



## Data Brief: Cancer Incidence in Massachusetts, 2010-2014 – Preliminary Data

Massachusetts Department of Public Health, Office of Data Management and Outcomes Assessment, Massachusetts Cancer Registry, JUNE 2016

This data brief provides preliminary cancer incidence data for the Commonwealth for 24 types of cancer and for all cancers combined for 2010 through 2014. Breakdowns are provided by type of cancer, race/ethnicity and sex. Data from 2010-2013 are considered complete, while data for 2014 are preliminary data with a completion estimate of 90%. The incidence data included in this brief are based on cases that were reported to the Massachusetts Cancer Registry as of February 29, 2016. Due to the time required for collection, processing, and quality assurance activities, data for a particular calendar year are typically not complete and available for dissemination until two to three years after the diagnosis year. **Data presented in this brief are preliminary and must be interpreted with caution, especially for the year 2014.** Cases reported only from non-hospital sources are not included for 2013 and 2014, and cases whose only report is from a death certificate are not included for 2014. The types of cancers most likely to be underreported due to cases missing from non-hospital sources include prostate, melanoma, leukemia, lymphoma and multiple myeloma, while for ‘death certificate only’ cases, the types include pancreas, lung, liver, leukemia and multiple myeloma.

### *Preliminary incidence (newly diagnosed cases) for all sites combined and top four sites, 2010-2014 by sex:*

#### **MALES**

- *all cancer types combined* – 496.9 per 100,000 men;
- *prostate cancer* – 112.9 per 100,000 men;
- *bronchus and lung cancer* – 69.2 per 100,000 men;
- *colon/rectum cancer* – 42.7 per 100,000 men;
- *urinary bladder cancer* – 40.2 per 100,000 men;

#### **FEMALES**

- *all cancer types combined* – 445.2 per 100,000 women;
- *invasive breast cancer* – 135.7 per 100,000 women;
- *bronchus and lung cancer* – 59.7 per 100,000 women;
- *colon/rectum cancer* – 33.5 per 100,000 women;
- *thyroid* – 29.1 per 100,000 women;

This data brief is organized in the following sections:

- **TABLES** which present cancer incidence rates for 2010-2014. There are 6 tables in this section with breakdowns by year, sex, race/ethnicity, and cancer type.
- **APPENDICES** which provide information supplemental to this brief, including a listing of codes used to prepare the report, information on population and rate changes, and population estimates.

**Note:** For more detailed information on the methods of the Massachusetts Cancer Registry, please refer to *Cancer Incidence and Mortality in Massachusetts 2006-2010: Statewide Report* available at [www.mass.gov/dph/mcr](http://www.mass.gov/dph/mcr)

**Table 1.**  
**ANNUAL AGE-ADJUSTED<sup>1</sup> INCIDENCE RATES<sup>2</sup> FOR SELECTED CANCER SITES**  
**Massachusetts, 2010-2014 – Preliminary Data (as of February 29, 2016)**  
**MALES**

<b>Cancer Site / Type</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>All Sites</b>	532.9	538.5	499.5	481.6	439.3
<b>Brain &amp; Other Nervous System</b>	8.3	7.9	7.4	9.0	6.5
<b>Breast</b>	1.2	1.5	1.2	1.5	1.7
<b>Breast <i>in situ</i><sup>3</sup></b>	0.2	0.2	0.2	0.1	0.1
<b>Bronchus &amp; Lung</b>	73.3	74.5	71.0	66.3	61.6
<b>Colon / Rectum</b>	44.8	43.4	42.2	40.6	42.9
<b>Esophagus</b>	9.9	11.0	9.7	9.8	8.8
<b>Hodgkin Lymphoma</b>	3.4	3.6	3.6	3.1	3.0
<b>Kidney &amp; Renal Pelvis</b>	20.0	20.6	20.8	23.2	22.2
<b>Larynx</b>	6.0	5.3	5.2	6.3	5.4
<b>Leukemia</b>	15.8	17.3	17.5	16.0	13.6
<b>Liver &amp; Intrahepatic Bile Ducts</b>	12.9	12.5	14.1	12.5	10.8
<b>Melanoma of Skin</b>	25.0	29.1	25.8	25.1	21.9
<b>Multiple Myeloma</b>	7.8	7.9	8.2	8.8	6.6
<b>Non-Hodgkin Lymphoma</b>	23.7	22.1	22.5	23.1	20.9
<b>Oral Cavity &amp; Pharynx</b>	17.7	17.9	18.6	16.8	16.6
<b>Pancreas</b>	13.0	14.3	14.3	14.7	12.8
<b>Prostate</b>	140.6	138.2	106.9	97.5	85.8
<b>Stomach</b>	9.9	9.0	8.9	10.3	9.4
<b>Testis</b>	5.6	6.7	6.7	6.6	6.3
<b>Thyroid</b>	9.4	10.8	10.4	9.3	11.3
<b>Urinary Bladder</b>	40.3	41.6	42.3	39.6	37.4

<sup>1</sup> Rates are age-adjusted to the 2000 U.S. Standard Population.

<sup>2</sup> per 100,000 males

<sup>3</sup> Breast *in situ* is excluded from “All Sites”

Source: Massachusetts Cancer Registry

**Table 2.**  
**ANNUAL AGE-ADJUSTED<sup>1</sup> INCIDENCE RATES<sup>2</sup> FOR SELECTED CANCER SITES**  
**Massachusetts, 2010-2014 – Preliminary Data (as of February 29, 2016)**

**FEMALES**

<b>Cancer Site / Type</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>All Sites</b>	444.1	457.4	456.5	446.3	422.7
<b>Brain &amp; Other Nervous System</b>	5.8	6.3	5.6	6.0	5.0
<b>Breast</b>	130.6	137.3	137.1	137.4	135.8
<b>Breast <i>in situ</i><sup>3</sup></b>	44.9	41.6	42.5	42.5	40.3
<b>Bronchus &amp; Lung</b>	62.6	60.7	61.0	60.5	54.2
<b>Cervix Uteri</b>	5.6	5.1	5.0	4.9	5.4
<b>Colon / Rectum</b>	35.9	34.3	33.2	33.1	31.2
<b>Corpus Uteri &amp; Uterus, NOS</b>	28.0	31.2	28.3	29.8	27.0
<b>Esophagus</b>	2.4	2.0	1.7	2.4	2.5
<b>Hodgkin Lymphoma</b>	2.6	2.7	2.6	2.4	2.6
<b>Kidney &amp; Renal Pelvis</b>	10.4	10.6	10.9	10.7	10.3
<b>Larynx</b>	1.5	1.4	1.8	1.2	1.1
<b>Leukemia</b>	10.7	10.3	9.9	10.2	7.8
<b>Liver &amp; Intrahepatic Bile Ducts</b>	3.5	3.3	3.8	4.1	3.5
<b>Melanoma of Skin</b>	18.4	18.6	17.7	16.2	14.9
<b>Multiple Myeloma</b>	4.4	6.0	5.2	5.3	4.4
<b>Non-Hodgkin Lymphoma</b>	16.6	15.5	17.7	16.6	14.6
<b>Oral Cavity &amp; Pharynx</b>	6.5	6.2	7.9	7.3	6.3
<b>Ovary</b>	10.6	12.2	12.9	10.5	10.8
<b>Pancreas</b>	10.7	11.0	11.0	11.6	11.0
<b>Stomach</b>	4.6	4.5	4.3	4.4	4.8
<b>Thyroid</b>	27.4	30.7	29.7	26.9	30.6
<b>Urinary Bladder</b>	10.9	12.1	11.7	10.7	10.6

<sup>1</sup> Rates are age-adjusted to the 2000 U.S. Standard Population.

<sup>2</sup>per 100,000 males

<sup>3</sup>Breast *in situ* is excluded from “All Sites”

Source: Massachusetts Cancer Registry

**Table 3.**  
**ANNUAL AGE-ADJUSTED<sup>1</sup> INCIDENCE RATES<sup>2</sup> FOR SELECTED CANCER SITES**  
**Massachusetts, 2010-2014 – Preliminary Data (as of February 29, 2016)**

**TOTAL**

<b>Cancer Site / Type</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>All Sites</b>	479.3	489.6	471.8	458.4	426.2
<b>Brain &amp; Other Nervous System</b>	7.0	7.0	6.4	7.4	5.7
<b>Breast</b>	71.1	74.7	74.3	74.5	73.6
<b>Breast <i>in situ</i><sup>3</sup></b>	23.9	22.0	22.5	22.5	21.3
<b>Bronchus &amp; Lung</b>	66.7	66.3	64.8	62.7	57.1
<b>Cervix Uteri</b>	3.0	2.7	2.6	2.6	2.8
<b>Colon / Rectum</b>	39.8	38.2	37.2	36.4	36.4
<b>Corpus Uteri &amp; Uterus, NOS</b>	15.1	16.8	15.3	16.0	14.5
<b>Esophagus</b>	5.7	5.9	5.3	5.7	5.3
<b>Hodgkin Lymphoma</b>	3.0	3.1	3.1	2.7	2.8
<b>Kidney &amp; Renal Pelvis</b>	14.8	15.3	15.5	16.4	15.8
<b>Larynx</b>	3.5	3.2	3.3	3.5	3.0
<b>Leukemia</b>	12.8	13.3	13.3	12.7	10.4
<b>Liver &amp; Intrahepatic Bile Ducts</b>	7.8	7.5	8.5	8.0	6.9
<b>Melanoma of Skin</b>	21.1	22.9	20.9	19.8	17.8
<b>Multiple Myeloma</b>	5.9	6.9	6.5	6.9	5.3
<b>Non-Hodgkin Lymphoma</b>	19.8	18.3	19.7	19.6	17.4
<b>Oral Cavity &amp; Pharynx</b>	11.7	11.6	12.9	11.7	11.1
<b>Ovary</b>	5.8	6.6	7.0	5.7	5.9
<b>Pancreas</b>	11.8	12.5	12.6	13.0	11.8
<b>Prostate</b>	63.7	62.8	48.6	44.4	39.3
<b>Stomach</b>	6.9	6.5	6.3	7.0	6.8
<b>Testis</b>	2.7	3.3	3.3	3.3	3.1
<b>Thyroid</b>	18.7	21.0	20.3	18.4	21.2
<b>Urinary Bladder</b>	23.2	24.6	24.8	23.0	22.0

<sup>1</sup> Rates are age-adjusted to the 2000 U.S. Standard Population.

<sup>2</sup> per 100,000 total population

<sup>3</sup> Breast *in situ* is excluded from “All Sites”

<sup>4</sup> Dashes indicate cancers found in only one sex or predominantly in one sex (breast cancer).

Source: Massachusetts Cancer Registry

**Table 4.**  
**AGE-ADJUSTED<sup>1</sup> INCIDENCE RATES<sup>2</sup> AND 95% CONFIDENCE LIMITS (95% CL)**  
**FOR SELECTED CANCER SITES BY RACE/ETHNICITY<sup>3</sup>**  
**Massachusetts, 2010-2014 - Preliminary Data (as of February 29, 2016)**  
**MALES**

Cancer Site / Type	All Races		White, non-Hispanics		Black, non-Hispanics		Asian, non-Hispanics		Hispanics	
	Rates	95% CL	Rates	95% CL	Rates	95% CL	Rates	95% CL	Rates	95% CL
<b>All Sites</b>	496.9	493.5-500.3	497.4	493.8-501.1	530.1	513.3-546.8	312.5	298.2-326.9	392.4	376.8-407.9
<b>Brain &amp; Other Nervous System</b>	7.8	7.4-8.3	8.4	7.9-8.9	4.8	3.4-6.3	3.2	1.8-4.5	6.0	4.3-7.8
<b>Breast</b>	1.4	1.3-1.6	1.5	1.3-1.7	*	*	*	*	0.7	0.1-1.4
<b>Breast <i>in situ</i><sup>4</sup></b>	0.1	0.1-0.2	*	*	*	*	*	*	*	*
<b>Bronchus &amp; Lung</b>	69.2	67.9-70.5	70.8	69.4-72.2	68.4	61.9-74.8	57.9	51.4-64.4	39.0	33.7-44.2
<b>Colon / Rectum</b>	42.7	41.7-43.7	42.8	41.7-43.9	46.6	41.5-51.7	34.2	29.6-38.9	35.6	30.6-40.6
<b>Esophagus</b>	9.8	9.4-10.3	10.4	9.8-10.9	7.5	5.4-9.5	5.8	3.8-7.9	4.2	2.4-5.9
<b>Hodgkin Lymphoma</b>	3.3	3.0-3.6	3.4	3.1-3.8	3.4	2.3-4.5	*	*	3.6	2.4-4.9
<b>Kidney &amp; Renal Pelvis</b>	21.4	20.7-22.1	21.9	21.2-22.7	21.0	17.8-24.3	10.1	7.6-12.5	17.4	14.3-20.4
<b>Larynx</b>	5.6	5.3-6.0	5.6	5.3-6.0	5.9	4.1-7.7	*	*	6.0	4.1-7.9
<b>Leukemia</b>	16.0	15.4-16.6	16.4	15.7-17.1	11.0	8.7-13.3	7.9	5.7-10.1	10.8	8.3-13.3
<b>Liver &amp; Intrahepatic Bile Ducts</b>	12.6	12.0-13.1	10.7	10.2-11.2	19.5	16.5-22.5	27.4	23.3-31.5	22.7	19.2-26.3
<b>Melanoma of Skin</b>	25.3	24.5-26.1	27.6	26.7-28.5	*	*	*	*	*	*
<b>Multiple Myeloma</b>	7.9	7.4-8.3	7.4	7.0-7.9	15.3	12.3-18.3	4.7	2.9-6.4	7.6	5.5-9.8
<b>Non-Hodgkin Lymphoma</b>	22.4	21.7-23.2	23.0	22.2-23.7	17.8	14.9-20.8	11.2	8.6-13.7	19.0	15.6-22.3
<b>Oral Cavity &amp; Pharynx</b>	17.5	16.9-18.2	18.0	17.3-18.7	14.0	11.4-16.7	13.8	11.0-16.6	15.7	12.6-18.8
<b>Pancreas</b>	13.8	13.2-14.4	14.1	13.5-14.7	16.2	13.1-19.4	6.6	4.4-8.8	9.7	7.1-12.3
<b>Prostate</b>	112.9	111.3-114.4	104.7	103.1-106.3	196.5	186.6-206.4	56.6	50.4-62.7	121.6	113.1-130.1
<b>Stomach</b>	9.5	9.0-10.0	8.6	8.2-9.1	16.9	13.7-20.1	11.9	9.0-14.8	15.9	12.7-19.2
<b>Testis</b>	6.4	6.0-6.8	7.7	7.2-8.2	*	*	*	*	3.2	2.4-4.1
<b>Thyroid</b>	10.2	9.7-10.7	10.6	10.1-11.2	6.5	4.8-8.2	11.1	8.8-13.4	5.6	4.2-7.0
<b>Urinary Bladder</b>	40.2	39.2-41.2	42.6	41.5-43.6	16.5	13.3-19.7	14.1	10.8-17.4	17.2	13.6-20.8

<sup>1</sup> Rates are age-adjusted to the 2000 U.S. Standard Population.

<sup>2</sup> per 100,000

<sup>3</sup> Race/ethnicity categories are mutually exclusive. Cases are only included in one race/ethnicity category. <sup>4</sup> Breast *in situ* is excluded from 'All Sites'.

\*An age-adjusted incidence rate was not calculated when there were fewer than 20 cases.

Source: Massachusetts Cancer Registry

**Table 5.**  
**AGE-ADJUSTED<sup>1</sup> INCIDENCE RATES<sup>2</sup> AND 95% CONFIDENCE LIMITS (95% CL)**  
**FOR SELECTED CANCER SITES BY RACE/ETHNICITY<sup>3</sup>**  
**Massachusetts, 2010-2014 - Preliminary Data (as of February 29, 2016)**  
**FEMALES**

Cancer Site / Type	All Races		White, non-Hispanics		Black, non-Hispanics		Asian, non-Hispanics		Hispanics	
	Rates	95% CL	Rates	95% CL	Rates	95% CL	Rates	95% CL	Rates	95% CL
<b>All Sites</b>	445.2	442.3-448.1	458.1	454.8-461.4	392.2	380.2-404.1	299.6	287.5-311.8	319.8	308.5-331.1
<b>Brain &amp; Other Nervous System</b>	5.7	5.4-6.1	6.0	5.6-6.4	3.9	2.7-5.1	4.0	2.7-5.4	4.7	3.3-6.0
<b>Breast</b>	135.7	134.1-137.4	141.7	139.8-143.5	116.4	110.0-122.9	90.2	83.8-96.6	87.5	81.8-93.2
<b>Breast <i>in situ</i><sup>4</sup></b>	42.4	41.5-43.3	44.2	43.2-45.3	39.9	36.2-43.7	30.1	26.5-33.7	30.3	27.1-33.6
<b>Bronchus &amp; Lung</b>	59.7	58.7-60.8	63.1	61.9-64.2	46.0	41.8-50.3	33.0	28.6-37.3	27.5	23.9-31.1
<b>Cervix Uteri</b>	5.2	4.9-5.6	4.8	4.4-5.2	8.1	6.4-9.8	6.9	5.1-8.6	8.4	6.6-10.2
<b>Colon / Rectum</b>	33.5	32.7-34.3	33.5	32.6-34.3	36.8	33.2-40.5	28.3	24.4-32.2	26.8	23.3-30.2
<b>Corpus Uteri &amp; Uterus, NOS</b>	28.9	28.2-29.6	30.0	29.2-30.9	24.8	21.8-27.8	13.2	10.7-15.7	20.9	18.1-23.7
<b>Esophagus</b>	2.2	2.0-2.4	2.3	2.0-2.5	1.8	1.0-2.5	*	*	*	*
<b>Hodgkin Lymphoma</b>	2.5	2.3-2.8	2.8	2.5-3.1	*	*	*	*	3.2	2.1-4.2
<b>Kidney &amp; Renal Pelvis</b>	10.6	10.1-11.0	10.8	10.3-11.3	11.0	9.0-13.0	4.8	3.2-6.4	8.9	7.0-10.7
<b>Larynx</b>	1.4	1.2-1.6	1.5	1.3-1.6	*	*	*	*	*	*
<b>Leukemia</b>	9.7	9.3-10.2	9.7	9.2-10.2	7.9	6.2-9.5	7.1	5.3-8.9	8.2	6.4-10.0
<b>Liver &amp; Intrahepatic Bile Ducts</b>	3.6	3.4-3.9	3.2	2.9-3.5	4.6	3.3-5.9	8.7	6.5-10.9	6.5	4.7-8.2
<b>Melanoma of Skin</b>	17.1	16.5-17.7	19.2	18.5-19.9	*	*	*	*	2.5	1.5-3.4
<b>Multiple Myeloma</b>	5.0	4.7-5.4	4.4	4.1-4.7	14.0	11.7-16.3	2.8	1.6-4.1	7.1	5.3-8.8
<b>Non-Hodgkin Lymphoma</b>	16.2	15.6-16.7	16.3	15.7-17.0	12.6	10.4-14.7	9.3	7.1-11.5	16.2	13.6-18.9
<b>Oral Cavity &amp; Pharynx</b>	6.8	6.5-7.2	6.9	6.5-7.3	4.6	3.3-5.8	7.2	5.2-9.2	6.2	4.6-7.9
<b>Ovary</b>	11.4	10.9-11.9	11.9	11.4-12.4	8.1	6.4-9.8	8.6	6.6-10.6	6.6	5.1-8.2
<b>Pancreas</b>	11.1	10.6-11.5	11.1	10.6-11.6	12.7	10.5-14.9	8.4	6.2-10.6	7.9	6.0-9.7
<b>Stomach</b>	4.5	4.2-4.8	3.9	3.6-4.2	8.6	6.7-10.4	8.8	6.6-11.0	7.2	5.4-8.9
<b>Thyroid</b>	29.1	28.3-29.9	29.3	28.4-30.2	23.4	20.6-26.2	27.5	24.1-30.8	27.3	24.5-30.1
<b>Urinary Bladder</b>	11.2	10.8-11.7	11.8	11.3-12.3	7.1	5.4-8.7	*	*	5.4	3.7-7.0

<sup>1</sup> Rates are age-adjusted to the 2000 U.S. Standard Population.

<sup>2</sup> per 100,000

<sup>3</sup> Race/ethnicity categories are mutually exclusive. Cases are only included in one race/ethnicity category. <sup>4</sup> Breast *in situ* cases are excluded from 'All Sites'.

\* An age-adjusted incidence rate was not calculated when there were fewer than 20 cases.

Source: Massachusetts Cancer Registry

**Table 6.**  
**AGE-ADJUSTED<sup>1</sup> INCIDENCE RATES<sup>2</sup> AND 95% CONFIDENCE LIMITS (95% CL)**  
**FOR SELECTED CANCER SITES BY RACE/ETHNICITY<sup>3</sup>**  
**Massachusetts, 2010-2014 - Preliminary Data (as of February 29, 2016)**  
**TOTAL**

Cancer Site / Type	All Races		White, non-Hispanics		Black, non-Hispanics		Asian, non-Hispanics		Hispanics	
	Rates	95% CL	Rates	95% CL	Rates	95% CL	Rates	95% CL	Rates	95% CL
<b>All Sites</b>	464.4	462.2-466.6	471.5	469.1-473.9	447.8	438.1-457.6	304.1	294.8-313.3	347.9	338.8-357.1
<b>Brain &amp; Other Nervous System</b>	6.7	6.4-7.0	7.1	6.8-7.4	4.3	3.4-5.2	3.6	2.7-4.5	5.3	4.2-6.4
<b>Breast</b>	--	--	--	--	--	--	--	--	--	--
<b>Breast <i>in situ</i><sup>4</sup></b>	--	--	--	--	--	--	--	--	--	--
<b>Bronchus &amp; Lung</b>	63.4	62.6-64.2	66.0	65.1-66.9	54.8	51.2-58.3	44.0	40.3-47.8	32.2	29.2-35.2
<b>Cervix Uteri</b>	--	--	--	--	--	--	--	--	--	--
<b>Colon / Rectum</b>	37.6	36.9-38.2	37.6	36.9-38.3	40.7	37.7-43.6	31.1	28.1-34.1	30.3	27.4-33.1
<b>Corpus Uteri &amp; Uterus, NOS</b>	--	--	--	--	--	--	--	--	--	--
<b>Esophagus</b>	5.6	5.4-5.8	5.9	5.6-6.2	4.0	3.1-5.0	3.4	2.4-4.5	2.6	1.7-3.5
<b>Hodgkin Lymphoma</b>	2.9	2.7-3.1	3.1	2.9-3.3	2.3	1.6-2.9	1.1	0.7-1.6	3.4	2.6-4.1
<b>Kidney &amp; Renal Pelvis</b>	15.5	15.1-15.9	15.9	15.5-16.4	15.3	13.5-17.0	7.2	5.8-8.7	12.6	10.9-14.2
<b>Larynx</b>	3.3	3.1-3.5	3.3	3.1-3.5	3.3	2.5-4.2	*	*	3.0	2.2-3.9
<b>Leukemia</b>	12.5	12.1-12.8	12.6	12.2-13.1	9.3	7.9-10.6	7.4	6.0-8.8	9.3	7.8-10.8
<b>Liver &amp; Intrahepatic Bile Ducts</b>	7.7	7.4-8.0	6.6	6.4-6.9	11.1	9.7-12.6	17.5	15.2-19.7	13.6	11.8-15.5
<b>Melanoma of Skin</b>	20.5	20.0-20.9	22.6	22.1-23.1	1.1	0.6-1.6	*	*	2.1	1.4-2.8
<b>Multiple Myeloma</b>	6.3	6.0-6.5	5.7	5.5-6.0	14.5	12.7-16.3	3.7	2.6-4.7	7.3	6.0-8.6
<b>Non-Hodgkin Lymphoma</b>	18.9	18.5-19.4	19.2	18.8-19.7	14.9	13.2-16.6	10.2	8.5-11.9	17.5	15.4-19.6
<b>Oral Cavity &amp; Pharynx</b>	11.8	11.5-12.1	12.1	11.7-12.4	8.6	7.3-9.9	10.4	8.7-12.0	10.3	8.7-12.0
<b>Ovary</b>	--	--	--	--	--	--	--	--	--	--
<b>Pancreas</b>	12.3	12.0-12.7	12.5	12.1-12.8	14.3	12.5-16.1	7.5	6.0-9.1	8.6	7.1-10.1
<b>Prostate</b>	--	--	--	--	--	--	--	--	--	--
<b>Stomach</b>	6.7	6.4-7.0	6.0	5.7-6.2	11.9	10.3-13.6	10.2	8.4-11.9	10.8	9.1-12.5
<b>Testis</b>	--	--	--	--	--	--	--	--	--	--
<b>Thyroid</b>	19.9	19.5-20.4	20.2	19.6-20.7	15.6	13.9-17.3	19.8	17.7-21.8	17.1	15.5-18.8
<b>Urinary Bladder</b>	23.5	23.0-24.0	24.9	24.4-25.5	10.9	9.3-12.5	7.7	6.1-9.2	10.2	8.5-11.9

<sup>1</sup> Rates are age-adjusted to the 2000 U.S. Standard Population.

<sup>2</sup> per 100,000

<sup>3</sup> Race/ethnicity categories are mutually exclusive. Cases are only included in one race/ethnicity category. <sup>4</sup> Breast *in situ* cases are excluded from 'All Sites'. <sup>5</sup> Dashes indicate cancers found in only one sex or predominantly in one sex (breast cancer).

Source: Massachusetts Cancer Registry

**APPENDIX I**  
**ICD CODES USED FOR THIS REPORT**

<b>Cancer Site/Type</b>	<b>ICD-O-3</b>
Brain and Other Nervous System	C70.0 – C72.9 except 9590-9980
Breast (includes <i>in situ</i> )	C50.0 – C50.9 except 9590-9989
Bronchus & Lung	C34.0 – C34.9 except 9590 – 9989
Cervix Uteri	C53.0 – C53.9
Colon/Rectum	C18.0 – C18.9 C19.9, C20.9, C26.0 except 9590-9989
Corpus Uteri & Uterus, NOS	C54.0 - C54.9, C55.9 except 9590-9980
Esophagus	C15.0 - C15.9 except 9590-9989
Hodgkin Lymphoma	C00.00 - C89.9 (includes 9650 – 9667)
Kidney & Renal Pelvis	C64.9, C65.9 except 9590-9980
Larynx	C32.0 – C32.9 except 9590-9980
Leukemia	C00.0-C89.9 (includes 9733, 9742, 9800-9820, 9826, 9831 – 9948, 9963—9964)
Liver and Intrahepatic Bile Ducts	C22.0, C22.1 except 9590-9980
Melanoma of Skin	C44.0 – C44.9 (includes 8720-8790)
Multiple Myeloma	C00.0-C80.9 (includes 9731, 9732, 9734)
Non-Hodgkin Lymphoma	C00.0 – C80.9 (includes 9590 – 9596, 9670 – 9729) All sites except C42.0, C42.1, C42.4 (includes 9823, 9827)
Oral Cavity & Pharynx	C00.0 – C14.8 except 9590-9980
Ovary	C56.9 except 9590-9980
Pancreas	C25.0 – C25.9 except 9590-9980



<b>Cancer Site/Type</b>	<b>ICD-O-3</b>
Prostate	C61.9 except 9590-9980
Stomach	C16.0 – C16.9 except 9590-9980
Testis	C62.0 – C62.9 except 9590-9980
Thyroid	C73.9 except 9590-9980
Urinary Bladder (includes <i>in situ</i> )	C67.0 – C67.9 except 9590-9980

*International Classification of Disease for Oncology, 3d Ed.*

## APPENDIX II

### Population and Rate Changes

The population estimates for 2010-2014 used in this report were produced by the National Center for Health Statistics (NCHS) in collaboration with the U.S. Census Bureau's Population Estimation Program. The NCHS takes the Census Bureau population estimates file and reallocates the multiple race categories required by the 1997 Office of Management and Budget (OMB) specifications back into the four race categories specified in the 1977 OMB specifications so that the estimates will be compatible with previous years' populations. (1) The estimates are divided into mutually exclusive racial/ethnic categories similar to those of the MCR.

Please note that the statewide age-adjusted rates published in this report cannot be compared with those published in reports prior to July 2007, because the overall population count and the age distribution of the population, which were based on the Census 2000 count, differ.

The difference in the new population estimates is pronounced for Hispanics and black, non-Hispanics. The Hispanic and black, non-Hispanic populations have increased 15% since 2000, while the overall state population has increased by 1%. It is important to remember that both age-adjusted cancer incidence and cancer death rates are not a measure of the actual risk of cancer or of death from it. Rather, age-adjusted rates are summary measures used to compare cancer incidence and mortality trends over time or among different populations whose age distributions differ. For specific examples of the effect of new population estimates on age-adjusted rates, see Appendix II in the report *Cancer Incidence and Mortality in Massachusetts 2000-2004: Statewide Report*, available at [www.mass.gov/dph/mcr](http://www.mass.gov/dph/mcr).

1. National Center for Health Statistics, U.S. Department of Health and Human Services. Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Vintage 2013 Bridged-race postcensal population estimates for April 10, 2010, July 1, 2010 - July 1, 2014, by year, county, single-year of age (0 to 85+ years), bridged-race, Hispanic origin, and sex (6/30/2015) Available at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm)

### Appendix III

#### POPULATION ESTIMATES BY AGE, RACE/ETHNICITY, AND SEX Massachusetts, 2010-2014

Age Group	White, non-Hispanic			Black, non-Hispanic			Asian, non-Hispanic			Males	Hispanic Females	Total
	Males	Females	Total	Males	Females	Total	Males	Females	Total			
00-04	607101	579335	1186436	88339	83562	171901	68569	66722	135291	169590	162054	331644
05-09	661478	632397	1293875	87447	83076	170523	66506	66618	133124	155244	149359	304603
10-14	725431	690543	1415974	87321	83892	171213	59628	60969	120597	148002	142798	290800
15-19	826988	806078	1633066	101485	98853	200338	67925	74244	142169	162782	155403	318185
20-24	834770	837685	1672455	106468	104712	211180	87302	94991	182293	168747	161051	329798
25-29	811146	817602	1628748	88736	91360	180096	95342	107630	202972	152550	147251	299801
30-34	734828	746257	1481085	79931	86075	166006	90090	101846	191936	143809	143430	287239
35-39	705001	726954	1431955	74887	81772	156659	85455	92370	177825	122039	128392	250431
40-44	840321	875397	1715718	76031	83378	159409	76761	82904	159665	108745	117729	226474
45-49	968624	1006505	1975129	78763	83135	161898	64351	69346	133697	96706	107037	203743
50-54	1023251	1068831	2092082	73632	79294	152926	53855	58443	112298	77774	87933	165707
55-59	939972	998576	1938548	58986	65853	124839	43936	49846	93782	57458	67615	125073
60-64	809221	880725	1689946	44215	52283	96498	34745	39701	74446	40965	50404	91369
65-69	615458	691628	1307086	29425	38486	67911	23307	26809	50116	27091	35238	62329
70-74	417310	502632	919942	19346	27740	47086	17887	20448	38335	17149	24108	41257
75-79	311707	411392	723099	13185	21294	34479	12666	14505	27171	10667	16501	27168
80-84	243164	373559	616723	8190	15443	23633	7394	9712	17106	6296	10649	16945
85+	224282	485670	709952	6669	15659	22328	5268	8367	13635	5105	9562	14667

Population Data Source: United States Census Data (2010-2014)

