



Maine SHNAPP

Shared Health Needs Assessment
& Planning Process

2015

Maine Shared Community Health Needs Assessment

State Report

DRAFT

Acknowledgements

The following report is funded through the generous support and contributions of the Maine Shared Health Needs Assessment Planning Process (SHNAPP) Collaborative:



The report was prepared by the research teams at Market Decisions of Portland, Maine and Hart Consulting, Inc. of Gardiner, Maine.



See end of the report for a list of contributors and collaborating organizations.

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How to Use This Report

This report contains statewide findings from the Maine Shared Community Health Needs Assessment (Maine Shared CHNA) conducted in 2015. It is divided into several sections to provide the reader with an easy-to-use reference to the lengthy data-rich assessment. It starts with the highest level of data, followed by summaries and synthesis of the data. The last sections include the detailed findings from assessments as well as sources.

The report has several features that are important to keep in mind:

- The document provides a reference for more than 160 indicators and 33 survey questions covering many topics. It does not explore any individual topic in-depth.
- The definitions and sources for each indicator discussed in the report are found at the end in the data sources section.

The following is a brief description of each section.

Executive Summary

The summary provides the highest level data for the state.

Background

This section explains the purpose and background of the SHNAPP and the Shared CHNA. It includes a description of the methodology and data sources used in the assessment.

Population and Demographic Profile

The demographic section compares the population and socio-economic characteristics of Maine to the U.S.

Overall Findings for Maine

This section provides a summary of the assessment data by health issue; it compares the state and U.S. on key indicators, and explains the importance of the health issues.

Stakeholder Feedback

High-level findings from the stakeholder survey are included in this section. It explores the top ten health issues and factors identified as local priorities or concerns by stakeholders. It shares respondent concern for populations experiencing disparities in health status for these issues.

Priority Health Issues and Challenges

Priority health issues and challenges appear in this section. This section categorizes the key findings from the quantitative and stakeholder (qualitative) datasets as strengths and challenges. The analysis includes health issue indicators from the quantitative datasets sorted into challenges and strengths, and stakeholder responses for challenges and resources to address the challenges.

Stakeholder Survey Findings

This section displays the full set of responses to each question asked in the stakeholder survey (excluding open-ended responses, which are available upon request). It compares the county to the statewide responses.

Health Indicator Results from Secondary Data Sources

The results and sources section details the data for each of the 161 indicators for the state. It includes a table that compares data for the state and the U.S. (where available). Statistically significant differences (at 95% confidence) are noted in this table where available and applicable.

Health Indicator Data Sources

This section lists the data source, year and additional notes for each indicator. In addition to the stakeholder survey conducted as a primary data source for this project, the secondary data sources used in this assessment include:

- | | |
|---|--|
| Bureau of Labor Statistics | Maine Department of Education |
| Child Maltreatment Report Administration on Children Youth and Families | Maine Department of Public Safety |
| Maine Cancer Registry (MCR) | Maine Department of Labor |
| MaineCare | Maine Health Data Organization (MHDO) |
| Maine Behavioral Risk Factor Surveillance System (BRFSS) | Maine Integrated Youth Health Survey (MIYHS) |
| Maine CDC Drinking Water Program | Maine Office of Data Research and Vital Records |
| Maine CDC HIV Program | National Immunization Survey (NIS) |
| Maine CDC Lead Program | National Survey of Children w/ Special Health Care Needs |
| Maine CDC National Electronic Disease Surveillance System (NEDSS) | National Center for Health Statistics |
| Maine CDC Public Health Emergency Preparedness (PHEP) | U.S. Bureau of Labor Statistics |
| Maine CDC STD Program | U.S. CDC WONDER & WISQARS |
| Maine CDC Vital Records | U.S. Census |

Executive Summary

This summary provides the high-level findings from the Maine Shared Community Health Needs Assessment conducted through a collaborative effort among Maine's four largest health care systems – Central Maine Healthcare, Eastern Maine Healthcare Systems (EMHS), MaineGeneral Health, MaineHealth – and the Maine Center for Disease Control and Prevention, an office of the Maine Department of Health and Human Services (DHHS).

Demographics and Socio-Economic Factors

Maine was home to 1.33 million people in 2014. The residents of Maine are older and less diverse in race and ethnicity than every other state in the nation. Key demographic features in 2013 include:

- Median household income of \$46,974, compared to \$53,046 for the U.S.
- Highest median age in the country, 43.4, compared to 37.4 for the U.S.
- 95.2% of residents are white compared to 77.7% in the U.S.
- 18.2% of children live in poverty compared to 21.6% in the U.S.

Access to Health Care/Quality

Access to care in Maine is slightly better than the U.S. overall, specifically, a higher percentage of residents have health insurance. Key features for Maine in 2013 include:

- 11.2% of Maine adults and 14.9% of U.S. adults did not have health insurance, while 10.1% of Maine adults experienced cost-related barriers to getting healthcare in the last year
- 87.4% of Maine adults reported having a personal doctor or other health care provider compared to 76.6% in the U.S.
- Ambulatory care sensitive rate for 2011 was 1,499 per 100,000 population in Maine, higher than the U.S. at 1,458

General Health and Mortality

The general health of Maine residents tracks very closely to the U.S. Maine has a lower percentage of adults reporting poor health and a lower mortality rate. Key features for Maine in 2013 include:

- 14.9% of Maine adults reported their health as fair or poor, compared to the U.S. at 16.7%.
- Similar to the nation overall, in Maine, the top three leading causes of death, in order, are cancer, heart disease, and lower respiratory diseases; heart disease is the leading cause of death in the U.S.
- Overall mortality rate per 100,000 population is significantly lower in Maine (745.8) compared to the US (821.5).

Disease Incidence and Prevalence

Maine has a higher incidence of cancer, particularly lung cancer, than in the U.S. The state has high prevalence and incidence of cardiovascular diseases and events. Diabetes incidence is similar, but deaths are fewer than in the nation. Asthma and Lyme disease are much higher than the national rates. Adult immunizations for flu lag the nation. Key features for Maine in 2013 include:

- Higher incidence of cancer in Maine (500 per 100,000 population) compared to U.S. rates (457.6 per 100,000 population).
- High incidence of lung cancer in Maine (76 per 100,000) compared to U.S. (56 per 100,000).
- More than one in three adults live with some type of cardiovascular disease, similar to the U.S. Maine has a higher prevalence of high cholesterol (40.3%) than the U.S. (31.7%).
- While diabetes incidence for Maine is similar to the nation (9.6% and 9.7% of adults), diabetes mortality (underlying cause) per 100,000 population is lower (21) compared to the nation (24).
- Emergency department visits for asthma are higher than the U.S. (67.7 per 10,000 compared to 57.7) and current asthma prevalence among adults in Maine is 11.7% compared to 7% in the U.S.
- Lyme disease incidence was 105.3 per 100,000 population in 2014, compared to 8.6 per 100,000 nationwide.
- 44% of Maine adults report being immunized annually for influenza compared to 62.8% in the U.S.
- Maine has a higher prevalence of adults reporting “ever having depression” than the U.S. (23.4% compared to 18.7%).

Risk Factors and Social Determinants

There are many behaviors that impact our health; tracking these behaviors can help understand the potential future health status if behaviors do not change. Maine alcohol use risk factors among adults are similar to the U.S. Youth rates of alcohol abuse are lower than the U.S. Tobacco use is lower among youth, but higher among Maine adults compared to the U.S. Obesity and risk factors including physical activity and nutrition are similar to or slightly better than the U.S. Risk factors and social determinants for the state include:

- Adult binge drinking of alcoholic beverages (Maine 17.2%, U.S. 16.8%) and adults who report chronic heavy drinking (Maine 7.2%, U.S. 6.2%).
- High school youth past 30 day alcohol use (Maine 26.0%, U.S. 34.9%).
- High school youth current tobacco use is lower than the U.S. (18.2% Maine and 22.4% U.S.). Adult smoking rates are higher than the U.S. (Maine 20.2% and U.S. 17.8%).
- The proportion of Maine adults with a sedentary lifestyle is lower than the U.S. (23.3% Maine and 25.3% U.S.) and recommended physical activity levels are higher (53.4% Maine and 50.8% U.S.).
- Obesity prevalence is similar to the U.S., 12.7% for high school students (compared to 13.7% for the U.S.) and 28.9% for adults (compared to 29.4% for the U.S.).

- Injury, both intentional and unintentional, is lower than the U.S., with violent crime the lowest in the nation (361.3 compared to 608.3 per 100,000 population).

Stakeholder Priorities of Health Issues

Stakeholders across the state listed the following 10 *health issues* as their top concerns for their regions:

- Drug and alcohol abuse.
- Obesity.
- Mental health.
- Physical activity and nutrition.
- Depression.
- Tobacco use.
- Diabetes.
- Cardiovascular diseases.
- Respiratory diseases.
- Childhood obesity.

Stakeholders identified the following *populations* as being disproportionately impacted by the top health issues in Maine:

- Low-income, including those below the federal poverty limit.
- Medically-underserved - including uninsured and under-insured.
- Less than a high school education and/or low literacy (low reading or math skills).
- Very rural and/or geographically isolated people.
- People with disabilities - physical, mental, or intellectual.

Stakeholders prioritized the following 10 *factors* as having a great influence on health in their regions, resulting in poor health outcomes for residents:

- Poverty.
- Access to Behavioral care/Mental health care services.
- Transportation.
- Health care insurance.
- Employment.
- Health literacy.
- Food security.
- Housing stability.
- Access to oral health.
- Adverse childhood experiences.

Background

Purpose

The Maine Shared Health Needs Assessment and Planning Process (SHNAPP) Project is a collaborative effort among Maine's four largest healthcare systems – Central Maine HealthCare, Eastern Maine Healthcare Systems (EMHS), MaineGeneral Health (MGH), MaineHealth – and the Maine Center for Disease Control and Prevention (Maine CDC), an office of the Maine Department of Health and Human Services (Maine DHHS). The current collaboration expands upon the OneMaine Health Collaborative created in 2007 as a partnership among EMHS, MGH, and MaineHealth. The Maine CDC and other partners joined these entities to develop a public-private partnership in 2012. The four hospital systems and the Maine CDC signed a memorandum of understanding (MOU) in effect between June 2014 and December 2019, committing resources to the Maine SHNAPP Project.

The overall goal of the Maine SHNAPP is to “turn data into action” by conducting a shared community health improvement planning process for stakeholders across the state. The collaborative assessment and planning effort will ultimately lead to the implementation of comprehensive strategies for community health improvement. As part of the larger project, the Maine SHNAPP has pooled its resources to conduct this Shared Community Health Needs Assessment (Shared CHNA) to inform community benefit reporting needs of hospitals, support state and local public health accreditation efforts, and provide valuable population health assessment data for use in prioritizing and planning for community health improvement. This assessment builds on the earlier OneMaine 2011 CHNA that was developed by the University of New England and the University of Southern Maine, as well as the 2012 Maine State Health Assessment that was developed by the Maine DHHS. This Shared CHNA includes a large set of statistics on health status and risk factors from existing surveillance and health data sets. It differs from earlier assessments in two ways. First, it includes input from a broad set of stakeholders from across the state from the 2015 SHNAPP Stakeholders' Survey and second, it does not include the household telephone survey conducted for the OneMaine effort.

Quantitative Data

This report contains both quantitative health data and qualitative stakeholder data on health issues affecting Maine people. The quantitative data come from numerous sources including surveillance surveys, in-patient and out-patient health data, and disease registries. These data consist of 161 indicators within 18 groupings (domains) for reporting at the state level and, where possible, at the county and select urban levels. A description of the data sources is included below, while Appendix B contains the complete list of the sources by indicator:

U.S. Census, including the American Factfinder, the American Community Survey and the Current Population Survey, provided population information and selected health care access and socio-economic status indicators. Population estimates for 2014 were available for the state and counties, however, the most recent data on county sub-populations, as well as education,

income and employment were from 2013. Census population estimates were also used to determine all rates (e.g. hospitalization rates) that included population based denominators.

Rural-Urban Commuting Areas (RUCA) were used to define rurality (metro vs. rural). RUCA was developed by the Center for Rural Health, School of Medicine and Health Sciences, University of North Dakota and the Economic Research Service (ERS), Department of Agriculture. The specific RUCA categories used in this analysis were refined by the **New England Rural Health Roundtable**, available in Rural Data for Action 2nd Edition: www.newenglandruralhealth.org/rural_data

Maine CDC Data, Research and Vital Statistics provided fertility and maternal health information from the birth registry system and provided death data and cause-specific mortality rates from death registry system.

The **Maine Integrated Youth Health Survey (MIYHS)** is a statewide effort designed to assess the health status of Maine's youth and determine the positive and negative attitudes and behaviors that influence healthy development. This survey includes a parent survey of kindergarteners and third graders, and surveys of fifth and sixth graders, seventh and eighth graders, and high school students. The MIYHS is a collaborative effort of the Maine Center for Disease Control and Office of Substance Abuse in the Department of Health and Human Services, and the Department of Education.

The **Behavioral Risk Factor Surveillance System (BRFSS)** is a population-based telephone survey of adults 18 years of age and older. The survey is conducted throughout the year with robust sampling for state-level estimates and can provide county-level estimates in many cases. It provided data on adult health behaviors, sexual orientation, and some disease prevalence measures.

Data on infectious diseases was provided by The **Maine CDC National Electronic Disease Surveillance System (NEDSS)**.

Maine Cancer Registry is a statewide population-based cancer surveillance system and provided incidence rates and staging levels of selected cancers.

Maine Health Data Organization provided hospitalization and emergency room usage data measured via hospital inpatient and outpatient reporting. Inpatient and outpatient admission data was obtained for 2007-2011.

Maine CDC Lead Program provided data on lead screening and elevated lead blood levels in children.

The **Office of MaineCare Services** provided data on MaineCare enrollment and dental visits.

The **Maine Department of Education** provided high school graduation rates.

The **Maine Department of Labor** provided occupational health injuries and fatality data, while the **U.S. Bureau of Labor Statistics** provided information on unemployment.

The **Maine CDC Public Health Emergency Preparedness Program** provided data to measure public health emergencies in Maine.

Maine CDC Drinking Water Program provided information on fluoridated water.

Maine Department of Public Safety provided data on violent crime.

The **Maine HIV, STD, and Viral Hepatitis Program** provided information on HIV/AIDS and other sexually transmitted diseases.

The **U.S. Centers for Disease Control and Prevention** provided data on drug and alcohol mortality, leading causes of death and years of potential life lost, as well as national rates for a number of indicators for comparison purposes.

Qualitative Data

Qualitative data were collected through a statewide stakeholder survey conducted in May and June 2015 with 1,639 people representing more than 80 organizations and businesses in Maine. The survey was developed using a collaborative process that included Maine SHNAPP partners, Market Decisions and Hart Consulting, and a number of other stakeholder and health experts involved in the program. The final survey was approximately 25 minutes in length and contained a number of questions about important health issues and determinants in the state, including a rating of most critical issues, the ability of Maine's health system (including public health) to respond to issues, availability of resources and assets for specific health issues, impact on disparate populations, and identification of the entities primarily responsible for addressing issues and determinants.

The survey used a snowball sampling process by inviting leaders of member organizations and agencies to invite their members and employees to participate. Survey respondents represented public health and health care organizations as well as behavioral health, business, municipalities, education, public safety, and non-governmental organizations.

The survey had responses from every county in Maine (Table 1 lists completed surveys by county). Respondents had an opportunity to provide information on up to three health issues in the survey for which they were most knowledgeable about. As a result, the 1,639 respondents provided 3,380 detailed responses on the health issues that affect the state of Maine.

Table 1. Completed Surveys by County

County	Completed Surveys
Androscoggin	130
Aroostook	110
Cumberland	176
Franklin	46
Hancock	81
Kennebec	220
Knox	53
Lincoln	51
Oxford	61
Penobscot	185
Piscataquis	89
Sagadahoc	37
Somerset	102
Waldo	64
Washington	133
York	86
Statewide*	403
Total	1,639

* Note: 403 respondents indicated they worked at or represented Maine at the state-level (e.g., Maine CDC, businesses that spanned the state, etc.). These respondents were included in the overall results, but were not included in any of the county-level results.

Respondents could indicate that they represent more than one county in the survey, therefore the total of completed surveys by county will add up to more than 1,639.

Given the qualitative nature of the survey and the sampling methodology, the results of the stakeholder survey are not statistically representative of the population of the Maine, but rather the results reflect the informed opinions of health experts and community leaders from all areas of the state. It is important to use some caution when interpreting results, especially at the county level due to smaller sample sizes.

Reporting of Results

The Shared CHNA has several reports and datasets for public use.

- County-Level Maine Shared Community Health Needs Assessment Reports summarize the data and provide insights into regional findings. These reports explore the priorities, challenges, and resources for each county and contain both summary and detailed tables.

- State-Level Maine Shared Community Health Needs Assessment Report includes information on each health issue, including analysis of sub-populations. The report includes state summaries and detailed tables.
- Summary tables for each public health district, each county, and the cities of Portland and Bangor and the combined cities of Lewiston/Auburn.
- Detailed Tables with each indicator, by subpopulation, region, and year, are available on the Maine CDC website and may be downloaded at www.maine.gov/SHNAPP/.

Public and Stakeholder Feedback

More than 1,630 Stakeholders shared their thoughts about health priorities, resources, and needs in a web-based survey. The findings from the survey are an integral part of this report. Once completed, the report was posted to the Maine CDC website for public access, review and comment. In the months following release of these data, the findings will be shared with local hospitals, Maine's Public Health District Coordinating Councils and other regional partners for their consideration and use in local health planning. An earlier version of the report was posted on the Maine CDC website for input prior to publication.

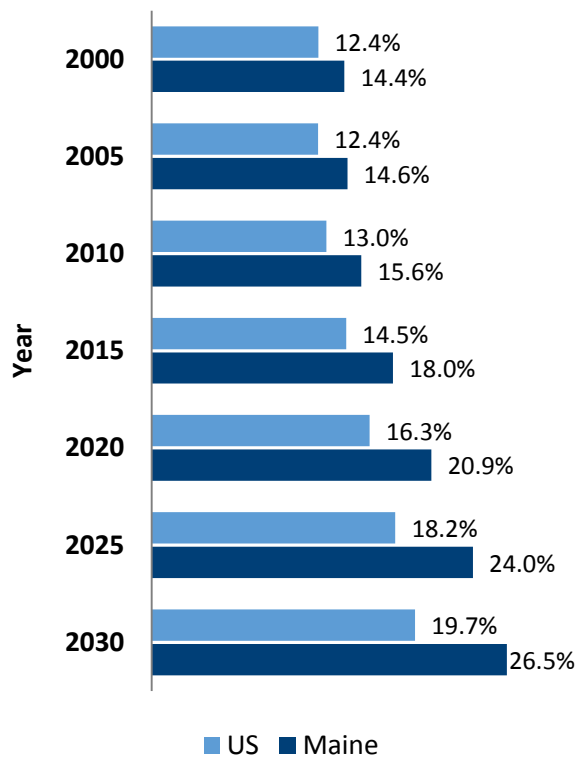
Distribution

The 2015 Maine Shared CHNA has been distributed via Maine CDC's website, with promotion through the State Coordinating Committee and through the Maine CDC's Public Health Update.

Population and Demographic Profile

Demographics are characteristics used to describe a population.¹ Looking at Maine’s age and sex composition is one of the most basic ways to see not just what the population is like today, but also how it is changing over time.² Maine’s population is older than the U.S. as a whole; Maine has the highest median age in the country.¹ In 2013, more than one of every 6 Maine residents (17.7%) was 65 years of age or older and that percentage is projected to increase to 26.5% in 2030.

Trends and Projections in Population Aged 65+ (2000 - 2030)³



Key Demographics

Population	Maine	U.S.
Overall Population	1.33 Mil	319 Mil
Population Density (per sq. mile)	43.1	87.4
Male	49.0%	49.2%
Female	51.0%	50.8%
Ages Under 5	4.9%	6.3%
Ages Under 18	19.7%	23.3%
Ages 18-64	62.6%	62.6%
Ages 65+	17.7%	14.1%
Median age	43.4	37.4
White	95.2%	77.7%
Black or African American	1.4%	13.2%
American Indian/Alaska Native	0.7%	1.2%
Asian	1.1%	5.3%
Hispanic	1.4%	17.1%
Two or More Races	1.4%	17.1%
Population with a disability	1.6%	2.4%

Socio-Economic Status

Median household income	\$46,974	\$53,046
Persons per household	2.33	2.63
Unemployment rate	5.7%	6.2%
Adults living in poverty	13.6%	13.4%
Children living in poverty	18.5%	21.6%
Single parent families	29.1%	33.2%
65+ living alone	40.1%	37.7%
Language other than English spoken at home	6.8%	20.7%

Education

HS graduation rate	85.5%	86.5%
Bachelor’s degree or higher	27.9%	28.8%

Health Status

Life expectancy	79.2	78.9
Adults rating health as fair/poor	14.9%	16.7%
Percent uninsured	11.2%	14.9%
Medicaid members	27.0%	23.0%
Adults with primary care provider	87.4%	76.6%

¹ Rector A. Maine population outlook to 2030. Issued February 2013.

Available from: <http://www.maine.gov/tools/whatsnew/attach.php?id=501734&an=1>

² Howden LM, Meyer JA. 2010 Census brief: age and sex composition: 2010. Issued May 2011.

Available from: <http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>

³ U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

Retrieved from: <https://www.census.gov/population/projections/files/stateproj/SummaryTabB1.pdf>

Overall Findings for the State

Table 2 presents a summary of the health issues and challenges faced by Maine people. Data come from a comprehensive analysis of available surveillance data (see Appendix A for a full list of the quantitative health indicators and factors included in this assessment). Two criteria were used to select the issues and challenges presented in this table: statistically significant differences and relative differences when comparing Maine to the nation. Statistically significant differences between the state and U.S. at the 95% confidence level are noted with an asterisk (*) after the indicator. In addition, a rate ratio was calculated comparing Maine and the U.S., where available, to show the relative differences. Indicators for which the state statistic was 10% or more above or below the U.S. figure were included in this table.

Table 2. Priority Health Issues in Maine

Health Issues - Surveillance Data	
Health Successes	Health Challenges
<ul style="list-style-type: none"> • Maine has a lower percentage of adults who rate their health fair to poor than the U.S. [ME=14.9%; U.S.=16.7%] • Maine has a lower percentage of low birth weight (<2500 grams) than the U.S. [ME=6.6%; U.S.=8.0%] • Maine has a lower mortality rate than the U.S. [ME=746; U.S.=822] • Maine has a lower violent crime rate than the U.S. [ME=125; U.S.=368] • Maine has a lower coronary heart disease mortality rate than the U.S. [ME=90; U.S.=103] • Maine has a lower percentage of high school students with depression than the U.S. [ME=24.3%, U.S.=29.9%] • Maine has a lower percentage of high school students who seriously considered suicide than the U.S. [ME=14.6%, U.S.=17%] • Low incidence of most infectious diseases as well as sexually transmitted diseases. 	<ul style="list-style-type: none"> • High percent of children with special health needs [ME=23.6%, U.S.=15.1%] • High nonfatal child maltreatment rate per 1,000 population [ME=15; U.S.=9] • High percent of adults with high cholesterol [ME=40.3%; U.S.=31.7%] • High percent of adults with current asthma [ME=11.7%; U.S.=7.0%] • High percent of adults who have had depression [ME=23.4%; U.S.=18.7] • High all cancers incidence [ME=500; U.S.=458] • High all cancers mortality [ME=186; U.S.=169] • High lung cancer incidence [ME=76; U.S.=56] and mortality [ME=54; U.S.=46] • High bladder cancer incidence [ME=28.3; U.S.=20.3] • High incidence of Hepatitis C infections [ME=2.3; U.S.=0.7] • Maine has significantly higher Lyme disease [ME=105; U.S.=10] and Pertussis [ME=42; U.S.=16] incidence rates than the U.S. • Maine has a higher ambulatory care-sensitive condition hospital admission rate than the U.S. [ME=1,499; U.S.=1,458]

* All rates are per 100,000 population unless otherwise noted.

Table 3 includes a summary of findings from the Stakeholder Survey of respondents’ perceptions of health issues in the regions where they work or volunteer. It includes stakeholders’ assessment of the biggest health challenges in their region, a description of assets needed to address the challenges, and a list of assets/resources available to address each issue.

Table 3. Priority Health Issue Challenges and Resources for Maine

Stakeholder Input - Stakeholder Survey Responses ¹	
Challenges*	Resources
<ul style="list-style-type: none"> • Drug and alcohol abuse (80%) • Obesity (78%) • Mental health (71%) • Physical activity and nutrition (69%) • Depression (67%) • Tobacco use (63%) • Diabetes (63%) • Cardiovascular disease (63%) • Respiratory diseases (60%) • Childhood obesity (58%) • Elder health (55%) • Oral health (53%) • Cancer (50%) • Violence (38%) • Suicide and self-harm (37%) • Neurologic diseases (35%) • Unintentional injury (34%) • Child developmental issues (34%) • Musculoskeletal diseases (28%) • Adolescent health (25%) • Maternal and child health (23%) • Infectious diseases (22%) • Lead poisoning/environmental health issues (17%) • Sexually transmitted diseases/HIV/AIDS (13%) • Infant mortality (4%) 	<p>Assets Needed to Address Top Challenges:</p> <ul style="list-style-type: none"> • Drug and alcohol abuse: Greater access to drug/alcohol treatments; Greater access to substance abuse prevention programs; Free or low-cost treatments for the uninsured; More substance abuse treatment providers; Additional therapeutic programs. • Obesity/Physical activity and nutrition: Greater access to affordable and healthy food; More programs that support low income families. • Mental Health/Depression: More mental health professionals; More community-based services; Better funding and support; Greater access to inpatient care; Readily available information about resources; Transitional programs. <p>Assets Available:</p> <ul style="list-style-type: none"> • Drug and alcohol abuse: Maine Alcoholics Anonymous; Substance abuse Hotlines; Office of Substance Abuse. • Obesity/Physical activity and nutrition: Public gyms; Farmers Markets; Maine SNAP-ED Program; School Nutrition Programs; Public walking and biking trails; Healthy Maine Partnerships; Let’s Go! 5-2-1-0. • Mental Health/Depression: Mental health/counseling providers and programs.

**Percentage of stakeholders who rated issue as a major or critical problem in the State.*

¹ Results are from the Maine Shared Community Health Needs Assessment Stakeholder Survey, conducted in May-June, 2015.

Table 4 presents a summary of the major health factors and challenges that stakeholders believe impact the health of residents. Data come from a comprehensive analysis of available surveillance data (see Appendix A) for a full list of the health indicators and factors included in this project). Two criteria were used to select the factors and challenges presented in this table. Statistically significant differences (at 95% confidence) between the state and the U.S. are noted with an asterisk (*) after the indicator. In addition, a rate ratio was calculated comparing the state and U.S. (where available). Indicators where the state was 10% or more above or below the U.S. figure were noted for inclusion in this table.

Table 4. Priority Health Factors in Maine

Health Factors – Surveillance Data	
Health Factor Strengths	Health Factor Challenges
<ul style="list-style-type: none"> • Low unemployment rate [ME=5.7%; U.S.=6.2%] • More adults with a usual primary care provider [ME=87.4%; U.S.=76.6%] • Low percent uninsured [ME=11.2%; U.S.=14.9%] • Less individuals who are unable to obtain or delay obtaining necessary medical care due to cost [ME=10.1%; U.S.=15.3%] • High percent of adults with diabetes who have eye and foot exams annually. • Low percent of alcohol use, cigarettes smoking and tobacco use among high school students. 	<ul style="list-style-type: none"> • Low median household income [ME=\$46,974; U.S.=\$53,046] • Low colorectal screening [ME=72.2%; U.S.=81.5%] • High percent of chronic heavy drinking among adults [ME=7.2%; U.S.=6.2%] • Low percent of adults immunized annually for influenza [ME=44.1%; U.S.=62.8%]

** All rates are per 100,000 population unless otherwise noted.*

Table 5 summarizes the results of the health factor questions in the stakeholder survey for the state. It includes a summary of the health factors that cause the biggest challenges from the perspective of stakeholders who work in and represent communities in the state. A description of the assets and resources available and those that are needed at the state level to address these health factors is also included.

Table 5. Priority Health Factor Challenges and Resources for Maine

Stakeholder Input – Stakeholder Survey Responses ²	
Challenges*	Resources
<ul style="list-style-type: none"> • Poverty (78%) • Access to Behavioral Care/Mental Health Care (67%) • Transportation (67%) • Health Care Insurance (64%) • Employment (64%) • Health Literacy (62%) • Food Security (58%) • Housing Stability (57%) • Access to Oral Health (56%) • Adverse Childhood Experiences (56%) • Access to Healthy Foods (53%) • Social Support and Interactions (50%) • Caregiver Support (46%) • Early Childhood Education/Development (43%) • Access to Physical Activity Opportunities (42%) • Access to Other Health Care (41%) • Access to Primary Care (39%) • Social Attitudes (such as Discrimination) (38%) • Enrollment in Higher Education (35%) • Incarceration or Institutionalization (35%) • Quality of Housing (34%) • Language and Literacy (34%) • High School Graduation (31%) • Civic Participation (30%) • Crime and Violence (27%) • Environmental Conditions (Air/water quality, pollution, etc.) (12%) 	<p>Assets Needed to Address Top Challenges:</p> <ul style="list-style-type: none"> • Poverty/Employment: Greater economic development; Increased mentoring services; More skills trainings; More employment opportunities at livable wages; Better transportation; Better education. • Access to Behavioral Care/Mental Health Care: Better access to behavioral/mental health care for the uninsured; Full behavioral/mental health integration at hospital and primary care levels; Expand behavioral/mental health agencies to more rural areas; More hospital beds for mentally ill patients. • Transportation: More/better transportation systems; Better access to public transportation; Additional funding for organizations that help with rides to medical appointments; Additional resources for transportation for the elderly and disabled. • Health Care Insurance: Expansion of Medicaid. <p>Assets Available in Maine:</p> <ul style="list-style-type: none"> • Poverty: General assistance; Other federal, state and local programs. • Access to Behavioral Care/Mental Health Care: Behavioral/Mental health agencies. • Health Care Insurance: MaineCare; Free Care.

* Percentage of stakeholders who rated factor as a major or critical problem in the State.

² Results are from the Maine Shared Community Health Needs Assessment Stakeholder Survey, conducted in May-June, 2015.

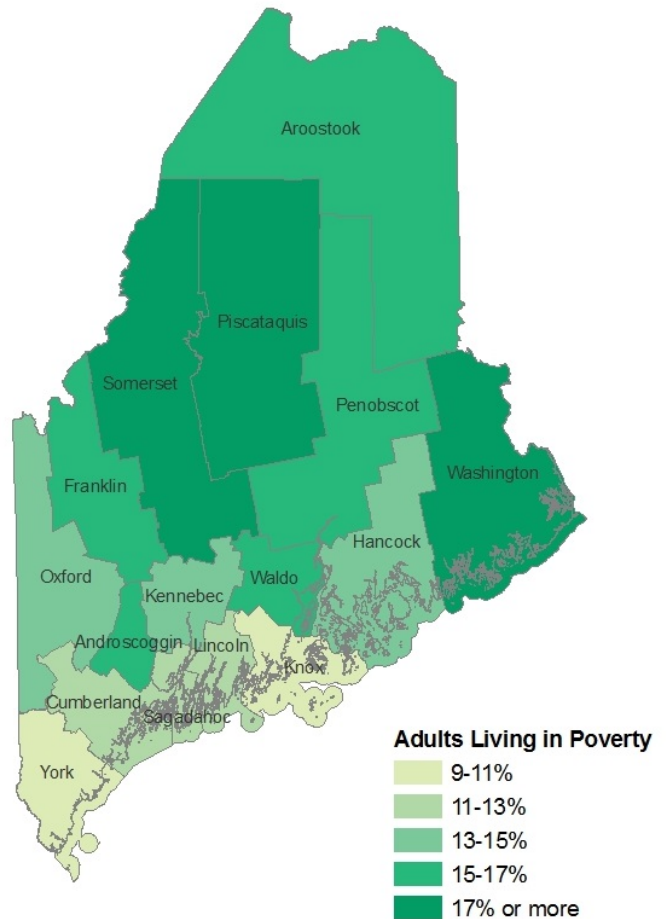
Socio-Economic Status

Low socioeconomic status has been associated with higher rates of cardiovascular disease, diabetes, infant mortality, respiratory disease, cancer, infectious diseases, overall mortality, and even suicide.^{1,2} Low socioeconomic status may influence health through secondary pathways such as limited financial resources, psychological stress, and reduced access to public services. Diminished social clout within one's community may, in turn, lead to limited control over healthy environmental conditions, resulting in elevated environmental exposures.³ The 2013 Maine Behavioral Risk Factor Surveillance System (BRFSS) found that the percentage of Maine adults aged 18 and older who rated their general health as excellent, very good, or good was 94.8% among adults with household incomes of \$50,000 or more, but only 53.8% among those with incomes under \$15,000. In addition, one in five Maine adults with a household income under \$15,000 reported there had been a time in the last 12 months when they had needed to see a doctor but could not (do so) because of the cost.

In 2013, 66.4% of Maine residents lived in rural areas. The median household income statewide is much less than the median for the U.S. (\$46,974 and \$53,046 respectively). However, while the percentage of adults living below the federal poverty level is slightly higher in Maine than in the country as a whole (13.6% and 13.4%, respectively), the percentage of children living below the federal poverty level is significantly lower in Maine than in the U.S. (18.5% and 21.6%, respectively). In addition, Maine has a smaller proportion of single parent families (29.1%) but a greater proportion of adults 65 years old and over living alone (40.1%), compared to 33.2% and 37.7% nationally, respectively.

In addition to income, there are many other social determinants of health, which have been defined as “conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.”¹ English language fluency, education, and household structure are some social determinants measured in the Maine Shared CHNA. Maine has a higher proportion of high school students graduating on-time (86.5%), than the U.S. (81.0%). However, the percentage

Adults Living in Poverty by County



of Maine adults with a bachelor's degree or higher is slightly lower than the U.S. benchmark (27.9% and 28.8%, respectively).

Socio-economic measures chosen for the Maine Shared CHNA include:

- High school graduation rate
- Median household income
- Poverty (less than 100% of the federal poverty level)
- Unemployment
- Single parent families
- Older adults living alone

In addition, income- and education-specific estimates are included, when available.

Socio-economic measures vary across population groups in Maine. For example, females were significantly more likely than males to have income below the federal poverty level. People who described their race as something other than “white alone” were significantly more likely to be below the poverty level than those who described their race as “white alone”. Median household incomes varied across counties from a low of \$36,646 in Piscataquis County to a high of \$57,461 in Cumberland County.

¹ CDC Health Disparities and Inequalities Report - United States, 2013. MMWR, Supplement, November 22, 2013; Vol. 62, No. 3.

² Disease and Disadvantage in the United States and in England. Banks, Marmot, Oldfield, and Smith. JAMA. 2006; 295: 2037-2045.

³ Social Capital and Health: A Review of Prospective Multilevel Studies. Murayama, Fujiwara, and Kawachi. J Epidemiol 2012;22(3):179-187.

General Health and Mortality

While it is essential to understand the causes, risk factors, and other determinants of a population's health status, broad measures of health and mortality can also help in understanding the needs of the population and help identify the populations experiencing health disparities. General health status can be measured by self-reported data as well as by mortality-related data such as life expectancy, leading causes of death and years of potential life lost.

In 2013, 94.8% of Maine adults reported their health as excellent, very good or good. This was not significantly different from adults in the United States. Life expectancy in Maine at 79.2 years is also similar to the national life expectancy of 78.9 years, and has increased by more than four years since 1981. The top five leading causes of death in Maine, listed in order of occurrence, are cancer, heart disease, chronic lower respiratory disease, unintentional injuries and cerebrovascular disease (stroke). While these are the same five leading causes for the nation, their order of occurrence differs from Maine. In the U.S., heart disease is the leading cause of death while in Maine cancer is the leading cause of death and heart disease is the second leading cause. Cancer is, in fact, the leading cause of death in 13 of the 16 Maine counties. In Androscoggin, Aroostook and Somerset counties heart disease is the leading cause. Despite Maine's aging population, Alzheimer's disease is in the top five leading causes of death in two counties: Piscataquis and York.

General health and mortality measures chosen for the Maine Shared CHNA include:

- General health status reported by adults
- Adults with 14+ days in the past month for which mental health was not good
- Adults with 14+ days in the past month for which physical health was not good
- Life expectancy at birth
- Leading causes of death

General health and mortality measures included in the Maine Shared CHNA vary across population groups. In 2013, a smaller percentage of Native Americans reported excellent, very good or good health than was reported by people of other races. A greater proportion of adults with more education and higher income reported excellent, very good or good health compared to those with less income or lower education. While life expectancy is 81.5 years for women and 76.7 years for men, a higher percentage of women report 14 or more days of poor mental health during the month (13.0%) compared to men (10.8%). There are also differences in the leading causes of death and years of potential life lost between the genders. Alzheimer's disease is the fifth leading cause of death among females and men experience a greater number of years of potential life lost due to diabetes mellitus.

Access to Health Care

Access to timely, appropriate, high quality and regular health care and preventive health services is a key component of maintaining one's health. Good access to health care can be limited by financial, structural and personal barriers. Access to health care is impacted by location of and distance to health services, availability of transportation, the cost of obtaining the services, including the availability of insurance, the ability to understand and act upon information regarding services, the cultural competency of health care providers and a host of other characteristics of the system and its clients. Disparities in access to health care have traditionally been documented among racial minorities and low-socio-economic status populations.³ Healthy People 2020 has identified four major components of access to health services: coverage, services, timeliness, and workforce.¹

In Maine, about one person in ten (11.2%) did not have health insurance in 2013. This is statistically significantly lower than the U.S. rate of 14.9%. In 2013, 10.1% of all Maine people reported that they had experienced cost-related barriers to getting health care. This is similar to the number reporting such barriers in 2000, but it is an increase from 2006, the year with the lowest percentage (8.8%) reported over the last 10 years.² In 2013, 87.4% Maine residents reported that they had one person they thought of as their personal doctor or other health care provider. This number has not changed significantly in the past ten years. Additionally, 41.8% of children ages 0-19 years are enrolled in MaineCare in 2015, while only 27% of Mainers, in general, are enrolled in MaineCare.

Access measures chosen for the Maine Shared CHNA include:

- Cost-related barriers to health care for adults
- No current health insurance coverage
- MaineCare enrollments (adults and children)
- Persons with a usual primary care provider

Additional measures related to access to preventive services, care management, and oral health care can be found in several sections of the Maine Shared CHNA, including Cancer, Diabetes, Environmental Health, Health Care Quality, Immunization, Maternal and Child Health, Mental Health, Oral Health, Respiratory Health, and Socio-economic Status.

Sagadahoc, Cumberland, York, Androscoggin and Kennebec counties have the lowest percentage of uninsured Mainers (8.0%, 8.9%, 9.1%, 9.5% and 9.6% respectively), while Knox (13.0%), Washington (13.7%), Piscataquis (14.4%) and Hancock (14.7%) have the highest uninsured rates.

In general, women in Maine have better access to care, with a lower percentage of uninsured (9.6% compared to 12.9% for men), and higher percentage of reporting of having a primary care provider (91.3% versus 83.2% for men). Nonetheless, the reported barriers to care due to cost are

not significantly different between men and women. Individuals living in isolated areas have higher percentages of uninsured people (13.6%) than those living in urban areas (9.2%). American Indians and Asians have higher percentages of uninsured people (18.8% and 14.7% respectively) than other races, while whites and Hispanics are less likely to report barriers to health care due to cost (10.7% and 10.3%, respectively) than American Indians (24.1%), blacks or African Americans (21.8%) and multiracial-non-Hispanics (18.1%). In addition, bisexuals were more likely to report cost-related barriers to health care (23.7%) than heterosexuals (10.0%). A higher percentage of adults with higher levels of education and earning income over \$50,000, report having health insurance, a primary care provider, and fewer cost related barriers to care.

Not surprisingly, given Medicare coverage, a significantly lower percentage of those aged 65 years and over were uninsured (0.2%) and reported cost-related barriers to health care (2.3%), and more had a primary care provider (95.6%). Fewer 18-24 year-olds and 25-34 year-olds reported having a primary care provider (74.0% and 73.6% respectively), while insurance rates generally increased for those 18 years old and over, as people aged. It is important to point out that a significantly smaller percentage of children under 18 years of age had no insurance compared to adults ages 19-25 years (5.9% and 21.5% respectively).

In 2012, Maine had

- 46 designated Dental Health Professional Shortage Areas (HPSAs)
- 33 mental HPSAs
- 62 primary care HPSAs (although these areas are smaller in size than the designated dental and mental HPSAs.)

In addition,

- Approximately 132 Maine municipalities and other minor civil divisions are in medically underserved areas and
- Approximately 120 Maine municipalities and other minor civil divisions have medically underserved populations.

The number of people per Licensed Primary Care Physician in Maine is 694, compared to 631 in the U.S. This ratio is slightly lower than in 2006 (704).

Healthy Maine 2020 also has objectives related to access to health, including:²

- Increase the proportion of persons with a usual primary care provider
- Increase the proportion of people of all ages with medical health insurance. (sub-categories: adults with medical insurance, children with medical insurance, adults with dental insurance, children with dental insurance)
- Reduce the proportion of individuals who are unable to obtain or delay obtaining necessary medical care due to cost. (sub-categories: medical care, dental care)
- Reduce the proportion of children who have dental caries experience in their primary or permanent teeth. (K & 3rd grade only)

- Increase the number of community-based organizations providing population-based primary prevention services. (nine topic areas by public health district)
- Increase routine vaccination coverage levels for children and adolescents
- Reduce invasive healthcare-associated methicillin-resistant *Staphylococcus aureus* (MRSA) infections
- Reduce hospital emergency department visits for asthma
- Increase the proportion of persons with diagnosed diabetes who receive formal diabetes education
- Increase the percentage of cancer detected at local stage
- Reduce hospitalizations of older adults with heart failure as the principle diagnosis
- Increase the proportion of primary care facilities that provide mental health treatment onsite or by paid referral
- Increase the proportion of children with mental health problems who receive treatment
- Increase the proportion of adults with mental health disorders who receive treatment
- Increase the proportion of persons with co-occurring substance abuse and mental disorders who receive treatment for both disorders

¹ Healthy People 2020.

² Maine Center for Disease Control and Prevention. Healthy Maine 2020.
Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

³ Health and health care disparities: the effect of social and environmental factors on individual and population health. Thomas B. *Int J Environ Res Public Health*. July 21, 2014; 11(7): 7492-507.

Environmental Health

Environmental health is a varied field that links environmental conditions with human health effects. Its scope is large and covers the management of bedbug infestations to the oversight of high-level radioactive waste. At its core, it strives to promote health and prevent or minimize exposures that may have adverse health effects. It encompasses the air we breathe, the food we eat, the water we drink, and the places where we live, play and work.¹

Outdoor air and water quality are two major themes highlighted in Healthy People 2020.² Maine has the highest risk from radon of all the New England states, and one of the highest risks from radon of the states in the U.S.³ In 2010, 14.8% of Maine households who have tested their air for radon report elevated rates. These numbers may be higher, however, since less than one out three (29%) of households have tested their air for radon.⁵ Exposure to radon is the second leading cause of lung cancer.

Maine's outdoor air quality is affected by pollution created in states south and west of us, affecting ozone and particulate matter in our air. While we cannot control these factors, we can raise awareness of the hazards these pollutants cause and alert Maine residents who may be vulnerable when these levels rise. The Maine Department of Environmental Protection monitors air quality via monitoring stations throughout the state. Monitoring stations in Androscoggin, Hancock, Kennebec and Penobscot counties provided data in 2001, 2006 and 2008, with decreases in the micrograms of particulate matter per cubic meters of air at all locations, ranging from 8.6 in Androscoggin to 4.8 in Hancock County in 2008.

Water quality issues in Maine include hazards such as disinfection by-products, arsenic and nitrates/nitrites¹ as well as the addition of fluoride to help prevent tooth decay. 49.7% of Maine Households are served by public water systems, regulated and routinely tested by the Maine Drinking Water Program.³ 92.8% of the people in these communities were served by community water systems that met all applicable health-based standards of the Safe Drinking Water Act, up from 61.6% in 2000. 50.3% of Maine households get their drinking water from private wells. Naturally occurring arsenic is a risk for wells in Maine, and regular testing can indicate the need for mitigation of this. 43.3% of households with private wells had tested their water for arsenic.

The rate of children, ages 0-71 months, with an elevated blood lead (5 micrograms or more per deciliter (µg/dL)) test, among those screened, has increased from 1.5% in 2003 to 2.5% in 2013.

Environmental Health measures chosen for the Maine Shared CHNA include:

- Homes with private wells tested for arsenic
- Lead screening among 1 & 2 year old children
- Children with elevated blood lead levels (% among those screened)

Because our environment affects many health conditions, additional measures related to environmental health can be found in many sections of the Maine Shared CHNA, including Cardiovascular Health, Cancer, Infectious Disease, Maternal and Child Health, Oral Health, and Respiratory Health.

While many environmental health hazards affect all Maine residents, the specific characteristics of the places where people live, work, study, and play may create disparities. Childhood lead poisoning rates are of a particular concern in Auburn/Lewiston, Bangor, Biddeford/Saco, Portland/Westbrook and Sanford⁴ and can disproportionately affect those in older rental units, those with less income (evidenced by higher rates for children on MaineCare, and Mainers who are foreign-born, in particular Somali and Somali Bantu populations in the Lewiston/Auburn area.¹) While the occurrence of arsenic in private wells may not be linked to particular socio-economic characteristics, people with incomes above \$50,000 and those who have graduated from college or technical school are more likely to have tested for arsenic, which allows them to know whether they need to treat their water.

Healthy Maine 2020 also has objectives related to environmental health, including:¹

- Particulate matter in the air
- Number of days the Air Quality Index (AQI) exceeds 100
- Carbon monoxide poisoning emergency department visits per 100,000 (2009)
- Persons served by a community water systems who receive a supply of drinking water that meets the regulations of the Safe Drinking Water Act
- Children with elevated blood lead levels
- Fluoridated water
- Homes with private wells tested for arsenic
- Homes with elevated radon
- Number of homes with an operating radon mitigation system for persons living in homes at risk for radon exposure

¹ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

² Healthy People 2020, Environmental Health3. Available from: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=12>.

³ U.S. Environmental Protection Agency, National Residential Radon Survey, 1992.

⁴ Maine Tracking Network, Public Data Portal. Available from: <https://data.mainepublichealth.gov/tracking/lead-content>.

⁵ 2010 Maine Behavioral Risk Factor Surveillance System results, Available from: https://data.mainepublichealth.gov/brfss/environmental_health.

Health Care Quality

Obtaining quality health care is a key component of maintaining one's health. The Maine Quality Forum's definition of quality health care includes the elements of safety, effectiveness, patient-centeredness, timeliness, efficiency and equity.¹ Quality of health care can be measured by health outcomes, access to health care, the appropriate use of types of health care (such as primary care providers and emergency departments), the occurrence of medical errors or unintended consequences, or patient satisfaction. Access to timely services and preventive care are additional aspects of quality health care. As connections between health care and public health are better recognized and partnerships are strengthened, the importance of measuring health care quality at both the provider and facility levels as well as the population level is also being recognized.

Ambulatory care-sensitive condition (ACS) hospital discharges is a Prevention Quality Indicator from the Agency for Healthcare Research and Quality and is intended to measure whether these conditions are being treated appropriately in the out-patient setting before hospitalization is required. AHRQ provides nationwide comparative rates based on lower acuity and cost analysis of 44 states from the 2010 Agency for Healthcare Research and Quality's Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID).² Maine's overall ASC admission rate for 2011 was 1,499 per 100,000 population, higher than the United States benchmark of 1,458. In addition, Maine's overall ASC emergency department rate for 2011 was 4,259 per 100,000 population.

Health Care Quality measures chosen for the Maine Shared CHNA include:

- Ambulatory care-sensitive condition hospital admission rate per 100,000 population
- Ambulatory care-sensitive condition emergency department (ED) rate per 100,000 population

Additional measures related to health care quality can be found in several sections of the Maine Shared CHNA, including Cancer, Diabetes, Immunizations (preventive services), and Access to Care. Data on disparities in health care quality is limited due to a lack of availability of the data by demographic characteristics such as race and ethnicity and small numbers for some indicators.

ACS hospitalizations are statistically significantly lower in Cumberland (1,168 per 100,000 population), York (1,261) and Lincoln (1,354) counties, and higher for Penquis (1,993), Aroostook (1,791) and Downeast (1,677) public health districts. These rates are also higher for women (1,568) versus men (1,426). In addition, the rates are lower for younger age groups (234 for ages 18-34; 681 for ages 45-54; 2,946 for ages 65-74 and 5,943 for ages 75-84), and significantly higher for people over the age of 85 (10,801). The Maine rate is lower than the 2010 AHRQ national benchmarks for all age groups.²

On the other hand, ACS emergency department visits are statistically significantly lower in Sagadahoc (3,375 per 100,000 population), Knox (3,388) and Cumberland (3,510) counties, and higher for Aroostook County (6,148), Downeast Public Health District (5,181) and the Central Public Health District (4,960). However, similarly to ACS hospitalization rates, these ED rates are also considerably higher for women (5,108) versus men (3,350); lower for younger age groups (3,437 for ages 18-34 and 6,180 for ages 65-74), and significantly higher for people ages 75-84 (10,612) and people over the age of 85 (16,019).

Healthy Maine 2020 also has objectives related to health care quality, including:³

- Increase routine vaccination coverage levels for children and adolescents
- Reduce invasive healthcare-associated methicillin-resistant *Staphylococcus aureus* (MRSA) infections
- Reduce the proportion of individuals who are unable to obtain or delay obtaining necessary medical care or dental care
- Reduce hospital emergency department visits for asthma
- Increase the proportion of persons with diagnosed diabetes who receive formal diabetes education
- Increase the percentage of cancer detected at local stage
- Reduce hospitalizations of older adults with heart failure as the principle diagnosis
- Increase the proportion of primary care facilities that provide mental health treatment onsite or by paid referral
- Increase the proportion of children with mental health problems who receive treatment
- Increase the proportion of adults with mental health disorders who receive treatment
- Increase the proportion of persons with co-occurring substance abuse and mental disorders who receive treatment for both disorders

¹ Maine Quality Forum <http://www.mainequalityforum.gov/mqlp05.html>.

² Agency for Healthcare Research and Quality, Prevention Quality Indicator v4.5 Benchmark Data Tables, May 2013, Available from:
http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V45/Version_45_Benchmark_Tables_PQI.pdf.

³ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

Public Health Emergency Preparedness

Public health emergency preparedness encompasses the critical infrastructure and key resources necessary to prepare for, respond to and recover from emergencies that have the potential to affect the health of populations of people. It includes the establishment and maintenance of fifteen public health emergency preparedness capabilities ranging from fatality management, mass care, emergency public information and warning, medical material management to laboratory and public health surveillance and epidemiological investigations. It also includes empowering and engaging citizens in their own personal preparedness and recovery strategies and those of their communities.¹

Threats that can lead to public health emergencies are always present. They include natural disasters as well as chemical, biological, radiological, nuclear and explosions. The impact of these threats can range from local outbreaks to incidents with statewide, national or global ramifications. Because public health emergencies can be unpredictable and vary from year to year, data gathered in this area often focuses on the capacity to respond. However, for the Maine Shared CHNA, indicators were chosen that reflect the need for this capacity.

In 2011:

- The Maine Emergency Management Agency recorded 13 public health-related events. Previous year's data in 2009 and 2008 included 5 and 10 events respectively.
- There were 23 health alerts and advisories issued by the Maine CDC. This was down from 78 in 2009, when the H1N1 flu pandemic occurred and 36 in 2010.
- The Health and Environmental Testing Laboratory had 10 submissions that met qualification to be submitted to the U.S. Laboratory Response Network. Previous years submissions ranged from 7 in 2008 and 2010 to 17 in 2004.²

Different types of public health hazards require different response levels based on their potential to affect the health and safety of the public. Snow and ice storms are more common in Maine, but hold a lower level of risk than a category 5 hurricane, or major earthquake. By looking at both the probability of an event happening, and the likelihood of an event causing significant death, illness or injury, public health emergency preparedness partners can better focus on the most important types of events for which to prepare.

In Maine, the top types of emergencies with the highest Risk and Vulnerability scores are:²

- Cyber Attack (83%)
- Medical Supply Disruption/Shortage (78%)
- Tornado (78%)
- Major Communications Disruption (72%)
- Mass Casualty Incident (67%)
- Hazmat Incident (56%)
- Information Systems Failure 56%

As with other health issues, public health emergencies can disproportionately affect different populations. However, there is no current Maine data showing these disparities. Regardless of these, preparedness activities include looking at vulnerable populations, including, but not limited to people with cultural and language barriers, disabilities, age and geographical differences, and other characteristics that might indicate special needs.

Healthy Maine 2020 also has objectives related to public health emergency preparedness, including:¹

- Reduce the time necessary to activate designated personnel in response to a public health emergency via the Health Alert Network
- Increase the frequency and number of outreach activities to the community through training and education about public health emergency preparedness.
- Increase the number of trained public health and healthcare emergency responders
- Reduce the unnecessary surge in hospital emergency departments during an event with public health significance

¹ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

² Maine Center for Disease Control and Prevention. Maine Shared Community Health Needs Assessment – 2012. Available from: <http://www.maine.gov/dhhs/mecdc/phdata/sha/sha-details.shtml?emergency>.

Cancer

Advances in cancer detection, treatment, and research have led to declines in cancer incidence and death rates. According to SEER data from the National Cancer Institute, today in the United States, among people who develop cancer, more than half will be alive in 5 years.^{1,4} Many cancers can be prevented by reducing risk factors such as tobacco use, physical inactivity, poor nutrition, obesity, and exposure to sunlight. A recent study also suggests that avoiding even light to moderate drinking of alcohol may reduce overall cancer risk.⁵

Screening, including mammography, Pap tests, and colonoscopy, can be effective in identifying certain cancers at early stages, when they are more easily treated.^{1,2} Screening for colorectal and cervical cancers can find precancerous lesions that can be treated before they become cancerous.² In addition, vaccine to the human papillomavirus (HPV) may prevent cervical cancers, while the hepatitis B vaccine can help lower liver cancer risk.⁶

The age-adjusted all-cancer death rate in Maine decreased significantly in recent years, but cancer remains the leading cause of death among Maine people. In 2011, the all-cancer mortality rate was 186 per 100,000 population in Maine, which was nearly 10% higher than the U.S. benchmark of 169. In addition, Maine's age-adjusted all-cancer incidence rate (500 per 100,000 population) is also significantly higher than the U.S. rate (458), driven at least in part by a significantly higher incidence of lung cancer: (76 per 100,000 population in Maine compared to just 56 nationwide).

Cancer-related measures chosen for the Maine Shared CHNA include:

- Cancer incidence (all cancers)
- Cancer deaths (all cancers)
- Bladder cancer incidence
- Colorectal cancer incidence
- Late stage colorectal cancer incidence
- Colorectal cancer deaths
- Lung cancer incidence
- Lung cancer deaths
- Prostate cancer incidence
- Prostate cancer deaths
- Female breast cancer incidence
- Late stage female breast cancer incidence
- Female breast cancer deaths
- Late stage prostate cancer incidence
- Melanoma incidence
- Tobacco-related cancer incidence, excluding lung cancer
- Tobacco-related cancer deaths, excluding lung cancer

- Adults ages 50 years and older who have ever had a sigmoidoscopy or colonoscopy
- Women ages 18 and older who have had a Pap smear within the past 3 years
- Women ages 50 and older who have had a mammogram in the past 2 years

Additional measures related to risk factors for cancer can be found in several sections of the Maine Shared CHNA, including Tobacco Use, Physical Activity, Nutrition and Weight, and Environmental Health.

Cancer incidence, mortality, and screening measures included in the Maine Shared CHNA vary across population groups in Maine. For example, males are at higher risk than females both of being diagnosed with and of dying from colorectal, lung, and tobacco-related cancers, as well as cancer in general. People who are white are more likely than people of color to be diagnosed with cancer (all types combined). The age-adjusted all-cancer incidence rate is significantly higher in the Downeast Public Health District (525 per 100,000 population), Penquis Public Health District (524) and York County (510) than in most of the other public health districts in the state. Mainers with less education or income are less likely to have cancer screenings such as mammograms, Pap tests, and sigmoidoscopy or colonoscopy than Mainers with higher education or income.

The Chronic Disease section of Healthy Maine 2020 includes objectives to reduce the incidence rate of late-stage female breast cancer and to reduce the incidence rate of late-stage colorectal cancer. Objectives related to risk factors for cancer can be found in other sections of Healthy Maine 2020, including Substance Abuse, Physical Activity and Nutrition, and Environmental Health.³

¹ U.S. Department of Health and Human Services. Healthy People 2020. Cancer: overview. Available from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=5>.

² Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Cancer prevention and control. Available from <http://www.cdc.gov/cancer/dcpc/prevention/>.

³ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

⁴ National Cancer Institute, Surveillance Research Program. Cancer Statistics Review 1975–2006: Age-adjusted SEER incidence and US death rates and 5-year relative survival rates. Bethesda, MD: National Cancer Institute. Available from: http://seer.cancer.gov/csr/1975_2006/results_merged/topic_survival.pdf [PDF - 460 KB].

⁵ Light to moderate intake of alcohol, drinking patterns, and risk of cancer: results from two prospective US cohort studies. Cao, Willet, and Rimm et al. BMJ 2015; 351 (Published 18 August 2015) Available from: <http://www.bmj.com/content/351/bmj.h4238>.

⁶ Centers for Disease Control and Prevention, Cancer Prevention and Control, Vaccines Website. Available from: <http://www.cdc.gov/cancer/dcpc/prevention/vaccination.htm>.

Respiratory

Asthma, pneumonia and chronic obstructive pulmonary disease (COPD) are examples of respiratory diseases that are significant public health issues. The burden of respiratory disease falls not just on the people who have them, but also on their families, workplaces, schools, neighborhoods, and society as a whole. Both genetic and environmental factors, such as exposure to cigarette smoke, play a role in who gets certain respiratory diseases and how those diseases progress.¹

Asthma is the most common childhood chronic condition in the U.S. and the leading chronic cause of children being absent from school.² While exposures to dust mites and cockroaches have long been identified as risk factors for asthma⁴, studies also point to parental smoking as a contributing causal factor in childhood asthma.^{5,6} More recent studies have also linked obesity to asthma among children.⁷

Asthma rates are higher among people living in the northeastern U.S.¹ In 2013, the prevalence of current asthma among adults in Maine (11.7%) was 40% higher than the U.S. rate of 7%. Chronic lower respiratory disease, which includes COPD and asthma, is the 3rd leading cause of death among Maine residents. The age-adjusted rate of asthma emergency department visits per 10,000 population was 14% higher in Maine (67) than in the United States (58). In addition, Maine has seen a significant increase in its COPD and pneumonia hospitalization rates as well as in its pneumonia emergency department visits rates passing from 196, 287 and 583 per 100,000 population respectively in 2010 to 216, 321 and 706 in 2011, respectively.

Respiratory-related measures chosen for the Maine Shared CHNA include:

- Adults with current asthma
- Asthma among children
- Asthma/bronchitis emergency department visits
- Chronic lower respiratory disease deaths
- Chronic obstructive pulmonary disease (COPD) hospital discharges
- Pneumonia hospital discharges
- Pneumonia emergency department visits

Measures related to risk factors for respiratory diseases can be found in other areas of the Maine Shared CHNA, including Tobacco Use and Environmental Health.

Estimates for respiratory health related measures included in the Maine Shared CHNA vary across population groups in Maine. For example, current asthma among Maine children is significantly more common among males (10.9%) than females (7.1%), while among Maine adults, current asthma is more common among females (14.6%) than males (8.9%). Among Maine adults, current asthma is also significantly more common among those who identify

themselves as non-Hispanic American Indian or Alaska Native (15.9%) or non-Hispanic multiracial (16.2%) than among non-Hispanic white adults (11.6%).

Healthy Maine 2020 also has respiratory-related objectives, including:³

- Reduce hospital emergency department visits for asthma
- Reduce emergency department visits for work-related asthma
- Reduce the use of any tobacco products among students
- Reduce cigarette smoking among students
- Increase the percentage of youth who reported never having smoked in their life
- Reduce tobacco use by adults
- Increase abstinence from cigarette smoking among pregnant women
- Increase the proportion of persons with a diagnosis of depression or anxiety who do not smoke
- Reduce the number of days the Air Quality Index (AQI) exceeds 100

¹ U.S. Department of Health and Human Services. Healthy People 2020. Respiratory diseases: overview. Available from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=36>

² Asthma and Allergy Foundation of America. Asthma facts and figures. Available from http://www.aafa.org/display.cfm?id=9&sub=42#_ftn2 (accessed 6/5/2013).

³ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

⁴ House dust mite and cockroach exposure are strong risk factors for positive allergy skin test responses in the Childhood Asthma Management Program. Huss, Adkinson, Eggleston et al. *Journal of Allergy and Clinical Immunology*, 2001; Volume 107, Issue 1: 48–54. Available from: <http://www.sciencedirect.com/science/article/pii/S0091674901107293>

⁵ Diverging prevalences and different risk factors for childhood asthma and eczema: a cross-sectional study, Turner et al. *BMJ Open*, June 6, 2015; 5(6). Available from: <http://bmjopen.bmj.com/content/5/6/e008446.short>

⁶ Risk factors for childhood asthma and wheezing. Importance of maternal and household smoking. Ehrlich, Du Toit, Jordaan, et al. *American Journal of Respiratory and Critical Care Medicine*, 1996; Vol. 154, No. 3: 681-8. Available from: <http://www.atsjournals.org/doi/abs/10.1164/ajrccm.154.3.8810605#.VdeYGDZRHIU>

⁷ Effects of BMI, Fat Mass, and Lean Mass on Asthma in Childhood: A Mendelian Randomization Study, news release. Granell, Henderson, Evans et al. *PLOS Medicine*, 2014; 11(7). Available from: <http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001669>

Tobacco Use

Use of tobacco is the most preventable cause of disease, death, and disability in the United States. Despite this, every year over 480,000 deaths in the U.S. are attributable to tobacco use¹ (more than that from alcohol use, illegal drug use, HIV, motor vehicle injuries, murders, and suicides combined). In addition, exposure to secondhand tobacco smoke has been causally linked to cancer, respiratory and cardiovascular diseases in adults, and to adverse effects on the health of infants and children, including respiratory and ear infections.²

The percentage of Maine adults aged 18 years and older who were current cigarette smokers decreased significantly from 23.8% in 2000 to 18.2% in 2010, but increased to 20.2% in 2013. The percentage of Maine adults who were current cigarette smokers in 2013 was considerably higher than that reported for the U.S. (20.2% and 17.8%, respectively). In 2013, 12.9% of Maine high school students reported they had smoked cigarettes on at least one day during the prior 30 days, significantly lower than the 15.7% of students reporting nationally. In addition, 18.2% of Maine's high school students reported they had smoked cigarettes or cigars or used chewing tobacco, snuff, or dip on one or more of the prior 30 days, which is significantly lower than the national figure of 22.4%.

Tobacco use related measures chosen for the Maine Shared CHNA include:

- Smoking status among adults
- Current cigarette smoking among students
- Current tobacco use among students
- Second-hand smoke exposure among students

Measures related to diseases for which tobacco use is a risk factor can be found in other areas of the Maine Shared CHNA, including Cancer and Respiratory.

Estimates for tobacco use related measures included in the Maine Shared CHNA vary across population groups in Maine. For example, both male adults and male high school students (20.4% and 14.7%, respectively) were significantly more likely than female adults and female students (16.6% and 10.8%, respectively) to be current cigarette smokers. In addition, adults aged 18 and older with less education or income were more likely to be current cigarette smokers than adults with more education or income. Washington, Oxford and Somerset were the counties with a significantly higher prevalence of adult current cigarette smokers (28.8%, 26.8% and 26.1%, respectively), while Lincoln, Hancock and Waldo were the counties with significantly lower prevalence (12.5%, 14.2% and 15.4%, respectively).

Healthy Maine 2020 also has tobacco-related objectives, including:²

- Reduce the use of any tobacco products among students
- Reduce cigarette smoking among students
- Increase the percentage of youth who reported never having smoked in their life

- Reduce tobacco use by adults
- Increase abstinence from cigarette smoking among pregnant women
- Increase the proportion of persons with a diagnosis of depression or anxiety who do not smoke

Objectives related to health conditions for which tobacco use is a risk factor can be found in other sections of Healthy Maine 2020, such as Chronic Disease.

¹ Centers for Disease Control and Prevention. Youth online: high school YRBS.
Available from <http://apps.nccd.cdc.gov/youthonline/App/Default.aspx>

² Maine Center for Disease Control and Prevention. Healthy Maine 2020.
Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

Immunization

Immunization was one of the top ten “Great Public Health Achievements” of the 20th century, accounting for significant decreases in morbidity and mortality of infectious diseases and an overall increase in life expectancy.¹ Worldwide progress towards the eradication of key diseases, such as smallpox and polio has been driven by immunization campaigns. However, many infectious diseases that can be prevented via vaccination continue to cause significant burdens of disease. The U.S. CDC recommends immunizations for 17 vaccine-preventable diseases across the lifespan.² Young children, adolescents and older adults are populations for which the majority of vaccinations are recommended. Yearly influenza vaccination is recommended for all ages over six months.

In Maine, 91% of children ages 19-35 months were immunized for MMR (measles-mumps-rubella) in 2013, while 88% received 4 doses of DTap (diphtheria and tetanus toxoids and acellular pertussis) vaccine and 80% received full series (primary series plus the booster dose) of Haemophilus influenzae type b (Hib) vaccine. These figures are comparable to the U.S. averages of 92%, 83% and 82%, respectively.⁴

Immunization measures chosen for the Maine Shared CHNA include:

- Adults immunized for pneumococcal pneumonia (ages 65 and over)
- Adults immunized for annually for influenza
- Annual flu vaccine ages 0-17 yrs.
- Meningococcal vaccination for adolescents
- Tdap vaccination for adolescents
- Two-year-olds who have received all age appropriate vaccines recommended by ACIP

As of 2013, 69.4% of adults ages 65-74 years and 79.6% of those ages 75 years and older are immunized for pneumonia, rates that have not changed significantly since 2006. Yearly influenza vaccination rates in 2013 ranged from 32.3% in adults ages 25-34 years to 62.5% in adults ages 65-74 years and 64.5% in adults ages 75 years and older. Another indicator related to immunizations that is included in the Maine Shared CHNA topic area of Infectious Disease is the rate of pertussis.

Due to sample sizes in the surveys used for the Maine Shared CHNA immunization data, there is limited data on disparities for childhood and adolescent immunizations in Maine. 67% of female adolescents aged 13-17 years had at least one human papillomavirus (HPV) vaccine dose in 2014, compared to only 53% of male adolescents.⁵ For adults, influenza vaccination increased with age after age 24, and college and technical school graduates have higher rates than those with less education. Women are vaccinated for both flu and pneumonia at higher rates than men.

Healthy Maine 2020 objectives related to immunization are³:

- Reduce the rates of vaccine-preventable diseases (focus on Pertussis and Varicella)
- Increase routine vaccination coverage levels for children and adolescents

¹ Centers for Disease Control and Prevention (CDC). Achievements in public health, 1900–1999: Control of infectious diseases. *MMWR*. 1999 Jul 30;48(29):621-9.

² Healthy People 2020, Immunization and Infectious Diseases.
Available at: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=23#one>

³ Maine Center for Disease Control and Prevention. Healthy Maine 2020.
Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

⁴ Centers for Disease Control and Prevention (CDC). Immunization Managers. Vaccination Coverage Rates & Data.
Available from: http://www.cdc.gov/vaccines/imz-anagers/coverage/nis/child/tables/13/tab02_antigen_iap_2013.pdf

⁵ Centers for Disease Control and Prevention (CDC). Immunization Managers. Vaccination Coverage Rates & Data.
Available from: http://www.cdc.gov/vaccines/imz-managers/coverage/nis/teen/tables/14/tab01_iap_2014.pdf

Infectious Disease

There are 71 infectious diseases and conditions that are reported in Maine.¹ While advances in sanitation, personal hygiene and immunizations have provided control over some disease, others continue to thrive despite best efforts. For example, Lyme disease has increased from 224 reported cases statewide in 2004 to 1,400 in 2014, a growth of more than 500% in a decade.

Surveillance data assist in monitoring trends in disease and identifying immediate threats to public health. Healthcare providers and facilities, medical laboratories, health officers, veterinarians and others are required to report notifiable diseases to Maine CDC. However, there are limitations in surveillance data, especially pertaining to underreporting. Available data reflects a subset of the disease burden in Maine.

Common infectious diseases reported in Maine include Lyme, Chlamydia, Gonorrhea and Pertussis.

- In 2014, the rate of Lyme disease was 105 per 100,000 population which is more than twelve times the national average of 8.6 per 100,000. However, it should be noted that Lyme disease is found in only 20 states, and Maine's rate is comparable to the rates in other New England states.
- The chlamydia rate in Maine was 266 per 100,000 in 2014 compared to 447 per 100,000 nationally.
- In 2014, the gonorrhea rate in Maine was 18 per 100,000 compared to 106 per 100,000 nationally. While the statewide rate is significantly lower than the national rate, Androscoggin State reported a rate of 63.3 per 100,000 in 2014.
- For pertussis, the rate in Maine significantly increased from 15.4 per 100,000 in 2011 to 41.9 in 2014, which is 63% higher than the 15.5 per 100,000 reported in 2013 nationally.

Infectious disease measures chosen for inclusion in the Maine Shared CHNA include:

- Acute hepatitis A
- Acute and chronic hepatitis B (HBV)
- Acute and chronic hepatitis C (HCV)
- Pertussis
- Tuberculosis
- Lyme disease
- Chlamydia
- Gonorrhea
- Syphilis
- Incidence of HIV
- Incidence of AIDS

Additional infectious related measures can be found in the immunization section of the Maine Shared Community Health Needs Assessment.

The occurrence of infectious disease is variable among different populations in Maine. For example, females (117 per 100,000) are at higher risk for Lyme disease than males (93). Lyme disease rates vary by district with Midcoast, Downeast, York and Cumberland Public Health Districts having the highest rates (203, 155, 134 and 117 per 100,000 respectively) and Aroostook the lowest (7.2 per 100,000). Rates have been increasing in all areas of the state. Homogeneity in Maine's population makes it difficult to detect differences by race because sample sizes are small.

Healthy Maine 2020 objectives related to infectious disease are²:

- Increase the percent of persons with chronic Hepatitis C who know their serostatus
- Reduce the rates of vaccine-preventable diseases (focus on Pertussis and Varicella)
- Reduce invasive healthcare-associated methicillin-resistant *Staphylococcus aureus* (MRSA) infections
- Reduce the percent of new HIV diagnoses that are detected late in the course of HIV illness
- Increase routine vaccination coverage levels for children and adolescents
- Reduce infections caused by key pathogens transmitted commonly through food

¹ Maine Center for Disease Control and Prevention, Reportable Infectious Diseases in Maine, 2013 Summary.

² Maine Center for Disease Control and Prevention. Healthy Maine 2020.
Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

Maternal and Child Health

Maternal and child health covers a broad range of health behaviors, conditions, and health system factors that impact health and quality of life for women, children, and families. Addressing health risks during a woman's pregnancy can help prevent future health issues for women and their children. Increasing access to quality care both before pregnancy and between pregnancies can reduce the risk of pregnancy-related complications and maternal and infant mortality. Early identification and treatment of health issues among babies can help prevent disability or death.¹

The Maine infant mortality rate decreased by 13% between 2005 and 2012 (from 6.87 to 6.0 deaths per 1,000 live births), though the change was not statistically significant. Despite this decrease, about one Maine baby died every 5 days, on average, during 2012. There was no significant improvement between 2000 and 2013 in the percentage of pregnant women in Maine who received early and adequate prenatal care or the percentage of new mothers who reported their pregnancy was intended.

Nearly 1 in 4 Maine children (24%) were reported to have special health care needs in 2011-2012, which was significantly higher than the U.S. rate of 15.1%.

Reproductive health measures chosen for inclusion in the Maine Shared CHNA include:

- Live births, fertility rates, and adolescent births
- Low birth weight (<2500 grams)
- Breastfeeding
- Infant mortality
- Early and adequate prenatal care

Children with special health needs measures chosen for inclusion in the Maine Shared CHNA include:

- Percent of children with special health needs

Additional maternal and child health related measures can be found in most of the other sections of the Maine Shared CHNA.

The status of maternal and child health measures included in the Maine Shared CHNA often varies across population groups in the state. For example, babies born to mothers who are Black or African American are more likely to die (8.55 deaths per 1,000 live births) before their 1st birthday than babies born to mothers who are white (5.83 deaths). Moreover, babies born to mothers with less than a high school diploma are more than twice as likely to die (9.25 deaths per 1,000 live births) before their 1st birthday than babies born to mothers with a bachelor's degree or higher (4.34 deaths). Among 15-44 year old women with a live birth, those with less than a high school diploma are more likely not to receive early and adequate prenatal care (76%)

than those with a bachelor's degree or higher (91%). While some reproductive health measures vary by state or public health district, no single county or district is at increased risk relative to the state on all, or most, measures.

Healthy Maine 2020 includes the following reproductive health related objectives:²

- Reduce preterm births
- Increase the proportion of births that are the result of an intended pregnancy
- Reduce the rate of infant death
- Increase the proportion of pregnant women who receive early and adequate prenatal care
- Increase abstinence from alcohol among pregnant women
- Increase abstinence from cigarette smoking among pregnant women

Additional objectives related to maternal and child health can be found in most of the other topic areas of Healthy Maine 2020.

¹ National Survey of Children's Health, 2011/12. Child and Adolescent Health Measurement Initiative, Data Resource Center for Child and Adolescent Health. Available from: <http://www.childhealthdata.org/>

² Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

Cardiovascular Health

More than 1 in 3 adults in the United States live with some type of cardiovascular disease. Heart disease and stroke can cause serious illness and disability with associated decreased quality of life and high economic costs. These conditions are, however, among the most preventable health problems. The most common controllable or modifiable risk factors for cardiovascular disease include high blood pressure, high cholesterol, smoking, diabetes, physical inactivity, poor diet, overweight and obesity.¹ In addition to these traditional risk factors, more recent studies have identified early life psychiatric disorders as a risk factor for early onset cardiovascular disease.³

Heart disease is the leading cause of death among Mainers aged 65 and older and the 2nd leading cause of death among all ages combined. Stroke is the 5th leading cause of death among Mainers. In 2013, the coronary heart disease rate and the acute myocardial infarction (AMI) mortality rate for Maine adults ages 45 years and over (89.8 and 32.2 per 100,000 population, respectively) were significantly less than in the United States as a whole (102.6 and 36.9, respectively), while the state's stroke mortality rate (35 per 100,000) was comparable to the US rate (36.2). Hospitalization rates for cardiovascular diseases have not changed significantly in Maine in recent years. In 2013, 32.8% of Maine adults report being told by a health professional that they have high blood pressure. This is comparable to the national average of 31.4%. In addition, nearly 40% of Maine adults had high cholesterol level (compared to 31.7% nationwide), while 81% of Maine adults report having their cholesterol level checked at least once during the prior five years (compared to 76.4% for the US).

Cardiovascular health related measures chosen for the Maine Shared CHNA include:

- Acute myocardial infarction deaths
- Acute myocardial infarction hospital discharges
- Coronary heart disease deaths
- Heart failure hospital discharges
- Stroke deaths
- Stroke hospital discharges
- High blood pressure
- High cholesterol
- Cholesterol checked every 5 years
- Hypertension hospital discharges

Additional measures related to risk factors for cardiovascular disease can be found in several sections of the Maine Shared CHNA, including Tobacco Use, Substance Abuse and Physical Activity, Nutrition and Weight.

Cardiovascular disease mortality and hospital discharge rates and the prevalence of risk factors vary across population groups in Maine. For example, males are at higher risk than females of dying from AMI or coronary heart disease or being hospitalized for heart failure, AMI,

hypertension or stroke. Mainers with lower incomes or less education are at higher risk than those with more income or education of ever having been told by a health professional that they had high blood pressure or high cholesterol. The age-adjusted AMI and coronary heart disease mortality rates are significantly higher among Mainers who are American Indian or Alaska Native than those who are white. Aroostook, Hancock, Penobscot, Piscataquis, Somerset and Washington counties are at higher risk than the state overall on more cardiovascular health related measures than any other state; their AMI mortality and hospital discharge rates, coronary heart disease mortality rate, and stroke and hypertension hospital discharge rates are all significantly higher than the state rates.

Healthy Maine 2020 also has objectives related to cardiovascular health, including:²

- Reduce hospitalizations of older adults with heart failure as the principal diagnosis
- Increase the proportion of adults who report having been diagnosed with hypertension who are at a healthy weight
- Increase the proportion of adults who report having been diagnosed with hypertension who report cutting down on salt
- Increase the proportion of adults who report having been diagnosed with hypertension who report engaging in the recommended amount of physical activity
- Increase the proportion of adults who report having been diagnosed with hypertension who report no heavy or binge drinking

Additional objectives related to risk factors for cardiovascular disease can be found in other sections of Healthy Maine 2020, including Substance Abuse and Physical Activity and Nutrition.

¹ U.S. Department of Health and Human Services. Healthy People 2020. Heart disease and stroke: overview. Available from: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=21>

² Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

³ Major Depressive Disorder and Bipolar Disorder Predispose Youth to Accelerated Atherosclerosis and Early Cardiovascular Disease: A Scientific Statement From the American Heart Association. Goldstein BI, Carnethon MR, Matthews KA, McIntyre RS, Miller GE, Raghuvver G, Stoney CM, Wasiak H, McCrindle BW. *Circulation*, August 10, 2015. [Epub ahead of print]. <http://www.ncbi.nlm.nih.gov/pubmed/26260736/>

Diabetes

Diabetes mellitus is a complex public health problem. Diabetes is the inability of the body to control the amount of sugar in the blood, resulting from an acquired inability of the system to make and use insulin. About 90% of diabetes cases are type 2, which is brought on by obesity and lack of physical activity. Diabetes lowers life expectancy, increases the risk of heart disease and is the leading cause of adult-onset blindness, lower limb amputations, and kidney failure. Effective treatment can delay or prevent complications of diabetes; however, about 1 in 4 Americans with diabetes are undiagnosed. Many other Americans have blood glucose levels that put them at greatly increased risk of developing diabetes during the next few years.¹ The cost of treatment for diabetes is high and increasing rapidly. Per person spending for diabetes drugs is higher than for any other class of traditional drug.³ Average annual health care costs for a person with diabetes have been estimated about \$15,000, roughly three times that for a person without the disease.⁴ Even in the U.K., where health care costs have been reported to be better contained than in the U.S.,⁵ Diabetes UK recently warned that the cost of diabetes care threatens to bankrupt the U.K. National Healthcare System.⁶

The 2013 Maine BRFSS estimated that 9.6% Maine adults ages 18 and over had ever been told by a doctor that they had diabetes (excluding pregnancy-related diabetes). The diabetes mortality rate in Maine was 20.8 per 100,000 population in 2013, which is 15% less than the United States benchmark of 23.9. Still, diabetes mellitus is the 7th leading cause of death among Maine residents and the 5th leading cause of years of potential life lost among males in Maine.

Diabetes-related measures chosen for the Maine Shared CHNA include:

- Adults with diabetes
- Pre-diabetes prevalence
- Diabetes emergency department visits
- Diabetes hospital discharges
- Diabetes long-term complication hospital discharges
- Diabetes deaths
- Adults with diabetes whose hemoglobin A1C was checked
- Adults with diabetes who have had an eye exam
- Adults with diabetes whose feet were checked
- Adults with diabetes who have received formal diabetes education

Measures related to risk factors for diabetes can be found in several sections of the Maine Shared CHNA, including Tobacco Use, Substance Abuse and Physical Activity, Nutrition and Weight.

The prevalence of diabetes, rates of diabetes-related hospital encounters, and other diabetes-related measures included in the Maine Shared CHNA vary across population groups in Maine. For example, males are at higher risk than females of having diabetes, dying from diabetes and having hospital or emergency department encounters with a diabetes principal or long-term

complication diagnosis. Adults in lower income groups or with less education are more likely to report ever having been told by a doctor that they have diabetes. Non-Hispanic American Indian or Alaska Native adults are more likely than adults of other race/ethnicity groups (except non-Hispanic multiracial) to report ever having been told by a doctor they have diabetes. American Indian or Alaska Native Mainers are more likely than white Mainers to die from diabetes. Aroostook, Penobscot, Piscataquis, Somerset and in most cases Washington counties have higher rates than the state as a whole of both emergency department visits and hospital discharges with a diabetes principal or long-term complication diagnosis.

Healthy Maine 2020 also has objectives related to diabetes, including:²

- Increase the proportion of persons with diagnosed diabetes who receive formal diabetes education
- Reduce co-morbidity for persons with mental illness (diabetes, asthma, and hypertension among people with diagnosed depression or anxiety)
- Increase the proportion of adults diagnosed with pre-diabetes who report engaging in the recommended amount of physical activity
- Increase the proportion of adults diagnosed with pre-diabetes who are at a healthy weight

Additional objectives related to risk factors for diabetes can be found in other sections of Healthy Maine 2020, including Substance Abuse and Physical Activity and Nutrition.

¹ U.S. Department of Health and Human Services. Healthy People 2020. Diabetes: overview. Available from: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=8>

² Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

³ Express Scripts 2014 Drug Trend Report. Available at: <http://lab.express-scripts.com/drug-trend-report/>

⁴ Per Capita Health Care Spending on Diabetes: 2009-2013. Health Care Cost Institute, Issue Brief #10. May, 2015. Available at: <http://www.healthcostinstitute.org/files/HCCI%20Diabetes%20Issue%20Brief%205-7-15.pdf>

⁵ Disease and Disadvantage in the United States and in England. Banks, Marmot, Oldfield, and Smith. JAMA. 2006; 295: 2037-2045.

⁶ Huge rise in UK diabetes cases threatens to bankrupt NHS, charity warns.. The Guardian. August 17, 2015. <http://www.theguardian.com/society/2015/aug/17/diabetes-bring-down-nhs-charity>

Oral Health

Oral health is important for overall health.¹ Good oral health helps us smile, speak, chew, smell, taste, swallow, touch, and make facial expressions that show emotions and feelings. Examples of oral diseases include cavities, gum disease, and mouth and throat cancers. Gum disease, in particular, has been linked to chronic diseases such as heart disease, stroke, and diabetes. Gum disease in pregnant women has been associated with low birth weight and premature birth. Regular dental care can help prevent many oral diseases.²

In 2012, 65.3% of Maine adults aged 18 years and older reported visiting a dentist or dental clinic for any reason in the past year. This figure did not change significantly between 1999 and 2012 (69.8% and 68.7%, respectively) and is comparable to the U.S. average of 67.2%. In 2014, 55.1% of MaineCare members under 18 years had a visit to a dentist during the prior year.

Oral health related measures chosen for the Maine Shared Community Health Needs Assessment include:

- Adults with dental care in past year
- MaineCare members under 18 with a visit to the dentist in the past year

Additional measures related to protective factors, risk factors, or diseases related to oral health can be found in several sections of the Maine Shared CHNA, including Environmental Health, Tobacco Use, Substance Abuse, Diabetes, and Cardiovascular Disease.

Prevalence estimates for oral health measures included in the Maine Shared CHNA vary across population groups in Maine. For example, males aged 18 years and older were significantly less likely (60.4%) than females (66.5%) to have received some type of dental care in the past year. In addition, adults in lower income groups or isolated areas were less likely to have visited a dentist or dental clinic for any reason in the past year. While some oral health measures varied by state or public health district, most Maine counties or districts (with the exception of Aroostook) were not consistently at increased risk.

Healthy Maine 2020 also has objectives related to oral health, including:³

- Increase proportion of adults 18+ with dental insurance
- Reduce the proportion of individuals who are unable to obtain or delay obtaining necessary dental care
- Reduce the proportion of children who have dental caries experience in their primary or permanent teeth

¹ U.S. Department of Health and Human Services. Healthy People 2020. Oral health: overview. Available from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=32>

² U.S. Department of Health and Human Services. Healthy People 2020. Leading health indicators: oral health overview and impact. Available from <http://www.healthypeople.gov/2020/LHI/oralHealth.aspx>

³ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

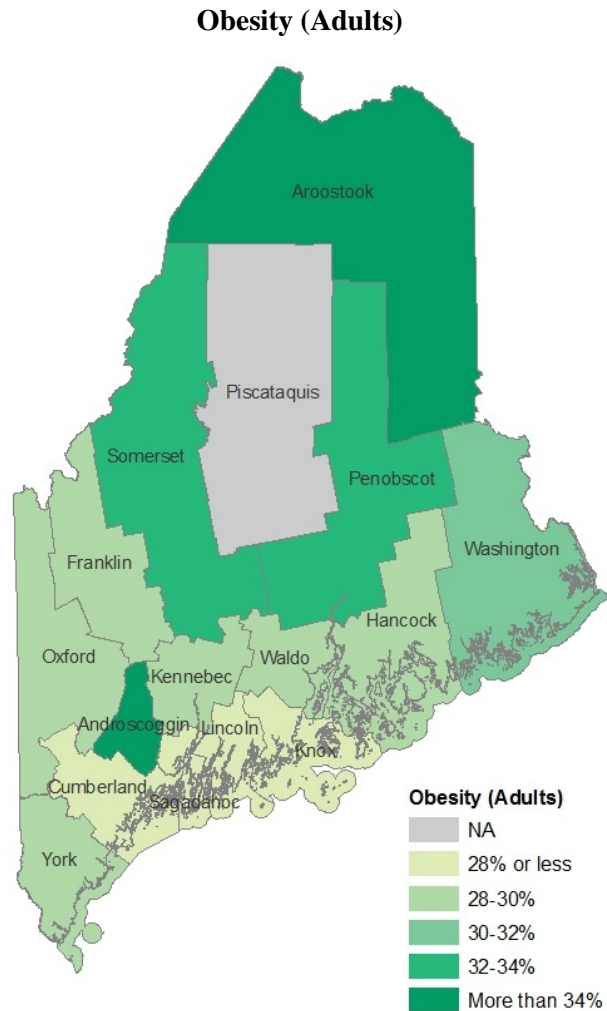
Physical Activity, Nutrition, and Weight

Eating a healthy diet, being physically active, and maintaining a healthy body weight are essential for an individual’s overall health. These three factors can help lower a person’s risk of developing conditions such as high cholesterol, high blood pressure, heart disease, stroke, diabetes, and cancer.¹ They can also help prevent cognitive decline and reduce the risk of Alzheimer’s Disease.⁴

In 2013, it was estimated that only one of every three Maine adults aged 18 years and older (33.7%) was at a healthy weight, while 69.7% of high school students were at a healthy weight. The percentage of adults who were overweight remained essentially the same between 2000 and 2013 (36.9% and 36.0%, respectively), while the percentage of adults who were obese increased significantly, from 20.3% to 28.9%. In 2013, only 43.7% of Maine high school students reported that they were physically active for a total of at least 60 minutes per day on five of the past seven days, significantly lower than the 47.3% reported nationally. The overweight and obesity rates among Maine high school students are 16% and 12.7%, respectively. This is comparable to the U.S. averages of 16.6% and 13.7%, respectively. Among students in Maine, 40.9% reported watching 2 or fewer hours of combined screen time (television, video games, computer, etc.) per day on an average school day.

Only 16.8% of Maine high school students reported drinking 100% fruit juice, ate fruit and/or ate vegetables five or more times per day during the preceding seven days. While consumption of less than 1 serving of fruit or vegetable were both significantly lower among Maine adults aged 18 years or older (34% and 17.9%, respectively) compared to the U.S. averages of 39.2% and 22.9%, respectively.

Sugar-sweetened beverages, such as non-diet soda, sports drinks and energy drinks provide little to no nutritional value, but their calories can lead to overweight and obesity along with health risks including tooth decay, heart disease and type 2 diabetes. Among high school students in



Maine 26.2% reported drinking at least one sugar sweetened beverage per day over the previous week.

The 2008 Physical Activity Guidelines for Americans recommends that adults age 18-64 get a minimum of 150 minutes of moderate-intensity physical activity a week and that children age 6-17 get 60 or more minutes of physical activity each day.² Among adults in Maine, 53.4% of adults met physical activity recommendations, while 23.3% lead a sedentary lifestyle, meaning they did not participate in any physical activity or exercise during the preceding month.

Physical activity, nutrition, and weight related measures chosen for the Maine Shared CHNA include:

- Physical activity among children
- No leisure time physical activity among adults
- Fruit and vegetable consumption among children and adults
- Overweight and obesity among children and adults
- Weight status according to body mass index among adults
- Combined screen time per day among children
- Soda/sports drink consumption among children

Estimates for physical activity, nutrition and weight measures in the Maine Shared CHNA vary across population groups in Maine. For example, male high school students were significantly more likely to be overweight or obese than were female students. Adults aged 18 years and older who identified themselves as non-Hispanic American Indian or Alaska Native were significantly less likely to be at a healthy weight than were non-Hispanic white adults. Adults in lower income groups and with less education were more likely than those with more education to report eating less than 1 serving of fruit or vegetables per day. The percentage of high school students that ate fruits and vegetables five or more times per day was significantly lower in Oxford, Penobscot, Washington and York counties than in the state as a whole.

Healthy Maine 2020 also has objectives related to physical activity, nutrition, and weight, including:³

- Reduce the proportion of children and adolescents who are considered obese
- Increase the proportion of adults who are at a healthy weight
- Increase the proportion of students who attend daily physical education (PE) at school
- Reduce the percentage of households experiencing food insecurity
- Increase fruit and vegetable consumption among adults and children

Additional objectives related to physical activity, nutrition, and weight can be found in other sections of Healthy Maine 2020, including Chronic Disease and Mental Health.

¹ U.S. Department of Health and Human Services. Healthy People 2020. Leading health indicators: nutrition, physical activity, and obesity overview and impact.

Available from <http://www.healthypeople.gov/2020/LHI/nutrition.aspx> (accessed 6/4/2013).

² Centers for Disease Control and Prevention. Youth online: high school YRBS. Available from <http://apps.nccd.cdc.gov/youthonline/App/Default.aspx> (accessed 6/4/2013).

³ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

⁴ Cardiovascular Risk Factors Associated with Smaller Brain Volumes in Regions Identified as Early Predictors of Cognitive Decline. Srinivasa, Rajiv, Srinivasa et al. Radiology, [ahead of print] 2015. <http://pubs.rsna.org/doi/abs/10.1148/radiol.2015142488>

Intentional Injury

Intentional, or violence-related, injury is an important public health problem that affects people of all ages.¹ Violence prevention activities include changing societal norms regarding the acceptability of violence, improving conflict resolution and other problem-solving skills, and developing policies to address economic and social conditions that can lead to violence.²

The following intentional injury related measures are included in the Maine Shared CHNA:

- Suicide deaths
- Self-harm by high school students
- Child maltreatment
- Intimate partner violence
- Domestic assaults
- Rape
- Firearm deaths
- Violent crime

Additional intentional injury related measures can be found in the mental health section of the Maine Shared CHNA.

Suicide is the 2nd leading cause of death among 15-34 year old Mainers and the 10th leading cause of death among all ages combined. 245 Maine residents died by suicide in 2013. There were 97 homicides in Maine in 2010-2013 combined. Maine's 2013 suicide rate (15.2 per 100,000 population) was significantly higher than the U.S. rate (13.0), while Maine's violent crime rate (which includes murder, rape, robbery and aggravated assault) was significantly lower than the U.S. rate (125 and 368 per 100,000 population, respectively). From 2009 to 2013, there have been an average of 5,369 domestic assaults and 376 reported rapes per year in Maine. These figures have remained seemingly unchanged from year to year during that same time period. The lifetime medical and work loss costs associated with all violence-related deaths that occurred among Maine residents in 2005 alone are estimated to be more than \$192 million (in 2005 dollars).⁸

While many people die as the result of intentional injury each year, many more survive and can be left with emotional and physical scars.¹ In 2013, for example, it was estimated that 17.9% of Maine high school students had purposely hurt themselves (e.g., cutting or burning) without wanting to die during the past year.

The occurrence of intentional injuries included in Maine Shared CHNA measures varies across population groups in Maine. For example, suicide is more common among males than females. Female high school students, though, are at higher risk than male students of intentionally harming themselves without wanting to die. Gay, lesbian, and bisexual high school students are far more likely than heterosexual students to report intentional self-harm without wanting to die;

while Asian and Native Hawaiian or Other Pacific Islander high school students were less likely to report intentional self-harm without wanting to die than any other race and ethnicity. The occurrence of intentional injuries varies by state and public health district, but no one particular state or district is at increased risk on all, or most, of the measures in the Maine Shared CHNA.

Healthy Maine 2020 also has objectives related to intentional injury, including:³

- Reduce the suicide rate
- Reduce nonfatal child maltreatment
- Reduce bullying among adolescents
- Reduce violence by current or former intimate partners
- Reduce rape or attempted rape

¹ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Violence prevention. Available from <http://www.cdc.gov/ViolencePrevention/index.html>

² U.S. Department of Health and Human Services. Healthy People 2020. Injury and violence prevention: overview. Available from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=24>

³ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

Unintentional Injury

Injuries are a leading cause of death and disability. While many people think of injuries as “accidents,” most are predictable and preventable.¹

Unintentional injury was the leading cause of death among 1-44 year old Mainers and the fourth leading cause of death among all ages combined in 2013. The leading causes of unintentional injury death in Maine were motor vehicle traffic incidents (10.8 deaths per 100,000 population compared to 10.7 for the U.S.), poisoning (11.1 deaths per 100,000 population compared to 12.3 for the U.S.), and falls (6.8 deaths per 100,000 population compared to 8.5 for the US). Among Maine high school students only 61.6% reported they always wear a seatbelt when riding in a car. This is significantly lower than the U.S. average of 89%. The lifetime medical and work loss costs associated with all unintentional injury deaths that occurred in Maine in 2005 alone are estimated to be more than \$500 million (in 2005 dollars).²

Unintentional injury related measures chosen for the Maine Shared CHNA include:

- Traumatic brain injury emergency department visits
- Emergency department visits due to falls among adults 65 and over
- Fall-related deaths
- Unintentional and undetermined poisoning deaths
- Motor vehicle traffic deaths
- Adult seatbelt use
- Youth seatbelt use

Additional unintentional injury related measures can be found in the Environmental Health and Occupational Health sections of the Maine Shared CHNA.

The occurrence of unintentional injuries and preventive behaviors included in Maine Shared CHNA measures vary across population groups in the state. For example, males are at higher risk of motor vehicle traffic deaths, fall-related deaths, unintentional and undetermined intent poisoning deaths, and emergency department visits related to traumatic brain injury, while females are at higher risk of fall-related emergency department visits. High school students of color (except Asian) are less likely than white students to report they always wear seat belts when riding in a car. Injury risk also varies by state and public health district; Somerset State was at significantly increased risk on four of the seven unintentional injury measures, more than any other state in the state.

Healthy Maine 2020 also has objectives related to unintentional injury, including:³

- Reduce motor vehicle crash related deaths
- Prevent an increase in the rate of poisoning deaths (all intents and unintentional or undetermined intent)
- Reduce emergency department visits due to unintentional falls among older adults

- Reduce the rate of infant death
 - Reduce the rate of injury and illness cases involving days away from work due to overexertion
 - Reduce the rate of injury and illness cases involving days away from work due to repetitive motion
 - Reduce deaths from work-related injuries
 - Reduce nonfatal work-related injuries
-

¹ Healthy People 2020. Injury and violence prevention: overview.

Available from: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=24>

² Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Cost of injury reports.

Available from: <http://wisqars.cdc.gov:8080/costT/> (accessed 3/21/2013).

³ Maine Center for Disease Control and Prevention. Healthy Maine 2020.

Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>

Mental Health

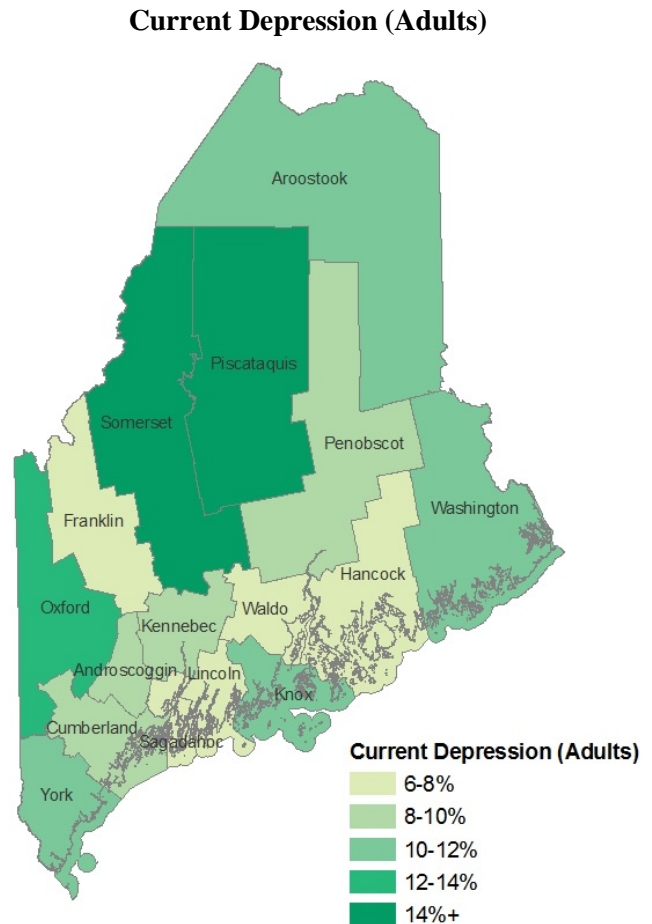
A person's ability to carry on productive activities and live a rewarding life is affected not only by physical health but by mental health. Mental health is a complex issue that can impact many facets of a person's daily life. In the U.S., about one in four adults and one in five children have diagnosable mental disorders, and they are the leading cause of disability among ages 15-44.² Mental well-being can also affect a person's physical health in many ways.¹

According to the World Health Organization, mental illnesses account for more disability in developed countries than any other group of illnesses, including cancer and heart disease.² Mental health is a broad issue with many facets to consider. The most common mental health disruptions are mild and may fall short of a diagnosable condition, though they still impact daily functioning for many.³ Stigma, additional health issues and complexities of treatment delivery also prevent many from receiving adequate treatment for their mental health issues.

Mental health related measures chosen for the Maine Shared CHNA include:

- Mental health emergency department rates
- Sad/hopeless - 2 weeks in a row (youth)
- Seriously considered suicide (youth)
- Lifetime anxiety (adults)
- Lifetime depression (adults)
- Co-morbidity for persons with mental illness
- Adults with current symptoms of depression
- Adults outpatient mental health treatment in past 12 months

Additional measures related to mental health can be found in several sections of the Maine Shared CHNA, including Demographics (disability status), General Health and Mortality, Maternal and Child Health, and Intentional Injury.



As the connections between mental and physical health, are more widely recognized, the need for a public health approach to mental health is gaining recognition as well. Comprehensive, population-based approaches to promoting mental health are currently primarily focused on early identification and linkages to care for those with mental health needs, and the prevention of mental illness still lacks a strong base of evidence-based practices. Many traditional sources of mental health data have been focused on those people who receive mental health services paid for through public health insurance, an especially vulnerable population. However, some population-based data on mental health diagnoses as well as some symptoms are collected through public health surveillance systems.

In Maine, the Behavioral Risk Factor Surveillance System asks adults about lifetime diagnoses of anxiety and depression, and current depression. In 2013, these rates were 18.8%, 23.4% and 9.9%, respectively, with no significant changes from 2006 to 2013. In addition, 17.4% of Maine adults reported taking medicine or receiving treatment from a doctor for some type of mental health condition or emotional problem in 2013. The Maine Youth Integrated Health Survey asks middle and high school students about feeling sad or hopeless every day for two or more weeks and asks high school students whether they have seriously considered suicide. In 2013, 23.3% of middle school students and 24.3% of high school students felt sad or hopeless. 14.6% high school students reported seriously considering suicide. In 2011, the state's emergency department visits rate for mental health disorders (excluding substance use related disorders) was 1,972 per 100,000 population.

Women and girls have higher rates for nearly all of the mental health indicators in the Maine Shared CHNA. Heterosexuals have lower rates than others for the indicators for which sexual orientation data is available. White, non-Hispanics have lower rates, while American Indian and Native Alaskans and Hispanics have higher rates for most of these indicators. Those over the age of 64 report these conditions less often than other age groups, except for Alzheimer's and related dementias. Lower incomes and education are associated with higher rates of ever been diagnosed with depression, anxiety, current depression and co-morbidities. Those with a college or technical school degree tend to have lower rates of all of the mental health indicators in the Maine Shared CHNA, and those with less than a high school education report higher rates.

Healthy Maine 2020 also has objectives related to mental health, including:⁴

- Mental health emergency department rates per 100,000
- Sad/hopeless - 2 weeks in a row (high school students)
- Seriously considered suicide (high school students)
- Lifetime anxiety (adults)
- Lifetime depression (adults)
- Adults with current symptoms of moderate or severe depression
- Alzheimer's disease, dementia & related disorders diagnoses per 1000
- Co-morbidity for persons with mental illness (People with depression or anxiety, and any of: diabetes, Asthma, hypertension)
- Primary care facilities that provide mental health treatment onsite or by paid referral

- Healthy behaviors of people with mental health issues (fruits and vegetable consumption, physical activity, heavy drinking, and smoking)
- Children with mental health problems who receive treatment
- Adults with mental health disorders who receive treatment
- Persons with co-occurring substance abuse and mental disorders who receive treatment for both disorders
- Suicide deaths per 100,000
- Bullying among high school students
- Non-fatal child maltreatment

¹ US Department of Health and Human Services. Health People 2020: Mental Health and Mental Disorders. 2012 Available from: www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=28.

² Guide to Community Preventive Services. Improving mental health and addressing mental illness. www.thecommunityguide.org/mentalhealth/index.html.

³ Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, Mental Health: A Report of the Surgeon General. 1999, U.S. Department of Health and Human Services: Rockville, MD.

⁴ Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

Occupational Health

Workplace environments and activities have an enormous impact on health. Work-related illnesses and injuries include any illness or injury incurred by an employee engaged in work-related activities while on or off the worksite.¹ Nationally, millions of workers are injured or fall ill every year due to hazards in their workplaces.² While research, interventions in the form of policies and changes in the work environment have made significant improvements in the safety of workplaces, shifting employment and work patterns present new challenges.¹

From 2009 to 2013, a total of 100 Maine workers died as a result of workplace hazards. Maine's high proportion of workers in farm, forest and fishing industries puts a greater number of Maine workers' at risk for fatal injuries on the job.²

Occupational health measures chosen for the Maine Shared CHNA include:

- Deaths from work-related injuries
- Non-fatal work-related injuries

Additional measures related to occupational health can be found in several sections of the Maine Shared CHNA, including Unintentional Injury, Respiratory Health and Environmental Health.

Significantly more men die due to work-related injuries than women. Occupations with the most number of work-related fatalities include Transportation & Material Moving, Farming, Forestry, and Fishing, and Construction & Extraction, while the health care and social assistance industry has the highest number of work-related non-fatal injuries. It should be noted that these numbers are not rates, and may not take into account differences in the number of workers in these industries, nor do they reflect the cause of the injury.³ The majority of Maine's worker fatalities are the result of transportation incidents across industries. The most common injury-causing events, in order, were overexertion in lifting and falling on floors or other surfaces.²

Healthy Maine 2020 also has objectives related to occupational health, including:¹

- Reduce the rate of injury and illness cases involving days away from work due to overexertion
- Reduce the rate of injury and illness cases involving days away from work due to repetitive motion
- Reduce deaths from work-related injuries
- Reduce nonfatal work-related injuries

¹ Healthy People 2020, Occupational Safety and Health

<http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=30>

² Maine Center for Disease Control and Prevention. Healthy Maine 2020.

Available from <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>

³ Maine Center for Disease Control and Prevention. Maine Shared Community Health Needs Assessment – 2012.

Available from <http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml>

Substance Abuse

The deliberate use and overuse of harmful substances has a serious impact on the quality of life of Maine people. As a result of substance abuse, the lives of Maine residents have been shorter and less safe. Substance abuse and dependence are preventable health risks that contribute to injuries, violence, cerebrovascular disease, liver disease, cancer, and much more.

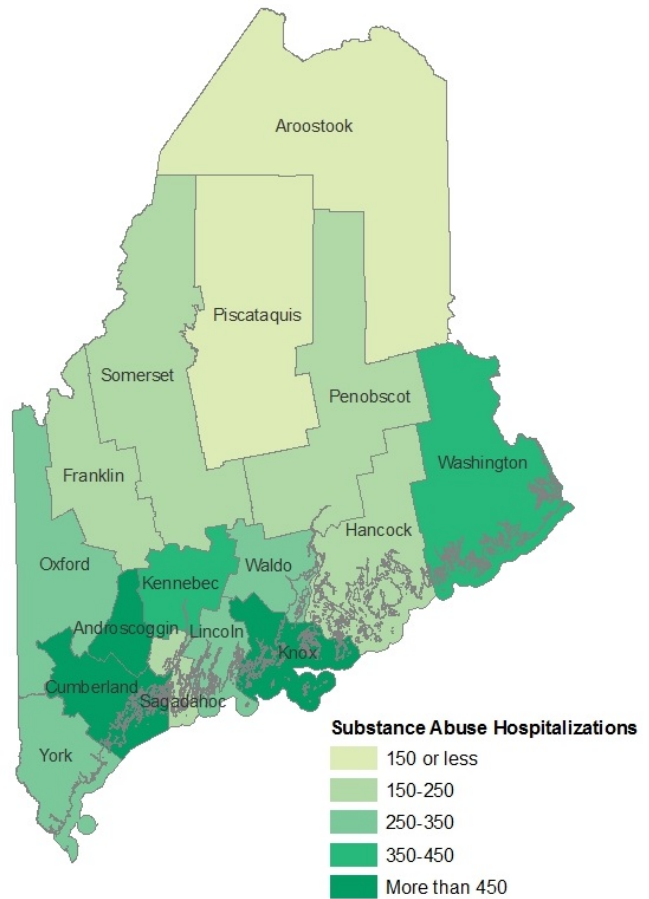
Substance abuse leads to greater medical costs through an increase in related diseases and also adversely impacts productivity and increases rates of crime and violence.¹ In 2010, approximately \$300 million was spent in Maine on medical care where substance use was a factor. Overall substance abuse was estimated to have cost the state 1.4 billion dollars or \$1,057 for every Maine resident.¹

Heroin abuse is a problem of rising concern. Nationally, the number of people addicted to heroin has more than doubled in the last decade from 214,000 in 2002 to 517,000 in 2013,⁴ and deaths from heroin overdoses nearly quadrupled in that same time period.⁵

The heroin problem in Maine has become a focus of national attention.⁶ In Maine, new formulations and low street price have combined to make heroin more potent, available, and affordable.^{7,8} Deaths from heroin overdoses in Maine rose from seven in 2010 to 57 in 2014,⁹ and that number continues to climb in 2015.¹⁰ In Maine, in 2014, heroin accounted for 32 % of all arrests made by the Drug Crimes Task Force of the Maine Drug Enforcement Agency (MDEA), according to MDEA Commander Peter Arno, who oversees the northern half of the state.¹¹ In Portland, the number of addicts served by the needle exchange program nearly doubled in just two years.¹² In response to this public health crisis, the White House recently announced that the Office of National Drug Control Policy would spend \$2.5 million to hire public safety and public health coordinators to focus on the treatment of addicts in the Northeast States.¹³

There were 144 alcohol-induced and 183 drug-induced deaths in 2013 in Maine. These rates of 8.5 and 13.2 per 100,000 population have not changed significantly over the past 10 years and

Substance Abuse Hospitalizations



are not significantly different from the U.S. rates of 9.2 and 14.7, respectively. Hospitalization and emergency department visits rates for opiate poisoning in Maine were 13.2 and 25.1 per 100,000 population in 2011, while the substance abuse hospitalization rate was 328 per 100,000 population. The number of emergency medical service (EMS) overdose responses in the state in 2014 was 391 per 100,000 population, which includes overdoses for drugs, alcohol and inhalants.

The number of drug affected babies born to Maine residents in 2014 was 961, which represents 7.8% of all babies born to mothers in the state. The number of births of this type has increased from 927 in 2013 and 772 in 2012.

Heavy alcohol consumption among Maine adults over the age of 18 was 7.2% in 2013, while 17.2% reported binge drinking and 1.1% misuse of prescription drugs. While state-level estimates of other drug use are available from other data sources, these are beyond the scope of the Maine Shared CHNA.

Among high school students in Maine, more than 1 in 4 (26%) reported current alcohol use in 2013. In addition, 14.8% reported binge drinking, 21.6% reported marijuana use, 3.2% reported inhalant use and 5.6% reported misuse of prescription drugs. While only limited trend data is available, alcohol use and prescription drug use decreased statewide from 2009 to 2013.

Substance Abuse measures chosen for the Maine Shared CHNA include:

- Binge drinking of alcoholic beverages (High school students)
- Binge drinking of alcoholic beverages (Adults)
- Chronic heavy drinking (Adults)
- Drug affected baby referrals received
- Drug-induced mortality
- Emergency medical service overdose response
- Opiate poisoning (ED visits)
- Opiate poisoning (hospitalizations)
- Past 30 day alcohol use (High school students)
- Past 30 day Inhalant use (High school students)
- Past 30 day marijuana use (Adults)
- Past 30 day marijuana use (High school students)
- Past 30 day nonmedical use of prescription drugs (Adult)
- Past 30 day nonmedical use of prescription drugs (High school students)
- Prescription Monitoring Program opioid prescriptions (Days supply/population)
- Substance abuse hospital admissions

Additional measures related to substance abuse can be found in several sections of the Maine Shared CHNA, including Maternal and Child Health and Tobacco Use. In addition, the Office of

Substance Abuse and Mental Health Services produces annual reports on substance abuse in Maine.

Men in Maine continue to be more affected by substance abuse than women, with higher rates of alcohol-induced deaths (13.6 per 100,000 population versus 3.8), drug-induced deaths (17.3 per 100,000 versus 10.5) and binge-drinking (22.2% versus 12.5%) in 2013. This is also true for adolescents. For example, nearly 1 in 4 (24.4%) of male high school students reported current marijuana use in 2013, while less than 1 in 5 (18.7%) of their female classmates did.

Sagadahoc and Oxford County youth generally have higher rates for most substance-use related indicators than youth in other counties, with over 7.9% of Sagadahoc high school students reporting misuse of prescription drugs, and 16.6% and 26.8% of Oxford County high school students reporting binge drinking and current marijuana use, respectively. Aroostook County youth and adults generally reported lower levels of substance use. For example, only 5.0% of Aroostook County high school students reported misusing prescription drugs in 2013, and only 5.0% of Aroostook County adults over the age of 18 reported chronic heavy drinking.

While limited data is available for adults and youth, substance abuse in Maine disproportionately affects American Indians, Pacific Islanders, and Hispanics. For example, nearly 1 in 5 (19.8%) Native Americans high school students report binge drinking, while 26.9% of Hispanics and 29.1% of Pacific Islanders do so. These disparities are also present in reported current use for all the adolescent substance abuse indicators in the Maine Shared CHNA.

Similarly, lesbian, gay and bisexual youth have higher rates of substance abuse, with 15.6% of lesbian and gay high school students and 12.9% of bisexual high school students reporting misuse of prescription drugs.

Healthy Maine 2020 also has objectives related to substance abuse, including:³

- Binge drinking - HS students (2011)
- Binge drinking - adults (2009)
- Lifetime use of Illicit drug use among HS students (2011)
- Nonmedical use of prescription drugs - HS students (2011)
- Past-year nonmedical use of prescription drugs - adults (2011)
- Persons who need alcohol and/or illicit drug treatment and received specialty treatment for abuse or dependence in the past year

¹ Maine Office of Substance Abuse and Mental Health Services, *The Cost of Drug and Alcohol Abuse in Maine*, 2010. 2013: Augusta, ME. Available from <http://www.maine.gov/dhhs/samhs/osa/data/pubrpts.htm>

² Maine Center for Disease Control and Prevention. *Maine Shared Community Health Needs Assessment – 2012*. Available from <http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml>

³ Maine Center for Disease Control and Prevention. *Healthy Maine 2020*. Available from: <http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml>.

⁴ Trends in Heroin Use in the United States: 2002 to 2013, The CBHSQ Report, April 23, 2015. Substance Abuse and Mental Health Services Administration. Available at:
http://www.samhsa.gov/data/sites/default/files/report_1943/ShortReport-1943.pdf

⁵ Increases in Heroin Overdose Deaths - 28 States, 2010 to 2012. MMWR, October 3, 2014, 63(39); 849-854. Centers for Disease Control and Prevention. Available at:
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6339a1.htm>

⁶ Heroin in New England, More Abundant and Deadly. The New York Times. July 18, 2013.
http://www.nytimes.com/2013/07/19/us/heroin-in-new-england-more-abundant-and-deadly.html?_r=0

⁷ Interview with Chemist Jamie Foss of the Health and Environmental Testing Lab., WCSH News, August 6, 2015. Available at: <http://www.wcsh6.com/story/news/health/2015/08/06/heroin-coming-into-maine-more-potent-deadly/31243347/>

⁸ And Then He Decided Not To Be. Marc Fisher. The Washington Post, July 25, 2015.
<http://www.washingtonpost.com/sf/national/2015/07/25/and-then-he-decided-not-to-be/#>

⁹ Heroin Deaths in Maine Jump – Record Level of Overdose Deaths in 2014. May 15, 2015. Office of the Chief Medical Examiner (OCME) of the Office of the Maine Attorney General. Available at:
<http://www.maine.gov/ag/news/article.shtml?id=644190>

¹⁰ First half of 2015 shows pace of drug deaths has not slowed – Heroin, Fentanyl deaths continue to surge. August 20, 2015. Office of the Chief Medical Examiner (OCME) of the Office of the Maine Attorney General. Available at: <http://www.maine.gov/ag/news/article.shtml?id=653671>

¹¹ ‘We’re losing the battle’: Heroin infiltrates small-town Maine. Bangor Daily News. July 13, 2015.
<http://bangordailynews.com/2015/07/13/health/were-losing-the-battle-heroin-infiltrates-small-town-maine/>

¹² Hypodermic Apparatus Exchange Programs Report for 2014. Maine Center for Disease Control and Prevention, March 27, 2015. Available at: <http://www.maine.gov/dhhs/reports/2015/Hypodermic-Apparatus-Exchange-Programs.pdf>

¹³ U.S. Budgets Cash to Treat Heroin Abuse in Northeast. The New York Times. August 17, 2015.
http://www.nytimes.com/2015/08/18/us/white-house-plan-to-combat-heroin-abuse-focuses-on-treatment.html?_r=1

Stakeholder Input

In the spring of 2015, the Maine Shared CHNA research team conducted a survey among stakeholders to identify and prioritize significant health issues in communities across the state. The purpose of the survey was to include the voice and broad interests of local stakeholders about community health needs in their areas. The survey instrument was designed in collaboration with the Maine Shared CHNA Steering Committee and work groups and covered four domains of questions:

- Stakeholder demographic information
- Health issues with the greatest impact
- Determinants of health
- Health priorities and challenges.

The survey was administered using a snowball approach where stakeholder agencies agreed to send the surveys to their members and stakeholders for participation. Statewide, 1,639 people completed the survey. Respondents represented health care agencies, public health agencies, law enforcement, municipalities, schools, businesses, social service agencies, and non-governmental organizations.

The results of the stakeholder survey are presented below.

Demographics of Respondents

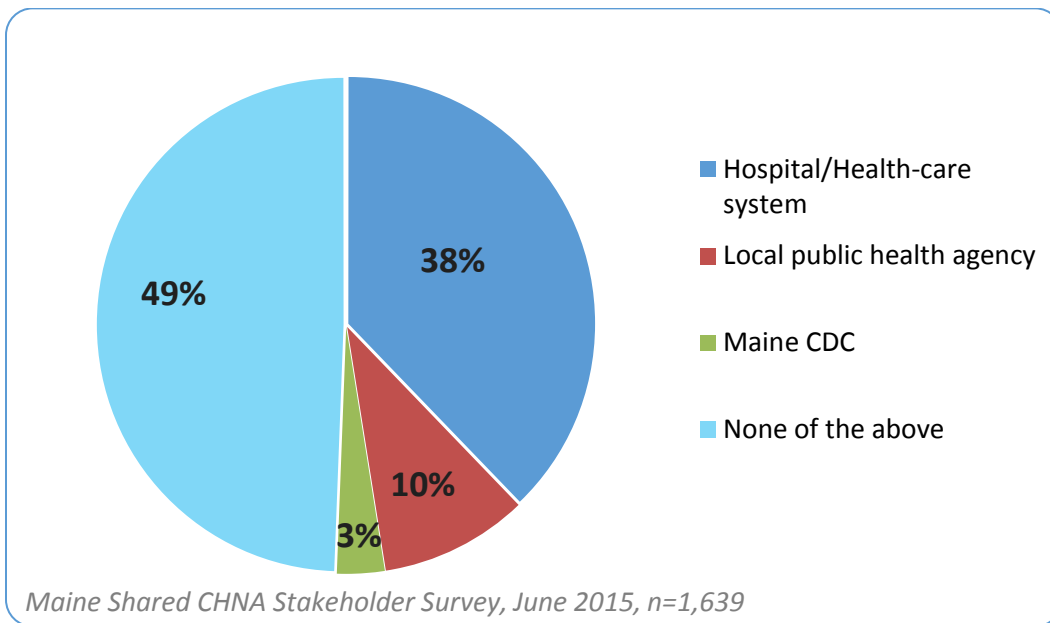
The following results summarize the 1,639 respondents by sector, organization, geography and work with health disparate populations. Nearly one-quarter (22%) of respondents were medical care providers or worked at a hospital system while 14% were involved with a non-profit or social service agency and 11% public health. Nearly 1 in 10 respondents were business owners or employees (9%).

Table 7: Sectors that best describe respondents role or organization

Sector	%
Medical Care Provider/Hospital	22%
Other Non-Profit Or Social Service Agency	14%
Public Health	11%
Business Owner Or Employee	9%
Educator	8%
Other Type Of Health Care Organization	8%
Behavioral/Mental Health Provider	6%
Local Government	4%
Other Governmental Agency	3%
Youth-Serving Organization	2%
Faith-Based Organization	1%
Other	13%

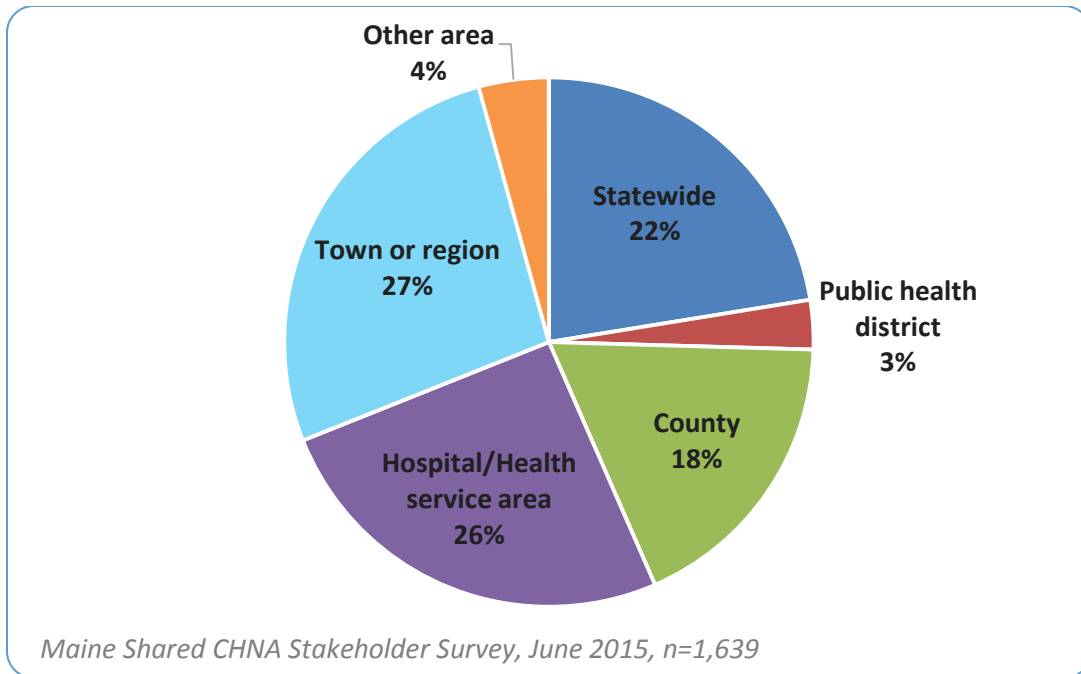
**Percentage of respondent in corresponding sector*

Figure 1: Health agency/organization stakeholders represent



In order to understand more about the health issues at all levels of the state, respondents were asked the geographical area that they primarily served or worked in. Nearly one-quarter (22%) said that they worked statewide or represented statewide interests, while 18% worked at the county level, 26% at the hospital or health service area, and 27% at the town or region level.

Figure 2: Geographical area that respondents primarily serve



One-quarter of respondents reported that their work focuses on one or more population groups with health disparities, while nearly half said they are involved with populations with health disparities in some capacity, but it is not their primary focus. The most common populations that respondents work with include low-income and those in poverty (77%), the medically underserved (63%), and those with physical or mental disabilities (58%).

Figure 3: Does your organization work with specific groups of people or populations recognized as being at risk of, or experiencing, higher rates of health risk or poorer health outcomes than the general population within your area? Respondents answered:

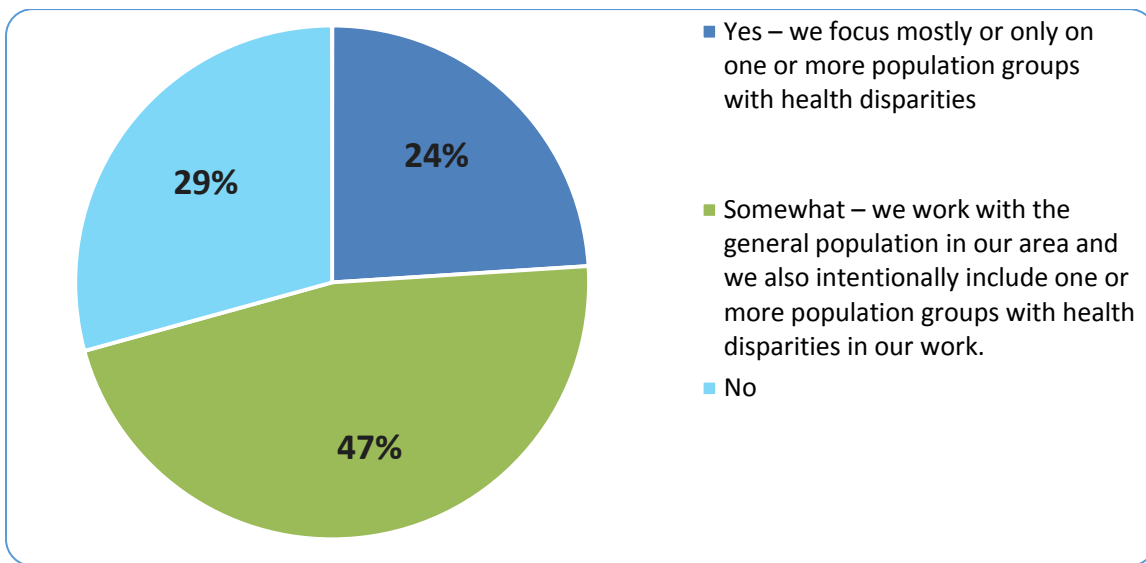


Table 8: Respondents’ organization/agency provides direct resources to these populations

Population	%
Low-income, including those below the federal poverty limit	77%
Medically-underserved - including uninsured and under-insured	63%
People with disabilities - physical, mental, or intellectual	58%
Less than a high school education and/ or low literacy (low reading or math skills)	47%
Very rural and/or geographically isolated people	47%
Women	44%
Limited or no English proficiency	38%
Gay, lesbian, bisexual or transgendered people	36%
Deaf and hard of hearing people	35%
Military veterans	34%
Refugees/immigrants	28%
Racial/ethnic minority populations	27%
Members of any federally recognized tribe	25%
Specific age group	21%
Other	15%

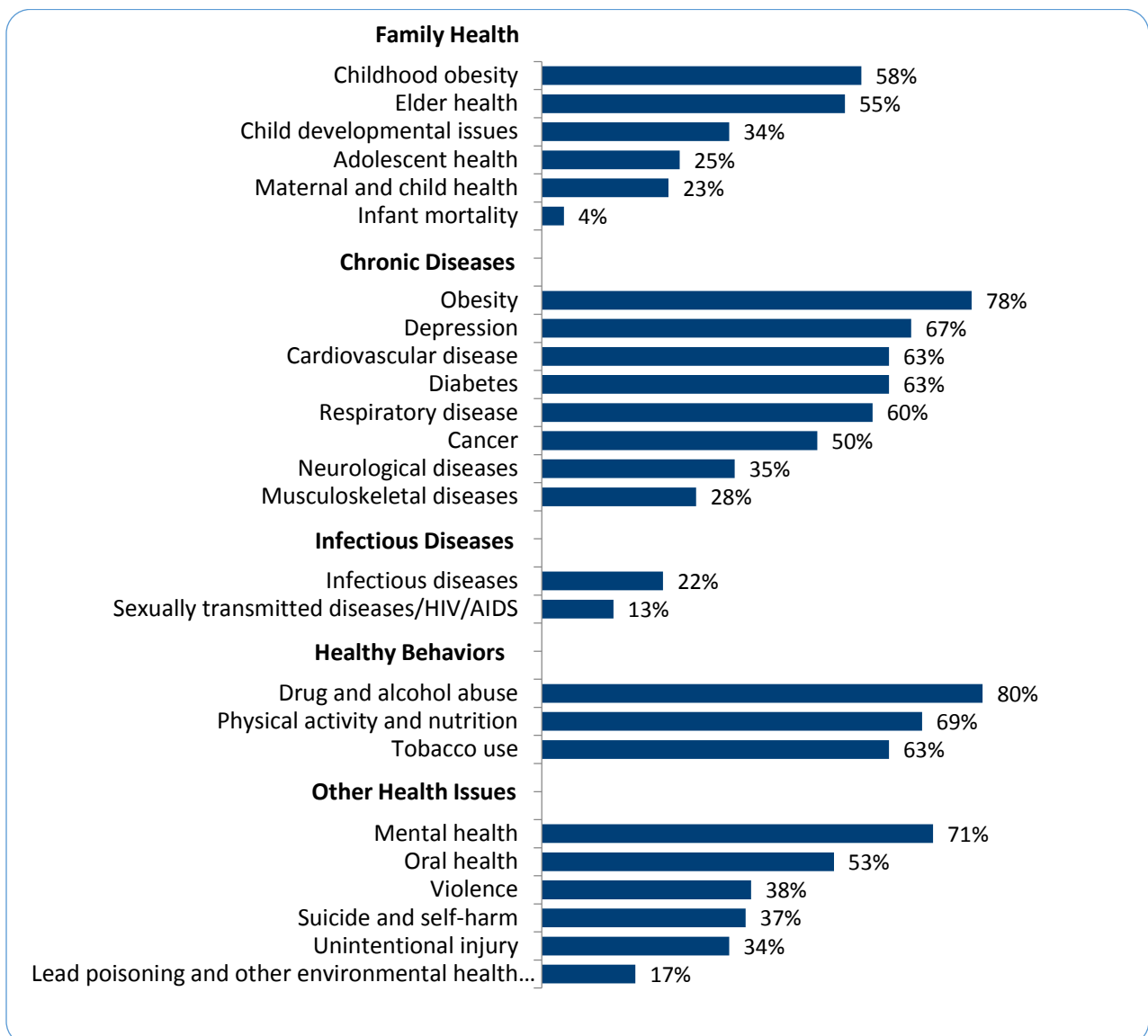
Top Health Issues

Statewide, stakeholders ranked a set of 25 health issues using the criteria, “How you feel [health issue] impacts the overall health of residents?” The question used a five-point scale where 1 is “not at all a problem” and 5 is a “critical problem.” The top ten issues of concern reported by stakeholders in the survey are:

- **Drug and alcohol abuse**
- **Obesity**
- **Mental health**
- **Physical activity and nutrition**
- **Depression**
- **Tobacco use**
- **Diabetes**
- **Cardiovascular diseases**
- **Respiratory diseases**
- **Childhood obesity**

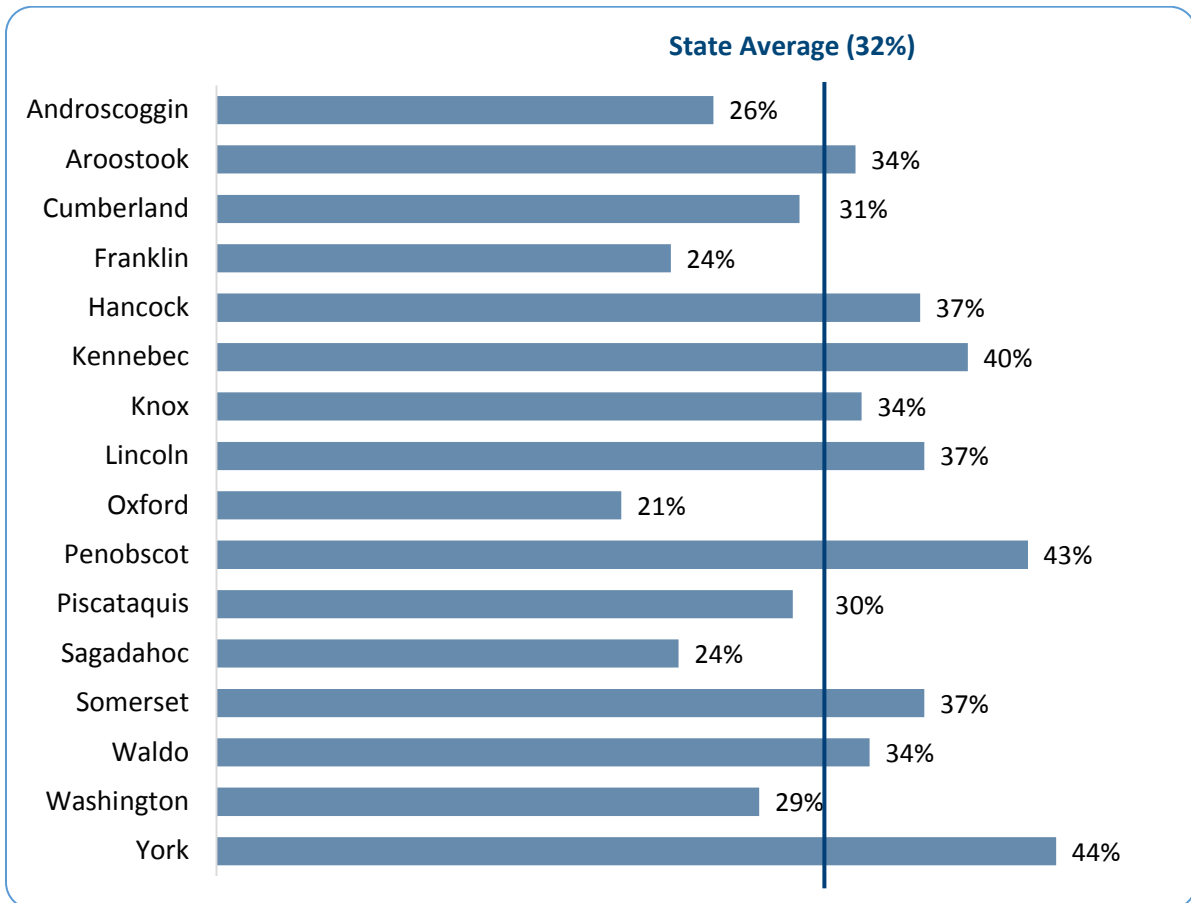
The full rating of all health issues is presented in the figure below.

Figure 4: Stakeholder rating of health issues (% of those rating the health issue as a major or critical problem in their area)



Respondents were asked the degree to which the health needs of their area or community were being addressed (where: 1 = not addressed at all and 5 = completely addressed). Overall, only about one-third of stakeholders felt the health needs of their area were being adequately addressed. This ranged from a low of 21% in Oxford County to a high of 44% in York County.

Figure 5: Degree to which respondents feel the health needs of their area are being addressed (% reporting mostly or completely addressed)



Respondents were asked four probing follow-up questions for each of their priority health issues to understand more about the issues in each region:

1. The present health system has the ability to significantly improve this health issue with the current investment of time and resources.
2. There are sufficient resources available to improve this health issue.
3. Significant health disparities exist among certain groups of people for this health issue.
4. There are key social or environmental factors that lead to increased problems with this health issue.

Table 9: Summary of Follow-up Questions about Health Issues (Percentage that agree with statement)*

Health Issue	1. This issue can be improved	2. Sufficient resources are available	3. Significant health disparities exist	4. Key social or environmental factors exist
Family Health				
Adolescent health	33%	19%	81%	85%
Child developmental issues	36%	19%	84%	83%
Childhood obesity	34%	21%	85%	88%
Elder health	40%	22%	78%	78%
Infant mortality	44%	33%	78%	78%
Maternal and child health	42%	33%	77%	77%
Chronic Diseases				
Cancer	50%	36%	68%	66%
Cardiovascular diseases	52%	36%	67%	77%
Diabetes	47%	32%	73%	77%
Musculoskeletal diseases	45%	31%	59%	55%
Neurologic diseases	30%	17%	57%	57%
Obesity	38%	21%	83%	87%
Respiratory diseases	51%	26%	79%	77%
Infectious Diseases				
Infectious diseases	45%	27%	51%	65%
Sexually transmitted diseases/HIV/AIDS	42%	26%	77%	84%
Healthy Behaviors				
Drug and alcohol abuse	25%	10%	80%	87%
Physical activity and nutrition	45%	27%	86%	86%
Tobacco use	52%	31%	81%	86%
Other Health Issues				
Lead poisoning and other environmental health issues	33%	13%	88%	83%
Mental health	25%	12%	81%	83%
Oral health	37%	22%	91%	89%
Suicide and self-harm	33%	22%	73%	73%
Unintentional injury	35%	15%	65%	62%
Violence	35%	22%	73%	80%
Depression	30%	16%	79%	83%
Other	22%	30%	81%	81%

*Percentage of respondents who strongly or somewhat agree with the proposed statement

An additional follow-up question asked respondents to identify the resources that were available to address the health issue (if they agreed that sufficient resources were available) or to identify the resources that were not available but that were needed (if they did not agree that sufficient

resources were available). A summary of respondent statements for these questions is provided below for the top health issues in the state as identified by stakeholders.

Resources and Assets Identified by Stakeholders for Top Health Issues*		
Drug and Alcohol Abuse (25% agreed that sufficient resources were available)	Available	Hotlines; Office of Substance Abuse and Mental Health Services; Maine Alcoholics Anonymous.
	Needed	Greater access to drug/alcohol treatments; Greater access to substance abuse prevention programs; Free or low-cost treatments for the uninsured; More substance abuse treatment providers; Additional therapeutic programs.
Obesity/Childhood Obesity (36%)	Available	YMCA's (Public gyms); Farmers Markets; Maine SNAP-ED Program; School Nutrition Programs; Public Walking, Biking & Hiking Trails; Healthy Maine Partnerships; Let's go! 5210; Cooking Matters; Healthy Maine Walks; After School Programs; Summer Nutrition Programs; Workplace wellness programs.
	Needed	Better access to healthy food.
Mental Health/Depression (28%)	Available	Mental health/counseling providers or programs; Office of Substance Abuse and Mental Health Services.
	Needed	More mental health counselors/professionals; More community-based services; More funding and support; More access to inpatient care; Readily available information about resources; Transitional programs.
Physical Activity and Nutrition (45%)	Available	YMCA's (Public gyms); Farmers Markets; Maine SNAP-ED Program; School Nutrition Programs; Public Walking, Biking & Hiking Trails; Healthy Maine Partnerships; Let's go! 5210; Cooking Matters; Healthy Maine Walks; After School Programs; Summer Nutrition Programs; Workplace wellness programs.
	Needed	Better access to healthy food.
Diabetes (47%)	Available	National Diabetes Prevention Program; Free screenings; YMCA's (Public gyms); Education programs; School nutrition programs; Diabetes and Nutrition Center; Maine CDC DPCP.
	Needed	Funding; Diabetes Self-Management Education Programs (Washington County).
Cardiovascular Diseases (52%)	Available	Hospitals; Primary Care Providers; YMCA's (Public gyms); Education programs.
	Needed	-

*Percentage of respondents who agree that there are sufficient resources available to improve this health issue.

Stakeholders also were asked to share their thoughts on the populations experiencing health disparities. Table 10 presents these results for the top 10 health conditions identified in the survey.

Table 10. Populations with Health Disparities among Top Health Issues in Maine

Health Disparities	Childhood obesity	Cardiovascular diseases	Diabetes	Obesity	Respiratory diseases	Drug and alcohol abuse	Physical activity and nutrition	Tobacco use	Mental health	Depression
Low- income, including those below the federal poverty limit.	94%	80%	89%	87%	79%	85%	90%	90%	79%	76%
Medically-underserved - including uninsured and under-insured	60%	78%	78%	70%	70%	63%	59%	62%	74%	68%
Less than a high school education and/ or low literacy (low reading or math skills)	72%	52%	66%	61%	48%	67%	65%	74%	56%	52%
Very rural and/or geographically isolated people	46%	54%	47%	44%	40%	49%	58%	40%	56%	53%
People with disabilities - physical, mental, or intellectual	31%	37%	46%	47%	30%	41%	56%	37%	63%	61%
Limited or no English proficiency	7%	21%	25%	12%	16%	14%	17%	16%	21%	20%
Military veterans	1%	14%	9%	4%	6%	34%	4%	29%	43%	43%
Gay, lesbian, bisexual or transgendered people	1%	3%	3%	4%	-	30%	2%	33%	36%	34%
Women	4%	18%	5%	15%	2%	17%	11%	8%	20%	22%
Members of any Federally-recognized Tribe	10%	11%	13%	12%	5%	21%	13%	15%	19%	17%
Refugees/immigrants	4%	10%	9%	4%	5%	8%	6%	3%	20%	18%

* Percentage of stakeholders who agreed that significant disparities exist among this group for a specific health condition.

Stakeholders also pointed out that there are key social or environmental drivers in Maine that lead to these health issues. Table 11 shows how stakeholders reported the key drivers or factors that lead to the top health issues in their regions.

Table 11. Key Drivers of Top Health Issues in Maine

Key Drivers	Childhood obesity	Cardiovascular diseases	Diabetes	Obesity	Respiratory diseases	Drug and alcohol abuse	Physical activity and nutrition	Tobacco use	Mental health	Depression
Poverty/low income/low socio-economic status	41%	36%	46%	40%	30%	30%	37%	40%	27%	37%
Lack of education	37%	25%	26%	31%	11%	11%	22%	43%	15%	12%
Lack of access to healthy foods	33%	15%	21%	28%	-	-	29%	-	1%	-
Bad eating habits	36%	26%	24%	26%	-	-	13%	-	1%	1%
Lack of access to physical activity opportunities	31%	7%	13%	25%	-	-	47%	-	-	1%
Lack of access to behavioral care/mental health care	-	1%	1%	-	-	3%	-	1%	44%	34%
Isolated and rural areas	6%	7%	15%	9%	4%	11%	16%	6%	14%	26%
Inadequate health literacy	7%	12%	13%	9%	6%	8%	9%	7%	-	1%
Cultural or social norms	10%	5%	9%	9%	4%	22%	8%	38%	4%	7%
Lack of transportation	4%	12%	13%	8%	4%	6%	12%	3%	11%	18%
Lack of access to treatment	1%	7%	5%	2%	9%	33%	6%	7%	2%	1%
Lack of employment opportunities	2%	2%	1%	2%	2%	17%	1%	7%	6%	6%
Social attitudes (discrimination, stigma, etc.)	7%	2%	3%	2%	2%	14%	-	7%	34%	29%
Lack of health care insurance	1%	9%	5%	2%	9%	5%	1%	1%	10%	9%
Adverse childhood experiences	6%	1%	-	2%	2%	3%	1%	1%	5%	4%
Substance use/addiction	1%	22%	2%	2%	36%	2%	2%	10%	5%	9%
Lack of access to primary care	5%	22%	10%	2%	9%	-	1%	3%	3%	1%
Personal responsibility	2%	5%	9%	8%	13%	4%	6%	1%	3%	1%
Apathy/depression/hopelessness	2%	2%	3%	5%	2%	11%	6%	6%	2%	5%
Food insecurity	2%	-	4%	4%	-	-	1%	1%	1%	1%
Lack of exercise	-	12%	6%	3%	-	-	1%	-	-	-
Lack of social support and interactions-positive	4%	-	2%	2%	-	14%	4%	1%	1%	7%
Mental illness	-	2%	-	2%	-	2%	1%	6%	2%	3%
Abuse/trauma	1%	-	-	1%	-	3%	-	-	3%	4%
Lack of caregiver support	-	-	-	-	-	4%	-	-	-	-
Crime and violence/lack of personal safety	-	-	1%	-	-	-	1%	-	1%	-
Easy access/drugs/alcohol/tobacco	-	-	-	-	2%	11%	-	13%	-	-
Environmental conditions (air quality, water quality, pollution, etc.)	-	1%	-	-	32%	1%	-	-	-	-

* Percentage of stakeholders who identified these factors as key drivers which lead to a specific health condition.

Linking qualitative data from the stakeholder survey and quantitative data from the analysis of health indicators allows for a more in-depth examination of the perceptions and realities of health issues among populations likely to experience health disparities. The following shows the top three stakeholder issues from the survey, the reported populations experiencing disparities, and the related findings from the analysis of health indicators from secondary data sources.

Drug and Alcohol Abuse

Stakeholders Identified Disparities Among:	Quantitative Findings
<ul style="list-style-type: none"> • Low- income, including those below the federal poverty limit. • Those with less education and/or low literacy. • Medically-underserved - including uninsured and under-insured. 	<ul style="list-style-type: none"> • High percent of chronic heavy drinking among adults in higher annual income groups. • More nonmedical use of prescription drugs among adults with annual income of less than \$25,000. • High percent of marijuana use among adults with annual income of less than \$25,000, those under 34 years, homosexuals, and uninsured adults.

** Indicates significant difference at the 95% confidence level*

Obesity

Stakeholders Identified Disparities Among:	Quantitative Findings
<ul style="list-style-type: none"> • Low- income, including those below the federal poverty limit. • Medically-underserved - including uninsured and under-insured. • Those with less education and/or low literacy. 	<ul style="list-style-type: none"> • High percent of obesity among adults aged 35-64 years, those with depression or anxiety, and those with annual income of less than \$35,000.*

** Indicates significant difference at the 95% confidence level*

Mental Health

Stakeholders Identified Disparities Among:	Quantitative Findings
<ul style="list-style-type: none"> • Low- income, including those below the federal poverty limit. • Medically-underserved - including uninsured and under-insured. • People with disabilities - physical, mental, or intellectual. 	<ul style="list-style-type: none"> • High percent of current or past depression among homosexuals, bisexuals and adults with annual income of less than \$15,000.* • High percent of current or past anxiety disorder among adults with annual income of less than \$15,000.* • High percent of poor mental health among adults with less than either high school or GED and adults with annual income of less than \$25,000.*

** Indicates significant difference at the 95% confidence level*

Finally, for each health issue that was selected, stakeholders were asked to identify the entities or organizations that were responsible for improving status of the issue. Results suggest that stakeholders see a significant role for all types of organizations in community health, but that individuals and families still are primarily responsible for their health in many instances.

Table 12: Entity Responsible For Improving Health Issues

Agency/Organization	Degree of Responsibility	Childhood obesity	Cardiovascular diseases	Diabetes	Obesity	Respiratory diseases	Drug and alcohol abuse	Physical activity and nutrition	Tobacco use	Mental health	Depression
The State’s public health agency (Maine CDC)	No to Minor Role	13%	22%	23%	17%	17%	11%	14%	3%	8%	19%
	Moderate Role	22%	34%	23%	26%	37%	21%	20%	15%	27%	25%
	Significant Role	51%	33%	38%	43%	32%	50%	51%	57%	44%	38%
	Primarily Responsible	11%	8%	13%	13%	12%	15%	12%	24%	19%	13%
The State’s local public health organizations	No to Minor Role	9%	15%	16%	11%	18%	8%	12%	2%	6%	14%
	Moderate Role	20%	38%	26%	23%	35%	21%	18%	21%	18%	24%
	Significant Role	59%	36%	43%	50%	31%	51%	51%	42%	47%	46%
	Primarily Responsible	12%	8%	13%	15%	15%	18%	18%	33%	27%	13%
Primary care providers/organizations	No to Minor Role	5%	3%	3%	5%	3%	5%	6%	3%	2%	2%
	Moderate Role	19%	10%	12%	18%	16%	15%	22%	20%	13%	14%
	Significant Role	61%	52%	49%	61%	49%	62%	58%	54%	57%	51%
	Primarily Responsible	15%	34%	34%	16%	33%	17%	13%	21%	28%	32%
Hospitals/health care systems	No to Minor Role	16%	4%	6%	13%	5%	8%	15%	9%	3%	5%
	Moderate Role	28%	20%	19%	29%	27%	21%	26%	21%	19%	23%
	Significant Role	47%	57%	58%	49%	53%	55%	51%	57%	55%	55%
	Primarily Responsible	9%	18%	15%	8%	13%	15%	8%	12%	22%	15%
Local social service agencies	No to Minor Role	11%	28%	25%	21%	36%	8%	13%	9%	4%	10%
	Moderate Role	36%	37%	37%	38%	34%	21%	32%	35%	15%	23%
	Significant Role	46%	31%	28%	35%	22%	60%	47%	50%	60%	50%
	Primarily Responsible	6%	2%	5%	3%	3%	10%	7%	4%	20%	16%
Community organizations	No to Minor Role	10%	32%	27%	15%	29%	10%	7%	12%	6%	14%
	Moderate Role	29%	32%	36%	31%	48%	23%	27%	27%	25%	24%
	Significant Role	51%	32%	28%	47%	18%	53%	54%	53%	54%	54%
	Primarily Responsible	8%	2%	5%	5%	3%	12%	12%	6%	14%	6%
Insurance companies, Medicare, MaineCare, or other payers	No to Minor Role	22%	15%	14%	15%	15%	14%	20%	11%	6%	12%
	Moderate Role	24%	26%	21%	27%	31%	19%	26%	17%	14%	22%
	Significant Role	44%	47%	48%	42%	44%	49%	41%	60%	50%	46%
	Primarily Responsible	8%	10%	15%	12%	10%	17%	10%	11%	29%	19%
Individuals and families	No to Minor Role	1%	1%	3%	2%	1%	2%	3%	3%	4%	4%
	Moderate Role	3%	11%	7%	5%	14%	11%	5%	13%	16%	13%
	Significant Role	28%	35%	32%	35%	35%	48%	43%	46%	50%	54%
	Primarily Responsible	68%	52%	57%	58%	50%	38%	49%	38%	30%	28%

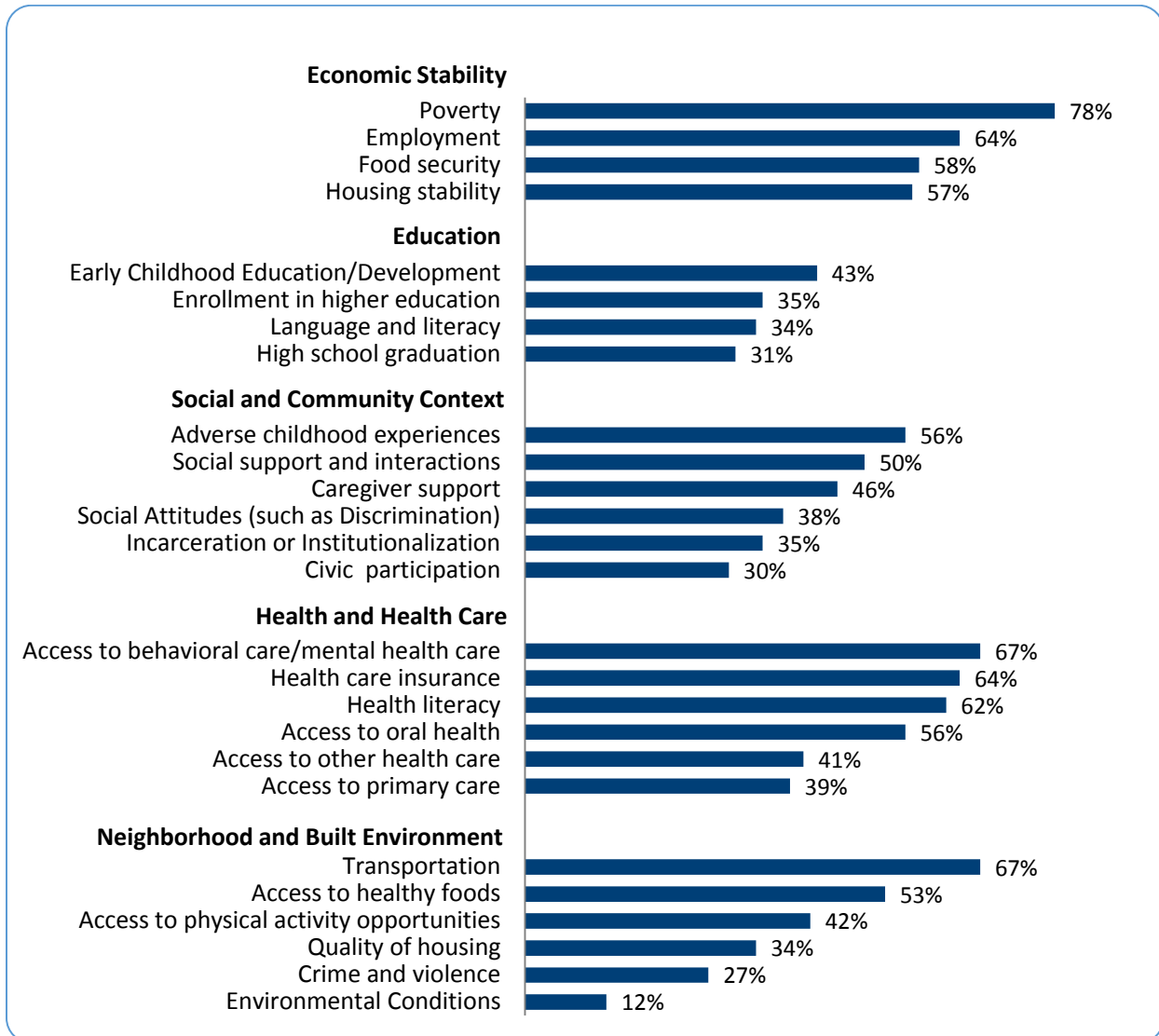
*Percentage of respondent who attributed specific degree of responsibility to corresponding health issue
 The most selected degree of responsibility for corresponding agency/organization is highlighted in bold

Top Health Factors

Health factors are those conditions, such as health behaviors, socio-economic status, or physical environment features, which can affect the health of individuals and communities. Stakeholders prioritized 26 health factors in five categories that can play a significant role in the incidence and prevalence of health problems in their local communities. The following ten factors were identified as the greatest problems that lead to poor health outcomes in the state:

- **Poverty**
- **Access to Behavioral Care/Mental Health Care**
- **Transportation**
- **Health Care Insurance**
- **Employment**
- **Health Literacy**
- **Food Security**
- **Housing Stability**
- **Access to Oral Health**
- **Adverse Childhood Experiences**

Figure 6: Rating of Health Factors (% of stakeholders rating factor as a major or critical problem in their area)



Respondents were asked four probing follow-up questions for each of the priority health factors they selected to understand more about the issues in each region:

1. This is a significant problem in the area and leads to poor health outcomes for residents
2. The health system in the area has the ability to significantly improve this health factor with the current investment of time and resources
3. There are sufficient resources available in the area to improve this health factor and its effect on health outcomes
4. Key disparities exist among certain groups of people

Table 13: Summary of Follow-up Questions about Health Factors*

Health Factor	1. This is a significant problem in the area	2. The health factor can be improved	3. There are sufficient resources available	4. Key disparities exist
Economic Stability				
Employment	92%	34%	18%	76%
Food Security	92%	41%	27%	89%
Housing Stability	92%	19%	23%	82%
Poverty	97%	24%	14%	82%
Education				
Enrollment in Higher Education	91%	33%	28%	85%
Early childhood education/Development	89%	41%	18%	87%
High school graduation	77%	26%	23%	67%
Language and literacy	90%	41%	39%	76%
Social and Community Context				
Adverse childhood experiences	99%	28%	17%	85%
Civic participation	72%	28%	22%	63%
Incarceration or Institutionalization	100%	41%	29%	94%
Social attitudes such as Discrimination	90%	36%	30%	91%
Social support and interactions	95%	27%	17%	84%
Caregiver support	94%	40%	18%	62%
Health and Health Care				
Access to behavioral care/Mental health care	97%	24%	10%	79%
Access to primary care	90%	42%	21%	76%
Access to other health care	90%	16%	13%	74%
Access to oral health	97%	36%	16%	84%
Health care insurance	97%	32%	23%	81%
Health literacy	97%	57%	43%	87%
Crime and violence	100%	53%	26%	84%
Neighborhood and Built Environment				
Access to healthy foods	97%	38%	27%	91%
Access to physical activity Opportunities	92%	46%	23%	78%
Environmental conditions	86%	29%	21%	57%
Quality of housing	94%	27%	12%	79%
Transportation	98%	17%	12%	86%

*Percentage of respondents who agree with the proposed statement

An additional follow-up question asked respondents to identify the resources that were available to address the health factor (if they agreed that sufficient resources were available) or to identify the resources that were not available but that were needed (if they did not agree that sufficient resources were available). A summary of respondent statements for these questions is provided below for the top health factors in the state as identified by stakeholders.

Resources and Assets Identified by Stakeholders for Top Health Factors*		
Poverty (24% agree that sufficient resources are available)	Available	Federal, state and local programs; General assistance.
	Needed	Greater economic development; Increased mentoring services; More skills trainings; More employment opportunities at a livable wage; Better transportation; Better education.
Access to Behavioral Care/Mental Health Care (24%)	Available	Mental health agencies.
	Needed	Better access to behavioral/mental health care for the uninsured; Full behavioral/mental health integration at hospital and primary care levels; Expand behavioral/mental health agencies to more rural areas; More hospital beds for mentally ill patients.
Transportation (17%)	Available	-
	Needed	More/better transportation systems; Better access to public transportation; Additional funding for organizations that help with rides to medical appointments; Additional resources for transportation for the elderly and disabled.
Health Care Insurance (32%)	Available	Obamacare (Affordable Care Act); Free care.
	Needed	Expansion of Medicaid; More stable health care system; More state assistance.
Employment (34%)	Available	Adult education programs; Career centers.
	Needed	More job creations; More training; More employment opportunities at livable wages; Greater economic development; More funding for education.
Health Literacy (57%)	Available	Head Start Maine; Hospital systems; primary care providers; Clinics; Social service agencies.
	Needed	-
Food Security	Available	Local food sources (farms; fisheries; etc.);

Resources and Assets Identified by Stakeholders for Top Health Factors*		
(41%)		Farmers markets; Food pantries; SNAP; Local churches; Backpack for hungry kids programs.
	Needed	Access to free or reduced meals; Greater access to healthy food and locally grown food; Greater support for food pantries.
Housing Stability (19%)	Available	Maine Affordable Housing Coalition; Low income housing/section 8 programs.
	Needed	-

*Percentage of respondents who agree that there are sufficient resources available to improve this health factor.

Stakeholders also were asked to share their thoughts on the populations experiencing health disparities among each of the health factors that they selected.. Table 14 presents these results for the top 10 health factors identified by stakeholders.

Table 14: Populations with Disparities among Top Health Factors in Maine

Health Disparities	Employment	Food Security	Housing Stability	Poverty	Adverse Childhood Experiences	Access to Behavioral Care/Mental Health Care	Health Literacy	Transportation	Health Care Insurance	Access to Oral Health
Deaf and hard of hearing people	12%	6%	6%	9%	16%	10%	20%	13%	8%	2%
Gay, lesbian, bisexual or transgendered people	6%	5%	16%	10%	34%	22%	8%	3%	10%	<1%
Less than a high school education and/or low literacy	76%	71%	55%	81%	69%	52%	80%	45%	47%	48%
Limited or no English proficiency	36%	26%	27%	41%	29%	26%	54%	25%	34%	21%
Low- income, including those below the federal poverty limit	76%	90%	86%	%	86%	79%	79%	82%	78%	92%
Medically-underserved - including uninsured and under-insured	36%	41%	38%	66%	55%	73%	62%	48%	81%	75%
Members of any Federally-recognized Tribe	9%	14%	6%	22%	24%	10%	18%	9%	11%	2%
Military veterans	13%	12%	23%	19%	18%	29%	10%	13%	12%	5%
People with disabilities - physical, mental, or intellectual	48%	47%	61%	61%	53%	57%	57%	65%	30%	30%
Racial/ethnic minority populations	7%	13%	14%	14%	21%	7%	16%	7%	16%	3%
Refugees/immigrants	18%	19%	17%	28%	29%	19%	26%	12%	24%	11%
Specific age group	5%	21%	9%	9%	8%	9%	5%	21%	13%	13%
Very rural and/or geographically isolated people	46%	62%	30%	66%	50%	49%	49%	71%	38%	43%
Women	11%	13%	28%	30%	27%	15%	15%	9%	20%	3%
Other	6%	6%	13%	4%	12%	9%	7%	7%	11%	5%

* Percentage of stakeholders who agreed that significant disparities exist among this group for a specific health factor.

For each health factor selected, stakeholders identified the entities or organizations that were responsible for improving status of the factor. Items selected by more than 50% of respondents are highlighted in Table 15.

Table 15: Entity Responsible For Improving Health Factors and Their Adverse Effects

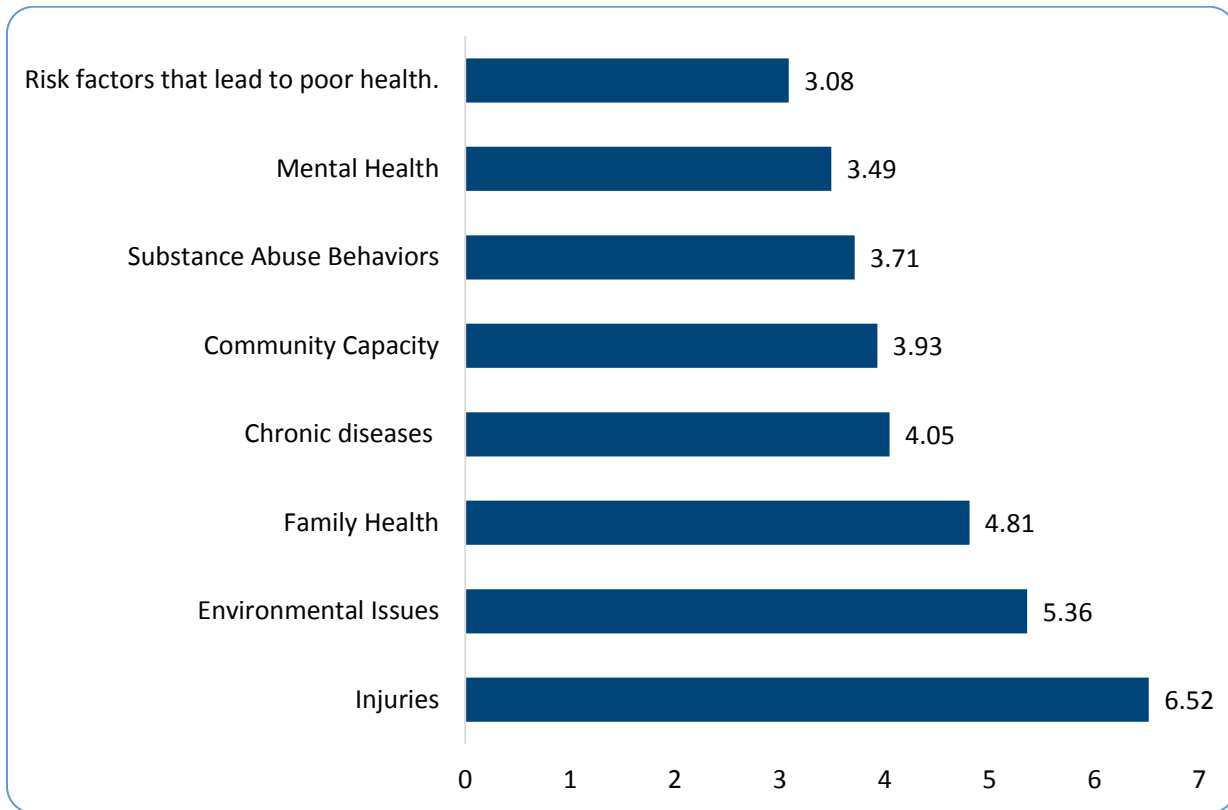
Agency/Organization	Employment	Food Security	Housing Stability	Poverty	Adverse Childhood Experiences	Access to Behavioral Care/Mental Health Care	Health Literacy	Transportation	Health Care Insurance	Access to Oral Health
Businesses	76%	34%	26%	46%	19%	14%	33%	28%	26%	8%
Charities	7%	44%	17%	34%	26%	15%	40%	25%	6%	13%
Community organizations	34%	61%	55%	52%	57%	42%	69%	55%	14%	33%
Families and Individuals	40%	47%	41%	57%	81%	37%	69%	36%	20%	37%
Federal government/agencies	58%	69%	67%	69%	47%	61%	61%	57%	73%	49%
Hospital/healthcare system	12%	24%	8%	26%	57%	70%	76%	18%	38%	44%
Insurance companies, Medicare, MaineCare, or other payers	9%	8%	8%	31%	38%	60%	63%	19%	68%	60%
Local behavioral health/mental health agencies	10%	9%	24%	31%	79%	80%	67%	13%	13%	5%
Local public health departments	9%	30%	17%	27%	44%	45%	66%	25%	17%	39%
Local social service agencies	22%	52%	42%	46%	75%	55%	63%	39%	14%	25%
Maine State Legislature	63%	61%	60%	71%	53%	59%	51%	58%	77%	44%
Maine’s public schools	32%	43%	4%	36%	60%	24%	64%	7%	4%	17%
Other local government agencies	31%	37%	47%	37%	25%	22%	33%	41%	13%	15%
Other state government agencies	35%	34%	46%	40%	25%	27%	34%	40%	28%	16%
Primary care providers/organizations	7%	16%	8%	22%	60%	47%	80%	11%	24%	25%
The State’s local public health organizations	10%	42%	13%	31%	46%	35%	59%	27%	21%	23%
The State’s public health agency (Maine CDC)	7%	36%	17%	29%	47%	37%	61%	18%	23%	29%
Other	6%	5%	4%	7%	8%	3%	4%	5%	13%	4%

**Percentage of respondents who attributed responsibility to corresponding agency/organization for corresponding health factor.*

Finally, stakeholders were asked to rank board health categories in order of how they felt resources in the state should be allocated towards addressing them. A rating of 1 = highest priority, while 8 = lowest priority. The average for each category is presented in the table below.

Risk factors that lead to poor health (including physical inactivity, poor nutrition, overweight and obesity, tobacco use) was the highest rated item out of the group, followed by mental health and community capacity (the ability to sustain a high quality of life, including access to employment, education and housing).

Figure 7: Rank of Health Issues and Factors According to How Respondents Think Resources in Area Should be Allocated



The following table presents the ranking of health categories by county. The top rated issue for every county is highlighted in the table below.

Table 16: Rank of Health Issues and Factors According to How Respondents Think Resources in Area Should be Allocated (Table of Means*)

County	Risk factors that lead to poor health	Mental Health*	Substance Abuse	Community Capacity*	Chronic diseases*	Family Health*	Environmental Issues *	Injuries
Androscoggin	3.57	3.26	3.98	3.53	4.63	4.74	5.08	6.31
Aroostook	3.21	3.87	3.59	4.28	3.12	4.87	5.72	6.58
Cumberland	3.17	3.30	3.71	3.97	4.07	5.12	5.26	6.54
Franklin	3.41	3.38	3.46	3.97	4.78	5.14	5.32	6.32
Hancock	2.54	3.77	3.52	3.96	4.11	4.88	5.46	6.61
Kennebec	3.10	3.27	3.68	3.84	3.92	4.90	5.50	6.55
Knox	3.34	3.29	3.26	4.23	4.63	4.63	5.11	6.83
Lincoln	2.66	3.24	3.32	3.92	4.61	5.21	4.89	6.87
Oxford	3.16	3.40	4.04	3.20	5.44	4.80	5.27	6.58
Penobscot	2.87	3.80	3.56	4.57	3.78	5.09	5.33	6.26
Piscataquis	3.09	3.61	3.95	3.66	4.33	4.81	5.89	6.47
Sagadahoc	2.87	3.23	3.73	4.03	4.60	5.13	4.47	6.97
Somerset	2.66	3.50	3.54	3.26	4.26	4.61	5.43	6.72
Waldo	2.83	3.46	3.52	3.96	4.73	4.85	5.23	7.02
Washington	2.98	3.54	3.05	3.38	3.80	4.32	5.63	6.58
York	3.14	3.07	3.86	4.11	4.39	5.32	5.32	6.19
Statewide	3.08	3.49	3.71	3.93	4.05	4.81	5.36	6.52

*Means of respondents' ranking (where 1 = highest priority and 8 = lowest priority)

Mental Health: *conditions that impact how people think, feel and act as they cope with life.*

Community Capacity: *ability to sustain a high quality of life, including access to employment, education and housing.*

Chronic diseases: *such as heart disease, cancer, diabetes, and asthma.*

Family Health: *including teen pregnancy, prenatal care, and healthy behaviors during pregnancy.*

Environmental Issues: *access to healthy foods, access to recreation, clean air, water, lead exposure, etc.*

Stakeholder Survey Findings

Detailed Findings from SHNAPP Stakeholder Survey, June 2015	
Survey Questions and Top Responses	
	Maine
Demographic	
Which of the following sectors best describes your role or organization? (12 choices, picked 1)	
	n=1639
Medical care provider	22%
Other non-profit or social service agency	14%
Other	13%
Public health	11%
Business owner or employee	9%
Educator	8%
Other type of health care organization	8%
Behavioral/mental health provider	6%
Local government	4%
Other governmental agency	3%
Youth-serving organization	2%
Faith-based organization	1%
Do you work for or represent: (5 choices, picked 1)	
None of the above	49%
Hospital/Health-care system	38%
Local public health agency	10%
Maine CDC	3%
Tribal health	<1%
Please identify the type of geographical area that you primarily serve? (6 choices, picked 1)	
Town or region	27%
Hospital/Health service area	26%
Statewide	22%
State	18%
Other area	4%
Public health district	3%

Detailed Findings from SHNAPP Stakeholder Survey, June 2015	
Survey Questions and Top Responses	
	Maine
Does your organization work with specific groups of people or populations recognized as being at risk of, or experiencing, higher rates of health risk or poorer health outcomes than the general population within your area?	
Yes	24%
Somewhat	47%
No	29%
If “Yes” or “Somewhat” to Q4: To which of the following populations does your organization directly provide resources to address their needs? (select all that apply)	
	n=1159
Don't Know	5%
Low-income, including those below the federal poverty limit, or defined as low-income by some other definition	77%
Medically-underserved - including uninsured and under-insured	63%
People with disabilities - physical, mental, or intellectual	58%
Very rural and/or geographically isolated people	47%
Less than a high school education and/ or low literacy (low reading or math skills)	47%
Women	44%
Limited or no English proficiency	38%
Gay, lesbian, bisexual or transgendered people	36%
Deaf and hard of hearing people	35%
Military veterans	34%
Refugees/immigrants	28%
Racial/ethnic minority populations	27%
Members of any federally recognized tribe	25%
Specific age group	21%
Other	15%
Overall, to what degree to you feel the health needs of your area are being addressed?	
	n=1639
Not addressed at all	<1%
Mostly unaddressed	10%
Somewhat addressed	55%
Mostly addressed	30%
Completely addressed	2%
Don't know	2%

Detailed Findings from SHNAPP Stakeholder Survey, June 2015	
Survey Questions and Top Responses	
	Maine
Health Issues and Factors	
Please rate the following health issues based on how you feel they impact the overall health of residents in your area. (*Percentage of stakeholders in state and state who rated issue as a major or critical problem in their area)	
	n=1639
Family Health	
Adolescent health	25%
Child developmental issues	34%
Childhood obesity	58%
Elder health	55%
Infant mortality	4%
Maternal and child health	23%
Chronic Diseases	
Cancer	50%
Cardiovascular disease	63%
Depression	67%
Diabetes	63%
Musculoskeletal diseases	28%
Neurological diseases	35%
Obesity	78%
Respiratory disease	60%
Infectious Diseases	
Infectious diseases	22%
Sexually transmitted diseases/HIV/AIDS	13%
Healthy Behaviors	
Drug and alcohol abuse	80%
Physical activity and nutrition	69%
Tobacco use	63%
Other Health Issues	
Lead poisoning and other environmental health issues	17%
Mental health	71%
Oral health	53%
Suicide and self-harm	37%
Unintentional injury	34%
Violence	38%

Detailed Findings from SHNAPP Stakeholder Survey, June 2015	
Survey Questions and Top Responses	
	Maine
Please indicate how much of a problem each is in area and leads to poor health outcomes for residents. (*Percentage of stakeholders in state and state who rated factor as a major or critical problem in their area)	
	n=1639
Economic Stability	
Employment	64%
Food security	58%
Housing stability	57%
Poverty	78%
Education	
Enrollment in higher education	35%
Early childhood education/development	43%
High school graduation	31%
Language and literacy	34%
Social and Community Context	
Adverse childhood experiences	56%
Civic participation	30%
Incarceration or institutionalization	35%
Social attitudes such as discrimination	38%
Social support and interactions	50%
Caregiver support	46%
Health and Health Care	
Access to behavioral care/Mental health care	67%
Access to primary care	39%
Access to other health care	41%
Access to oral health	56%
Health care insurance	64%
Health literacy	62%
Neighborhood and Built Environment	
Access to healthy foods	53%
Access to physical activity opportunities	42%
Crime and violence	27%
Environmental conditions	12%
Quality of housing	34%
Transportation	67%

Detailed Findings from SHNAPP Stakeholder Survey, June 2015	
Survey Questions and Top Responses	
	Maine

Please rank each health issue according to how you think resources in your area should be allocated. (1=highest priority and 8=lowest priority) (mean)	
	n=1168
Risk factors that lead to poor health.	3.08
Mental health - conditions that impact how people think, feel and act as they cope with life.	3.49
Substance abuse behaviors - including excessive drinking, smoking, and other drug use.	3.71
Community capacity - ability to sustain a high quality of life, including access to employment, education and housing.	3.93
Chronic diseases - such as heart disease, cancer, diabetes, and asthma	4.05
Family health - including teen pregnancy, prenatal care, and healthy behaviors during pregnancy.	4.81
Environmental issues - access to healthy foods, access to recreation, clean air, water, lead exposure, etc.	5.36
Injuries - intentional and unintentional	6.52

Appendix A: Health Indicators Results from Secondary Data Sources

The state level summary of health indicators analyzed from secondary data sources is presented in the table below. Results are displayed for the state and US (where available). Results are organized by health issue or category. A summary of the data sources and year for each indicator is presented in the table below.

Trends for Maine are noted in the table using the following notation:

- *A plus (+) indicates a positive trend where the indicator has been improving*
- *A minus (-) indicates a negative trend where the indicator has been declining*

The years used in the trend comparison varies depending on the data source. For a complete list of data sources and years, please see the data sources table in Appendix B.

Maine Shared Community Health Needs Assessment County Summary: 2015		Maine	
Updated: August 2015			
Maine Shared CHNA Health Indicators	Maine	ME Trend	US
Demographics			
Total Population	1,328,302		319 Mil
Population - % Ages 0-17	19.7%		23.3%
Population - % Ages 18-64	62.6%		76.6%
Population - % Ages 65+	17.7%		14.1%
Population - % White	95.2%		77.7%
Population - % Black or African American	1.4%		13.2%
Population - % American Indian and Alaska Native	0.7%		1.2%
Population - % Asian	1.1%		5.3%
Population - % Hispanic	1.4%		17.1%
Population - % with a disability	16.3%		12.1%
Population density (per sq. mile)	43.1		87.4
Socio-Economic Status Measures			
Unemployment rate	5.7%	+	6.2%
Adults living in poverty	13.6%		13.4%
Children living in poverty	18.5%		21.6%
Percentage of people living in rural areas	66.4%		NA
Median household income	\$46,974		\$53,046
High school graduation rate	86.5%		81.0%
Single parent families	29.1%		33.2%
65+ living alone	40.1%		37.7%
General Health Status			
Adults who rate their health fair to poor	14.9%		16.7%

Maine Shared Community Health Needs Assessment County Summary: 2015		Maine	
		Updated: August 2015	
Maine Shared CHNA Health Indicators	Maine	ME Trend	US
Adults with 14+ days lost due to poor mental health	11.9%		NA
Adults with 14+ days lost due to poor physical health	12.8%		NA
Adults with 3 or more chronic conditions	27.9%		NA
Mortality			
Life expectancy (Female)	81.5		81.2
Life expectancy (Male)	76.7		76.4
Overall mortality rate per 100,000 population	746		822
Access			
Adults with a usual primary care provider	87.4%		76.6%
Individuals who are unable to obtain or delay obtaining necessary medical care due to cost	10.1%		15.3%
MaineCare enrollment	27.0%		23.0%
Percent of children ages 0-19 enrolled in MaineCare	41.8%		48.0%
Percent uninsured	11.2%		14.9%
Oral Health			
Adults with visits to a dentist (also ages 18-34) in the past 12 months	65.3%		67.2%
MaineCare members under 18 with a visit to the dentist in the past year	55.1%		NA
Pregnancy and Birth Outcomes			
Infant death per 1,000 births	6.0		6.0
Live birth, for which the mother received early & adequate prenatal care	86.4%		73.7%
Low birth weight <2500 grams	6.6%		8.0%
Percent of children with special health needs	23.6%		15.1%
Teen birth rate (age 15-19)	20.5		26.5
Intentional Injury			
Domestic assaults reports to police per 100,000 population	413.0		NA
Firearm deaths per 100,000 population	9.2		10.6
Intentional self-injury (Youth)	17.9%		NA
Lifetime rape/non-consensual sex (among females)	11.3%		NA
Nonfatal child maltreatment per 1,000 population	14.6		9.1
Reported rape per 100,000 population	27.0		25.2
Suicide deaths per 100,000 population	15.2		13.0
Violence by current or former intimate partners in past 12 months (among females)	0.8%		NA
Violent crime rate per 100,000 population	125		368
Unintentional Injury			
Emergency department visits due to falls among older adults per 10,000 population	361		608
Fall-related deaths per 100,000 population	6.8		8.5
Motor vehicle crash related deaths per 100,000 population	10.8		10.7
Seatbelt use (Adults)	85.2%		86.9%
Seatbelt use (Youth)	61.6%		54.7%
Traumatic brain injury emergency department visits per 10,000 population	81.4		68.1
Unintentional poisoning deaths per 100,000 population	11.1		12.3

Maine Shared Community Health Needs Assessment County Summary: 2015		Maine	
Updated: August 2015			
Maine Shared CHNA Health Indicators	Maine	ME Trend	US
Cardiovascular Disease			
Acute myocardial infarction hospitalizations per 10,000 population	23.5		NA
Acute myocardial infarction mortality (ages 45-64; 65+) per 100,000 population	32.2		36.9
Cholesterol checked every 5 years	81.0%		76.4%
Coronary heart disease mortality per 100,000 population	89.8		102.6
Heart failure hospitalizations per 10,000 population	21.9		NA
High blood pressure prevalence	32.8%		31.4%
High cholesterol	40.3%		31.7%
Hypertension hospitalizations per 100,000 population	28.0		NA
Stroke hospitalizations per 10,000 population	20.8		NA
Stroke mortality per 100,000 population	35.0		36.2
Respiratory			
Asthma emergency department visits per 10,000 population	67.3		57.7
COPD diagnosed	7.1%		6.5%
COPD hospitalizations per 100,000 population	216.3		NA
Current asthma (Adults)	11.7%		7.0%
Current asthma (Youth 0-17)	9.1%		8.3%
Pneumonia emergency department rate per 100,000 population	719.9	-	NA
Pneumonia hospitalizations per 100,000 population	329.4		NA
Cancer			
Mortality - all cancers per 100,000 population	185.5		168.7
Breast, late stage incidence (females only) per 100,000 population	41.6		42.9
Colorectal cancer mortality per 100,000 population	16.1		15.1
Colorectal late stage incidence per 100,000 population	22.7		NA
Colorectal screening	72.2%		81.5%
Female breast cancer mortality per 100,000 population	20.0		21.5
Lung cancer mortality per 100,000 population	54.3		46.0
Mammograms females age 50+ in past 2 years	82.1%		77.0%
Pap smears females ages 21-65 in past 3 years	88.0%		78.0%
Prostate cancer mortality per 100,000 population	22.1		20.8
Tobacco-related neoplasms, mortality per 100,000 population	37.4		NA
Cancer			
Bladder cancer incidence per 100,000 population	28.3		20.3
Colorectal cancer incidence per 100,000 population	43.5		39.6
Female breast cancer incidence per 100,000 population	126.3		130.0
Incidence - all cancers per 100,000 population	500.1		457.6
Lung cancer incidence per 100,000 population	75.5		56.0
Melanoma incidence per 100,000 population	22.2		22.9
Prostate cancer incidence per 100,000 population	133.8		141.0
Tobacco-related neoplasms, incidence per 100,000 population	91.9		NA
Diabetes			
Diabetes prevalence (ever been told)	9.6%		9.7%

Maine Shared Community Health Needs Assessment County Summary: 2015		Maine	
Updated: August 2015			
Maine Shared CHNA Health Indicators	Maine	ME Trend	US
Pre-diabetes prevalence	7.4%		NA
Adults with diabetes who have eye exam annually	71.2%		53.4%
Adults with diabetes who have foot exam annually	83.3%		68.4%
Adults with diabetes who have had an A1C test 2x per year	73.2%		66.5%
Adults with diabetes who have received formal diabetes education	60.0%		NA
Diabetes emergency department visits (principal diagnosis) per 100,000 population	235.9		NA
Diabetes hospitalizations (principal diagnosis) per 10,000 population	11.7		NA
Diabetes long-term complication hospitalizations	59.1		NA
Diabetes mortality (underlying cause) per 100,000 population	20.8		23.9
Physical Activity, Nutrition and Weight			
Obesity (Adults)	28.9%		29.4%
Obesity (High School Students)	12.7%		13.7%
Overweight (Adults)	36.0%		35.4%
Overweight (High School Students)	16.0%	-	16.6%
Fewer than 2 hours combined screen time (Youth)	40.9%		NA
Fruit and vegetable consumption (High School Students)	16.8%	+	NA
Fruit consumption among Adults 18+ (<1 serving per day)	34.0%		39.2%
Met physical activity recommendations (Adults)	53.4%		50.8%
Met physical activity recommendations (High School Students)	43.7%	+	47.3%
Sedentary lifestyle - no physical activity in past month (Adults)	23.3%	-	25.3%
Soda/sports drink consumption (High School Students)	26.2%		NA
Vegetable consumption among Adults 18+ (<1 serving per day)	17.9%		22.9%
Substance Abuse			
Alcohol-induced mortality	8.0		9.2
Binge drinking of alcoholic beverages (High school students)	14.8%	+	20.8%
Binge drinking of alcoholic beverages (Adults)	17.2%		16.8%
Chronic heavy drinking (Adults)	7.2%		6.2%
Drug affected baby referrals received	7.8%		NA
Drug-induced mortality	13.9		14.7
Emergency medical service overdose response	391.5		NA
Opiate poisoning (ED visits)	25.1		NA
Opiate poisoning (hospitalizations)	13.2		NA
Past 30 day alcohol use (High school students)	26.0%	+	34.9%
Past 30 day Inhalant use (High school students)	3.2%	+	NA
Past 30 day marijuana use (Adults)	7.8%		NA
Past 30 day marijuana use (High school students)	21.6%		23.4%
Past 30 day nonmedical use of prescription drugs (Adult)	1.1%		NA
Past 30 day nonmedical use of prescription drugs (High school students)	5.6%	+	NA
Prescription Monitoring Program opioid prescriptions (Days supply/pop)	6.8		NA
Substance abuse hospital admissions	328.1		NA
Tobacco Use			

Maine Shared Community Health Needs Assessment County Summary: 2015		Maine	
		Updated: August 2015	
Maine Shared CHNA Health Indicators	Maine	ME Trend	US
Current smoking (Adults)	20.2%		17.8%
Current smoking (High School Students)	12.9%	+	15.7%
Current tobacco use (High School Students)	18.2%	-	22.4%
Secondhand smoke exposure (Youth)	38.3%	+	NA
Mental Health			
Adults who have ever had anxiety	18.8%		NA
Adults who have ever had depression	23.4%		18.7%
Adults with current symptoms of depression	9.9%		NA
Co-morbidity for persons with mental illness	33.3%		NA
Mental health emergency department rates	1,972.1		NA
Receiving outpatient mental health treatment in past 12 months	17.4%		NA
Sad/hopeless - 2 weeks in a row (High School Students)	24.3%	-	29.9%
Seriously considered suicide (High School Students)	14.6%	-	17.0%
Environmental Health			
Children with elevated blood lead levels (% among those screened)	2.5%		4.3%
Homes with private wells tested for arsenic	43.3%		NA
Lead screening among 1 & 2 year old children	22.6%		NA
Occupational Health			
Deaths from work-related injuries (number)	19		4,585
Nonfatal occupational injuries (number)	13,205.0		NA
Infectious Disease			
Hepatitis A infections per 100,000 population	0.6		0.6
Hepatitis B infections per 100,000 population	0.9		1.0
Hepatitis C infections per 100,000 population	2.3		0.7
Lyme disease per 100,000 population	105.3		10.0
Newly diagnosed tuberculosis cases per 100,000 population	1.1		3.2
Newly reported cases of past or present hepatitis C virus (HCV) infection per 100,000 population	107.1		NA
Newly reported chronic hepatitis B virus (HBV) infections per 100,000 population	8.1		NA
Pertussis incidence per 100,000 population	41.9	-	15.5
Immunization			
Adults immunized for annually for influenza	44.1%	+	62.8%
Adults immunized for pneumococcal pneumonia (ages 65 and over)	73.8%		69.5%
Immunization exemptions among kindergarteners for philosophical reasons	3.7%		NA
Two-year olds up-to-date with series of seven immunizations- 4-3-1-3-3-1-4	75.0%		NA
STD/HIV			
AIDS incidence per 100,000 population	2.1		8.4
Chlamydia incidence per 100,000 population	265.5		446.6
Gonorrhea incidence per 100,000 population	17.8		106.1

Maine Shared Community Health Needs Assessment County Summary: 2015		Maine	
Updated: August 2015			
Maine Shared CHNA Health Indicators	Maine	ME Trend	US
HIV incidence per 100,000 population	4.4		15.0
HIV/AIDS hospitalization rate per 100,000 population	21.4		NA
Syphilis incidence per 100,000 population	1.6		5.5
Health Care Quality			
Ambulatory care-sensitive condition hospital admission rate per 100,000 population	1499.3	+	1457.5
Ambulatory care-sensitive condition emergency department rate per 100,000 population	4258.8		NA

Appendix B: List of Data Sources and Years for Quantitative Health Indicators

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Demographics			
Population	U.S. Census	2014	2013 data was used for all age, racial and ethnic groups.
Population with a disability	U.S. Census	2013	Adults reporting anyone of the six disability types are considered to have a disability: Hearing difficulty, Vision difficulty, Cognitive difficulty, Ambulatory difficulty, Self-care difficulty, Independent living difficulty.
Population density	U.S. Census	2010	Based on 2010 U.S. Census Population.
Socio-Economic Status Measures			
Unemployment rate	Bureau of Labor Statistics	2014	Unemployment rate of the civilian noninstitutional population averaged for the full year of 2014.
Adults living in poverty	U.S. Census	2013	The poverty status of the household is determined by the poverty status of the householder. Households are classified as poor when the total income of the householder's family is below the appropriate poverty threshold. The American Community Survey measures poverty in the previous 12 months instead of the previous calendar year.
Children living in poverty	U.S. Census	2013	The poverty status of the household is determined by the poverty status of the householder. Households are classified as poor when the total income of the householder's family is below the appropriate poverty threshold. The American Community Survey measures poverty in the previous 12 months instead of the previous calendar year.
Percentage of people living in rural areas	U.S. Census	2013	The urban/rural categories used in this analysis were defined by the New England Rural Health Roundtable available in Rural Data For Action 2nd Edition: http://www.newenglandruralhealth.org/rural_data
Median household income	U.S. Census	2013	In 2013 inflation-adjusted dollars. This includes the income of the householder and all other individuals 15 years old and over in the household, whether they are related to the householder or not.

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
High school graduation rate	Maine Dept of Education	2013-14 School Year	Proportion of students who graduate with a regular diploma 4 years after starting 9th grade. Graduations rates include all public schools and all private schools that have 60% or more publicly funded students.
Single parent families	U.S. Census	2013	Families consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples. "Householder without a spouse present" is defined as a male householder without a wife present or a female householder without a husband present.
65+ living alone	U.S. Census	2013	Estimated number of 1-person households with a person 65 years and over.
General Health Status			
Adults who rate their health fair to poor	BRFSS (U.S. Core)	2013	
Adults with 14+ days lost due to poor mental health	BRFSS (U.S. Core)	2013	Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
Adults with 14+ days lost due to poor physical health	BRFSS (U.S. Core)	2013	Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
Adults with 3 or more chronic conditions	BRFSS (U.S. Core)	2013	Chronic conditions available in 2013 BRFSS: arthritis, asthma, cancer, cardiovascular disease, chronic kidney disease, chronic obstructive pulmonary disease (COPD), coronary heart disease, diabetes, hypertension, high cholesterol, obesity.
Mortality			
Life expectancy (Female)	National Center for Health Statistics	2013	Life expectancy at birth.
Life expectancy (Male)	National Center for Health Statistics	2013	Life expectancy at birth.
Overall mortality rate per 100,000 population	DRVS	2013	
Access			
Adults with a usual primary care provider	BRFSS (U.S. Core)	2013	Adults that have one or more person they think of as their personal doctor or health care provider.
Individuals who are unable to obtain or delay obtaining necessary medical care due to cost	BRFSS (U.S. Core)	2013	Adults reporting that there was time during the last 12 months when they needed to see a doctor, but could not because of the cost.

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
MaineCare enrollment	MaineCare	2015	The number and percent of individuals participating in MaineCare. These data are reported as of April 2015. Individuals are reported by county of residence at the end of the SFY or the end of participation in the program. Figures exclude individuals who were non-residents or who were out-of-state.
Percent of children ages 0-19 enrolled in MaineCare	MaineCare	2015	The number and percent of individuals participating in MaineCare. These data are reported as of April 2015. Individuals are reported by county of residence at the end of the SFY or the end of participation in the program. Figures exclude individuals who were non-residents or who were out-of-state.
Percent uninsured	U.S. Census	2013	Estimated number of Maine people who do not currently have health insurance.
Oral Health			
Adults with visits to a dentist (also ages 18-34) in the past 12 months	BRFSS (U.S. core)	2012	Adults that last visited the dentist or a dental clinic for any reason in the past 12 months.
MaineCare members under 18 with a visit to the dentist in the past year	Maine Care	2014	Total number of members under 18 with dental claims during calendar year 2014 was 67,871. Of those, only 61,948 had eligibility as of April 2015. Members were under 18 on date of service but some turned 18 by April 2015.
Pregnancy and Birth Outcomes			
Infant death per 1,000 births	Maine CDC Vital Records	2012	
Live birth, for which the mother received early & adequate prenatal care	Maine CDC Vital Records	2012	
Low birth weight <2500 grams	Maine CDC Vital Records	2012	
Percent of children with special health needs	National Survey of Children with Special Health Care Needs	2009-10	
Teen birth rate (age 15-19)	Maine CDC Vital Records	2012	Defined as the number of live births among Maine women of all ages per 1,000 15-19 year old Maine women.
Intentional Injury			
Domestic assaults reports to police per 100,000 population	Maine Dept of Public Safety	2013	
Firearm deaths per 100,000 population	Maine CDC Vital Records	2013	ICD-10 W32-W34 ,X72-X74, X93-X95, Y22-Y24, Y350 or U014
Intentional self-injury (Youth)	MIYHS	2013	
Lifetime rape/non-consensual sex (among females)	BRFSS (2012 part A)	2013	Females that have EVER had sex with someone after they said or showed that they didn't want them to or without their consent.
Nonfatal child maltreatment per 1,000 population	Child Maltreatment Report ACYF	2013	US rate for 2011.

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Reported rape per 100,000 population	Maine Dept of Public Safety	2013	Includes Rape by Force, and Attempted Forcible Rape. Excludes Carnal Abuse without Force (statutory rape) and other sex offenses.
Suicide deaths per 100,000 population	Maine CDC Vital Records	2013	ICD-10 U03 X60-X84 or Y87.0
Violence by current or former intimate partners in past 12 months (among females)	BRFSS (2012 part A)	2013	Females that have experienced physical violence or had unwanted sex with a current or former intimate partner within the past 12 months.
Violent crime rate per 100,000 population	Maine Dept of Public Safety	2013	Reported violent crime offenses. Violent crime includes murder, rape, robbery, and aggravated assault.
Unintentional Injury			
Emergency department visits due to falls among older adults per 10,000 population	MHDO	2011	ICD 9 CM - E880-E886 or E888.
Fall-related deaths per 100,000 population	Maine CDC Vital Records	2013	ICD-10 W00-W19. Among adults age 65 and older. US data from 2010.
Motor vehicle crash related deaths per 100,000 population	Maine CDC Vital Records	2013	ICD-10 V02-V04 (.1-.9), V09.2, V12-V14 (.3-.9), V19 (.4-.6), V20-V28 (.3-.9), V29 (.4-.9), V30-V39 (.4-.9), V40-V49 (.4-.9), V50-V59 (.4-.9), V60-V69 (.4-.9), V70-V79 (.4-.9), V80 (.3-.5), V81.1, V82.1, V83-V86 (.0-.3), V87 (.0-.8) or V89.2
Seatbelt use (Adults)	BRFSS (U.S. core)	2013	Adults reporting they Always or Nearly Always use seatbelts when they drive or ride in a car.
Seatbelt use (Youth)	MIYHS	2013	
Traumatic brain injury emergency department visits per 10,000 population	MHDO	2011	ICD 9-CM 800.00–801.99, 803.00–804.99, 850.0–850.9, 851.00–854.19, 950.1–950.3, 959.01 or 995.55
Unintentional poisoning deaths per 100,000 population	Maine CDC Vital Records	2013	ICD-10 X40-X49 or Y10-Y19
Cardiovascular Disease			
Acute myocardial infarction hospitalizations per 10,000 population	MHDO	2011	ICD 9 CM - 410
Acute myocardial infarction mortality (ages 45-64; 65+) per 100,000 population	Maine CDC Vital Records	2013	ICD-10 I21-I22
Cholesterol checked every 5 years	BRFSS (2013 part A)	2013	
Coronary heart disease mortality per 100,000 population	Maine CDC Vital Records	2013	ICD-10 I20-I25
Heart failure hospitalizations per 10,000 population	MHDO	2011	ICD 9 CM - 428
High blood pressure prevalence	BRFSS (2013 part A)	2013	
High cholesterol	BRFSS (2013 part A)	2013	
Hypertension hospitalizations per 100,000 population	MHDO	2011	ICD 9 CM - 401, 402, 403, 404
Stroke hospitalizations per 10,000 population	MHDO	2011	ICD 9 CM - 430-438
Stroke mortality per 100,000 population	Maine CDC Vital Records	2013	ICD-10 I60-I69

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Respiratory			
Asthma emergency department visits per 10,000 population	MHDO	2011	ICD 9 CM - 93
COPD diagnosed	BRFSS (U.S. Core)	2013	Adults that have been told by a doctor, nurse or health professional that they have COPD chronic obstructive pulmonary disease, emphysema, or chronic bronchitis.
COPD hospitalizations per 100,000 population	MHDO	2011	ICD 9 CM - 490, 491, 492, 494, 496
Current asthma (Adults)	BRFSS (U.S. Core)	2013	Adults that have been told by a doctor, nurse or health professional that they had asthma and that they still have asthma.
Current asthma (Youth 0-17)	BRFSS (2012 part B, 2013 part A)	2013	Children that have been told by a doctor, nurse or health professional that they had asthma and that they still have asthma.
Pneumonia emergency department rate per 100,000 population	MHDO	2011	ICD 9 CM - 480-486
Pneumonia hospitalizations per 100,000 population	MHDO	2011	ICD 9 CM - 480-486
Cancer			
Breast, late stage incidence (females only) per 100,000 population	Maine Cancer Registry (MCR)	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.
Colorectal cancer mortality per 100,000 population	MCR	2011	Cancer Deaths: Deaths with malignant cancer as the underlying cause of death.
Colorectal late stage incidence per 100,000 population	MCR	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.
Colorectal screening	BRFSS (U.S. core)	2012	Adults ages 50 years and older who reported that they had a home blood stool test (e.g., FOBT or FIT) within the past year OR sigmoidoscopy within the past 5 years and home blood stool test within the past 3 years OR a colonoscopy within the past 10 years.
Female breast cancer mortality per 100,000 population	MCR	2011	Cancer Deaths: Deaths with malignant cancer as the underlying cause of death.
Lung cancer mortality per 100,000 population	MCR	2011	Cancer Deaths: Deaths with malignant cancer as the underlying cause of death.
Mammograms females age 50+ in past 2 years	BRFSS (U.S. core)	2012	Females ages 50 years and older who reported they had a mammogram within the past 2 years.
Mortality - all cancers per 100,000 population	MCR	2011	All cancer: SEER Cause of Death Recode: 20010-37000 (which include ICD-10 codes: C00-C97).

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Pap smears females ages 21-65 in past 3 years	BRFSS (U.S. core)	2012	Females with intact cervix, that have received a pap smear within the past three years.
Prostate cancer mortality per 100,000 population	MCR	2011	Cancer Deaths: Deaths with malignant cancer as the underlying cause of death.
Tobacco-related neoplasms, mortality per 100,000 population	MCR	2011	Cancer Deaths: Deaths with malignant cancer as the underlying cause of death.
Cancer			
Bladder cancer incidence per 100,000 population	MCR	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.
Colorectal cancer incidence per 100,000 population	MCR	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.
Female breast cancer incidence per 100,000 population	MCR	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.
Incidence - all cancers per 100,000 population	MCR	2011	All cancer: SEER Site Recode: 20010-37000 (which include ICD-O-3 codes: C00-C797).
Lung cancer incidence per 100,000 population	MCR	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.
Melanoma incidence per 100,000 population	MCR	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.
Prostate cancer incidence per 100,000 population	MCR	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Tobacco-related neoplasms, incidence per 100,000 population	MCR	2011	Cancer Incidence: The number of people who develop cancer (new cancer cases) during a specified period of time in a specified population. Incidence case definitions exclude histologies consistent with Kaposi sarcoma and mesothelioma, where applicable.
Diabetes			
Diabetes prevalence (ever been told)	BRFSS (U.S. core)	2013	Adults that have ever been told by a doctor or other health professional that they have diabetes.
Pre-diabetes prevalence	BRFSS (2012, 2013 part A)	2013	Adults that have ever been told by a doctor or other health professional that they have pre-diabetes or borderline diabetes.
Adults with diabetes who have eye exam annually	BRFSS (2012, 2013 part A)	2013	US rate for 2008
Adults with diabetes who have foot exam annually	BRFSS (2012, 2013 part A)	2013	US rate for 2010
Adults with diabetes who have had an A1C test 2x per year	BRFSS (2012, 2013 part A)	2013	US rate for 2010
Adults with diabetes who have received formal diabetes education	BRFSS (2012, 2013 part A)	2013	
Diabetes emergency department visits (principal diagnosis) per 100,000 population	MHDO	2011	ICD 9 CM - 250
Diabetes hospitalizations (principal diagnosis) per 10,000 population	MHDO	2011	ICD 9 CM - 250
Diabetes long-term complication hospitalizations	MHDO	2011	Diabetes long-term complication hospitalizations are defined as hospitalizations of Maine residents for which diabetes long-term complication was the primary diagnosis, coded as ICD 9 - 25040, 25070, 25041, 25071, 25042, 25072, 25043, 25073, 25050, 25051, 25052, 25053, 25080, 25081, 25082, 25083, 25060, 25061, 25062, 25063, 25090, 25091, 25092.
Diabetes mortality (underlying cause) per 100,000 population	Maine CDC Vital Records	2013	ICD-10 E10-E14
Physical Activity, Nutrition and Weight			
Obesity (Adults)	BRFSS (U.S. core)	2013	US rate for 2012.
Obesity (High school students)	MIYHS	2013	Percentage of students who were obese (i.e., at or above the 95th percentile for body mass index, by age and sex) -- SELF-REPORTED HEIGHT/WEIGHT.
Overweight (Adults)	BRFSS (U.S. core)	2013	US rate for 2012.
Overweight (High school students)	MIYHS	2013	Percentage of students who were overweight (i.e., at or above the 85th percentile but below the 95th percentile for body mass index, by age and sex) -- SELF-REPORTED HEIGHT/WEIGHT.

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Fewer than 2 hours combined screen time (Youth)	MIYHS	2013	Percentage of students watching 2 or fewer hours of combined screen time (tv, video games, computer) per day on an average school day.
Fruit and vegetable consumption (High school students)	MIYHS	2013	Percentage of students who drank 100% fruit juice, ate fruit and/or ate vegetables five or more times per day during the past seven days.
Fruit consumption among Adults 18+ (<1 serving per day)	BRFSS (U.S. Core)	2013	
Met physical activity recommendations (Adults)	BRFSS (U.S. Core)	2013	Adults who reported doing enough physical activity to meet the aerobic and strengthening recommendations.
Met physical activity recommendations (High school students)	MIYHS	2013	Percentage of students who were physically active for a total of at least 60 minutes per day on five of the past seven days.
Sedentary lifestyle - no physical activity in past month (Adults)	BRFSS (U.S. Core)	2013	Adults reporting that during the past month, other than their regular job, they did not participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise.
Soda/sports drink consumption (High school students)	MIYHS	2013	Percentage of students who drank at least one can, bottle, or glass of soda, sports drink, energy drink, or other sugar-sweetened beverage such as Gatorade, Red Bull, lemonade, sweetened tea or coffee drinks, flavored milk, Snapple, or Sunny Delight? (Not counting diet soda, other diet drinks, or 100% fruit juice.) per day during the past week.
Vegetable consumption among Adults 18+ (<1 serving per day)	BRFSS (U.S. Core)	2013	
Substance Abuse			
Alcohol-induced mortality	Maine CDC Vital Records	2013	ICD 10 - E24.4 , F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K85.2, K86.0, R78.0, X45, X65 or Y15
Binge drinking of alcoholic beverages (High school students)	MIYHS	2013	During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours? Percentage of students who answered at least 1 day.
Binge drinking of alcoholic beverages (Adults)	BRFSS (U.S. core)	2013	Risk factor for binge drinking where binge drinking is defined as having 5 or more drinks on 1 occasion for men, and 4 or more drinks on 1 occasion for women.
Chronic heavy drinking (Adults)	BRFSS (U.S. core)	2013	At risk for heavy alcohol consumption (greater than two drinks per day for men and greater than one drink per day for women).
Drug affected baby referrals received	OCFS Maine Automated Child Welfare Information System	2014	Birth Data for calculations prepared by Maine Centers for Disease Control and Prevention Data, Research, and Vital Statistics on 1/9/2015.

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Drug-induced mortality	CDC Wonder	2013	The population figures for year 2013 are bridged-race estimates of the July 1 resident population, from the Vintage 2013 postcensal series released by NCHS on June 26, 2014.
Emergency medical service overdose response	Maine Emergency Medical Services	2014	Includes overdoses from drugs/medication, alcohol and inhalants.
Opiate poisoning (ED visits)	MHDO	2011	ICD 9 - 9650, 96500, 96501, 96502, 96509
Opiate poisoning (hospitalizations)	MHDO	2011	ICD 9 - 9650, 96500, 96501, 96502, 96509
Past 30 day alcohol use (High school students)	MIYHS	2013	During the past 30 days, on how many days did you have at least one drink of alcohol? Percentage of students who answered at least 1 day.
Past 30 day Inhalant use (High school students)	MIYHS	2013	During the past 30 days, how many times did you sniff glue, breathe the contents of aerosol spray cans, or inhale any paints or sprays to get high? Percentage of students who answered at least 1 time.
Past 30 day marijuana use (Adults)	BRFSS	2013	During the past 30 days, have you used marijuana? Percentage of adults who answered "Yes".
Past 30 day marijuana use (High school students)	MIYHS	2013	During the past 30 days, how many times did you use marijuana? Percentage of students who answered at least 1 time.
Past 30 day nonmedical use of prescription drugs (Adult)	BRFSS (2012, 2013 part A)	2013	Adults who used prescription drugs that were either not prescribed and/or not used as prescribed in order to get high at least once within the past 30 days.
Past 30 day nonmedical use of prescription drugs (High school students)	MIYHS	2013	During the past 30 days, how many times did you take a prescription drug (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription? Percentage of students who answered at least 1 time.
Prescription Monitoring Program opioid prescriptions	Prescription Monitoring Program	2014-15	Presented as Days Supply/Population, which is the total days of supply of medication divided by the overall population.
Substance abuse hospital admissions	MHDO	2012	DRG-MDC 20
Tobacco Use			
Current smoking (Adults)	BRFSS (U.S. core)	2013	Adults that reported having smoked at least 100 cigarettes in their lifetime and currently smoke.
Current smoking (High school students)	MIYHS	2013	During the past 30 days, on how many days did you smoke cigarettes? Percentage of students who answered at least 1 day.

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Current tobacco use (High school students)	MIYHS	2013	Percentage of students who smoked cigarettes or cigars or used chewing tobacco, snuff, or dip on one or more of the past 30 days (Note: Reports read "Percentage of students who smoked cigarettes and/or cigars and/or used chewing tobacco, snuff, or dip on one or more of the past 30 days").
Secondhand smoke exposure (Youth)	MIYHS	2013	Percentage of students who were in the same room with someone who was smoking cigarettes at least 1 day during the past 7 days.
Mental Health			
Adults who have ever had anxiety	BRFSS (State Added Core)	2013	Adults who have ever been told by a doctor or other healthcare provider that they have an anxiety disorder.
Adults who have ever had depression	BRFSS (U.S. core)	2013	Adults who have ever been told by a doctor or other healthcare provider that they have a depressive disorder.
Adults with current symptoms of depression	BRFSS (State Added Core)	2013	Indicator of current depression coded using two items from the PHQ-2 depression screener.
Co-morbidity for persons with mental illness	BRFSS (State Added Core)	2013	Adults with current symptoms of depression from the PHQ-2 depression screener with 3 or more chronic conditions.
Mental health emergency department rates	MHDO	2011	ICD 9 CM - 209-302, 306-319, which exclude substance use related disorders.
Receiving outpatient mental health treatment in past 12 months	BRFSS (State Added Core)	2013	Adults now taking medicine or receiving treatment from a doctor for any type of mental health condition or emotional problem.
Sad/hopeless - 2 weeks in a row (High school students)	MIYHS	2013	During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities? Percentage of students who answered "Yes".
Seriously considered suicide (High school students)	MIYHS	2013	During the past 12 months, did you ever seriously consider attempting suicide? Percentage of students who answered "Yes".
Environmental Health			
Children with elevated blood lead levels (% among those screened)	Maine CDC Lead Program	2013	In 2012, CDC defined a reference level of 5 micrograms per deciliter (µg/dL) to identify children with elevated blood lead levels. These children are exposed to more lead than most children.
Homes with private wells tested for arsenic	BRFSS (2012 Part A)	2013	Data are weighted to the household. At the county level, 9.7%-32.2% of those surveyed did not know whether they had tested their well water for arsenic.
Lead screening among 1 & 2 year old children	Maine CDC Lead Program	2013	A blood lead test is considered a "screening test" only when a child has no prior history of a confirmed blood lead ≥ 10 µg/dL.
Occupational Health			

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Deaths from work-related injuries (number)	Maine Dept. of Labor	2013	Includes self-employed workers, owners of unincorporated businesses and farms, paid and unpaid family workers, members of partnerships, and may include owners of incorporated businesses.
Nonfatal occupational injuries (number)	U.S. Bureau of Labor Statistics	2013	Includes both injuries that required days away from work and those that required job transfer or restriction. Data do not reflect the relative FTEs worked by the various groups of employees.
Infectious Disease			
Hepatitis A infections per 100,000 population	National Electronic Disease Surveillance System (NEDSS)	2014	US rate for 2013.
Hepatitis B infections per 100,000 population	NEDSS	2014	US rate for 2013.
Hepatitis C infections per 100,000 population	NEDSS	2014	US rate for 2013.
Lyme disease per 100,000 population	NEDSS	2014	US rate for 2012.
Newly diagnosed tuberculosis cases per 100,000 population	NEDSS	2014	US rate for 2012.
Newly reported cases of past or present hepatitis C virus (HCV) infection per 100,000 population	NEDSS	2014	
Newly reported chronic hepatitis B virus (HBV) infections per 100,000 population	NEDSS	2014	
Pertussis incidence per 100,000 population	NEDSS	2014	US rate for 2012
Immunization			
Adults immunized for annually for influenza	BRFSS (U.S. core)	2013	Adults that have had either a seasonal flu shot or a seasonal flu vaccine that was sprayed in your nose during the past 12 months.
Adults immunized for pneumococcal pneumonia (ages 65 and over)	BRFSS (U.S. core)	2013	Risk factor for adults aged 65 or older that have ever had a pneumonia shot.
Immunization exemptions among kindergarteners for philosophical reasons	Maine Immunization Program	2015	

Maine Shared Community Health Needs Assessment Data Sources 2015			
Indicator	Data source	Year(s)	Other notes
Two-year olds up-to-date with series of seven immunizations- 4-3-1-3-3-1-4	Maine Immunization Program	2015	The Maine Immunization Program conducts an annual immunization assessment on January 1st of each calendar year which includes all 2 year olds in the State of Maine immunization registry, ImmPact, associated to a practice which enters client specific data. These assessments follow the standard Centers for Disease Control and Prevention childhood assessment criteria of 24-35 months of age immunized as of 24 months for the 4 DTaP (Diphtheria, Tetanus, Polio): 3 IPV (Polio): 1 MMR (Measles, Mumps, Rubella): 3 Hib (Haemophilus influenza type B): 3 HepB (Hepatitis B):1 Var (Varicella):4 PCV (Pneumococcal Conjugate) schedule.
STD/HIV			
AIDS incidence per 100,000 population	Maine CDC HIV Program	2014	US rate for 2013.
Chlamydia incidence per 100,000 population	Maine CDC STD Program	2014	US rate for 2013.
Gonorrhea incidence per 100,000 population	Maine CDC STD Program	2014	US rate for 2013.
HIV incidence per 100,000 population	Maine CDC HIV Program	2014	US rate for 2013.
HIV/AIDS hospitalization rate per 100,000 population	MHDO	2011	DRG-MDC 25
Syphilis incidence per 100,000 population	Maine CDC STD Program	2014	US rate for 2013.
Health Care Quality			
Ambulatory care-sensitive condition hospital admission rate per 100,000 population	MHDO	2011	PQI = Prevention Quality Indicators, a set of measures that can be used with hospital inpatient discharge data to identify quality of care for ambulatory care-sensitive conditions. Additional information at: AHRQ Quality Indicators, Version 4.4, Agency for Healthcare Research and Quality: U.S. Department of Health and Human Services. http://www.qualityindicators.ahrq.gov .
Ambulatory care-sensitive condition emergency department rate per 100,000 population	MHDO	2011	PQI = Prevention Quality Indicators, a set of measures that can be used with hospital inpatient discharge data to identify quality of care for ambulatory care-sensitive conditions. Additional information at: AHRQ Quality Indicators, Version 4.4, Agency for Healthcare Research and Quality : U.S. Department of Health and Human Services. http://www.qualityindicators.ahrq.gov .

*Some state and national data is only available by a single year, whereas the state and public health district data is for several years aggregated.

We wish to thank many people who provided input to this report.

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- Maine Health Access Foundation
- Maine Health Management Coalition
- Maine Hospital Association
- Maine Office of Substance Abuse and Mental Health Services
- Maine Primary Care Association
- Portland Public Health Division
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