

2025 Maine Cancer Snapshot

A REPORT BY THE MAINE CANCER REGISTRY

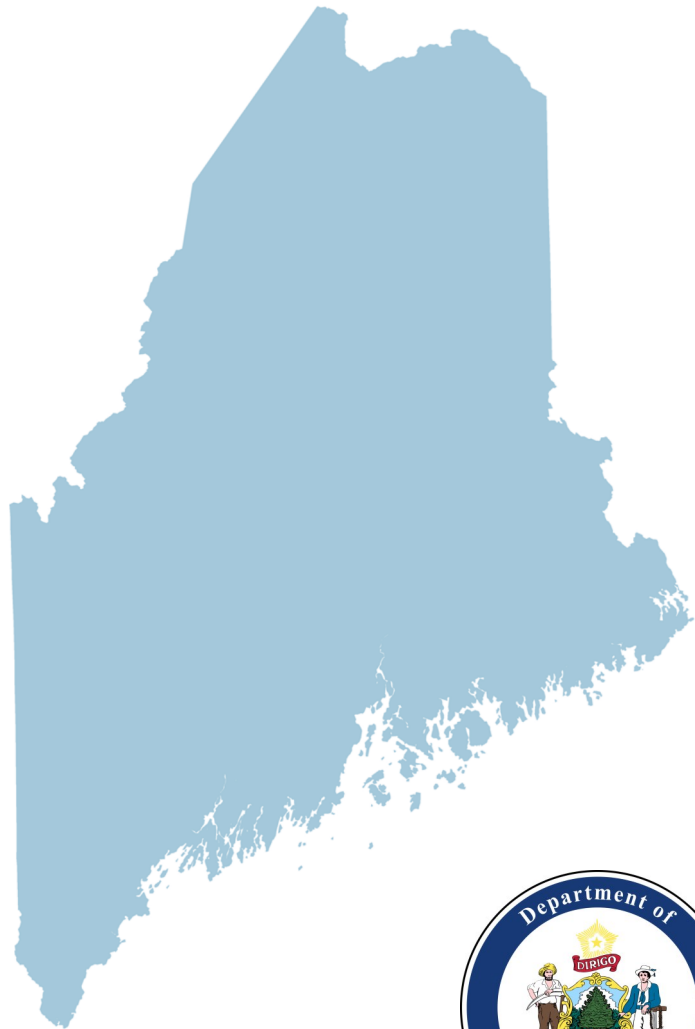
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Maine Cancer Registry

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and Prevention

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Key Findings

2025 MAINE CANCER SNAPSHOT

Among Maine residents in 2022*, there were 10,008 new malignant cancer cases and 3,426 cancer deaths.

Cancer Incidence

- The overall cancer age-adjusted incidence rate for Maine is 471.8 per 100,000 compared with 442.3 for the U.S.
- The overall cancer incidence rate in Maine declined significantly from 2006-2011 but since then rates have been stable with no statistically significant changes in trend.
- The four most common newly diagnosed cancers in Maine are female breast, lung and bronchus, prostate, and colon and rectum.
- Washington, Penobscot, and Hancock counties have higher overall cancer incidence rates compared to the state.
- Trends in cancer incidence differ by sex and age group, and rates remain highest among males and those over 65.



Cancer Mortality

- The 2022 age-adjusted overall cancer mortality rate in Maine is 153.8 per 100,000, which is significantly higher than the U.S. cancer mortality rate (143.6).
- The overall cancer mortality rate has been decreasing in Maine over the past 20 years yet remains higher than the U.S. rate.*
- The leading causes of cancer mortality are cancers of the lung and bronchus, pancreas, colon and rectum, female breast, and prostate.
- Somerset and Washington counties have significantly higher overall cancer mortality rates compared to the state rate.

*The 2025 Maine Cancer Snapshot is based on new cancer cases diagnosed in 2022 (cancer incidence) and cancer deaths occurring in 2022 (cancer mortality). This time-lag is consistent with reporting standards used throughout the U.S. to ensure high quality data. The process requires time for a state cancer registry to receive cancer cases from multiple reporting sources (including vital records, hospital reporters, physician offices, and pathology labs), time for follow up and data corrections, as well as time to consolidate state data and perform quality control and analysis. See cautionary note about 2020 incidence on page 16.

Acknowledgements

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Cancer Incidence

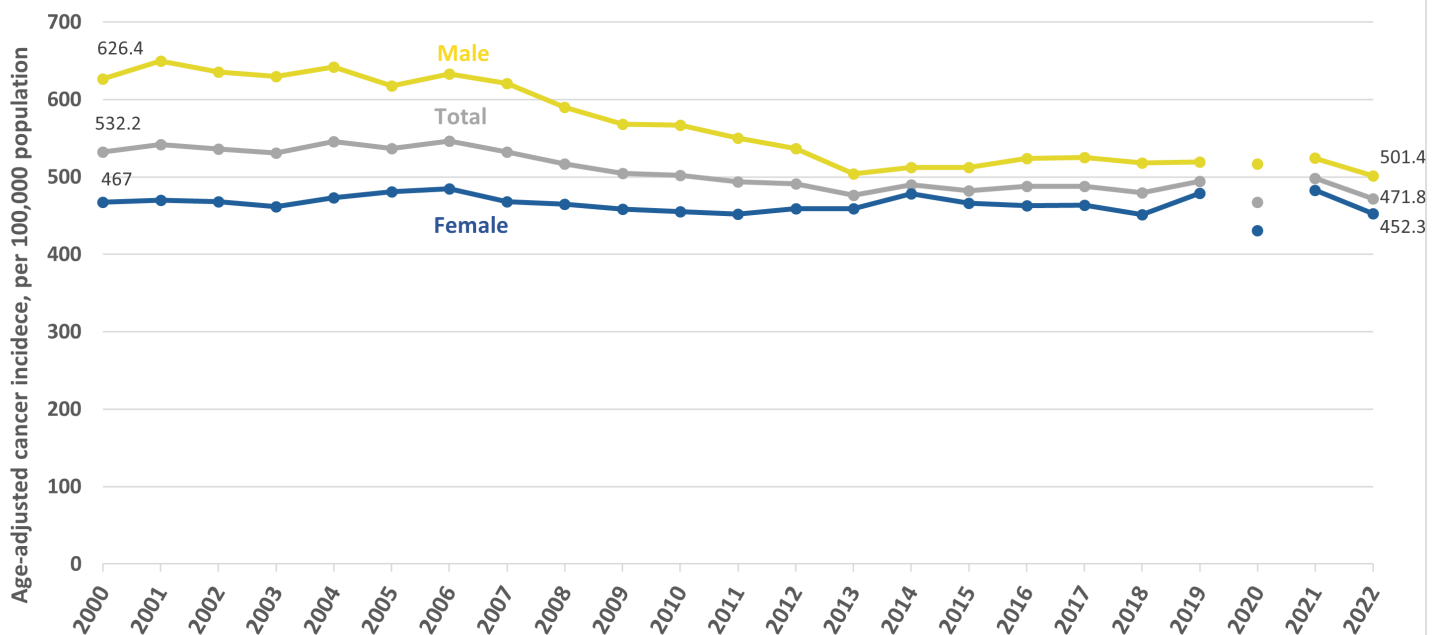
2025 MAINE CANCER SNAPSHOT

Cancer Incidence Key Findings

- Over the past 20 years, the overall cancer incidence rate in Maine has decreased from 532.2 per 100,000 population to 471.8. Rates declined in the early 2000s followed by no significant change in trend over the last ten years.
- Over that same time period, the gap between the male and female rates has also narrowed, with the male rate decreasing more rapidly, yet remaining higher than females.
- Female breast, lung and bronchus, prostate, and colon and rectum represent just under half of all new cancer diagnoses in Maine.
- Overall cancer incidence rates, as well as incidence rates for lung and bronchus, urinary bladder, and melanoma of the skin, are significantly higher in Maine than the U.S.

Trends by Sex

Figure 1: Cancer Incidence Rate: All Malignant Cancers, by Sex, Maine, 2000-2022



Rates are per 100,000 population, age-adjusted to the Year 2000 U.S. standard population.
Data source: Maine Cancer Registry, based on November 2024 NPCR-CSS data submission.

Note: 2020 data is displayed but not included in trend analysis due to the impact of the COVID-19 pandemic on cancer reporting (see page 16).

Incidence: Top 10 Cancers, Maine 2022

Red Rate = Maine is significantly higher than U.S.

Cancer Type	2022 Maine (all sexes)				2022 U.S.		
	Count	AA Rate	AA Lower 95% CL	AA Upper 95% CL	AA Rate	AA Lower 95% CL	AA Upper 95% CL
All Sites	10,008	471.8	462.1	481.8	442.3	441.6	442.9
Female Breast	1,427	134.3	126.8	142.1	132.9	132.4	133.4
Lung and Bronchus	1,390	60.1	56.9	63.4	49.4	49.2	49.6
Prostate	1,279	112.9	106.5	119.5	119.1	118.7	119.6
Colon and Rectum	694	36.5	33.7	39.6	36.7	36.5	36.9
Urinary Bladder	565	24.8	22.7	27.1	17.8	17.6	17.9
Melanoma of the Skin	545	27.1	24.8	29.7	23.8	23.7	24.0
Non-Hodgkin Lymphoma	394	18.8	16.9	20.9	17.6	17.4	17.7
Female Corpus and Uterus, NOS	348	30.4	27.1	34.1	27.6	27.4	27.8
Kidney and Renal Pelvis	345	16.7	14.9	18.8	17.2	17.1	17.3
Pancreas	321	14.6	13.0	16.4	13.6	13.5	13.7
	Maine Females				U.S. Females		
All Sites	4,873	452.3	438.7	466.3	421.5	420.6	422.4
Female Breast	1,427	134.3	126.8	142.1	132.9	132.4	133.4
Lung and Bronchus	732	58.8	54.5	63.4	46.1	45.9	46.4
Uterus (Corpus and Uterus, NOS)	348	30.4	27.1	34.1	27.6	27.4	27.8
Colon and Rectum	336	32.9	29.3	37.0	32.5	32.2	32.7
Melanoma of the Skin	225	22.5	19.3	26.0	19.4	19.2	19.6
Non-Hodgkin Lymphoma	192	17.4	14.8	20.3	14.7	14.5	14.9
Thyroid	175	22.5	19.1	26.4	18.4	18.2	18.6
Pancreas	134	11.4	9.4	13.7	12.1	12.0	12.2
Urinary Bladder	129	11.1	9.1	13.3	7.7	7.6	7.8
Kidney and Renal Pelvis	126	12.1	10.0	14.7	11.9	11.8	12.1
	Maine Males				U.S. Males		
All Sites	5,132	501.4	487.0	516.1	474.6	473.6	475.6
Prostate	1,279	112.9	106.5	119.5	119.1	118.7	119.6
Lung and Bronchus	658	62.1	57.2	67.2	53.8	53.4	54.1
Urinary Bladder	436	42.0	38.0	46.3	30.4	30.2	30.7
Colon and Rectum	358	40.3	36.0	45.0	41.4	41.1	41.7
Melanoma of the Skin	320	32.8	29.1	36.9	29.8	29.6	30.1
Kidney and Renal Pelvis	219	21.8	18.9	25.2	23.1	22.9	23.4
Oral Cavity and Pharynx	204	18.7	16.1	21.7	18.0	17.8	18.2
Non-Hodgkin Lymphoma	202	20.6	17.7	23.9	21.0	20.8	21.2
Pancreas	187	18.4	15.8	21.5	15.4	15.2	15.5
Leukemia	177	17.9	15.3	21.0	17.0	16.8	17.2

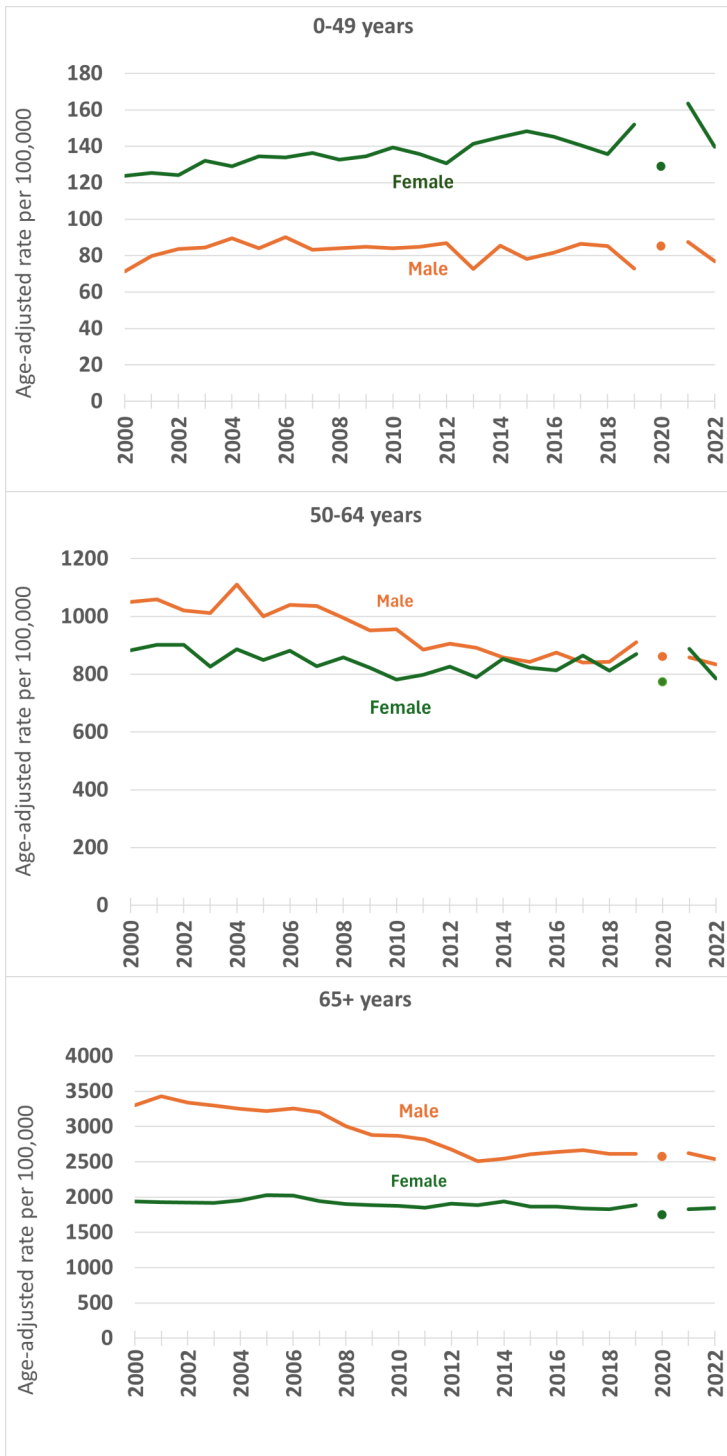
Leading cancer types are ordered by descending Maine incidence counts. AA: Age-adjusted to the year 2000 U.S. standard population. Rates are per 100,000. 95% CL: 95% Confidence Limit. Overall rates calculated using male and female only to match US sex classification.

Data sources: Maine data: Maine Cancer Registry. U.S data: NPCR and SEER Incidence analytic file - U.S. Cancer Statistics Public Use Database. See technical notes for a full definition.

Cancer Incidence By Sex and Age Group

2025 MAINE CANCER SNAPSHOT

Figure 2. Trends over time in Cancer Incidence Rates by Sex and Age Group, Maine, 2000-2022



Age 0-49

- Among Mainers under 50 years, cancer rates among females are increasing (and higher) than male rates (which are stable).
- Cancer diagnoses among Mainers under 50 represent less than 10% of new diagnoses in 2022.

Age 50-64

- Among Mainers 50-64 years, male and female rates have converged over the last twenty years.
- Cancer diagnoses among Mainers 50-64 years represent just over one quarter of new diagnoses in 2022.

Age 65+

- Among Mainers 65 years and older, male rates have decreased and then more recently plateaued in the last decade while rates among females have declined over the last decade.
- 65% of new cancer diagnoses in 2022 were among Mainers over 65.

Rates are per 100,000, age-adjusted to the year 2000 U.S. standard population.

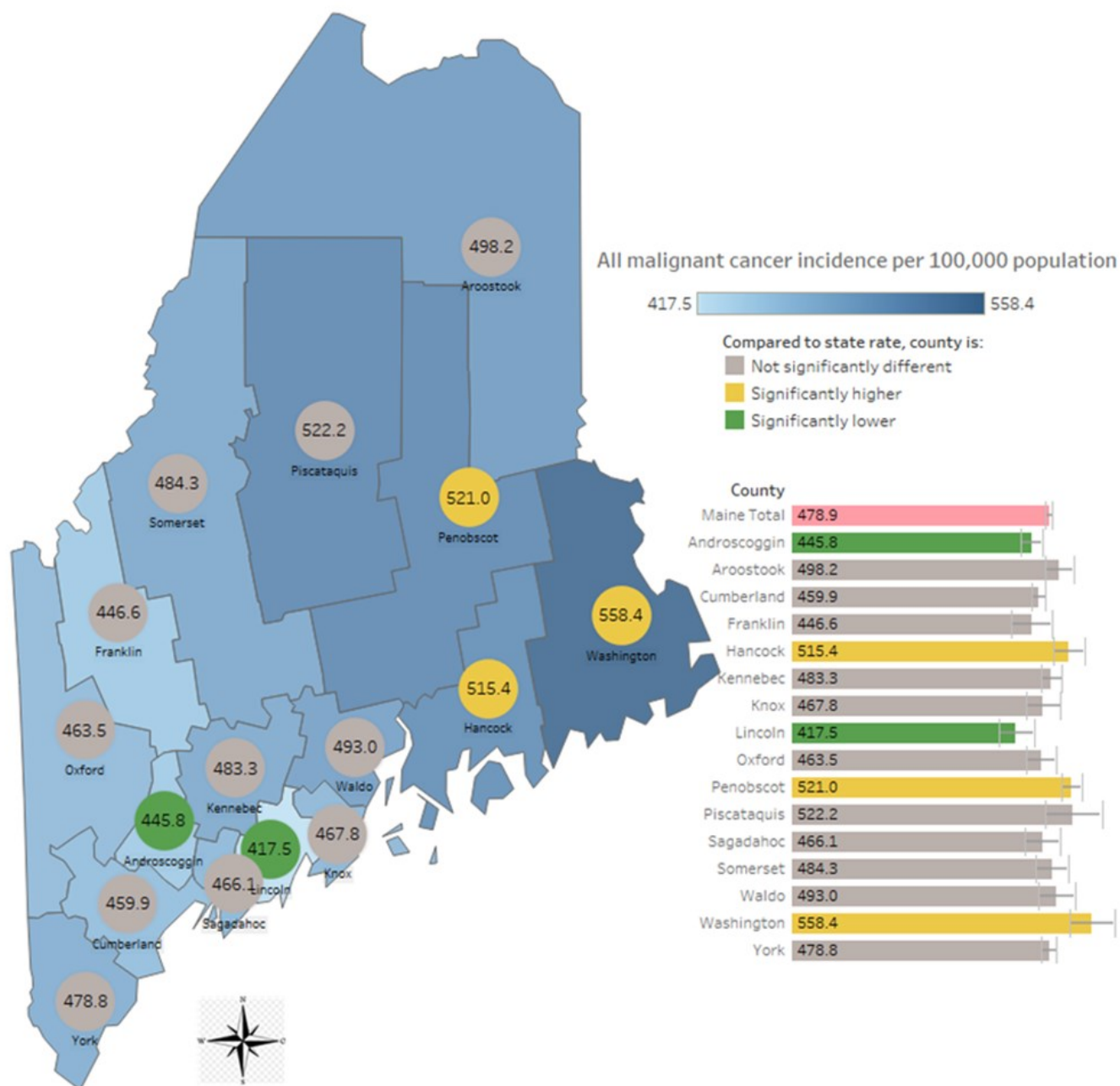
Data source: Incidence: Maine Cancer Registry, based on November 2024 NPCR-CSS data submission.

Note: 2020 data is displayed but not included in trend analysis due to the impact of the COVID-19 pandemic on cancer reporting (see page 16).

Incidence by County

All Malignant Cancer Incidence by County, Maine, 2020-2022

Age-adjusted Rate per 100,000 Population per Year



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Data Source: Maine Cancer Registry, based on November 2024 NPCR-CSS data submission. Rates are calculated per 100,000 population and age-adjusted to the year 2000 U.S. standard population. Map was created using Tableau and rates were mapped using the stepped display method with 4 steps. Error bars on bar chart depict 95% confidence intervals.

All Malignant Cancer Incidence

Cancer Mortality

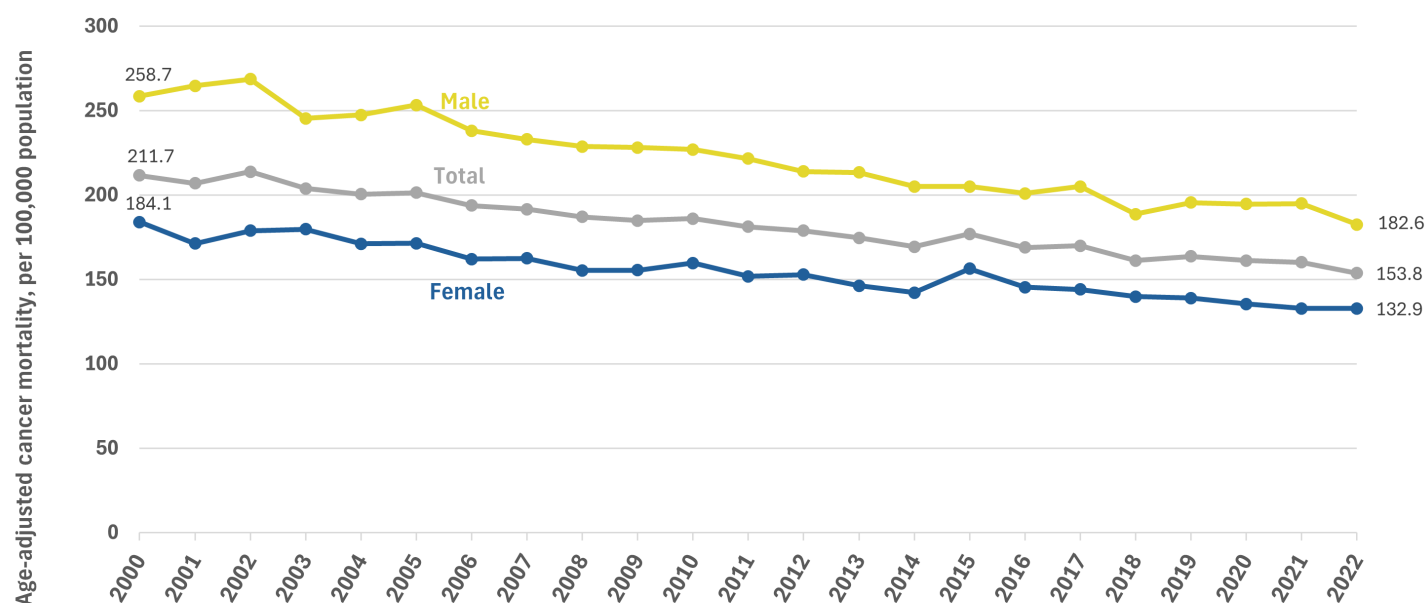
2025 MAINE CANCER SNAPSHOT

Cancer Mortality Key Findings

- In 2022, there were 3,426 cancer deaths among Maine residents. The 2022 age-adjusted cancer mortality rate in Maine is 153.8 per 100,000, which is significantly higher than the U.S. cancer mortality rate (143.6).
- From 2000-2022, the overall cancer mortality rate has decreased from 211.7 per 100,000 to 153.8 in Maine, decreasing an average 1.4% per year over that time.
- Maine males have a significantly higher cancer mortality rate than females.
- The mortality rate of lung and bronchus, urinary bladder, and esophageal cancers mortality in Maine are significantly higher than the U.S.
- Somerset and Washington counties have significantly higher overall cancer mortality rates compared to the state overall. Cumberland County has a lower cancer mortality rate compared to the state overall.

Trends by Sex

Figure 3: Cancer Mortality Rate: All Malignant Cancers, by Sex, Maine, 2000-2022



Rates are per 100,000 population, age-adjusted to the Year 2000 U.S. standard population. Data source: Maine Center for Disease Prevention, Data, Research, and Vital Statistics. 2025. Cancer deaths were identified using underlying cause-of-death codes C00-C97 (malignant neoplasms).

Mortality: Top 10 Cancers, Maine 2022

Red Rate = Maine is significantly higher than U.S.

Cancer Type	Maine (all sexes)				2022 U.S.		
	Count	AA Rate	AA Lower	AA Upper	AA Rate	AA Lower	AA Upper
All Sites	3,426	153.8	148.5	159.2	143.6	143.2	144.0
Lung and Bronchus	822	35.7	33.2	38.2	30.2	30.0	30.4
Pancreas	248	10.9	9.5	12.3	11.2	11.1	11.3
Colon and Rectum	247	11.6	10.1	13.1	12.8	12.7	12.9
Breast	205	17.5	15.0	20.1	18.9	18.7	19.1
Prostate	194	21.0	18.0	24.1	19.1	18.9	19.3
Urinary Bladder	137	6.1	5.1	7.2	4.2	4.1	4.2
Esophagus	136	6.0	4.9	7.0	3.7	3.6	3.7
Leukemia	119	5.5	4.5	6.6	5.8	5.7	5.8
Liver and Intrahepatic Bile Duct	117	5.2	4.2	6.2	6.6	6.5	6.6
Non-Hodgkin Lymphoma	106	4.7	3.8	5.6	4.8	4.7	4.8
	Maine Females				U.S. Females		
All Sites	1,598	132.9	126.1	139.6	125.2	124.7	125.7
Lung and Bronchus	402	32.4	29.1	35.6	26.2	26.0	26.4
Breast	205	17.5	15.0	20.1	18.9	18.7	19.1
Colon and Rectum	131	11.3	9.2	13.3	10.7	10.6	10.9
Pancreas	99	7.9	6.5	9.7	9.8	9.7	9.9
Ovary	80	7.1	5.6	8.8	5.8	5.7	5.9
Uterus (Corpus Uteri and Uterus,	70	5.8	4.5	7.3	5.4	5.3	5.5
Non-Hodgkin Lymphoma	50	4.0	3.0	5.3	3.6	3.6	3.7
Leukemia	46	3.8	2.8	5.1	4.4	4.3	4.5
Urinary Bladder	40	3.2	2.3	4.3	2.1	2.0	2.1
Brain and Other Nervous System	36	3.4	2.4	4.6	3.6	3.5	3.6
	Maine Males				U.S. Males		
All Sites	1,828	182.6	174.0	191.3	168.8	168.2	169.4
Lung and Bronchus	420	40.0	36.1	44.0	35.3	35.1	35.6
Prostate	194	21.0	18.0	24.1	19.1	18.9	19.3
Pancreas	149	14.8	12.3	17.2	12.9	12.8	13.1
Colon and Rectum	116	12.0	9.7	14.3	15.1	14.9	15.3
Esophagus	114	10.8	8.8	12.9	6.4	6.3	6.5
Urinary Bladder	97	10.3	8.3	12.5	7.1	7.0	7.3
Liver and Intrahepatic Bile Duct	82	7.9	6.3	9.9	9.2	9.1	9.4
Leukemia	73	7.9	6.2	9.9	7.6	7.4	7.7
Oral Cavity and Pharynx	62	5.7	4.4	7.3	4.2	4.1	4.3
Brain and Other Nervous System	58	6.3	4.8	8.1	5.2	5.1	5.3

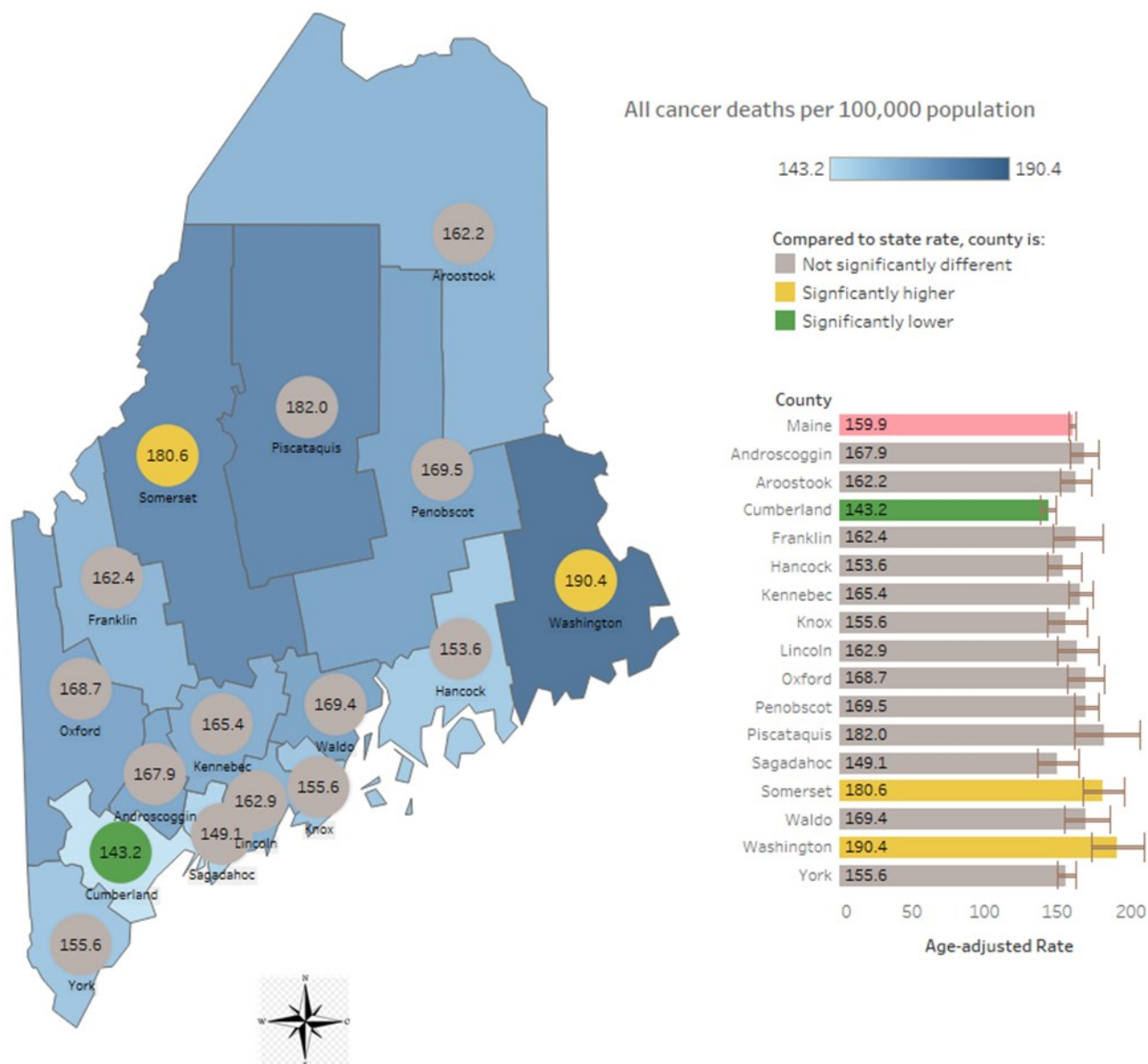
Leading types of cancer mortality are ordered by descending Maine counts. AA: Age-adjusted to the year 2000 U.S. standard population. Rates are per 100,000. 95% CL: 95% Confidence Limit. Overall rates calculated using male and female only to match US sex classification.

Data source: Maine Center for Disease Control, Data, Research, and Vital Statistics. U.S. data: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Mortality - All COD, Aggregated With State, Total U.S. (1969-2023) National Cancer Institute, DCCPS, Surveillance Research Program, released February 2025. Underlying mortality data provided by NCHS (www.cdc.gov/nchs). Cancer deaths were identified using cause-of-death codes C00-C97 (malignant neoplasms).

Mortality by County

All Malignant Cancer Mortality by County, Maine, 2018-2022

Age-adjusted Rate per 100,000 Population per Year



Data Source: Maine Mortality: Maine CDC's Data, Research, and Vital Statistics. Rates are calculated per 100,000 population and age-adjusted to the year 2000 U.S. standard population. Map was created using Tableau and rates were mapped using the stepped display method with 4 steps. Error bars on bar chart depict 95% confidence intervals.

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Additional Incidence and Mortality Data for Maine

The following Maine CDC and U.S. dashboards provide additional options for detailed queries by cancer site. Click on headings below for more information.

Maine Cancer Registry (MCR) Website

This website provides additional information about the MCR, available reports, procedures for requesting data, and resources related to cancer reporting in Maine.

National Cancer Plan

The National Cancer Plan sets goals to reduce cancer morbidity and mortality. The Maine Cancer Coalition is currently working on a cancer plan revision to outline goals for cancer prevention, screening, diagnosis, treatment, palliative, and end-of-life care in Maine for 2021-2030.

Maine Shared Community Health Needs Assessment (CHNA) Dashboard

This interactive dashboard shows Maine data for a variety of health behaviors, chronic diseases, and social determinants of health. Data are available for many demographic groups (sex, age, race) and subpopulations (rural residents, veterans), by county and public health district, and major cities.

Maine Environmental Health Tracking Network Data Portal

This portal allows users to view health and environmental data by geographic region in Maine. Users can compare data across age groups, genders, regions, and time periods and make and download their own customized tables, charts, and maps.

North American Association of Central Cancer Registries (NAACCR) Online Cancer Data

NAACCR Cancer Maps (historically called CiNA+ online) is an interactive mapping tool for U.S. and Canadian cancer incidence statistics for the most current five years of available data.

NAACCR CiNA Explorer Stats is an interactive data visualization tool for quick access to key U.S. and Canadian cancer statistics for major cancer sites by age, sex, stage, race/ethnicity, registry, and data type for the most current five years of available data.

U.S. Cancer Statistics Data Visualizations Tool

This tool provides incidence and death counts, rates, and trend data, survival and prevalence estimates, and state, county, and congressional district data in a user-driven format. Cancer incidence and mortality trend data are presented from 1999 through 2022.

Special Topic: Risk Factor Associated Cancers and Population Attributable Fraction

2025 MAINE CANCER SNAPSHOT

There are many risk factors associated with cancer, including lifestyle factors, genetics, environment, and infection. Risk factor associated cancers are those where evidence links a common risk factor such as alcohol consumption, smoking, or physical inactivity, with increased likelihood of developing certain types of cancer.

Researchers have established methods for estimating the proportion of cancer cases that are attributable to modifiable risk factors based on the prevalence of the risk factor in the population and the strength of the association between the risk factor and the cancer type, based upon the scientific literature.¹ This is referred to as a population attributable fraction (PAF), the estimated percentage of new cancer cases that may be caused by certain exposures, such as infection, lifestyle risk factors, or environment. An estimated 40% of all new cancer cases among U.S. adults 30 and older in 2019 were attributable to potentially modifiable risk factors such as cigarette smoking, excess body weight, alcohol consumption, and UV radiation. In these calculations, age is restricted to those 30 and older to allow for the latency delay that occurs from the time of exposure to a risk factor and the development of cancer. PAF can also give us an estimate of how many cancer cases could be prevented or would not occur if the risk factors were eliminated within the population.

This special topic highlights the estimated contribution of four risk factors— cigarette smoking, alcohol consumption, excess body weight, and human papillomavirus (HPV) infection—to cancer incidence in Maine. While registry data can never determine the exact cause of an individual’s cancer diagnosis, we can use the PAF to estimate the number of cancer cases in Maine that are attributable to these risk factors at a population level. This provides more specific approximation than summing all cases from sites associated with cancer risk factors (as is done with risk-factor associated cancer rates).

In addition, the [special topic supplement](#) explores the feasibility and utility of creating Maine specific PAF calculations vs. using nationally calculated PAF to understand the impact of cigarette smoking on cancer rates in Maine. Our findings suggested that estimates based on Maine cigarette smoking prevalence data were relatively close to estimates based on national PAFs, though using national PAFs leads to some overestimation due to differences in underlying cigarette smoking prevalence between Maine and the U.S. The differences in estimates vary based on site and sex. Producing Maine-specific PAFs on a regular basis requires a level of resources that extend beyond Maine Cancer Registry’s current capacity. The numbers presented in this special topic provide an approximation with the acknowledged limitation that they may slightly overestimate the number of cigarette smoking attributable cancers due to lower cigarette smoking rates in Maine compared with the U.S.

Note: All PAF charts are sorted by count of attributable cases in descending order. See detailed tables for each figure in the appendix (Pages 18-20).

1. Islami F, Marlow EC, Thomson B, McCullough ML, Rungay H, Gapstur SM, Patel AV, Soerjomataram I, Jemal A. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States, 2019. *CA Cancer J Clin*. 2024 Sep-Oct;74(5):405-432. doi: 10.3322/caac.21858. Epub 2024 Jul 11. PMID: 38990124.

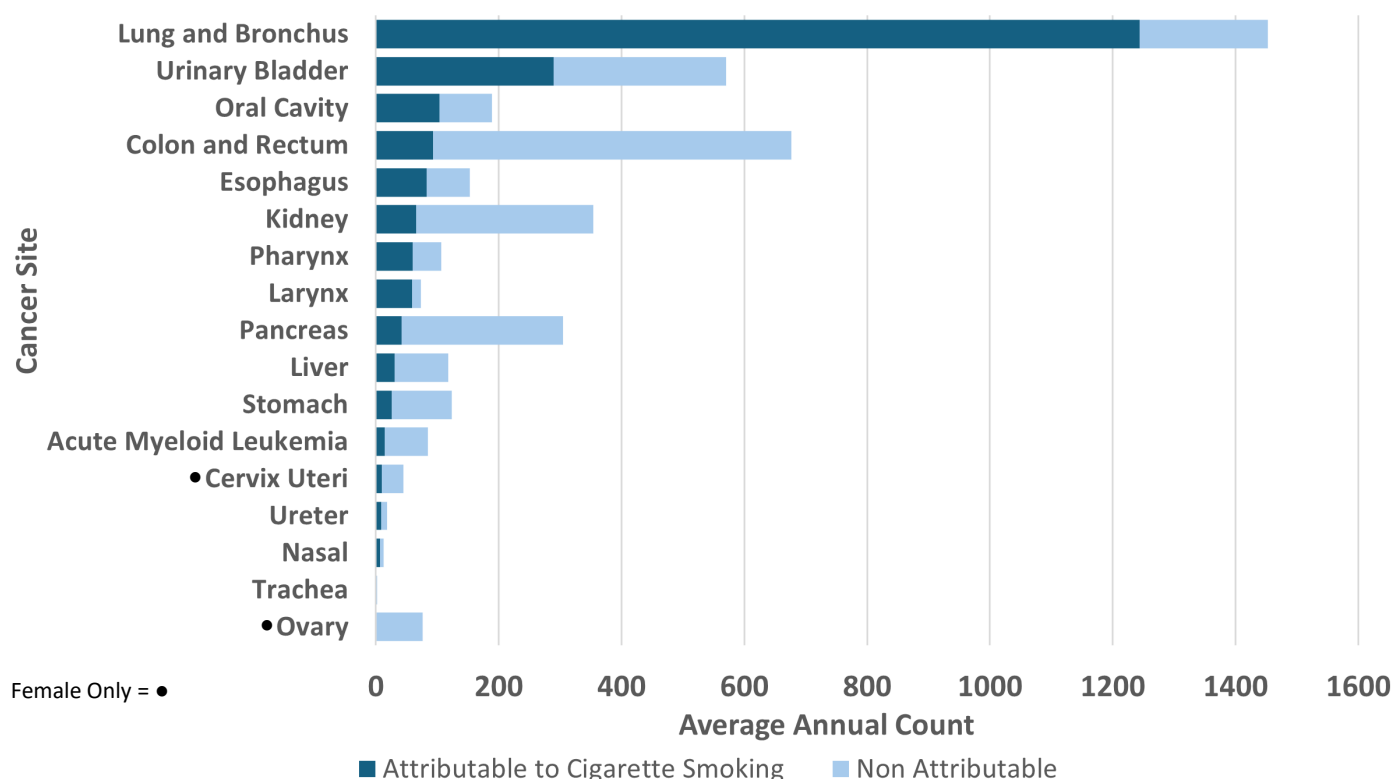
Special Topic:

Risk Factor Attributable Cancers: Cigarette Smoking

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- Cigarette smoking is attributable to at least 17 different types of cancer.
- From 2018 to 2022, Maine had an estimated annual average of 2,137 malignant cancer cases among people aged 30 and over that were attributable to cigarette smoking, representing 22.1% of all malignant cancers in Maine during the period. These cases could be prevented if cigarette smoking was reduced in Maine.
- An estimated 85.6% of lung and bronchus cancer cases are attributable to cigarette smoking.¹
- Lung and bronchus has the highest number of cases attributable to cigarette smoking, and is also the second most common cancer in Maine and the leading cause of cancer-related mortality.

Figure 4: Average Annual New Cancer Cases by Cancer Site and Estimated Proportion Attributable to Cigarette Smoking, Maine, 2018-2022, 30 Years and older



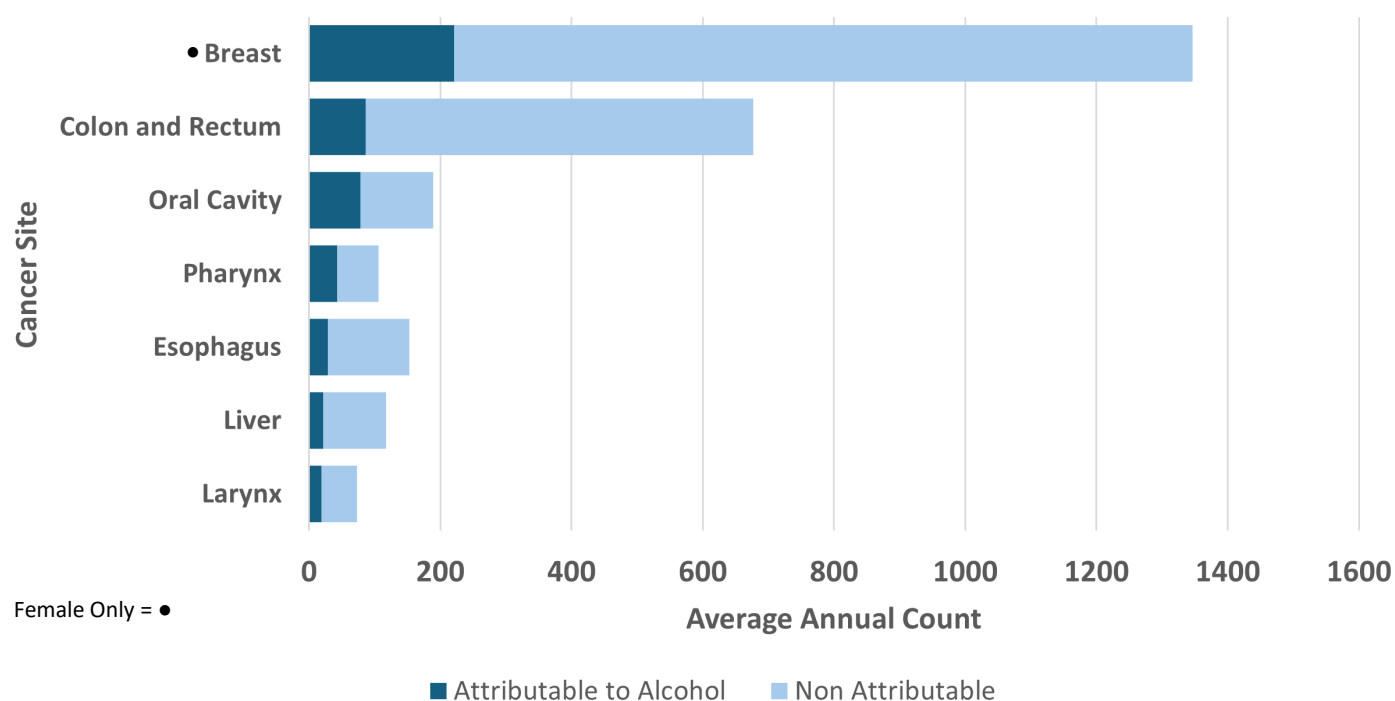
Data source: Incidence: Maine Cancer Registry. Graph shows Population Attributable Fraction (PAF) from Islami et al. (2024) applied to Maine's 5 year average annual incidence counts. Sorted in descending order by count of attributable cases. Note: See page 18, Supplemental Table 2 of the Appendix. There are very few cases of trachea and ovarian cancers.

Special Topic: Risk Factor Attributable Cancers: Alcohol Consumption

2025 MAINE CANCER SNAPSHOT

- Alcohol consumption is associated with increased risk of at least 7 different types of cancer.
- From 2018 to 2022, Maine had an estimated annual average of 500 malignant cancer cases among people aged 30 and over that were attributable to alcohol consumption, representing 5.2% of all malignant cancers in Maine during the period. These cases could be prevented if alcohol consumption was reduced for those who drink in Maine.
- An estimated 16.4% of female breast cancer cases and 18% of colorectal cancer cases among males and females are attributable to alcohol consumption.¹
- Female breast and colorectal cancer are among the most common cancer types in Maine (see Page 4) and have the most cases attributable to alcohol consumption.

Figure 5: Average Annual New Cancer Cases by Cancer Site and Estimated Proportion Attributable to Alcohol Consumption, Maine, 2018-2022, 30 Years and older



Data source: Incidence: Maine Cancer Registry. Graph shows Population Attributable Fraction (PAF) from Islami et al. (2024) applied to Maine's 5 year average annual incidence counts. Sorted in descending order by count of attributable cases. Note: See page 19, Supplemental Table 3 of the Appendix.

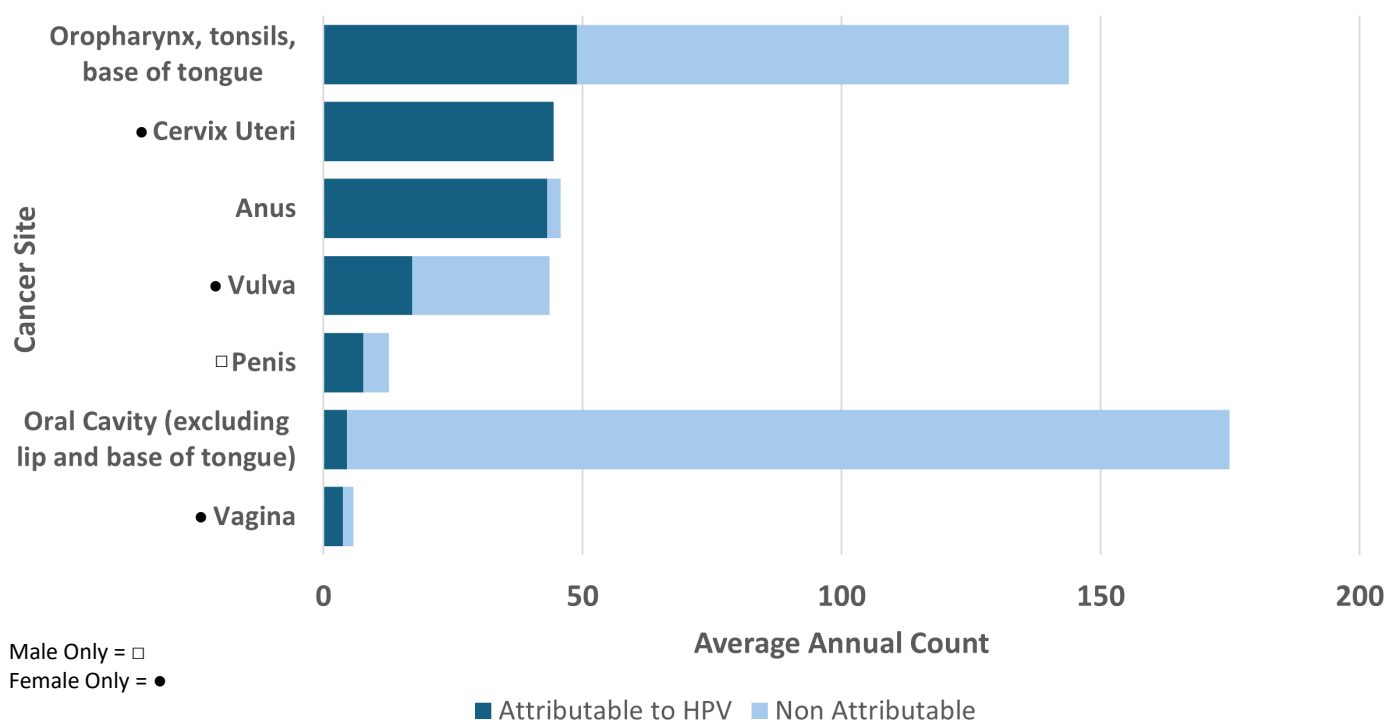
Special Topic:

Risk Factor Attributable Cancers: HPV Infection

2025 MAINE CANCER SNAPSHOT

- Human Papillomavirus (HPV) infection is associated with increased risk of at least 7 different types of cancer.
- From 2018 to 2022, Maine had an estimated annual average of 170 malignant cancer cases among people aged 30 and over that were attributable to HPV infection, representing 1.8% of all malignant cancers in Maine during the period. These cases could be prevented if HPV infection was reduced in Maine.
- An estimated 100% of all cervical cancer cases are attributable to HPV infection. This underscores the importance and benefits of HPV immunization among adolescents and young adults and the significant impact HPV has on reproductive health and cancer.

Figure 6: Average Annual New Cancer Cases by Cancer Site and Estimated Proportion Attributable to HPV Infection, Maine, 2018-2022, 30 Years and older



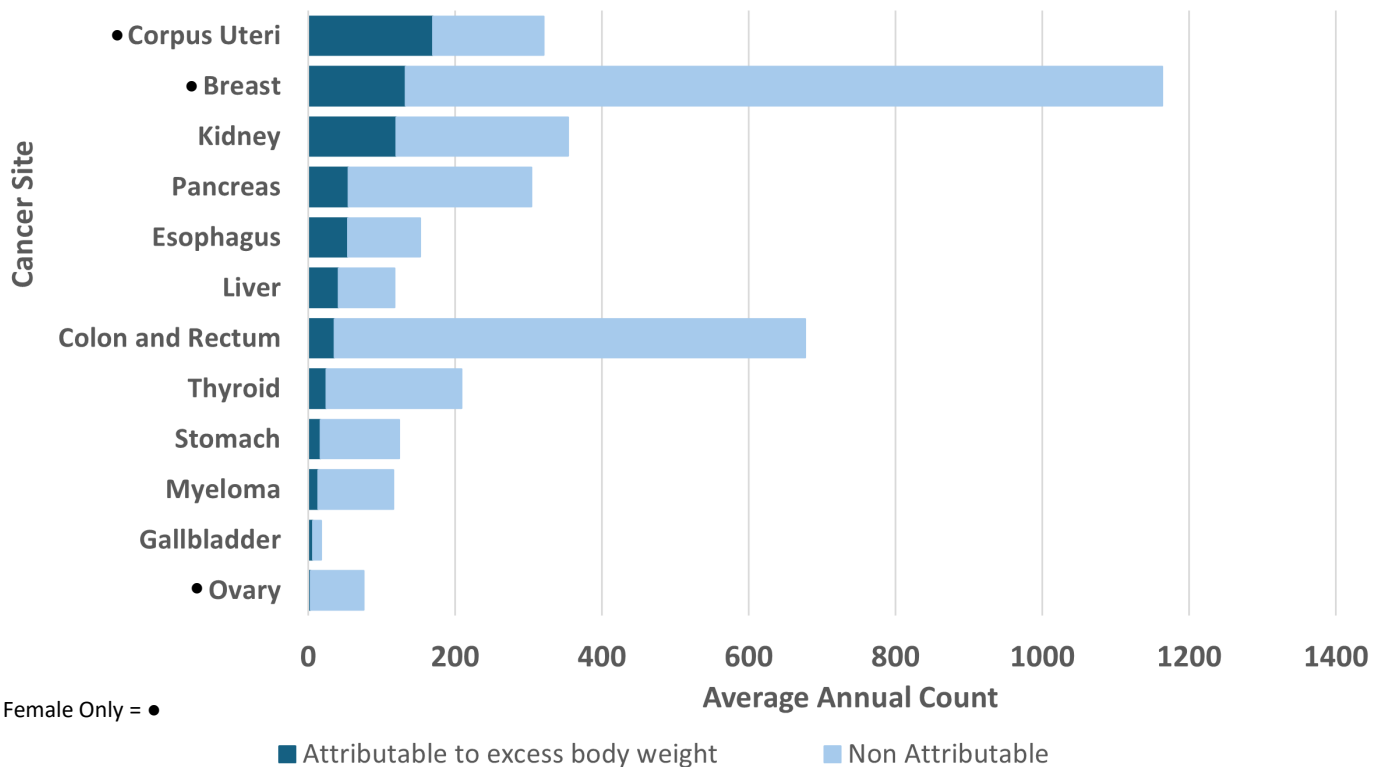
Data source: Incidence: Maine Cancer Registry. Graph shows Population Attributable Fraction (PAF) from Islami et al. (2024) applied to Maine's 5 year average annual incidence counts. Sorted in descending order by count of attributable cases. Note: See page 19, Supplemental Table 4 of the Appendix.

Special Topic: Risk Factor Attributable Cancers: Excess Body Weight

2025 MAINE CANCER SNAPSHOT

- Excess body weight is associated with increased risk of at least 12 different types of cancer.
- From 2018 to 2022, Maine had an estimated annual average of 503 malignant cancer cases among people aged 30 and over that were attributable to excess body weight, representing 5.2% of all malignant cancers in Maine during the period. These cases could be prevented if excess body weight was reduced in Maine.
- An estimated 53.1% of corpus uteri cancer cases, 35.4% of esophageal, and 33.8% of kidney and renal pelvis cancer cases are attributable to excess body weight.¹

Figure 7: Average Annual New Cancer Cases by Cancer Site and Estimated Proportion Attributable to Excess Body Weight, Maine, 2018-2022, 30 Years and older



Data source: Incidence: Maine Cancer Registry. Graph shows Population Attributable Fraction (PAF) from Islami et al. (2024) applied to Maine's 5 year average annual incidence counts. Sorted in descending order by count of attributable cases. Note: See page 20, Supplemental Table 5 of the Appendix.

Maine Cancer Incidence and Mortality

Case Definitions: Incidence data presented in this report are based on the Surveillance, Epidemiology, and End Results (SEER) Program site recode ICD-O-3/WHO 2008 definitions, Version 2008 and are determined by primary site and histology available from [Site Recode ICD-O-3/WHO 2008 - SEER Data Reporting Tools \(cancer.gov\)](#). The primary site reported is the site of origin and not the metastatic site. Incidence rates do not include recurrences. The number of cancers may include multiple primary cancers occurring in one patient. Mortality case definitions for single cancers and “all sites” are based on the primary cancer site listed in the underlying cause of death and coded using the International Classification of Diseases, Tenth Edition (ICD-10) and coded using the SEER Cause of Death Recode 1969+ (03/01/2018) available from [SEER Cause of Death Recode 1969+ \(03/01/2018\) \(cancer.gov\)](#).

Malignant Behavior Coding: To align with SEER methodology, the MCR now uses "Behavior code ICD-O-3" rather than the "Behavior recode for analysis" field in SEER*Stat and any published statistics.

Rates: Incidence and mortality rates were calculated per 100,000 population. The year 2000 U.S. standard population was used for age adjustment. Incidence counts and rates presented in this report were produced using the Surveillance, Epidemiology, and End Results (SEER) Program, Surveillance Research Program, National Cancer Institute, SEER*Stat 8.4.1 software. Maine incidence counts and rates were produced from the Maine Cancer Registry dataset based on November 2024 data submission file; U.S. incidence counts and rates produced from the National Program of Cancer Registries and Surveillance, Epidemiology and End Results Program SEER*Stat Database: NPCR and SEER Incidence - U.S. Cancer Statistics Public Use Research Database, 2024 Submission (2001-2022). United States Department of Health and Human Services, Centers for Disease Control and Prevention, and National Cancer Institute. Released June 2025. Accessed at www.cdc.gov/cancer/uscs/public-use. Maine mortality counts and rates were produced using SAS 9.4 using data retrieved from the Maine CDC, Data, Research, and Vital Statistics. U.S. mortality data were retrieved from the Centers for Disease Control and Prevention, National Center for Health Statistics using the CDC WONDER Online Database, 2018-2022: Underlying Cause of Death by Single-Race Categories, released in 2024.

Confidence Intervals: Ninety-five percent confidence intervals are provided for all rates.

Statistical Significance: For Maine comparison to U.S. data and Maine county comparisons to Maine rates, incidence rates were considered similar if the 95 percent confidence intervals for two rates overlapped. If the confidence intervals did not overlap, the rates were considered to be significantly different. Maine rates that are significantly higher than the national rate are highlighted in red text. County rates significantly higher or lower than the Maine rate are displayed on the maps.

Rates by County: The number of new cancer cases reported in a county varies from year to year, and some of this variation is due to chance. County level cancer rates are more likely to vary on an annual basis than state level rates. In addition, counties with smaller populations tend to have greater variation between time periods. In this report, multiple years of data are combined when producing the county rates. Although combining years can make the rates more reliable, caution must still be used when interpreting county rates because of small populations. Beginning in 2022, the MCR uses the SEER field “County at DX Analysis”, the county of the patient’s residence at the time of diagnosis, derived from geocoded county data when available, instead of “County at DX”.

COVID-19: In 2020, the COVID-19 pandemic disrupted access to medical care and contributed to delays in hospital reporting of cancer cases. This resulted in a drop in cancer diagnoses for the year 2020. This drop reflects changes in medical screening and care and should not be interpreted as a reduction in the underlying cancer burden. 2020 incidence rates are excluded from trend analysis. COVID-19 did not have a similar impact on cancer mortality rates, thus 2020 rates are included in trend analysis.

Trend Analysis: The trend analysis referenced in the text is based on Joinpoint regression analysis. Joinpoint is a software developed by the National Cancer Institute that allows one to test trends over a time period, if a trend has changed (increasing, decreasing or not significantly different from 0) and the significance of a given change. Our trend analyses followed National Cancer Institute guidance that recommends against including 2020 data in regression models for analysis of cancer incidence trends due to the lower than expected case counts that year as a result of the COVID-19 pandemic (Howlader. 2021).

References:

Howlader et al. How to Handle 2020 and 2021 Incidence Rates in the Joinpoint Trend Model? Surveillance Research Program, NCI, Technical Report #2024-01.

Joinpoint Regression Program, Version 5.4.0.0 - April 2025; Statistical Methodology and Applications Branch, Surveillance Research Program, National Cancer Institute.

Appendix: Supplemental Age Charts

Table 1: Age Adjusted Incidence Rates by Year, Sex and Age Group in Maine (1995-2022)

	0-49 years		50-64 years		65+ years	
Year	Male	Female	Male	Female	Male	Female
1995	63.7	111.9	917.3	863.2	3,005.4	1,748.4
1996	77.1	115.4	916.7	835.1	3,105.1	1,812.0
1997	71.6	111.1	937.6	833.7	3,298.6	1,909.4
1998	86.8	117.7	965.4	858.1	3,254.6	1,908.5
1999	70.7	113.5	956.8	821.2	3,347.8	1,884.1
2000	71.3	123.7	1,050.4	882.5	3,301.4	1,939.6
2001	79.7	125.4	1,059.2	901.5	3,427.7	1,927.8
2002	83.6	124.2	1,020.9	902.1	3,339.6	1,921.8
2003	84.4	132.0	1,011.2	826.3	3,297.6	1,914.8
2004	89.5	129.0	1,110.5	885.9	3,248.5	1,953.2
2005	84.0	134.5	1,000.8	848.8	3,217.0	2,026.1
2006	90.1	133.9	1,039.7	881.3	3,256.8	2,020.4
2007	83.2	136.3	1,036.7	827.9	3,203.4	1,941.6
2008	84.1	132.6	994.8	858.6	3,003.3	1,899.1
2009	84.8	134.4	951.9	821.8	2,880.9	1,884.1
2010	84.0	139.4	955.9	781.3	2,868.7	1,876.6
2011	84.9	135.7	884.6	798.3	2,817.1	1,851.3
2012	86.9	130.7	905.0	825.9	2,674.5	1,904.7
2013	72.6	141.3	891.5	789.0	2,511.1	1,885.4
2014	85.5	145.1	858.6	853.7	2,544.5	1,940.2
2015	78.2	148.3	842.6	822.7	2,605.3	1,864.3
2016	81.5	145.3	875.3	813.7	2,638.2	1,867.0
2017	86.4	140.6	840.0	864.4	2,663.3	1,836.2
2018	85.3	135.7	843.2	812.3	2,610.5	1,829.9
2019	72.9	151.8	910.1	870.3	2,613.0	1,887.0
2020	85.2	128.9	861.6	773.0	2,573.3	1,748.3
2021	87.4	163.5	858.6	888.0	2,624.8	1,827.8
2022	76.9	139.8	833.6	785.7	2,537.9	1,846.2

Data source: Maine Cancer Registry, based on November 2024 NPCR-CSS data submission.

AA: Age-adjusted to the year 2000 U.S. standard population. Rates are per 100,000.

Appendix: Special Topic PAF

Table 2: Cancers Attributable to Cigarette Smoking (2018-2022)

Yearly average number of cases between 2018-2022 for each cancer site and estimated number attributable to cigarette smoking				
Cancer	Average Annual Cases	Attributable to Cigarette Smoking	Not Attributable	PAF
Lung and Bronchus	1,453	1,244	209	0.86
Urinary Bladder	571	289	281	0.51
Oral Cavity	189	104	85	0.55
Colon and Rectum	677	93	584	0.14
Esophagus	153	82	70	0.54
Kidney and Renal Pelvis	354	66	289	0.19
Pharynx	106	60	46	0.57
Larynx	73	59	15	0.80
Pancreas	304	42	262	0.14
Liver	117	31	87	0.26
Stomach	124	25	99	0.20
Acute Myeloid Leukemia	85	14	71	0.17
Cervix Uteri	44	10	35	0.22
Ureter	18	9	9	0.49
Nasal	13	7	6	0.54
Trachea	1.2	1	0.2	0.86
Ovary *	76	0.6	75.2	0.008

Notes: PAF is rounded to the nearest hundredth (except for Ovary). All cancer sites, other than trachea and ovary, are rounded to the nearest whole number in the table. Totals for attributable (column 3) and non-attributable (column 4) may not add up to average annual cases (column 2) due to rounding. Sorted in descending order by count of attributable cases. PAFs are reported as the proportions of the cancer site that is attributable to the risk factor of focus. Some sites have histological subgroupings (*), these were calculated by taking the number of cancers in the subgroup that are attributable to the risk factor and then dividing by the total number of cancers in the site. Thus PAFs are reported as the proportions of the cancer site that is attributable to the risk factor of focus, not the histological subgroup.

Ovary * = mucinous type only

Data source: Maine Cancer Registry, based on November 2024 NPCR-CSS data submission.
Attributable and non-attributable cases calculated using site-specific PAF.

Appendix: Special Topic PAF (Cont.)

Table 3: Alcohol Consumption Attributable Cancers (2018-2022)

Yearly average number of cases between 2018-2022 for each cancer site and estimated number attributable to alcohol consumption				
Cancer	Average Annual Cases	Attributable to Alcohol	Not Attributable	PAF
Breast (Female)	1,347	221	1,126	0.16
Colon and Rectum	677	87	590	0.13
Oral Cavity	189	79	110	0.42
Pharynx	106	43	63	0.40
Esophagus *	153	29	124	0.19
Liver *	117	22	95	0.19
Larynx	73	19	54	0.26

Table 4: HPV Infection Attributable Cancers (2018-2022)

Yearly average number of cases between 2018-2022 for each cancer site and estimated number attributable to HPV Infection				
Cancer	Average Annual Cases	Attributable to HPV Infection	Not Attributable	PAF
Oropharynx, tonsils, base	144	49	95	0.34
Cervix Uteri	44	44	0	1.00
Anus	46	43	3	0.94
Vulva	44	17	27	0.39
Penis	13	8	5	0.61
Oral Cavity *	175	5	170	0.03
Vagina	6	4	2	0.64

Notes: PAF is rounded to the nearest hundredth. All cancer sites are rounded to the nearest whole number in the table. Totals for attributable (column 3) and non-attributable (column 4) may not add up to average annual cases (column 2) due to rounding. Sorted in descending order by count of attributable cases. PAFs are reported as the proportions of the cancer site that is attributable to the risk factor of focus. Some sites have histological subgroupings (*), these were calculated by taking the number of cancers in the subgroup that are attributable to the risk factor and then dividing by the total number of cancers in the site. Thus PAFs are reported as the proportions of the cancer site that is attributable to the risk factor of focus, not the histological subgroup.

Esophagus * = squamous cell carcinoma only

Liver * = hepatocellular carcinoma only

Oral Cavity * = Oral cavity excluding lip and base of tongue

Data source: Maine Cancer Registry, based on November 2024 NPCR-CSS data submission.

Attributable and non-attributable cases calculated using site-specific PAF.

Appendix B: Special Topic PAF (Cont.)

Table 5: Excess Body Weight Attributable Cancers (2018-2022)

Yearly average number of cases between 2018-2022 for each cancer site and estimated number attributable to excess body weight.				
Cancer	Average Annual Cases	Attributable to Excess Body Weight	Not Attributable	PAF
Corpus Uteri	321	170	150	0.53
Breast *	1,164	133	1,031	0.11
Kidney and Renal Pelvis	354	120	235	0.34
Pancreas	304	55	250	0.18
Esophagus *	153	54	98	0.35
Liver	117	41	76	0.35
Colon and Rectum	677	36	641	0.05
Thyroid	209	24	184	0.12
Stomach *	124	17	107	0.14
Myeloma	116	14	102	0.12
Gallbladder	17	6	11	0.37
Ovary	76	3	73	0.04

Notes: PAF is rounded to the nearest hundredth. All other values are rounded to the nearest whole number. Totals for attributable (column 3) and non-attributable (column 4) may not add up to average annual cases (column 2) due to rounding. Sorted in descending order by count of attributable cases. PAFs are reported as the proportions of the cancer site that is attributable to the risk factor of focus. Some sites have histological subgroupings (*), these were calculated by taking the number of cancers in the subgroup that are attributable to the risk factor and then dividing by the total number of cancers in the site. Thus PAFs are reported as the proportions of the cancer site that is attributable to the risk factor of focus, not the histological subgroup.

Esophagus * = adenocarcinoma only

Stomach * = cardia only

Female breast * = postmenopausal cancers only (age 50+)

Data source: Maine Cancer Registry, based on November 2024 NPCR-CSS data submission.

Attributable and non-attributable cases calculated using site-specific PAF.



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