

# Maine Cancer Surveillance Plan

**2013**

Tiana A. Garrett, PhD, MPH<sup>1</sup>

Denise Yob, MPH<sup>2</sup>

Sara L. Huston, PhD<sup>2</sup>

<sup>1</sup> U.S. Centers for Disease Control and Prevention (U.S. CDC), Maine CDC

<sup>2</sup> Department of Applied Medical Sciences, University of Southern Maine



*Paul R. LePage, Governor*

*Mary C. Mayhew, Commissioner*

# Table of Contents

## Acknowledgements

**Introduction** 1

**Methodology** 1

## List of Selected Cancer Indicators

Behavioral and Other Risk Factors 3

Screening 8

Morbidity 10

Mortality 16

## Summary of Analysis Plan

Table 1. Behavioral and Other Risk Factor Indicators 20

Table 2. Screening Indicators 26

Table 3. Morbidity Indicators 29

Table 4. Mortality Indicators 35

**Next Steps** 37

**References** 39

**Appendix** 40

# Maine Cancer Surveillance Plan

## 2013

### Expert Review

Rebecca Pearce, MA	Maine CDC, Comprehensive Cancer Control Program
Maryann Zaremba, BA	Maine CDC, Breast and Cervical Health Program
Jessica Shaffer, MS, CHES	Maine CDC, Comprehensive Cancer Control and Colorectal Cancer Control
Molly Schwenn, MD	Maine CDC, Maine Cancer Registry

### Data Analysis

Denise Yob, MPH	University of Southern Maine
Tiana Garrett, PhD, MPH	U.S. CDC, Maine CDC

### Formatting

Finn Teach, MPP	University of Southern Maine
-----------------	------------------------------

---

This publication was supported by the U.S. Centers for Disease Control and Prevention (CDC), Division of Cancer Control and Prevention, Cooperative Agreement Number 5U58DP003916-01. Contents of this publication are solely the responsibility of the authors and do not necessarily represent the official view of the U.S. CDC.

## **Introduction**

Cancer is the leading cause of death in Maine. Each year, more than 8,000 Mainers are diagnosed with new cases of cancer, and more than 3,000 die due to cancer.<sup>1</sup> Maine's cancer incidence and mortality rates are significantly higher than national rates.<sup>1</sup> The Maine Center for Disease Control and Prevention's (Maine CDC's) Comprehensive Cancer Control Program is committed to reducing the burden of cancer in Maine by promoting healthy behaviors, improving access to preventive services and quality 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. In order to be most effective in this mission, timely and relevant public health surveillance data are needed to understand the patterns of cancer, different types of cancer, screening and treatment, and risk factors in the state. This surveillance plan lays out the framework of indicators that we will routinely analyze, interpret, and use for the Maine CDC's cancer control program planning, implementation, and evaluation.

## **Methodology**

This surveillance plan is the product of a year-long collaboration between staff in Maine CDC's cancer programs (Comprehensive Cancer Program, Maine Cancer Registry, Maine Breast and Cervical Health Program) and epidemiology staff. The process began with a review of existing documents containing surveillance data, including the 2011–2015 Maine Comprehensive Cancer Control Plan and the 2009 Maine Cancer Surveillance Report.<sup>2,3</sup> Following this review, the working group identified essential, yet wide-ranging, topic areas for cancer surveillance and drafted a list of proposed cancer indicators addressing each topic area. Collectively, these indicators assess five major components of cancer surveillance: 1) behavioral and other risk factors, 2) cancer screening, 3) new cases of cancer (incidence), stage at diagnosis, and cancer survivorship (morbidity), 4), and 5) cancer-related deaths (mortality). Selected indicators were voted upon by respective Maine CDC cancer program staff and scored based on its relevance, accuracy as a performance measure, and concordance with national recommendations. Behavioral risk factors were examined in both adults and youth since the development of unhealthy behaviors often occurs at an early age.

Available data sources were identified for each of the cancer indicators. Incidence and stage at cancer diagnosis data is captured on an ongoing basis by the Maine Cancer Registry. Mortality data is routinely collected through death certificates; the national mortality database provided by the National Center for Health Statistics is used by Maine for cancer analyses. Data on cancer survivorship, cancer screening, and environmental risk factors is collected in the Maine Behavioral Risk Factor Surveillance System (BRFSS). Data on behavioral risk factors is collected by BRFSS for adults and the Maine Integrated Youth Health Survey (MIYHS) for youth.

Incidence and mortality data will be presented as crude and age-adjusted estimates standardized using the 2000 U.S. Standard population. Estimates will be analyzed by year (trend over time), sex, race, and geographical area of residence (county and/or public health district). Cancer incidence and mortality data will be analyzed using SEER\*Stat.

Behavioral risk factors among adults will be analyzed by demographic factors (namely, sex, race, age, sexual orientation, household income, education, history of depression, and type of insurance), as well as by year (trend over time) and geography (county and public health district). Behavioral risk factors among youth (middle school and high school students) will be analyzed by demographic factors (namely, sex, race, age, sexual orientation, and education) as well as by year (trend over time) and geography (county and public health district). BRFSS and MIYHS data will be analyzed using SAS and methods to appropriately weight and analyze the data given the complex sample designs of these surveys.

This surveillance plan outlines the selected cancer indicators and details how each indicator will be analyzed to capture a broad picture of cancer incidence and burden, including how behavioral factors and environmental exposures contribute to cancer in the state. This surveillance plan serves as a 'living document' that will be modified according to changes in national performance measures and guidelines and the needs of Maine CDC cancer programs.

## List of Selected Cancer Indicators

### Behavioral and Other Risk Factors

#### Adult, any tobacco use

**Description:** Percent of Maine adults ages  $\geq 18$  years who reported current use of any tobacco product

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who reported current use of any tobacco product (cigarettes, cigars, small flavored cigars, large flavored cigars, chewing tobacco or snuff)

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who responded to questions about current use of cigarettes, cigars, flavored cigars (small and large size), chewing tobacco and snuff

**Data source:** BRFSS

**Data availability:** Annually

**Unit of Analysis:** Individual

#### Adult, former and current smokers

**Description:** Percent of Maine adults ages  $\geq 18$  years who reported being former or current cigarette smoker

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who reported being a former or current cigarette smoker

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who responded to the question about smoking at least 100 cigarettes in their lifetime and the question about current smoking

**Data source:** BRFSS

**Data availability:** Annually

**Unit of Analysis:** Individual

#### Adult, fruit consumption

**Description:** Median daily fruit consumption among Maine adults ages  $\geq 18$  years

**Numerator:** Not applicable

**Denominator:** Not applicable

**Data source:** BRFSS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

#### Adult, vegetable consumption

**Description:** Median daily vegetable consumption among Maine adults ages  $\geq 18$  years

**Numerator:** Not applicable

**Denominator:** Not applicable

**Data source:** BRFSS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

**Adult, healthy weight status**

**Description:** Percent of Maine adults ages  $\geq 18$  years who are at a healthy weight based on a calculation of body mass index (BMI) from self-reported weight and height

**Numerator:** Weighted number of Maine adults at a healthy weight (BMI 18.5-24.9), according to self-reported height and weight

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who reported weight and height

**Data source:** BRFSS

**Data availability:** Annually

**Unit of Analysis:** Individual

**Adult, overweight and obese**

**Description:** Percent of Maine adults ages  $\geq 18$  years who are overweight or obese based on a calculation of body mass index (BMI) from self-reported weight and height

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who are overweight (BMI 25.0-29.9) or obese (BMI  $\geq 30.0$ ), according to self-reported height and weight

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who reported valid weight and height

**Data source:** BRFSS

**Data availability:** Annually

**Unit of Analysis:** Individual

**Adult, physical activity ( $\geq 150$  minutes of aerobic exercise per week)**

**Description:** Percent of Maine adults ages  $\geq 18$  years who reported they participated in  $\geq 150$  minutes of physical activity per week

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who reported they participated in  $\geq 150$  minutes of physical activity per week

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who responded to the physical activity questions

**Data source:** BRFSS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

**Adult, heavy drinking**

**Description:** Percent of Maine adults ages  $\geq 18$  years who reported heavy drinking, defined as more than two drinks per day for males or more than one drink per day for females

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who report having more than two drinks per day for males or more than one drink per day for females in the past 30 days

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who responded to questions about drinking alcoholic beverages

**Data source:** BRFSS

**Data availability:** Annually

**Unit of Analysis:** Individual

**Adult, use of artificial sources of ultraviolet light for tanning**

**Description:** Percent of Maine adults ages  $\geq 18$  years who reported use of artificial sources of ultraviolet light for tanning

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who responded 'Yes' to the question about whether they had used sunlamps or tanning booths

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who responded to the question on using a sunlamp or tanning booth

**Data source:** BRFSS

**Data availability:** When added as a state-added question (2011, 2012)

**Unit of Analysis:** Individual

#### **Adult, use of protective measures against sun exposure**

**Description:** Percent of Maine adults ages  $\geq 18$  years who reported frequent use of protective measures against sun exposure 'Always' or 'Nearly always' when outside on a sunny summer day for  $\geq 1$  hour

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who answered 'Always' or 'Nearly always' to the questions about using protective measures against sun exposure

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who responded to questions about use of protective measures against sun exposure

**Data source:** BRFSS

**Data availability:** When added as a state-added question (2007, 2008, 2010)

**Unit of Analysis:** Individual

#### **Adult, adherence to three-dose human papillomavirus (HPV) adherence**

**Description:** Percent of Maine adults ages 18-49 years who reported that they had the three-dose HPV vaccination

**Numerator:** Weighted number of Maine adults ages 18-49 years who reported having the three-dose HPV vaccination

**Denominator:** Weighted number of Maine adults ages 18-49 years who responded to the questions about HPV vaccination

**Data source:** BRFSS

**Data availability:** When added as a state-added or optional module (2011, 2012)

**Unit of Analysis:** Individual

#### **Youth, any tobacco use**

**Description:** Percent of Maine youth (middle and high school students) who reported use of any tobacco product in the past 30 days

**Numerator:** Weighted number of Maine youth (middle and high school students) who reported any tobacco use in the past 30 days

**Denominator:** Weighted number of Maine youth (middle and high school students) who responded to questions about use of any type of tobacco product in the past 30 days

**Data source:** Maine Integrated Youth Health Survey (MIYHS)

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

#### **Youth, fruit and vegetable consumption**

**Description:** Percent of Maine youth (middle and high school students) who reported eating fruits and/or vegetables 5 or more times per day during the past seven days

**Numerator:** Weighted number of Maine youth (middle and high school students) who reported eating fruits and/or vegetables 5 or more times per day during the past seven days



**Denominator:** Weighted number of Maine youth (middle and high school students) who responded to questions about fruit and/or vegetable consumption

**Data source:** MIYHS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

#### **Youth, healthy weight status**

**Description:** Percent of Maine youth (middle and high school students) who are at a healthy weight ( $\geq 5$ th percentile but  $< 85$ th percentile for body mass index [BMI] by age and sex) from self-reported weight and height

**Numerator:** Weighted number of Maine youth (middle and high school students) at a healthy weight, according to self-reported height and weight

**Denominator:** Weighted number of Maine youth (middle and high school students) who reported valid weight and height

**Data source:** MIYHS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

#### **Youth, overweight and obese**

**Description:** Percent of Maine youth (middle and high school students) who are overweight ( $\geq 85$ th percentile but  $< 95$ th percentile for body mass index [BMI] by age and sex) or obese ( $\geq 95$ th percentile for BMI by age and sex) from self-reported weight and height

**Numerator:** Weighted number of Maine youth (middle and high school students) who are overweight or obese, according to self-reported height and weight

**Denominator:** Weighted number of Maine youth (middle and high school students) who reported valid weight and height

**Data source:** MIYHS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

#### **Youth, physical activity ( $\geq 60$ minutes of physical activity daily)**

**Description:** Percent of Maine youth (middle and high school students) who reported being physically active for  $\geq 60$  minutes per day on all of the past seven days

**Numerator:** Weighted number of Maine youth (middle and high school students) who reported being physically active for  $\geq 60$  minutes per day on all of the past seven days

**Denominator:** Weighted number of Maine youth (middle and high school students) who responded to the question about being physically active for  $\geq 60$  minutes per day during the past seven days

**Data source:** MIYHS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

#### **Youth, sunscreen use**

**Description:** Percent of Maine youth (middle and high school students) who reported using a sunscreen with an SPF of 15 or higher 'Always' or 'Most of the time' when outside on a sunny day for more than an hour

**Numerator:** Weighted number of Maine youth (middle and high school students) who responded 'most of the time' or 'always' to the question about using a sunscreen with an SPF of 15 or higher when outside on a sunny day for more than an hour

**Denominator:** Weighted number of Maine youth (middle and high school students) who responded to the question about using a sunscreen with an SPF of 15 or higher when outside on a sunny day for more than an hour

**Data source:** MIYHS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

#### **Youth, use of artificial sources of ultraviolet light for tanning**

**Description:** Percent of Maine youth (middle and high school students) who reported using artificial sources of ultraviolet light for tanning at least one time in the past 12 months

**Numerator:** Weighted number of Maine youth (middle and high school students) who reported using artificial sources of ultraviolet light for tanning at least one time in the past 12 months

**Denominator:** Weighted number of Maine youth (middle and high school students) responded to question about using artificial sources of ultraviolet light for tanning at least one time in the past 12 months

**Data source:** MIYHS

**Data availability:** Biennially (odd years)

**Unit of Analysis:** Individual

#### **Youth, adherence to three-dose human papillomavirus (HPV) adherence**

**Description:** Percent of Maine youth ages 10-16 years who had received the three-dose HPV vaccination (based on parental/guardian report)

**Numerator:** Weighted number of Maine youth ages 10-16 years who had received the three-dose HPV vaccination (based on parental/guardian report)

**Denominator:** Weighted number of Maine youth ages 10-16 years who responded to the question about ever having the three-dose HPV vaccination (based on parental/guardian report)

**Data source:** BRFSS

**Data availability:** When added as a state-added or optional module (2011)

**Unit of Analysis:** Individual

#### **Environmental, radon testing of indoor air**

**Description:** Percent of Maine households that reported household air was tested for radon

**Numerator:** Weighted number of Maine households that responded 'Yes' to the question of whether household air was tested for radon

**Denominator:** Weighted number of Maine households that responded to the question of whether household air was tested for radon

**Data source:** BRFSS

**Data availability:** When added as a state-added question (2011, 2012, 2013)

**Unit of Analysis:** Household

#### **Environmental, high levels of radon in indoor air**

**Description:** Percent of Maine households that reported radon levels in household air was above normal when tested

**Numerator:** Weighted number of Maine households that responded 'Yes' to the question of whether radon levels in household air was above normal when tested

**Denominator:** Weighted number of Maine households that responded to the question of whether radon levels in household air was above normal when tested

**Data source:** BRFSS

**Data availability:** When added as a state-added question (2011, 2012, 2013)

**Unit of Analysis:** Household

#### **Environmental, high levels of radon in indoor air mitigated**

**Description:** Percent of Maine households that reported above normal radon levels in household air was reduced/fixed

**Numerator:** Weighted number of Maine households that responded 'Yes' to the question of whether above normal radon levels in household air was reduced/fixed

**Denominator:** Weighted number of Maine households that responded to the question of whether above normal radon levels in household air was reduced/fixed

**Data source:** BRFSS

**Data availability:** When added as a state-added question (2011, 2012, 2013)

**Unit of Analysis:** Household

### **Screening**

#### **Breast cancer, screening, mammogram**

**Description:** Percent of Maine females ages  $\geq 40$  years, 40-49 years and  $\geq 50$  years who reported they have had a mammogram in the past two years

**Numerator:** Weighted number of Maine females ages  $\geq 40$  years, 40-49 years and  $\geq 50$  years whose response to the question of how long since last mammogram was 'In the past two years'

**Denominator:** Weighted number of Maine females ages  $\geq 40$  years, 40-49 years and  $\geq 50$  years who responded to the question of how long since last had a mammogram

**Data source:** BRFSS

**Data availability:** Biennially (even years)

**Unit of Analysis:** Individual

#### **Cervical cancer, screening, Pap smear**

**Description:** Percent of Maine females ages 21-65 years with an intact cervix who reported that they have had a Pap smear in the past three years

**Numerator:** Weighted number of Maine females ages 21-65 years with an intact cervix whose response to the question of how long since last Pap smear was 'In the past three years'

**Denominator:** Weighted number of Maine females ages 21-65 years with an intact cervix who responded to the question about time since last had a Pap smear

**Data source:** BRFSS

**Data availability:** Biennially (even years)

**Unit of Analysis:** Individual

#### **Colorectal cancer, screening, combined**

**Description:** Percent of Maine adults ages  $\geq 50$  years who reported that they had a home blood stool test (e.g., FOBT or FIT) within 1 year OR sigmoidoscopy within 5 years and home blood stool test within 3 years OR colonoscopy within 10 years

**Numerator:** Weighted number of Maine adults ages  $\geq 50$  years who reported they had a home blood stool test (e.g., FOBT or FIT) within 1 year OR sigmoidoscopy within 5 years and home blood stool test within 3 years OR colonoscopy within 10 years

**Denominator:** Weighted number of Maine adults ages  $\geq 50$  years who responded to the questions about colorectal cancer screening

**Data source:** BRFSS

**Data availability:** Biennially (even years); may sometimes be included as a state-added question in odd years (2007, 2009)

**Unit of Analysis:** Individual

#### **Colorectal cancer, screening, sigmoidoscopy and blood stool test**

**Description:** Percent of Maine adults ages  $\geq 50$  years who reported that they have had a sigmoidoscopy in the past 5 years and a home blood stool test in the past 3 years

**Numerator:** Weighted number of Maine adults ages  $\geq 50$  years who reported having a sigmoidoscopy in the past 5 years and a blood stool test in the past 3 years

**Denominator:** Weighted number of Maine adults ages  $\geq 50$  years who responded to the question about how long since last sigmoidoscopy and question about how long since last blood stool test

**Data source:** BRFSS

**Data availability:** Biennially (even years); may sometimes be included as a state-added question in odd years (2007, 2009)

**Unit of Analysis:** Individual

#### **Colorectal cancer, screening, colonoscopy**

**Description:** Percent of Maine adults ages  $\geq 50$  years who reported that they had a colonoscopy in the past 10 years

**Numerator:** Weighted number of Maine adults ages  $\geq 50$  years who reported having a colonoscopy in the past 10 years

**Denominator:** Weighted number of Maine adults ages  $\geq 50$  years who responded to the questions about how long since last colonoscopy

**Data source:** BRFSS

**Data availability:** Biennially (even years); may sometimes be included as a state-added question in odd years (2007, 2009)

**Unit of Analysis:** Individual

#### **Colorectal cancer, screening, blood stool test**

**Description:** Percent of Maine adults ages  $\geq 50$  years who reported that they had a home blood stool test in the past year

**Numerator:** Weighted number of Maine adults ages  $\geq 50$  years who reported having a home blood stool test in the past year

**Denominator:** Weighted number of Maine adults ages  $\geq 50$  years who responded to the questions about home blood stool testing

**Data source:** BRFSS

**Data availability:** Biennially (even years); may sometimes be included as a state-added question in odd years (2007, 2009)

**Unit of Analysis:** Individual

#### **Oral or mouth cancer, screening**

**Description:** Percent of Maine adults ages  $\geq 18$  years who reported that they have had been screened for oral cancer

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who answered 'Yes' to the question about having an examination for oral or mouth cancer

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who responded to the question about ever having an examination for oral or mouth cancer

**Data source:** BRFSS

**Data availability:** When added as a state-added or optional module (2011, 2012)

**Unit of Analysis:** Individual

### **Prostate cancer, screening, prostate-specific antigen (PSA) test**

**Description:** Percent of Maine males ages  $\geq 50$  years who reported they have had a PSA test within the past two years

**Numerator:** Weighted number of Maine males ages  $\geq 50$  years who answered 'Yes' to the question about having an PSA test within the past two years

**Denominator:** Weighted number of Maine males ages  $\geq 50$  years who responded to questions about how long since PSA testing

**Data source:** BRFSS

**Data availability:** Biennially (even years)

**Unit of Analysis:** Individual

## **Morbidity**

### **Incidence**

#### **Adenocarcinoma of the esophagus, incidence**

**Description:** Adenocarcinoma of the esophagus incidence

**Numerator:** Number of incident cases of adenocarcinoma of the esophagus among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **All cancer, incidence**

**Description:** All cancer incidence

**Numerator:** Number of incident cases of all cancers combined among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Bladder cancer, incidence**

**Description:** Bladder cancer incidence

**Numerator:** Number of incident bladder cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Breast cancer (female), incidence**

**Description:** Female breast cancer incidence

**Numerator:** Number of incident female breast cancer cases among Maine residents

**Denominator:** Maine female population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Cervical cancer, incidence**

**Description:** Cervical cancer incidence

**Numerator:** Number of incident cervical cancer cases among Maine females

**Denominator:** Maine female population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Colorectal cancer, incidence**

**Description:** Colorectal cancer incidence

**Numerator:** Number of incident colorectal cancer cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Endometrial cancer, incidence**

**Description:** Endometrial cancer incidence

**Numerator:** Number of incident endometrial cancer cases among Maine females

**Denominator:** Maine female population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Esophageal cancer, incidence**

**Description:** Esophageal cancer incidence

**Numerator:** Number of incident esophageal cancer cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Kidney and renal pelvis cancer, incidence**

**Description:** Kidney and renal pelvis cancer incidence

**Numerator:** Number of incident kidney and renal pelvis cancer cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Lung cancer, incidence**

**Description:** Lung cancer incidence

**Numerator:** Number of incident lung cancer cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Melanoma, incidence**

**Description:** Melanoma incidence

**Numerator:** Number of incident melanoma cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Mesothelioma, incidence**

**Description:** Mesothelioma incidence

**Numerator:** Number of incident mesothelioma cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Non-Hodgkin's Lymphoma, incidence**

**Description:** Non-Hodgkin's Lymphoma incidence

**Numerator:** Number of incident Non-Hodgkin's Lymphoma cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Oropharyngeal cancer, incidence**

**Description:** Oropharyngeal cancer incidence

**Numerator:** Number of incident oropharyngeal cancer cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Pancreatic cancer, incidence**

**Description:** Pancreatic cancer incidence

**Numerator:** Number of incident pancreatic cancer cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

**Post-menopausal breast cancer, incidence**

**Description:** Post-menopausal breast cancer incidence

**Numerator:** Number of incident post-menopausal breast cancer cases among Maine females

**Denominator:** Maine female population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Prostate cancer, incidence**

**Description:** Prostate cancer incidence

**Numerator:** Number of incident prostate cancer cases among Maine males

**Denominator:** Maine male population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Thyroid cancer, incidence**

**Description:** Thyroid cancer incidence

**Numerator:** Number of incident thyroid cancer cases among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Tobacco-related neoplasms, incidence**

**Description:** Tobacco-related neoplasms incidence (excluding lung cancer)

**Numerator:** Number of incident tobacco-related neoplasm cases (excluding lung cancer) among Maine residents

**Denominator:** Maine population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Uterine cancer, incidence**

**Description:** Uterine cancer incidence

**Numerator:** Number of incident uterine cancer cases among Maine females

**Denominator:** Maine female population

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Staging**

##### **Breast cancer (female), staging**

**Description:** Percent of female breast cancer incidence by stage at diagnosis (e.g., in situ, localized, regional, distant, unknown)

**Numerator:** Number of incident cases of female breast cancer among Maine female residents divided into stage categories at diagnosis (e.g., in situ, localized, regional, distant, unknown)

**Denominator:** Number of incident cases of female breast cancer among Maine female residents

**Data source:** Maine Cancer Registry



**Data availability:** Annually  
**Unit of Analysis:** Individual

#### **Cervical cancer, staging**

**Description:** Percent of cervical cancer incidence by stage at diagnosis (e.g., localized, regional, distant, unknown)

**Numerator:** Number of incident cases of cervical cancer among Maine female residents divided into stage categories at diagnosis (e.g., localized, regional, distant, unknown)

**Denominator:** Number of incident cases of cervical cancer among Maine female residents

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Colorectal cancer, staging**

**Description:** Percent of colorectal cancer incidence by stage at diagnosis (e.g., in situ, localized, regional, distant, unknown)

**Numerator:** Number of incident cases of colorectal cancer among Maine residents divided into stage categories at diagnosis (e.g., in situ, localized, regional, distant, unknown)

**Denominator:** Number of incident cases of colorectal cancer among Maine residents

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Lung cancer, staging**

**Description:** Percent of lung cancer incidence by stage at diagnosis (e.g., in situ, localized, regional, distant, unknown)

**Numerator:** Number of incident cases of lung cancer among Maine residents divided into stage categories at diagnosis (e.g., in situ, localized, regional, distant, unknown)

**Denominator:** Number of incident cases of lung cancer among Maine residents

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Prostate cancer, staging**

**Description:** Percent of prostate cancer incidence by stage at diagnosis (e.g., localized, regional, distant, unknown)

**Numerator:** Number of incident cases of prostate cancer among Maine male residents divided into stage categories at diagnosis (e.g., localized, regional, distant, unknown)

**Denominator:** Number of incident cases of prostate cancer among Maine male residents

**Data source:** Maine Cancer Registry

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Cancer Survivors**

##### **Cancer survivors, prevalence**

**Description:** Percent of Maine adults who report they have been diagnosed with cancer

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years who responded 'Yes' to the questions about having ever been told they had cancer (skin cancer or other types of cancer).

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years who responded to the questions about having been told they had cancer ('don't know/not sure' and 'refused' responses are excluded)

**Data source:** Behavioral Risk Factor Surveillance System (BRFSS)

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Cancer survivors, clinical trial participation**

**Description:** Percent of Maine adults ages  $\geq 18$  years with a cancer history who reported they participated in a clinical trial as part of cancer treatment

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years with a cancer history who answered 'Yes' to the question about having participated in a clinical trial as part of cancer treatment

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years with a cancer history who responded to the question about participating in a clinical trial as part of cancer treatment

**Data source:** BRFSS

**Data availability:** When added as a state-added or optional module (2011, 2012, 2013)

**Unit of Analysis:** Individual

#### **Cancer survivors, mental health**

**Description:** Mean number of poor mental health days reported by Maine adults ages  $\geq 18$  years who have ever been diagnosed with cancer

**Numerator:** Not applicable

**Denominator:** Not applicable

**Data source:** BRFSS

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Cancer survivors, received summary treatment**

**Description:** Percent of Maine adults ages  $\geq 18$  years with a cancer history who reported they received a summary of cancer treatment

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years with a cancer history who answered 'Yes' to the question about receiving a summary of cancer treatment

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years with a cancer history who responded to the question about receiving a summary of cancer treatment

**Data source:** BRFSS

**Data availability:** When added as a state-added or optional module (2011, 2012, 2013)

**Unit of Analysis:** Individual

#### **Cancer survivors, written follow-up**

**Description:** Percent of Maine adults ages  $\geq 18$  years with a cancer history who reported they received written instructions for follow-up cancer treatment

**Numerator:** Weighted number of Maine adults ages  $\geq 18$  years with a cancer history who answered 'Yes' to the question about receiving written instructions for follow-up cancer treatment

**Denominator:** Weighted number of Maine adults ages  $\geq 18$  years with a cancer history who responded to the question about receiving written instructions for follow-up cancer treatment

**Data source:** BRFSS

**Data availability:** When added as a state-added or optional module (2011, 2012, 2013)

**Unit of Analysis:** Individual

#### **Cancer survivors, physical health**

**Description:** Mean number of poor physical health days reported by Maine adults ages  $\geq 18$  years who have ever been diagnosed with cancer

**Numerator:** Not applicable

**Denominator:** Not applicable

**Data source:** BRFSS

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Cancer survivors, poor physical and mental health affecting usual activities**

**Description:** Mean number of poor physical or mental health days that affected usual activities reported by Maine adults ages  $\geq 18$  years who have ever been diagnosed with cancer

**Numerator:** Not applicable

**Denominator:** Not applicable

**Data source:** BRFSS

**Data availability:** Annually

**Unit of Analysis:** Individual

### **Mortality**

#### **All cancer, mortality**

**Description:** All cancer deaths

**Numerator:** Number of deaths among Maine residents with malignant cancer as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Bladder cancer, mortality**

**Description:** Bladder cancer deaths

**Numerator:** Number of deaths among Maine residents with bladder cancer as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

#### **Breast cancer (female), mortality**

**Description:** Female breast cancer deaths

**Numerator:** Number of deaths among Maine females with breast cancer as the underlying cause of death

**Denominator:** Maine female population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Cervical cancer, mortality**

**Description:** Cervical cancer deaths

**Numerator:** Number of deaths of among Maine females with cervical cancer as the underlying cause of death

**Denominator:** Maine female population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Colorectal cancer, mortality**

**Description:** Colorectal cancer deaths

**Numerator:** Number of deaths among Maine residents with colorectal cancer as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Esophageal cancer, mortality**

**Description:** Esophageal cancer deaths

**Numerator:** Number of deaths among Maine residents with esophageal cancer as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Lung cancer, mortality**

**Description:** Lung cancer deaths

**Numerator:** Number of deaths among Maine residents with lung cancer as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Melanoma, mortality**

**Description:** Melanoma deaths

**Numerator:** Number of deaths among Maine residents with melanoma as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Mesothelioma, mortality**

**Description:** Mesothelioma deaths

**Numerator:** Number of deaths among Maine residents with mesothelioma as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Oropharyngeal cancer, mortality**

**Description:** Oropharyngeal cancer deaths

**Numerator:** Number of deaths among Maine residents with oropharyngeal cancer as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Pancreatic cancer, mortality**

**Description:** Pancreatic cancer deaths

**Numerator:** Number of deaths among Maine residents with pancreatic cancer as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Prostate cancer, mortality**

**Description:** Prostate cancer deaths

**Numerator:** Number of deaths of among Maine males with prostate cancer as the underlying cause of death

**Denominator:** Maine male population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Thyroid cancer, mortality**

**Description:** Thyroid cancer deaths

**Numerator:** Number of deaths among Maine residents with thyroid cancer as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Tobacco-related neoplasms, mortality**

**Description:** Tobacco-related neoplasm deaths (excluding lung cancer)

**Numerator:** Number of deaths among Maine residents with tobacco-related neoplasms (excluding lung cancer) as the underlying cause of death

**Denominator:** Maine population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Uterine cancer, mortality**

**Description:** Uterine cancer mortality

**Numerator:** Number of deaths of among Maine females with uterine cancer as the underlying cause of death

**Denominator:** Maine female population

**Data source:** Mortality data

**Data availability:** Annually

**Unit of Analysis:** Individual

**Table 1. Summary of Analysis Plan Used in 2013 Maine Cancer Surveillance Plan, by Behavioral or Other Risk Factor Indicator.**

Indicator	Description	Data Source	Rate base or unit	Analysis by Selected Variables									Mental Health Status	
				Year	Demographic Group							Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
					Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education			
Adult, any tobacco use	Percent of Maine adults ages ≥18 years who reported current use of any tobacco product	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X
Adult, former and current smokers	Percent of Maine adults ages ≥18 years who reported being former or current cigarette smoker	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X
Adult, fruit consumption	Median daily fruit consumption among Maine adults ages ≥18 years	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X
Adult, vegetable consumption	Median daily vegetable consumption among Maine adults ages ≥18 years	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X
Adult, healthy weight status	Percent of Maine adults ages ≥18 years who are at a healthy weight based on a calculation of body mass index (BMI), according to self-reported weight (in kilograms) and height (in meters squared)	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X

**Table 1 Continued**

				Analysis by Selected Variables											
				Demographic Group								Mental Health Status			
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety	
Adult, overweight and obese	Percent of Maine adults ages ≥18 years who are overweight or obese based on a calculation of body mass index (BMI), according to self-reported weight (in kilograms) and height (in meters squared)	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X	
Adult, physical activity (≥150 minutes of aerobic exercise per week)	Percent of Maine adults ages ≥18 years who reported they participated in 150 minutes of physical activity per week	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X	
Adult, heavy drinking	Percent of Maine adults ages ≥18 years who reported heavy drinking defined as more than 2 drinks per day for males or more than 1 drink per day for females	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X	
Adult, use of artificial sources of ultraviolet light for tanning	Percent of Maine adults ages ≥18 years who reported use of artificial sources of ultraviolet light for tanning	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X	



**Table 1 Continued**

				Analysis by Selected Variables											
				Demographic Group									Mental Health Status		
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety	
Adult, use of protective measures against sun exposure	Percent of Maine adults ages ≥18 years who reported frequent use of protective measures against sun exposure when outside on a sunny summer day for more than an hour	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X	
Adult, adherence to three-dose human papillomavirus (HPV) vaccination	Percent of Maine adults ages 18-49 years who reported by that they had the three-dose HPV vaccination	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X	
Youth, any tobacco use	Percent of Maine youth (middle and high school students) who reported any tobacco use in the past 30 days	MIYHS	Percent	X	X	X	X	X	X (high school students only)		X				
Youth, fruit and vegetable consumption	Percent of Maine youth (middle and high school students) who reported eating fruits and/or vegetables 5 or more times per day during the past seven days	MIYHS	Percent	X	X	X	X	X	X (high school students only)		X				

**Table 1 Continued**

				Analysis by Selected Variables										Mental Health Status	
				Demographic Group										Current Depression	Any lifetime diagnosis of depression or anxiety
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety	
Youth, healthy weight status	Percent of Maine youth (middle and high school students) who are at a healthy weight ( $\geq$ 5th percentile but $<$ 85th percentile for body mass index [BMI] by age and sex) from self-reported weight (in kilograms) and height (in meters squared)	MIYHS	Percent	X	X	X	X	X	X (high school students only)		X				
Youth, overweight and obese	Percent of Maine youth (middle and high school students) who are overweight ( $\geq$ 85th percentile but $<$ 95th percentile for body mass index [BMI] by age and sex) or obese ( $\geq$ 95th percentile for BMI by age and sex) from self-reported weight (in kilograms) and height (in meters squared)	MIYHS	Percent	X	X	X	X	X	X (high school students only)		X				

**Table 1 Continued**

				Analysis by Selected Variables									Mental Health Status	
				Demographic Group									Current Depression	Any lifetime diagnosis of depression or anxiety
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Youth, ≥60 minutes of physical activity per day	Percent of Maine youth (middle and high school students) who reported being physically active for ≥60 minutes per day on all past seven days	MIYHS	Percent	X	X	X	X	X	X (high school students only)		X			
Youth, use of artificial sources of ultraviolet light for tanning	Percent of Maine youth (middle and high school students) who reported using artificial sources of ultraviolet light for tanning at least one time in the past 12 months	MIYHS	Percent	X	X	X	X	X	X (high school students only)		X			
Youth, adherence to three-dose human papillomavirus (HPV) vaccination	Percent of Maine youth ages 10-17 years who were reported by guardian as having the three-dose HPV vaccination	BRFSS	Percent	X	X	X	X	X		X				
Environmental, radon testing of indoor air	Percent of Maine households that reported household air was tested for radon	BRFSS	Percent	X	X					X				

**Table 1 Continued**

		Analysis by Selected Variables											Mental Health Status	
		Demographic Group											Current Depression	Any lifetime diagnosis of depression or anxiety
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Environmental, high levels of radon in indoor air	Percent of Maine households that reported radon levels in household air was above normal when tested	BRFSS	Percent	X	X					X				
Environmental, high levels of radon in indoor air mitigated	Percent of Maine households that reported above normal radon levels in household air was reduced/fixed	BRFSS	Percent	X	X					X				

Abbreviations: BRFSS, Behavioral Risk Factor Surveillance System; MIYHS, Maine Integrated Youth Health Survey

Geography is defined as county and public health district of residence.

All BRFSS percentages are weighted to be representative of the general Maine adult population and to adjust to non-response.

All MIYHS percentages are weighted to be representative of the Maine youth population and to adjust to non-response.

**Table 2. Summary of Analysis Plan Used in 2013 Maine Cancer Surveillance Plan, by Screening Indicators.**

Indicator	Description	Data Source	Rate base or unit	Analysis by Selected Variables									Mental Health Status	
				Year	Geography	Sex	Age	Demographic Group			Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety	
								Race and Ethnicity	Sexual Orientation	Household Income				
Breast cancer, screening, mammogram	Percent of Maine females ages ≥40 years, 40-49 years and ≥50 years who reported they have had a mammogram in the past 2 years	BRFSS	Percent	X	X	NA, sex-specific	X	X	X	X	X	X	X	X
Cervical cancer, screening, Pap smear	Percent of Maine females ages 21-65 years with an intact cervix who reported that they have had a Pap smear in the past 3 years	BRFSS	Percent	X	X	NA, sex-specific	X	X	X	X	X	X	X	X
Colorectal cancer, screening, combined	Percent of Maine adults ages ≥50 years who reported that they had a home blood stool test (e.g., FOBT or FIT) within 1 year OR sigmoidoscopy within 5 years and home blood stool test within 3 years OR colonoscopy within 10 years	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X

**Table 2 Continued**

				Analysis by Selected Variables									Mental Health Status	
				Demographic Group									Current Depression	Any lifetime diagnosis of depression or anxiety
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Colorectal cancer, screening, sigmoidoscopy and blood stool test	Percent of Maine adults ages ≥50 years who reported that they have ever had a sigmoidoscopy in the past 5 years and a home blood stool test in the past 3 years	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X
Colorectal cancer, screening, colonoscopy	Percent of Maine adults ages ≥50 years who reported they had a colonoscopy in the past 10 years	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X
Colorectal cancer, screening, blood stool test	Percent of Maine adults ages ≥50 years who reported that they had a home blood stool test in the past year	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X
Oral or mouth cancer, screening	Percent of Maine adults ages ≥18 years who reported that they have had been screened for oral cancer	BRFSS	Percent	X	X	X	X	X	X	X	X	X	X	X

**Table 2 Continued**

		Analysis by Selected Variables											Mental Health Status	
		Demographic Group												
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Prostate cancer, screening, prostate-specific antigen (PSA) test	Percent of Maine males ages ≥50 years who reported they have had a PSA test within past 2 years	BRFSS	Percent	X	X	NA, sex-specific	X	X	X	X	X	X	X	X

Abbreviations: BRFSS, Behavioral Risk Factor Surveillance System; NA, Not applicable

Geography is defined as county and public health district of residence.

All BRFSS percentages are weighted to be representative of the general Maine adult population and to adjust to non-response.

**Table 3. Summary of Analysis Plan Used in 2013 Maine Cancer Surveillance Plan, by Morbidity Indicators.**

Indicator	Description	Data Source	Rate base or unit	Analysis by Selected Variables											
				Demographic Group									Mental Health Status		
				Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety	
Adenocarcinoma of the esophagus, incidence	Adenocarcinoma of the esophagus incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X								
All cancer, incidence	All cancer incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X	X							
Bladder cancer, incidence	Bladder cancer Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X								
Breast cancer (female), incidence	Female breast cancer Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	NA, sex-specific	X	X							
Cervical cancer, incidence	Cervical cancer incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	NA, sex-specific									
Colorectal cancer, incidence	Colorectal cancer Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X	X							
Endometrial cancer, incidence	Endometrial cancer Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	NA, sex-specific	X								
Esophageal cancer, incidence	Esophageal cancer Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X								
Kidney and renal pelvis cancer, incidence	Kidney and renal pelvis cancer incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X								



**Table 3 Continued**

				Analysis by Selected Variables										
				Demographic Group									Mental Health Status	
Indicator	Description	Data Source	Rate base or unit									Current Depression	Any lifetime diagnosis of depression or anxiety	
				Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education			Type of Healthcare Coverage
Lung cancer, incidence	Lung cancer Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X	X						
Melanoma, incidence	Melanoma Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X							
Mesothelioma, incidence	Mesothelioma incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X							
Non-Hodgkins Lymphoma, incidence	Non-Hodgkins Lymphoma Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X							
Oropharyngeal cancer, incidence	Oropharyngeal cancer Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X							
Pancreatic cancer, incidence	Pancreatic cancer Incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X							
Post-menopausal breast cancer, incidence	Post-menopausal breast cancer incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	NA, sex-specific	X							
Prostate cancer, incidence	Prostate cancer incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	NA, sex-specific	X							
Thyroid cancer, incidence	Thyroid cancer incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X							

**Table 3 Continued**

				Analysis by Selected Variables										
				Demographic Group									Mental Health Status	
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Tobacco-related neoplasms, incidence	Tobacco-related neoplasm incidence (excluding lung cancer)	Maine Cancer Registry	Crude and age-adjusted rate	X	X	X	X							
Uterine cancer, incidence	Uterine cancer incidence	Maine Cancer Registry	Crude and age-adjusted rate	X	X	NA, sex-specific	X							
Breast cancer (female), staging	Percent of female breast cancer incidence by stage at diagnosis (e.g., in situ, localized, regional, distant, unknown)	Maine Cancer Registry	Percent	X	X	NA, sex-specific	X							
Cervical cancer, staging	Percent of cervical cancer incidence by stage at diagnosis (e.g., localized, regional, distant, unknown)	Maine Cancer Registry	Percent	X	X	NA, sex-specific	X							
Colorectal cancer, staging	Percent of colorectal cancer incidence by stage at diagnosis (e.g., in situ, localized, regional, distant, unknown)	Maine Cancer Registry	Percent	X	X	X	X							

**Table 3 Continued**

				Analysis by Selected Variables										
				Demographic Group									Mental Health Status	
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Lung cancer, staging	Percent of lung cancer incidence by stage at diagnosis (e.g., in situ, localized, regional, distant, unknown)	Maine Cancer Registry	Percent	X	X	X	X							
Prostate cancer, staging	Percent of prostate cancer incidence by stage at diagnosis (e.g., localized, regional, distant unknown)	Maine Cancer Registry	Percent	X	X	NA, sex-specific	X							
Cancer survivors, prevalence	Percent of Maine adults who report they have been diagnosed with cancer	BRFSS	Percent			X	X	X	X	X	X	X	X	X
Cancer survivors, clinical trial participation	Percent of Maine adults ages ≥18 years who reported they participated in a clinical trial as part of cancer treatment	BRFSS	Percent			X	X	X	X	X	X	X	X	X

**Table 3 Continued**

Indicator	Description	Data Source	Rate base or unit	Analysis by Selected Variables									Mental Health Status	
				Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Cancer survivors, mental health	Mean number of poor mental health days reported by Maine adults ages ≥18 years who have ever been diagnosed with cancer	BRFSS	Mean			X	X	X	X	X	X	X		
Cancer survivors, received summary treatment	Percent of Maine adults ages ≥18 years who reported they received a summary of cancer treatment	BRFSS	Percent			X	X	X	X	X	X	X	X	X
Cancer survivors, written follow-up	Percent of Maine adults ages ≥18 years who reported they received a written instructions for follow-up cancer treatment	BRFSS	Percent			X	X	X	X	X	X	X	X	X
Cancer survivors, physical health	Mean number of poor physical health days reported by Maine adults ages ≥18 years who have ever been diagnosed with cancer	BRFSS	Mean			X	X	X	X	X	X	X		

**Table 3 Continued**

				Analysis by Selected Variables									Mental Health Status	
				Demographic Group									Current Depression	Any lifetime diagnosis of depression or anxiety
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Cancer survivors, poor physical or mental health affecting usual activities	Mean number of poor physical or mental health days that affected usual activities reported by Maine adults ages ≥18 years who have ever been diagnosed with cancer	BRFSS	Mean			X	X	X	X	X	X	X		

Abbreviations: BRFSS, Behavioral Risk Factor Surveillance System; NA, Not applicable

Geography is defined as county and public health district of residence.

Crude rates are deaths per 100,000 population

Age-adjusted rates are deaths per 100,000 population age-adjusted to the U.S. 2000 standard population

All BRFSS percentages are weighted to be representative of the general Maine adult population and to adjust to non-response.

**Table 4. Summary of Analysis Plan Used in 2013 Maine Cancer Surveillance Plan, by Mortality Indicators.**

				Analysis by Selected Variables										
				Demographic Group									Mental Health Status	
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
All cancer, mortality	All cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X	X						
Bladder cancer, mortality	Bladder cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X							
Breast cancer (female), mortality	Female breast cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	NA, sex-specific	X	X						
Cervical cancer, mortality	Cervical cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	NA, sex-specific	X							
Colorectal cancer, mortality	Colorectal cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X	X						
Esophageal cancer, mortality	Esophageal cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X							
Lung cancer, mortality	Lung cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X	X						
Melanoma, mortality	Melanoma deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X							
Mesothelioma, mortality	Mesothelioma deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X							

**Table 4 Continued**

				Analysis by Selected Variables										
				Demographic Group									Mental Health Status	
Indicator	Description	Data Source	Rate base or unit	Year	Geography	Sex	Age	Race and Ethnicity	Sexual Orientation	Household Income	Education	Type of Healthcare Coverage	Current Depression	Any lifetime diagnosis of depression or anxiety
Oropharyngeal cancer, mortality	Oropharyngeal cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X							
Pancreatic cancer, mortality	Pancreatic cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X							
Prostate cancer, mortality	Prostate cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	NA, sex-specific	X							
Thyroid cancer, mortality	Thyroid cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	X	X							
Tobacco-related neoplasms, mortality	Tobacco-related neoplasm deaths (excluding lung cancer)	Mortality data	Crude and age-adjusted rate	X	X	X	X	X						
Uterine cancer, mortality	Uterine cancer deaths	Mortality data	Crude and age-adjusted rate	X	X	NA, sex-specific	X							

Abbreviations: NA, Not applicable

Geography is defined as county and public health district of residence.

Crude rates are deaths per 100,000 population

Age-adjusted rates are deaths per 100,000 population age-adjusted to the U.S. 2000 standard population

## Next Steps

This plan forms the backbone of future Cancer Surveillance efforts in Maine. The immediate next step is to implement this plan: epidemiology staff will analyze or assemble (if analyzed data is already available) the data and create the standard data tables from the sample table shells shown in the Appendix. Following creation of the standard data tables, epidemiology staff will create standard figures to better illustrate and understand the data. The standard tables and figures will form the basis of the Maine Cancer Surveillance Report. While not all tables, figures, and indicators will be included in the Maine Cancer Surveillance Report, epidemiology staff will interpret the information in the standard tables and figures and write the report based upon that information, with input from Maine CDC cancer program staff. While the Maine Cancer Surveillance Report will be updated every 5 years or so, epidemiology staff will update the standard tables and figures and make those available to Maine CDC cancer program staff on an annual basis, as new data become available. The Cancer Surveillance Report will be widely disseminated by Maine CDC cancer program staff, and epidemiology staff will work with cancer program staff to develop plans for dissemination of future updates to the standard tables and figures.

Longer term steps include using the Cancer Surveillance Plan to plan future data collection efforts, routinely evaluating this plan and updating it as needed, and working to ensure that other Maine CDC surveillance efforts are aligned with these indicators. The Cancer Surveillance Plan will be used to plan future data collection efforts, to ensure ongoing access to data on these surveillance indicators. For instance, the Maine BRFSS questionnaire is determined on an annual basis, and the MIYHS questionnaires on a biennial basis, and cancer program staff and epidemiology staff will need to work together to ensure that questions needed to support these cancer surveillance indicators are included in these surveys on a regular basis.

This Cancer Surveillance Plan and its implementation will need to be evaluated at least once every three years. At a minimum, the indicators should be reviewed and evaluated to ensure that they are still useful to Maine CDC cancer programs, that they capture the required scope of measures across the cancer prevention and control spectrum, that unused or redundant indicators are dropped, that new indicators are added as needed, and that changes are made to reflect changes in data availability, national recommendations, or indicator definition. Likewise, table shells need to be reviewed and evaluated to ensure that the data included are useful, sufficient for program use, and reflect changes in data availability and national recommendations.

The Maine CDC and its Division of Population Health (where the Maine CDC cancer programs are organizationally housed) routinely considers and undertakes other efforts related to surveillance, such as Healthy Maine 2020, the Maine State Health Assessment, and the Division of Population Health's Strategic Framework outcomes. As this Cancer Surveillance Plan was created, the cancer program and epidemiology staff ensured that cancer surveillance indicators were in alignment with these broader efforts to the extent that it made sense. As new broader surveillance efforts like these are undertaken in the future, cancer program and epidemiology staff will work to ensure that these efforts are aligned with the Cancer Surveillance Plan to the extent possible. For example, it will be important to ensure any cancer surveillance indicators included in these broader efforts come from this Cancer Surveillance Plan,



and not be similar and yet slightly different. While some of this decision-making will be outside the scope of control of the cancer program and epidemiology staff, these staff can provide information and rationale to Division and Maine CDC leadership that alignment will improve surveillance efficiency and effectiveness given limited resources.

## References

1. Maine Annual Cancer Report 2013. Augusta, ME: Maine Cancer Registry, Division of Population Health, Maine Center for Disease Control and Prevention; November 2013. Available at: [http://www.maine.gov/dhhs/mecdc/population-health/mcr/reports/documents/2010\\_incidence\\_2010\\_mortality.pdf](http://www.maine.gov/dhhs/mecdc/population-health/mcr/reports/documents/2010_incidence_2010_mortality.pdf)
2. Maine Comprehensive Cancer Control Plan, 2011-2015. Topsham, ME: Maine Cancer Consortium; October 2010. Available at: <http://www.maine.gov/dhhs/mecdc/population-health/ccc/documents/cancerplan2011-2015.pdf>
3. Maine Cancer Surveillance Report, 2009. Maine Cancer Consortium; September 2009. Available at: <http://www.maine.gov/dhhs/mecdc/population-health/ccc/documents/cancersurveillancereport-9-2009.pdf>

# **Appendix**

## **Sample Table Shells**

**Table Shell 1. Trend of Selected Indicator by Year, Maine Behavioral Risk Factor Surveillance System, Maine, 2001-2010.<sup>†</sup>**

		Maine Overall						U.S.	
	Total Respondents	n	N	Crude		Age-adjusted		Age-adjusted	
				%	95% CI	%	95% CI	%	95% CI
Year									
2001									
2002									
2003									
2004									
2005									
2006									
2007									
2008									
2009									
2010									

Data Source: Maine Behavioral Risk Factor Surveillance System

n: Number of survey respondents who answered 'Yes' to the selected question.

N: Estimated number of Maine adults who responded to the selected question.

95% CI: 95% confidence interval

<sup>†</sup>Use caution in interpreting rates based upon a numerator <50.

DSU: Data statistically unreliable; unweighted denominator is <50 or 95% CI half width is >10.

**Table Shell 2. Prevalence of Selected Indicator by Demographic Group, Maine Behavioral Risk Factor Surveillance System, Maine 2011.<sup>†</sup>**

	Total Respondents	n	N	%	95% CI
<b>Maine Total</b>					
<b>Sex</b>					
Female					
Male					
<b>Age</b>					
18 - 24					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 and over					
<b>Education</b>					
Less than high school diploma					
High school diploma or GED					
Some college					
Bachelor's degree or higher					
<b>Income</b>					
Less than \$15,000					
\$15,000 - \$24,999					
\$25,000 - \$34,999					
\$35,000 - \$49,999					
\$50,000 or more					
<b>Sexual Orientation</b>					
Bisexual					
Heterosexual or straight					
Homosexual (Gay or lesbian)					
Other					
<b>Type of Healthcare Insurance Coverage</b>					
Private Coverage					
MaineCare					
Medicaid/Other					
Uninsured					
<b>Mental Health Status</b>					
Current depression					
Yes					
No					
Any lifetime diagnosis of depression or anxiety					
Yes					
No					

Data Source: Maine Behavioral Risk Factor Surveillance System

n: Number of survey respondents who answered 'Yes' to the selected question.

N: Estimated number of Maine adults who responded to the selected question.

95% CI: 95% confidence interval.

<sup>†</sup>Use caution in interpreting rates based upon a numerator <50.

DSU: Data statistically unreliable; unweighted denominator is <50 or 95% CI half width is >10.

**Table Shell 3. Prevalence of Selected Indicator by Race and Ethnicity, Maine Behavioral Risk Factor Surveillance System, Maine 2011.<sup>†</sup>**

	Total Respondents	n	N	%	95% CI
<b>Maine Total</b>					
<b>Race</b>					
White					
Black or African American					
American Indian or Alaska Native					
Asian					
Hawaiian or Pacific Islander					
Multiracial					
Other Race					
<b>Ethnicity</b>					
Non-Hispanic					
Hispanic					

Data Source: Maine Behavioral Risk Factor Surveillance System

n: Number of survey respondents who answered 'Yes' to the selected question.

N: Estimated number of Maine adults who responded to the selected question.

95% CI: 95% confidence interval

<sup>†</sup>Use caution in interpreting rates based upon a numerator <50.

DSU: Data statistically unreliable; unweighted denominator is <50 or 95% CI half width is >10.

**Table Shell 4. Prevalence of Selected Indicator by County and District of Residence, Maine Behavioral Risk Factor Surveillance System, Maine 2011. †**

	Total Respondents	n	N	%	95% CI
<b>Maine Total</b>					
<b>County</b>					
Androscoggin					
Aroostook					
Cumberland					
Franklin					
Hancock					
Kennebec					
Knox					
Lincoln					
Oxford					
Penobscot					
Piscataquis					
Sagadahoc					
Somerset					
Waldo					
Washington					
York					
<b>Public Health District</b>					
Aroostook					
Central					
Cumberland					
Downeast					
Midcoast					
Penquis					
Western					
York					

Data Source: Maine Behavioral Risk Factor Surveillance System

n: Number of survey respondents who answered 'Yes' to the selected question.

N: Estimated number of Maine adults who responded to the selected question.

95% CI: 95% confidence interval.

† Use caution in interpreting rates based upon a numerator <50.

DSU: Data statistically unreliable; unweighted denominator is <50 or 95% CI half width is >10.

**Table Shell 5. Trend of Selected Indicator among Middle School and High School Students by Year, Maine Integrated Youth Health Survey, Maine, 2007, 2009, 2011.<sup>†</sup>**

	Middle School				High School				U.S.			
	Total Respondents	n	N	%	95% CI	Total Respondents	n	N	%	95% CI	%	95% CI
Year												
2007												
2009												
2011												

Data Source: Maine Behavioral Risk Factor Surveillance System

n: Number of survey respondents who answered 'Yes' to the selected question.

N: Estimated number of Maine youth who responded to the selected question.

95% CI: 95% confidence interval

<sup>†</sup>Use caution in interpreting rates based upon a numerator <50.

DSU: Data statistically unreliable; unweighted denominator is <50 or 95% CI half width is >10.



**Table Shell 6. Prevalence of Selected Indicator among Middle School and High School Students by Selected Demographics, Maine Integrated Youth Health Survey, Maine 2011.**<sup>†, ^</sup>

	Middle School					High School				
	Total Respondents	n	N	%	95% CI	Total Respondents	n	N	%	95% CI
<b>Maine Total</b>										
<b>Sex</b>										
Female										
Male										
<b>Race</b>										
White										
Black or African American										
American Indian or Alaska Native										
Asian										
Hawaiian or Pacific Islander										
Multiracial										
<b>Ethnicity</b>										
Non-Hispanic										
Hispanic										
<b>Sexual Orientation</b>										
Bisexual										
Heterosexual or straight										
Homosexual (Gay or lesbian)										
Not sure										

Data source: Maine Integrated Youth Health Survey

n: Number of survey respondents who answered ‘Yes’ to the selected question.

N: Estimated number of Maine youth who responded to the selected question.

95% CI: 95% confidence interval

All percentages weighted to be more representative of the student population of Maine and to adjust for non-response.

Subgroup counts might not sum to Maine total due to missing data

†Use caution in interpreting rates based upon a numerator < 50.

^Results not reported because weighted data are not available due to low response rates.

**Table Shell 7. Prevalence of Selected Indicator among Middle School and High School Students by Geography, Maine Integrated Youth Health Survey, Maine 2011.<sup>†,^</sup>**

	Middle School					High School				
	Total Respondents	n	N	%	95% CI	Total Respondents	n	N	%	95% CI
<b>Maine Total</b>										
<b>County</b>										
Androscoggin										
Aroostook										
Cumberland										
Franklin										
Hancock										
Kennebec										
Knox										
Lincoln										
Oxford										
Penobscot										
Piscataquis										
Sagadahoc										
Somerset										
Waldo										
Washington										
York										
<b>Public Health District</b>										
Aroostook										
Central										
Cumberland										
Downeast										
Midcoast										
Penquis										
Western										
York										

Data source: Maine Integrated Youth Health Survey

n: Number of survey respondents who answered 'Yes' to the selected question.

N: Estimated number of Maine youth who responded to the selected question.

95% CI: 95% confidence interval

All percentages weighted to be more representative of the student population of Maine and to adjust for non-response.

Subgroup counts might not sum to Maine total due to missing data

<sup>†</sup>Use caution in interpreting rates based upon a numerator <50.

<sup>^</sup>Results not reported because weighted data are not available due to low response rates.

**Table Shell 8. Cancer Incidence by Year, Maine, 2001-2010.<sup>†</sup>**

	Maine Overall				U.S.		
	Count	Crude		Age-adjusted		Age-adjusted	
		Rate	95% CI	Rate	95% CI	Rate	95% CI
Year							
2001							
2002							
2003							
2004							
2005							
2006							
2007							
2008							
2009							
2010							

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Count: Number of new cases diagnosed with malignant cancer

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 7.0.5.

Crude rates are new cases per 100,000 population.

Age-adjusted rates are new cases per 100,000 population age-adjusted to the U.S. 2000 standard population.

Subgroup counts might not sum to Maine total due to missing data.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

**Table Shell 9. Cancer Incidence by Age and Race, Maine, 2006-2010.<sup>†</sup>**

	Average Annual Count	Crude		Age-adjusted	
		Rate	95% CI	Rate	95% CI
<b>Maine Total</b>					
<b>Age</b>					
Under 15					
15-19					
20-24					
25-29					
30-34					
35-39					
40-44					
45-49					
50-54					
55-59					
60-64					
65-69					
70-74					
75-79					
80-84					
85 and over					
<b>Race</b>					
White					
Black or African American					
Other					

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Average Annual Count: Number of new cases diagnosed with malignant cancer over a specific period of time

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 7.0.5.

Crude rates are new cases per 100,000 population.

Age-adjusted rates are new cases per 100,000 population age-adjusted to the U.S. 2000 standard population.

Subgroup counts might not sum to Maine total due to missing data.

<sup>†</sup> Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

Other race includes Asian, Native American/American Indian, Alaskan Native/Pacific Islanders.

**Table Shell 10. Cancer Incidence by Sex, Maine, 2001-2010.<sup>†</sup>**

	Females			Males			Maine Overall		U.S.	
	Count	Age-adjusted		Count	Age-adjusted		Age-adjusted		Age-adjusted	
		Rate	95% CI		Rate	95% CI	Rate	95% CI	Rate	95% CI
Year										
2001										
2002										
2003										
2004										
2005										
2006										
2007										
2008										
2009										
2010										

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Count: Number of new cases diagnosed with malignant cancer

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 7.0.5.

Crude rates are new cases per 100,000 population.

Age-adjusted rates are new cases per 100,000 population age-adjusted to the U.S. 2000 standard population.

Subgroup counts might not sum to Maine total due to missing data.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

**Table Shell 11. Cancer Incidence by County and Public Health District of Residence, Maine, 2006-2010.<sup>†</sup>**

	Average Annual Count	Crude		Age-adjusted	
		Rate	95% CI	Rate	95% CI
<b>Maine Total</b>					
<b>County</b>					
Androscoggin					
Aroostook					
Cumberland					
Franklin					
Hancock					
Kennebec					
Knox					
Lincoln					
Oxford					
Penobscot					
Piscataquis					
Sagadahoc					
Somerset					
Waldo					
Washington					
York					
<b>Public Health District</b>					
Aroostook					
Central					
Cumberland					
Downeast					
Midcoast					
Penquis					
Western					
York					

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Average Annual Count: Number of new cases diagnosed with malignant cancer over a specific period of time

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 7.0.5.

Crude rates are new cases per 100,000 population.

Age-adjusted rates are new cases per 100,000 population age-adjusted to the U.S. 2000 standard population.

Subgroup counts might not sum to Maine total due to missing data.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

**Table Shell 12. Cancer Incidence by Year, Maine, 2001-2010.<sup>†</sup>**

	Females			Males			Maine Overall		U.S.	
	Number	Age-adjusted		Number	Age-adjusted		Age-adjusted		Age-adjusted	
		Rate	95% CI		Rate	95% CI	Rate	95% CI	Rate	95% CI
Year										
2001										
2002										
2003										
2004										
2005										
2006										
2007										
2008										
2009										
2010										

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

95% CI: 95% confidence interval

NA = Not applicable

Age adjusted rates are deaths per 100,000 population age-adjusted to the U.S. 2000 standard population.

Age-adjusted rates are not calculated for age-specific groups.

Subgroup counts might not sum to Maine total due to missing data.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

**Table Shell 13. Cancer Deaths by Age and Race, Maine, 2006-2010.<sup>†</sup>**

	Average Annual Count	Crude		Age-adjusted	
		Rate	95% CI	Rate	95% CI
<b>Maine Total</b>					
<b>Age</b>					
Under 15					
15-19					
20-24					
25-29					
30-34					
35-39					
40-44					
45-49					
50-54					
55-59					
60-64					
65-69					
70-74					
75-79					
80-84					
85 and over					
<b>Race</b>					
White					
Black or African American					
Other					

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Average Annual Count: Number of new cases diagnosed with malignant cancer over a specific period of time

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 7.0.5.

Crude Rates are deaths per 100,000 population.

Age adjusted rates are deaths per 100,000 population age-adjusted to the U.S. 2000 standard population.

Age-adjusted rates are not calculated for age-specific groups.

Subgroup counts might not sum to Maine total due to missing data.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

Other race includes Asian, Native American/American Indian, Alaskan Native/Pacific Islanders.



**Table Shell 14. Cancer Deaths by Sex, Maine, 2001-2010.<sup>†</sup>**

	Females			Males			Maine Overall		U.S.	
	Count	Age-adjusted		Count	Age-adjusted		Age-adjusted		Age-adjusted	
		Rate	95% CI		Rate	95% CI	Rate	95% CI	Rate	95% CI
Year										
2001										
2002										
2003										
2004										
2005										
2006										
2007										
2008										
2009										
2010										

Data Source: Underlying mortality data provided by National Center for Health Statistics.

Count: Number of deaths with malignant cancer as the underlying cause of death.

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 8.0.4. SEER Cause of Death Recode: all (which include ICD-10 codes C00-C97)

Crude Rates are deaths per 100,000 population.

Age adjusted rates are deaths per 100,000 population age-adjusted to the U.S. 2000 standard population.

Age-adjusted rates are not calculated for age-specific groups.

Subgroup counts might not sum to Maine total due to missing data.

\*Counts and rates might be slightly underestimated due to missing underlying cause of death information for Maine residents who died out of state in 2010.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

**Table Shell 15. Cancer Deaths by County and Public Health District of Residence, Maine, 2006-2010.<sup>†</sup>**

	Average Annual Count	Crude		Age-adjusted	
		Rate	95% CI	Rate	95% CI
<b>Maine Total</b>					
<b>County</b>					
Androscoggin					
Aroostook					
Cumberland					
Franklin					
Hancock					
Kennebec					
Knox					
Lincoln					
Oxford					
Penobscot					
Piscataquis					
Sagadahoc					
Somerset					
Waldo					
Washington					
York					
<b>Public Health District</b>					
Aroostook					
Central					
Cumberland					
Downeast					
Midcoast					
Penquis					
Western					
York					

Data Source: Underlying mortality data provided by National Center for Health Statistics.

Count: Number of deaths with malignant cancer as the underlying cause of death.

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 8.0.4. SEER Cause of Death Recode: all (which include ICD-10 codes C00-C97)

Crude Rates are deaths per 100,000 population.

Age adjusted rates are deaths per 100,000 population age-adjusted to the U.S. 2000 standard population.

Age-adjusted rates are not calculated for age-specific groups.

Subgroup counts might not sum to Maine total due to missing data.

\*Counts and rates might be slightly underestimated due to missing underlying cause of death information for Maine residents who died out of state in 2010.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

**Shell Table 16. Stage at Diagnosis for Selected Cancer Sites by Age and Sex, Maine, 2006-2010.<sup>†</sup>**

Stage at Diagnosis	All Races			White			Black			Other			Hispanic		
	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
Male															
All Ages															
In situ															
Localized															
Regional															
Distant															
Unknown															
Age < 50															
In situ															
Localized															
Regional															
Distant															
Unknown															
Age ≥ 50															
In situ															
Localized															
Regional															
Distant															
Unknown															
Female															
All Ages															
In situ															
Localized															
Regional															
Distant															
Unknown															
Age < 50															
In situ															
Localized															
Regional															
Distant															
Unknown															
Age ≥ 50															
In situ															
Localized															
Regional															
Distant															
Unknown															

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Count: Number of cases diagnosed at specific stage

NA = Not applicable

Rates are calculated using SEER\*Stat Version 8.0.4.

Rates are 100,000 population and age-adjusted by five-year groups to the U.S. 2000 standard population.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

Other race includes Asian, Native American/American Indian, Alaskan Native/Pacific Islanders.

Shell Table 17. Stage at Diagnosis by County, Maine, 2006-2010.<sup>†</sup>

Stage at Diagnosis	In situ			Localized			Regional			Distant			Unknown		
	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate	Count	%	Rate
<b>Maine Total</b>															
<b>County</b>															
Androscoggin															
Aroostook															
Cumberland															
Franklin															
Hancock															
Kennebec															
Knox															
Lincoln															
Oxford															
Penobscot															
Piscataquis															
Sagadahoc															
Somerset															
Waldo															
Washington															
York															

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Count: Number of cases diagnosed at specific stage

NA = Not applicable

Rates are calculated using SEER\*Stat Version 8.0.4.

Rates are 100,000 population and age-adjusted by five-year groups to the U.S. 2000 standard population.

<sup>†</sup>Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

**Table 18. Age-adjusted Obesity-related Cancer Incidence Rates, Maine and U.S., 2010.†**

	Total						
	Maine Whites			U.S. Whites		U.S. All Races	
	Count	Age-adjusted		Age-adjusted		Age-adjusted	
		Rate	95% CI	Rate	95% CI	Rate	95% CI
Adenocarcinoma of the Esophagus							
Colorectal Cancer							
Kidney and Renal Pelvis Cancer							
Cancer of the Pancreas							
Endometrial Cancer	See gender-specific rate in Table 19						
Post-menopausal Breast Cancer	See gender-specific rate in Table 19						

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Count: Number of new cases diagnosed with malignant cancer

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 7.0.5.

Crude rates are new cases per 100,000 population.

Age-adjusted rates are new cases per 100,000 population age-adjusted to the U.S. 2000 standard population.

Subgroup counts might not sum to Maine total due to missing data.

† Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.

**Table 19. Age-adjusted Obesity-related Cancer Incidence Rates by Sex, Maine and U.S., 2010.†**

	Females						
	Maine Whites			U.S. Whites		U.S. All Races	
	Count	Age-adjusted		Age-adjusted		Age-adjusted	
		Rate	95% CI	Rate	95% CI	Rate	95% CI
Adenocarcinoma of the Esophagus							
Colorectal Cancer							
Kidney and Renal Pelvis Cancer							
Cancer of the Pancreas							
Endometrial Cancer							
Post-menopausal Breast Cancer							

	Males						
	Maine Whites			U.S. Whites		U.S. All Races	
	Count	Age-adjusted		Age-adjusted		Age-adjusted	
		Rate	95% CI	Rate	95% CI	Rate	95% CI
Adenocarcinoma of the Esophagus							
Colorectal Cancer							
Kidney and Renal Pelvis Cancer							
Cancer of the Pancreas							

Data Source: Maine Cancer Registry, 1995-2010 NPCR-CSS submission

Count: Number of new cases diagnosed with malignant cancer

95% CI: 95% confidence interval

NA = Not applicable

Rates are calculated using SEER\*Stat Version 7.0.5.

Crude rates are new cases per 100,000 population.

Age-adjusted rates are new cases per 100,000 population age-adjusted to the U.S. 2000 standard population.

Subgroup counts might not sum to Maine total due to missing data.

†Rates are flagged as unreliable when the rate is calculated with a numerator of 20 or less.



*Paul R. LePage, Governor*

*Mary C. Mayhew, Commissioner*

The Department of Health and Human Services (DHHS) does not discriminate on the basis of disability, race, color, creed, gender, age, sexual orientation, or national origin, in admission to, access to or operation of its programs, services, activities or its hiring or employment practices. This notice is provided as required by Title II of the Americans with Disabilities Act of 1990 and in accordance with the Civil Rights Acts of 1964 as amended, Section 504 of the Rehabilitation Act of 1973 as amended, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972 and the Maine Human Rights Act. Questions, concerns, complaints, or requests for additional information regarding civil rights may be forwarded to the DHHS' ADA Compliance/EEO Coordinator, State House Station #11, Augusta, Maine 04333, 207-287-4289 (V) or 207-287 3488 (V), TTY: Maine relay 711. Individuals who need auxiliary aids for effective communication in programs and services of DHHS are invited to make their needs and preferences known to the ADA Compliance/EEO Coordinator. This notice is available in alternate formats, upon request.



PORTLAND • GORHAM • LEWISTON • ONLINE