



Data Brief: Cancer Incidence in Massachusetts, 2011-2015 – Preliminary Data

Massachusetts Department of Public Health, Office of Data Management and Outcomes Assessment, Massachusetts Cancer Registry, SEPT 2017

This data brief provides preliminary cancer incidence data for the Commonwealth for 24 types of cancer over a period of five years, from 2011 through 2015. Data are broken out by type of cancer, race/ethnicity and sex. Data from 2011-2014 are complete, while data for 2015 are preliminary data with a completion estimate of 94%. The incidence data included in this brief are based on cases that were reported to the Massachusetts Cancer Registry as of June 5, 2017. 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 2015.** Cases reported only from non-hospital sources are processed as resources allow, so completeness of these cases varies by year. However, the number of new cases from non-hospital sources is small since most are eventually reported by other sources. Cases whose only report is from a death certificate are not included for 2015. 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. The types of cancers for ‘death certificate only’ cases include pancreas, lung, liver, leukemia and multiple myeloma.

Preliminary incidence (newly diagnosed cases) for all sites combined and top four sites, 2011-2015 by sex:

MALES

- *all cancer types combined* – 485.0 per 100,000 men;
- *prostate cancer* – 104.6 per 100,000 men;
- *bronchus and lung cancer* – 68.1 per 100,000 men;
- *colon/rectum cancer* – 41.6 per 100,000 men;
- *urinary bladder cancer* – 40.1 per 100,000 men;

FEMALES

- *all cancer types combined* – 445.8 per 100,000 women;
- *invasive breast cancer* – 137.4 per 100,000 women;
- *bronchus and lung cancer* – 59.3 per 100,000 women;
- *colon/rectum cancer* – 32.9 per 100,000 women;
- *thyroid* – 29.5 per 100,000 women;

This data brief is organized in the following sections:

- **TABLES** which present cancer incidence rates for 2011-2015. 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*

Table 1.
ANNUAL AGE-ADJUSTED¹ INCIDENCE RATES² FOR SELECTED CANCER SITES
Massachusetts, 2011-2015 – Preliminary Data (as of June 5, 2017)

MALES

Cancer Site / Type	2011	2012	2013	2014	2015
All Sites	538.9	500.2	483.0	479.3	430.0
Brain & Other Nervous System	7.9	7.4	9.1	7.5	6.7
Breast	1.5	1.2	1.5	1.7	1.5
Breast <i>in situ</i>³	0.2	0.2	0.1	0.1	0.4
Bronchus & Lung	74.6	71.3	67.0	68.1	60.1
Colon / Rectum	43.5	42.2	40.7	44.0	38.1
Esophagus	11.0	9.8	9.8	9.1	8.2
Hodgkin Lymphoma	3.6	3.6	3.1	3.2	0.1
Kidney & Renal Pelvis	20.6	20.9	23.3	23.2	23.3
Larynx	5.3	5.2	6.3	5.7	5.1
Leukemia	17.4	17.6	16.1	16.4	14.0
Liver & Intrahepatic Bile Ducts	12.4	14.2	12.5	12.3	10.8
Melanoma of Skin	29.2	25.8	25.0	22.8	21.1
Multiple Myeloma	7.9	8.2	8.9	7.5	7.5
Non-Hodgkin Lymphoma	22.1	22.5	23.2	23.4	19.5
Oral Cavity & Pharynx	18.0	18.7	16.8	18.0	15.8
Pancreas	14.3	14.3	14.7	13.9	13.9
Prostate	138.2	106.9	97.6	92.9	90.6
Stomach	9.0	8.9	10.3	9.9	8.1
Testis	6.7	6.7	6.6	6.5	6.0
Thyroid	10.8	10.4	9.3	11.6	11.2
Urinary Bladder	41.6	42.3	39.6	39.0	38.2

¹ Rates are age-adjusted to the 2000 U.S. Standard Population.

²per 100,000 males

³Breast *in situ* is excluded from “All Sites”

Source: Massachusetts Cancer Registry

Table 2.
ANNUAL AGE-ADJUSTED¹ INCIDENCE RATES² FOR SELECTED CANCER SITES
Massachusetts, 2011-2015 – Preliminary Data (as of June 5, 2017)

FEMALES

Cancer Site / Type	2011	2012	2013	2014	2015
All Sites	457.4	457.0	447.1	446.5	422.1
Brain & Other Nervous System	6.3	5.6	6.1	5.6	5.9
Breast	137.3	137.1	137.3	138.6	136.5
Breast <i>in situ</i>³	41.6	42.6	42.6	40.9	38.9
Bronchus & Lung	60.7	61.2	60.7	58.5	55.7
Cervix Uteri	5.1	5.0	4.9	5.5	5.0
Colon / Rectum	34.3	33.2	33.2	32.3	31.5
Corpus Uteri & Uterus, NOS	31.2	28.3	29.8	27.6	29.4
Esophagus	2.0	1.7	2.4	2.6	2.2
Hodgkin Lymphoma	2.7	2.6	2.4	2.7	0.2
Kidney & Renal Pelvis	10.6	10.9	10.7	10.8	10.4
Larynx	1.4	1.8	1.2	1.2	1.4
Leukemia	10.3	10.0	10.3	9.1	9.3
Liver & Intrahepatic Bile Ducts	3.3	3.8	4.1	4.1	3.1
Melanoma of Skin	18.6	17.8	16.2	15.6	15.4
Multiple Myeloma	6.0	5.2	5.3	4.9	4.5
Non-Hodgkin Lymphoma	15.5	17.8	16.7	15.8	13.3
Oral Cavity & Pharynx	6.2	7.9	7.3	6.7	7.2
Ovary	12.1	12.9	10.5	11.3	10.7
Pancreas	11.0	11.0	11.6	12.1	10.7
Stomach	4.5	4.3	4.4	5.0	4.8
Thyroid	30.7	29.7	26.9	31.2	28.7
Urinary Bladder	12.1	11.7	10.8	10.9	10.6

¹ Rates are age-adjusted to the 2000 U.S. Standard Population.

²per 100,000 males

³Breast *in situ* is excluded from “All Sites”

Source: Massachusetts Cancer Registry

Table 3.
ANNUAL AGE-ADJUSTED¹ INCIDENCE RATES² FOR SELECTED CANCER SITES
Massachusetts, 2011-2015 – Preliminary Data (as of June 5, 2017)

TOTAL					
Cancer Site / Type	2011	2012	2013	2014	2015
All Sites	489.8	472.4	459.4	456.9	421.6
Brain & Other Nervous System	7.0	6.4	7.5	6.5	6.3
Breast	--	--	--	--	--
Breast <i>in situ</i>³	--	--	--	--	--
Bronchus & Lung	66.4	65.1	63.1	62.3	57.3
Cervix Uteri	--	--	--	--	--
Colon / Rectum	38.3	37.2	36.5	37.5	34.4
Corpus Uteri & Uterus, NOS	--	--	--	--	--
Esophagus	5.9	5.3	5.7	5.5	4.9
Hodgkin Lymphoma	3.1	3.1	2.7	3.0	0.1
Kidney & Renal Pelvis	15.2	15.5	16.4	16.5	16.3
Larynx	3.2	3.3	3.5	3.2	3.0
Leukemia	13.4	13.4	12.8	12.2	11.4
Liver & Intrahepatic Bile Ducts	7.5	8.5	8.0	7.8	6.6
Melanoma of Skin	22.9	21.0	19.8	18.7	17.6
Multiple Myeloma	6.9	6.5	6.9	6.0	5.9
Non-Hodgkin Lymphoma	18.3	19.8	19.6	19.2	16.1
Oral Cavity & Pharynx	11.6	12.9	11.7	11.9	11.2
Ovary	--	--	--	--	--
Pancreas	12.5	12.6	13.0	12.9	12.2
Prostate	--	--	--	--	--
Stomach	6.5	6.4	7.0	7.2	6.2
Testis	--	--	--	--	--
Thyroid	21.0	20.3	18.5	21.7	20.2
Urinary Bladder	24.6	24.8	23.1	22.8	22.3

¹ Rates are age-adjusted to the 2000 U.S. Standard Population.

² per 100,000 total population

³ Breast *in situ* is excluded from “All Sites”

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

Source: Massachusetts Cancer Registry

Table 4.
AGE-ADJUSTED¹ INCIDENCE RATES² AND 95% CONFIDENCE LIMITS (95% CL)
FOR SELECTED CANCER SITES BY RACE/ETHNICITY³
Massachusetts, 2011-2015 - Preliminary Data (as of June 5, 2017)
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
All Sites	485.0	481.7-488.3	488.9	485.3-492.5	503.7	487.8-519.6	305.7	292.0-319.3	369.1	354.7-383.4
Brain & Other Nervous System	7.7	7.3-8.2	8.4	7.9-8.9	4.2	2.9-5.5	*	*	4.9	3.4-6.3
Breast	1.5	1.3-1.7	1.5	1.3-1.7	*	*	*	*	*	*
Breast <i>in situ</i>⁴	0.2	0.1-0.3	0.2	0.1-0.3	*	*	*	*	*	*
Bronchus & Lung	68.1	66.8-69.3	69.8	68.4-71.2	63.5	57.4-69.5	56.5	50.4-62.7	38.8	33.8-43.8
Colon / Rectum	41.6	40.6-42.6	41.7	40.6-42.7	46.7	41.7-51.6	31.9	27.5-36.3	35.3	30.6-40.0
Esophagus	9.5	9.1-10.0	10.2	9.6-10.7	6.8	4.9-8.7	5.2	3.3-7.0	3.5	2.0-4.9
Hodgkin Lymphoma	2.7	2.4-3.0	2.9	2.6-3.2	2.5	1.5-3.4	1.0	0.4-1.6	2.6	1.5-3.6
Kidney & Renal Pelvis	22.3	21.6-23.0	22.8	22.1-23.6	21.7	18.4-24.9	10.3	7.9-12.7	18.2	15.2-21.1
Larynx	5.5	5.1-5.8	5.6	5.2-6.0	4.8	3.3-6.4	*	*	6.4	4.5-8.3
Leukemia	16.3	15.6-16.9	16.7	16.0-17.4	12.0	9.6-14.4	9.7	7.3-12.0	10.0	7.7-12.4
Liver & Intrahepatic Bile Ducts	12.5	11.9-13.0	10.8	10.3-11.3	18.9	16.0-21.7	24.5	20.7-28.2	20.5	17.3-23.8
Melanoma of Skin	24.7	23.9-25.5	27.1	26.3-28.0	*	*	*	*	*	*
Multiple Myeloma	8.0	7.6-8.4	7.6	7.2-8.1	14.5	11.7-17.3	4.4	2.8-5.9	7.2	5.3-9.1
Non-Hodgkin Lymphoma	22.1	21.4-22.8	22.6	21.8-23.4	16.6	13.8-19.4	11.7	9.1-14.3	19.3	16.1-22.5
Oral Cavity & Pharynx	17.4	16.8-18.0	17.9	17.2-18.6	13.8	11.2-16.4	13.6	11.0-16.3	13.9	11.2-16.7
Pancreas	14.2	13.6-14.8	14.5	13.8-15.1	15.8	12.9-18.8	7.9	5.7-10.2	9.5	7.1-12.0
Prostate	104.6	103.1-106.1	98.6	97.1-100.1	180.8	171.6-190.0	56.0	50.1-61.8	105.6	98.1-113.1
Stomach	9.3	8.8-9.7	8.3	7.8-8.8	17.1	14.0-20.3	12.2	9.4-14.9	13.9	10.9-16.8
Testis	6.5	6.1-6.9	7.9	7.4-8.5	*	*	*	*	3.1	2.3-3.9
Thyroid	10.7	10.2-11.2	11.2	10.6-11.8	6.0	4.4-7.6	10.7	8.6-12.9	6.5	4.9-8.1
Urinary Bladder	40.1	39.1-41.0	42.5	41.4-43.6	17.8	14.6-21.1	14.3	11.1-17.5	19.0	15.5-22.6

¹ Rates are age-adjusted to the 2000 U.S. Standard Population.

² per 100,000

³ Race/ethnicity categories are mutually exclusive. Cases are only included in one race/ethnicity category. ⁴ 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-ADJUSTED¹ INCIDENCE RATES² AND 95% CONFIDENCE LIMITS (95% CL)
FOR SELECTED CANCER SITES BY RACE/ETHNICITY³
Massachusetts, 2011-2015 - Preliminary Data (as of June 5, 2017)
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
All Sites	445.8	442.9-448.7	458.8	455.5-462.1	394.4	382.6-406.1	302.6	290.8-314.4	323.4	312.4-334.4
Brain & Other Nervous System	5.9	5.5-6.3	6.2	5.8-6.6	4.2	3.0-5.3	4.4	3.1-5.8	4.7	3.4-6.0
Breast	137.4	135.7-139.0	143.4	141.5-145.2	120.4	113.9-126.9	90.5	84.3-96.7	89.6	84.0-95.2
Breast <i>in situ</i>⁴	41.3	40.4-42.2	43.3	42.2-44.3	37.8	34.2-41.4	31.3	27.7-34.9	28.6	25.5-31.7
Bronchus & Lung	59.3	58.3-60.4	62.8	61.7-64.0	43.1	39.1-47.1	32.4	28.3-36.6	27.4	23.9-30.9
Cervix Uteri	5.1	4.8-5.4	4.5	4.2-4.9	8.2	6.5-9.9	7.1	5.4-8.8	9.2	7.4-11.0
Colon / Rectum	32.9	32.1-33.7	33.1	32.2-33.9	35.2	31.7-38.8	28.0	24.2-31.7	25.3	22.1-28.6
Corpus Uteri & Uterus, NOS	29.3	28.5-30.0	30.3	29.4-31.1	26.8	23.7-29.8	15.5	12.9-18.1	21.0	18.3-23.7
Esophagus	2.2	2.0-2.4	2.2	2.0-2.5	2.0	1.2-2.8	*	*	*	*
Hodgkin Lymphoma	2.1	1.9-2.3	2.3	2.0-2.6	*	*	*	*	2.8	1.9-3.8
Kidney & Renal Pelvis	10.7	10.2-11.1	10.9	10.4-11.4	11.0	9.1-13.0	4.7	3.2-6.3	9.1	7.2-10.9
Larynx	1.4	1.2-1.6	1.5	1.3-1.6	*	*	*	*	*	*
Leukemia	9.8	9.3-10.2	9.8	9.3-10.3	7.1	5.5-8.6	6.8	5.1-8.5	8.4	6.7-10.2
Liver & Intrahepatic Bile Ducts	3.7	3.4-3.9	3.2	2.9-3.5	5.0	3.7-6.3	9.1	6.8-11.3	5.9	4.3-7.6
Melanoma of Skin	16.7	16.1-17.3	18.8	18.2-19.5	*	*	*	*	2.9	1.9-3.9
Multiple Myeloma	5.2	4.9-5.5	4.6	4.3-4.9	13.5	11.3-15.7	*	*	8.0	6.2-9.8
Non-Hodgkin Lymphoma	15.8	15.3-16.3	15.9	15.3-16.5	12.9	10.8-15.0	9.8	7.6-12.0	16.5	13.9-19.1
Oral Cavity & Pharynx	7.0	6.7-7.4	7.1	6.7-7.5	4.8	3.5-6.1	6.6	4.8-8.4	5.9	4.3-7.4
Ovary	11.5	11.0-12.0	11.9	11.4-12.4	9.0	7.3-10.8	9.3	7.2-11.3	6.8	5.3-8.4
Pancreas	11.3	10.8-11.7	11.3	10.8-11.8	12.6	10.5-14.7	8.9	6.6-11.1	8.1	6.3-10.0
Stomach	4.6	4.3-4.9	3.9	3.6-4.2	8.7	6.9-10.5	8.8	6.7-10.9	7.4	5.7-9.1
Thyroid	29.5	28.6-30.3	29.6	28.7-30.6	22.7	20.0-25.4	29.4	26.0-32.7	28.2	25.4-31.0
Urinary Bladder	11.2	10.8-11.6	11.9	11.4-12.4	7.3	5.6-8.9	*	*	5.6	4.1-7.2

¹ Rates are age-adjusted to the 2000 U.S. Standard Population.

² per 100,000

³ Race/ethnicity categories are mutually exclusive. Cases are only included in one race/ethnicity category. ⁴ 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-ADJUSTED¹ INCIDENCE RATES² AND 95% CONFIDENCE LIMITS (95% CL)
FOR SELECTED CANCER SITES BY RACE/ETHNICITY³
Massachusetts, 2011-2015 - Preliminary Data (as of June 5, 2017)
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
All Sites	459.4	457.2-461.5	468.0	465.6-470.4	438.3	428.9-447.8	302.4	293.6-311.3	340.4	331.7-349.1
Brain & Other Nervous System	6.7	6.5-7.0	7.2	6.9-7.5	4.2	3.3-5.1	4.0	3.1-5.0	4.9	3.9-5.8
Breast	--	--	--	--	--	--	--	--	--	--
Breast <i>in situ</i>⁴	--	--	--	--	--	--	--	--	--	--
Bronchus & Lung	62.7	61.9-63.5	65.4	64.6-66.3	51.0	47.6-54.3	43.2	39.6-46.7	32.1	29.2-35.0
Cervix Uteri	--	--	--	--	--	--	--	--	--	--
Colon / Rectum	36.7	36.1-37.3	36.9	36.2-37.5	39.9	37.0-42.7	29.8	26.9-32.6	29.4	26.7-32.1
Corpus Uteri & Uterus, NOS	--	--	--	--	--	--	--	--	--	--
Esophagus	5.5	5.2-5.7	5.8	5.5-6.1	4.0	3.1-4.9	2.9	2.0-3.8	2.2	1.4-2.9
Hodgkin Lymphoma	2.4	2.2-2.5	2.6	2.4-2.8	1.6	1.1-2.1	0.9	0.5-1.3	2.7	2.0-3.4
Kidney & Renal Pelvis	16.0	15.6-16.4	16.4	16.0-16.9	15.5	13.8-17.3	7.3	5.9-8.7	13.1	11.4-14.7
Larynx	3.2	3.1-3.4	3.3	3.1-3.5	2.9	2.1-3.7	*	*	3.1	2.3-4.0
Leukemia	12.6	12.3-13.0	12.9	12.5-13.3	9.1	7.8-10.4	8.1	6.7-9.5	9.1	7.7-10.5
Liver & Intrahepatic Bile Ducts	7.7	7.4-8.0	6.7	6.4-6.9	11.2	9.8-12.6	16.3	14.2-18.4	12.4	10.7-14.1
Melanoma of Skin	20.0	19.5-20.4	22.2	21.7-22.7	1.0	0.6-1.5	*	*	2.3	1.6-3.1
Multiple Myeloma	6.4	6.2-6.7	5.9	5.7-6.2	14.0	12.2-15.7	3.3	2.4-4.3	7.7	6.4-9.1
Non-Hodgkin Lymphoma	18.6	18.1-19.0	18.9	18.4-19.4	14.6	12.9-16.3	10.7	9.0-12.3	17.8	15.8-19.8
Oral Cavity & Pharynx	11.9	11.5-12.2	12.2	11.8-12.6	8.7	7.4-10.0	10.0	8.4-11.6	9.4	7.9-10.8
Ovary	--	--	--	--	--	--	--	--	--	--
Pancreas	12.6	12.3-13.0	12.8	12.4-13.1	14.2	12.5-16.0	8.4	6.9-10.0	8.7	7.2-10.1
Prostate	--	--	--	--	--	--	--	--	--	--
Stomach	6.6	6.4-6.9	5.8	5.6-6.1	12.1	10.5-13.8	10.4	8.7-12.1	10.1	8.5-11.7
Testis	--	--	--	--	--	--	--	--	--	--
Thyroid	20.3	19.9-20.8	20.6	20.1-21.2	14.9	13.3-16.6	20.5	18.5-22.6	18.0	16.3-19.7
Urinary Bladder	23.5	23.0-23.9	25.0	24.4-25.5	11.6	9.9-13.2	7.7	6.1-9.2	11.2	9.5-12.9

¹ Rates are age-adjusted to the 2000 U.S. Standard Population.

² per 100,000

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

Source: Massachusetts Cancer Registry

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

APPENDIX I
ICD CODES USED FOR THIS REPORT

Cancer Site/Type	ICD-O-3
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

Cancer Site/Type	ICD-O-3
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

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APPENDIX II

Population and Rate Changes

The population estimates for 2011-2015 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.

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 2015 Bridged-race postcensal population estimates for April 10, 2010, July 1, 2010 - July 1, 2015, by year, county, single-year of age (0 to 85+ years), bridged-race, Hispanic origin, and sex (6/28/2016) Available at: http://www.cdc.gov/nchs/nvss/bridged_race.htm

Appendix III

POPULATION ESTIMATES BY AGE, RACE/ETHNICITY, AND SEX Massachusetts, 2011-2015

Age Group	White, non-Hispanic			Black, non-Hispanic			Asian, non-Hispanic			Hispanic			Total
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	
00-04	599582	572123	1171705	89827	84540	174367	69502	54350	137371	174587	166763	341350	
05-09	647533	618894	1266427	89285	84545	173830	68095	54065	135647	160176	154452	314628	
10-14	712339	679236	1391575	88149	84700	172849	62596	50233	126322	151779	146428	298207	
15-19	818320	800816	1619136	100453	98611	199064	70209	60752	147133	164804	157439	322243	
20-24	832986	834697	1667683	109635	107192	216827	90551	77185	188489	175779	166330	342109	
25-29	820012	825186	1645198	93392	94324	187716	99234	88248	211188	160076	152239	312315	
30-34	749333	759781	1509114	82815	88511	171326	94803	83665	201542	150186	147639	297825	
35-39	694231	713345	1407576	76803	83213	160016	86589	75018	182000	128862	133550	262412	
40-44	808466	842405	1650871	76304	83508	159812	81411	68705	169067	112245	121365	233610	
45-49	938105	975726	1913831	78866	84123	162989	67390	57181	140124	100361	110546	210907	
50-54	1019746	1064497	2084243	75759	81341	157100	56875	48493	118825	82382	93083	175465	
55-59	956796	1014650	1971446	62403	69649	132052	46583	41689	99358	61788	72103	133891	
60-64	823817	896351	1720168	46705	54976	101681	37077	33473	79755	43954	53257	97211	
65-69	647698	726488	1374186	31740	40768	72508	25370	22509	54753	29601	38432	68033	
70-74	438022	523693	961715	20329	29264	49593	18884	17038	40530	18782	25836	44618	
75-79	313303	410083	723386	13806	22188	35994	13580	12120	29113	11642	17619	29261	
80-84	240271	364116	604387	8543	15842	24385	8095	8124	18428	6808	11451	18259	
85+	229216	489437	718653	7043	16512	23555	5936	7178	15236	5749	10680	16429	

Population Data Source: United States Census Data (2011-2015)

