ETHNICITY AND FOREIGN BORN

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 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.[11] 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.[12,13] 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 Cumberland County:

- The population is predominantly White (92.3%), but it is important to note that in Portland, 8.7% of the population is Black/African American, 3.8% are Asian, and 2.9% are two or more races.[14]
- In 2013–2017, 13.4% of Portland's population was foreign born; 41.14% of the foreign-born population were born in Africa, while 30% were born in Asia.[15]

Due to challenges in accurately counting the number of immigrants, refugees, asylum seekers, and migrant workers, it is highly likely the reported numbers of foreign-born are under-represented. Among those who may not be counted, but whose circumstances may warrant this status, including American-born children of these groups, and secondary migrants.

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

	PERCENT/NUMBER
American Indian/Alaskan Native	0.2% / 650
Asian	2.0% / 5,899
Black/African American	2.7% / 7,833
Hispanic	1.9% / 5,538
Some other race	0.4% / 1,132
Two or more races	2.3% / 6,768
White	92.3% / 265,918

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.[16] 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.[17] 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.[18] It is important to note that, while education affects health, poor health status may also be a barrier to education. Table 8 includes a number of data points comparing Cumberland County to the state overall.

Additionally, in Cumberland County:

- The estimated high school graduation rate was higher than the state overall in 2017 (87.7% vs. 86.9%).
- The percent of the population over 25 with an associate's degree or higher was significantly higher than the state overall in 2017 (53.2% vs. 37.3%).

Table 8: Socioeconomic Status

	CUMBERLAND/MAINE
Median household income	$61,902 / $50,826
Unemployment rate	2.9% / 3.8%
Individuals living in poverty	11.1% / 13.5%
Children living in poverty	13.3% / 17.2%
65+ living alone	46.4% / 45.3%

SPECIAL POPULATIONS

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

Immigrants and Refugees

In addition to the two community forums held in Cumberland County, a forum was held with refugees and immigrants to specifically address health issues in their communities. Key informants were also interviewed to speak to the needs of this population. Mental health was identified as one of the leading health issues for this population, specifically trauma and stress around immigration status in the current

political climate, separation from families, and negative experiences in their home country. In addition to the Maine Shared CHNA Engagement Activities, the City of Portland Department of Public Health completed a comprehensive 2018 Minority Health Assessment of over 1,000 Cumberland County residents who were born in over 15 countries. Minority Health Assessment: https://www.portlandmaine.gov/DocumentCenter/View/23309/2018-Minority-Health-Assesment-Report

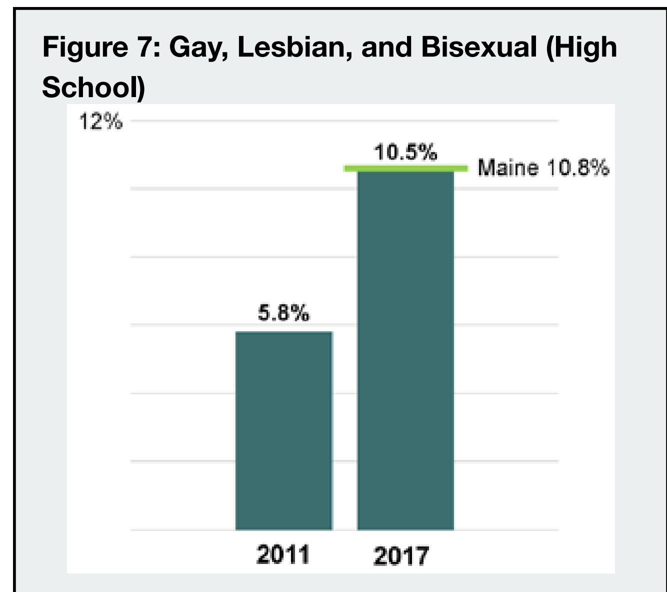
The Minority Health Assessment respondents identified diabetes, high blood pressure, and oral health as the most significant health problems in the community. For themselves, they identified stress, oral health, and healthy aging as primary concerns. In terms of health risks or risky behaviors, substance use and housing were identified in the survey as areas of highest concern. The City of Portland Minority Health Assessment 2018 Report provides additional information and results by age, ethnicity, and other individual characteristics.

Interviewees and forum participants also identified a need for health services that are linguistically and culturally appropriate, and a need for increased efforts to improve health literacy around chronic disease management, substance use prevention and treatment, and life skills (e.g. how to keep a healthy home, how to dress appropriately for cold weather). Many health needs for this population fall into the category of social determinants of health: policy change to make health insurance more accessible and comprehensive, safer and more affordable housing, better access to transportation, and the need for more opportunities to bolster community relations and social cohesion.

LGBTQ

Lesbian, Gay, Bisexual, Trans, and Queer and or Questioning (LGBTQ) individuals, specifically youth, were identified as a population with significant and specialized health needs. 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 sexual assault as compared to youth who identify as heterosexual. Statewide analysis of Behavioral Risk Surveillance Survey confirms, among adults, higher rates of depression diagnosis over the lifetime for those who identify as bisexual, gay or lesbian, or other sexual orientation as compared 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.

Figure 7: Gay, Lesbian, and Bisexual (High School)



Youth

Youth were identified as a priority population in community forums. Specific issues of concern were youth mental health issues (specifically stress, depression, and anxiety); substance use (specifically opioids, marijuana, and vaping/Juuling), lack of education and promotion around nutrition and physical activity, and unsupervised youth. 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 services, without parent permission.

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

- ★ means Cumberland County is doing **significantly better** than the state or national average.
- ! means Cumberland 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.

	CUMBERLAND COUNTY DATA			BENCHMARKS			
KEY INDICATOR	**POINT 1**	**POINT 2**	**CHANGE**	**MAINE**	**+/–**	**U.S.**	**+/–**
SOCIAL, COMMUNITY & PHYSICAL ENVIRONMENT							
Children living in poverty	2007-2011 **14.8%**	2012-2016 **13.3%**	N/A	2012-2016 **17.2%**	N/A	2016 **21.1%**	N/A
Median household income	2007-2011 **$57,267**	2012-2016 **$61,902**	N/A	2012-2016 **$50,826**	N/A	2016 **$57,617**	N/A
Estimated high school student graduation rate	2014 **88.2%**	2017 **87.7%**	N/A	2017 **86.9%**	N/A	–	N/A
Food insecurity	2012-2013 **14.2%**	2014-2015 **14.0%**	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 **17.1%**	2014-2016 **15.5%**	○	2014-2016 **19.6%**	★	2016 **11.4%**	N/A
14 or more days lost due to poor mental health	2011-2013 **13.5%**	2014-2016 **12.9%**	○	2014-2016 **16.7%**	★	2016 **11.2%**	N/A
Years of potential life lost per 100,000 population	2010-2012 **5,178.5**	2014-2016 **5,354.3**	○	2014-2016 **6,529.2**	★	2014-2016 **6,658.0**	N/A
All cancer deaths per 100,000 population	2007-2011 **174.6**	2012-2016 **161.5**	★	2012-2016 **173.8**	★	2011-2015 **163.5**	○
Cardiovascular disease deaths per 100,000 population	2007-2011 **173.9**	2012-2016 **164.3**	○	2012-2016 **195.8**	★	2016 **218.2**	★
Diabetes	2011-2013 **7.6%**	2014-2016 **9.7%**	!	2014-2016 **10.0%**	○	2016 **10.5%**	○
Chronic obstructive pulmonary disease (COPD)	2011-2013 **5.1%**	2014-2016 **6.2%**	○	2014-2016 **7.8%**	★	2016 **6.3%**	○
Obesity (adults)	2011 **21.8%**	2016 **27.0%**	○	2016 **29.9%**	○	2016 **29.6%**	○
Obesity (high school students)	2011 **9.6%**	2017 **11.9%**	○	2017 **15.0%**	○	–	N/A
Obesity (middle school students)	2015 **11.9%**	2017 **10.8%**	○	2017 **15.3%**	★	–	N/A
Infant deaths per 1,000 live births	2007-2011 **5.7**	2012-2016 **5.5**	○	2012-2016 **6.5**	○	2012-2016 **5.9**	○
Cognitive decline	2012 **9.7*%**	2016 **8.9*%**	○	2016 **10.3%**	○	2016 **10.6%**	○
Lyme disease new cases per 100,000 population	2008-2012 **46.4**	2013-2017 **93.1**	N/A	2013-2017 **96.5**	N/A	2016 **11.3**	N/A
Chlamydia new cases per 100,000 population	2008-2012 **236.8**	2013-2017 **327.9**	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 **307.4**	2012-2014 **272.1**	★	2012-2014 **340.9**	★	–	N/A
Suicide deaths per 100,000 population	2007-2011 **12.6**	2012-2016 **12.6**	○	2012-2016 **15.9**	★	2016 **13.5**	○
Overdose deaths per 100,000 population	2007-2011 **12.2**	2012-2016 **18.1**	!	2012-2016 **18.1**	○	2016 **19.8**	○

	CUMBERLAND COUNTY DATA			BENCHMARKS			
KEY INDICATOR	**POINT 1**	**POINT 2**	**CHANGE**	**MAINE**	**+/–**	**U.S.**	**+/–**
HEALTH CARE ACCESS AND QUALITY							
Uninsured	2009-2011 **9.1%**	2012-2016 **7.5%**	N/A	2012-2016 **9.5%**	N/A	2016 **8.6%**	N/A
Ratio of primary care physicians to 100,000 population	**–**	2017 **94.3**	N/A	2017 **67.3**	N/A	**–**	N/A
Ratio of psychiatrists to 100,000 population	**–**	2017 **18.8**	N/A	2017 **8.4**	N/A	**–**	N/A
Ratio of practicing dentists to 100,000 population	**–**	2017 **49.7**	N/A	2017 **32.1**	N/A	**–**	N/A
Ambulatory care-sensitive condition hospitalizations per 10,000 population	**–**	2016 **49.9**	N/A	2016 **74.6**	N/A	**–**	N/A
Two-year-olds up-to-date with recommended immunizations	2014 **67.2%**	2017 **71.3%**	N/A	2017 **73.7%**	N/A	**–**	N/A
HEALTH BEHAVIORS							
Sedentary lifestyle – no leisure-time physical activity in past month (adults)	2011 **17.5%**	2016 **17.9%**	○	2016 **20.6%**	○	2016 **23.2%**	N/A
Chronic heavy drinking (adults)	2011-2013 **8.7%**	2014-2016 **8.2%**	○	2014-2016 **7.6%**	○	2016 **5.9%**	N/A
Past-30-day alcohol use (high school students)	2011 **28.6%**	2017 **24.1%**	★	2017 **22.5%**	○	**–**	N/A
Past-30-day alcohol use (middle school students)	2011 **5.5%**	2017 **3.1%**	★	2017 **3.7%**	○	**–**	N/A
Past-30-day marijuana use (high school students)	2011 **22.9%**	2017 **19.4%**	○	2017 **19.3%**	○	**–**	N/A
Past-30-day marijuana use (middle school students)	2011 **3.8%**	2017 **2.7%**	○	2017 **3.6%**	○	**–**	N/A
Past-30-day misuse of prescription drugs (high school students)	2011 **7.1%**	2017 **6.1%**	○	2017 **5.9%**	○	**–**	N/A
Past-30-day misuse of prescription drugs (middle school students)	2011 **3.0%**	2017 **1.4%**	★	2017 **1.5%**	○	**–**	N/A
Current (every day or some days) smoking (adults)	2011-2012 **16.9%**	2016 **13.9%**	○	2016 **19.8%**	★	2016 **17.0%**	N/A
Past-30-day cigarette smoking (high school students)	2011 **13.2%**	2017 **6.6%**	★	2017 **8.8%**	★	– **–**	N/A
Past-30-day cigarette smoking (middle school students)	2011 **3.5%**	2017 **1.2%**	★	2017 **1.9%**	★	– **–**	N/A

Leading Causes of Death

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

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

APPENDIX A: REFERENCES

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APPENDIX B: HISTORY AND GOVERNANCE

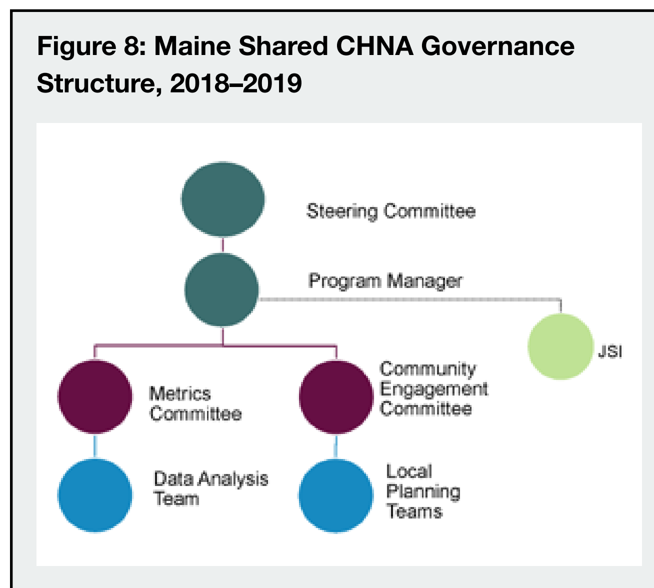
Maine is one of the few states in the nation that conducts a shared public-private statewide community health needs assessment—the Maine Shared CHNA—which was born out of a unique public-private partnership. The partnership began as the OneMaine Health Collaborative in 2007, involving Northern Light 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 8: 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 Cumberland County Health Profile at 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 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?
- 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 (One for each of the geographically-based multi-county district. A Tribal District Profile as not possible at this time.)
- 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.

Cumberland County Forums

Three community engagement activities were held in Cumberland County.

The County Health Rankings Health Action Forum was held on June 27, 2018. The purpose of this event was to solicit community information from immigrants, refugees and asylum seekers on health issues specific to this population. A further goal was to build and strengthen connections between small immigrant-led organizations working in public health in Maine and the district and state-level public health organizations. Finally, this event hoped to generate takeaway action steps and suggestions for interventions aimed at improving health equity in Maine. There were only two County Health Rankings Health Action Forums held in Maine. The other was held in Portland on June 25, 2018.

Table 9: Community engagement activites in Cumberland County, 2018

TYPE OF ENGAGEMENT	LOCATION & DATE	FACILITATOR	ATTENDEES
Community Forum	Portland 10/04/2018	JSI	90
Community Forum	Naples 10/11/2018	JSI	92
County Health Rankings Health Action Forum	Portland 06/25/2018	Dr. Heather Shattuck-Heirdom and Kristine Jenkins	50

COMMUNITY ENGAGEMENT

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

- Acadia Healthcare
- Africans for Improved Access
- Allons Health
- Alzheimer's Association
- American Cancer Society
- Birch Lane Strategies/ CDPHC
- Bridgton Academy
- Bridgton Community Center
- Bridgton Hospital
- Bridgton Hospital Physicians Group
- Bridgton Lake Region Rotary Club
- Bridgton Public Library
- Cardiac activist, speaker, author of, An Arrow through the Heart
- Catholic Charities Maine
- Center for Grieving Children
- Center for Tobacco Independence/ MaineHealth
- Central Maine HealthCare, System Director, Primary Care
- Central Maine Medical Group
- City of Portland Public Health Department
- City of South Portland
- Community Advocate, Community Health Educator
- Community Dental
- Community Members
- Crooked River Counseling
- Cross Cultural Consulting Group
- Cumberland County Food Security Council
- Cumberland Public Health District
- Cutler Research Institute, USM Muskie School
- Day One
- First Congregational Church of Bridgton
- Frannie Peabody Center
- Gateway Community Services
- Good Shepherd Food Bank
- Greater Portland Health
- Greater Portland Council of Governments
- Hanley Leadership Center
- Harry E. Davis Pediatric Center
- Harpswell Dept. of Safety and Emergency Services
- Homeless Health Partners
- House of Languages
- Lake Region Community Health Board
- Lakes Environmental Association
- Lakes Region Recovery Center
- Lakes Region Substance Abuse Coalition
- LearningWorks / Americorps
- Lakes Region Substance Awareness Coalition Board Member - Key Bank Employee
- Maine Access Immigrant Network (MAIN)
- Maine Behavioral Healthcare / Spring Harbor Hospital
- Maine CDC, District Public Health Liaison
- Maine Families
- Maine Farmland Trust
- Maine Immigrant's Rights Coalition
- MaineHealth
- MaineHeath Care Partners
- Maine Medical Center Center for Outcomes Research and Evaluation
- Maine Medical Center
- Maine Medical Partners
- Martins Point HealthCare
- MedAccess
- Memorial Hospital, NH
- Mid Coast Hospital
- MSAD 61
- National Alliance on Mental Illness (NAMI)
- Nautilus Public Health
- Navigator Program, Bridgton Community Center
- Northern Light Home Care & Hospice
- Northern Light Mercy Hospital
- Planned Parenthood of Northern New England
- Portland Outright
- Preble Street Learning Collaborative
- Retired founding officer of Genzyme Corp., Cambridge
- Retired M.D.
- Retired/ Community Member
- Retired/Volunteer
- Sam L. Cohen Foundation
- SoPo Unite
- Spring Harbor Hospital
- Tai Chi Maine
- The Bridgton News
- The Opportunity Alliance
- The Opportunity Alliance/Head Start
- Town of Bridgton, Grant Writer
- Town of Bridgton/Harrison, Local Health Officer
- Town of Gray
- Tri County Mental Health
- United Way of Greater Portland
- U.S. Centers for Disease Control & Prevention
- U.S. Committee for Refugees and Immigrants
- University of New England
- University of Southern Maine
- Westbrook Schools
- Special Supplemental Nutrition Program for Women Infants, and Children (WIC)

COMMUNITY ENGAGEMENT CONTINUED

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 or worked for an organization that focused on providing services or advocacy for the identified population. No Tribal representatives were able to be interviewed. In the future, we hope to include this important group in the CHNA process. The populations identified included:

- Veterans
- Tribal communities
- 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.

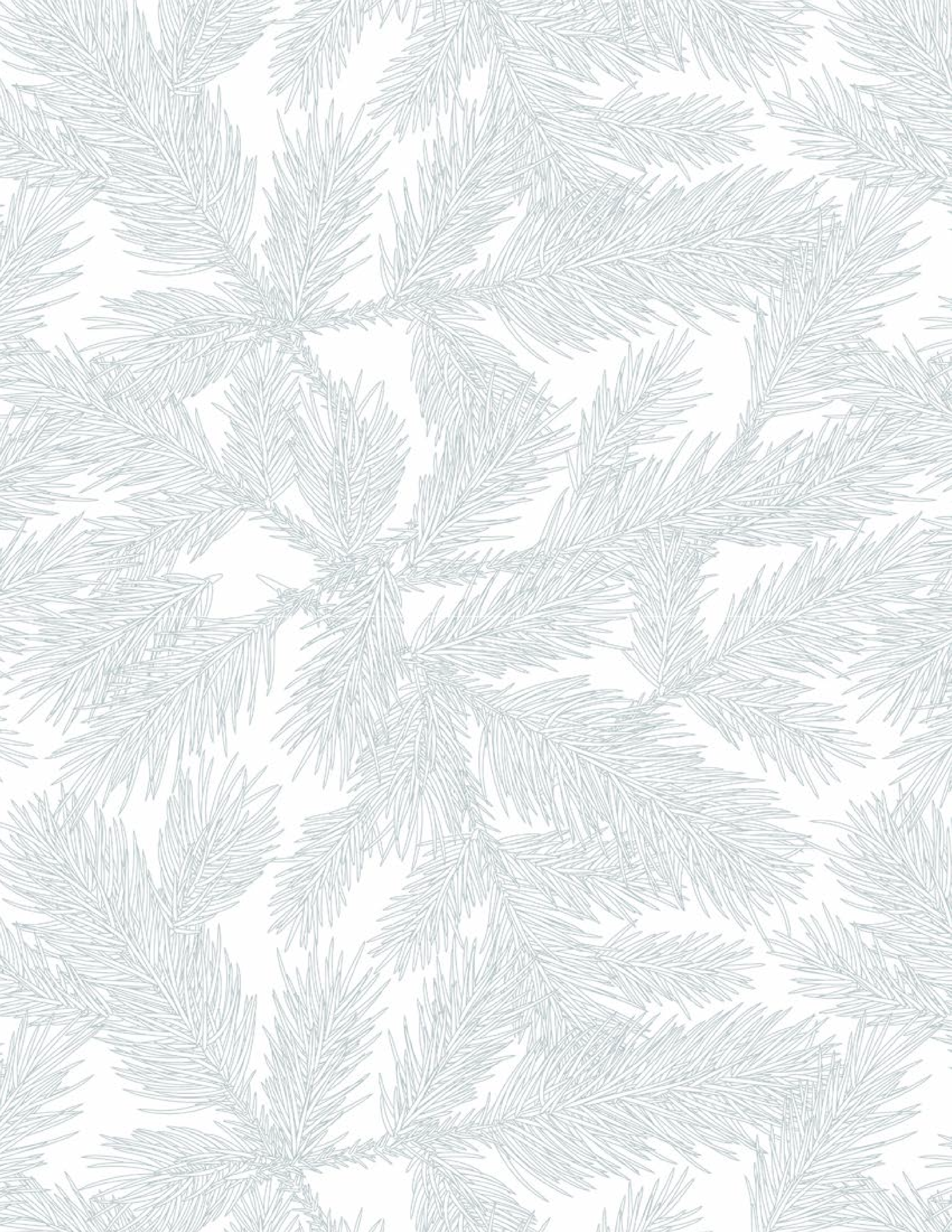
Data collection

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

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)**



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