The Maine State Health Assessment 2012

Maine Center for Disease Control and Prevention
An Office of the Department of Health and Human Services

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Contents

Background, 2012

Context & Purpose

Essential Public Health Service #1 calls for public health agencies to monitor the health of the population in their jurisdiction. In order to fulfill this service, Maine CDC collects health related data, analyzes that data and data from secondary sources, and shares these data along with that analyzed by other parties. Much of this work is done by subject matter experts within the Divisions of the Maine CDC. **The purpose of the 2012 Maine State Health Assessment (SHA) is to provide a broad overview of the health of Mainers, and serve as a resource for state and local organizations and individuals looking for population health data.**

A complete State Health Assessment also includes data on assets and resources that are available to improve the health of the population. In 2010, the Maine State Public Health Systems Assessment was completed to identify assets and gaps in the public health system. Therefore, the 2012 State Health Assessment, while identifying strengths in the health status of Mainers, does not include capacity measures that were included in the earlier assessment. These assets are fully outlined in the final report of the State Public Health Systems Assessment.

Tables of all indicators for the State Health assessment can be found at: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml

Design & Process

In order to create a complete state health assessment, Maine CDC first created a steering committee of internal staff who decided to adapt the MAPP Community Health Assessment process:

- "Design and Prepare for the Community Health Status Assessment (CHSA) process, oversee the collection and analysis of data, and compile results" – the Steering Committee served these functions.
- "Oversee the steering committee activities, and Provide recommendations for collecting data and gathering community input." – a SHA workgroup, which included local public health departments, university researchers, community coalition representatives, staff from non-profit organizations, and representatives from other offices within the Department of Health and Human Services and other departments performed this function. The primary form of communication and input was via e-mail.
- Membership was selected to ensure "broad community involvement" as well as bringing strong knowledge of the data sources to the table. Content expertise from within Maine CDC was also solicited.

The steps outlined by MAPP were adapted as follows:

1. "Prepare for the CHSA by establishing a subcommittee and planning how the CHSA steps will be undertaken." – The steering committee developed a project plan and timeline.
2. "Collect data for the core indicators on the CHSA indicator list. Review previous assessment efforts and build from these as needed." While the CHSA indicators were considered, sixteen other indicator sets used in Maine and elsewhere were considered in the process as well, and the workgroup helped to make final decisions on which indicators to use. Not all CHSA indicators were included.
3. "Select additional data indicators to explore issues important to the community. Identify additional data indicators by reviewing the list of extended indicators or by developing locally relevant indicators. Collect data for the additional indicators." As noted above, the indicators selected for Maine's SHA included indicators from a variety of sources. All data used was already being collected.
4. "Organize and analyze data and present them in understandable charts and graphs. Compile the findings and disseminate them throughout the community (e.g., via a published document, a series of factsheets, or a Web site)." Due to limited resources, the SHA is displayed on Maine CDC's website, primarily as tables. These tables are available in Excel format for possible conversion to charts and graphs, and maps.

5. "Establish a system to monitor the indicators over time. Modify or add to the indicators periodically, as new information arises from other phases of MAPP." Maine CDC is working to develop a Memorandum of Agreement with our in-state universities with public health programs, our local public health departments, and representatives from our hospitals, primary care providers and health systems to develop a common indicators set for on-going monitoring.
6. "Identify challenges and opportunities related to health status that should be considered during the next phase..." This step was deferred to the State Health Improvement Planning process.

Data included:

The 2012 Maine State Health Assessment includes health status indicators in 22 areas with the intent of describing the issues that are affecting health and wellness of people of all ages in Maine. Indicators describe:

- Birth outcomes,
- Causes and rates of death,
- Hospitalizations and emergency room usage,
- Incidence of infectious and chronic diseases,
- Behaviors that affect health, and
- Health care usage and access.

Due to resource limitations, the **assessment does not** include:

- In-depth descriptions of all health issues, or
- Measures of policies and interventions designed to improve health.

Further data on various health issues and measures of policies and interventions may be found in:

- Specific "Burden of Disease" or "Burden of Injury" reports.
- Annual infectious disease reports.
- Other program specific Maine health data resources.
- Evaluation documents produced by a variety of Maine CDC programs, and by other public health partners.

Indicator Selection Process:

As noted above, the development of the state health assessment started with a steering committee of epidemiologists at Maine CDC. Existing sets of public health indicators from state and national sources, as well as state health assessments completed from other states were evaluated for possible use. A workgroup from academic, health care and public health organizations was convened to select indicators that would best describe Maine's state of health.

Analysis:

Data were obtained and analyzed by Maine CDC epidemiologists from January – September 2012. The analyzed data was collected primarily between 2000 and 2011. The most recent data available varied by source; generally from 2009, 2010 or 2011. Some data are suppressed in accordance with the Maine CDC Privacy Policy. Some additional data are suppressed when the analysis showed that the data provided are unreliable estimates due to small numbers. To offset this, multiple years of data are aggregated where available. Selected indicators were age-adjusted to provide better estimates.

Analyses for most indicators included stratification for known determinants of health, including gender, age, race and ethnicity where data was available and numbers were sufficient as well as income, educational attainment, and sexual orientation for selected data sources. Where possible, the data was also analyzed by county and public health district to provide information on geographic disparities. Due to data and resource limitations, more detailed local analyses were not done for this Assessment, nor were county and public health district data stratified beyond gender.

Public and Stakeholder Feedback:

Once analyzed, data were posted to the Maine CDC website for public access. Comments and feedback are being solicited through this website. District Coordinating Councils were presented with data briefs that summarize data by public health district and county during October, November and December, 2012. An overview and summary of the 2012 Maine State Health Assessment was presented to the State Coordinating Council in December, 2012. Feedback on the Assessment was gathered at these forums.

Distribution:

The 2012 Maine State Health Assessment summary has been distributed via Maine CDC's website, with promotion through the State Coordinating Committee and through the Maine CDC's Director's Public Health Update.

Data Sources:

Data included in the State Health Assessment comes from a variety of sources:

- **US 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.
- **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 **Pregnancy Risk Assessment Monitoring System (PRAMS)**, a survey of mothers who have recently given birth, provided additional pre-natal and maternal health data.
- The **Maine Integrated Youth Health Survey** measured child health status and youth health behaviors. 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 **Behavioral Risk Factor Surveillance System (BFRSS)**, a telephone survey of people 18 years and older who are non-institutionalized, provided data on adult health behaviors, sexual orientation, and some disease prevalence measures.
- **Maine Cancer Registry** provided cancer data.
- **Maine Health Data Organization (MHDO)** provided **hospitalization and emergency room usage** data measured via hospital inpatient and outpatient reporting. The MHDO also provided data on other health care indicators from the **All Payer Claims Database.**
- The **US Centers for Disease Control and Prevention** provided data on some immunizations, analysis for leading causes of death and years of potential life lost, as well as national rates for a number of indicators, for comparison purposes.
- The **Maine CDC Public Health Emergency Preparedness Program** provided data to measure public health emergencies in Maine.
- The **Maine Department of Education** provided high school graduation rates.
- The **Maine Department of Labor** and the **US Bureau of Labor Statistics** provided occupational health injuries and fatality data.
- Sources of data that were not inclusive of all or most of the population of Maine, such as Medicaid service data, were not included.

Limitations:

No new data were collected specifically for this Assessment, and therefore data are limited to existing data sources. In some cases, the most recent available data at the time of the data analysis was two or three years old.

For some indicators, data is limited by small numbers, requiring suppression for privacy and data reliability, and/or aggregation over several years. This is especially true for racial and ethnic minority populations.

Stratification of the data by specific sub-populations with known health disparities was not possible for all indicators. Some data sources used had limited demographic data elements. Sexual orientation, income and education status was limited to only a few of the data sources, and race and ethnicity data collection or quality in several data limited analysis for a number of data sources. Resource limitations as well as small numbers limited the amount of sub-state analysis done by other demographic factors that lead to health inequity.

Acknowledgments:

The completion of the State Health Assessment would not have been possible without the hard work of many Maine CDC and University of Southern Maine staff, as well as contributions from public health partners and staff from other state agencies.

Demographics, 2012

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 United States as a whole; Maine has the highest median age in the country.[1] In 2010, one of every 6 Mainers (15.9%) was 65 years of age or older[3] and that percentage is projected to increase to 26.4% in 2030.[4] At the other end of the age spectrum, only 20.7% of Mainers were less than 18 years old in 2010,[2] down from 23.6% in 2000.[5] In comparison, 24.0% of the United States population was less than 18 years old in 2010.[2] Females made up just over half (51.1%) of the Maine population in 2010.[2]

Maine is less diverse than the United States as a whole, but racial and ethnic diversity is gradually increasing. In 2010, Maine had the smallest minority population of any state in the country; only 5.6% of Mainers reported their race and ethnicity as something other than non-Hispanic White, up from 3.5% in 2000. The comparable figure for the United States in 2010 was 36.3%.[6]

Maine's population grew by 4.2% between 2000 and 2010.[7] Slight further growth is expected through 2020, after which the population is projected to begin slowly decreasing.[4]

Each Maine county and Public Health District has its own unique demographic profile. In 2011, for example, the percentage of the population that was under 18 years of age ranged from 17.9% in Hancock to 22.3% in Androscoggin. The percentage of the population aged 65 and over ranged from 14.3% in Androscoggin to 22.3% in Lincoln.[8] In 2010, the percentage of the county population who reported their race as White alone ranged from 92.1% in Washington to 97.6% in Lincoln. The county with the highest percentage of the population reporting race as Black or African American alone was Androscoggin (3.6%), followed

by Cumberland (2.4%). In most counties, less than 1% of the population reported their race as American Indian or Alaska Native alone, but in Washington County, that figure was 4.9%.[9] Only five counties (Androscoggin, Cumberland, Knox, Penobscot, and York) are expected to experience population growth between 2010 and 2030.[1]

Demographic measures included in the State Health Assessment include:[9]

- Population
- Age and sex
- Race
- Hispanic or Latino ethnicity
- Lesbian, gay and bisexual
- Disability status
- Disability: type of difficulty
- Military members
- Veterans
- Living in rural areas
- Population density

Additional demographic-related measures can be found in the socio-economic status section of the State Health Assessment.[9]

[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 (accessed 5/20/2013).

[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 (accessed 5/20/2013).

[3] Werner CA. 2010 Census brief: the older population: 2010. Issued November 2011. Available from: http://www.census.gov/prod/cen2010/briefs/c2010br-09.pdf (accessed 5/20/2013).

[4] Maine Economics and Demographics Program. State and county projections. Issued February 2013. Available from: http://www.maine.gov/tools/whatsnew/attach.php?id=501734&an=3 (accessed 5/20/2013).

[5] United States Census Bureau. Maine: 2000. Issued August 2002. Available from: http://www.census.gov/prod/2002pubs/c2kprof00-me.pdf (accessed 5/20/2013).

[6] Humes KR, Jones NA, Ramirez RR. 2010 Census brief: overview of race and Hispanic origin. Issued March 2011. Available from: http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf (accessed 5/20/2013).

[7] Mackun P, Wilson S. 2010 Census brief: population distribution and change: 2000 to 2010. Issued March 2011. Available from: http://www.census.gov/prod/cen2010/briefs/c2010br-01.pdf (accessed 5/20/2013).

[8] United States Census Bureau. State & county quickfacts. Available from: http://quickfacts.census.gov/qfd/states/23000.html (accessed 5/20/2013).

[9] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 5/20/2013).

Socio-Economic Status, 2012

Our health is determined, in part, by access to economic opportunities.[1] A 2010 survey found that the percentage of Maine adults aged 18 and older who rated their general health as excellent, very good, or good fell from 95.6% among adults with household incomes of $50,000 or more to 58.8% among those with incomes under $15,000. One in five Maine adults with household incomes under $25,000 reported there had been a time in the last 12 months when they had needed to see a doctor but could not because of the cost.[2]

Maine's median household income is significantly less than the median for the United States ($46,933 and $51,914, respectively), but the percentage of Mainers living below the federal poverty level is significantly lower than in the country as a whole (12.6% and 13.8%, respectively).[2]

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 State Health Assessment. Maine has fewer adults 25 years old and over with less than a high school diploma, GED or equivalent (10.2%), than the United States (15.0%) but a greater proportion of adults 65 years old and over living alone (30.3%), compared to 27.3% nationally.[1]

Socio-economic measures chosen for the State Health Assessment include:[2]

- High school graduation rate
- Educational attainment
- Median household income
- Poverty (less than 100% of the federal poverty level)

- Unemployment
- Single parent families
- Older adults living alone
- Homelessness
- Speak a language other than English at home
- Speak English less than very well

In addition, income- and education-specific estimates are provided for all State Health Assessment measures for which such data are available.

The socio-economic measures included in the State Health Assessment vary across population groups in Maine. For example, females were significantly more likely than males to be 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. The median household income ranged from $34,016 in Piscataquis County to $55,658 in Cumberland County.[2] Educational attainment for adults 25 years old and over ranged from 6.7% in Cumberland County to 16.1% in Aroostook County.[1]

[1] U.S. Department of Health and Human Services. Healthy People 2020. Social determinants of health: overview. Available from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=39 (accessed 6/6/2013).

[2] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 6/6/2013).

General Health and Mortality, 2012

While it is essential to understand the causes, risk factors, and other specifics of the population's health status, broad measures of health and mortality can also help to understand the overall status and needs of the population and in which populations there are 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 2010, 85.3% 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 78.7 years is also similar to the national life expectancy of 78.6 years, and has increased by four years since 1981. The top five leading causes of death in Maine, listed from first to fifth leading cause, are cancer, heart disease, chronic lower respiratory disease, cerebrovascular disease (stroke), and unintentional injuries. While these are the same top five leading causes as for the United States, there are important differences in the rank order among the top five. 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). Also, in the U.S., cerebrovascular disease is the third leading cause of death, but in Maine chronic lower respiratory disease is the third leading cause of death (and cerebrovascular disease is fourth).[1]

General health and mortality measures chosen for the State Health Assessment include[1]:

- General Health Status Reported by Maine Adults
- Average Days In the Past Month for Which Mental Health Was Not Good
- Average Days in the Past Month for Which Physical Health Was Not Good
- Life Expectancy at Birth
- Leading Causes of Death
- Years of Potential Life Lost (YPLL) before Age 65

While most of the State Health Assessment focuses on health status and secondarily on behaviors that promote health, the quality of the health care we provide also impacts our health. The Maine Quality Forum focuses on the data that can drive high quality health care and consumer knowledge in making choices regarding their care. The State Health Assessment focuses on a few indicators that provide a small sample of the status of health care quality in Maine.

Immunization from infectious disease has led to a major public health accomplishment in the last century. Continued immunization can significantly reduce illness and death from a number of causes. Recommendations for immunizations have expanded from those for children and the elderly to all populations for some diseases. The US CDC tracks childhood immunizations at the state level via the National Immunization Survey and adult immunizations through the Behavioral Risk Factor Surveillance System.

Maine has 71 reportable diseases, including diseases that spread via the air and direct contact, via recreational water, via insects and other arthropods, or via animals, via foods. Some of these are vaccine preventable, and others are relatively rare, but still important to track. The State Health

Assessment focuses on the more common diseases that cause greater concern. Maine CDC produces monthly and annual reports of infectious diseases.

Injuries and related morbidity and mortality can be grouped into intentional injury and those injuries caused by actions not intended to cause harm. Leading causes of these injuries in Maine are suicide, motor vehicle crashes, falls, fires and burns, drowning, poisoning and aspirations. For this State Health Assessment, crime is included in this category, even if it does not result in an actual injury. Crime data can be found at Maine Public Safety. BRFSS data is used for intimate partner violence and sexual assault due to the under-reporting of these crimes to law enforcement. The Maine Integrated Youth Health Survey has additional prevention behaviors and measures of both self-harm and inter-personal violence such as physical fighting, harassment and bullying The Maine CDC's Injury Prevention Program produces additional analyses of both intentional and unintentional Injury. The Office of Substance Abuse and Mental Health Services tracks some types of injuries related to substance misuse. Additional data links include the Northern New England Poison Center and the Maine Transportation Safety Coalition.

BRFSS data and the Maine Integrated Youth Health Survey has information on seat belt use.

Every five years, the Maine CDC conducts a comprehensive maternal and child health strengths and needs assessment, focusing on preventive and primary care services for all pregnant women, mothers and infants up to age one; preventive and primary care services for all children; and services for children with special health care needs. Annually, the Maine CDC reports on federal and state performance measures, health systems and the health status of women, children and children with special health care needs. Measures include a focus on prenatal health, behaviors and care; birth outcomes; teen births and related prevention behaviors, and the prevalence of children with special health needs. PRAMS monitors a variety of prenatal and post natal health behaviors and conditions. The National Data for Children with Special Health Needs in Maine provides additional data for children with special health needs in Maine.

While the Office of Substance Abuse and Mental Health Services has primary responsibility within state government for addressing the mental health needs of Maine people, physical and mental health intersect and influence each other. Population-based health measures of mental health come primarily from the BRFSS, including depression and anxiety, the most common, but not necessarily the most severe mental health diagnoses. The Office of Substance Abuse and Mental Health Services collects patient-based data on the severely and persistently mentally ill as well as on adult and child access to mental health treatment.

While the Office of Substance Abuse and Mental Health Services has primary responsibility for substance abuse surveillance, prevention, intervention, treatment, and recovery, there is a clear link between the public's health and substance abuse issues. There are many partnerships throughout the state that result in collaborative work on substance abuse and public health issues. The BRFSS and MIYHS have further data on adult and youth substance use, respectively. The federal agency, SAMHSA, has many substance abuse data sources.

Smoking and other tobacco use kills more people from the state than alcohol, AIDS, car crashes, illegal drugs, murders and suicides combined. The Partnership for a Tobacco-free Maine, a program of the Maine CDC, monitors the use of tobacco and the incidence and prevalence of tobacco-related disease, including those affecting cardiovascular health, respiratory health and cancer. The US CDC presents data on tobacco and tobacco-related diseases as well as other chronic diseases through the Chronic Disease Indicators Project.

Workplace environments and activities have an enormous impact on the working population's health, given that 45% of Americans spend a third of a 24 hour day at work. Nationally, millions of workers are injured or fall ill every year due to hazards in their workplaces, and thousands die. The indicators in the State Health Assessment focus primarily on injuries, but illness and long-term disabilities are additional health risks that can stem from unhealthy workplace environments. The Council of State and Territorial Epidemiologists provides data for the US and selected states on 20 Occupational Health Indicators: Additional data on work-related health issues are provided by the Maine Department of Labor, and the Federal Bureau of Labor Statistics.

General health and mortality measures included in the State Health Assessment vary across population groups in Maine. For example, life expectancy is 81.3 years for women and 76.0 years for men, whereas women report more days of poor mental health (4.27 average days per month) than men (3.08 average days). There are also differences between the leading causes of death and years of potential life lost between the genders, with unintentional injury deaths among men ranking higher in both measures, and a greater number of years of potential life lost due to cancer for women. A smaller percentage of Native Americans report excellent, very good or good health than other races. More Mainers with greater education and income report excellent, very good or good health than those with less income or education. Cancer is the leading cause of death in all Maine Counties, except Piscataquis, where heart disease is the leading cause. Alzheimer's disease is in the top five leading causes of death in only Cumberland, Knox and Piscataquis counties.[1]

[1] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 8/21/2013)

Access to Health, 2012

Linking the public to health care is one of the ten essential public health services. 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. Healthy People 2020 has identified four major components to access to health services: coverage, services, timeliness, and workforce.[1]

In Maine, about one person in ten (10.2%) did not have health insurance in 2010. This is significantly lower than the US rate of 15.0%.[2] In 2010, 10.4% 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 lowest percentage (8.8%) reported over the last 10 years.[2] 88.4% Maine residents reported in 2010 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.[2]

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.)[2]

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.[2]

The number of people per Licensed Primary Care Physician in Maine is 694, compared to 631 in the United States. This ratio is slightly lower than in 2006 (704).[2]

Access measures chosen for the State Health Assessment include:[2]

- Cost-related barriers to health care for adults
- Emergency department visits
- Health Professional Shortage Areas - Dental Providers
- Health Professional Shortage Areas - Mental Health
- Health Professional Shortage Areas - Primary Care
- Medically Underserved Areas and Populations
- Licensed primary care physicians ratio to total population
- No current health insurance coverage
- 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 State Health Assessment, including Cancer, Diabetes, Environmental Health, Health Care Quality, Immunization, Maternal and Child Health, Mental Health, Oral Health, Respiratory Health, and Socio-Economic Status.

Geographical location, gender, race and ethnicity, sexual orientation, age, education and income all affect a person's access to health care.

While all counties in Maine have some medically underserved areas or populations or HPSAs, the Midcoast counties have the fewest HPSAs, and Lincoln and Sagadahoc have none. Kennebec, Knox, Waldo, and Hancock also do not have Primary Care HPSAs, and York, Hancock, Knox and Waldo do not have any mental HPSAs. Cumberland County has no federally designated underserved population or areas. Cumberland, Hancock, Franklin, Kennebec and Lincoln have the lowest Primary Care Physician ratios (474:1, 494:1, 532:1, 548:1 and 569:1, respectively) while Oxford (1490:1), Sagadahoc (1357:1), Somerset (1313:1) and York (1187:1) have the highest. However, it is important to note that these numbers do not take into account the proximity to services in neighboring counties. Cumberland, York , Kennebec, and Sagadahoc have the lowest rates of uninsured Maine residents (9.7%, 9.3%, 8.3%, and 8.2% respectively, while Hancock (15.1%), Waldo (14.1%), Washington (13.6%), and Knox (13.1%), have the highest uninsured rates.[2]

In general, women in Maine have better access to care, with lower uninsured rates (8.3% compared to 12.2% for men), and higher rates of reporting a primary care provider (93.1% versus 83.3% for men). The barriers to care due to cost are not significantly different between men and women.[2] American Indians and Asians have higher uninsured rates (16.3% and 14.6%, respectively) than other races, while White, non-Hispanics are less likely to report barriers to health care due to cost (9.2%) than American Indians, Hispanics or Multiracial non-Hispanics.[2] Bisexuals were more likely to report cost-related barriers to health care (17.8%) than heterosexuals (8.4%).[2] More education and having an income over $50,000 is associated with higher rates of having health insurance, having a primary care provider, and having fewer cost related barriers to care.[2] More education and having an income over $50,000 is associated with higher rates of having health insurance, having a primary care provider, and having fewer cost related barriers to care.[2]

Not surprisingly, given Medicare coverage, a lower percentage of those aged 65 years and over were uninsured (0.3% and 0.2% for 65-74 years old and 75+ years old, respectively) and reported cost-related barriers to health care (1.9%), while more had a primary care provider (96.6%). Fewer 18-24 year-olds and 25-34 year-olds reported having a primary care provider (75.2% and 79.0%, respectively), while insurance rates generally increased with age for those 18 years old and over. Children ages under six and ages 6-17 had lower rates of being uninsured than most adults (4.1% and 5.9%, respectively).[2]

Healthy Maine 2020 also has objectives related to access to health, including:[3]

- Increase the proportion of persons with a usual primary care provider
- Increase the proportion of people of all ages with medical 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 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 health care-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. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 9/20/2013).

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

Environmental Health, 2012

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] 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 of out three (29%) of households have tested their air for radon.[4] 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/nitrites,[1] 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. 44% of households with private wells had ever tested their water for arsenic.

Additional major environmental risks at home and work for Mainers include carbon monoxide poisoning, of particular concern when power outages increase the use of generators, and lead poisoning, a particular concern in Maine due to the older average age of homes in the state. Unintentional non-fire related carbon-monoxide poisoning emergency department visits have remained steady over the past 10 years, with 128 such visits in 2009. The rate of children ages 0-71 months with an elevated blood lead test, among those screened, dropped from 1.5% in 2003 to 0.8% in 2010.

Environmental Health measures chosen for the State Health Assessment include:[5]

- Average exposure to particulate matter of 2.5 microns in size or less
- Carbon monoxide poisoning emergency department visits
- 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 elevated radon
- Homes with private wells tested for arsenic

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

While many environmental health hazards affect all Mainers, specific characteristics of where people live, work, go to school, and play may create disparities. Childhood lead poisoning rates are of a particular concern in Auburn/Lewiston, Bangor, Biddeford/Saco, Portland/Westbrook and Sanford[6] 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 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 (accessed 3/21/2013).

[2] Healthy People 2020, Environmental Health, Available from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=12 (accessed 8/26/2013)

[3] US Environmental Protection Agency, National Residential Radon Survey, 1992

[4] 2010 Maine Behavioral Risk Factor Surveillance System results, Available from: https://data.mainepublichealth.gov/brfss/environmental_health (accessed 9/20/2013)

[5] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 8/21/2013).

[6] Maine Tracking Network, Public Data Portal, Available from: https://data.mainepublichealth.gov/tracking/lead-content (accessed 8/26/2013)

Health Care Quality, 2012

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.

Health care-associated infections (HAIs) are one proxy measure for the quality of health care. A measure of HAI is the number of catheter-related blood stream infections among adult Intensive Care Unit patients per 1,000 central-line catheter days. This rate decreased from 2.18 in 2007 to 1.16 in 2010, slightly lower that the US rate that year (1.20), but increased in 2011 to 1.64. Trend data is not available for other measures of Health Care Quality in the State Health Assessment.

Ambulatory care-sensitive (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 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 rate for 2008 was 1,226[1] per 100,000 population, lower than the benchmark of 1,495.3.[2]

Patient satisfaction is another way to measure health care quality. The Hospital Consumer Assessment of Health Care Providers and Systems (HCAHCPS) is a "national, standardized, publicly reported survey of patients' perspectives of hospital care."[3] The State Health Assessment selected one question from this survey: the percent of patients reporting that physician communication was good. Results for hospitals in Maine range from 76% to 90% in 2009.

Health Care Quality measures chosen for the State Health Assessment include:[4]

- Hospital Admissions for Ambulatory Sensitive Conditions
- CLABSI standard infection ratio
- Good communication with the doctor

Additional measures related to health care quality can be found in several sections of the State Health Assessment, 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 admissions are statistically significantly lower in Cumberland (940.8 per 100,000 population) and Sagadahoc (897.3) counties, and higher for Aroostook (1,706.3) and Penquis (1,578.4) Public Health Districts. These rates are also higher for women (1,313.2) versus men (1,134.7). The rates are lower for younger age groups (251.2 for ages 18-39, 847.8 for ages 40-64 and 3,218.2 for ages 65-74), and higher for people over the age of 75 (8,078.8). The 65-74 and 75+ year age groups are the only ones for which the Maine rate is higher than the 2010 AHRQ national benchmarks (3,088.3 and 7,341.7, respectively).[2]

Healthy Maine 2020 also has objectives related to health care quality, including:[5]

- Increase routine vaccination coverage levels for children and adolescents
- Reduce invasive health care-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 (accessed 8/21/2013).

[2] Agency for Healthcare Research and Quality, Prevention Quality Indicator v4.5 Benchmark Data Tables, May 2013, http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V45/Version_45_Benchmark_Tables_PQI.pdf (accessed 9/17/2013).

[3] HCAHPS Fact Sheet, August 2013 http://www.hcahpsonline.org/files/August%202013%20HCAHPS%20Fact%20Sheet2.pdf (accessed 9/17/2013).

[4] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 8/21/2013).

[5] Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml (accessed 8/21/2013).

Public Health Emergency Preparedness, 2012

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. It includes the establishment and maintenance of 15 public health emergency preparedness capabilities ranging from fatality management, mass care, emergency public information and warning andmedical 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 State Health Assessment, indicators were chosen that reflect the need for this capacity.

In 2011:

- The Maine Emergency Management Agency recorded 13 public health-related events. Previous years' data in 2009 and 2008 included five 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 US 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 health care 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 (accessed 9/20/13).

[2] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/sha-details.shtml?emergency (accessed 9/20/13).

Cancer, 2012

Advances in cancer detection, treatment, and research have led to declines in cancer incidence and death rates. Many cancers can be prevented by reducing risk factors such as tobacco use, physical inactivity, poor nutrition, obesity, and exposure to ultraviolet light. 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] It is important to track cancers by type, since different types of cancers may have different causes and prevention strategies.

The age-adjusted all-cancer death rate in Maine decreased significantly from 1999 to 2008,[3] but cancer remains the leading cause of death among Maine people.[4] More than 3,000 Mainers die from cancer every year. Maine's age-adjusted all-cancer incidence rate is significantly higher than the U.S. rate, driven at least in part by a significantly higher incidence of lung cancer.[3]

Cancer-related measures chosen for the State Health Assessment include:[3]

- Cancer incidence (all cancers)
- Cancer deaths (all cancers)
- Colorectal cancer incidence
- Late stage colorectal cancer incidence
- Colorectal cancer deaths
- Lung cancer incidence
- Lung cancer deaths
- Female breast cancer incidence
- Late stage female breast cancer incidence
- Female breast cancer deaths
- Late stage prostate cancer 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 three years
- Women ages 50 and older who have had a mammogram in the past two years

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

Cancer incidence, mortality, and screening measures included in the State Health Assessment 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 and Penquis Public Health

Districts than in most of the other 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.[3]

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-state 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.[5]

[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 (accessed 3/19/2013).

[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/ (accessed 3/19/2013).

[3] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 3/19/2013).

[4] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based injury statistics query and reporting system (WISQARS): leading causes of death. Available from: http://www.cdc.gov/injury/wisqars/leading_causes_death.html (accessed 3/19/2013).

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

Respiratory, 2012

Asthma 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 United States and the leading chronic cause of children being absent from school.[2] Asthma rates are higher among people living in the northeastern United States;[1] in 2011, the prevalence of current asthma among adults in Maine was higher than in any other state.[3] Chronic lower respiratory disease, which includes COPD and asthma, is the third leading cause of death among Maine residents.[4]

Respiratory-related measures chosen for the State Health Assessment include:[5]

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

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

Estimates for respiratory health related measures included in the State Health Assessment vary across population groups in Maine. For example, current asthma among Maine children is significantly more common among males than females, while among Maine adults current asthma is more common among females than males. Among Maine adults, current asthma is significantly more common among those

who identify themselves as non-Hispanic American Indian or Alaska Native or non-Hispanic Multiracial than among non-Hispanic White adults. The rates of asthma/bronchitis emergency department visits, COPD hospitalizations, and chronic lower respiratory disease deaths are all significantly higher among residents of Somerset and Washington Counties than among Mainers overall.[5]

Healthy Maine 2020 also has respiratory-related objectives, including:[6]

- 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 (accessed 6/5/2013).

[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] American Lung Association. Trends in asthma morbidity and mortality. Issued September 2012. Available from: http://www.lung.org/finding-cures/our-research/trend-reports/asthma-trend-report.pdf (accessed 6/5/2013).

[4] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Available from: http://www.cdc.gov/injury/wisqars/leading_causes_death.html (accessed 6/5/2013).

[5] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 6/5/2013).

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

Tobacco Use, 2012

Use of tobacco is the most preventable cause of disease, death, and disability in the United States. Despite this, every year more deaths are due to tobacco use than to HIV, alcohol use, illegal drug use, motor vehicle injuries, murders, and suicides combined. Exposure to secondhand smoke causes lung cancer and heart disease in adults and health problems such as respiratory and ear infections in children.[1]

The percentage of Maine adults aged 18 years and older who were current smokers decreased significantly from 23.8% in 2000 to 18.2% in 2010, while the percentage of adults who had never smoked increased significantly, from 46.3% to 51.6%. The percentage of Maine adults who were current smokers in 2010 was similar to that reported for the United States (18.2% and 17.2%, respectively).[2] In 2011, 15.5% of Maine high school students reported they had smoked cigarettes on at least one day during the prior 30 days,[2] significantly less than the 18.1% reported for students nationally.[3] However, among those students who did smoke, the percentage who smoked more than 10 cigarettes per day on the days they smoked was significantly higher among Maine students than among students nationally (15.3% and 7.8%, respectively).[3]

Tobacco use related measures chosen for the State Health Assessment include:[2]

- Smoking status among adults
- Smoking during last three months of pregnancy
- Current smoking 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 State Health Assessment, including Cancer and Respiratory.

Estimates for tobacco use related measures included in the State Health Assessment vary across population groups in Maine. For example, male high school students were significantly more likely than female students to be current smokers. Adults aged 18 and older with less education or income were more likely to be current smokers than adults with more education or income. Adults who identified themselves as non-Hispanic American Indian or Alaska Native were significantly less likely to report they had never smoked than were non-Hispanic White adults. Somerset was the only county with a higher prevalence of adult current smoking than the state as a whole.[2]

Healthy Maine 2020 also has tobacco-related objectives, including:[4]

- 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] U.S. Department of Health and Human Services. Healthy People 2020. Leading health indicators: tobacco overview and impact. Available from: http://www.healthypeople.gov/2020/LHI/tobacco.aspx (accessed 6/5/2013).

[2] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 6/5/2013).

[3] Centers for Disease Control and Prevention. Youth online: high school YRBS. Available from: http://apps.nccd.cdc.gov/youthonline/App/Default.aspx (accessed 6/5/2013).

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

Immunization, 2012

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 toward 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 US 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 both Maine and the United States, 72.7% of children ages 19-35 months had all of the recommended immunizations in 2010.
- 56.4% of adolescents ages 13-17 years had received a meningococcal vaccination, and 63.2% had received the recommended tetanus, diphtheria and pertussis (Tdap) vaccination, not significantly different from national rates. These adolescent vaccination rates have increased significantly since 2008, from 35.6% and 43.0% percent, respectively.
- Yearly influenza vaccination rates in 2010 ranged from 33.7% in adults ages 25-34 years to 72% in adults ages 65 years and older.
- 58.9% of children ages 0-17 had a flu vaccination in 2010.
- As of 2010, 71.8% of Adults ages 65 years and older are immunized for pneumonia, a rate that has not changed significantly since 2006.

Immunization measures chosen for the State Health Assessment include:[2]

- Annual flu vaccine for adults
- Annual flu vaccine for children ages 0-17 years old
- Pneumococcal vaccination for those 65 years old and older
- Meningococcal (MCV4) vaccination coverage for adolescents
- Tdap vaccination coverage for adolescents
- Vaccination coverage for children aged 19-35 months

Another indicator realted to immunizations included in the State Health Assessment topic area of infectious disease is the rate of pertussis.

Due to sample sizes in the surveys used for the State Health Assessment immunization data, there is limited data on disparities for childhood and adolescent immunizations in Maine. 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 are[3]:

- 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 (accessed 9/26/13).

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

Infectious Disease, 2012

There are 72 infectious diseases and conditions reportable in Maine with 55 considered nationally reportable[1]. Surveillance data assist in monitoring trends in disease and identifying immediate threats to public health. Health care 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.

- The rate of Lyme disease is 75.7 per 100,000, which is roughly 10 times the national average of 7.9 per 100,000[2]. 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 is 232.9 per 100,000 compared to 426.0 per 100,000 nationally[2].
- The Gonorrhea rate in Maine is 20.5 per 100,000 compared to 100.8 per 100,000 nationally[2]. While the statewide rate is lower than the national rate, Androscoggin County reported a rate of 179.4 per 100,000 in 2012. This indicates a higher rate than the national average for a specific geographic area experiencing an increase in Gonorrhea.
- For Pertussis, the rate in Maine is 15.4 per 100,000 compared to 8.9 per 100,000 nationally[2].

Infectious disease measures chosen for inclusion in the State Health Assessment include:[2]

- Animal Rabies (cases)
- Pertussis
- Campylobacteriosis
- Cryptosporidiosis
- E. coli (STEC)
- Salmonella
- Tuberculosis
- Chronic hepatitis B
- Acute and chronic hepatitis C
- Lyme disease
- Chlamydia
- Gonorrhea
- Syphilis
- Incidence of HIV
- Incidence of AIDS

Additional infectious related measures can be found in the immunization section of the State Health Assessment.

The occurrence of infectious disease is variable among different populations in Maine. For example, males are at higher risk for Lyme disease. Lyme disease rates vary by district with Midcoast, York and Cumberland Districts having the highest rates (154.2, 99.9, 97.3 per 100,000, respectively) and Aroostook the lowest (4.2 per 100,000)[2]. Rates have been increasing in all areas of the state. Among patients with Latent TB infection, 81% are foreign born[1]. This disparity is likely due to a statewide testing program for TB among refugees and immigrants. 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 are[3]:

- 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 health care-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, 2011 Summary.

[2] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 5/23/2013).

[3] 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, 2012

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. Pregnancy provides a chance to identify health risks a woman has, such as hypertension, depression, tobacco use, and unhealthy weight. Addressing these risks can help prevent future health issues for women and their children. Increasing access to quality care both before pregnancy (preconception) and between pregnancies (interconception) 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 20% between 2005 and 2009, though the change was not statistically significant. Despite this decrease, one Maine baby died every five days, on average, during 2009. There was no improvement between 2000 and 2010 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.[2]

About one in five Maine children and youth (19.4%) were reported to have special health care needs in 2009-2010, which was significantly higher than the U.S. rate of 15.1%.[3]

Reproductive health measures chosen for inclusion in the State Health Assessment include:[2]

- Live births, fertility rates, and adolescent births
- Live births where the pregnancy was intended
- Low birth weight (<2500 grams)
- Breastfeeding
- Infant mortality
- Early and adequate prenatal care
- Smoking during the last 3 months of pregnancy

- Contraception use by sexually active high school students
- Birth control pill use among sexually active high school students
- Condom use among sexually active high school students
- Condom use among sexually active middle school students

Children with special health needs measures chosen for inclusion in the State Health Assessment include:[2]

- Children with special health care needs
- Type of special health care needs
- Autism spectrum disorders

Additional maternal and child health related measures can be found in most of the other sections of the State Health Assessment.

The status of maternal and child health measures included in the State Health Assessment often varies across population groups in the state. For example, babies born to mothers who are Black or African American are twice as likely to die before their first birthday as babies born to mothers who are White. New mothers with less education or lower household income are significantly less likely

to report that they did not smoke cigarettes during the last 3 months of their pregnancy or that their pregnancy was intended than were new mothers with more education or income. Sexually active male high school students are significantly less likely than sexually active female students to report they used any contraception the last time they had sex. While some reproductive health measures vary by county or Public Health District, no one county or district is at increased risk relative to the state on all, or most, measures.[3]

Healthy Maine 2020 includes the following reproductive health related objectives:[4]

- 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] Healthy People 2020. Maternal, infant, and child health: overview. Available from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=26 (accessed 5/29/2013).

[2] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 5/28/2013).

[3] 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/ (accessed 5/28/2013).

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

Cardiovascular Health, 2012

More than one in three 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]

The acute myocardial infarction (AMI) mortality rate for Maine is significantly less than in the United States as a whole, while the state's stroke mortality rate is similar to the US rate. Maine's age-adjusted AMI and stroke mortality rates and hospital discharge rates all decreased significantly between 1999 and 2009. The largest decrease was seen for AMI deaths, where the age-adjusted rate was cut almost in half.[2] Still, heart disease is the leading cause of death among Mainers aged 65 and older and the second leading cause of death among all ages combined. Stroke is the fourth leading cause of death among Mainers.[3]

Cardiovascular health related measures chosen for the State Health Assessment include:[2]

- Acute myocardial infarction deaths
- Acute myocardial infarction hospital discharges
- Coronary heart disease deaths
- Stroke deaths
- Stroke hospital discharges
- High blood pressure
- High cholesterol

Additional measures related to risk factors for cardiovascular disease can be found in several sections of the State Health Assessment, 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 AMI 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, and Somerset Counties are at higher risk than the state overall on more cardiovascular health related measures than any other county; their AMI mortality and hospital discharge rates, coronary heart disease mortality rate, and stroke hospital discharge rate are all significantly higher than the state rates.[2]

Healthy Maine 2020 also has objectives related to cardiovascular health, including:[4]

- 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 (accessed 5/14/2013).

[2] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 5/14/2013).

[3] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS): leading causes of death. Available from: http://www.cdc.gov/injury/wisqars/leading_causes_death.html (accessed 3/19/2013).

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

Diabetes, 2012

Diabetes mellitus is a complex public health problem. 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]

A 2010 survey estimated that nearly 90,500 Maine adults ages 18 and over had ever been told by a doctor that they had diabetes (excluding pregnancy-related diabetes). The prevalence of self-reported doctor-diagnosed diabetes among Maine adults increased by 45% between 2000 and 2010 from 6.0% to 8.7% of Maine adults; the 2010 prevalence is the same as that reported for the United States.[2] Diabetes mellitus is the seventh leading cause of death among Maine residents.[3]

Diabetes-related measures chosen for the State Health Assessment include:[2]

- Adults with diabetes
- Diabetes emergency department visits
- Diabetes 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

Measures related to risk factors for diabetes can be found in several sections of the State Health Assessment, 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 State Health Assessment vary across population groups in Maine. For example, males are at higher risk than females of dying from diabetes or having hospital encounters with a diabetes principal 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. Androscoggin, Penobscot, Piscataquis, and Washington counties have higher rates than the state as a whole of both emergency department visits and hospital discharges with a diabetes principal diagnosis.[2]

Healthy Maine 2020 also has objectives related to diabetes, including:[4]

- 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 prediabetes who report engaging in the recommended amount of physical activity
- Increase the proportion of adults diagnosed with prediabetes 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 (accessed 5/8/2013).

[2] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 5/3/2013).

[3] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS): leading causes of death. Available from: http://www.cdc.gov/injury/wisqars/leading_causes_death.html (accessed 3/19/2013).

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

Oral Health, 2012

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]

A 2011-2012 survey estimated that one in 10 Maine children age 1-17 years (13.3%) had one or more oral health problems in the past year, which was significantly lower than the nationwide estimate of 18.7%.[3] Four of every five Maine children (80.5%) had seen a dentist for preventive care in the prior 12 months, significantly better than the U.S. figure of 77.2%.[3] The percentage of Maine adults aged 18 years and older who reported visiting a dentist or dental clinic for any reason in the past year was unchanged between 1999 and 2010 (69.8% and 68.7%, respectively).[4] In 2010, one of every five Mainers aged 65 or older (20.7%) reported having had all of their natural teeth removed due to gum disease or tooth decay, which was a significant improvement over 35.7% in 1999.[4]

Oral health related measures chosen for the State Health Assessment include:[5]

- Adults with 6 or more teeth lost
- Adults with dental care in past year
- Children with treated dental caries and untreated dental cavities

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

Prevalence estimates for oral health measures included in the State Health Assessment vary across population groups in Maine. For example, males aged 18 years and older were significantly less likely than females to have received some type of dental care in the past year. Adults with less education or income were significantly more likely to have had six or more teeth removed due to tooth decay or gum disease than were adults with more education or income. Adults who were non-Hispanic American Indian or Alaska Native were significantly less likely than non-Hispanic White adults to have received some type of dental care in the past year. While some oral health measures varied by county or Public Health District, no one county or district was consistently at increased risk.[5]

Healthy Maine 2020 also has objectives related to oral health, including:[6]

- 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 (accessed 6/3/2013).

[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 (accessed 6/3/2013).

[3] 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/ (accessed 6/3/2013).

[4] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System: prevalence and trends data. Available from: http://apps.nccd.cdc.gov/brfss/ (accessed 6/3/2013).

[5] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 6/3/2013).

[6] 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, 2012

Eating a healthy diet, being physically active, and maintaining a healthy body weight are essential for an individual's overall health. These three factors, taken together, can help lower a person's risk of developing conditions such as high cholesterol, high blood pressure, heart disease, stroke, diabetes, and cancer. They can also help prevent existing health conditions from worsening over time.[1] Food insecurity directly impacts the ability of individuals to consume a healthy diet that promotes overall health and prevents and controls disease.

A 2010 survey found that only one of every three Maine adults aged 18 years and older (35.6%) was at a healthy weight. The percentage of adults who were overweight remained essentially the same between 2000 and 2010 (36.9% and 36.7%, respectively), while the percentage of adults who were obese increased significantly, from 20.3% to 27.7%.[2] In 2011, nearly two-thirds (62.2%) of Maine high school students reported that they did not attend physical education classes in school in an average week, significantly higher than the 48.2% reported nationally.[3] More than a third (37.5%) of Maine high school students said they ate fruit or drank 100% fruit juices less than once a day during the preceding seven days, similar to the national figure of 36.0%.[3] The prevalence of food insecurity has increased in Maine. In 2008-2010, 15.4% of households were uncertain of having, or unable to get, enough food to meet the needs of all household members due to not having enough money or other resources for food, up from 9.4% in 1999-2001.[2]

Physical activity, nutrition, and weight related measures chosen for the State Health Assessment include:[2]

- Physical activity among children
- No leisure time physical activity among adults
- Five or more fruits and vegetables per day among children and adults
- Food insecurity among households
- Overweight and obesity among children
- Weight status according to body mass index among adults

Estimates for physical activity, nutrition and weight measures in the State Health Assessment 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 with less education were less likely than those with more education to report eating five or more servings of fruit or vegetables per day. The percentage of high school students and adults who ate fruits and vegetables five or more times per day was significantly lower in Aroostook County than in the state as a whole.[2]

Healthy Maine 2020 also has objectives related to physical activity, nutrition, and weight, including:[4]

- 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] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 6/3/2013).

[3] 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).

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

Intentional Injury, 2012

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 State Health Assessment:[3]

- Suicide deaths
- Self-harm by high school students
- Students bullied on school property
- Child maltreatment
- Intimate partner violence
- Rape
- Violent crime

Additional intentional injury related measures can be found in the mental health section of the State Health Assessment.[3]

Suicide is the second leading cause of death among 15-34 year old Mainers and the 10th leading cause of death among all ages combined.[4] An average of 180 Maine residents died by suicide each year during 2005-2009.[5] There were 48 homicides in Maine in 2010-2011 combined; nearly half (44%) were domestic violence homicides.[6] Maine's suicide rate was significantly higher than the U.S. rate for 2005-2009, while Maine's homicide rate was significantly lower than the U.S. rate for this five-year period.[7] 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 2011, for example, it was estimated that 10,440 Maine high school students had purposely hurt themselves

(e.g., cutting or burning) without wanting to die during the past year.[9]

The occurrence of intentional injuries included in State Health Assessment 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 or being bullied on school property. Gay, lesbian, and bisexual high school students are more likely than heterosexual students to report intentional self-harm without wanting to die or being bullied on school property. Hispanic and American Indian or Alaska Native high school students were significantly more likely to report being bullied on school property than were White students. The occurrence of intentional injuries varies by county and public health district, but no one particular county or district is at increased risk on all, or most, of the measures in the State Health Assessment.[9]

Healthy Maine 2020 also has objectives related to intentional injury, including:[10]

- 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 (accessed 5/7/2013).

[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 (accessed 5/7/2013).

[3] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 5/3/2013).

[4] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS): leading causes of death. Available from: http://www.cdc.gov/injury/wisqars/leading_causes_death.html (accessed 3/19/2013).

[5] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS): fatal injury reports. Available from: http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html (accessed 5/7/2013).

[6] Working together to end domestic violence homicide in Maine. The 9th report of the Maine Domestic Abuse Homicide Review Panel, April 2012. Available from: http://www.maine.gov/ag/dynld/documents/Working_Together_to_End_Domestic_Violence_04-11-12.pdf (accessed 5/7/2013).

[7] Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death on CDC WONDER Online Database. Available from: http://wonder.cdc.gov/mcd-icd10.html (accessed 5/7/2013).

[8] 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 5/7/2013).

[9] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 5/3/2013).

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

Unintentional Injury, 2012

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 fifth leading cause of death among all ages combined in 2005-2009.[2] Maine's unintentional injury death rate was significantly higher than the U.S. rate for this five-year period.[3] The leading causes of unintentional injury death in Maine were motor vehicle traffic incidents, poisoning, and falls.[2] The number of deaths due to unintentional poisoning increased four-fold between 1999 and 2009.[4] 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).[5]

Unintentional injury related measures chosen for the State Health Assessment include:[6]

- Traumatic brain injury hospital discharges
- Traumatic brain injury emergency department visits
- Emergency department visits due to falls among adults 65 and over
- Unintentional and undetermined poisoning deaths
- Motor vehicle traffic deaths
- Adults who always use a seatbelt
- Students who always wear a seatbelt

Additional unintentional injury related measures can be found in the Environmental Health and Occupational Health sections of the State Health Assessment.[6]

The occurrence of unintentional injuries and preventive behaviors included in State Health Assessment measures vary across population groups in the state. For example, males are at higher risk of motor vehicle traffic deaths, unintentional and undetermined intent poisoning deaths, and hospital encounters related to traumatic brain injury, while females are at higher risk of older adult 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 county and Public Health District; Somerset County was at significantly increased risk on four of the seven unintentional injury measures, more than any other county in the state.[6]

Healthy Maine 2020 also has objectives related to unintentional injury, including:[7]

- 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 (accessed 3/21/2013).

[2] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Leading causes of death. Available from: http://www.cdc.gov/injury/wisqars/leading_causes_death.html (accessed 3/19/2013).

[3] Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death on CDC WONDER Online Database. Available from: http://wonder.cdc.gov/mcd-icd10.html (accessed 3/21/2013).

[4] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Fatal injury reports. Available from: http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html (accessed 3/21/2013).

[5] 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).

[6] Maine Center for Disease Control and Prevention. State health assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 3/22/2013).

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

Mental Health, 2012

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. In addition, mental well-being can affect physical well-being 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 and complex 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]

Mental health related measures chosen for the State Health Assessment include:[4]

- Mental health emergency department rates
- Sad/hopeless — two weeks in a row (youth)
- Seriously considered suicide (youth)
- Alzheimer's disease, dementia & related disorders diagnoses
- Lifetime anxiety (adults)
- Lifetime depression (adults)
- Co-morbidity for persons with mental illness
- Adults with current symptoms of moderate or severe depression

Additional measures related to mental health can be found in several sections of the State Health Assessment, 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 2010, these rates were 17.3%, 21.1% and 9.4%, respectively, with no significant changes from 2006 to 2010. 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 2011, 21.8% of middle school students and 22.7% of high school students felt sad or hopeless. 12.7% high school students reported seriously considering suicide.

Women and girls have higher rates for all of the mental health indicators in the State Health Assessment, except for current depression, and co-morbidities. 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.[3]

Lower incomes and education are associated with higher rates of ever having 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 State Health Assessment, and those with less than a high school education report higher rates.[3]

Healthy Maine 2020 also has objectives related to mental health, including:[5]

- Mental health emergency department rates per 100,000
- Sad/hopeless — two 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 (accessed 1/17/12).

[2] US Center for Disease Control. Mental Illness Surveillance Among Adults in the United States. Fact Sheet 2011. Available from: http://www.cdc.gov/mentalhealthsurveillance/fact_sheet.html (accessed 10/23/2013).

[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. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 8/21/2013).

[5] Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml (accessed 8/21/2013).

Occupational Health, 2012

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 2005 to 2010, a total of 115 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 State Health Assessment include:[3]

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

Additional measures related to occupational health can be can be found in several sections of the State Health Assessment, 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 Managerial & Professional Specialties, while the service 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 (accessed 8/26/2013).

[2] Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml (accessed 8/26/2013).

[3] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 3/19/2013).

Substance Abuse, 2012

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 $302,829,757 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]

There were 133 alcohol induced deaths in 2009 in Maine. This rate of 8.4 per 100,000 population is not significantly different from the US rate of 7.4 and has not changed significantly over the past 10 years.[2]

6.7% of Maine adults over the age of 18 reported heavy alcohol consumption in 2012 and 17.7% report binge drinking, while 1.2% report misuse of prescription drugs.[2] While state-level estimates of other drug use are available from other data sources, these are beyond the scope of the State Health Assessment.

Approximately four in 10 (42.2%) high school students in Maine reported ever having using illicit drugs in 2011. 28% report current alcohol use, 16.9% report binge drinking, 22.1% report marijuana use, and 7.1% report misuse of prescription drugs. While only limited trend data is available, alcohol use and prescription drug use decreased from 2009 to 2011.[2]

Substance Abuse measures chosen for the State Health Assessment include:[2]

- Alcohol-induced mortality
- Alcohol-related mortality
- Alcohol use — youth
- Binge drinking — youth
- Binge drinking — adults
- Chronic heavy drinking — adults
- Lifetime use of illicit drug use among HS students
- Marijuana use — youth
- Nonmedical use of prescription drugs — youth
- Past-year nonmedical use of prescription drugs — adults

Additional measures related to substance abuse can be found in several sections of the State Health Assessment, 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 (12.1 per 100,000 population versus 5.0), alcohol-related deaths (7.3 per 100,000 versus 2.6), and binge-drinking (20.2% versus 9.2%). This is also true for adolescents.

For example, one in four (25.1%) of male high school students reported current marijuana use in 2011, while less than 1 in 5 (18.7%) of their female classmates did.

Knox and Waldo county youth generally have higher rates of substance use for indicators in the State Health Assessment than youth in other counties, with over half (53.3%) of Knox high school students reporting lifetime drug use, and one in five (20.4%) of Waldo county high school students reporting binge drinking. Aroostook county youth and adults generally reported lower levels of substance use. For example, only 5.2% of Aroostook high school students reported misusing prescription drugs in 2011, and only 7.8% of Aroostook county adults over the age of 18 reported binge drinking.

While limited data is available for adults, in youth, substance abuse in Maine disproportionately affects American Indians, Pacific Islanders, and Hispanics. For example, over half (56.1%) of Native Americans high school students report lifetime drug use, while over six in 10 of Hispanics (61.9%)and Pacific Islanders (62.7%) do so. These disparities are also present in reported current use for all the adolescent substance abuse indicators in the State Health Assessment.

Similarly, lesbian, gay and bisexual youth have higher rates of substance abuse, with six in 10 (60.9%) lesbian and gay high school students and two out of three (66.4%) bisexual high student students reporting lifetime drug use.

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 (accessed 10/23/2013).

[2] Maine Center for Disease Control and Prevention. State Health Assessment – 2012. Available from: http://www.maine.gov/dhhs/mecdc/phdata/sha/index.shtml (accessed 8/21/2013).

[3] Maine Center for Disease Control and Prevention. Healthy Maine 2020. Available from: http://www.maine.gov/dhhs/mecdc/healthy-maine/index.shtml (accessed 8/21/2013).

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