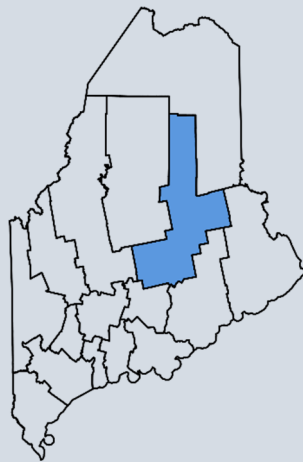


Community Health Needs Assessment & Implementation Strategy 2022



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Adopted by the PVH Board of Directors on 12/29/2022

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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 impact on healthcare, health outcomes, behavioral health, and social support systems, especially for those who experience systematic 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 (Kenderska, 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 diseases and related risk factors such as increase in A1C levels, blood pressure, and LDL cholesterol (Fonseca, et al., 2009). The after effects of disasters such as 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 of 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 an 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 overdoses deaths increased by 33% in 2020 and by another 23% in 2021 according to preliminary findings (Maine attorney General's office); it is not clear yet 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 had elevated stress (America Psychological Association). In Maine, Black or African American

residents made up 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 determinates of health take on a new meaning as an increased sense of urgency in light of COVID-19.

EXECUTIVE SUMMARY

Purpose

The Maine Shared Community Health Needs Assessment (Maine Shared CHNA) is a collaborative effort amongst Central Maine Healthcare (CMHC), MaineGeneral Health (MGH), MaineHealth (MH), Northern Light Health (NLH) and the Maine Center for Disease Control and Prevention (Maine CDC) this unique public-private partnership is intended to assess the health needs to 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's people.
- **Vision:** The Maine Shared CHNA helps to turn data into action so that Maine will become the healthiest state in the US.

Demographics

Penobscot County is one of the two counties that make up the Penquis Public Health District and the third largest population in the state. The population of Penobscot county is 151,774 and 29.4% of the population is 65 or older, living alone. The population is predominately white (94.5%); 2.0% are two or more races, 1.4% are Hispanic, 1.0% are Asian, and Black/African Americans account for 0.9% of the population. The median income is \$50,808. The high school graduation rate is 86.2% while the percent of the population with an associate's degree or higher is (38.3%) compared to the state average of 41.9%.

Table 4. Selected Demographics

	COUNTY	MAINE
Population numbers	151,774	1.34M
Median household income	\$50,808	\$57,918
Unemployment rate	5.4%	5.4%
Individuals living in poverty	14.8%	11.8%
Children living in poverty	13.9%	13.8%

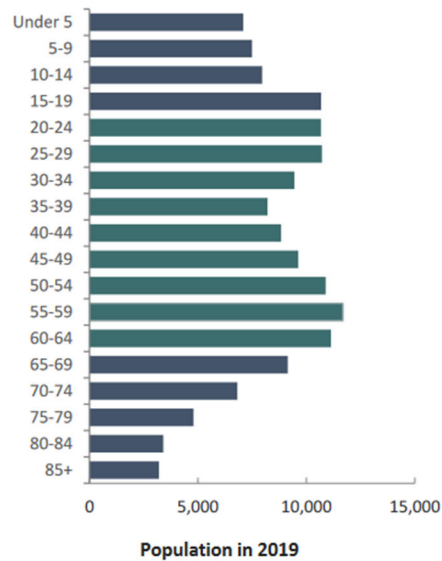
Table 4. Selected Demographics (continued)

	COUNTY	MAINE
65+ living alone	29.4%	29.0%
Associate's degree or higher (age 25+)	38.3%	41.9%
Gay, lesbian, and bisexual (adults)	3.7%	3.5%
Persons with a disability	19.0%	16.0%
Veterans	9.1%	9.6%

Table 5. Race/Ethnicity in Penobscot County

	PERCENT	NUMBER
American Indian/Alaskan Native	1.3%	1,910
Asian	1.0%	1,492
Black/African American	0.9%	1,291
Native Hawaiian or other Pacific Islander	-	-
White	94.5%	143,465
Some other race	0.3%	462
Two or more races	2.0%	3,096
Hispanic	1.4%	2,061
Non-Hispanic	98.6%	149,713

Figure 1. Age distribution for Penobscot County



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	PENOBSCOT COUNTY
1	Cancer	Cancer
2	Heart Disease	Heart Disease
3	Unintentional Injury	Unintentional Injury
4	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease
5	Stroke	Stroke

Top Health Priorities for Penobscot County

The participants of the Penobscot County forum identified the following health priorities:

PRIORITIES	% OF VOTES
Mental Health	59%
Substance and Alcohol Use	46%
Access to Care	42%
Social Determinants of Health	40%

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

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

✓ 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.

Health Equity

There is significant agreement between the priorities chosen during the 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, unique characteristics, and cultural norms for each sub-population. These differences are best identified through further collaboration at the community level.

Next Steps

This assessment report will be used to fulfill the Internal Revenue Service (IRS) requirement 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 Maine CDC, creating an informed state Health Improvement plan

In the coming months and years, policymakers, nonprofits, businesses, academics, and countless community partners will come together to support to strategic planning, coalition building, and grant writing. Taken together, these steps can lead to Maine becoming the healthiest state in the nation. The following pages will review each priority in more depth related to the impact in Penobscot County.

PRIORITY: MENTAL HEALTH

KEY TAKEAWAYS FOR PENOBSCOT COUNTY

Mental health was the top priority identified in Penobscot County. It was also identified as a top health concern in all other counties and underserved communities across the state. Mental health includes emotional, physiological, and social wellbeing. It affects how we think, feel and act. It also helps determined how we handle stress, relate to others and make healthy choices.

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 challenges that affect both individuals and communities. Mental health conditions, when left unmanaged, may affect an individual's ability to cope with challenges, and lead a healthy and productive life. Individuals with serious mental illness (e.g., major depression or schizophrenia) are at higher risk of developing other medical conditions, including cardiovascular disease, diabetes, stroke and Alzheimer's disease.

During an event with those with a mental health diagnosis, participants noted extremely long waitlists for services, highlighting a need for more high-quality mental health services and providers. 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.

"Mental Health- concern for the population overall - but especially for youth and adolescents (ACEs, suicide, screen time, lack of social connection)."

Availability of Mental Health Providers in Penobscot 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 for inpatient and outpatient care. They also noted long waitlists to access mental health care services. The over use of the emergency department to address mental health needs

was identified by 42% of community in forum participants. In Penobscot County, mental health emergency department rate per 10,000 was 178.2. This rate is similar to Maine overall (181.5).

During the 2015-2017 time period, 28.5% (1 in 4) adults reported experiencing depression in their lifetime, which is significantly higher than the state during the same time period. (23.7%).

Mental Health issues among youth were concerning to those in the community, particularly the rate at which youth experience suicidal ideation and feeling **sad and hopeless**. In 2019, 32.5% of high school students and 21.1% of middle school students in Penobscot County reported feeling sad or hopeless for two or more weeks in a row. This was significant increase for high school students.

In addition, 16.2% of high school students and 18.6% of middle school students seriously considered suicide during the same period. These rates were similar to Maine overall. There were concerns about the impact of the COVID-19 pandemic on youth, including potential increase in adverse childhood experiences (ACEs) resulting from the pandemic which forced homeschooling in potentially unsafe situations while decreasing access to school based supports.

“We lack vision and spend vast sums treating symptoms of SUDS and mental health and far too little on prevention and early intervention.”

Youth with disabilities who experience mental health issues are a particularly vulnerable part of the population. They require access to providers who can connect and communicate in ways to meet their unique needs.

Participants mentioned community resources, such as federal Substance Abuse and Mental Health Services Administrator (SAMSHA) grants for community navigators, Maine’s Crisis and Suicides Hotlines, 211 Maine, National I Alliance on Mental Illness (NAMI), and Maine’s services like weekly support groups.

MAJOR HEALTH CONCERNS FOR PENOBSCOT COUNTY

INDICATOR	PENOBSCOT COUNTY			BENCHMARKS			
	POINT 1	POINT 2	CHANGE	MAINE	+/-	U.S.	+/-
MENTAL HEALTH							
Mental health emergency department rate per 10,000 population	—	2016-2018 178.2	N/A	2016-2018 181.5	○	—	N/A
Depression, current symptoms (adults)	2012-2014 9.8%	2015-2017 11.6%	○	2015-2017 9.5%	○	—	N/A
Depression, lifetime	2012-2014 24.3%	2015-2017 28.5%	○	2015-2017 23.7%	!	2017 19.1%	N/A
Anxiety, lifetime	2012-2014 19.8%	2015-2017 23.9%	○	2015-2017 21.4%	○	—	N/A
Sad/hopeless for two weeks in a row (high school students)	2017 28.3%	2019 32.5%	!	2019 32.1%	○	—	N/A
Sad/hopeless for two weeks in a row (middle school students)	2017 23.0%	2019 21.1%	○	2019 24.8%	○	—	N/A
Seriously considered suicide (high school students)	2017 15.4%	2019 16.2%	○	2019 16.4%	○	—	N/A
Seriously considered suicide (middle school students)	2017 15.7%	2019 18.6%	○	2019 19.8%	○	—	N/A
Chronic disease among persons with depression	—	2011-2017 37.6%	N/A	2011-2017 30.8%	○	—	N/A
Ratio of population to psychiatrists	—	2019 14,006.0	N/A	2019 12,985.0	N/A	—	N/A
Currently receiving outpatient mental health treatment (adults)	2012-2014 18.2%	2015-2017 20.2%	N/A	2015-2017 18.0%	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.
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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 Mental Health

Community Members identified multiple available treatment options and the presence of our mental health resources as assets available for the Penobscot 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 prevention, and the potentially serious consequences of untreated mental health issues as ongoing challenges Penobscot county will need to overcome.

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

Key barriers to treatment include accessibility issues of long wait, few providers, and few inpatient beds as well as the social stigma of mental health care in the community.

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

AVAILABLE RESOURCES	GAPS/NEEDS
<p>Collaboration</p> <p>The community wants to see things get better (6)</p> <p>Community Health Leadership Board (3)</p> <p>This Community Health Needs Assessment (CHNA) process (3)</p> <p>Media Engagement - local papers, social media</p> <p>Treatment</p> <p>Northern Light Acadia Hospital and Acadia CARES (Child-Adolescent Resource and Educational Series) (14)</p> <p>Telehealth (7)</p> <p>Public health nurses that go to homes (2)</p> <p>Penobscot Community Health Centers (PCHC)</p> <p>Substance Abuse and Mental Health Services Administration (SAMSHA) grants for community navigators (4)</p> <p>Maine's Crisis and Suicides Hotlines (3)</p> <p>National Alliance on Mental Illness (NAMI) Maine's services like weekly support groups (2)</p> <p>Together Place community center</p> <p>Prevention</p> <p>Access to culture and arts</p> <p>Awareness/stigma</p> <p>More people are open to having conversations early and increased awareness of mental health (5)</p> <p>Increased education in emergency departments</p>	<p>Collaboration</p> <p>Need better coordination (3)</p> <p>Providers</p> <p>Not enough providers in general (32)</p> <p>Lack of skills and education necessary among providers on addressing mental health (9)</p> <p>Not enough providers, and social workers in schools (5)</p> <p>Barriers to Treatment</p> <p>Long waitlists and times (14)</p> <p>Lack of inpatient beds (13)</p> <p>Poor access to outpatient services (6)</p> <p>Local access issues (3)</p> <p>Sometimes only affiliated through Primary Care (2)</p> <p>Lack of insurance coverage for mental health services</p> <p>Need more Insurance access</p> <p>The social stigma of mental health (19);</p> <p>General lack of education and knowledge of mental health (4)</p> <p>Lack of reporting of intimate partner violence and child abuse (3)</p> <p>General lack of support services (2)</p> <p>Broadband access issues for telehealth (3)</p> <p>Stress/Isolation</p> <p>General lack of hope (3)</p> <p>Too much stress on families, e.g., work schedules, poverty, low pay jobs (2)</p> <p>Isolation caused by COVID (3)</p> <p>Not enough support for employees' mental health for those on front lines, e.g., DHHS (2)</p>

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

AVAILABLE RESOURCES	GAPS/NEEDS
<p>Schools/Youth</p> <p>More school systems addressing mental health, e.g., by using school guidance counselors (4)</p> <p>Brewer School Department helps PCHC work better through school counseling</p> <p>School-based health centers</p> <p>Federal grants that focus on increasing quality and decreasing wait times for children's services</p>	<p>Equity</p> <p>Inequitable access for minorities and immigrants (2)</p> <p>Schools/Youth</p> <p>Youth exercise required in school</p> <p>Need more screening for mental health in schools (2)</p> <p>Lack of awareness and support of mental health in school</p> <p>Not enough youth mental health services and providers (3)</p> <p>Law Enforcement</p> <p>Law enforcement training (2)</p> <p>Funding</p> <p>Inadequate reimbursements for providers (2)</p> <p>Inadequate funding</p> <p>Not enough resources to pay for gaps/barriers</p> <p>Data</p> <p>Lack of COVID mental health impact related data available</p> <p>Health Care Quality</p> <p>Lack of skills and education necessary among providers on addressing mental health (9)</p> <p>Lack of knowledge of how to handle a mental health situation vs. medical emergency (4)</p> <p>Lack of integrated care</p> <p>Backlog in the emergency department; emergency departments are the first access points and that is a problem due to lack of training and not a therapeutic environment (8)</p> <p>Need more screening for mental health in schools (2)</p>

PRIORITY: SUBSTANCE & ALCOHOL USE

KEY TAKEAWAYS FOR PENOBSCOT COUNTY

Substance and alcohol use was selected as a top priority in Penobscot county. It was also identified as one of the top health concerns in all other counties and underserved communities across the State.

Recurring use of alcohol use and/or drugs can cause clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school or home. Substance and alcohol use has been also linked to co-occurring mental health issues such as anxiety, depression and attention-deficit/hyperactivity disorder (ADHD), among others.

“Concerns over substance use increasing, and I’m anticipating these numbers will look worse because of the pandemic”

Overdose deaths was mentioned by 48% of forum participating as a concerning health indicator in Penobscot county. In 2020, the rate of overdose deaths per 100,000 populations in Penobscot County was 62.0, a significant increase from 34.8 in 2019. This is also a significantly higher rate than in Maine (37.3) in 2020. Similarly, **drug induced deaths** per 100,000 increased significantly in Penobscot county from 14.0 during the 2007-2011 time period to 33.9 during the 2015-2019 time period. **Overdose emergency medical service response per 10,000** was significantly higher in Piscataquis County (92.5) than the state overall (76.7).

Hospital utilization was the second most frequently mentioned health indicator for substance and alcohol use. In 2016-2018, the rate of opiate poisoning hospitalizations per 10,000 populations in Penobscot county was 1.6. This is similar to the state overall (1.4).

The misuse of prescription drugs was mentioned by 33% of forum participants. During the 2013-2017-time period, 1.5% of Penobscot County adults had misused prescription medication. This is similar to the state rate (1.0%).

Drug-affected infants were the fourth most frequently mentioned health indicator related to substance use in Penobscot County. The rate of drug- affected infant reports per 1,000 births in Penobscot county was 90.2 in 2018-2019. This rate is significantly higher than the state overall.

Community forum participants expressed concerns about multiple drug and alcohol use health indicators; the rate of alcohol- induced deaths in Penobscot County was 12.7 per 100,000 residents during the 2015-2019-time period. This is significantly higher that was reported during the 2007-2011-time period (7.4).

Community members facing systemic disadvantages, including the formerly homeless or homelessness, low income adults, and the LGBTQ+ community mentioned 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.

Participants mentioned a common barrier to addressing substance and alcohol use in Penobscot county is a lack of substance and alcohol use treatment programs, including those that offer Medication-Assisted Treatment (MAT). Participants also mentioned resources to address the issue in the area include the recovery community and access to Northeastern Workforce development board in Bangor.

MAJOR HEALTH CONCERNS FOR PENOBSCOT COUNTY

INDICATOR	PENOBSCOT COUNTY			BENCHMARKS			
	POINT 1	POINT 2	CHANGE	MAINE	+/-	U.S.	+/-
SUBSTANCE USE							
Overdose deaths per 100,000 population	2019 34.8	2020 62.0	!	2020 37.3	!	2019 21.5	N/A
Drug-induced deaths per 100,000 population	2007-2011 14.0	2015-2019 33.9	!	2015-2019 29.5	○	2019 22.8	N/A
Alcohol-induced deaths per 100,000 population	2007-2011 7.4	2015-2019 12.7	!	2015-2019 11.6	○	2019 10.4	N/A
Alcohol-impaired driving deaths per 100,000 population	2018 2.0	2019 3.9	N/A	2019 3.8	N/A	2019 3.1	N/A
Drug-affected infant reports per 1,000 births	2017 116.6	2018-2019 90.2	○	2018-2019 73.7	!	—	N/A
Chronic heavy drinking (adults)	2012-2014 5.5%	2015-2017 7.8%	○	2015-2017 8.5%	○	2017 6.2%	N/A
Binge drinking (adults)	2012-2014 17.4%	2015-2017 19.9%	○	2015-2017 17.9%	○	2017 17.4%	N/A
Past-30-day marijuana use (adults)	2013-2016 12.2%	2017 16.9%	○	2017 16.3%	○	—	N/A
Past-30-day misuse of prescription drugs (adult)	2012-2016 0.9%	2013-2017 1.5%*	N/A	2013-2017 1.0%	○	—	N/A
Past-30-day alcohol use (high school students)	2017 19.9%	2019 19.3%	○	2019 22.9%	○	—	N/A
Past-30-day alcohol use (middle school students)	2017 3.6%	2019 4.0%	○	2019 4.0%	○	—	N/A
Binge drinking (high school students)	2017 7.7%	2019 5.6%	○	2019 8.2%	★	—	N/A
Binge drinking (middle school students)	2017 1.1%	2019 1.3%	○	2019 1.3%	○	—	N/A
Past-30-day marijuana use (high school students)	2017 16.5%	2019 17.4%	○	2019 22.1%	★	—	N/A
Past-30-day marijuana use (middle school students)	2017 2.7%	2019 3.9%	○	2019 4.1%	○	—	N/A
Past-30-day misuse of prescription drugs (high school students)	2017 5.0%	2019 3.9%	○	2019 5.0%	○	—	N/A
Past-30-day misuse of prescription drugs (middle school students)	2017 1.7%	2019 3.4%	○	2019 3.0%	○	—	N/A
Narcotic doses dispensed per capita by retail pharmacies	2019 11.5	2020 11.3	N/A	2020 12.1	N/A	—	N/A
Overdose emergency medical service responses per 10,000 population	2019 87.0	2020 92.5	○	2020 76.7	!	—	N/A
Opiate poisoning emergency department rate per 10,000 population	—	2016-2018 9.2	N/A	2016-2018 9.9	○	—	N/A
Opiate poisoning hospitalizations per 10,000 population	—	2016-2018 1.6	N/A	2016-2018 1.4	○	—	N/A

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Community Resources to Address Substance & Alcohol use

Community members in Penobscot 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, community members identified a lack of available treatment programs, a need for additional recovery coaches, widely available addictive substances, and a lack of youth resources as barriers to treatment and reduction of substance and alcohol use.

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

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

AVAILABLE RESOURCES	GAPS/NEEDS
Collaboration This Community Health Needs Assessment (CHNA) process (3) Collaboration among unrelated organizations Vested partners Media Engagement - local papers, social media	Treatment Lack of access to services in general including long waitlists (8) Lack of Medication-Assisted Treatment (MAT) programs (3)
Prevention Strong prevention programs	Recovery Lack of recovery and rehabilitation services (8) Need updated employer and insurance regulations and policy for those with felony and criminal history (2) Lack of healthy coping skills Lack of access to substance use support groups and general support (2) More programs are needed to support the social determinants of health and the whole person Isolation caused by COVID (3)
Recovery Recovery Community and other recovery centers (6) Community recovery navigators Together Place (3) Access to Northeastern Workforce Development Board's "Recovery Friendly Employers" and other initiatives (2)	Funding/Resources Not enough resources and programs (8) Irregular funding streams (3)
Treatment Low barrier to Medication-Assisted Treatment (MAT) and increased availability (4) Penobscot Community Health Center (PCHC) Bridge Clinic (2) Whole patient-focused care for new moms Lots of treatment locally, including detoxes	Harm Reduction Not enough harm reduction initiatives, such as needle exchanges (4)
Harm Reduction Harm reduction initiatives like Bangor's needle exchange or Narcan programs (8) Overdose Response Team Pilot (2)	Ease of access substances Lack of data around where individuals find drugs (3) Increased access and acceptance of marijuana use Need education on marijuana use effects on prenatal breastfeeding and adolescents Social acceptability of alcohol use, e.g., televised images encouraging use (2) Lack of education in general (2) More drug abusers and dealers entering the state
Organizations Bangor Public Health, in general, doing amazing work (2) Northeastern Workforce Development Board in Bangor	

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

AVAILABLE RESOURCES	GAPS/NEEDS
Funding The focus of federal funding (3)	Youth/families Lack of parenting/family programs to address issues (2) No childcare for those seeking MAT (2) Need targeted education for youth to address e-cigarette and alcohol use (2) Lack of awareness and support of students with substance use disorders in school (7)
Youth School counselors and resource officers	Stigma Stigma (24) Treating substance use as a criminal issue, not a health issue (2)
	Equity Inequitable access for minorities and immigrants

PRIORITY: ACCESS TO CARE

KEY TAKEAWAYS FOR PENOBSCOT COUNTY

Access to care was identified as the third top priority in Penobscot County. It was also identified as a top health concern in all other counties and underserved communities across 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 access, and health care workforce.

Community members in Penobscot County mentioned that the area lacks health care providers, especially those providing mental health care, specialty care, and care that is more specific to older adults (such as geriatricians or long-term care). The area has issues related to lack of access to insurance and transportation. Wider availability of telehealth services has increased access in some ways, but not everyone has access to broadband or possess the technology and know-how to take advantage of those services.

“Need for more health supports for older adults- memory care, long term care, and home health.”

Cost barriers to care were the most frequently identified health indicator related to access to care. During 2015-2017-time period, 12.3% 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 similar to Maine overall (10.6%).

A lack of health insurance was another health indicator frequently mentioned by community members. From 2015-2019, the rate of uninsured individuals in Penobscot county was 8.8%. While this is a significant improvement from the 10.6% of those uninsured during the 2009-2022-time period, it is still significantly higher than the state rate of people without health insurance, 7.9% in the most recent time-period.

Availability of primary care providers in Penobscot County was also a frequently mentioned health indicator related to access to care. In 2019, 14.5% of Penobscot County residents needed to travel 30 miles to be seen by a primary care provider. It was also identified as an area of concern by 21% of forum participants.

“Telehealth has increased in access in some ways, but not all have tech ability of resources.”

The percentage of those with a usual primary care provider was 86.7% between 2015-2017. This is similar to Maine overall (87.9%) during the same period. According to recent data, 72.1% of Penobscot County Residents were seen by any primary care provider in the past year. This is a similar rate to Maine overall (72.0%). This means almost 1 in 3 were at risk of not receiving preventative health care services.

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 care and communication with the population. Additionally, the LGBTQ+ community identified a need for a primary care, behavioral health, and other providers who offer affirming care for the LGBTQ+ population.

Despite the challenges that Penobscot County faces with access to care, community forum participants noted the area has Penobscot Community Health Centers and Benevolence care at St. Josephs.

MAJOR HEALTH CONCERNS FOR PENOBSCOT COUNTY

INDICATOR	PENOBSCOT COUNTY			BENCHMARKS			
	POINT 1	POINT 2	CHANGE	MAINE	+/-	U.S.	+/-
ACCESS							
Uninsured	2009-2011 10.6%	2015-2019 8.8%	★	2015-2019 7.9%	!	2019 9.2%	N/A
MaineCare enrollment (all ages)	2019 28.2%	2020 32.1%	N/A	2020 29.1%	N/A	2020 24.1%	N/A
MaineCare enrollment (ages 0-19)	2019 40.6%	2020 44.7%	N/A	2020 43.8%	N/A	—	N/A
Ratio of population to primary care physicians	—	2019 1,324.0	N/A	2019 1,332.0	N/A	—	N/A
Usual primary care provider (adults)	2012-2014 86.0%	2015-2017 86.7%	○	2015-2017 87.9%	○	2017 76.8%	N/A
Primary care visit to any primary care provider in the past year	2012-2014 72.7%	2015-2017 72.1%	○	2015-2017 72.0%	○	2017 70.4%	N/A
Cost barriers to health care	2011-2013 11.0%	2015-2017 12.3%	○	2015-2017 10.6%	○	2016 12.0%	N/A
Primary care visits that were more than 30 miles from the patient's home	—	2019 14.5%	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 Penobscot County to address issues related to access 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 Community Health Leadership Board (3) Rural communities taking more initiative and collaborating (2) Collaboration among unrelated organizations in general Vested partners This Community Health Needs Assessment (CHNA) process (3)	Providers Not enough providers (12) Lack of ability to identify whether providers are available (3) High provider turnover (3) Too many doctors going into specialty care vs. primary care (2) Provider and staff burnout (5) Lack of consistency for primary care providers
Community Organizations Penobscot Community Health Centers (6) Benevolence Care at St. Joseph (3)	Costs High cost of care, especially for uninsured (11) Lack of affordable specialty medical care (6) Lack of access to dermatology for uninsured or underinsured (3) High cost of medications Lack of insurance for cancer treatment Lack of affordable dental care
Technology Increased telehealth access (8) Telehealth for mental health providers	Barriers to care Long waitlists (8) Navigating the healthcare system is difficult even for those who have insurance (2) Regulations like telehealth reimbursement and crossing state lines, among others broadband challenges, lack of access to broadband (6) Hard to develop new services (2)
Access alternatives State insurance for those who qualify/MaineCare (6) Number of available providers (3) Dental programs, especially those covered by MaineCare (2) In-school health clinics Transportation services like Mobilize Katahdin and Lynx transportation (9) Public transportation State insurance for those who qualify/MaineCare (6) Nutrition programs	Transportation Transportation barriers (14) Lack of services and resources in rural areas (10)
Education Media Engagement - local papers, social media identification and access to local providers	Other Services Lack of childcare availability (2)

PRIORITY: SOCIAL DETERMINANTS OF HEALTH

KEY TAKEAWAYS FOR PENOBSCOT COUNTY

Social determinants of health were selected as a top priority in Penobscot County. It was also identified as one of the top health concerns in 14 other counties and among the underserved communities across the state.

Social determinants of health are the conditions in which people live, learn, work, play, worship and age. Domains include education, economic stability, health care access and quality, the environment, and social connectedness. Examples include, access to healthy food, housing, water, air and relationships. Differences in social determinants create disparities that impact vulnerable populations and rural areas like Penobscot County.

Poverty was the most frequently mentioned health indicator in Penobscot county. During the 2015-2017-time period, 14.8% of individuals in Penobscot county lived in poverty. This rate of significantly decreased from 17.0% during the 2009-2011-time period. However, this is still significantly higher than the state (11.8%). The rates have also decreased from children from 17.1% to 2018 to 13.9% in 2019. This is similar to the state in 2019.

Adverse Childhood experience (ACES) is a list of potentially traumatic events that occur during childhood and increase the likelihood of negative health and behavioral outcomes late in life ACEs. In 2019, 22.7% (1 in 5) high school students in Penobscot County reported experiencing four or more adverse childhood experiences. This is similar to the state rate of 21.3%.

Broadband access was the third most frequently identified concern related to social determinants of health. The percentage of residents with access to broadband internet was 79.2% in 2017. This means that one in five Penobscot County residents does not have reliable broadband access. This is a concern given the increasing use of telehealth and access to the global community.

“Many SDOHs underlie poor health outcomes-lack of access to broadband, poverty, housing issues, transportation issues, food access.”

Housing insecurity was mentioned by 35% (or 40 of 113) forum participants. **Recent** data shows 2.8% of Penobscot County high school students report regularly sleeping somewhere else other than their parents or guardian’s homes, while 12.0% of residents spend more than half of their income on housing in 2019. Both of these statistics are similar across Maine.

Community members facing systemic disadvantages can be especially impacted by social determinants of health. Individuals with disabilities are impacted by a lack of transportation and face issues of discrimination. Black or African Americans noted poverty, unemployment, and food insecurity issues. Older adults often live on limited incomes and must rely on the support of others as well as face barriers related to transportation and food insecurity.

Participants mentioned resources to address issues related to social determinants of health such as the emergency homeless shelter system, Penobscot Community Health Care (PCHC) care managers, and increased focus on housing and infrastructure for navigators and others.

MAJOR HEALTH CONCERNS FOR PENOBSCOT COUNTY

INDICATOR	PENOBSCOT COUNTY			BENCHMARKS			
	POINT 1	POINT 2	CHANGE	MAINE	+/-	U.S.	+/-
SOCIAL DETERMINANTS OF HEALTH							
Individuals living in poverty	2009-2011 17.0%	2015-2019 14.8%	★	2015-2019 11.8%	!	2019 12.3%	N/A
Children living in poverty	2018 17.1%	2019 13.9%	○	2019 13.8%	○	2019 16.8%	○
Children eligible for free or reduced lunch	2020 45.4%	2021 39.5%	N/A	2021 38.2%	N/A	2017 15.6%	N/A
Median household income	2007-2011 \$43,601	2015-2019 \$50,808	★	2015-2019 \$57,918	!	2019 \$65,712	N/A
Unemployment	2018 3.8%	2020 5.4%	N/A	2020 5.4%	N/A	2020 8.1%	N/A
High school student graduation	2019 87.2%	2020 86.2%	N/A	2020 87.4%	N/A	2019 87.1%	N/A
People living in rural areas	—	2019 43.0%	N/A	2019 66.2%	N/A	—	N/A
Access to broadband	2015 77.6%	2017 79.2%	N/A	2017 88.6%	N/A	2017 90.4%	N/A
No vehicle for the household	2007-2011 2.0%	2015-2019 2.3%	○	2015-2019 2.1%	○	2019 4.3%	N/A
Persons 65 years and older living alone	2011-2015 28.3%	2015-2019 29.4%	N/A	2015-2019 29.0%	N/A	2019 26.6%	N/A
Households that spend more than 50% of income toward housing	—	2015-2019 12.0%	N/A	2015-2019 12.0%	○	—	N/A
Housing insecure (high school students)	2017 4.1%	2019 2.8%	○	2019 3.3%	○	—	N/A
Adverse childhood experiences (high school students)	—	2019 22.7%	N/A	2019 21.3%	○	—	N/A
Associate's degree or higher among those age 25 and older	2007-2011 33.4%	2015-2019 38.3%	N/A	2015-2019 41.9%	N/A	2019 41.7%	N/A
Commute of greater than 30 minutes driving alone	—	2015-2019 26.4%	N/A	2015-2019 32.9%	N/A	2019 37.9%	N/A

CHANGE columns shows statistically significant changes in the indicator over time.

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○	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 SOCIAL DETERMINANTS OF HEALTH

Penobscot County community members point to several resources available that improve social determinants of health. These include many resources available to assist residents with accessing healthy foods, community cohesion, health screenings, and new revenue streams becoming available. However, community members also identified several challenges related to social determinants of health, including high levels of poverty, lack of resources for housing and transportation, high levels of food insecurity, isolation and rurality, and a lack of childcare resources.

The following information was gathered from participants during a group activity. Participants were asked to share their knowledge of the gaps and needs or resources and assets in their communities regarding 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 (Social Determinants of Health)

AVAILABLE RESOURCES	GAPS/NEEDS
Community Cohesion Community Health Leadership Board (4) Community service centers Access to resources in the community like through 211 Maine (4) Vested partners (2) Faith-based communities as partners in providing support and connection (3) Media Engagement - local papers, social media Social groups like Young Men's Christian Association (YMCA) Collaboration among unrelated organizations This Community Health Needs Assessment (CHNA) process (3) Many online resources	Barriers to Care The benefits system is too complicated and not effective (6) Limited wrap-around services (2) Lack of community education of resources available (3)
Food Free school lunches and meal programs (5) Food banks and community pantries available like Good Shepherd Food Bank (5) Embedded screening for access to food in hospitals (5) Meals on Wheels (4) Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program including farmer's market	Poverty Addressing poverty as a root cause (3) Low median income (2) Unemployment rates
Health Services Local school-based health centers (3) Penobscot Community Health Care (PCHC) care managers (2) The combined strength of local health care organizations post-COVID (2)	Equity Inequitable access for minorities and immigrants (3)
Housing The emergency homeless shelter system Increased focus on housing and infrastructure for navigators and others (2)	Youth/Families Not enough affordable childcare or similar services (9) Need for early childhood education and health needed No family leave pay (2)
	Physical Activity High cost for outdoor recreation equipment (3)
	Funding Irregular funding streams (3)
	Housing Insufficient affordable and safe housing (20) No 24/7 place for people experiencing homelessness to access services (2)
	Transportation Transportation barriers like lack of access to public transportation or bike lanes (17)

Table 9. Gaps/Needs and Available Resources (Social Determinants of Health) (Continued)

AVAILABLE RESOURCES	GAPS/NEEDS
Screening PREPARE tool for screening for Community Health and Counseling Services (CHCS) (2) Care management more focused on social determinants of health	Isolation Isolation caused by COVID Lack of affordable/reliable internet access Older adults are less familiar with technology, didn't grow up with it
Jobs Partnerships focused on education and businesses to create job training (2) More jobs available (2)	Trauma/stress High rates of trauma Time consumption of modern life
Physical Activity Lots of access to parks and outdoor access (3)	Workforce Development Lack of workforce development (2)
Child Development/Schools Bangor area offers great educational opportunities	Coordination Limited integration between community resources with medical system (4)
Family Supports Referral systems for Public Health Nursing and Maine families	Data Lack of data collection
Funding: Community-focused grants American Rescue Plan Act funds	

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 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, America Health Rankings, Healthy people); 7.) data is less than 2 years old; 8.) data was included in the previous; 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:

Phase 1: 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 contractors, the University of Southern Maine with additional support from the contracted vendor, Market Decision Research.

Phase 2: 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
- 1,000 oral Surveys

County Forums were held in each of Maine's 16 counties, with one county, Penobscot hosting one event in western Penobscot and one in eastern Penobscot 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.

The communities included:

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

These events followed the same methodology as county forms 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 (ECBOs) community health workers to better reach Maine’s immigrant population. There were 1,000 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, Eritria, Kirundi, and Amara. When asked for their countries of origin most commonly cited United States (212), Iraq (205), Somalia (157), The Democratic Republic of Congo (81), Djibouti (70), Kenya (30), and Mexico (29)

Due to concerns related to Covid-19, community engagement efforts were conducted virtually except the event for the deaf or hard of hearing, which was held in the 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.

Phase 3: Reporting

Initial analysis for each event and the oral surveys were reviewed by local hosts for accuracy and to ensure that 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.

One virtual community forum was held in Penobscot County on September 23, 2021, with 113 attendees. Persons from the following organizations representing broad interests of the community who were consulted during the engagement process:

Bangor Public Health and Community Services
Center for Community Inclusion & Disability Studies, University of Maine
City of Bangor
Community Health Leadership Board
Community members
Downeast Public Health District
Eastern Maine Community College
Eastern Maine Development Corporation
Elliotsville Foundation, Inc.
Health Access Network
Maine Department of Health and Human Services
Midcoast Public Health District
Millinocket Regional Hospital
Mobilize Katahdin, Millinocket Memorial Library
Northeastern Workforce Development Board
Northern Light Health
Northern Light Acadia Hospital
Northern Light Beacon Health
Northern Light Eastern Maine Medical Center
Northern Light Eastern Maine Medical Center Board of Trustees

Northern Light Health
Northern Light Home Care & Hospice
Office of Child and Family Services, Maine Department of Health and Human Services

Partners for Peace
Penobscot Community Health Care
Penobscot Valley Hospital
Penquis Public Health District
Penquis Rape Response Services
Public Health Nursing, Maine Center for Disease Control and Prevention
St. Joseph Healthcare
St. Joseph Hospital
Town of Dexter
United Way of Eastern Maine

For a complete listing of organizations consulted for each of the 10 health equity outreach efforts, please see the Acknowledgements below. 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 supported in part by the U.S. Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services as part of the Preventative Health and Health Services Block Grant. 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

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. 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, qualitative analysis, 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.



IMPLEMENTATION STRATEGY

The 2022 Community Health Needs Assessment addresses the top health priorities for Penobscot County through community participation and voting at community forums. The top five out of ten health needs are assessed and the search for how Penobscot Valley can respond to these needs within the community is addressed.

In general, PVH is the major hospital in the area, a critical access hospital providing 25 beds in Lincoln, Maine. The next closest facilities are outside the service area and include:

- Millinocket Regional Hospital-25 bed critical access hospital in Millinocket, Maine; 35 miles away from Lincoln (45 Minutes by vehicle)
- St Joseph's Hospital – 122 bed Acute care community hospital in Bangor, Maine; 47 miles away from Lincoln about (49 minutes by vehicle)
- Northern Light Eastern Maine Medical Center- 411 bed Acute care medical facility in Bangor, Maine; 48.9 miles away from Lincoln (50 minutes by vehicle)

Significant Needs

Mental Health

Reasons Identified as a significant need:

Availability of Mental Health Providers in Penobscot 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 for inpatient and outpatient care. They also noted long waitlists to access mental health care services. The over use of the emergency department to address mental health needs was identified by 42% of community in forum participants. In Penobscot County, mental health emergency department rate per 10,000 was 178.2. This rate is similar to Maine overall (181.5)

During the 2015-2017 time period, 28.5% (1 in 4) adults reported experiencing depression in their lifetime, which is significantly higher than the state during the same time period. (23.7%).

Mental Health issues among youth were concerning to those in the community, particularly the rate at which youth experience suicidal ideation and feeling **sad and hopeless**. In 2019, 32.5% of high school students and 21.1% of middle school students in Penobscot County reported feeling sad or hopeless for two or more weeks in a row. This was significant increase for high school students.

In addition, 16.2% of high school students and 18.6% of middle school students seriously considered suicide during the same period. These rates were similar to Maine overall. There were concerns about the impact of the COVID-19 pandemic on youth, including potential increase in adverse childhood experiences (ACEs) resulting from the pandemic which forced homeschooling in potentially unsafe situations while decreasing access to school-based supports.

Problem Statement:

Increase mental health awareness/education and resources for all age groups for consumers in Penobscot County

PVH evaluation of impact of actions taken preceding the CHNA:

- Since Tele-Psych in the PVH Emergency department was implemented in February 2014 through Acadia Hospital, we continue to use these services for outpatients and those who present to ED. This service was also expanded to medical-surgical inpatients.
- Seek alternative tele-health and local resources available to treat patients with mental health needs

PVH services, programs, and resources available to respond to this need include:

- PVH treats and refers emergency department patients for psychiatric care; and
- PVH primary care providers refer to patients for psychiatric care in partnership with Northern Light Acadia opening in 2023.

The data gathered shows the importance the community places on these services.

Anticipated results from PVH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	Yes	
2. Reduces barriers to access services (if discontinued this would results in access problems)	Yes	
3. Addresses disparities in health status among different populations	Yes	
4. Enhances public health activities	Yes	
5. Improves ability to withstand public health emergency		No
6. Otherwise would become responsibility of government or another tax-exempt organization		No
7. Increase knowledge; then benefits the public	Yes	

The strategy to evaluate PVH intended actions is to monitor change in the following Leading Indicator:

- Involve primary care providers in speaking to area schools about mental health.
- Encourage primary care providers to understand the importance of early screening intervention and treatment of mental illness; focusing on completion of well child scheduled evaluations.
- Establish referrals from PVH Primary Care to PVH Integrated Behavioral Health Clinic.

The change in leading indicator anticipates appropriate change in the following lagging indicator.

- Increase beds for those in need of inpatient treatment
- Decrease number of patients in ED for mental health reasons

Planned collaboration to meet the identified needs:

- Partnership with Northern Light Acadia for staffing integrated behavioral health clinic with PMHNP and LCSW starting January 2023

Other local resources identified during the CHNA process that are believed available to respond to this need

Organization	Contact Name	Phone Number
Northern Light Acadia Hospital		(207)973-6100
Northeast Occupational Exchange	Chandy Libby	(207)794-8919
Turning Point	Verna Boyington	(207)403-9197

Substance Use

Reasons identified as a significant need:

Substance and alcohol use was selected as a top priority in Penobscot county. It was also identified as one of the top health concerns in all other counties and underserved communities across the state. In 2020, the rate of overdose deaths per 100,000 population in Penobscot County was 62.0, a significant increase from 34.8 in 2019. This is also a significantly higher rate than in Maine (37.3) in 2020. **Drug - induced deaths** per 100,000 increased significantly in Penobscot County from 14.0 during the 2007-2011 time-period to 33.9 during the 2015-2019 time-period. In 2016-2018, the rate of opiate poisoning hospitalization per 10,000 population in Penobscot County was 1.6. This is similar to the state overall (1.4). During the 2013-2017 time-period, 1.5 % of Penobscot County adults had misused prescription medication this is similar to the state rate (1.0%). The rate of drug-affected infant reports per 1,000 births in Penobscot County was 90.2 in 2018-2019. This rate is significantly higher than the state overall (73.7). The rate of alcohol-induced deaths in Penobscot County was 12.7 per 100,000 residents in 2015-2019 time-period. This is significantly higher than was reported during the 2007-2011 time-period (7.4). Barriers identified lack of substance and alcohol use treatment programs, lack of harm reduction programming, and a need for supportive programs for independent living.

Problem statement:

Increase resources available to prevent and treat substance abuse to reduce the EMS overdose response rate, decrease the over-dose death, drug and alcohol-induced deaths in Penobscot County.

PVH evaluation of impact of actions taken since the immediately preceding CHNA:

- Controlled substance initiative providers use the prescription Monitoring Program (PMP) when prescribing to prevent poly-pharmacy and to ensure patients are not receiving multiple prescriptions by other providers.
- PVH primary care providers order urine drug screens and pill counts routinely for patients being prescribed controlled substances.
- Seek alternative tele-health and local resources available to treat patients with Substance Use Disorder needs

PVH services, programs, and resources available to respond to this need include:

- PVH treats and refers emergency department patients
- PVH provides care to substance use disorder patients requiring treatment for health complication secondary to drug use
- Penobscot Valley Primary care closely monitors patients per state standards on controlled substance prescribing
- PVH offers alternative pain management service through the PVH specialty clinic in pain management, occupational, physical therapy
- PVH staff members have volunteered to participate in every 15 minutes' program with local high school
- PVH care coordination nurse is an active member of Save a Life task force which provides education to the community and prevention efforts surrounding substance abuse
- Refers community members to Save a Life task force for recover coaching, Alcoholics Anonymous, AL-ANON, Drugs Addicts Anonymous and Savida Health.
- PVH will work with other local organizations to promote national and statewide prescription drug takeback events in our community.

Anticipated results from PVH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	Yes	
2. Reduces barriers to access services (if discontinued this would results in access problems)	Yes	
3. Addresses disparities in health status among different populations		No
4. Enhances public health activities	Yes	
5. Improves ability to withstand public health emergency		No
6. Otherwise would become responsibility of government or another tax-exempt organization		No
7. Increase knowledge; then benefits the public	Yes	

The strategy to evaluate PVH intended actions is to monitor change in the following leading indicator:

- Establish an after-care program for patients once they have been discharged from treatment.
- Create efforts to provide prevention an education to the community on substance use; targeting area schools as well as general public
- Continue to build partnerships through the substance use disorder grant extended through August 2023.
- Continue to educate patients on alternative pain therapies available

The change in leading indicator anticipates appropriate change in the following lagging indicator:

- Decrease in overdose deaths in Penobscot County from 62 per 100,000 population to the state average of 37.3
- Decrease in drug induced deaths in Penobscot County from 33.9 per 100,000 population to the state average of 29.5
- Decrease in alcohol induced deaths in Penobscot County from 12.7 per 100,000 population to the state average of 11.6
- Decrease in the number of drug affected infants in Penobscot County 90.2 births in 1,000 births to the state average of 73.7
- Maintain or decrease the number of overdose emergency medical service responses per 10,000 to that of the overall state number of 76.7

Planned collaboration to meet the identified needs:

- Partnerships with local and regional peer recovery and treatment centers; establish and optimize referral relationships and collaborations.

PVH anticipated collaborating with the following other facilities and organizations to address this Significant need:

Organization	Contact Name	Phone Number
Lincoln Police Department	J.D. Sparks	(207) 794-8455
Lincoln Ambulance	Les Brown	(207) 794-2610
Howland/Burlington Fire & Ambulance	Joshua McNally	(207) 732-7195
Acadia Hospital		(207) 973-6100
Northeast Occupational Exchange	Chandy Libby	(207) 794-8919
Turning Point	Verna Boyington	(207) 403-9197
River's Edge Behavioral Health Services	Julie Racine	(207) 738-2488
Save-A-Life	Kelly Cookson	(207) 403-9100
Savida Health	Brian Garrett Sarah Langevin	(207) 852-9692

Other local resources identified during the CHNA process that are believed available to respond to this need:

Organization	Contact Name	Phone Number
Health Access Network	Nicole Morrison	(207)794-6700

Access to Care

Reasons identified as a significant need:

Cost barriers to care were identified in Penobscot County 12.3 % of adults reported that there was a time in the past 12 months when they needed to see a doctor but could not because of cost compared with the state average of 10.6%. A lack of health insurance was identified in Penobscot County. The rate of uninsured is 8.8% as compared with the state rate of 7.9%. Availability of primary care providers is listed as a barrier. 14.5 % of Penobscot County residents need to travel 30 miles or more to be seen by a primary care physician. 1 in 3 Penobscot County residents were at risk of not receiving preventative health services.

Problem Statement:

Continue to recruit primary care physicians to Penobscot County and the surrounding areas, provide resources to patients struggling to pay for health services.

PVH evaluations of impact of actions taken since the immediately preceding CHNA:

- Expansion of telehealth to facilitate patient visits during the Covid-19 pandemic and for those patients who have significant hardship with transportation, who live a significant distance to the primary care office, and physical limitations
- Assisting those patients who present for emergency care and/or inpatient stays who are uninsured with Maine care applications if appropriate

PVH services, programs, and resources available to respond to this need include:

- Providing Charity Care and Sliding Fee Scale to low-income patients
- Patient Financial Service help patient to adopt a payment plan and adding a Financial Clearance Representative to assist patients
- Uninsured patients receive a 25 % discount if their bill is paid within 30 days
- PVH primary care providers strive to offer same day care to patients
- Offering specialty services such as pain management, urology, behavioral health, and orthopedics to increase access for patients with transportation barriers

Anticipated results from PVH Implementation Strategy

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	Yes	
2. Reduces barriers to access services (if discontinued this would results in access problems)	Yes	
3. Addresses disparities in health status among different populations	Yes	
4. Enhances public health activities		No
5. Improves ability to withstand public health emergency		No

6. Otherwise would become responsibility of government or another tax-exempt organization		No
7. Increase knowledge; then benefits the public	Yes	

The strategy to evaluate PVH intended actions is to monitor change in the following leading indicator:

- Encourage patients to seek their primary care provider regularly and as needed to prevent costly emergency department or specialist visits
- Offer the sliding fee/ charity care application to patient's struggling to pay for services
- Offer discount to patients who pay their bill in advance or on time
- Explore ways to attract primary care providers to work in the area to increase the number of primary care providers
- Offer patient's assistance from PVH care coordination to apply for health care benefits such as Maine Care/Medicare and medication assistance if applicable

The change in leading indicator anticipates appropriate change in the following lagging indicator:

- Increase the number of primary care provider in our service area
- Increase access to affordable health care as measured by a decrease from 12.3 % of adults reporting that there was a time in the past 12 months when they needed to see a doctor but could not because of cost and a decrease from 8.8% in the Penobscot County uninsured rate

Planned collaboration to meet the identified needs:

- Evaluate and expand access to local primary and specialty care services necessary to community-based patient care needs.
- Expand education to the community for managing healthcare cost and resources available to aid in accessing care.

PVH anticipated collaborating with the following other facilities and organizations to address this Significant need:

Organization	Contact Name	Phone Number
Health Access Network	Nicole Morrison RN, CEO	(207) 794-6700
Millinocket Regional Hospital	Bob Peterson, CEO	(207) 723-5161

Social Determinants of Health

Reasons identified as a significant need:

Social determinants of health is identified as one of the top health concerns in Penobscot County and was identified as a top concern in 14 counties across the state. 14.8 % of individuals live in poverty across Penobscot County as compared with the state average of 11.8%. One in five high school students in Penobscot County reported experiencing four or more adverse childhood experiences. One in five

Penobscot County residents does not have reliable broadband access which inhibits the increasing use of telehealth. 2.8% of Penobscot County high school students report regularly sleeping somewhere other than their parents or guardian's homes and 12% of residents spent more than half of their income on housing in 2019.

Problem statement:

Continue building relationships across the community for people to connect to transportation, housing and employment opportunities.

PVH Evaluation of Impact of actions taken since the immediate preceding CHNA:

- RN care coordinators/case managers who assist patients with all healthcare needs, which may include housing, insurance, food, obtaining mental health care, and transportation needs.

PVH services, programs, and resources available to respond to this need include:

- Continue to provide patients with Penquis Lynx transportation and the Lincoln Shuttle services
- Screen patients who may be at risk of homelessness and provide them with assistance from PVH coordination

Anticipated results from PVH implantation Strategy:

Community Benefit Attribute Element	Yes, Implementation Strategy Addresses	Implementation Strategy Does Not Address
1. Available to public and serves low income consumers	Yes	
2. Reduces barriers to access services (if discontinued this would results in access problems)	Yes	
3. Addresses disparities in health status among different populations	Yes	
4. Enhances public health activities	Yes	
5. Improves ability to withstand public health emergency		No
6. Otherwise would become responsibility of government or another tax-exempt organization	Yes	
7. Increase knowledge; then benefits the public	Yes	

The strategy to evaluate PVH intended actions is to monitor change in the following leading indicator:

- Encourage other businesses in our community to contribute to local food cupboards and schools.
- Collaborate with Northern Penobscot Tech Region III to provide resources for job education and training
- Advertise community suppers open to the public

The change in the Leading indicator anticipates change in the following lagging indicator:

- Decrease percentage of individuals living in poverty from 16.3% (2012-2016) in Penobscot county to less than 14.8% by 2022.

Planned collaboration to meet the identified needs:

PVH anticipates collaborating with the following other facilities and organizations to address this significant need:

Organization	Contact Name	Phone Number
Town of Lincoln	Rick Bronson	(207) 794-3372
Lincoln Regional Food Cupboard	Mel Voisine	(207) 794-3784
Penquis Lynx Transportation		(207) 973-3695
Lincoln Shuttle	Eric Ring	(207) 290-2593
SAU 31/AOS 43 Central Office	Michael Wright	(207) 943-7317
RSU #67	Paul Austin	(207) 794-6500
SAU #30	William Braun, Superintendent	(207) 738-2665
Lee Academy	Chris Murphy	(207) 738-2252

OTHER NEEDS IDENTIFIED

The community identified other needs beyond the top four that PVH has selected to focus on in this analysis. They are listed below with the number of votes and percentage of participants that marked these. Participants were asked to identify the top four priorities out of the following list.

Needs with overlap:

- Tobacco use will be addressed in Substance and Alcohol Use implementation.
- Intentional injury will be addressed in Mental Health implementation

Areas key areas where PVH did not develop an implementation strategy are:

#5 Cancer

#6 Older adult health

#8 Pregnancy and Birth Outcomes

#9 Environmental Health

#11 Infectious Disease

Table 10. All Priority Health Topic Areas for Penobscot County

PRIORITIES	# OF VOTES	% OF PARTICIPANTS
Mental Health	67	59%
Substance and Alcohol Use	52	46%
Access to Care	47	42%
Social Determinants of Health	45	40%
Cancer	20	18%
Older Adult Health	19	17%
Physical Activity, Nutrition, and Weight	12	11%
Intentional Injury	9	8%
Pregnancy and Birth Outcomes	9	8%
Environmental Health	6	5%
Tobacco	6	5%
Infectious Disease	4	4%
Children with Special Needs	3	3%
Respiratory Disease	3	3%
Health Care Quality	2	2%
Immunizations	2	2%
Other-Substance Addicted Babies	2	2%
Cardiovascular Disease	1	1%
Diabetes	1	1%
Oral Health	1	1%
Unintentional Injury	1	1%

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