

MAINE CANCER PLAN

{ 2016-2020 }



Maine Center for Disease
Control and Prevention

An Office of the
Department of Health and Human Services

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ACKNOWLEDGEMENTS

The [Maine Cancer Plan 2016-2020](#) is the result of the hard work and the contributions of the many public health partners across the state who are committed to improving the lives of Maine people. Individuals involved include representatives from a variety of statewide organizations and other individuals committed to cancer control efforts.

These partners were responsible for the assessment and development of priorities, goals, objectives, and strategies outlined in this [Maine Cancer Plan](#). More than 100 individuals participated in focus area workgroups (Prevention, Early Detection, Treatment, Rehabilitation and Survivorship, and Palliative and End-of-Life Care) that met at least monthly over six months. Their time and effort is much appreciated.

INTRODUCTION

What is the Maine Cancer Plan 2016 – 2020?

The Maine Cancer Plan is a strategic, evidence-based framework to reduce the burden of cancer in Maine. This plan was developed by the Maine CDC Comprehensive Cancer Control Program (MCCCP) in collaboration with statewide cancer control stakeholders, including local public health organizations, hospitals, cancer care centers, private health care providers, State of Maine agencies and programs, professional organizations, advocacy groups, social service organizations, and universities.

The Maine Cancer Plan is intended to provide guidance to individuals and organizations interested in preventing and controlling cancer. The goals and objectives provide concrete, measurable milestones in burden reduction while the strategies offer suggestions for coordinated, collective efforts to meet these goals.

Maine Cancer Plan Vision: To reduce the burden of cancer in Maine through coordinated efforts addressing the greatest cancer-related needs

The Maine Cancer Plan will be updated biennially to reflect progress toward goals and to identify new strategic priorities.

Comprehensive Cancer Control in Maine

Comprehensive cancer control is an integrated and coordinated approach through which communities and partner organizations reduce the burden of cancer through combined efforts aimed at reducing cancer risk, finding cancers earlier, improving treatments, increasing the number of people who survive cancer and improving the quality of life for cancer survivors.

The Maine CDC is committed to reducing the burden of cancer in Maine by promoting healthy behaviors, improving access to preventive and therapeutic cancer care, reducing cancer disparities and fostering statewide partnerships that enable a synergistic approach to reducing the physical, emotional and economic impact of cancer in Maine.

The MCCCP is funded by the U.S. Centers for Disease Control and Prevention. The program provides leadership for, and coordination of, Maine's statewide comprehensive cancer control efforts and is guided by the goals and objectives outlined by the Maine Cancer Plan.

Cancer Disparities

The goals, objectives and strategies outlined in the [Maine Cancer Plan 2016–2020](#) are intended to address a number of health disparities to cancer control and prevention in Maine and improve access to services and reduce the burden of cancer for all Maine residents.

Cancer disparities are defined as the “**adverse differences in cancer incidence (new cases), cancer prevalence (all existing cases), cancer death (mortality), cancer survivorship, and burden of cancer or related health conditions that exist among specific population groups in the United States.**”¹

Population groups can be defined by many characteristics such as sex, age, ethnicity, education, income, social class, disability, geographic location and sexual orientation.

Studies have found that socioeconomic status, more than race or ethnicity, predicts the likelihood of an individual’s or a group’s risk of developing and surviving cancer.—*National Cancer Institute*

In Maine, socioeconomic status is a significant determinant of health, as adults with lower income and education are more likely to be living with one or more chronic diseases. In terms of cancer control, these factors also play a significant role in preventive health behavior:

- **Among Maine females ages 50 years and older, those with less than a high school education are less likely to have received a mammogram for breast cancer screening within the past two years (73.5 percent) compared with those with a bachelor’s degree or higher (84.5 percent).**
- **Maine adults with less than a high school education are significantly less likely to have up-to-date colorectal cancer screening (60 percent) compared with those with a bachelor’s degree or higher (77.7 percent).**
- **Maine adults with annual household income of \$15,000 or less are significantly less likely to be up-to-date for breast and/or colorectal cancer screening.**
- **In Maine, subpopulations that are significantly more likely to use tobacco include males, young adults, those who have a lower income, those who have lower education and those who are enrolled in MaineCare.**²

Socioeconomic disparities in Maine are amplified by the changing demographics of the population. The number of racial and ethnic minorities in Maine has increased during the past decade, emphasizing the cultural barriers to cancer prevention and early detection and increasing the need for culturally sensitive health education and outreach efforts to reach these populations.

¹Cancer Health Disparities, retrieved April 30, 2015, <http://www.cancer.gov/about-nci/organization/crchd/cancer-health-disparities-fact-sheet#q1>.

²Maine Cancer Surveillance Report 2014, <http://www.maine.gov/dhhs/mecdc/population-health/ccp/publications.shtml#surveillancereport2014>.

SUMMARY of PLAN GOALS and PRIORITIES

Prevention

Goal 1: Reduce overall cancer risk in Maine due to selected modifiable risk factors (behaviors).

Plan priorities: Increase Human papillomavirus (HPV) vaccination and decrease obesity and tobacco use among Maine youth and adults.

Goal 2: Reduce overall cancer risk in Maine through reduction in selected exposures.

Plan priorities: Increase radon testing and mitigation efforts, reduce indoor tanning use, and increase sun safety behaviors among youth.

Early Detection

Goal 3: Provide evidence-based cancer screening and follow-up services for detectable cancers to all Maine residents.

Plan priorities: Reduce late-stage diagnoses of breast, colorectal and lung cancers.

Treatment

Goal 4: Elevate the quality of cancer care in Maine to meet or exceed national best-practice standards and expand access to quality cancer care to all Maine citizens.

Plan priorities: Increase the number of Commission on Cancer (CoC)-accredited hospitals, the percentage of patients treated at CoC-accredited hospitals and enrollment in clinical trials.

Survivorship

Goal 5: Support the cancer survivorship infrastructure and increase its awareness and utilization throughout Maine.

Plan priorities: Decrease the proportion of cancer survivors who use tobacco after diagnosis and increase the use of survivorship care plans and patient navigation processes to address barriers to care.

Palliative and End-of-Life Care

Goal 6: Ensure that Maine residents who have been diagnosed with cancer can access palliative care through treatment and beyond, as well as hospice care at end of life.

Plan priorities: Establish a baseline of palliative care services and hospice metrics in Maine and increase the percentage of cancer patients who receive hospice care.

EVIDENCE-BASED APPROACHES to CANCER CONTROL

Policy, Systems, and Environmental Change: What it means for the Maine Cancer Plan

Policy, systems, and environmental (PSE) changes are public health interventions that implement policies, make changes to a system or modify environments to provide healthy options and make healthy choices easy for everyone. PSE changes maximize public health cancer control resources by extending the impact of interventions to reach populations instead of individuals.

Policy, systems, and environmental change make healthier choices a real, feasible option for every community member by looking at the laws, rules, and environments that impact our behavior. — *U.S. CDC*

Comprehensive cancer control programs and their partners are encouraged to engage in cancer control and prevention efforts that:

- **Increase awareness of effective PSE approaches for primary prevention of cancer;**
- **Enhance efforts to increase use of cancer screening, with a focus on health systems change;**
- **Promote chronic disease self-management approaches to reduce risk of second or recurrent cancer among survivors.**

There are some distinctions among policy, systems and environmental changes, but there is also a great deal of overlap (Table 1, following page). Policies are often the driving force behind system changes so many times a policy also precipitates a change within the system. A change within a system can also become an environmental change.

While PSE approaches serve as the foundation for behavior change, programs are often used to elicit changes in behavior. Table 2 on the following page highlights the difference between programmatic approaches and PSE approaches as they relate to cancer prevention and control.

Table 1. The difference between policy, systems, and environmental changes

	Policy Change	Systems Change	Environmental Change
Definition	Changing laws, regulations, resolutions, ordinances or rules that guide or influence behavior	Changing processes or rules of an organization, institution or system	Changing the physical, social or economic factors designed to influence people's practices and behaviors
Settings	Legislatures (national, state, local), government administrations, health care, schools, worksites, community organizations	Health care delivery and insurance systems, schools, worksites, communities, parks	Physical environments (stores, schools, websites, parks, health care provider offices), economic and social environments
Examples	Implementing comprehensive tobacco and wellness policies in schools	Revising organizational procedures to increase the use of patient and/or provider reminders for routine cancer screening	Adding sun shade structures in parks or on school grounds
Examples of Intersection	Smoke-free policies Healthy vending machine policies Adding night/weekend health care provider / clinic office hours Zoning restrictions/limitations on fast food and tobacco retailer establishments Farm-to-school programs		

Table 2. The difference between a program and a PSE change

Setting	Program/Event	PSE Change
School	Hold a student "play day" to encourage physical activity	Implement a school policy that incorporates more physical activity into each school day
Worksite	Offer free health information and screenings to employees	Implement a healthy vending machine policy that provides healthy, affordable snacks at the worksite
Hospital	Provide free breastfeeding courses for new moms	Implement WHO's 10 Steps to Successful Breastfeeding
Community	Host an educational program about smoking prevention and cessation	Implement a tobacco-free policy for parks, community buildings and other public spaces

PSE Examples from the Maine Cancer Plan 2016–2020

The Maine Cancer Plan 2016–2020 includes many strategies that involve PSE change. Consider using the examples below to guide the work that you do and to inspire new approaches within your organization, community, and health care settings.

Table 3. Examples of PSE approaches from the *Maine Cancer Plan*

Prevention
<ul style="list-style-type: none"> • Support requirements for radon testing and mitigation when buying or selling a home. • Limit access to indoor tanning devices for youth. • Promote the inclusion of sun safety policies for K-12 schools. • Utilize provider assessment and feedback to improve HPV vaccination coverage among Maine teens. • Implement policies and practices that create supportive nutrition and physical activity environments in K–12 schools before, during and after school. • Support the implementation of environmental changes that increase community opportunities for safe physical activity. • Promote and adopt tobacco-free policies in worksites, schools, colleges, hospitals, homes and behavioral health settings. • Adopt practice protocol that requires health care providers to discuss tobacco use with patients and refer them to the Maine Tobacco HelpLine.
Early Detection
<ul style="list-style-type: none"> • Support the use of evidence-based approaches such as cancer screening recommendations, client and provider reminders and chart reviews to identify patients appropriate for and/or overdue for cancer screening.
Treatment
<ul style="list-style-type: none"> • Address workforce issues that impact the ability to maintain and achieve American College of Surgeons (ACoS) Commission on Cancer (CoC) accreditation in hospitals. • Support the adoption of CoC Patient Care Standards in hospitals. • Establish procedures that support health care providers in promoting clinical trial opportunities and participation to patients.

Survivorship

- Utilize electronic medical records to routinely assess and monitor patient tobacco use in oncology practices.
- Incorporate tobacco cessation treatment and support services in oncology care and survivorship programs.
- Incorporate the use of survivorship care plans into patient care.
- Implement patient navigation and shared decision-making approaches to address health disparities and patient barriers to care.

Palliative and End-of-Life Care

- Connect hospitals and private oncology practices to hospice programs.
- Support and promote the use of palliative care services in hospitals and private oncology practices.
- Support and promote the reporting on pain and symptom management metrics in Maine hospice programs.

PUTTING THE PLAN INTO ACTION

Not sure where to start? Look below to see which strategies you can adapt to advance the goals outlined in this plan:

Health care organizations and hospitals can

- Work with health insurers to address disparities in health insurance coverage in regard to screening versus diagnostic procedures for all cancer screening preventive services;
- Identify and reduce barriers to cancer screening services across Maine;
- Assess workforce issues that impact the ability to maintain and achieve CoC accreditation;
- Provide opportunities for health care professionals to learn about the public health needs of cancer survivors.

Health care providers can

- Refer patients to smoking-cessation services and offer tobacco treatment;
- Recommend appropriate cancer screening tests and preventive measures, such as vaccinations;
- Promote patient and family education regarding decision-making and shared decision-making opportunities;
- Expand referrals and access to rehabilitation and survivorship services throughout Maine;
- Make earlier referrals to hospice for end-of-life care.

Public Health Professionals can

- Increase awareness of radon testing and mitigation;
- Enhance sun safety and skin cancer prevention education for youth;
- Increase awareness of cancer screening recommendations and methods.

Community-based organizations can

- Collaborate with local, state and regional partners to maximize resources to reach and educate middle and high school students with skin cancer prevention and tanning messaging;
- Support food security organizations in promotion of good nutrition and increased physical activity to clients;
- Assess and respond to barriers encountered by individuals when accessing routine medical care, including cancer screening.

Professional organizations can

- Promote the development of new partnerships to provide rehabilitation and survivorship services;
- Promote palliative care education opportunities for clinicians;
- Support hospital and staff oncology practices in learning about hospice and establishing relationships with hospice programs.

Businesses and employers can

- Participate in programs to prevent youth tobacco sales;
- Provide benefits that offer full financial coverage for recommended cancer screenings and time off for employees to get screened;
- Provide sun-protective clothing and sunscreen to individuals working outside.

Advocates and Survivors can

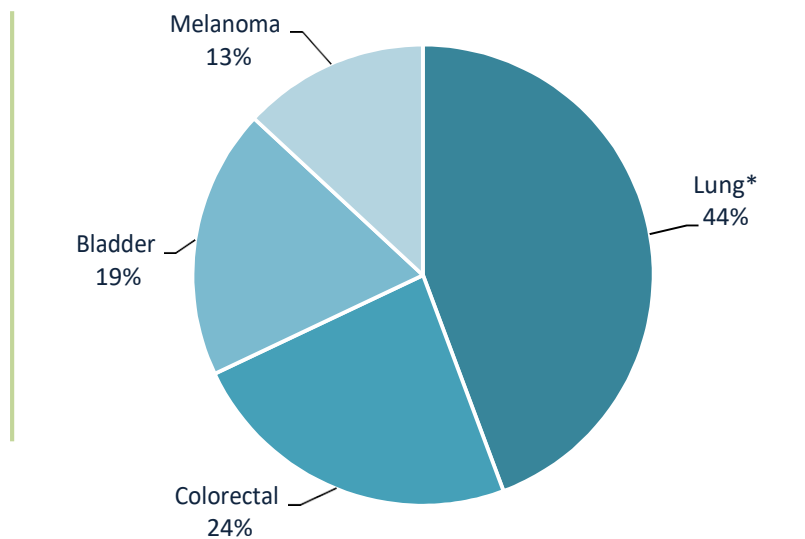
- Support and comply with evidence-based anti-obesity and healthy eating laws, ordinances, and policies across Maine;
- Support and comply with evidence-based smoke- and tobacco-free laws, ordinances and policies;
- Share personal experiences to help educate others about the needs of survivors.

The BURDEN of CANCER in MAINE

Cancer Incidence

During 2008-2010, an average of 8,321 new cancer cases were diagnosed per year, with Maine's age-adjusted incidence rates significantly higher than the rates for the U.S.³ Four specific cancers account for the largest percentage of new cancer cases in Maine – lung cancer, colorectal cancer, breast cancer among women and prostate cancer among men. Lung cancer and colorectal cancer are the most common cancers that affect members of both sexes (Figure 1). Age-adjusted lung cancer incidence rates for both Maine men (79.7 per 100,000) and women (60.9 per 100,000) were significantly higher than the rates for U.S. whites (66.4 per 100,000 and 50.7 per 100,000, respectively).

Figure 1. Percent of Adult Cancer Incidence by Type[∞], Maine, 2011



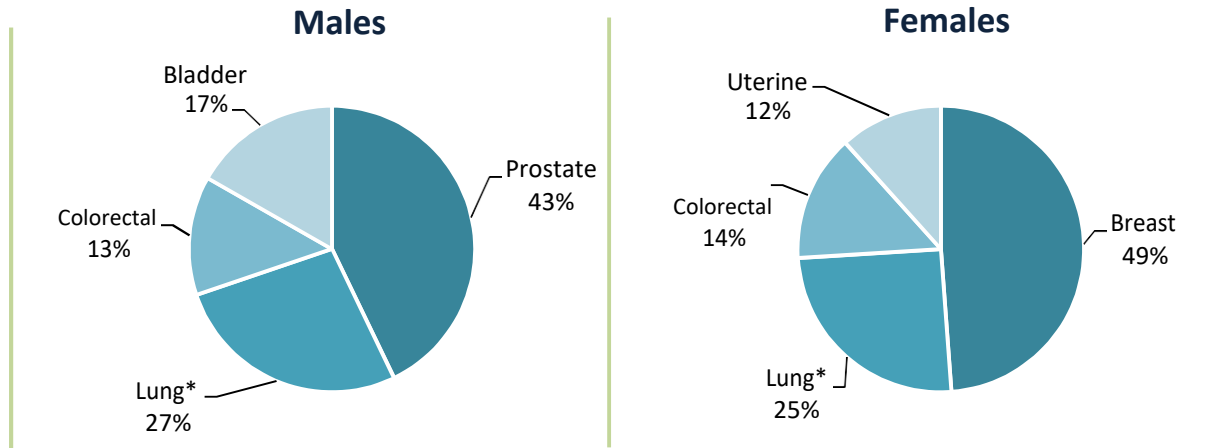
[∞] Excludes sex-specific cancers

* Maine rate is significantly higher than U.S. white rate.

³ Maine Annual Cancer Report 2014 (2011 cancer incidence, 2011 cancer mortality), <http://www.maine.gov/dhhs/mecdc/population-health/mcr/reports/index.htm>.

Among Maine males, prostate cancer accounts for the largest percentage of new cancer cases while breast cancer accounts for the largest percentage of new cancer cases in Maine females (Figure 2). The incidence rates for both prostate (115.3 per 100,000) and female breast (126.9 per 100,000) cancers in Maine are similar to the rates seen in U.S. whites (125.7 per 100,000 and 127.1 per 100,000, respectively) and have declined steadily over the past decade.

Figure 2. Percent of Adult Cancer Incidence by Type and Sex, Maine, 2011



* Maine rate is significantly higher than U.S. white rate.

Tobacco-related cancers (excluding lung)⁴, are a group of nine site-specific cancers for which tobacco use has a direct causal link and are a significant contributor to overall cancer incidence in Maine adults. In 2011, the tobacco-related cancers accounted for nearly 20 percent of all new cancer cases which is significantly higher than national rates.⁵ While tobacco-related cancer incidence rates are high for both Maine males and females, the rate among males was significantly higher than the rate for U.S. whites.

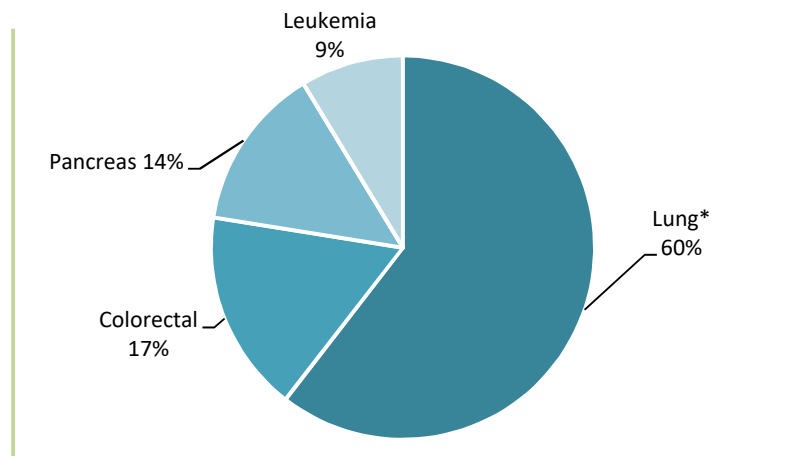
⁴ Tobacco-related cancers, excluding lung cancer are: laryngeal, oral cavity and pharynx, esophageal, stomach, pancreatic, kidney and renal pelvis, urinary bladder, cervical cancers and acute myeloid leukemia.

⁵ Maine Annual Cancer Report 2014 (2011 cancer incidence, 2011 cancer mortality), <http://www.maine.gov/dhhs/mecdc/population-health/mcr/reports/index.htm>.

Cancer Mortality

In 2011, cancer accounted for 3,201 deaths in Maine.⁶ The specific cancers that account for the most cancer deaths in Maine include lung cancer, colorectal cancer, breast cancer among females and prostate cancer among males. Lung cancer and colorectal cancer are the most common causes of cancer-related deaths that affect members of both sexes (Figure 3).

Figure 3. Cancer Mortality by Type[∞], Maine, 2011

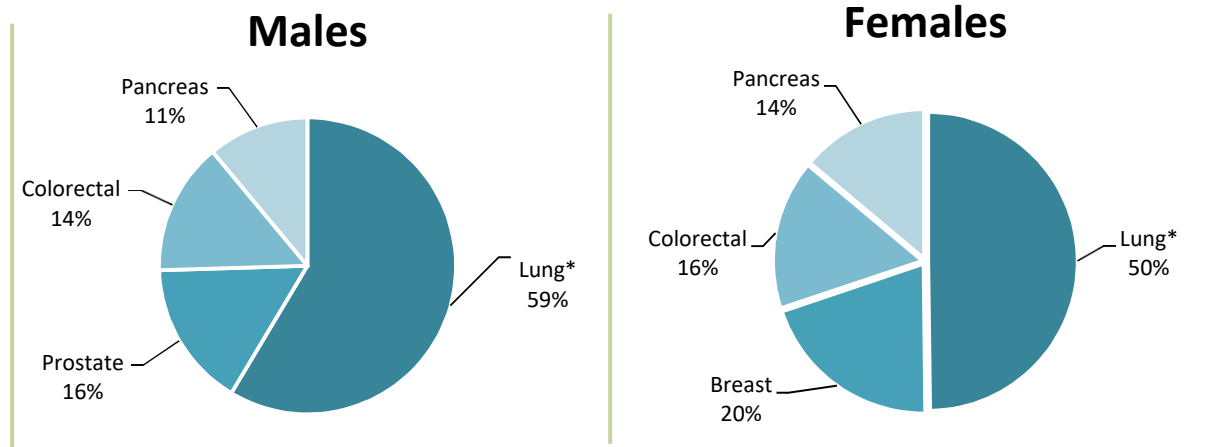


[∞] Excludes sex-specific cancers

* Maine rate is significantly higher than US white rate.

Among both Maine males and females, lung cancer accounts for the largest percentage of cancer deaths, with mortality rates for both sexes significantly higher than national rates. Prostate cancer is the next leading cause of cancer death among males and breast cancer is the next leading cause of cancer deaths among females; however, death rates for both of these cancers have declined during the past decade and are now similar to national rates (Figure 4, following page).

⁶ Maine Annual Cancer Report 2014 (2011 cancer incidence, 2011 cancer mortality), <http://www.maine.gov/dhhs/mecdc/population-health/mcr/reports/index.htm>.

Figure 4. Cancer Mortality by Type and Sex, Maine, 2011

* *Maine rate is significantly higher than US white rate.*

Similar to trends seen with incidence, tobacco-related cancers (excluding lung) are a leading cause of cancer-related mortality for both Maine males and females. In 2011, tobacco-related cancers accounted for approximately 21 percent of all cancer deaths in Maine, which was significantly higher than national rates.⁷ Tobacco-related cancer mortality rates for Maine males in particular (55.2 per 100,000) are significantly higher than the rate for US white males (47.3 per 100,000).

⁷ Maine Annual Cancer Report 2014 (2011 cancer incidence, 2011 cancer mortality), <http://www.maine.gov/dhhs/mecdc/population-health/mcr/reports/index.htm>.

GOALS and OBJECTIVES

The goals, objectives and recommended strategies of the [Maine Cancer Plan 2016-2020](#) are divided into the multiple approaches to cancer prevention and control:

Prevention

Early Detection

Treatment

Rehabilitation and Survivorship

Palliative and End-of-Life Care

The strategies offered in the [Maine Cancer Plan](#) are recommended as evidence-based starting points for affecting change but do not represent the limit of all that can be done. The Maine CDC Comprehensive Cancer Control Program regularly surveys cancer control partners and stakeholders to assess how the [Maine Cancer Plan](#) is being implemented. This information allows for evaluation of Plan progress, as well as identification and sharing of effective strategies and best practices.

Prevention

For both youth and adults, there are a number of factors that can contribute to an increased risk of developing cancer. Although cancer risk generally increases with age, health behaviors and lifestyle choices such as tobacco and alcohol use, excess body weight, poor diet, physical inactivity and excessive exposure to ultraviolet light are all known to increase an individual's risk of being diagnosed with cancer. Environmental factors, such as exposure to elevated levels of radon in indoor air, can also contribute to the risk of developing certain types of cancer.

The *Maine Cancer Plan 2016-2020* lists two major goals for reducing the burden of cancer through prevention. The objectives and strategies within these goals address priority environmental and risk behavior issues in Maine. In some cases the objectives are aligned with other state plans, and that is noted when applicable.

GOAL 1: Reduce overall cancer risk in Maine due to selected modifiable risk behaviors.

Tobacco⁸

Objective 1.1: Reduce the percentage of Maine high school students that use any tobacco products to 13.6 percent and the percentage that use cigarettes to 9 percent by 2020.

(Baseline: Tobacco products: 15.7 percent, Cigarette use: 10.7 percent, MIYHS 2015)

Objective 1.2: Reduce tobacco use among Maine adults by 10 percent by 2020.

(Baseline: 20.2 percent, BRFSS 2013)

Smoking can cause cancer almost anywhere in the body. If no one in the United States smoked, we could prevent one out of three cancer deaths.
— *U.S. Surgeon General's Report on Smoking and Health, 2014*

Strategies for 1.1 and 1.2:

- A. Support the implementation of and compliance with evidence-based smoke and tobacco-free laws and ordinances across Maine.
 - a. Example environments to effect:
 - i. School Administrative Units (SAUs)
 - ii. Worksites
 - iii. Hospitals
 - iv. Behavioral Health Centers
 - v. Colleges/Universities
 - vi. Municipalities
 - vii. Tobacco retailers

⁸ Aligned with Healthy Maine 2020. <http://www.maine.gov/dhhs/mecdc/healthy-maine/>.

- B. Implement smoke and tobacco-free laws, ordinances, and policies that address emerging issues and products, such as electronic cigarettes.
- C. Encourage health care providers to attend evidence-based tobacco treatment trainings (such as the Partnership For A Tobacco-Free Maine [PTM] basic skills and intensive tobacco treatment trainings).
- D. Increase the number of providers who offer tobacco treatment.
- E. Increase the number of referrals by providers to the Maine Tobacco HelpLine.
- F. Promote tobacco retailer participation in the NO BUTS! program and Star Store initiative to prevent youth tobacco sales and restrict tobacco marketing to youth.
- G. Encourage Maine individuals and families to make rules against smoking in their home.

It is estimated that continuation of existing trends in obesity will lead to about 500,000 additional cases of cancer in the United States by 2030.

— *National Cancer Institute*

Obesity⁹

Objective 1.3: Reduce to 10.1 percent the proportion of Maine high school students who are obese by 2020.

(Baseline 14.1 percent, MIYHS 2015)

Objective 1.4: Reduce to 14 percent the proportion of Maine high school students who are overweight by 2020.

(Baseline: 16.5 percent, MIYHS 2015)

Strategies for 1.3 and 1.4:

- A. Implement evidence-based anti-obesity and healthy eating laws, ordinances and policies across Maine.
 - a. Increase the number of School Administrative Units (SAUs) that have wellness policies that meet or exceed the federal standards.
 - b. Encourage SAUs to meet or exceed the federal recommendations for daily physical activity opportunities.
 - c. Support policies that promote and enable safe walking and biking to school and in communities.
 - d. Increase the number of schools that offer mostly healthy foods and drinks in their outside food sales and eliminate advertising and availability of unhealthy foods and drinks.
 - e. Eliminate the use of food as an individual educational reward in SAUs.
- B. Increase the number of youth who have access to after-school activities.
- C. Encourage physicians to offer healthy weight interventions.
- D. Encourage SAUs to use point-of-sale menu labeling.

⁹ Aligned with Healthy Maine 2020 (<http://www.maine.gov/dhhs/mecdc/healthy-maine/>).

Objective 1.5: Reduce the proportion of Maine adults who are obese to 25 percent by 2020.
(*Baseline: 28.9 percent, BRFSS 2013*)

Objective 1.6: Reduce the proportion of Maine adults who are overweight to 34 percent by 2020.
(*Baseline: 36 percent BRFSS 2013*)

Strategies for 1.5 and 1.6:

- A. Implement evidence-based anti-obesity and healthy eating laws, ordinances and policies across Maine.
- B. Support food security organizations in promotion of good nutrition and increased physical activity
- C. Support the creation of pedestrian-friendly towns through municipal policy, master plan inclusion and volunteerism.
- D. Increase the number of clinicians who offer healthy-weight interventions.
- E. Encourage non-chain restaurants and foodservice establishments to present calories and other nutrition information on menus and at the point of purchase.
- F. Support the provision of free and reduced-cost nutrition education opportunities to the public.

Human Papillomavirus (HPV)

Objective 1.7: Increase by 10 percent patient adherence to three-dose HPV vaccination administration among teens ages 13-18 by 2020.

(*Baseline: 81 percent [females], 48 percent [males], National Immunization Survey, 2013*)

Strategies for 1.7:

- A. Provide assessment and feedback information to health care providers on current HPV vaccination rates and suggestions for methods to improve vaccination rates.
- B. Educate health care providers who are fully integrated in the state registry on the importance of keeping their client immunization history information up to date and identifying and disassociating former clients who have moved or gone elsewhere.
- C. Provide quarterly assessment reports to health care providers that are fully integrated into the ImmPact system.
- D. Support Maine Immunization Coalition efforts in dissemination of best practice information to health care providers and school-based health centers on HPV vaccinations.

GOAL 2: Reduce overall cancer risk in Maine through the reduction in selected exposures.

Radon¹⁰

Objective 2.1: Increase radon testing in owner-occupied structures to 40 percent by 2020.

(Baseline: 32.9 percent, BRFSS 2012)

Objective 2.2: Increase radon testing in non-seasonal residential rental properties to 90 percent by 2020.

(Baseline: 21.4 percent, BRFSS 2012)

Strategies for 2.1 and 2.2:

- A. Promote radon testing in non-rental properties during real estate transactions and after new construction.
- B. Maintain the regulatory program for radon testers and radon analysis labs.
- C. Collaborate with other public health programs, agencies, groups and organizations to increase awareness of radon and the reasons for radon testing.
- D. Support group and agencies that provide services or education/information to tenants in efforts to educate tenants about radon and the law requiring radon testing in residential rentals.
- E. Work with groups and agencies that provide services or education/information to tenants to obtain addresses of residential rentals to compare to addresses reported for tested residential rentals.
- F. Work with the Attorney General's office to enforce penalties on landlords who violate Maine law by not completing radon testing in the residential rental properties they own.

Radon is estimated to cause about 21,000 lung cancer deaths in the United States every year.—*U.S. CDC*

Objective 2.3: Decrease the number of owner-occupied structures with elevated radon levels to 15 percent by 2020.

(Baseline: 19.8 percent, BRFSS 2010)

Strategies for 2.3:

- A. Promote radon mitigation in non-rental properties with high radon during real estate transactions and after new construction.
- B. Maintain the regulatory program for radon mitigators.
- C. Collaborate with other public health programs, agencies, groups and organizations to increase awareness of radon mitigation effectiveness.

¹⁰ Aligned with Maine CDC Division of Environmental Health program objectives.

Ultraviolet Radiation

Objective 2.4: Reduce the proportion of Maine high school students who use indoor tanning devices to 9 percent by 2020.

(Baseline: 12.6 percent, MIYHS 2015)

Strategies for 2.4:

- A. Support efforts to limit access to indoor tanning devices for youth under age 18.
- B. Educate proprietors of indoor tanning facilities about the laws governing the use of tanning devices by minors.
- C. Support the enforcement of laws governing the use of indoor tanning devices by minors.
- D. Collaborate with local, state and regional partners to maximize resources to educate middle and high school students about skin cancer prevention and the risks associated with tanning.

Skin cancer is the most common form of cancer in the United States and most cases can be prevented by protecting against exposure to UV light.

—U.S. CDC

Objective 2.5: Increase the proportion of Maine high school students who wear an SPF of 15 or higher when outside for more than one hour on a sunny day to 27.5 percent by 2020.

(Baseline: 22 percent, MIYHS 2015)

Strategies for 2.5:

- A. Enhance sun safety and skin cancer prevention educational programs and opportunities for youth, including secondary prevention strategies (sunscreen) and primary methods of sun protection (hats, sun-protective clothing, sunglasses, and shade) throughout each stage of childhood.
- B. Support the enhancement of outdoor recreation and play areas in order to provide adequate shade for safe outdoor physical activity.
- C. Support the development of school wellness policies that limit sun exposure and/or promote sun protection during school activities.
- D. Work with partners to continue sun safety and skin cancer awareness messaging through outreach to secondary education institutions.

Early Detection

The early detection of cancer through routine screening can help diagnose cancer early when treatment is more likely to be successful. For some cancers, early detection can actually prevent cancer from developing. Currently, population-level cancer screening recommendations are available for breast, cervical and colorectal cancers. New lung cancer screening recommendations are now available for high-risk individuals.

For other cancers, primarily oral, prostate, and skin, there is insufficient evidence to support routine screening. Individuals and their health care providers should make the determination of screening for these cancers based on personal risk factors and individual medical and family history.

Regular screening tests may find breast, cervical, and colorectal cancers early, when treatment is likely to work best. Lung cancer screening is now recommended for high risk individuals. — *U.S. CDC*

The early detection goal of *The Maine Cancer Plan 2016–2020* seeks to reduce the burden of cancer by decreasing the rates of late-stage cancer diagnoses of the most prevalent cancers in Maine for which there are screening recommendations: breast, colorectal and lung cancers. While there are screening recommendations for the early detection of cervical cancer, Maine incidence and death rates are relatively low due to improvements in prevention, screening and treatment, therefore it was not identified as a strategic priority for this Plan.

GOAL 3: Provide evidence-based cancer screening and follow-up services for detectable cancers to all Maine residents.

Objective 3.1: Reduce the rate of late-stage breast cancer to 38 new cases per 100,000 Maine females by 2020.¹¹

(Baseline: 40.6 per 100,000, *Maine Cancer Registry 2012*)

Strategies for 3.1:

- A. Increase number of uninsured and underinsured women who receive breast cancer screening through the Maine CDC Breast and Cervical Health Program (MBCHP) and health system programs.
- B. Assess and respond to barriers women face in getting routine breast cancer screening. Strategies may include patient dialogue and education in one-on-one or group settings.

¹¹ Aligned with Healthy Maine 2020, <http://www.maine.gov/dhhs/mecdc/healthy-maine/>.

- C. Increase public awareness of breast cancer screening recommendations through education that includes public service announcements, videos, brochures and posters in clinical and community spaces.
- D. Work with health insurers providing coverage in Maine to address disparities in health insurance coverage in regard to screening versus diagnostic procedures for all cancer screening preventive services.

Objective 3.2: Reduce the rate of late-stage colorectal cancer to 22.0 new cases per 100,000 Maine residents by 2020.¹²

(Baseline: 22.5 per 100,000, Maine Cancer Registry 2012)

Strategies for 3.2:

- A. Identify and reduce barriers to colorectal cancer screening for patients across Maine. This may include geographic access, patient education and strengthening health care provider recommendations.
- B. Promote public awareness of colorectal cancer screening recommendations through education that includes public service announcements, videos, brochures and posters in clinical and community spaces.
- C. Promote provider awareness and use of evidence-based colorectal cancer screening recommendations and methods.
- D. Work with health insurers providing coverage in Maine to address disparities in health insurance coverage in regard to screening versus diagnostic procedures for all cancer screening preventive services.

Objective 3.3: Reduce proportion of late-stage lung cancer to 71.4 percent by 2020.

(Baseline: 75.2 percent, Maine Cancer Registry 2012)

Strategies for 3.3:

- A. Increase the number of high-risk Mainers who receive lung cancer screening.
- B. Promote public awareness of lung cancer screening recommendations through education that includes public service announcements, videos, brochures and posters in clinical and community spaces.
- C. Identify and reduce barriers to lung cancer screening through community education, patient engagement and improved health care provider understanding of evidence-based screening recommendations.
- D. Formalize state-level data collection, starting in 2016, including identification of key data needs and sources.
- E. Work with health insurers providing coverage in Maine to address disparities in health insurance coverage in regard to screening versus diagnostic procedures for all cancer screening preventive services.

¹² Aligned with Healthy Maine 2020, <http://www.maine.gov/dhhs/mecdc/healthy-maine/>.

Treatment

High-quality treatment and care is critical in the elimination of cancer and in the control of disease progression for individuals diagnosed with cancer. The [Maine Cancer Plan 2016-2020](#) treatment goal is intended to improve both access to and quality of cancer treatment services by increasing the number of CoC-accredited hospitals in Maine and by increasing awareness of and participation in clinical trials.

Improving the quality of care leads to greater access for patients, fewer complications, and better outcomes, thus lowering the cost of care.

— *American College of Surgeons*

GOAL 4: Elevate the quality of cancer care in Maine to meet or exceed national best-practice standards and expand access to quality cancer care to all Maine citizens.

Objective 4.1: Increase the number of CoC-accredited hospitals in Maine to 15 by 2020.
(*Baseline: 10 hospitals, ACoS 2015*)

Strategies for 4.1:

- A. Use Maine Cancer Registry (MCR) data to monitor the percentage of patients receiving some or all of their care at accredited hospitals.
- B. Collaborate with the American Cancer Society (ACS) and Maine Cancer Liaison Physicians to provide professional and public education regarding the CoC Patient Care Standards, including screening for cancer risk, palliative/supportive care and survivorship.
- C. Promote utilization of MCR, National Cancer Database (NCDB) and hospital registry quality outcomes data by CoC-accredited cancer committees for ongoing community needs assessment of the quality of care, patient clinical/support services and resource needs.
- D. Assess workforce issues that impact the ability to maintain and achieve CoC accreditation.

Objective 4.2: Increase the percentage of Maine adults that participate in a clinical trial as part of cancer treatment to 9.5 percent by 2020.

(Baseline: 7.6 percent, BRFSS 2012)

Strategies for 4.2:

- A. Enhance professional and public awareness of clinical trial opportunities in Maine.
- B. Support efforts to provide consumer-friendly clinical trial information to physicians and cancer survivors through cancer care organization websites, social media outlets and health education events and through printed materials distributed to newly diagnosed cancer patients.
- C. Promote development of consumer-friendly tools within cancer care organization websites that outline the advantages and disadvantages of clinical-trial participation and provide links to open clinical trials in Maine.
- D. Promote monitoring of State of Maine clinical trial enrollment using CoC-accredited hospital registry data.
- E. Explore developing and piloting a BRFSS question related to clinical trial participation.

Rehabilitation and Survivorship

Improvements in early detection and treatment have resulted in people living longer after being diagnosed with cancer. It is estimated that 68 percent of people diagnosed with cancer will live at least five years after diagnosis.¹³ The Maine Cancer Plan 2016–2020 seeks to support the specific needs of cancer survivors in Maine and increase the awareness and utilization of survivorship services throughout the state.

The number of cancer survivors in the United States is projected to increase by 31 percent, to almost 19 million, by 2024, which represents an increase of more than 4 million survivors in 10 years.

— *National Cancer Institute*

GOAL 5: Support the cancer survivorship infrastructure and increase its awareness and utilization throughout Maine.

Objective 5.1: Reduce the percentage of cancer survivors who use any tobacco products to 11.9 percent and the percentage who use cigarettes to 9.4 percent by 2020.

(Baseline: Tobacco products: 16.9 percent, Cigarette use: 14.4 percent, BRFSS 2012)

¹³ American Cancer Society Facts & Figures 2015, <http://www.cancer.org/acs/groups/content/@editorial/documents/document/acspc-044552.pdf>.

Strategies for 5.1:

- A. Support the incorporation of tobacco use screening and cessation treatment in oncology practices.
- B. Promote referrals of cancer survivors to the Maine Tobacco HelpLine and/or individual or group cessation support counselling.
- C. Promote incorporation of tobacco cessation support services in community-based survivorship care programs.
- D. Promote survivor awareness of options for insurance coverage for tobacco cessation treatment.

Objective 5.2: Increase the percentage of cancer survivors that receive a written summary of care, including instructions for routine cancer check-ups, to 60 percent by 2020.

(Baseline: 43.4 percent, BRFSS 2012)

Strategies for 5.2:

- A. Support cancer centers and hospitals in efforts to incorporate the provision of survivorship care plans as a component of standard cancer care.
- B. Promote, via cancer committees and/or patient navigators, the importance and use of survivorship care plans to both patients and health care providers.
- C. Promote professional education opportunities for healthcare professionals to learn about survivorship issues and resources, including shared decision-making.
- D. Support efforts to provide an oncology patient navigator in each health care organization to address patient barriers in adherence to survivorship care plans.

Palliative and End-of-Life Care

Palliative care, which focuses on improving quality of life through services such as pain management and support for emotional, physical and social health is a critical component of care both during and after cancer treatment.

Palliative and End-of-Life Care priorities in [The Maine Cancer Plan 2016–2020](#) are intended to provide a better understanding of current services available within the state and subsequently ensure that all Mainers have access to these types of care.

Palliative care and its many components are beneficial to patient and family health and well-being. Patients who have their symptoms controlled and are able to communicate their emotional needs have a better experience with their medical care. — *National Cancer Institute*

GOAL 6: Ensure that Maine residents who have been diagnosed with cancer can access palliative care through treatment and beyond, as well as hospice care at end of life.

Objective 6.1: Establish baseline hospice metric(s) for Maine from 2016 Centers for Medicare and Medicaid (CMS) Hospice to support quality palliative and hospice care.

(Baseline: TBD, CMS Hospice 2016)

Strategies for 6.1:

- A. Support and promote Maine Hospice programs in reporting on pain and symptom management metrics.
- B. Support hospital and private oncology practices in learning about hospice and establishing relationships with hospice programs.
- C. Support and promote public education about hospice and palliative care.
- D. Promote palliative and hospice clinical education programs about hospice care, pain, and symptom management.

APPENDIX A: PERFORMANCE MEASURES

The following tables represent the baseline and target performance measures of the Maine Cancer Plan 2016–2020. In order to maintain accountability and track progress of Maine’s efforts in reaching Maine Cancer Plan goals, the following performance measures will be regularly assessed and reported in future Plan updates.

Prevention: Environmental Exposures

Performance Measures	Baseline	Current Measure ¹⁴	2020 Target
Increase radon testing in owner-occupied structures to 40 percent.	32.9% Source: BRFSS, 2012	33.2% Source: BRFSS, 2014	40%
Increase radon testing in non-seasonal residential rental properties to 90 percent.	21.4% Source: BRFSS, 2012	21.4% Source: BRFSS, 2012	90%
Decrease the amount of owner-occupied structures with elevated radon levels to 15 percent.	19.8% Source: BRFSS, 2012	18.1% Source: BRFSS, 2014	15%
Decrease the proportion of Maine high school students who use indoor tanning by 30 percent.	12.6% Source: MIYHS, 2015	12.6% Source: MIYHS, 2015	9%
Increase the proportion of Maine high school students who wear sunscreen with an SPF of 15 or higher by 25 percent.	22% Source: MIYHS, 2015	22% Source: MIYHS, 2015	27.5%

¹⁴ “Current Measure” rates are based on most recent data available and will be updated in subsequent updates of the Plan.

Prevention: Vaccination

Performance Measures	Baseline	Current Measure	2020 Target
Increase patient adherence to three-dose HPV vaccination administration among teens ages 13–18 by 10 percent.	81% (females)	75.9% (females)	89.1% (females)
	48% (males) Source: NIS, 2013	60.5% (males) Source: NIS, 2014	52.8% (males)

Prevention: Obesity

Performance Measures	Baseline	Current Measure	2020 Target
Reduce the proportion of Maine high school students who are obese to 10.1 percent.	14.1% Source: MIYHS, 2015	14.1% Source: MIYHS, 2015	10.1%
Reduce the proportion of Maine high school students who are overweight to 14 percent.	16.5% Source: MIYHS, 2015	16.5% Source: MIYHS, 2015	14%
Reduce the proportion of Maine adults who are obese to 25 percent.	28.9% Source: BRFSS, 2013	28.2% Source: BRFSS, 2014	25%
Reduce the proportion of Maine adults who are overweight to 34 percent.	36% Source: BRFSS, 2013	36.3% Source: BRFSS, 2014	34%

Prevention: Tobacco

Performance Measures	Baseline	Current Measure	2020 Target
Reduce use of tobacco products to 13.6 percent and cigarette use to 9 percent among Maine high school students.	15.7% (tobacco products)	15.7% (tobacco products)	13.6% (tobacco products)
	10.7% (cigarettes) Source: MIYHS, 2015	10.7% (cigarettes) Source: MIYHS, 2015	9% (cigarettes)
Reduce tobacco use among Maine adults by 10 percent.	20.2% Source: BRFSS, 2013	19.3% Source: BRFSS, 2014	18.2%

Early Detection

Performance Measures	Baseline	Current Measure	2020 Target
Reduce the rate of late stage female breast cancer to 38 new cases per 100,000.	40.6 Source: MCR, 2008-2010	42.3 Source: MCR, 2009-2011	38
Reduce the rate of late stage colorectal cancer to 22 new cases per 100,000.	22.5 Source: MCR, 2008-2010	22 Source: MCR, 2009-2011	22
Reduce the proportion of late stage lung cancer to 71.4 percent.	75.2% Source: MCR, 2008-2010	75.2% Source: MCR, 2008-2010	71.4%

Treatment

Performance Measures	Baseline	Current Measure	2020 Target
Increase the number of Commission on Cancer accredited hospitals to 15.	10 Source: ACOS, 2015	10 Source: ACOS, 2016	15
Increase the percentage of Maine adults that participate in a clinical trial as part of cancer treatment by 25 percent.	7.6% Source: BRFSS, 2011-2012	7.6% Source: BRFSS, 2011-2012	9.5%

Rehabilitation and Survivorship

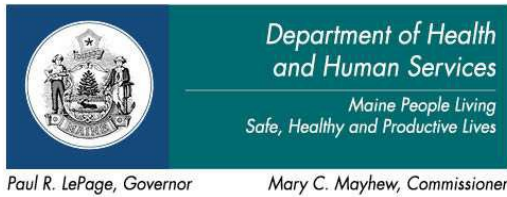
Performance Measures	Baseline	Current Measure	2020 Target
Decrease the percentage of cancer survivors who use any tobacco products to 11.9 percent and the percentage who use cigarettes to 9.4 percent.	16.9% (tobacco products) 14.4% (cigarettes) Source: BRFSS, 2011-2012	16.9% (tobacco products) 14.4% (cigarettes) Source: BRFSS, 2011-2012	11.9% (tobacco products) 9.4% (cigarettes)
Increase the percentage of cancer survivors that receive a written summary of care to 60 percent.	43.4% Source: BRFSS, 2011-2012	43.4% Source: BRFSS, 2011-2012	60%

Palliative and End-of-Life Care

Performance Measures	Baseline	Current Measure	2020 Target
Establish a baseline number of palliative care services in Maine that employ a Physician Board certified in Hospice and Palliative Medicine or an Advanced Practice Nurse certified in palliative and hospice care.	TBD	N/A	N/A

APPENDIX B: ACRONYMS

<i>ACS</i>	<i>American Cancer Society</i>
<i>ACoS</i>	<i>American College of Surgeons</i>
<i>BRFSS</i>	<i>Behavioral Risk Factor Surveillance System</i>
<i>CAPC</i>	<i>Center to Advance Palliative Care</i>
<i>CDC</i>	<i>Centers for Disease Control and Prevention</i>
<i>CMS</i>	<i>Centers for Medicare and Medicaid Services</i>
<i>CoC</i>	<i>Commission on Cancer</i>
<i>HPV</i>	<i>Human Papillomavirus</i>
<i>MBCHP</i>	<i>Maine CDC Breast and Cervical Health Program</i>
<i>MCCCP</i>	<i>Maine CDC Comprehensive Cancer Control Program</i>
<i>MCR</i>	<i>Maine CDC Cancer Registry</i>
<i>MIYHS</i>	<i>Maine Integrated Youth Health Survey</i>
<i>NCDB</i>	<i>National Cancer Database</i>
<i>NIS</i>	<i>National Immunization Survey</i>
<i>PSE</i>	<i>Policy, System, and Environmental</i>
<i>PTM</i>	<i>Maine CDC Partnership For A Tobacco-Free Maine</i>
<i>SAU</i>	<i>School Administrative Unit</i>
<i>SPF</i>	<i>Sun Protective Factor</i>
<i>WHO</i>	<i>World Health Organization</i>



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