2022 Maine Shared
Community Health Needs Assessment

Aroostook County

Northern Light Health℠

COVID-19 AND OUR HEALTH

While our quantitative data pre-dates the COVID-19 pandemic, the 2021 community health needs assessment outreach took place during the pandemic, and participants noted its impacts in deep and meaningful ways. It was impossible not to recognize the pandemic's impacts on healthcare, health outcomes, behavioral health, and social support systems, especially for those who experience systemic disadvantages.

Challenges in accessing care have impacted chronic disease management and caused delays in non-emergency procedures. Rates of those seeking medical care for even acute health events such as heart attack, stroke, and uncontrolled high blood sugar were low during the early phase of the pandemic due to COVID-19 concerns. This occurred even while the use of telemedicine increased (Kendzerska, et al., 2021). Later in the pandemic, health care usage data from July 2020 through July 2021 show that increases in ICU bed occupancy were followed weeks later by a higher number of deaths not caused by COVID than typically seen before the pandemic. ICU bed occupancy had exceeded 75% of capacity nationwide for at least 12 weeks as of October 25, 2021 (French G., et al., 2021).

Previous disasters have shown that the secondary impacts on population health are long-lasting. For instance, 10 years after Hurricane Katrina, Tulane University Health Sciences Center saw a significant increase in heart disease and related risk factors such as increases in A1C levels, blood pressure, and LDL cholesterol (Fonseca, et al., 2009). The after-effects of disasters such as the Iraqi occupation in Kuwait in 1990, the London bombings in 2005, and the tidal waves and the nuclear meltdown in Fukushima, Japan in 2011 have revealed the need for immediate as well as long-term mental health care (McFarlane & Williams, 2012).

Emerging concerns on the lasting impacts of this pandemic also include the long-term effects of COVID infection as our newest chronic disease. A recent systematic review estimates that more than half of COVID-19 survivors worldwide continue to have COVID-related health problems six months after recovery from acute COVID-19 infection (Groff, et al., 2021). New evidence shows increases in adult diagnoses of diabetes, the risk for diabetes among children, and worsening diabetes among those who already had diabetes after COVID-19 infection (Barrett, et al, 2022).

There are some concerns that the pandemic has had negative impacts on health behaviors. However, the evidence is not yet clear. In Maine, newly available 2020 Maine Behavioral Risk Factors Surveillance System (BRFSS) data on a few key measures give us an early snapshot of the health of Maine adults in the first year of the pandemic. These data do not show any evidence of adverse impacts on trends in smoking, alcohol use, overweight, obesity, or physical activity. Self-reported alcohol use, binge drinking, and current smoking in 2020 were at the lowest levels since 2011 (Maine CDC, unpublished analysis). Drug overdose deaths increased by 33% in 2020 and by another estimated 23% in 2021 according to preliminary findings (Maine Attorney General's Office); it is not clear whether this is a continuation of previous trends, other factors, or due to the pandemic.

The pandemic is affecting different segments of the population more than others. The August 2021/COVID Resilience Survey showed that younger people, people of color, and those with lower incomes all had elevated stress (American Psychological Association). In Maine, Black or African Americans experience a disproportionate share of the COVID-19 burden as they are only 1.4% of Maine's total population yet, as of January 19, 2022, makeup 3.1% of cases and hospitalizations (Maine DHHS).

Thus, the findings in the 2022 Maine Shared CHNA Reports which show the most often identified priorities such as mental health, substance and alcohol use, access to care, and social determinants of health take on new meaning and an increased sense of urgency.

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INTRODUCTION

The **Maine Shared Community Health Needs Assessment (Maine Shared CHNA)** is a collaboration between Central Maine Healthcare (CMHC), Maine Center for Disease Control and Prevention (Maine CDC), MaineGeneral Health (MGH), MaineHealth (MH), and Northern Light Health (NLH). The vision of the Maine Shared CHNA is to turn health data into action so that Maine will become the healthiest state in the U.S.

The mission of the Maine Shared CHNA is to:

- Create Shared CHNA Reports,
- Engage and activate communities, and
- Support data-driven health improvements for Maine people.

This is the fourth Maine Shared CHNA and the third conducted on a triennial basis. The Collaboration began with the One Maine initiative published in 2010. The project was renamed to the Shared Health Needs Assessment and Planning Process in 2015 which informed the 2016 final reports, and renamed to the Maine Shared CHNA in 2018, which informed the 2019 final reports. The 2021 community engagement cycle has informed the 2022 final reports.

New this cycle is an expanded effort to reach those who may experience systemic disadvantages and therefore experience a greater rate of health disparities. Two types of outreach were piloted in this effort. One effort included nine community sponsored events hosted by organizations representing the following communities: Black or African Americans; people who are deaf or hard of hearing; people with a mental health diagnosis; people with a disability; people who define themselves or identify as lesbian, gay, bisexual, transgender, and queer and/or questioning (LGBTQ+); people with low income; older adults; people who are homeless or formerly homeless; and youth. In addition to these events, 1,000 oral surveys were conducted in collaboration with eight ethnic-based community organizations' community health workers to better reach Maine's immigrant population. A complete description of how these efforts were deployed, as well as a listing of those who provided input, is provided in the Methodology section on page 18.

All of the County, District, and State reports, as well as additional information and data, can be found on our webpage: www.mainechna.org.

EXECUTIVE SUMMARY

LEADING CAUSES OF DEATH

One way to view the top health priorities is to consider their contributions to Maine's morbidity, mortality, and overall quality of life issues. It is important to note Maine's leading causes of death to put the community-identified health priorities into perspective. This includes underlying causes of death such as tobacco use, substance and alcohol use, and obesity.

Table 1. Leading Causes of Death

RANK	MAINE	AROOSTOOK COUNTY
1	Cancer	Cancer
2	Heart Disease	Heart Disease
3	Unintentional Injury	Chronic Lower Respiratory Disease
4	Chronic Lower Respiratory Disease	Unintentional Injury
5	Stroke	Alzheimer's Disease

TOP HEALTH PRIORITIES

The particiapants at the Aroostook County forum have identified the following health priorities.

Table 2. Top Health Priorities for Aroostook County

PRIORITIES	% OF VOTES
Mental Health	48%
Substance & Alcohol Use	47%
Access to Care	37%
Older Adult Health	32%

Statewide, participants identified similar top four priorities in the 2021 engagement process as was in 2018.

Table 3. Top Health Priorities for County/State

PRIORITIES	2018		2021	
Mental Health	✓	●	✓	●
Substance Use	✓	●	✓	●
Access to Care	✓	●	✓	●
Older Adult Health	✓	●	✓	
Social Determinants of Health		●		●
Physical Activity, Nutrition, and Weight	✓	●		
Cardiovascular Disease	✓			

✓*County Priority* ● *State Priority*

Common themes identified by participants in 2021 include an emerging mental health crisis; challenges in access to healthcare, including mental health providers; issues related to poverty, transportation, and other social determinants of health in a rural state; and increasing rates of substance and alcohol use.

The following pages describe each of these priorities in more detail including the major health concerns identified by participants in the community engagement process. There is a description of community-identified resources available to address those concerns as well as any related gaps or needs. Where available, there is also information for certain groups that are at higher risk due to systemic disadvantages. Finally, following the sections that discuss each of the health priorities is a listing of other health issues that were raised by community members but were not identified as priorities.

DEMOGRAPHICS

Aroostook is a rural county, with a lower median income, and higher rates of children living in poverty. Much of the population is at or near retirement age.

Table 4. Selected Demographics

	COUNTY	MAINE
Population numbers	67,809	1.34M
Median household income	$41,123	$58,918
Unemployment rate	5.5%	5.4%
Individuals living in poverty	16.1%	11.8%
Children living in poverty	20.2%	13.8%

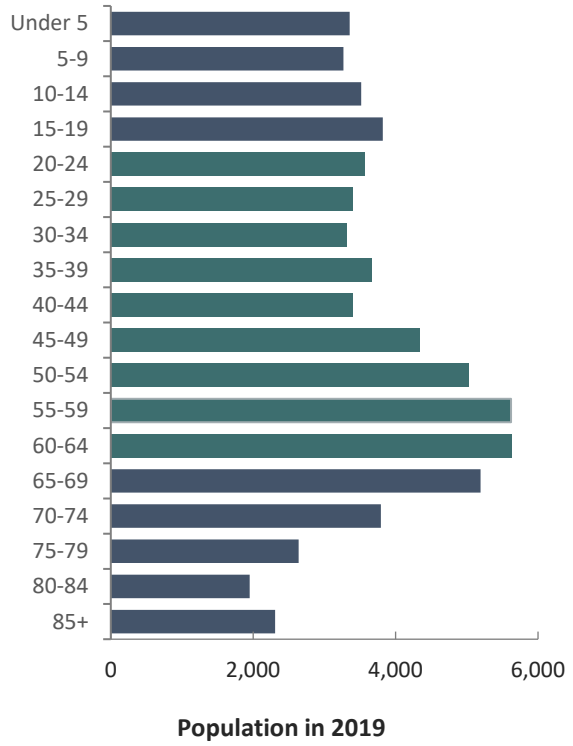
Table 4. Selected Demographics (continued)

	COUNTY	MAINE
65+ living alone	32.2%	29.0%
Associate's degree or higher (age 25+)	30.3%	41.9%
Gay, lesbian, and bisexual (adults)	2.6%	12.4%
Persons with a disability	22.3%	16.0%
Veterans	11.0%	9.6%

Table 5. Race/Ethnicity in Aroostook County

	PERCENT	NUMBER
American Indian/Alaskan Native	1.9%	1,275
Asian	0.5%	318
Black/African American	1.0%	682
Native Hawaiian or other Pacific Islander	-	-
White	94.9%	64,373
Some other race	0.1%	96
Two or more races	1.6%	1,053
Hispanic	1.2%	1,053
Non-Hispanic	98.8%	66,975

Figure 1. Age distribution for Aroostook County



HEALTH EQUITY

There is significant agreement between the priorities chosen during county forums and those identified through community-sponsored events and oral surveys. The underlying root causes for those who may experience systemic disadvantages differ depending on local resources and unique characteristics and cultural norms for each sub-population. These differences are best identified through further collaboration at the community level.

For a detailed look at what each community identified as priority health topics, as well as any gaps or barriers and resources or assets, please see the State Report, found on the Maine Shared CHNA website, www.mainechna.org.

For a quantitative look at how these differences affect health outcomes, see the Health Equity Data Sheets, also found on the Maine Shared CHNA 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. Next steps include:

- For hospitals, create an informed implementation strategy designed to address the identified needs.
- For District Coordinating Councils, create District Health Improvement Plans.
- For the Maine CDC, create an informed State Health Improvement Plan.

This report will also be used by policymakers, non-profits, businesses, academics, and countless community partners to support strategic planning, coalition building, and grant writing. Taken together, these steps can lead to Maine becoming the healthiest state in the nation.

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PRIORITY: MENTAL HEALTH

KEY TAKEAWAYS FOR AROOSTOOK COUNTY

Mental health was the top priority identified in Aroostook County. It was also identified as a top health concern in all other counties in the state. Mental health includes emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make healthy choices.[1]

Participants in an event hosted for those with a mental health diagnosis noted extremely long waitlists for services, highlighting a need for more high-quality mental health services. Participants also suggested the need for more case management, supportive, and wrap-around services, as those with a mental health diagnosis required varied and nuanced care and treatment.

"We need a provider workforce across the board. Need more crisis beds and providers- these issues are being treated in the emergency department."

Availability of mental health providers in Aroostook County was the most frequently mentioned indicator related to mental health. Community members noted the low availability of mental health providers in the area, both generally as well as mental health counselors specifically. They also noted long waitlists to access mental health care services. Nearly half (46%) of community forum participants reported the use of the **emergency department** to address mental health needs in Aroostook County as a concern. During 2016-2018 the rate of those seeking mental health care in the emergency department is 193.0 per 10,000 population. This is significantly higher than in Maine overall (181.5).

Mental health issues among youth were concerning to those in the community, particularly the rate at which youth experience **suicidal ideation**. In 2019, 15.6% of high school students and 18.3% of middle school students seriously considered suicide. These rates are similar to Maine overall.

There were concerns about the impact of the COVID-19 pandemic on youth, including potential increases in adverse childhood experiences (ACEs) resulting from the pandemic which forced homeschooling in potentially unsafe situations while decreasing access to school-based supports.

The percentage of adults receiving **outpatient mental health treatment** in Aroostook County increased from 15.0% in 2012-2014 to 18.1% in 2015-2017. In 2015-2017, 18.0% of all Maine adults were receiving outpatient mental health treatment.

Nearly one-quarter (23.5%) of adults between 2015-2017 report they have experienced **depression** in their lifetime, while a similar percentage, 23.2%, have experienced **anxiety**. Community members noted there is still a significant stigma in discussing and seeking help for these issues. They noted a need for more education at multiple levels, including for the general public, in schools, and for law enforcement and first responders.

"Especially concerning for youth- depression, bullying, isolation."

Community resources mentioned by participants include Aroostook to address mental health issues include Aroostook Public Health Council, increased Telehealth options, and Inpatient psychiatric care for both adults and children.

For more information about how those who may experience systemic disadvantages are impacted by this priority health topic area, please see the State CHNA Report.

[1] Centers for Disease Control and Prevention. Available from: https://www.cdc.gov/mentalhealth/index.htm

MAJOR HEALTH CONCERNS FOR AROOSTOOK COUNTY

	AROOSTOOK COUNTY			BENCHMARKS			
INDICATOR	**POINT 1**	**POINT 2**	**CHANGE**	**MAINE**	**+/-**	**U.S.**	**+/-**
MENTAL HEALTH							
Mental health emergency department rate per 10,000 population	—	2016-2018 **193.0**	N/A	2016-2018 **181.5**	!	—	N/A
Depression, current symptoms (adults)	2012-2014 **11.5%**	2015-2017 **11.4%**	○	2015-2017 **9.5%**	○	—	N/A
Depression, lifetime	2012-2014 **23.7%**	2015-2017 **23.5%**	○	2015-2017 **23.7%**	○	2017 **19.1%**	N/A
Anxiety, lifetime	2012-2014 **22.4%**	2015-2017 **23.2%**	○	2015-2017 **21.4%**	○	—	N/A
Sad/hopeless for two weeks in a row (high school students)	2017 **28.3%**	2019 **29.9%**	○	2019 **32.1%**	○	—	N/A
Sad/hopeless for two weeks in a row (middle school students)	2017 **26.9%**	2019 **21.2%**	○	2019 **24.8%**	○	—	N/A
Seriously considered suicide (high school students)	2017 **13.0%**	2019 **15.6%**	○	2019 **16.4%**	○	—	N/A
Seriously considered suicide (middle school students)	2017 **17.3%**	2019 **18.3%**	○	2019 **19.8%**	○	—	N/A
Chronic disease among persons with depression	—	2011-2017 **33.8%**	N/A	2011-2017 **30.8%**	○	—	N/A
Ratio of population to psychiatrists	—	2019 **64,856.0**	N/A	2019 **12,985.0**	N/A	—	N/A
Currently receiving outpatient mental health treatment (adults)	2012-2014 **15.0%**	2015-2017 **18.1%**	N/A	2015-2017 **18.0%**	N/A	—	N/A

CHANGE columns shows statistically significant changes in the indicator over time.	
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N/A	means there is not enough data to make a comparison.
BENCHMARK columns compare the county data to the state and national data.	
★	means the county is doing significantly better than the state or national average.
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COMMUNITY RESOURCES TO ADDRESS MENTAL HEALTH

Community members identified available treatment options and the Public Health Council as assets available for the Aroostook County community. The community also identified barriers to care, including a lack of mental health providers, a need for additional youth mental health services, a lack of focus on prevention, and the potentially serious consequences of untreated mental health issues as ongoing challenges Aroostook County will need to overcome.

The following information was gathered from participants during a group activity, where participants were asked to share their knowledge of the gaps and needs or resources and assets in their communities about the identified health priorities. The numbers in parentheses indicate the number of times community members mentioned or concurred with what was listed.

Table 6. Gaps/Needs and Available Resources (Mental Health)

AVAILABLE RESOURCES	GAPS/NEEDS
Treatment Telehealth Inpatient psychiatric care for adults/children **Collaboration** Aroostook Public Health Council	**Collaboration** Need better coordination (3) **Providers** Lack of providers - general (17) Lack of psychiatrists/psychiatric nurses (3) **Barriers to Treatment** No inpatient beds/treatment (13) Transportation (16) Wait times (6) Stigma (15) Lack of adequate reimbursement (10) Limited resources in the emergency department (10) **Schools/Youth** Education/providers in schools (9) Bullying awareness/prevention (3) Suicide awareness/education **Adverse Childhood Experiences(ACEs)/Trauma** Need trauma-informed care (3)

PRIORITY: SUBSTANCE & ALCOHOL USE

KEY TAKEAWAYS FOR AROOSTOOK COUNTY

Substance and alcohol use was selected as a top priority in Aroostook County. It was also identified as one of the top health concerns in all other counties in the state. Recurring use of alcohol and/or drugs can have significant negative impacts, including health problems, disability, and failure to meet major responsibilities at work, school, or home. Substance and alcohol use has also been linked to co-occurring mental health issues such as anxiety, depression, and attention-deficit/hyperactivity disorder (ADHD), among others.[2]

Overdose deaths were the most frequently mentioned health indicator for substance and alcohol use in Aroostook County. In 2020, the rate of overdose deaths per 100,000 population in Aroostook County was 25.4. This was higher than rate in Maine overall (37.3) in 2020, but not to a significant degree.

Drug-affected infants were the second most frequently mentioned health indicator for substance use. The rate of drug-affected infant reports per 1,000 births in Aroostook County was 124.1 in 2018-2019. This was statistically higher than the state rate of 73.7.

"Substance abuse is hurting communities and families and needs to be treated as a condition."

Hospital utilization was the third most frequently mentioned health indicator for substance and alcohol use. The number of overdose emergency medical service responses per 10,000 population in Aroostook County increased from 60.5 in 2019 to 66.0 in 2020. While still significantly below the 2020 rate for Maine overall (76.7), this increasing trend at the county level is moving in the wrong direction.

Community forum participants expressed concerns about multiple drug and alcohol use health indicators, including **marijuana use** and **misuse of prescription drugs**. Participants noted changing societal norms around drug use and increased access, especially for marijuana and alcohol. The percentage of adults who used marijuana in the past 30 days in Aroostook County increased from 9.0% in 2013-2016 to 13.6% in 2017. This rate is not significantly different than the state overall (16.3%). In 2013-2017, 1.3% of adults in Aroostook County reported the misuse of prescription drugs, similar to the state overall (1.0%).

Community members facing systemic disadvantages, including the formerly homeless or homeless, low-income adults, and the LGBTQ+ community mentioned a lack of treatment and recovery resources in the state. They noted a lack of harm-reduction programming, a need for supportive living environments, and skill-building programs for independent living.

"Opioid users need housing, substance, and mental health services. If we had housing, we could support and give people recovery."

A common barrier mentioned by participants is a lack of substance and alcohol use treatment providers and programs, including those that offer Medication-Assisted Treatment (MAT). Participants resources such as the Pursue Care Program, CradleME, growing peer support services, and the increased use of restorative practices.

For more information about how those who may experience systemic disadvantages are impacted by this priority health topic area, please see the State CHNA Report.

[2] Mental Health and Substance Use Disorders. Substance Abuse and Mental Health Services Administration (SAMHSA). Available from: https://www.samhsa.gov/find-help/disorders

MAJOR HEALTH CONCERNS FOR AROOSTOOK COUNTY

	AROOSTOOK COUNTY			BENCHMARKS			
INDICATOR	**POINT 1**	**POINT 2**	**CHANGE**	**MAINE**	**+/-**	**U.S.**	**+/-**
SUBSTANCE USE							
Overdose deaths per 100,000 population	2019 **20.9**	2020 **25.4***	i	2020 **37.3**	○	2019 **21.5**	N/A
Drug-induced deaths per 100,000 population	2007-2011 **10.3**	2015-2019 **19.6**	!	2015-2019 **29.5**	★	2019 **22.8**	N/A
Alcohol-induced deaths per 100,000 population	2007-2011 **8.4**	2015-2019 **11.4**	i	2015-2019 **11.6**	○	2019 **10.4**	N/A
Alcohol-impaired driving deaths per 100,000 population	2018 **4.5**	2019 **4.5**	N/A	2019 **3.8**	N/A	2019 **3.1**	N/A
Drug-affected infant reports per 1,000 births	2017 **113.5**	2018-2019 **124.1**	○	2018-2019 **73.7**	!	—	N/A
Chronic heavy drinking (adults)	2012-2014 **4.6%**	2015-2017 **6.5%**	○	2015-2017 **8.5%**	○	2017 **6.2%**	N/A
Binge drinking (adults)	2012-2014 **13.4%**	2015-2017 **12.8%**	○	2015-2017 **17.9%**	★	2017 **17.4%**	N/A
Past-30-day marijuana use (adults)	2013-2016 **9.0%**	2017 **13.6%**	○	2017 **16.3%**	○	—	N/A
Past-30-day misuse of prescription drugs (adult)	—	2013-2017 **1.3%***	N/A	2013-2017 **1.0%**	○	—	N/A
Past-30-day alcohol use (high school students)	2017 **23.1%**	2019 **21.1%**	○	2019 **22.9%**	○	—	N/A
Past-30-day alcohol use (middle school students)	2017 **5.6%**	2019 **5.0%**	○	2019 **4.0%**	○	—	N/A
Binge drinking (high school students)	2017 **10.5%**	2019 **8.6%**	○	2019 **8.2%**	○	—	N/A
Binge drinking (middle school students)	2017 **1.6%**	2019 **2.1%**	○	2019 **1.3%**	○	—	N/A
Past-30-day marijuana use (high school students)	2017 **14.5%**	2019 **18.3%**	○	2019 **22.1%**	○	—	N/A
Past-30-day marijuana use (middle school students)	2017 **4.5%**	2019 **3.8%**	○	2019 **4.1%**	○	—	N/A
Past-30-day misuse of prescription drugs (high school students)	2017 **5.4%**	2019 **3.0%**	★	2019 **5.0%**	★	—	N/A
Past-30-day misuse of prescription drugs (middle school students)	2017 **1.7%**	2019 **4.2%**	○	2019 **3.0%**	○	—	N/A
Narcotic doses dispensed per capita by retail pharmacies	2019 **12.7**	2020 **12.9**	N/A	2020 **12.1**	N/A	—	N/A
Overdose emergency medical service responses per 10,000 population	2019 **60.5**	2020 **66.0**	○	2020 **76.7**	★	—	N/A
Opiate poisoning emergency department rate per 10,000 population	—	2016-2018 **5.3**	N/A	2016-2018 **9.9**	★	—	N/A
Opiate poisoning hospitalizations per 10,000 population	—	2016-2018 **1.1**	N/A	2016-2018 **1.4**	○	—	N/A

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COMMUNITY RESOURCES TO ADDRESS SUBSTANCE & ALCOHOL USE

Community members in Aroostook County identified peer recovery and treatment resources available as potential strengths to address substance and alcohol use in their county, along with harm reduction strategies and funding sources. Additionally, barriers to substance and alcohol use issues were identified by community members, including a lack of available treatment programs, a need for increased availability of Narcan, widely available addictive substances, and a lack of youth resources.

The following information was gathered from participants during a group activity, where participants were asked to share their knowledge of the gaps and needs or resources and assets in their communities about the identified health priorities. The numbers in parentheses indicate the number of times community members mentioned or concurred with what was listed.

Table 7. Gaps/Needs and Available Resources (Substance and Alcohol Use)

AVAILABLE RESOURCES	GAPS/NEEDS
Collaboration Aroostook Public Health Council Prime for Life Curriculum (2) **Recovery** Aroostook County Action Program /Aroostook Recovery Center of Hope (4) Men's and Women's Recovery House (2) Growing Peer Services Workforce (3) **Treatment** New options for Medication-Assisted Treatment (MAT) (3) Aroostook Mental Health Services/Emergency Department Collaboration for medicated assisted treatment (4) Dedicated counselors (2) Access to suboxone in emergency department (2) Pursue Care program (virtual treatment) **Pre- and post-natal** CradleME Youth Restorative practices (alternative to suspensions) (2)	**Collaboration** Need better coordination (4) **Stigma** Stigma (11) Privacy concerns (3) **Ease of Access/attitudes** "Don't think they have a problem" (3) **Treatment** Lack of partial hospitalization programs (2) Lack of detox programs (11) Lack of inpatient treatment (9) No drug courts (3) Wait lists (2) **Harm Reduction** Public access to Narcan in emergency department (3) **Recovery** Lack of recovery residences (7) Long term rehabilitation (5) **Youth** Need more screenings for youth (2) **Other Services** Transportation (9) **Workforce** Workforce issues (5)

PRIORITY: ACCESS TO CARE

KEY TAKEAWAYS FOR AROOSTOOK COUNTY

Access to care was identified as the third top priority in Aroostook County. It was also identified as a top health concern in all other counties in the state. Access to care means having the timely use of health services to achieve the best possible health outcomes. It consists of four main components: availability of insurance coverage, availability of services, timeliness of access, and the health care workforce.[3]

Participants in the community forums noted that the rurality of the county creates barriers that are difficult to address, including attracting and keeping health care providers, a lack of urgent care services, long travel distances, and a lack of broadband access that makes telehealth and other online services more difficult to implement. Overuse or misuse of the emergency department for preventative or routine care was also noted as a challenge for the community.

"Being in a rural area affects transportation, access to vehicles, cost of care, and providers who don't accept MaineCare."

Cost barriers to care was a top indicator related to access to care mentioned by community members. In 2015-2017, 12.9% of adults reported that there was a time during the last 12 months when they needed to see a doctor but could not because of the cost. This is this similar to the state overall (10.6%).

A lack of health insurance was another health indicator frequently mentioned by community members. From 2015-2019, the rate of **uninsured** in Aroostook County was 8.4%. This is significantly higher than the state uninsured rate of 7.9% over that same period. MaineCare enrollment is higher than the nation with 40.1% of all ages enrolled compared to 29.1% in Maine overall and 24.1% across the U.S. MaineCare enrollment for children 0-19 is 56.2% in Aroostook County compared to 43.8% in Maine overall.

The percentage of adults who were seen by **any primary care provider** between 2015 and 2017 was 74.1%. This rate is similar to the 72.0% of Maine residents overall during that same period.

A lack of **travel time to see a physician** was a frequently mentioned health indicator related to access to care. In 2019, 17.7% of Aroostook County residents needed to travel 30 miles or more to be seen by a primary care provider. It was also identified as a common gap/need in the area (mentioned by 15% of forum participants).

Disparate communities experience barriers related to access differently. Black or African American community members expressed concerns about representation and culturally competent care, as well as issues with health literacy. Similarly, individuals with disabilities noted a lack of provider training in how best to provide care and communicate with them. Additionally, the LGBTQ+ community identified a need for primary care, behavioral health, and other providers who offer affirming care for the LGBTQ+ population.

Despite the challenges that Aroostook County faces with access to care, many indicators show Aroostook County faring better than the state overall. As community forum participants noted, there are areas where trends are heading in the wrong direction. Participants also noted valuable community assets such as Homeless Services of Aroostook, Healthy You program, and Katahdin Valley Health Center.

For more information about how those who may experience systemic disadvantages are impacted by this priority health topic area, please see the State CHNA Report

[3] Chartbook on Access to Health Care, Agency for Healthcare Research and Quality. Available from: https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/access/elements.html

MAJOR HEALTH CONCERNS FOR AROOSTOOK COUNTY

	AROOSTOOK COUNTY			BENCHMARKS			
INDICATOR	**POINT 1**	**POINT 2**	**CHANGE**	**MAINE**	**+/-**	**U.S.**	**+/-**
ACCESS							
Uninsured	2009-2011 **10.5%**	2015-2019 **8.4%**	★	2015-2019 **7.9%**	○	2019 **9.2%**	N/A
MaineCare enrollment (all ages)	2019 **36.1%**	2020 **40.1%**	N/A	2020 **29.1%**	N/A	**2020** **24.1%**	N/A
MaineCare enrollment (ages 0-19)	2019 **51.6%**	2020 **56.2%**	N/A	2020 **43.8%**	N/A	—	N/A
Ratio of population to primary care physicians	—	2019 **1,481.0**	N/A	2019 **1,332.0**	N/A	—	N/A
Usual primary care provider (adults)	2012-2014 **87.0%**	2015-2017 **86.5%**	○	2015-2017 **87.9%**	○	2017 **76.8%**	N/A
Primary care visit to any primary care provider in the past year	2012-2014 **73.3%**	2015-2017 **74.1%**	○	2015-2017 **72.0%**	○	2017 **70.4%**	N/A
Cost barriers to health care	2011-2013 **11.1%**	2015-2017 **12.9%**	○	2015-2017 **10.6%**	○	2016 **12.0%**	N/A
Primary care visits that were more than 30 miles from the patient's home	—	2019 **17.7%**	N/A	2019 **20.0%**	N/A	—	N/A

CHANGE columns shows statistically significant changes in the indicator over time.	
★	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 columns compare the county data to the state and national data.	
★	means the county is doing significantly better than the state or national average.
!	means the 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.

COMMUNITY RESOURCES TO ADDRESS ACCESS TO CARE

Available resources in Aroostook County to address issues related to access to care include cohesion of the community, the presence of community organizations that increase access to care, emerging technologies, alternatives to in-office care, health care education, and a development plan for the health care workforce. Community members were also able to identify potential barriers to care. These included limited numbers of healthcare providers, a lack of specialist services, the need for transportation resources in an extremely rural area, and a lack of resources for youth healthcare.

The following information was gathered from participants during a group activity, where participants were asked to share their knowledge of the gaps and needs or resources and assets in their communities about the identified health priorities. The numbers in parentheses indicate the number of times community members mentioned or concurred with what was listed.

Table 8. Gaps/Needs and Available Resources (Access to Care)

AVAILABLE RESOURCES	GAPS/NEEDS
Community Cohesion Aroostook Public Health Council **Community Organizations & Programs** Aroostook County Action Program Northern Light AR Gould Palliative Care Program (2) Homeless Services of Aroostook (3) Katahdin Valley Health Center (3) Healthy You Program Child Development Services **Technology** Access to telemedicine in the emergency department and in general (6) **Access with alternatives** Pharmacists in primary care Increased avail of specialty care (2) **Workforce Development** Workforce development training in healthcare (3) **Education** Colon Cancer/Lung Screening awareness campaigns (4)	**Transportation** Transportation issues (17) **Providers** Lack of primary care providers (4) **Specialty care** Lack of specialty care (6) No oral surgeons (5) No local treatment for eating disorders (5) **Children** Need comprehensive Child Development Clinic

PRIORITY: OLDER ADULT HEALTH

KEY TAKEAWAYS FOR AROOSTOOK COUNTY

Older adult health was selected as a top priority in Aroostook County. It was also identified as one of the top health concerns in one other county in the state, and among Maine's immigrant community. With (24%) of the population at or near retirement age, caring for older adults is a growing concern.

Older adult health is a unique area of public health. It includes multiple overlapping disciplines and health concerns ranging from challenges in daily living to health conditions such arthritis, cognitive decline, and chronic disease. These have an on the individual and their support system. Access to support and resources while aging can create disparities that impact vulnerable populations and rural areas like Aroostook County.

Cognitive decline was the most frequently identified health indicator related to older adult health. In 2016, 11.1% of adults reported there was a time during the last 12 months when they experienced confusion or memory loss that was happening more often or getting worse. This was similar to the state overall (10.3%).

Caregiving at least 20 hours per week was another priority health indicator frequently mentioned by community members. Recent data shows 4.3% of Aroostook County residents identified as caregivers. Caregiving is defined as providing care for at least 20 hours a week to a friend or family member who has a health problem or a disability. This is similar to those who report being a caregiver across Maine (4.8%).

"Need more nursing homes and long-term care beds, as well as a workforce that specializes in the older adult population"

The third most frequently mentioned health indicator is arthritis. The rate of those with arthritis was 37.2% from 2015-2017, an increase from 34.9% in 2012-2014. This rate is significantly higher than the state overall (32.0%). It is also higher than the national rate of 24.9%. One reason for this disparity could be high rates of physically demanding labor in Aroostook County's agricultural industry.

Community members facing systemic disadvantages can find navigating daily living as an older adult especially challenging. Older adults often live on limited incomes on must rely on the support of others. Barriers and challenges include access to transportation, food insecurity, specialty care, and loneliness.

Resources mentioned by community forum participants to address issues related to older adult health in Aroostook County include Healthy Living for ME, Aroostook Area on Aging, Age Friendly Caribou, Adult Day Respite Program, and Age Friendly Communities.

For more information about how those who may experience systemic disadvantages are impacted by this priority health topic area, please see the State CHNA Report.

MAJOR HEALTH CONCERNS FOR AROOSTOOK COUNTY

	AROOSTOOK COUNTY			BENCHMARKS			
INDICATOR	**POINT 1**	**POINT 2**	**CHANGE**	**MAINE**	**+/-**	**U.S.**	**+/-**
OLDER ADULT HEALTH							
Cognitive decline	2012 **19.2%***	2016 **11.1%***	○	2016 **10.3%**	○	2018 **10.8%**	N/A
Arthritis	2012-2014 **34.9%**	2015-2017 **37.2%**	○	2015-2017 **32.0%**	!	2017 **24.9%**	N/A
Caregiving at least 20 hours per week	—	2015 & 2017 **4.3%***	N/A	2015 & 2017 **4.8%**	○	—	N/A

CHANGE columns shows statistically significant changes in the indicator over time.	
★	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 columns compare the county data to the state and national data.	
★	means the county is doing significantly better than the state or national average.
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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.

COMMUNITY RESOURCES TO ADDRESS OLDER ADULT HEALTH

Aroostook County community members point to several resources available that improve older adult health. These include many resources available to assist residents with accessing healthy foods, community cohesion, remaining active and connected to the community, and respite services for caregivers. However, community members also identified several challenges related to older adult health, including high levels of isolation, limited geriatricians, lack of resources for long-term care, affordable housing and transportation, isolation and rurality, and difficulty navigating resources.

The following information was gathered from participants during a group activity, where participants were asked to share their knowledge of the gaps and needs or resources and assets in their communities about the identified health priorities. The numbers in parentheses indicate the number of times community members mentioned or concurred with what was listed.

Table 9. Gaps/Needs and Available Resources (Older Adult Health)

AVAILABLE RESOURCES	GAPS/NEEDS
Programs Healthy Living for ME (4) Volunteer programs (4) Technology support programs (2) Northern Light AR Gould Palliative Care Program (2) Nutrition education programs **Community Cohesion** Aroostook Area Agency on Aging (4) Age Friendly Caribou (2) Age Friendly Communities Aroostook Public Health Council **Alternative care options** Pharmacists in primary care Online gatherings for memory loss/chronic conditions **Training** Geriatric emergency department accreditation (4) **Caregiver supports** The adult day respite program Caregiver support programs	**Workforce** Workforce issues (7) Geriatricians Decreasing caregiver ratio **Basic Needs** Transportation (13) Transportation resources (5) Affordable housing (2) **Long-term Care** Home care (25) Long term/residential care (17) Case management for long-term care placement (2) Lack of intermediate care (2) **Navigating resources** Difficult to connect with resources Navigation for telemedicine **Lack of support** Isolation (6) No social activities for those with dementia (6)

OTHER IDENTIFIED NEEDS

The following is a list of all health priorities identified in the Aroostook County forum. Each participant was allowed to vote for up to 4 priorities from a list of twenty-four priorities. The first column is the name of the priority, the second column is the total number of votes that priority received, and the final column is the percentage of participants who voted for that priority.

Table 10. All Priority Health Topic Areas for Aroostook County

PRIORITIES	# OF VOTES	% OF PARTICIPANTS
Mental Health	42	48%
Substance and Alcohol Use	41	47%
Access to Care	32	37%
Older Adult Health	28	32%
Physical Activity, Nutrition, and Weight	18	21%
Cardiovascular Disease	16	18%
Social Determinants of Health	16	18%
Diabetes	9	10%
Cancer	7	8%
Health Care Quality	6	7%
Environmental Health	5	6%
Oral Health	5	6%
Pregnancy and Birth Outcomes	4	5%
Respiratory Disease	4	5%
Intentional Injury	3	3%
Tobacco	3	3%
Children with Special Needs	2	2%
Immunizations	2	2%
Unintentional Injury	2	2%
Infectious Disease	1	1%
Other- Prenatal Screenings	1	1%

APPENDIX: METHODOLOGY

The Maine Shared CHNA is a public-private collaboration governed by a Steering Committee, which is made up of representatives of each member organization (CMHC, MGH, MH, NLH, and Maine CDC). The Steering Committee sets fiscal and operational goals that are then implemented by the Maine Shared CHNA Program Manager. Input is provided by key stakeholder groups including the Metrics Committee and the Health Equity/Community Engagement Committee.

The **Metrics Committee** is charged with creating and reviewing a common set of population/community health indicators and measures every three years. Before the 2018-2019 Maine Shared CHNA, the Metrics Committee conducted an extensive review of the data using the following criteria as a guide: 1.] describes an emerging health issue; 2.] describes one or more social determinants of health; 3.] measures an actionable issue; 4.] the issue is known to have high health and social costs; 5.] rounds out our description of population health; 6.] aligns with national health assessments (e.g. County Health Rankings, American Health Rankings, Healthy People); 7.] data is less than 2 years old; 8.] data was included in the previous data set, or 9.] the Maine CDC analyzes the indicator in a current program. This review process was carried into the 2021-2022 Maine Shared CHNA, where the Metrics Committee also reviewed the previous data set to check for changes in data sources, potential new sources of data to round out certain topics, and to deepen Social Determinants of Health data which many of our partners have included in their work.

The **Health Equity/Community Engagement Committee** is charged with updating outreach methodology to ensure a collection of broad, diverse, and representative qualitative data from groups that are more likely to experience health disparities. To ensure these methods reflect the needs and cultural expectations this committee included representatives from a variety of Maine's ethnic-based and community-based organizations, along with representatives from public health and healthcare, and a variety of additional partners.

The 2021-2022 Maine Shared CHNA process involved three phases.

Data Analysis

The first phase of the project involved the analysis of more than 220 health indicators for the state, counties, public health districts, selected cities, and by specific demographics when available.

Data analysis was conducted by the Maine CDC and its epidemiology contractor, the University of Southern Maine with additional support from the contracted vendor, Market Decisions Research.

Community Outreach and Engagement

Community outreach and engagement for the Maine Shared CHNA included the following efforts:

- 17 County Forums (Maine)
- 9 Community Sponsored Events
- 1000 Oral Surveys

County Forums were held in each of Maine's 16 counties, with one county, Cumberland, hosting one event in western Cumberland and one in eastern Cumberland in recognition of the differences between Greater Portland (Maine's most densely populated area) and the Lakes Region, (a more rural area). Local planning teams led by local healthcare and public health district liaisons organized and promoted these events. Participants were shown a PowerPoint presentation with relevant county data and were led through guided discussions to identify indicators of concern. Participants then voted to identify their top four health priorities. They were then asked to share their knowledge on gaps and assets available in their communities to address each of the top priorities identified.

New this cycle was an expanded effort to reach those who experience systemic disadvantages and therefore experience a greater rate of health disparities. Two types of outreach were piloted. One effort included nine community-sponsored events. The hosts were chosen for their statewide reach.

The communities included:

- Black or African American
- Homeless or formerly homeless
- LGBTQ+ community
- Older adults
- People who are deaf or hard of hearing
- People who live with a disability
- People with low income
- People with a mental health diagnosis
- Youth

These events followed the same methodology as county forums with hosts providing input on the data presentation and leading the effort to recruit participants

Oral surveys were conducted in collaboration with eight ethnic-based community organizations' (ECBO's) community health workers to better reach Maine's immigrant population. There were 988 surveys were conducted in either English (32%), Somali, (24%), Arabic (23%), French (8%), Spanish (5%), Lingala (3%), and other languages including Swahili, Maay Maay, Portuguese, Oromo, Eretria, Kirundi, and Amara. When asked for their countries of origin, respondents most commonly cited the United States (212), Iraq (205), Somalia (157), The Democratic Republic of Congo (81), Djibouti (70), Kenya (30), and Mexico (29).

Other countries of origin mentioned included Rwanda, Ethiopia, Angola, Syria, Guatemala, South Africa, Palestine, Puerto Rico, Morocco, Afghanistan, El Salvador, Nigeria, Canada, Burundi, Eritrea, France, Honduras, Uganda, Jamaica, Mali, Gabon, Sudan, Nicaragua, Peru, and Brazil

The survey was an adaptation of the City of Portland's Minority Health Program Survey conducted in 2009, 2011, 2014, and 2018. In 2021, a small group of stakeholders convened to adapt this survey to meet the needs of the Maine Shared CHNA. This group included those who deployed the survey as well as other interested parties.

Groups that piloted these new outreach methods were offered stipends for their time.

Due to concerns related to COVID-19, community engagements efforts were conducted virtually except the event for the deaf or hard of hearing, which was held in a gymnasium at the Governor Baxter School for the Deaf on Mackworth Island. Oral surveys were conducted telephonically or by following current U.S. CDC COVID-19 protocols.

Community engagement was supported by John Snow, Inc. (JSI), who also conducted the initial qualitative analysis. All support materials including Data Profiles and PowerPoints were produced by Market Decisions Research.

Reporting

Initial analysis for each event and the oral surveys were reviewed by local hosts for accuracy and to ensure the information the community may find sensitive was flagged. Final CHNA reports for the state, each county, and districts were developed in the spring of 2022. Final Reports were written and produced by Market Decisions Research.

In addition to Urban, County, and Health District reports, the County, District, and State level data are also available on an Interactive Data Portal. The data in the portal is arranged by health topic and provides demographic comparisons, trends over time, definitions, and information on the data sources. Visit www.mainechna.org and click on **Interactive Data** in the menu to the left. The Maine Shared CHNA website is hosted by the Maine DHHS. (www.mainechna.org).

One virtual community forum was held in Aroostook County on November 3, 2021, with 90 attendees. Persons from the following organizations representing broad interests of the community who were consulted during the engagement process:

American Red Cross of Northern New England
Aroostook Agency on Aging
Aroostook County Action Program
Aroostook Mental Health Services, Inc.
Aroostook Public Health District
Aroostook Regional Transportation System
Bridge for Hope
Cary Medical Center
Downeast Public Health District
Fish River Rural Health
Houlton Band of Maliseet Indians
Houlton Regional Hospital
Jefferson Cary Cancer Center
Katahdin Valley Health Center
Link for Hope
Maliseet Health and Wellness Center
MMG Insurance Company
MSAD 70
Northern Light AR Gould Hospital
Northern Light Health
Northern Light Home Care and Hospice
Northern Maine Area Health Education Center/Northern Maine Community College
Northern Maine Medical Center
Pines Health Services
Power of Prevention
State of Maine DHHS
University of Maine Fort Kent
University of Maine Presque Isle

For a complete listing of organizations consulted for each of the 10 health equity outreach efforts, please see the Acknowledgements, page 21. The State Report, found on the Maine Shared CHNA website, www.mainechna.org, provides a full description of findings by each community-sponsored event.

ACKNOWLEDGMENTS

Funding for the Maine Shared CHNA is provided by the partnering healthcare systems with generous support from the Maine CDC and countless community partners and stakeholder groups. Additional funding was provided by the Maine Health Access Foundation and the Maine CDC to conduct additional outreach to engage those whose voices would not otherwise be distinctly heard. The Maine Shared CHNA is also supported in part by the U.S. Centers for Disease Control and Prevention (U.S. CDC) of the U.S. Department of Health and Human Services (U.S. DHHS) as part of the Preventive Health and Health Services Block Grant (awards NB01OT009343-01 & NB01OT009413-01). The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by the U.S. CDC/HHS, or the U.S. Government.

The infrastructure for community-led efforts is gaining strength. We are grateful to those who put their trust in the Maine Shared Community Health Needs Assessment process. Together, the MSCHNA and each of our community hosts have strived to ensure their voices are reflected herein.

Oral Survey Sponsors

Capital Area New Mainers Project
City of Portland's Minority Health Program
Gateway Community Services
Maine Access Immigrant Network
Maine Community Integration
Maine Department of Health and Human Services*
Maine Immigrant and Refugee Services
Mano en Mano
New England Arab American Organization
New Mainers Public Health Initiative

Community Event Sponsors

Consumer Council System of Maine
Disability Rights Maine
Green A.M.E. Zion Church
Health Equity Alliance
Maine Continuum of Care
Maine Council on Aging
Maine Primary Care Association
Maine Youth Action Network

*Includes the Manager of Diversity, Equity, and Inclusion and the Maine CDC.

Months of planning were conducted by stakeholder groups including the Metrics Committee, Data Analysis Team, Community Engagement Committee, Health Equity Committee, and Local Planning teams. For a complete listing please visit the Maine Shared CHNA website About Us page. Significant analysis was conducted by epidemiologists at the Maine CDC and the University of Southern Maine's Muskie School of Public Service. Market Decisions Research provided quantitative and qualitative analysis and design and production support. John Snow, Inc. (JSI) provided methodology, community engagement, and qualitative analysis expertise and support. The oral survey was adapted from the City of Portland's Minority Health Program's survey. Special thanks to the Partnership for Children's Oral Health for their data contribution.