Cancer in Maine: Where have we been? Where are we now?

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Director, Data Reporting and Evaluation
Center for Health Improvement
MaineHealth
Leading Causes of Cancer Deaths Among Females in Maine

Source: Maine CDC Cancer Registry  (Annual Cancer Report 2016, page 47)

76% of all cancer deaths in 2013 (among females) were due to one of these four cancer types.
Leading Causes of Cancer Deaths Among Males in Maine
Source: Maine CDC Cancer Registry (Annual Cancer Report 2016, page 46)

Cancer Mortality among Males, Maine 1969-2013

82% of all cancer deaths in 2013 (among males) were due to one of these four cancer types.
10 Peer States: ★
Identified Using SES & Rurality Metrics
➢ Age-
  • % <18 yr. olds
  • 65+ yr. olds
➢ % Population Live in Rural Communities
➢ Education Attainment
  Among 25+ yr. olds-
  • % <HS
  • % College (4 yrs.) or higher
➢ Living In Poverty-
  • % <18 yr. olds
  • 65+ yr. olds
➢ Median Household Income
➢ Underemployment
Mortality Due to All Types of Cancers Combined

Lowest Age-adjusted Mortality Rates in 2013-2015 were in:
- Cumberland County
- Lincoln County

Cumberland County’s rate is statistically significantly lower than rates in:
- Kennebec County
- Oxford County
- Piscataquis County
- Washington County
- Maine Statewide

Lincoln County’s rate is statistically significantly lower than rate in:
- Washington County
Health Behaviors That Can Reduce Risk of Cancers

Sources: Maine Cancer Surveillance Report- 2009 (produced by the Maine Cancer Consortium); Updates via U.S. CDC website- May 2017

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Avoid Tobacco</th>
<th>Maintain Healthy Weight</th>
<th>Be Physically Active</th>
<th>Eat Healthy Diet</th>
<th>Limit Alcohol</th>
<th>Get Appropriate Screenings</th>
<th>Avoid Excessive Sun Exposure</th>
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</thead>
<tbody>
<tr>
<td>Lung and Bronchus</td>
<td>●</td>
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<td>Colon and Rectum</td>
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<td>Kidney &amp; Renal Pelvis</td>
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<tr>
<td>Liver/Intrahepatic Bile Duct</td>
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<td>Stomach</td>
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<tr>
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<tr>
<td>Acute Myeloid Leukemia</td>
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<td>Uterus (Females)</td>
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</table>
Cancer Incidence and Mortality in Maine

Lung & Other Tobacco-Related Cancers*: 3-Year Rolling Averages
Age-Adjusted Rates per 100,000 Population

*Tobacco Related Cancers - excludes Lung/bronchus and Colorectal cancers, includes cancers of the Oral Cavity/Pharynx, Esophagus, Stomach, Pancreas, Larynx, Cervix, Urinary Bladder, Kidney and Renal Pelvis, Acute Myeloid Leukemia, Liver, and Bladder
## Tobacco-Related Cancers, by site- 2013

Source: Maine CDC Cancer Registry (Annual Cancer Report 2016, pages 5, 32)

<table>
<thead>
<tr>
<th>Tobacco-Related Cancers By site</th>
<th>Incidence Rate-2013 (age-adjusted /100,000)</th>
<th>Mortality Rate-2013 (age-adjusted/100,000)</th>
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<tbody>
<tr>
<td></td>
<td>Maine</td>
<td>U.S. Whites</td>
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<tr>
<td>Lung and Bronchus</td>
<td>74.8</td>
<td>60.4</td>
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<tr>
<td>Colon and Rectum **</td>
<td>37.4</td>
<td>37.6</td>
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<tr>
<td>Urinary Bladder</td>
<td>24.6</td>
<td>21.4</td>
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<tr>
<td>Kidney and Renal Pelvis **</td>
<td>15.5</td>
<td>16.1</td>
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<tr>
<td>Pancreas **</td>
<td>12.7</td>
<td>12.2</td>
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<tr>
<td>Oral Cavity and Pharynx</td>
<td>11.6</td>
<td>11.8</td>
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<tr>
<td>Esophagus</td>
<td>6.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Liver and Intrahepatic Bile Duct</td>
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<td>7.2</td>
</tr>
<tr>
<td>Stomach</td>
<td>4.9</td>
<td>5.8</td>
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<tr>
<td>Larynx</td>
<td>3.7</td>
<td>3.4</td>
</tr>
<tr>
<td>Acute Myeloid Leukemia</td>
<td>3.9</td>
<td>4.3</td>
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<tr>
<td>Cervix</td>
<td>5.9</td>
<td>7.0</td>
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</tbody>
</table>
Lung & Other Tobacco-Related Cancers: Mortality

**Lung Cancer Deaths**

Age-Adjusted Rates per 100,000 (2011-2015)

**Other Tobacco-Related Cancers Deaths (Excluding Lung)**

Age-Adjusted Rates per 100,000 (2011-2015)
Smoking Status Among Adults in 50 States in 2015
Source: Behavioral Risk Factor Survey

EVER SMOKERS

- Never Smoked
- Former Smoker
- Smoke Some Days
- Smoke Everyday

Percent

Other States
Peer States
Maine
Adults Who Smoke Daily or Some Days by Age

Source: Behavioral Risk Factor Survey (2014)
Adults Who Smoke Daily or Some Days by Education
Source: Behavioral Risk Factor Survey (2014)
Adults Who Smoke Daily or Some Days by Income
Source: Behavioral Risk Factor Survey (2014)
Tobacco Use Prevalence vs. Lung Cancer Incidence

**Tobacco Use**

<table>
<thead>
<tr>
<th>% of Adults Who Smoke Daily or Some Days (2012-2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MaineHealth Service Area</td>
</tr>
</tbody>
</table>

- 23.0 to 25.9%
- 21.0 to 22.9%
- 18.0 to 20.9%
- 15.0 to 17.9%

**Lung Cancer Incidence**

<table>
<thead>
<tr>
<th>Age-Adjusted Rates per 100,000 (2011-2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MaineHealth Service Area</td>
</tr>
</tbody>
</table>

- 80.0 to 89.9
- 70.0 to 79.9
- 60.0 to 69.9
- 50.0 to 59.9

MaineHealth
Adults Smoking Some Days or Every Day - 2012
Behavioral Risk Factor Surveillance Survey

2012 Rates Significantly Different than Maine Rate

Significantly Higher

Significantly Lower

10 Peer States:
Based on SES & Rurality
Adults Smoking Some Days or Every Day - 2015
Behavioral Risk Factor Surveillance Survey

2015 Rates Significantly Different than Maine Rate

- Significantly Higher
- Significantly Lower

10 Peer States: ⭐
Based on SES & Rurality

Map showing the smoking rates across different states.
How Maine Compares to the U.S.

Percent of High School Students who Smoked Cigarettes on at least 1 day during 30 days before the survey

- **State Tobacco Taxes as of 2015:**
  - RI - $3.75 (3rd highest) - increased in 2015
  - ME - $2.00 (14th) - Since 2005!
  - WV - $0.55 (33rd) - Since 2003!

Prevalence data from Youth Risk Behavior Surveillance System - [https://nccd.cdc.gov/youthonline](https://nccd.cdc.gov/youthonline)

Maine Statewide Rates - Youth Smoking

2009: 17.6% (16.8-18.5%)
2015: 10.7% (10.0-11.4%)

In Waldo and Washington Counties the trend data suggests the smoking rates may be declining, even though 2015 rates were not significantly lower than in 2009.

However, in Aroostook and Sagadahoc Counties, there was little difference in the youth smoking rates from 2009 to 2015.

11 Counties had Statistically Significant Decreases from 2009 rates
Patterns of Prevalence and Quitting Not Same

Percent Who Smoke - 2011-2013

Percent Who Made Quit Attempt - 2011-2013
Patterns of Prevalence and Quitting Not Same

Made serious quit Attempt in Past Year (2011-2013)
Colorectal Cancer: 3-Year Rolling Averages
Age-Adjusted Rates per 100,000 Population

Maine-Incidence
Maine Mortality
Lung & Other Tobacco-Related Cancers: Incidence

Colorectal Cancer Incidence

Age-Adjusted Rates per 100,000 (2011–2013)

Colorectal Cancer Deaths

Age-Adjusted Rates per 100,000 (2011–2015)

MaineHealth
Colorectal Cancer Screening - 2014
% aged 50-75 met U.S. Preventive Services Task Force recommendations
Source: Behavioral Risk Factor Surveillance Survey

10 Peer States: *
Based on SES & Rurality
CRC Screening by Age, 2012

- **50-64 Years**
  - National: 60.2%
  - CRCCP States: 62.3%
  - Maine: 70.2%

- **>=65 Years**
  - National: 77.8%
  - CRCCP States: 79.5%
  - Maine: 81.2%

*Combined. Percentages reported for adults aged 50-75 years. (Source: Behavioral Risk Factor Surveillance System, Department of Health and Human Services, Centers for Disease Control and Prevention, 2012.) Data are suppressed if groups have fewer than 50 observations.*
CRC Screening by Income, 2012

Combined. Percentages reported for adults aged 50-75 years. (Source: Behavioral Risk Factor Surveillance System, Department of Health and Human Services, Centers for Disease Control and Prevention, 2012.) Data are suppressed if groups have fewer than 50 observations.
CRC Screening by Insurance Status, 2012

- Combined. Percentages reported for adults aged 50-75 years. (Source: Behavioral Risk Factor Surveillance System, Department of Health and Human Services, Centers for Disease Control and Prevention, 2012.) Data are suppressed if groups have fewer than 50 observations.
Cancer Incidence and Mortality in Maine

Prostate and Breast Cancers: 3-Year Rolling Averages
Age-Adjusted Rates per 100,000 Population

Prostate (M)-Mortality
Prostate (M)-Incidence
Breast (F)-Incidence
Breast (F)-Mortality
Breast Cancer Incidence & Mortality

Breast Cancer Incidence

Age-Adjusted Rates per 100,000 (2011–2013)

Breast Cancer Deaths

Age-Adjusted Rates per 100,000 (2010–2015)
Prostate Cancer Incidence & Mortality

Prostate Cancer Incidence

Age-Adjusted Rates per 100,000 (2011-2013)

Prostate Cancer Deaths

Age-Adjusted Rates per 100,000 (2010-2015)

MaineHealth Service Area
- 120.0 to 134.9
- 105.0 to 119.9
- 90.0 to 104.9
- 75.0 to 89.9

MaineHealth Service Area
- 25.0 to 31.9
- 22.0 to 24.9
- 19.0 to 21.9
- 16.0 to 18.9
- 13.0 to 15.9

MaineHealth
How Maine Compares to the U.S.

Percent of Adults With Obesity - Body Mass Index ≥30
Percent of Adults Who Are Obese in Maine Counties by Body Mass Index Categories

Behavioral Risk Factor Surveillance System (2012-2014) estimated percent

- Morbidly Obese- BMI 40.0+
- Severely Obese BMI-35.0-39.9
- Obese: BMI 30.0-34.9

The chart shows the estimated percent of adults who are morbidly obese, severely obese, and obese across different counties in Maine. The counties are listed on the x-axis, and the percent on the y-axis. The bars are color-coded for easy identification of the BMI categories.
Obesity Prevalence - Adults and High School Students

Figure 10

Percent of Adults With Body Mass Index ≥30 (2012-2014)

Youth Obesity - High School Youth With Obesity (2015)

- Greater than 16.9%
- 15 - 16.9%
- 13 - 14.9%
- 11 - 12.9%
- 9 - 10.9%

Source: Maine Integrated Youth Health Survey (MIYHS)
Questions and comments?

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