The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
250 Washington Street, Boston, MA 02108-4619

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lieutenant Governor

MARYLOU SUDDERS
Secretary

MONICA BHAREL, MD, MPH
Commissioner

Tel: 617-624-6000
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October 5, 2016

Steven T. James
House Clerk
State House Room 145
Boston, MA 02133

William F. Welch
Senate Clerk
State House Room 335
Boston, MA 02133

Dear Mr. Clerk,

Pursuant to Section 2 of Chapter 111 of the Massachusetts General Laws, the attached report summarizes mortality data and statistics for the 2014 calendar year.

Sincerely,

Monica Bharel, MD, MPH
Commissioner
Department of Public Health

Charles D. Baker
Governor

Karyn Polito
Lieutenant Governor

Marylou Sudders
Secretary

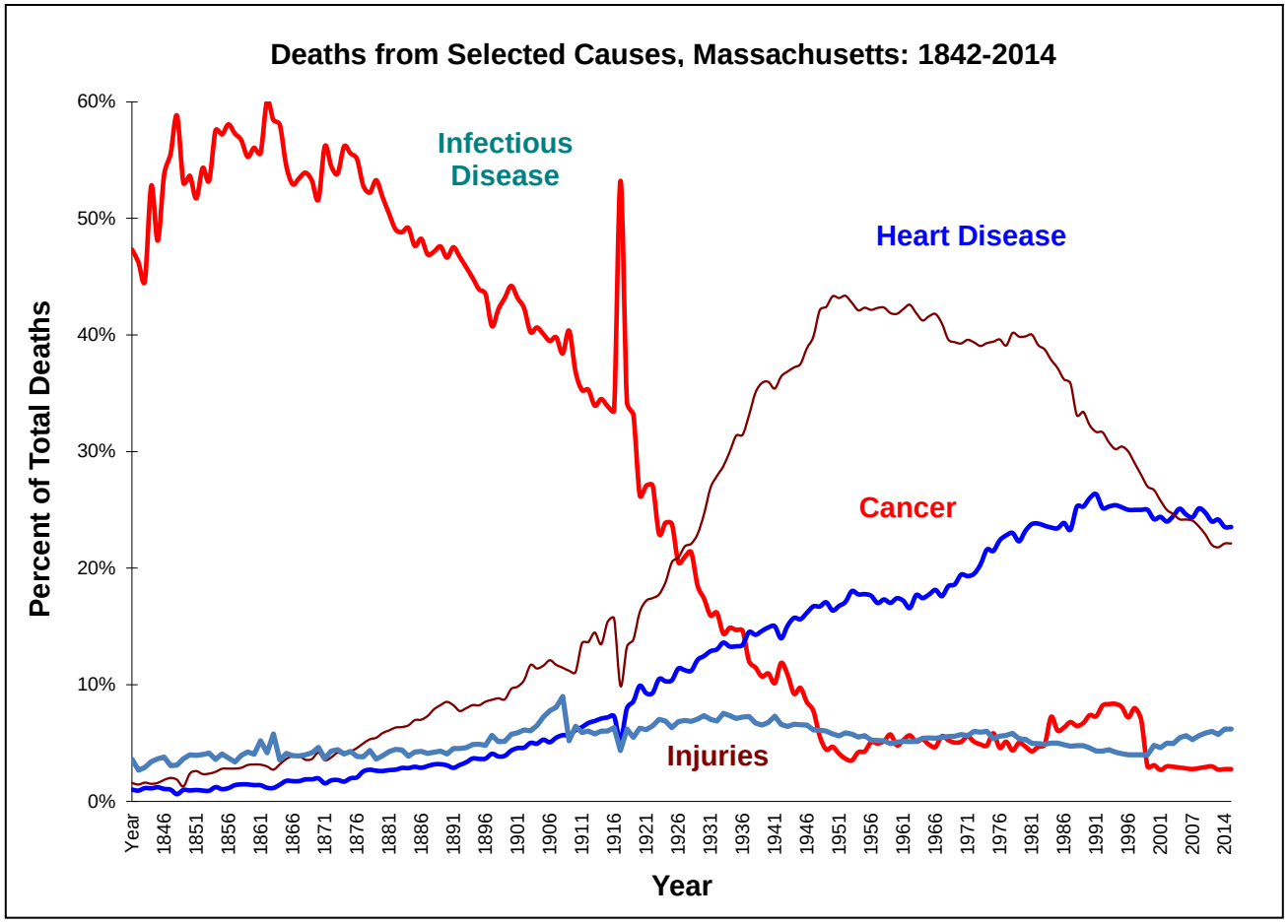
Monica Bharel, MD, MPH
Commissioner

Massachusetts Deaths 2014

October 2016

Massachusetts Department of Public Health

Massachusetts Deaths 2014



Office of Data Management and Outcomes Assessment

Massachusetts Department of Public Health

October 2016

Massachusetts Deaths 2014

Charles D. Baker, Governor
Marylou Sudders, Secretary of Health and Human Services
Monica Bharel, MD, MPH, Commissioner of Public Health

Tom Land, Director
Office of Data Management and Outcomes Assessment
Dean DiMartino, Acting Registrar
Registry of Vital Records and Statistics

Massachusetts Department of Public Health

October 2016

Acknowledgments

This report was prepared by Malena Hood and Dana Bernson, Office of Data Management and Outcomes Assessment.

Special thanks go to: Tom Land, Director, Office of Data Management and Outcomes Assessment; Dean DiMartino, Acting Registrar, Registry of Vital Records and Statistics, Kevin Foster, Sharon Pagnano, Maria Vu, and Karin Barrett, Registry of Vital Records and Statistics.

Data in this report have been collected through the efforts of the Registry of Vital Records and Statistics staff, including: Michael Baker, Donna Barlow, Pamela Corbin, June Deloney, Alex Forman, Marsha Grabau, Annette Luc, Maureen McKean, Denise O'Gara, Monica Smith, and Jennifer Smith.

To obtain additional copies of this report, contact:

Massachusetts Department of Public Health
Registry of Vital Records and Statistics
150 Mt. Vernon Street 1st Floor
Dorchester, MA 02125
(617) 740-2670

To obtain more information on deaths in Massachusetts and other Department of Public Health data please visit the Department's free, Internet-based public health information reports at: http://www.mass.gov/eohhs/researcher/community-health/masschip/

or call 888-MAS-CHIP (toll free in MA) or 617-624-5629.

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Note to Readers

Please review the information below before reading the report. As required by Chapter 111, Section 2 of the General Laws, this report satisfies the requirement of the annual report on statistics on deaths for calendar year 2014 (Annual Report Vital Statistics of Massachusetts-Deaths, Public Document #1 2014). Public Document #1 information on 2014 births, marriages, and divorces is covered in separate reports.

1. **Please Note:** Collection of vital records is a complex process. The National Center for Health Statistics (NCHS) deems an annual file closed when it has reached a certain level of completeness. In the past, the Massachusetts Department of Public Health has followed their definition to match the national numbers. Starting with the 2013 report, the department is closing our annual file later than the file sent to the NCHS to get more complete reporting of events[1]. While cause of death information will be more complete due to this change, it may also cause the appearance of an increase in the number of deaths when compared to previous years. Thus, comparisons between years should be interpreted with caution. This caution should be applied especially for causes of death that are often referred to the Office of the Chief Medical Examiner for determination of underlying causes of death. See Figure 5 for details. Accidental deaths, poisonings, and complex cases are most likely to be impacted by closure dates that differ from year to year.

2. **VIP System**
   The Vitals Information Partnership (VIP) system is designed to streamline and integrate vital event registration, securely, across the Commonwealth. The birth application in VIP was launched in Feb 2011. The deaths application in VIP was launched in Nov 2014.

3. **2003 Revisions of the U.S. Certificate of Death Certificate**
   This report includes 2014 data on items that are collected on both the 1989 revision of the Standard Certificate of Death (unrevised) and the 2003 revision of the Standard Certificate of Death (revised). In addition to the collection of new variables, the 2003 revision allows the reporting of more than one race in accordance with the revised standards issued by the Office of Management and Budget (OMB) in 1997. See "Technical Notes" for detailed information on the 2014 multiple-race reporting area and methods used to bridge responses for those who report more than one race to a single race.

4. **Population Sources.** Two sources of population estimates were used to calculate population-based rates in *Massachusetts Deaths 2014*:

   a. State and County Death Rates: The 2014 Modified Age, Race/Ethnicity, and Sex file (MARS), which is a bridged population file produced by the National Center for Health Statistics (NCHS) and the Census Bureau Population Estimates Program was used to calculate state rates by race and Hispanic ethnicity, e.g., teen birth rates. This file has data by single years of age, sex, race and Hispanic ethnicity in the five mutually exclusive categories used by the Department: White

[1] This report uses death record data prepared on 09/08/2016. In a very small number cases, additional data will obtained at a later date. Therefore, the statistics presented in this report could change slightly based on any information received after 9/8/2016.

Non-Hispanic, Black Non-Hispanic, Asian Non-Hispanic, American Indian/Alaska Native Non-Hispanic, and Hispanic.

b. City and town death rates: The Massachusetts Department of Public Health Race Allocated Census 2010 Estimates (MRACE 2010), which are population estimates based upon the Census 2010 Summary File 1, was used to calculate city and town rates. In this estimates file, the Census 2010 race categories, "Two or more races" and "Some other race" are redistributed to the MDPH standard race categories: Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Asian and Pacific Islander, and Non-Hispanic American Indian and Alaska Native. All persons in the Census 2010 Hispanic ethnicity category are counted as "Hispanic" race in the MDPH estimates. This kind of file is often referred to as a "bridged" file, that is, one that bridges the new race and ethnicity collections to the conventionally used categories. These population estimates are available from MassCHIP (http://masschip.state.ma.us).

5. **Resident deaths.** All data in this publication are resident data unless otherwise stated. Resident data include all events that occur to residents of the Commonwealth, wherever they occur.

Suggested Citation

Massachusetts Deaths 2014. Boston, MA: Office of Data Management and Outcomes Assessment, Massachusetts Department of Public Health. October 2016.

Table 1. Trends in Mortality Characteristics, Massachusetts: 2004-2014

Year		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Resident deaths[1]	Number	54,419	53,776	53,293	52,690	53,341	51,915	52,420	53,536	53,169	54,609	55,159
	Crude rate[2,3,4]	848.1	840.4	827.9	816.9	820.9	787.4	800.6	812.7	807.1	815.9	817.7
	Age-adjusted rate[5]	739.3	720.6	717.6	704.4	703.5	675.1	672.7	674.0	669.2	664.1	662.5
Race/ethnicity of decedent [6,7]												
White non-Hispanic	Number	50,439	49,639	49,132	48,518	49,059	47,520	48,010	48,844	48,430	49,486	49,621
	Percent[8]	92.7	92.3	92.2	92.1	92.0	91.5	91.6	91.2	91.1	90.6	90.0
	Age-adjusted rate	744.7	725.0	723.3	711.1	710.7	682.8	684.4	686.9	681.0	680.9	679.5
Black non-Hispanic	Number	2,225	2,263	2,233	2,211	2,222	2,288	2,278	2,333	2,318	2,446	2,390
	Percent[8]	4.1	4.2	4.2	4.2	4.2	4.4	4.3	4.4	4.4	4.5	4.3
	Age-adjusted rate	866.2	865.8	838.4	820.5	805.8	812.2	702.6	707.6	701.8	675.5	630.4
Asian non-Hispanic	Number	531	570	635	610	692	697	759	806	811	816	938
	Percent[8]	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.5	1.5	1.5	1.7
	Age-adjusted rate	353.7	345.0	379.0	342.0	372.5	353.1	364.8	375.2	372.4	320.5	344.7
Hispanic	Number	1,115	1,230	1,194	1,264	1,275	1,337	1,308	1,477	1,487	1,548	1,702
	Percent[8]	2.1	2.3	2.2	2.4	2.4	2.6	2.5	2.8	2.8	2.8	3.1
	Age-adjusted rate	482.1	500.4	479.9	477.7	458.2	439.8	443.9	468.9	484.9	444.9	447.9
Gender of decedent[7]												
Female	Number	29,067	28,695	28,508	27,851	28,246	27,356	27,368	27,983	27,883	28,558	28,289
	Age-adjusted rate	632.3	617.8	612.7	596.3	595.9	572.8	567.2	572.8	571.1	569.5	557.9
Male	Number	25,352	25,079	24,785	24,838	25,095	24,557	25,051	25,553	25,280	26,051	26,867
	Age-adjusted rate	878.0	852.5	858.9	853.3	852.2	822.1	811.9	808.5	797.9	786.5	795.9
Age of decedent[7]												
<1 year	Number	376	391	369	380	381	366	319	310	309	298	321
1-14 years	Number	137	113	124	128	119	118	113	114	99	118	129
15-24 years	Number	517	489	471	505	421	440	453	471	419	449	441
25-44 years	Number	2,247	2,173	1,953	2,023	1,906	1,974	1,823	1,870	1,880	1,993	2,234
45-64 years	Number	8,347	8,355	8,660	8,560	8,426	8,688	8,753	8,808	8,791	9,013	9,214
65-74 years	Number	8,126	7,905	7,572	7,494	7,425	7,380	7,423	7,616	7,891	8,259	8,678
75-84 years	Number	16,342	15,632	15,333	14,781	14,970	13,943	13,639	13,598	13,272	13,182	12,784
85+ years	Number	18,327	18,718	18,811	18,816	19,692	19,004	19,888	20,747	20,506	21,296	21,356

1. Deaths presented in all tables and figures are resident deaths. 2. Deaths per 100,000 residents. 3. See Glossary for further definition of terms and rates. 4. Rate calculations are based on resident population estimates. 5. Rates are age-adjusted per 100,000 residents using the 2000 US standard population. 6. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see the Technical Notes in the Appendix for a more detailed explanation. 7. Column sum may not equal total because the race, gender or age of some decedents was unknown. 8. Percent of all resident deaths in that year.

Table 2. Selected Leading Causes of Death, Age-Adjusted Rates, Massachusetts and United States: 2000-2014

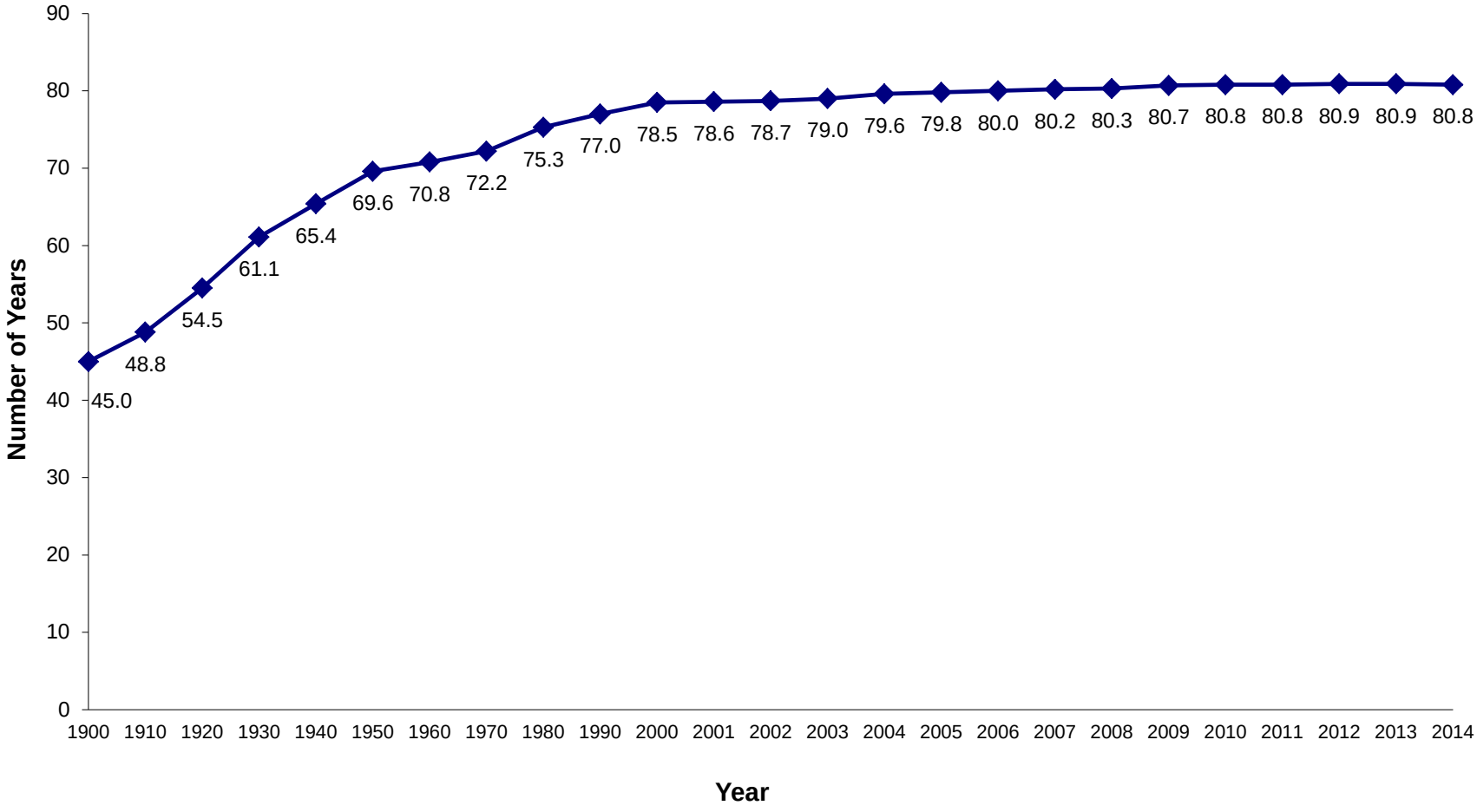
Year	Age-Adjusted Rates[1]	Heart Disease		Cancer		Stroke	
		MA	US[2]	MA	US[2]	MA	US[2]
2000	Rate	216.7	258.2	206.1	200.9	50.9	60.9
	% of Total	27.1	29.5	24.8	23.0	6.4	6.9
2001	Rate	211.0	247.7	200.0	195.8	46.7	57.9
	% of Total	26.7	28.9	24.2	22.9	6.2	6.8
2002	Rate	201.1	240.4	200.1	194.0	48.1	56.3
	% of Total	26.0	28.4	24.0	22.8	6.0	6.7
2003	Rate	196.6	232.3	193.0	190.1	45.0	53.5
	% of Total	26.0	28.0	24.1	22.7	6.0	6.5
2004	Rate	182.8	217.0	188.4	185.8	42.5	50.0
	% of Total	25.3	27.2	24.5	23.1	6.0	6.3
2005	Rate	172.2	211.0	184.9	183.8	38.1	46.6
	% of Total	24.6	26.6	24.5	22.8	5.5	5.9
2006	Rate	168.8	199.4	186.3	180.8	36.7	43.6
	% of Total	24.2	25.9	25.1	23.1	5.4	5.7
2007	Rate	165.7	190.9	179.2	178.4	35.0	42.2
	% of Total	24.2	25.9	24.6	23.1	5.1	5.7
2008	Rate	165.5	186.5	177.8	175.3	33.7	40.7
	% of Total	24.1	25.4	24.4	23.2	4.9	5.6
2009	Rate	155.2	179.8	174.0	173.6	32.2	38.9
	% of Total	23.6	24.6	25.1	23.3	4.9	5.3
2010	Rate	149.4	178.5	171.0	172.5	31.2	39.0
	% of Total	22.9	24.1	24.7	23.3	4.8	5.2
2011	Rate	144.4	173.7	166.1	173.7	30.2	37.9
	% of Total	22.1	23.7	24.0	23.7	4.6	5.1
2012	Rate	141.3	170.5	166.7	166.5	28.7	36.9
	% of Total	21.8	23.6	24.2	22.9	4.4	5.1
2013	Rate	142.2	169.8	159.5	163.2	27.7	36.2
	% of Total	22.1	23.5	23.5	22.5	4.3	5.0
2014	Rate	137.5	167.0	155.6	161.2	28.7	36.5
	% of Total	21.5	23.4	23.2	22.5	4.5	5.1

Table 2 (continued). Selected Leading Causes of Death, Age-Adjusted Rates, Massachusetts and United States: 2000-2014

Year	Age-Adjusted Rates[1]	Influenza/Pneumonia		Unintentional Injuries		All Causes	
		MA	US[2]	MA	US[2]	MA	US[2]
2000	Rate	29.1	23.7	20.2	35.6	812.2	872.0
	% of Total	3.7	2.8	2.4	3.9		
2001	Rate	24.0	21.8	21.9	34.3	803.5	855.0
	% of Total	3.1	2.6	2.6	4.0		
2002	Rate	27.3	22.7	20.5	35.3	793.8	846.8
	% of Total	4.0	2.7	2.0	4.2		
2003	Rate	26.0	22.0	20.1	37.3	772.6	832.7
	% of Total	3.6	2.7	2.5	4.3		
2004	Rate	24.9	19.8	19.4	37.7	739.3	800.8
	% of Total	3.6	2.5	2.5	4.7		
2005	Rate	24.2	20.3	27.4	39.1	720.6	798.8
	% of Total	3.6	2.6	3.5	4.8		
2006	Rate	22.0	17.7	31.4	38.5	717.6	776.4
	% of Total	3.3	2.3	4.1	4.8		
2007	Rate	19.4	16.2	30.5	40.0	704.4	760.2
	% of Total	2.9	2.3	4.0	4.9		
2008	Rate	20.0	16.9	28.6	38.8	703.5	758.3
	% of Total	3.0	2.2	3.8	5.1		
2009	Rate	16.8	16.2	28.5	37.0	675.1	741.0
	% of Total	2.6	2.2	3.9	4.8		
2010	Rate	15.9	15.1	28.3	37.1	672.7	746.2
	% of Total	2.5	2.0	3.9	4.8		
2011	Rate	16.9	15.7	30.0	39.4	674.0	740.6
	% of Total	2.6	2.0	4.1	4.9		
2012	Rate	16.3	14.4	30.0	39.1	669.2	732.8
	% of Total	2.6	2.0	4.1	5.0		
2013	Rate	18.0	15.9	34.0	39.4	664.1	731.9
	% of Total	2.8	2.2	4.6	5.0		
2014	Rate	15.7	15.1	39.4	40.5	662.5	724.6
	% of Total	2.5	2.1	5.2	1.6		

Note: Cause of death: the disease or injury that initiated the events leading to death; or the circumstances of the unintentional or intentional injury that resulted in the death.
1. Data coded according to ICD-10. ICD-9 and ICD-10 codes used in this publication are listed in the Appendix. Rates are age-adjusted per 100,000 residents using the 2000 US standard population. 2. US data for 2014 obtained from NCHS: Final Data for 2014. NCHS, Volume 65, Number 4. June 30, 2016.

Figure 1. Life Expectancy at Birth, Massachusetts: 1900-2014



Note: Life Expectancy at birth calculated using the Greville Abridged Life Table Method (source: Dublin LI. Length of Life - A Study of the Life Table. Ronald Press Co. New York. 1949).

Figure 2. Expected Years of Life Remaining at Different Ages by Race and Hispanic Ethnicity, Massachusetts: 2014

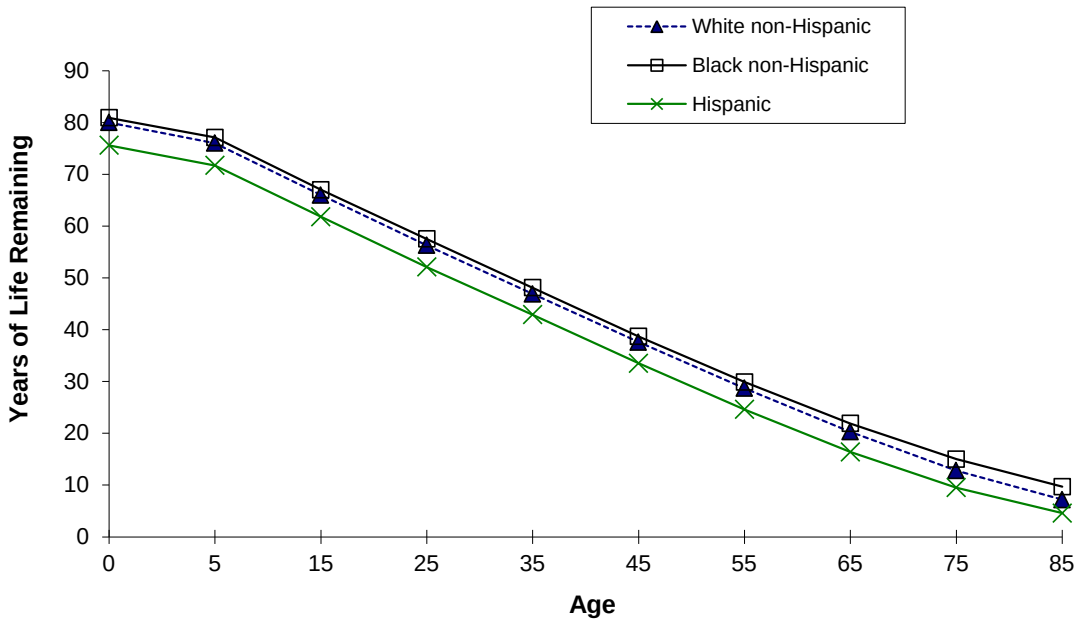
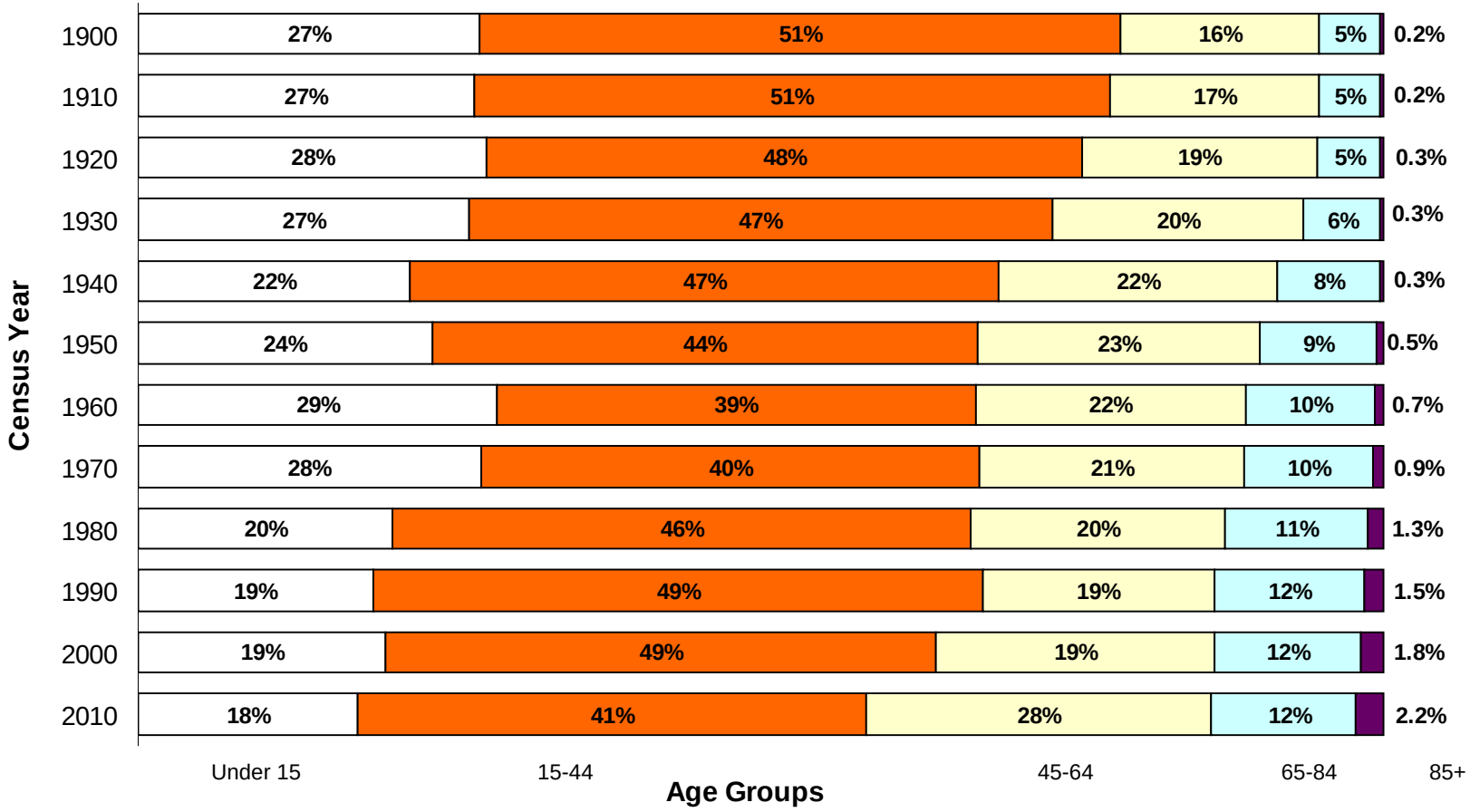


Table 3. Years of Life Remaining[1] by Race[2] and Hispanic Ethnicity and Gender, Massachusetts: 2014

At Age:	All	Females	White non-Hispanic Females	Black non-Hispanic Females	Hispanic Females	Males	White non-Hispanic Males	Black non-Hispanic Males	Hispanic Males[2]
Birth	80.8	83.4	83.0	84.3	89.6	78.3	78.1	77.5	84.3
1 year old	80.2	82.7	82.3	84.0	89.0	77.7	77.5	77.3	83.6
5 years old	76.3	78.7	78.3	80.1	85.0	73.8	73.5	73.6	79.7
15 years old	66.4	68.7	68.4	70.0	75.1	63.9	63.5	63.6	69.9
25 years old	56.7	58.9	58.6	60.2	65.3	54.3	53.9	54.3	60.2
35 years old	47.2	49.2	48.9	50.6	55.5	45.1	44.8	45.1	50.8
45 years old	37.8	39.7	39.4	41.0	46.0	35.8	35.5	35.9	41.7
55 years old	28.9	30.5	30.2	32.1	36.7	27.1	26.9	27.2	33.0
65 years old	20.5	21.7	21.5	23.6	28.1	19.1	18.9	19.6	24.8
75 years old	13.1	13.9	13.7	16.2	20.4	11.9	11.7	13.0	18.4
85 years old	7.4	7.8	7.6	10.6	14.9	6.6	6.4	8.2	13.3

1. Years of Life Remaining calculated using the Greville Abridged Life Table Method (source: Dublin LI. Length of Life - A Study of the Life Table. Ronald Press Co. New York. 1949). 2. Population estimates are from 2011 bridged population file, MARS (Modified Age, Race/Ethnicity, and Sex) file. There are well-known difficulties in calculating accurate mortality rates for Massachusetts smaller populations such as Asians, Native Americans and Hispanics- please use caution when interpreting these numbers.

Figure 3. Changes in Age Composition of the Population, Massachusetts: 1900-2010



Source: US Census Bureau 1900-1999. Resident death data for 2000 are calculated using the Massachusetts (Department of Public Health) Modified Age, Race/Ethnicity, & Sex Estimates 2000 (MMARS00), released October 2006. Population estimates for 2010 are from the NCHS Modified Age, Race/Ethnicity, & Sex Estimates 2009, released July 2010.

Figure 4. Trends in Percentage of Deaths from Selected Causes, Massachusetts: 1842-2014

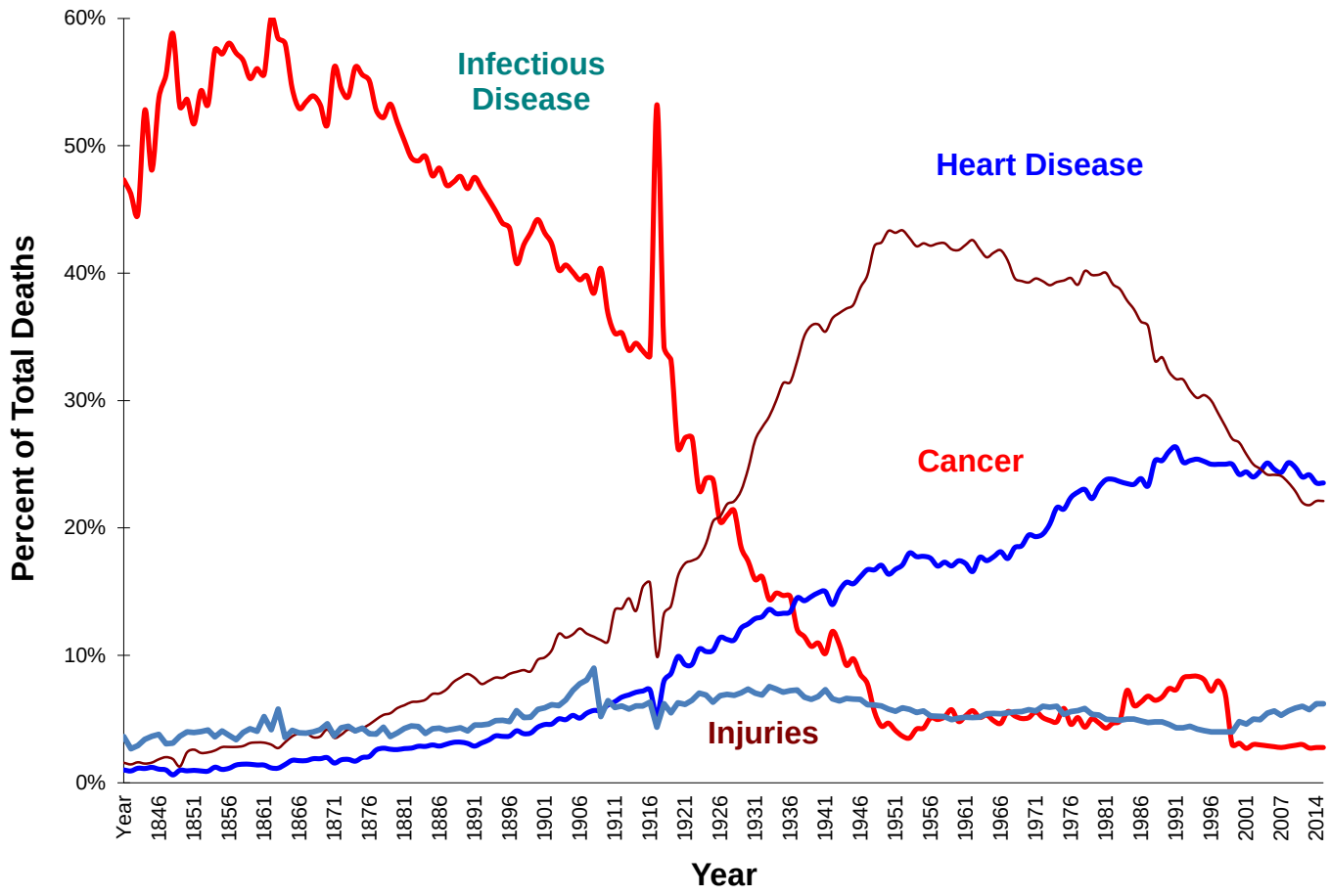
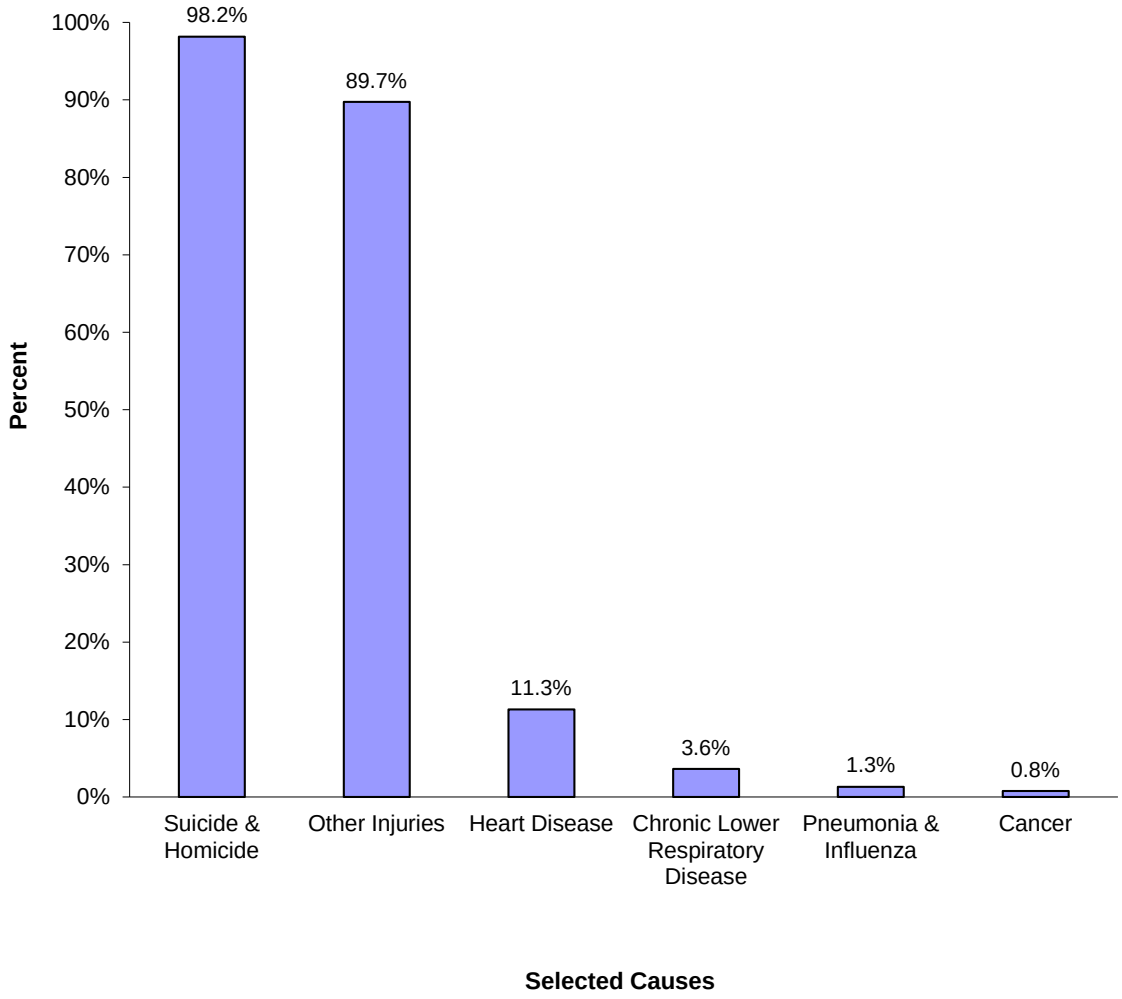


Table 4. Distribution of Deaths by Place of Occurrence, Massachusetts: 2010-2014

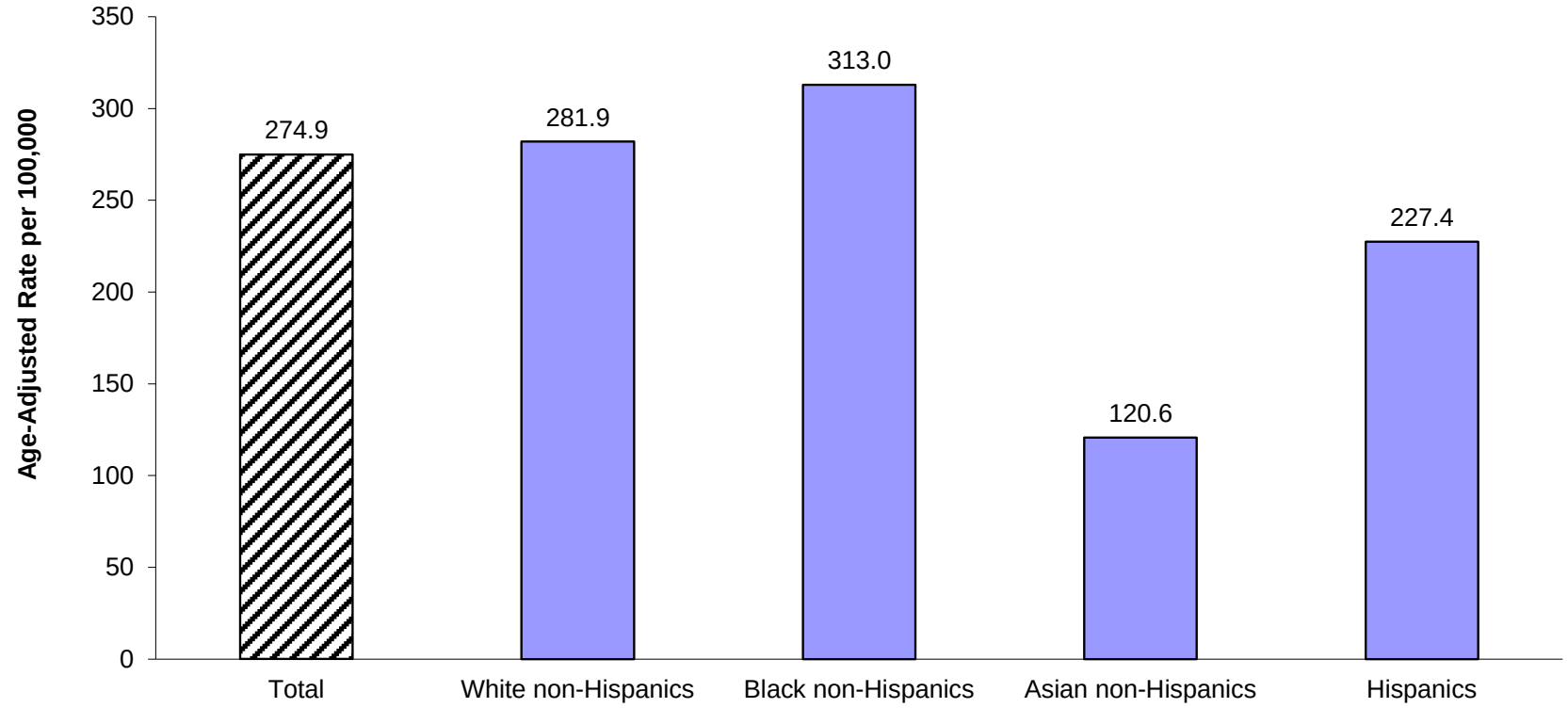
Type of Place where Death Occurred	2010		2011		2012		2013		2014	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Hospital (inpatient/outpatient)	20,668	39%	20,511	38%	19,963	38%	20,277	37%	20,534	37%
Dead on Arrival	454	1%	525	1%	623	1%	617	1%	641	1%
Nursing Home	15,261	29%	15,870	30%	15,377	29%	15,652	29%	15,353	28%
At Home	13,481	26%	13,986	26%	14,553	27%	15,117*	28%	15,096	27%
Other	2,545	5%	2,638	5%	2,624	5%	2,842	5%	3,499	6%
Unknown	11	0.02%	6	0.01%	29	0.05%	104	0.19%	36	0.07%

Figure 5. Proportion of Deaths Certified by Medical Examiner for Selected Causes of Death, Massachusetts: 2014



See the Appendix section, "Circumstance for Referral to the Office of the Chief Medical Examiner (OCME)" for a list of circumstances requiring referral to the Medical Examiner's Office.
Other Injuries include motor vehicle-related, poisonings, falls, etc.

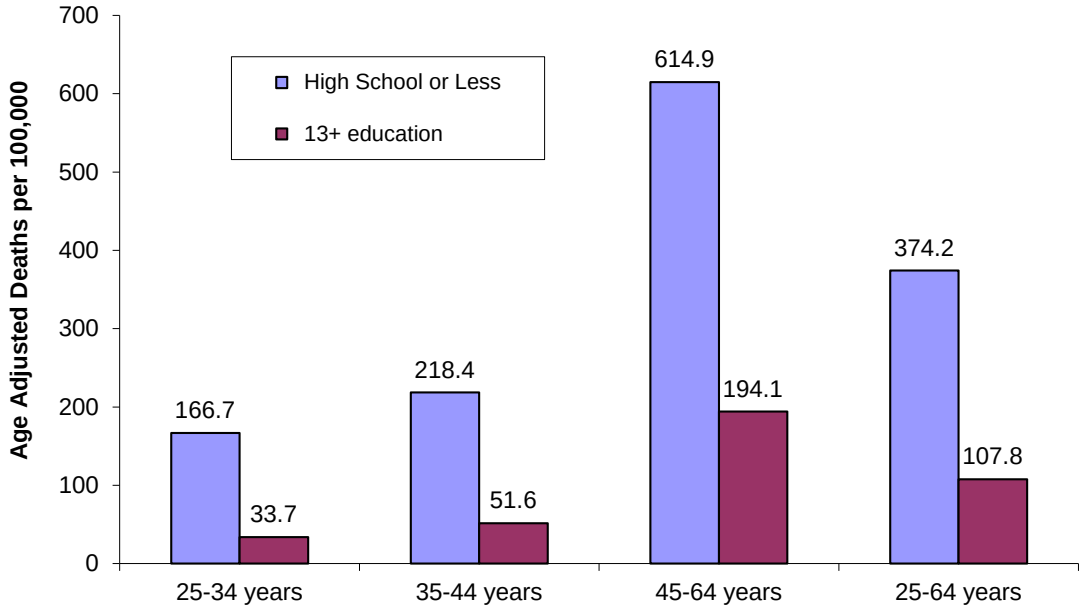
Figure 6. Premature Mortality Rate (PMR) by Race and Hispanic Ethnicity, Massachusetts: 2014



Note: Premature Mortality Rate is defined as deaths that occur before the age of 75 years per 100,000, age-adjusted to the 2000 US standard population under 75 years of age.

Table 5. Age-Adjusted Death Rates for Ages 25-64 Years by Educational Attainment, Massachusetts: 2014

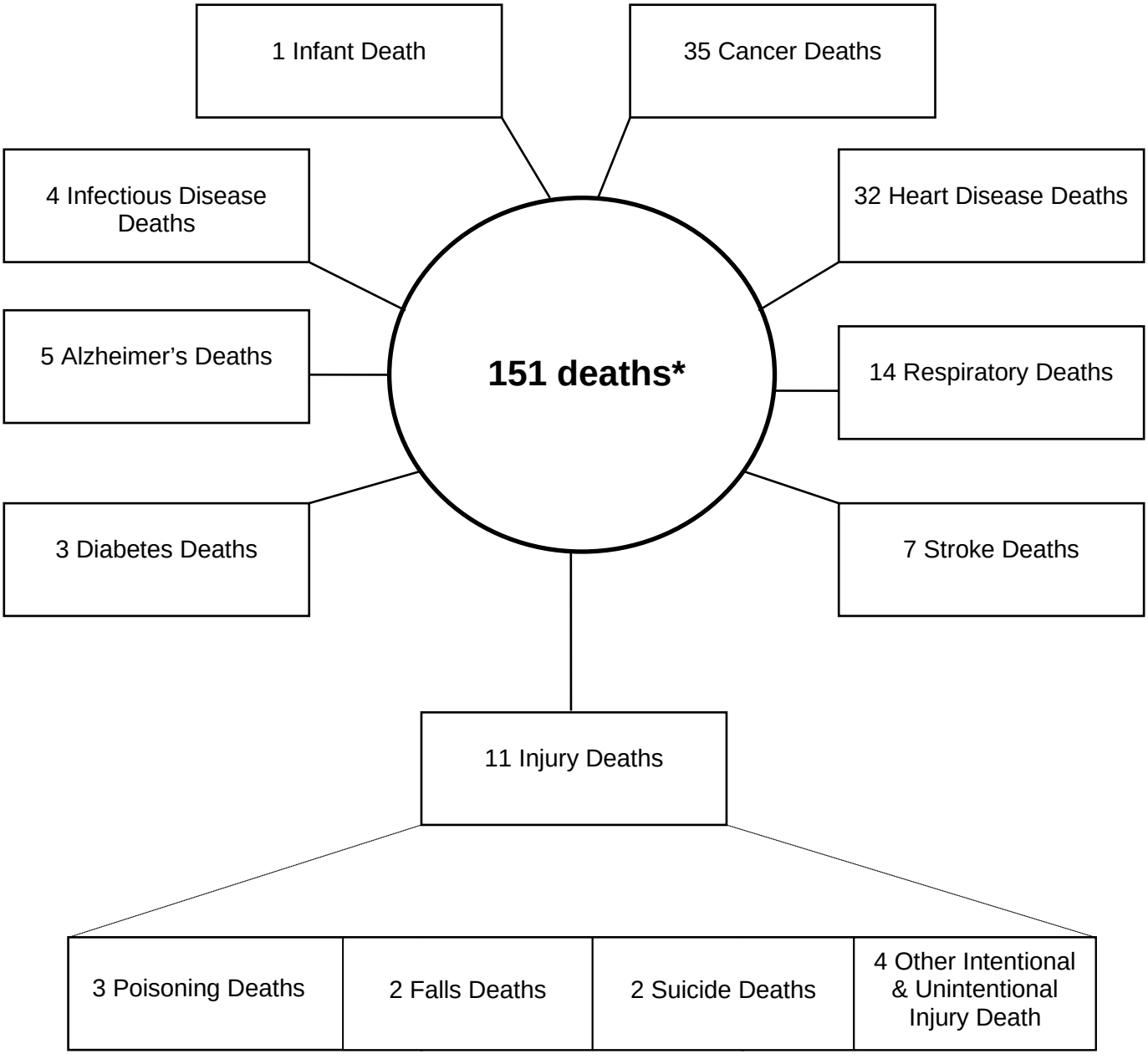
	Age-Specific Rates			Age-Adjusted Rates
	25-34 years	35-44 years	45-64 years	25-64 years
Years of School Completed				
High school or less	166.7	218.4	614.9	**374.2**
13+ Education	33.7	51.6	194.1	**107.8**



Source: C15001: SEX BY AGE BY EDUCATIONAL ATTAINMENT FOR THE POPULATION 18 YEARS AND OVER - Universe: Population 18 Years And Over. 2009-2011 American Community Survey 3-Year Estimates.

Figure 7. Daily Mortality Statistics, Massachusetts: 2014

Every day in 2014, in Massachusetts there were on average:



*includes 39 deaths due to other causes.

Table 6. Top Ten Leading Underlying Causes of Death by Age, Massachusetts: 2014

	Age Groups (number of deaths)								
Rank[1]	**<1 year**	**1-14 years**	**15-24 years**	**25-44 years**	**45-64 years**	**65-74 years**	**75-84 years**	**85+ years**	**All**
1	Short gestation and LBW (85)	Unintentional Injuries (24)	Unintentional Injuries (211)	Unintentional Injuries (924)	Cancer (3,118)	Cancer (3,259)	Cancer (3,346)	Heart Disease (5,783)	**Cancer (12,797)**
2	Congenital malformations (50)	Cancer (17)	Suicide (64)	Cancer (271)	Heart Disease (1,573)	Heart Disease (1,655)	Heart Disease (2,645)	Cancer (2,761)	**Heart Disease (11,845)**
3	Pregnancy Complications (24)	Congenital malformations (11)	Homicide (48)	Suicide (186)	Unintentional Injuries (807)	Chronic Lower Respiratory Disease (524)	Chronic Lower Respiratory Disease (842)	Stroke (1,277)	**Unintentional Injuries (2,859)**
4	SIDS (18)	ill-defined conditions-signs and symptoms (8)	Cancer (25)	Heart Disease (176)	Chronic liver disease (350)	Stroke (294)	Stroke (652)	Alzheimer's Disease (1,157)	**Chronic Lower Respiratory Disease (2,596)**
5	Complications of placenta (13)	Other infections (5)	ill-defined conditions-signs and symptoms (17)	ill-defined conditions-signs and symptoms (103)	Chronic Lower Respiratory Disease (309)	Diabetes (247)	Alzheimer's Disease (419)	Chronic Lower Respiratory Disease (899)	**Stroke (2,459)**
6	Circulatory System (8)	Stroke (4)	Heart Disease (8)	Homicide (64)	Suicide (276)	Nephritis (193)	Nephritis (331)	Influenza & Pneumonia (718)	**Alzheimer's Disease (1,685)**
7	Neonatal hemorrhage (8)	Suicide (4)	Congenital malformations (8)	Chronic liver disease (46)	Diabetes (245)	Unintentional Injuries (164)	Influenza & Pneumonia (311)	Nephritis (559)	**Influenza & Pneumonia (1,363)**
8	Bacterial sepsis of newborn (6)	Septicemia (3)	Injuries of Undetermined Intent (7)	Diabetes (37)	Stroke (204)	Influenza & Pneumonia (162)	Diabetes (301)	Unintentional Injuries (446)	**Nephritis (1,229)**
9	Intrauterine Hypoxia (4)	in situ neoplasms (3)	Influenza & Pneumonia (3)	Stroke (23)	ill-defined conditions-signs and symptoms (186)	Septicemia (160)	Unintentional Injuries (279)	ill-defined conditions-signs and symptoms (423)	**Diabetes (1,214)**
10	Respiratory distress (4)	Chronic Lower Respiratory Disease (3)	Septicemia (2)	Chronic Lower Respiratory Disease (17)	Influenza & Pneumonia (152)	Chronic liver disease (148)	Parkinson's Disease (228)	Diabetes (383)	**ill-defined conditions-signs and symptoms (996)**
All Causes	**321**	**129**	**441**	**2,234**	**9,214**	**8,678**	**12,784**	**21,356**	**55,159**

1. Ranking based on number of deaths. The number of deaths is shown in parentheses.

Note: Injuries are subdivided into 4 separate categories by intent: unintentional, homicide, suicide, and injuries of undetermined intent (deaths where investigation has not determined whether injuries were accidental or purposely inflicted).

Table 7. Leading Underlying Causes of Death, Numbers and Age-Specific Rates by Gender, Massachusetts: 2014

		Total		Female		Male	
Age	**Cause of Death[1]**	**Number**	**Rate[2]**	**Number**	**Rate[2]**	**Number**	**Rate[2]**
1-14 years	**TOTAL**	**129**	**12.1**	**51**	**9.8**	**78**	**14.3**
	Unintentional Injuries	24	2.2	7	1.3	17	3.1
	Cancer	17	1.6	7	1.3	10	1.8
	Congenital Malformations	11	1.0	2	--[4]	9	1.6
	Ill Defined Conditions	8	0.7	3	--[4]	5	0.9
15-24 years	**TOTAL**	**441**	**47**	**120**	**25.4**	**321**	**67.4**
	Unintentional Injuries	211	22.2	51	10.8	160	33.6
	Suicide	64	6.7	16	3.4	48	10.1
	Homicide	48	5.1	6	1.3	42	8.8
	Cancer	25	2.6	8	1.7	17	3.6
25-44 years	**TOTAL**	**2,234**	**126.3**	**722**	**80.5**	**1,512**	**173.5**
	Unintentional Injuries	924	52.3	227	25.3	697	80.0
	Cancer	271	15.3	156	17.4	115	13.2
	Suicide	186	10.5	38	4.2	148	17.0
	Heart Disease	176	10	52	5.8	124	14.2
45-64 years	**TOTAL**	**9,214**	**492.2**	**3,496**	**361.7**	**5,717**	**631.4**
	Cancer	3,118	166.6	1,397	144.6	1,721	190.1
	Heart Disease	1,573	84	430	44.5	1,143	126.2
	Unintentional Injuries	807	43.1	246	25.5	561	62.0
	Chronic Liver Disease	350	18.7	110	11.4	240	26.5
65+ years[3]	**TOTAL**	**42,818**	**4213.4**	**23,767**	**4,088.5**	**19,049**	**4,379.8**
	Heart Disease	10,083	992.2	5,334	917.6	4,749	1,091.9
	Cancer	9,366	921.6	4,649	799.7	4,717	1,084.5
	Chronic Lower Respiratory Disease	2,265	222.9	1,277	219.7	988	227.2
	Stroke	2,223	218.7	1,463	251.7	760	174.7

1. Cause of Death classified using ICD-10 ranked based on number of deaths for all persons at specific age group. See Appendix for a list of ICD-10 codes. 2. Number of deaths per 100,000 residents in each age group. 3. See Table 8 for leading causes of death for detailed age groups for persons ages 65+ years. 4. Calculations based on values 1-4 are excluded.

Table 8. Leading Underlying Causes of Death, Numbers and Age-Specific Rates (Ages 65 and older) by Gender, Massachusetts: 2014

		Total		Female		Male	
Age	**Cause of Death[1]**	**Number**	**Rate[2]**	**Number**	**Rate[2]**	**Number**	**Rate[2]**
65-74	**TOTAL**	**8,678**	**1,541.9**	**3,711**	**1,226.7**	**4,966**	**1,907.9**
	Cancer	3,259	579.1	1,489	492.2	1,770	680.0
	Heart Disease	1,655	294.1	545	180.2	1,110	426.5
	Chronic Lower Respiratory Disease	524	93.1	269	88.9	255	98.0
	Stroke	294	52.2	135	44.6	159	61.1
75-84	**TOTAL**	**12,784**	**4,315.3**	**6,418**	**3,720.7**	**6,366**	**5,144.2**
	Cancer	3,346	1,129.5	1,649	956.0	1,697	1,371.3
	Heart Disease	2,645	892.8	1,192	691.0	1,453	1,174.1
	Chronic Lower Respiratory Disease	842	284.2	458	265.5	384	310.3
	Stroke	652	220.1	388	224.9	264	213.3
85+	**TOTAL**	**21,356**	**13,585.8**	**13,638**	**12,829.6**	**7,717**	**15,163.2**
	Heart Disease	5,783	3678.9	3,597	3,383.8	2,186	4,295.3
	Cancer	2,761	1756.4	1,511	1,421.4	1,250	2,456.1
	Stroke	1,277	812.4	940	884.3	337	662.2
	Alzheimer's Disease	1,157	736	854	803.4	303	595.4

1. Cause of Death classified according to ICD-10 ranked based on number of deaths for all persons at specific age group. See Appendix for a list of-10 codes. 2. Number of deaths per 100,000 residents in each age group.

Table 9. Leading Causes of Death[1] and Age-Adjusted Death Rates by Race and Hispanic Ethnicity, Massachusetts: 2014

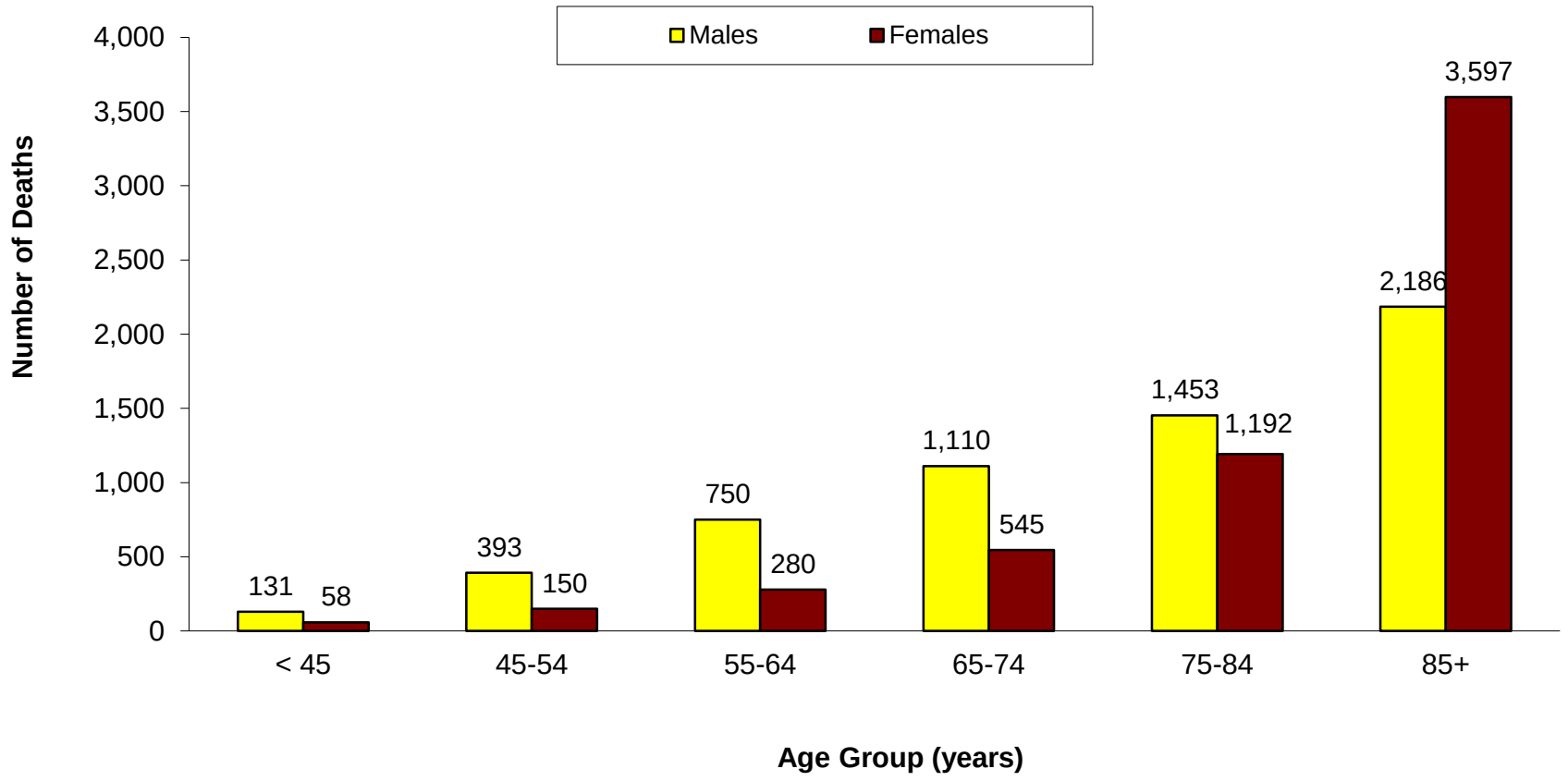
White non-Hispanic[2]			Black non-Hispanic[2]			Asian non-Hispanic[2]			Hispanic[2]		
Cause[3]	**#**	**Rate[4]**	**Cause[3]**	**#**	**Rate[4]**	**Cause[3]**	**#**	**Rate[4]**	**Cause[3]**	**#**	**Rate[4]**
Total	**49,621**	**679.5**	**Total**	**2,390**	**630.4**	**Total**	**938**	**344.7**	**Total**	**1,702**	**447.9**
Cancer	11,455	159.8	Cancer	559	145.0	Cancer	306	104.7	Cancer	367	100.2
Heart Disease	10,907	142.0	Heart Disease	472	127.9	Heart Disease	147	57.5	Heart Disease	236	72.9
Unintentional Injuries[6]	2,459	43.2	Unintentional Injuries[6]	130	28.2	Unintentional Injuries[6]	51	15.7	Unintentional Injuries[6]	182	28.2
Chronic Lower Respiratory Disease[5]	2,435	33.2	Stroke	114	32.7	Stroke	49	20.4	Stroke	71	23.4
Stroke	2,197	28.4	Diabetes	112	29.5	Nephritis	33	13.0	Diabetes	62	18.8
Alzheimer's Disease	1,575	19.6	Chronic Lower Respiratory Disease[5]	76	21.4	Chronic Lower Respiratory Disease[5]	31	13.3	Chronic liver disease	55	12.6
Influenza & Pneumonia	1,269	16.4	Nephritis	72	20.1	Alzheimer's Disease	22	10.3	Nephritis	45	14.4
Nephritis	1,072	14.2	Homicide	61	11.2	Diabetes	21	8.5	Perinatal conditions	42	3.8
Diabetes	1,009	13.8	Alzheimer's Disease	50	16.0	ill-defined conditions-signs and symptoms	20	6.4	ill-defined conditions-signs and symptoms	42	9.9
ill-defined conditions-signs and symptoms	854	12.4	ill-defined conditions-signs and symptoms	45	10.9	Influenza & Pneumonia	16	6.9	Homicide	39	5.0

Total

Cause[3]	#	Rate[4]
Total	**55,159**	**662.5**
Cancer	12,797	155.6
Heart Disease	11,845	137.5
Unintentional Injuries[6]	2,859	39.4
Chronic Lower Respiratory Disease[5]	2,596	31.4
Stroke	2,459	28.7
Alzheimer's Disease	1,685	19.0
Influenza & Pneumonia	1,363	15.7
Nephritis	1,229	14.5
Diabetes	1,214	14.6
ill-defined conditions-signs and symptoms	996	12.3

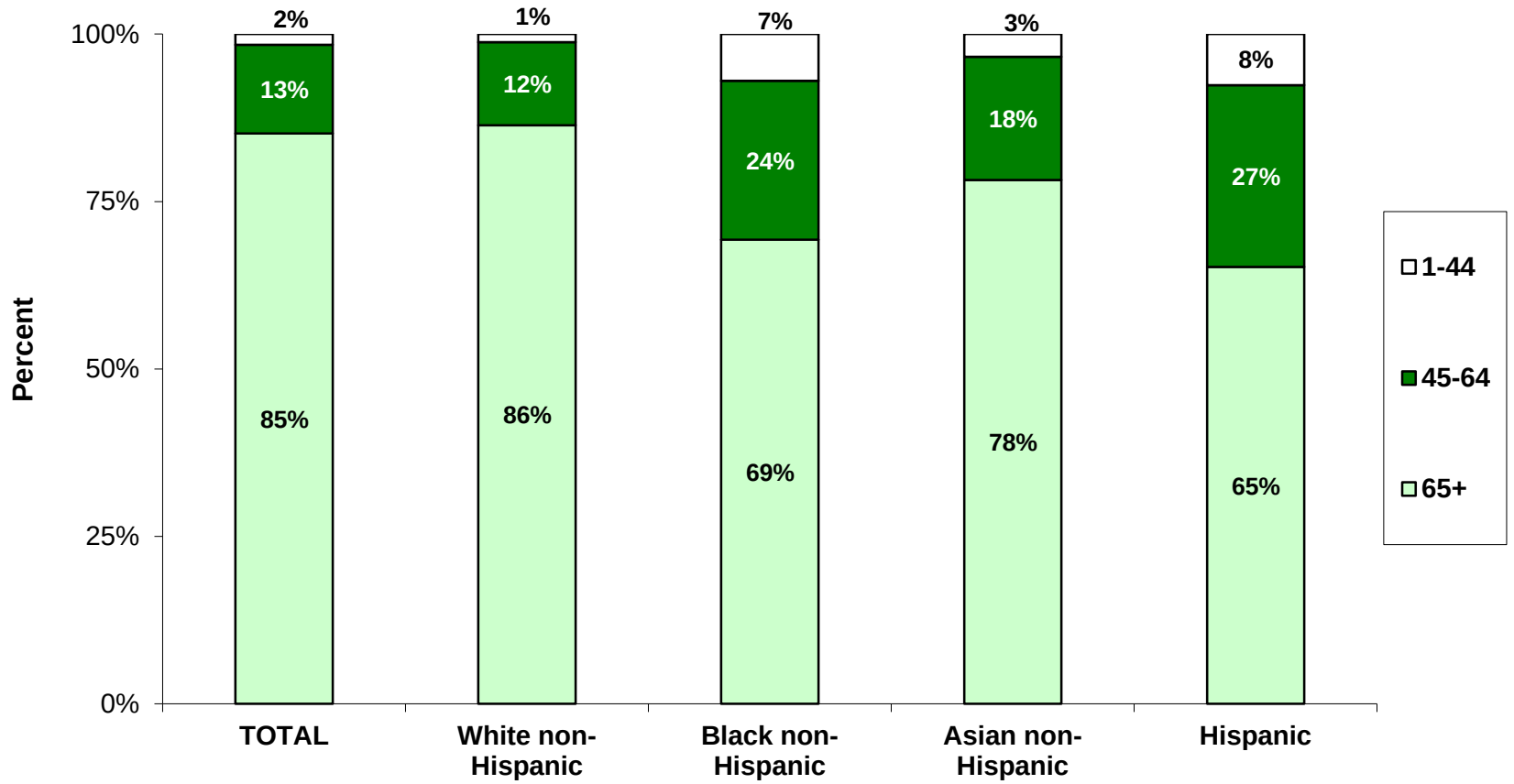
1. Ranking based on number of deaths. 2. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see Technical Notes in the Appendix for a more detailed explanation. 3. Underlying Cause of Death based on ICD-10 (Please see Appendix for a list of ICD-10 codes used). 4. All rates are age-adjusted per 100,000 residents using the 2000 US standard population. 5. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title). 6. Unintentional injuries such as motor vehicle-related and other transportation related deaths, falls, fires, and drownings that were not intended to occur.

Figure 8. Number of Heart Disease Deaths by Age Group and Gender, Massachusetts: 2014



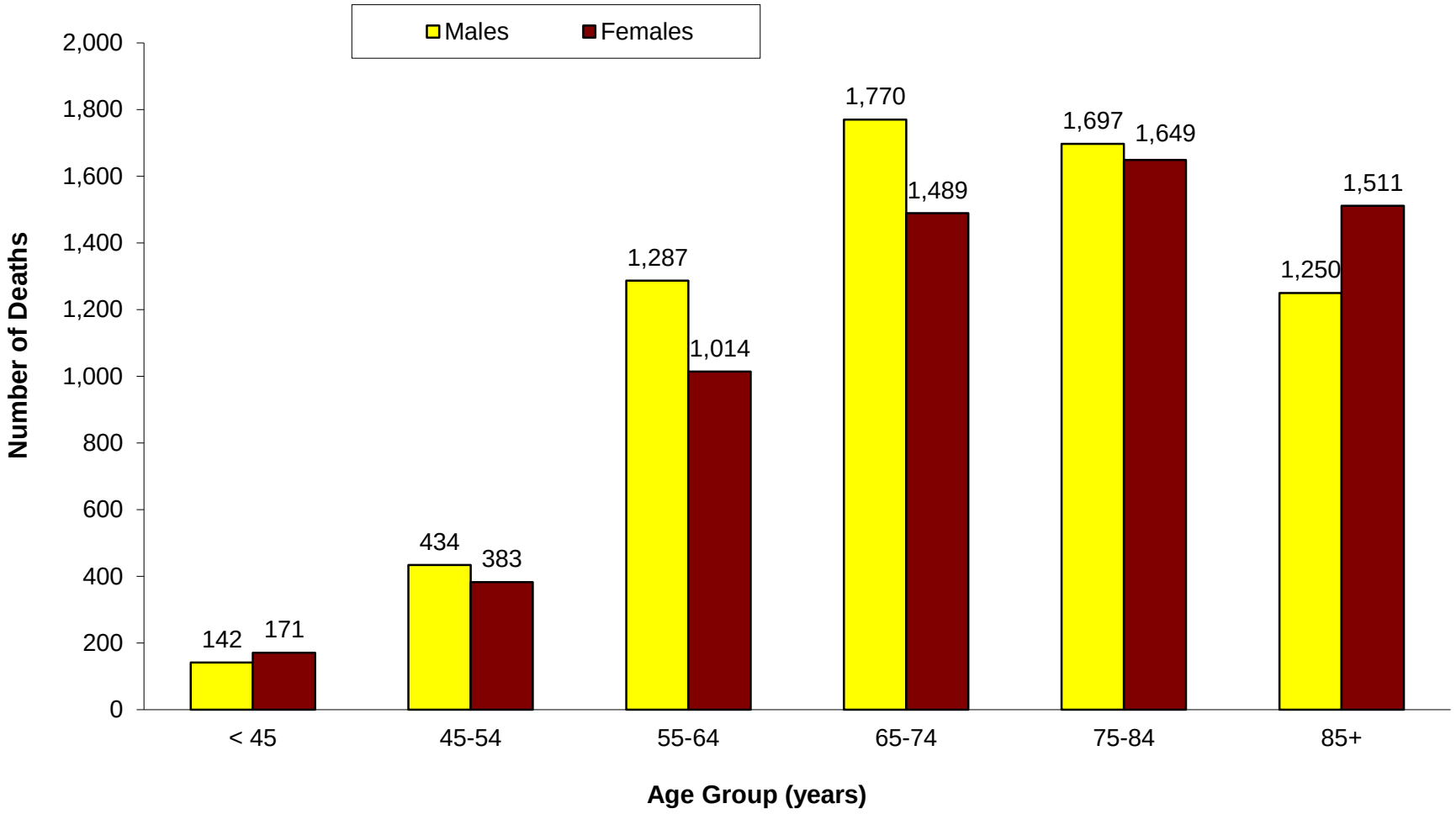
ICD-10: I00-I09, I11, I13, I20-I51

Figure 9. Age Distribution by Race and Ethnicity for Heart Disease Deaths, Massachusetts: 2014



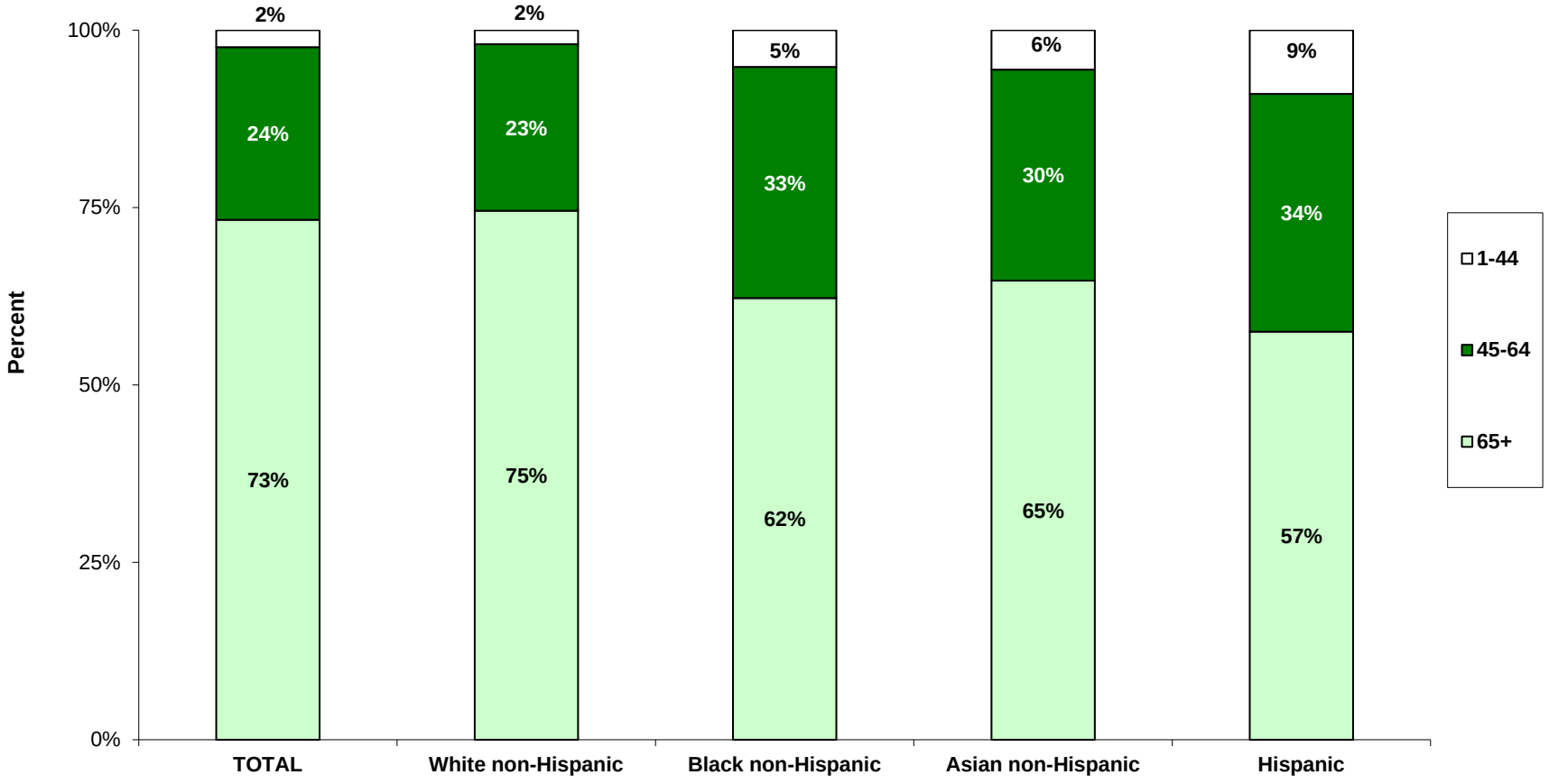
ICD-10: I00-I09, I11, I13, I20-I51

Figure 10. Number of Cancer Deaths by Age Group and Gender, Massachusetts: 2014



ICD-10: C00-C97

Figure 11. Age Distribution by Race and Ethnicity for Cancer Deaths, Massachusetts: 2014



ICD-10: C00-C97

Table 10. Heart Disease and Cancer Deaths by Race and Gender, Age-Adjusted Rates[1], Massachusetts: 2001-2014

Heart Disease

Year	White non-Hispanic[2] Male	White non-Hispanic[2] Female	White non-Hispanic[2] Total	Black non-Hispanic[2] Male	Black non-Hispanic[2] Female	Black non-Hispanic[2] Total
2001	265.9	174.0	213.4	295.2	181.3	228.6
2002	254.7	163.5	202.3	242.2	177.6	205.9
2003	250.3	160.2	198.5	272.1	188.5	223.9
2004	233.1	150.3	185.7	268.1	148.3	198.8
2005	220.6	139.1	174.9	233.7	174.5	199.8
2006	216.5	138.8	172.2	222.3	127.6	165.3
2007	216.2	134.2	168.5	233.5	142.7	180.8
2008	217.1	133.1	167.9	226.7	151.7	181.7
2009	211.3	122.6	158.4	217.3	157.3	181.6
2010	197.5	119.6	152.9	222.3	119.4	159.7
2011	196.0	113.0	148.0	185.6	114.1	143.7
2012	187.5	113.0	144.7	167.3	125.2	144.3
2013	192.3	114.3	147.4	164.6	99.1	128.3
2014	185.5	109.4	142.0	168.3	98.0	127.9

Year	Asian non-Hispanic[2] Male	Asian non-Hispanic[2] Female	Asian non-Hispanic[2] Total	Hispanic Male	Hispanic Female	Hispanic Total
2001	113.5	62.6	85.1	148.7	110.0	126.9
2002	94.6	69.5	79.9	174.1	101.2	131.9
2003	115.2	65.0	87.6	124.8	96.2	109.7
2004	56.9	54.3	56.1	129.9	77.4	100.3
2005	77.5	48.2	61.3	118.5	83.7	99.2
2006	73.6	70.0	72.8	124.2	84.9	102.3
2007	83.3	52.9	67.4	124.9	61.8	88.3
2008	86.0	51.7	66.3	93.2	66.1	78.3
2009	69.6	51.3	60.1	111.6	62.7	83.8
2010	64.8	50.4	57.1	90.8	66.8	76.9
2011	74.1	61.0	67.5	114.9	72.0	89.7
2012	74.7	43.2	57.1	106.8	70.5	85.8
2013	67.7	43.2	54.4	81.3	56.4	67.7
2014	74.3	42.6	57.5	83.4	65.4	72.9

Table 10 (continued). Heart Disease and Cancer Deaths by Race and Gender, Age-Adjusted Rates, Massachusetts: 2001-2014

Cancer

Year	White non-Hispanic[2] Male	Female	Total	Black non-Hispanic[2] Male	Female	Total
2001	249.2	175.8	203.5	264.7	176.4	212.1
2002	245.7	175.3	202.2	293.5	179.5	224.3
2003	237.1	169.4	195.7	304.5	199.0	238.7
2004	230.4	168.4	192.5	277.6	155.7	200.1
2005	226.1	163.2	188.1	264.2	168.1	204.1
2006	234.9	161.5	190.0	265.6	180.9	212.4
2007	226.0	156.5	183.2	270.7	159.7	201.7
2008	221.4	154.8	180.6	255.0	163.7	197.9
2009	212.7	157.0	177.7	244.7	164.7	193.1
2010	211.9	150.8	174.9	244.0	131.3	174.3
2011	206.5	145.9	170.4	209.9	162.3	178.0
2012	201.3	149.1	170.2	229.4	150.7	180.6
2013	193.2	144.0	163.8	207.0	141.7	166.3
2014	192.1	137.4	159.8	194.0	114.1	145.0

Year	Asian non-Hispanic[2] Male	Female	Total	Hispanic Male	Female	Total
2001	98.3	105.6	103.1	142.9	97.4	116.4
2002	145.8	90.0	114.3	144.3	103.3	120.6
2003	134.6	87.4	109.3	110.0	76.6	90.0
2004	109.5	79.7	93.1	125.6	82.5	100.4
2005	138.9	79.5	106.1	118.2	97.3	105.7
2006	126.0	91.7	107.2	119.9	74.3	93.7
2007	124.4	76.4	98.4	125.0	90.0	104.7
2008	132.1	89.3	109.0	141.2	83.1	107.8
2009	123.2	71.0	94.3	129.9	98.2	111.8
2010	128.0	98.1	111.8	129.9	87.2	103.9
2011	127.1	92.6	107.3	125.6	84.0	101.1
2012	137.3	78.8	104.6	150.5	94.4	117.7
2013	106.3	66.3	84.4	122.6	91.7	105.1
2014	131.0	83.3	104.7	115.9	89.3	100.2

1. Rates are per 100,000 age-adjusted to the 2000 US standard population. 2. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see Technical Notes in the Appendix for a more detailed explanation.

Table 11. Number and Age-Adjusted Rates of Cancer Deaths by Selected Causes and Gender, Massachusetts: 2014

Cause of Death[1]	ICD-10 Code	Total		Female		Male	
		#	Rate[2,3]	#	Rate	#	Rate
Total Cancer Deaths	**C00-C97**	**12,797**	**155.6**	**6,217**	**132.9**	**6,580**	**188.2**
Bladder	C67	374	4.5	111	2.2	263	7.9
Brain and nervous system	C70-C72	348	4.3	154	3.5	194	5.3
Cervix	C53	52	1.3	52	1.3	NA	NA
Colorectal	C18-C21	1,047	12.6	517	10.6	530	15.4
Esophagus	C15	400	4.8	94	2.0	306	8.4
Female breast[4]	C50[4]	820	18.0	820	18.0	NA	NA
Hodgkin disease	C81	17	0.2	7	0.2	10	0.3
Kidney and other urinary organs	C64, C65	295	3.5	95	1.9	200	5.5
Leukemia	C91-C95	485	6.0	205	4.3	280	8.2
Lung	C33, C34	3,309	40.7	1,632	35.7	1,677	47.7
Melanoma of the skin	C43	221	2.7	83	1.8	138	4.0
Multiple myeloma	C88, C90	291	3.6	138	2.9	153	4.5
Non-Hodgkin lymphoma	C82-C85	430	5.3	200	4.2	230	6.7
Ovary	C56	315	6.7	315	6.7	NA	NA
Pancreas	C25	911	11.0	479	10.0	432	12.3
Prostate	C61	620	18.8	NA.	NA	620	18.8
Stomach	C16	255	3.1	104	2.2	151	4.3
Uterus	C54, C55	215	4.5	215	4.5	NA	NA
All other cancers	Residual	2,392	28.8	996	21.0	1,396	38.9

1. Common terms are used to describe the causes of cancer deaths. For detailed terminology of cancer sites, please see the ICD-10 code list in the Appendix. 2. All rates are age-adjusted by the direct method using the 2000 US standard population. Rates are per 100,000 population. 3. The total resident population is used to calculate all "Total Rates" except for ICD-10 codes C50, C53-C56, which are based on the total female population, and ICD-10 C61, which is based on the total male population. 4. Includes only female breast cancer.

Table 12. Selected Causes of Cancer Deaths by Age, Massachusetts: 2014

Age	Cause of Death[1]	ICD-10 Code	Number	Age-specific rate[2]
1-14 years	**Total**		**17**	**1.6**
	Leukemia	C91-C95	3	--[3]
	Brain and nervous system	C70-C72	2	--[3]
	Lung	C33, C34	1	--[3]
	Non-Hodgkin's lymphoma	C82-C85	1	--[3]
15-24 years	**Total**		**25**	**2.6**
	Leukemia	C91-C95	5	0.5
	Brain and nervous system	C70-C72	3	--[3]
	Colorectal	C18-C21	2	--[3]
	Non-Hodgkin's lymphoma	C82-C85	2	--[3]
25-44 years	**Total**		**271**	**15.3**
	Female breast[4]	C50	48	5.4
	Colorectal	C18-C21	34	1.9
	Brain and nervous system	C70-C72	25	1.4
	Lung	C33, C34	19	1.1
45-64 years	**Total**		**3,118**	**166.6**
	Lung	C33, C34	797	42.6
	Female breast[4]	C50	243	25.1
	Colorectal	C18-C21	237	12.7
	Pancreas	C25	224	12.0
65+ years	**Total**		**9,366**	**921.6**
	Lung	C33, C34	2,492	245.2
	Colorectal	C18-C21	774	76.2
	Pancreas	C25	678	66.7
	Prostate[5]	C61	560	128.8
65-74 years	**Total**		**3,259**	**579.1**
	Lung	C33, C34	991	176.1
	Pancreas	C25	242	43.0
	Colorectal	C18-C21	209	37.1
	Female breast[4]	C50	195	64.5
75-84 years	**Total**		**3,346**	**1,129.5**
	Lung	C33, C34	991	334.5
	Colorectal	C18-C21	252	85.1
	Pancreas	C25	246	83.0
	Prostate[5]	C61	191	154.3
85+ years	**Total**		**2,761**	**1,756.4**
	Lung	C33, C34	510	324.4
	Colorectal	C18-C21	313	199.1
	Prostate[5]	C61	228	448.0
	Pancreas	C25	190	120.9

1. Common terms are used to describe causes of cancer death. For detailed terminology, please see the ICD-10 codes listed in the Appendix. 2. Number of deaths per 100,000 residents in each age group. 3. Calculations based on values 1-4 are excluded.
4. Calculation based on female population in specified age group. 5. Calculation based on male population in specified age group.

Table 13. Leading Causes of Cancer Deaths and Age-Adjusted Rates by Race and Hispanic Ethnicity, Massachusetts: 2014

White non-Hispanic[1]			Black non-Hispanic[1]			Asian non-Hispanic[1]			Hispanic[1]		
Cause[2]	**#**	**Rate[3]**	**Cause**	**#**	**Rate[3]**	**Cause**	**#**	**Rate[3]**	**Cause**	**#**	**Rate[3]**
Lung	3,021	42.6	Lung	126	33.3	Lung	77	27.5	Lung	62	16.4
Colorectal	935	12.9	Colorectal	55	14.2	Pancreas	27	9.5	Pancreas	25	6.5
Pancreas	817	11.3	Prostate	53	43.8	Colorectal	26	8.7	Female Breast	25	9.9
Female Breast	746	19.0	Pancreas	34	9.1	Stomach	14	4.4	Stomach	22	6.1
Prostate	535	18.1	Female Breast	30	12.8	Brain and Nervous System	13	3.3	Colorectal	22	6.1
Total Cancer	**11,455**	**159.8**	**Total Cancer**	**559**	**145.0**	**Total Cancer**	**306**	**104.7**	**Total Cancer**	**367**	**100.2**

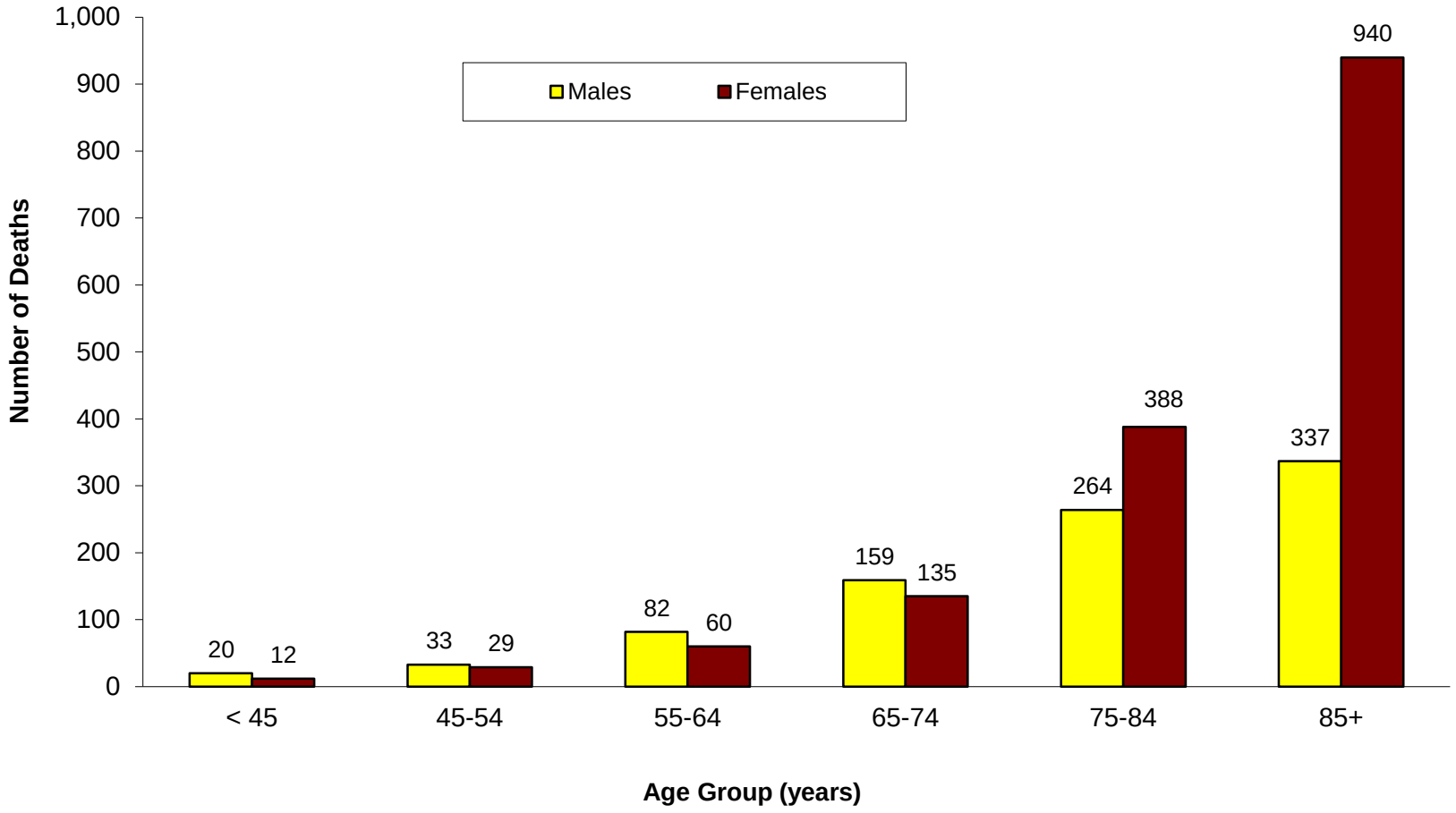
1. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see the Technical Notes in the Appendix for a more detailed explanation. 2. ICD-10 codes used. Please see the ICD-10 codes listing in the Appendix for detailed terminology. 3. All rates are age-adjusted by the direct method using the 2000 US standard population. Rates are per 100,000 population. 4. Calculation based on female population. 5. Calculation based on male population.

Table 14. Number, Percent, and Age-Adjusted Rates of Stroke Deaths by Type and Gender, Massachusetts: 2014

Cause of Death	ICD-10 Code	Total			Female			Male		
		#	%	Rate[1]	#	%	Rate[1]	#	%	Rate[1]
Total Stroke Deaths	**I60-I69**	**2,459**	**100%**	**28.7**	**1,564**	**100%**	**29.1**	**895**	**100%**	**27.2**
Subarachnoid hemorrhage	I60	105	4.3%	1.3	74	4.7%	1.6	31	3.5%	0.9
Intracerebral and other intracranial hemorrhage	I61-I62	535	21.8%	6.5	289	18.5%	5.9	246	27.5%	7.3
Cerebral infarction	I63	154	6.3%	1.8	107	6.8%	2.0	47	5.3%	1.4
Stroke, not specified	I64	1,239	50.4%	14.2	815	52.1%	14.5	424	47.4%	13.0
Other	I67, I69	426	17.3%	4.9	279	17.8%	5.0	147	16.4%	4.6

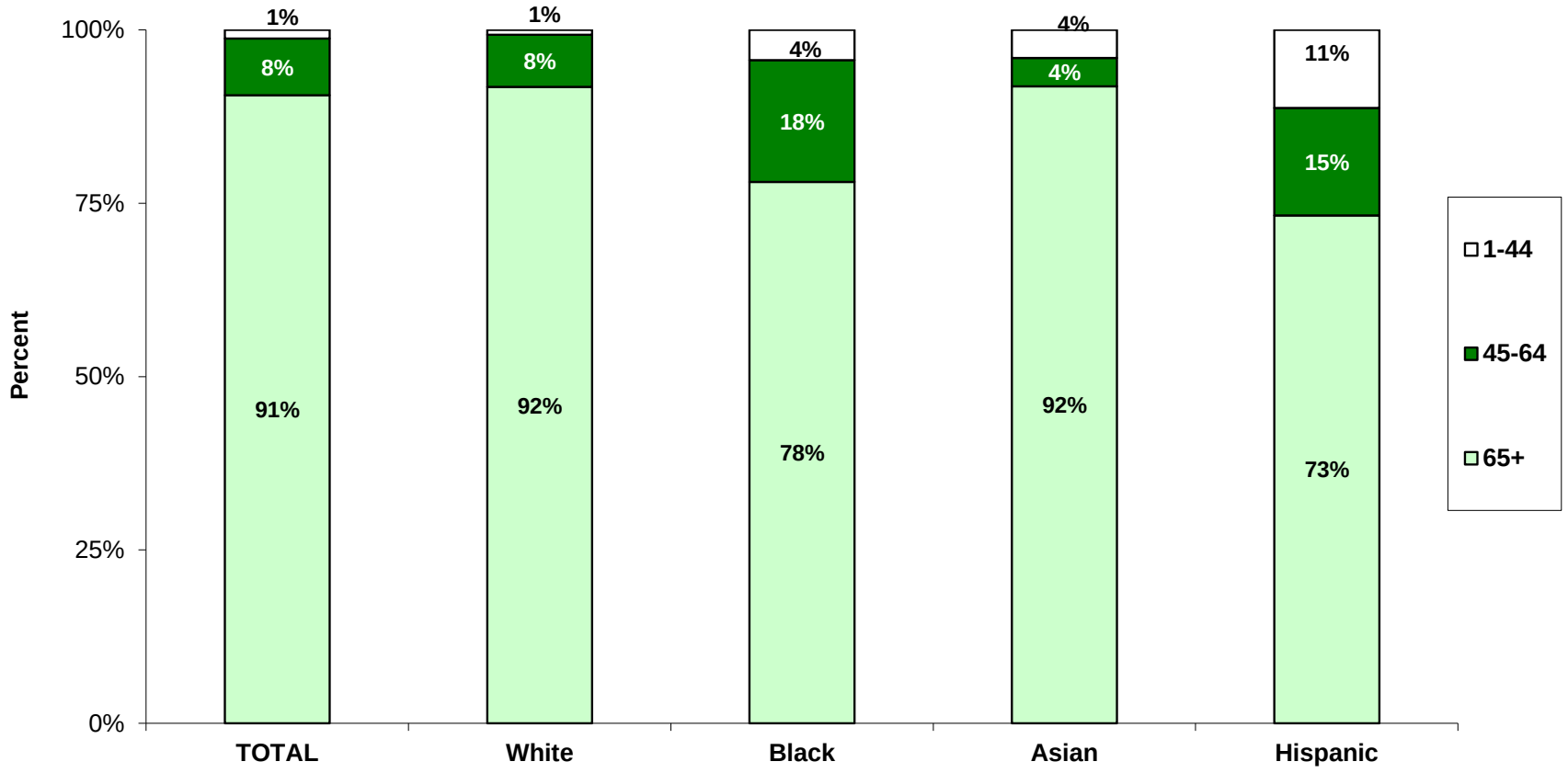
1. All rates are age-adjusted to the 2000 US Standard Population. Rates are per 100,000 population.

Figure 12. Number of Stroke Deaths by Age Group and Gender, Massachusetts: 2014



ICD-10: I60-I69

Figure 13. Age Distribution by Race and Ethnicity for Stroke Deaths, Massachusetts: 2014



ICD-10: I60-I69

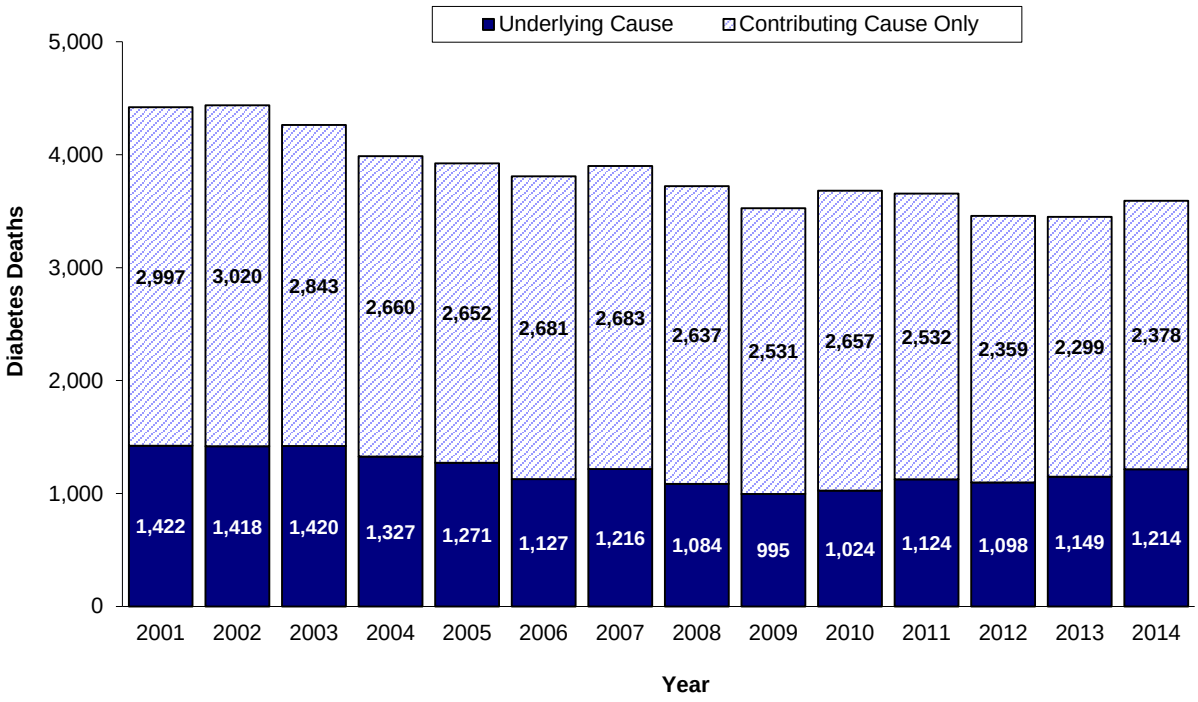
Table 15. Stroke Deaths by Race and Gender, Age-Adjusted Rates[1], Massachusetts: 2001-2014

Year	White non-Hispanic[2]			Black non-Hispanic[2]		
	Male	Female	Total	Male	Female	Total
2001	51.5	46.0	48.5	50.8	61.5	59.3
2002	50.2	45.7	47.9	57.9	60.2	59.5
2003	44.7	43.9	44.7	45.9	54.9	52.7
2004	42.8	40.4	41.9	52.1	58.3	56.2
2005	37.7	37.3	37.9	50.6	44.9	47.5
2006	37.5	35.6	36.7	57.6	51.9	54.5
2007	35.4	34.0	34.8	34.4	36.4	35.6
2008	33.1	33.4	33.6	53.5	40.7	45.5
2009	31.7	31.7	32.0	51.7	36.0	42.7
2010	30.5	30.1	30.5	46.2	39.9	42.9
2011	30.4	29.6	30.2	34.4	29.8	32.0
2012	27.6	28.0	28.1	37.2	34.2	36.1
2013	26.4	27.9	27.7	33.4	29.6	31.3
2014	26.8	28.8	28.4	35.8	30.2	32.7

Year	Asian non-Hispanic[2]			Hispanic		
	Male	Female	Total	Male	Female	Total
2001	23.8	38.0	32.0	39.4	28.5	33.2
2002	21.2	28.7	25.6	49.6	30.2	38.3
2003	39.3	28.7	33.4	44.3	36.0	39.3
2004	35.2	32.7	34.1	39.7	32.6	35.5
2005	28.2	27.5	28.1	33.2	24.5	28.2
2006	34.5	41.9	39.2	26.5	29.6	28.8
2007	26.7	29.5	28.4	32.0	26.7	28.9
2008	23.4	27.1	25.6	23.9	18.4	21.1
2009	38.1	22.0	28.1	23.9	16.7	19.9
2010	35.2	27.0	30.8	31.1	22.1	26.0
2011	21.3	25.5	24.2	22.0	23.3	23.1
2012	31.0	24.4	27.0	19.2	27.2	24.7
2013	16.0	25.6	21.6	25.7	18.1	21.2
2014	19.1	20.8	20.4	24.8	22.2	23.4

1. Rates are per 100,000 age-adjusted to the 2000 US standard population. 2. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see Technical Notes in the Appendix for a more detailed explanation.

Figure 14. Diabetes Deaths, Massachusetts: 2001-2014



ICD-10: E10-E14

Table 16. Diabetes Deaths by Gender, Massachusetts: 2014

	Proportion of all Deaths (%)			Number		
Cause of Death	Males	Females	Total	Males	Females	Total
Underlying	2.4%	2.0%	2.2%	655	559	1,214
Contributing/Associated	4.7%	3.9%	4.3%	1,268	1,110	2,378
Total diabetes-related	**7.2%**	**5.9%**	**6.5%**	**1,923**	**1,669**	**3,592**
Total deaths (all causes)	*100%*	*100%*	*100%*	*26,867*	*28,289*	*55,159*

ICD-10: E10-E14

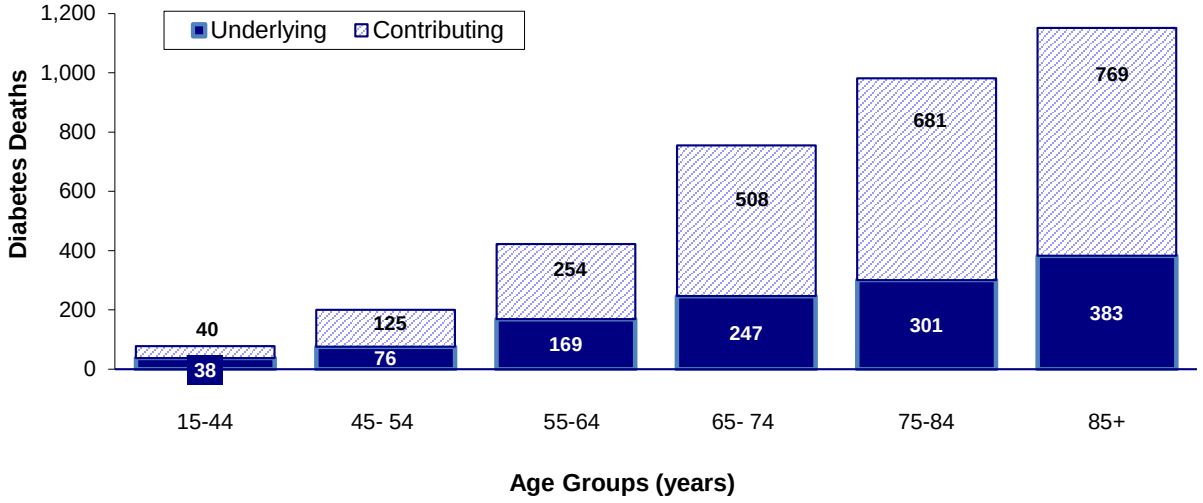
Table 17. Diabetes Deaths by Race and Hispanic Ethnicity, Massachusetts: 2014

Cause of Death	Race/Hispanic Ethnicity				
	White non-Hispanic	Black non-Hispanic	Hispanic	Asian non-Hispanic	Total
	Number				
Underlying	1,009	112	62	21	1,214
Contributing/Associated	2,010	169	106	66	2,378
Total diabetes-related	3,019	281	168	87	3,592
Total deaths (all causes)	***49,621***	***2,390***	***1,702***	***938***	***55,159***
	Proportion of all deaths (%)				
Underlying	2.0	4.7	3.6	2.2	2.2
Contributing/Associated	4.1	7.1	6.2	7.0	4.3
Total diabetes-related	***6.1***	***11.8***	***9.9***	***9.3***	***6.5***
	Death Rates[1]				
Underlying	13.8	29.5	18.8	8.5	*14.6*
Contributing/Associated	27.6	46.5	30.1	27	*28.8*
Total diabetes-related	***41.4***	***76***	***49***	***35.4***	***43.4***

ICD-10: E10-E14

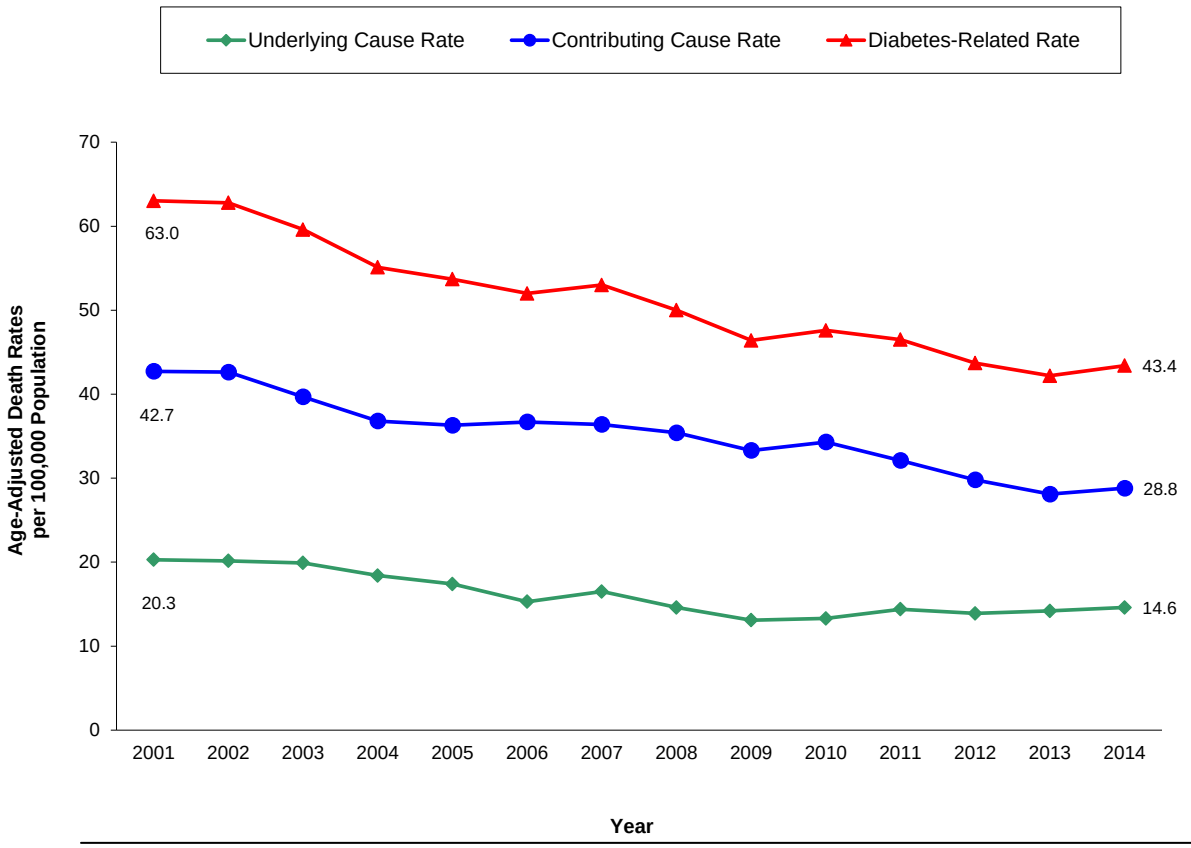
1. Rates are per 100,000 age-adjusted to the 2000 U.S. standard population

Figure 15. Age Distribution of Diabetes Deaths, Massachusetts: 2014



ICD-10: E10-E14.

Figure 16. Diabetes Death Rates, Massachusetts: 2001-2014



ICD-10: E10-E14.
Rates are per 100,000 age-adjusted to the 2000 U.S. standard population.

Table 18. Injury Deaths by Leading Causes, Gender, Age: Numbers, Age-Adjusted, and Age-Specific Rates, Massachusetts: 2014

	All Injury Deaths[1]		Poisoning[2]		Falls		Hanging, strangulation, or suffocation		Motor Vehicle-related[3]		Firearm		Other[4]	
	Number	Rate[5]	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Persons	**3,742**	**51.6**	**1,597**	**23.5**	**652**	**7.9**	**412**	**5.7**	**393**	**5.5**	**225**	**3.1**	**463**	**6.0**
<1	5	6.8	1	--[6]	0	0.0	2	--[6]	0	0.0	0	0.0	2	--[6]
1-14	31	2.9	1	--[6]	1	--[6]	10	0.9	9	0.8	1	--[6]	9	0.8
15-24	330	34.8	139	14.7	6	0.6	41	4.3	67	7.1	52	5.5	25	2.6
25-44	1,192	67.4	776	43.9	26	1.5	114	6.4	122	6.9	69	3.9	85	4.8
45-64	1,151	61.5	619	33.1	89	4.8	142	7.6	107	5.7	62	3.3	132	7.1
65-74	236	41.9	38	6.8	59	10.5	32	5.7	35	6.2	21	3.7	51	9.1
75-84	317	107.0	12	4.1	180	60.8	35	11.8	29	9.8	11	3.7	50	16.9
85+	478	304.1	11	7.0	291	185.1	36	22.9	24	15.3	9	5.7	107	68.1
All Females	**1,202**	**29.5**	**467**	**13.3**	**319**	**6.2**	**110**	**2.8**	**106**	**2.7**	**28**	**0.8**	**172**	**3.7**
<1	3	--[6]	1	--[6]	0	0.0	0	0.0	0	0.0	0	0.0	2	--[6]
1-14	9	1.7	0	0.0	0	0.0	4	--[6]	3	--[6]	0	0.0	2	--[6]
15-24	75	15.9	36	7.6	1	--[6]	12	2.5	17	3.6	5	1.1	4	--[6]
25-44	285	31.8	202	22.5	7	0.8	28	3.1	20	2.2	8	0.9	20	2.2
45-64	334	34.6	199	20.6	28	2.9	27	2.8	29	3.0	12	1.2	39	4.0
65-74	80	26.4	16	5.3	23	7.6	9	3.0	15	5.0	1	--[6]	16	5.3
75-84	138	80.0	5	2.9	87	50.4	14	8.1	9	5.2	2	--[6]	21	12.2
85+	278	261.5	8	7.5	173	162.7	16	15.1	13	12.2	0	0.0	68	64.0
All Males	**2,540**	**75.8**	**1,130**	**34.0**	**333**	**10.2**	**302**	**8.8**	**287**	**8.6**	**197**	**5.7**	**291**	**8.5**
<1	2	--[6]	0	0.0	0	0.0	2	--[6]	0	0.0	0	0.0	0	0.0
1-14	22	4.0	1	--[6]	1	--[6]	6	1.1	6	1.1	1	--[6]	7	1.3
15-24	255	53.6	103	21.6	5	1.1	29	6.1	50	10.5	47	9.9	21	4.4
25-44	907	104.1	574	65.9	19	2.2	86	9.9	102	11.7	61	7.0	65	7.5
45-64	817	90.2	420	46.4	61	6.7	115	12.7	78	8.6	50	5.5	93	10.3
65-74	156	59.9	22	8.5	36	13.8	23	8.8	20	7.7	20	7.7	35	13.4
75-84	179	144.6	7	5.7	93	75.2	21	17.0	20	16.2	9	7.3	29	23.4
85+	200	393.0	3	--[6]	118	231.9	20	39.3	11	21.6	9	17.7	39	76.6

1. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table. 2. Includes drug overdoses, which account for the largest percentage. 3. Motor vehicle deaths to occupants, pedestrians, motorcyclists and bicyclists. 4. All remaining injury causes. 5. Number of deaths per 100,000 persons in each age group; rates for all rows except the age group rows are age-adjusted to the 2000 US standard population. 6. Calculations based on values 1-4 are excluded.

Table 19. Injury Deaths by Leading Causes, Gender and Race and Hispanic Ethnicity: Numbers and Age Adjusted Rates, Massachusetts: 2014

	All Injury Deaths[1]		Poisoning[2]		Falls		Hanging, strangulation, or suffocation		Motor Vehicle-related[3]		Firearm		Other[4]	
	Number	Rate[5]	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
White non-Hispanic	**3,148**	**55.5**	**1,373**	**27.2**	**601**	**8.2**	**352**	**6.3**	**316**	**5.7**	**134**	**2.3**	**372**	**5.7**
Females	1,058	32.5	413	15.9	298	6.5	91	3.0	89	2.8	18	0.6	149	3.7
Males	2,090	80.2	960	38.9	303	10.6	261	9.8	227	8.8	116	4.2	223	8.0
Black non-Hispanic	**220**	**45.3**	**71**	**14.8**	**16**	**4.0**	**23**	**4.5**	**29**	**6.0**	**45**	**8.2**	**36**	**7.7**
Females	58	23.6	27	11.0	6	2.8	7	2.6	7	2.7	4	1.5	7	3.1
Males	162	69.3	44	19.1	10	5.1	16	7.0	22	9.9	41	15.0	29	13.2
Asian non-Hispanic	**68**	**19.8**	**12**	**2.6**	**13**	**5.7**	**13**	**3.8**	**11**	**2.7**	**1**	**--[6]**	**18**	**4.7**
Females	26	15.0	2	--[6]	5	4.0	5	2.8	4	--[6]	1	--[6]	9	4.5
Males	42	25.9	10	4.1	8	8.2	8	5.3	7	3.5	0	0.0	9	4.8
Hispanic	**251**	**38.4**	**123**	**17.7**	**10**	**3.1**	**19**	**3.3**	**31**	**4.0**	**38**	**5.1**	**30**	**5.2**
Females	46	14.7	19	5.5	5	2.8	6	2.0	6	1.6	4	--[6]	6	1.6
Males	205	64.5	104	30.4	5	3.4	13	4.8	25	6.5	34	9.5	24	9.9

1. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table. 2. Includes drug overdoses, which account for the largest percentage. 3. Motor vehicle deaths to occupants, pedestrians, motorcyclists and bicyclists. 4. All remaining injury causes. 5. Number of deaths per 100,000 persons in each group; rates are age-adjusted to the 2000 US standard population. 6. Calculations based on values 1-4 are excluded.

Table 20. Unintentional Injury Deaths by Gender, Age: Numbers, Age-Adjusted, and Age-Specific Rates, Massachusetts: 2014

	All Unintentional[1]		Poisonings		Falls		Motor Vehicle-related	
	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
All Persons	**2,859**	**39.4**	**1,442**	**21.4**	**635**	**7.6**	**393**	**5.5**
<1	3	--[3]	1	--[3]	0	0.0	0	0.0
1-14	24	2.2	1	--[3]	1	--[3]	9	0.8
15-24	211	22.2	130	13.7	2	--[3]	67	7.1
25-44	924	52.3	740	41.9	22	1.2	122	6.9
45-64	807	43.1	528	28.2	82	4.4	107	5.7
65-74	164	29.1	27	4.8	58	10.3	35	6.2
75-84	279	94.2	7	2.4	179	60.4	29	9.8
85+	446	283.7	8	5.1	291	185.1	24	15.3
All Females	**988**	**23.8**	**401**	**11.6**	**317**	**6.2**	**106**	**2.7**
<1	1	--[3]	1	--[3]	0	0.0	0	0.0
1-14	7	1.3	0	0.0	0	0.0	3	--[3]
15-24	51	10.8	32	6.8	0	0.0	17	3.6
25-44	227	25.3	187	20.9	7	0.8	20	2.2
45-64	246	25.5	163	16.9	28	2.9	29	3.0
65-74	60	19.8	8	2.6	22	7.3	15	5.0
75-84	127	73.6	4	--[3]	87	50.4	9	5.2
85+	269	253.1	6	5.6	173	162.7	13	12.2
All Males	**1,871**	**56.4**	**1041**	**31.5**	**318**	**9.7**	**287**	**8.6**
<1	2	--[3]	0	0.0	0	0.0	0	0.0
1-14	17	3.1	1	--[3]	1	--[3]	6	1.1
15-24	160	33.6	98	20.6	2	--[3]	50	10.5
25-44	697	80.0	553	63.5	15	1.7	102	11.7
45-64	561	62.0	365	40.3	54	6.0	78	8.6
65-74	104	40.0	19	7.3	36	13.8	20	7.7
75-84	152	122.8	3	--[3]	92	74.3	20	16.2
85+	177	347.8	2	--[3]	118	231.9	11	21.6

1. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table.
2. Number of deaths per 100,000 persons in each age group; rates for all rows except the age group rows are age-adjusted to the 2000 US standard population. 3. Calculations based on values 1-4 are excluded.

Table 21. Unintentional Injury Deaths by Gender and Race and Hispanic Ethnicity: Numbers, and Age-Adjusted Rates, Massachusetts: 2014

	All Unintentional[1]		Poisonings		Falls		Motor Vehicle-related	
	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
White non-Hispanic	**2,459**	**43.2**	**1225**	**24.7**	**588**	**8.0**	**316**	**5.7**
Females	878	26.3	350	13.8	296	6.5	89	2.8
Males	1,581	61.4	875	35.9	292	10.1	227	8.8
Black non-Hispanic	**130**	**28.2**	**68**	**14.2**	**15**	**3.9**	**29**	**6.0**
Females	43	17.7	25	10.2	6	2.8	7	2.7
Males	87	40.6	43	18.7	9	4.7	22	9.9
Asian non-Hispanic	**51**	**15.7**	**11**	**2.4**	**13**	**5.7**	**11**	**2.7**
Females	19	12	2	--[3]	5	4.0	4	--[3]
Males	32	20.6	9	3.6	8	8.2	7	3.5
Hispanic	**182**	**28.2**	**122**	**17.5**	**8**	**2.5**	**31**	**4.0**
Females	36	12.1	18	5.2	5	2.8	6	1.6
Males	146	45.6	104	30.4	3	--[3]	25	6.5

1. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table.
2. Number of deaths per 100,000 persons in each group; rates are age-adjusted to the 2000 US standard population. 3. Calculations based on values 1-4 are excluded.

Table 22. Intentional Injury Deaths by Gender, Age: Numbers, Age-Adjusted, and Age-Specific Rates, Massachusetts: 2014

	All Intentional[1]		Suicide		Homicide	
	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
All Persons	**769**	**10.8**	**616**	**8.5**	**153**	**2.3**
<1	1	--[3]	0	0.0	1	--[3]
1-14	7	0.7	4	--[3]	3	--[3]
15-24	112	11.8	64	6.7	48	5.1
25-44	250	14.1	186	10.5	64	3.6
45-64	301	16.1	276	14.7	25	1.3
65-74	56	10.0	48	8.5	8	1.4
75-84	25	8.4	23	7.8	2	--[3]
85+	16	10.2	15	9.5	1	--[3]
All Females	**163**	**4.5**	**135**	**3.6**	**28**	**0.8**
<1	1	--[3]	0	0.0	1	--[3]
1-14	2	--[3]	2	--[3]	0	0.0
15-24	22	4.7	16	3.4	6	1.3
25-44	49	5.5	38	4.2	11	1.2
45-64	70	7.2	64	6.6	6	0.6
65-74	13	4.3	11	3.6	2	--[3]
75-84	4	--[3]	3	--[3]	1	--[3]
85+	2	--[3]	1	--[3]	1	--[3]
All Males	**606**	**17.6**	**481**	**13.9**	**125**	**3.7**
<1	0	0.0	0	0.0	0	0.0
1-14	5	0.9	2	--[3]	3	--[3]
15-24	90	18.9	48	10.1	42	8.8
25-44	201	23.1	148	17.0	53	6.1
45-64	231	25.5	212	23.4	19	2.1
65-74	43	16.5	37	14.2	6	2.3
75-84	21	17.0	20	16.2	1	--[3]
85+	14	27.5	14	27.5	0	0.0

1. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table.
2. Number of deaths per 100,000 persons in each age group; rates for all rows except the age group rows are age-adjusted to the 2000 US standard population. 3. Calculations based on values 1-4 are excluded.

Table 23. Intentional Injury Deaths by Gender and Race and Hispanic Ethnicity: Numbers and Age-Adjusted Rates, Massachusetts: 2014

	All Intentional[1]		Suicide		Homicide	
	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
White non-Hispanic	**588**	**10.6**	**546**	**9.8**	**42**	**0.8**
Females	134	4.7	123	4.4	11	0.4
Males	454	17.0	423	15.7	31	1.2
Black non-Hispanic	**81**	**15.0**	**20**	**3.8**	**61**	**11.2**
Females	11	4.2	4	--[3]	7	2.7
Males	70	26.3	16	6.2	54	20.1
Asian non-Hispanic	**15**	**3.7**	**11**	**2.7**	**4**	**--[3]**
Females	6	2.7	3	--[3]	3	--[3]
Males	9	4.8	8	4.3	1	--[3]
Hispanic	**68**	**10.1**	**29**	**5.2**	**39**	**5.0**
Females	10	2.6	4	--[3]	6	1.6
Males	58	18.7	25	10.3	33	8.4

1. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table.
2. Number of deaths per 100,000 persons in each group; rates are age-adjusted to the 2000 US standard population. 3. Calculations based on values 1-4 are excluded.

Table 24. Injury Deaths by Intent, Method and Gender: Number and Age-Adjusted Rates, Massachusetts: 2014

Type of Injury[1]	All Injury Deaths		Female		Male	
	Number	Rate[2]	Number	Rate[2]	Number	Rate[2]
Unintentional Injuries (Accidents)	**2,859**	**39.4**	**988**	**23.8**	**1,871**	**56.4**
Motor Vehicle-related	393	5.5	106	2.7	287	8.6
Injury to pedestrian	91	1.3	32	0.8	59	1.8
Injury to pedal cyclist	7	0.1	0	0.0	7	0.2
Injury to motorcyclist	53	0.8	3	--[3]	50	1.5
Injury to occupant	47	0.7	12	0.3	35	1.0
Other and unspecified	195	2.8	59	1.5	136	4.1
Poisoning	1,442	21.4	401	11.6	1,041	31.5
Falls	635	7.6	317	6.2	318	9.7
Hanging, strangulation or suffocation	119	1.5	50	1.1	69	2.0
Drowning and submersion	34	0.4	11	0.3	23	0.6
Smoke, fire and flames	34	0.5	15	0.4	19	0.6
Other and unspecified	177	2.1	80	1.4	97	2.8
Suicide	**616**	**8.5**	**135**	**3.6**	**481**	**13.9**
Poisoning	124	1.6	50	1.3	74	2.1
Hanging, strangulation or suffocation	287	4.1	56	1.6	231	6.7
Firearm	130	1.7	16	0.4	114	3.2
Other and unspecified	75	1.1	13	0.3	62	1.8
Homicide	**153**	**2.3**	**28**	**0.8**	**125**	**3.7**
Firearm	90	1.3	12	0.4	78	2.4
Cut or pierce	33	0.5	5	0.1	28	0.9
Other and unspecified	30	0.4	11	0.3	19	0.5
Injury Deaths of Undetermined Intent	**58**	**0.8**	**28**	**0.7**	**30**	**0.8**
Poisoning	30	0.4	16	0.4	14	0.4
Other and unspecified	28	0.4	12	0.3	16	0.4
Legal Intervention	**3**	**--[3]**	**0**	**0.0**	**3**	**--[3]**
Firearm	3	--[3]	0	0.0	3	--[3]
Other and unspecified	0	0.0	0	0.0	0	0.0
Adverse Effects	**53**	**0.7**	**23**	**0.5**	**30**	**0.9**
Medical Care	44	0.5	17	0.4	27	0.8
Drugs	9	0.1	6	0.1	3	--[3]
ALL INJURIES	**3,742**	**51.6**	**1,202**	**29.5**	**2,540**	**75.8**

1. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table. 2. Number of deaths per 100,000 persons; rates are adjusted to the 2000 US standard population. 3. Calculations based on values 1-4 are excluded.

Table 25. HIV/AIDS Deaths by Place of Occurrence, Massachusetts: 2000-2014

Year		Total[1]	Place of Occurrence			
			At Home	Hospital	Out of State	Hospice/Nursing Home/Other
2000	#	226	48	145	0	33
	%	100.0	21.2	64.2	0.0	14.6
2001	#	249	47	164	4	34
	%	100.0	18.9	65.9	--[2]	13.7
2002	#	229	33	156	4	36
	%	100.0	14.4	68.1	--[2]	15.7
2003	#	226	55	134	5	32
	%	100.0	24.3	59.3	2.2	14.2
2004	#	211	45	134	1	31
	%	100.0	21.3	63.5	--[2]	14.7
2005	#	180	28	122	1	30
	%	100.0	15.6	67.8	--[2]	16.7
2006	#	179	22	122	2	33
	%	100.0	12.3	68.2	--[2]	18.4
2007	#	143	15	98	2	28
	%	100.0	10.5	68.5	--[2]	19.6
2008	#	143	27	92	1	23
	%	100.0	18.9	64.3	--[2]	16.1
2009	#	124	25	76	1	22
	%	100.0	20.2	61.3	--[2]	17.7
2010	#	119	22	68	1	28
	%	100.0	18.5	57.1	--[2]	23.5
2011	#	91	14	58	0	19
	%	100.0	15.4	63.7	0.0	20.9
2012	#	100	24	56	0	20
	%	100.0	24.0	56.0	0.0	20.0
2013	#	86	13	53	0	20
	%	100.00	15.1	61.6	0.0	23.3
2014	#	80	13	50	0	17
	%	100.00	16.3	62.5	0.0	21.3

1. AIDS: Acquired Immune Deficiency Syndrome, HIV: Human Immunodeficiency Virus. The deaths reported are cases for which AIDS or HIV-related disease was the underlying cause of death. Deaths were coded according to ICD-10: B20-B24. 2. Calculations based on values 1-4 are excluded.

Table 26. HIV/AIDS Deaths by Age, Massachusetts: 2000-2014

Year		Age (in years)				
		<15	15-24	25-34	35-44	45+
2000	#1	4	0	26	104	92
	%	--[2]	0.0	11.5	46.0	40.7
2001	#	1	2	25	111	110
	%	--[2]	--[2]	10.0	44.6	44.2
2002	#	1	1	10	91	126
	%	--[2]	--[2]	4.4	39.7	55.0
2003	#	1	3	14	94	114
	%	--[2]	--[2]	6.2	41.6	50.4
2004	#	0	2	9	79	121
	%	0.0	--[2]	4.3	37.4	57.4
2005	#	0	1	6	64	109
	%	0.0	--[2]	3.3	35.6	60.6
2006	#	0	1	6	71	101
	%	0.0	--[2]	3.4	39.7	56.4
2007	#	0	0	5	34	104
	%	0.0	0.0	3.5	32.7	72.7
2008	#	0	1	6	32	104
	%	0.0	--[2]	4.2	22.4	72.7
2009	#	0	0	6	25	93
	%	0.0	0.0	4.8	20.2	75.0
2010	#	0	1	4	24	90
	%	0.0	--[2]	--[2]	20.2	75.6
2011	#	0	2	1	19	69
	%	0.0	--[2]	--[2]	20.9	75.8
2012	#	0	0	2	16	82
	%	0.0	0.0	--[2]	16.0	82.0
2013	#	0	2	3	3	78
	%	0.0	--[2]	--[2]	--[2]	90.7
2014	#	0	1	6	9	64
	%	0.0	--[2]	7.5	11.3	80.0

1. AIDS: Acquired Immune Deficiency Syndrome, HIV: Human Immunodeficiency Virus. The deaths reported are cases for which AIDS or HIV-related disease was the underlying cause of death. Deaths were coded according to ICD-10: B20-B24. 2. Calculations based on values 1-4 are excluded.

Table 27. HIV/AIDS Deaths by Gender, Race and Hispanic Ethnicity, Massachusetts: 2000-2014

Year		Gender		Race and Ethnicity			
		Male	Female	White non-Hispanic[2]	Black non-Hispanic[2]	Other[3]	Hispanic[2]
2000	#[1]	161	65	104	61	2	59
	%	71.2	28.8	46.0	27.0	-[4]	26.1
2001	#	182	67	125	73	0	51
	%	73.1	26.9	50.2	29.3	0.0	20.5
2002	#	163	66	108	68	1	52
	%	71.2	28.8	47.1	29.7	-[4]	22.7
2003	#	150	76	113	58	2	53
	%	66.4	33.6	50.0	25.7	-[4]	23.5
2004	#	151	60	976	55	4	55
	%	71.6	28.4	46.0	26.1	-[4]	26.1
2005	#	122	58	75	56	4	45
	%	67.8	32.2	41.7	31.1	-[4]	25.0
2006	#	122	57	91	49	2	37
	%	68.2	31.8	50.8	27.4	-[4]	20.7
2007	#	96	47	58	48	0	37
	%	67.4	32.9	40.6	33.6	0.0	25.9
2008	#	101	42	69	37	5	31
	%	70.6	29.4	48.6	26.1	3.5	21.8
2009	#	89	35	48	37	6	33
	%	71.8	28.2	38.7	29.8	4.8	26.6
2010	#	80	39	58	34	1	26
	%	67.2	32.8	48.7	28.6	-[4]	21.8
2011	#	64	27	36	30	1	24
	%	70.3	29.7	39.6	33.0	-[4]	26.4
2012	#	62	38	50	26	1	23
	%	62.0	38.0	50.0	26.0	-[4]	23.0
2013	#	58	28	35	32	0	18
	%	67.4	32.6	41.2	37.6	0.0	21.2
2014	#	59	21	41	21	1	16
	%	73.8	26.3	51.3	26.3	-[4]	20.0

1. AIDS: Acquired Immune Deficiency Syndrome, HIV: Human Immunodeficiency Virus. The deaths reported are cases for which AIDS or HIV-related disease was the underlying cause o death. Deaths were coded according to the ICD-10 (codes B20-B24). 2. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see Technical Notes in the Appendix for a more detailed explanation. 3. The "Other" category represents Asian non-Hispanics, American Indian non-Hispanics, and other non-Hispanics. 4. Calculations based on values 1-4 are excluded.

Table 28. HIV/AIDS Deaths by Gender, Race and Hispanic Ethnicity: Numbers, Percent and Age-adjusted Rates, Massachusetts: 2001-2014

TOTAL[1]	White non-Hispanic[2]			Black non-Hispanic[2]			Hispanic[2]		
Year	#	Percent	Rate[3]	#	Percent	Rate[3]	#	Percent	Rate[3]
2001	125	50%	2.2	73	29%	21.1	51	20%	13.5
2002	108	47%	1.9	68	30%	20.3	52	23%	13.5
2003	113	50%	2.0	58	26%	17.2	53	23%	14.9
2004	97	46%	1.7	55	26%	15.8	55	26%	13.9
2005	75	42%	1.3	56	31%	16.0	45	25%	11.5
2006	91	51%	1.6	49	27%	13.7	37	21%	8.4
2007	58	41%	1.0	48	34%	13.0	37	26%	8.9
2008	69	50%	1.2	37	27%	10.6	31	23%	8.3
2009	48	41%	0.5	37	31%	15.2	33	28%	11.6
2010	58	49%	0.5	34	29%	15.2	26	22%	11.6
2011	36	40%	0.6	30	33%	6.9	24	27%	4.7
2012	50	51%	0.8	26	26%	6.1	23	23%	4.6
2013	35	41%	0.5	32	38%	6.7	18	21%	3.2
2014	41	51%	0.6	21	26%	4.4	16	20%	3.2
MALE									
2001	92	51%	3.3	50	27%	31.4	40	22%	22.5
2002	86	53%	3.1	43	26%	27.9	34	21%	18.7
2003	74	49%	2.7	36	24%	23.4	39	26%	23.8
2004	74	49%	2.7	39	26%	24.0	34	23%	18.4
2005	52	43%	1.9	34	28%	20.9	33	27%	18.4
2006	67	55%	2.4	33	27%	20.0	21	17%	9.8
2007	48	50%	1.7	23	24%	13.4	25	26%	13.3
2008	55	56%	1.9	25	26%	16.0	18	18%	11.0
2009	32	38%	1.1	29	34%	15.6	24	28%	12.4
2010	40	51%	1.1	20	25%	15.6	19	24%	12.4
2011	30	48%	1.1	14	22%	6.6	19	30%	8.2
2012	35	57%	1.2	14	23%	7.8	12	20%	5.6
2013	24	24%	0.7	21	21%	9.8	12	12%	4.3
2014	34	59%	1.0	14	24%	6.5	10	17%	4.7
FEMALE									
2001	33	49%	1.2	23	34%	12.1	11	16%	5.4
2002	22	33%	0.8	25	38%	13.8	18	27%	8.7
2003	39	51%	1.4	22	29%	12.0	14	18%	7.1
2004	23	38%	0.8	16	27%	8.7	21	35%	10.0
2005	23	40%	0.8	22	38%	11.8	12	21%	5.4
2006	24	42%	0.9	16	28%	8.3	16	28%	7.1
2007	10	21%	0.3	25	53%	12.8	12	26%	5.2
2008	14	36%	0.5	12	31%	6.4	13	33%	6.4
2009	16	48%	0.5	8	24%	3.8	9	27%	3.8
2010	18	46%	0.5	14	36%	3.8	7	18%	3.8
2011	6	22%	0.2	16	59%	7.1	5	19%	1.6
2012	15	39%	0.4	12	32%	4.9	11	29%	3.9
2013	11	11%	0.3	11	11%	4.4	6	6%	2.1
2014	7	35%	0.2	7	35%	2.7	6	30%	2.0

1. AIDS and HIV disease deaths coded using ICD-10: B20-B24. 2. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see Technical Notes in the Appendix for a more detailed explanation. 3. Number of deaths per 100,000 persons; rates are age-adjusted to the 2000 US standard population.

Table 29. Trends in Infant, Neonatal, and Post Neonatal Mortality, by Race and Hispanic Ethnicity, Massachusetts: 2004-2014

INFANT MORTALITY (less than one year of age)

	State Total[1]		White non-Hispanic		Black non-Hispanic		Hispanic		Asian non-Hispanic		Other[2]	
Year	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]
2004	376	4.8	210	3.8	70	11.5	75	7.6	15	2.7	6	3.5
2005	391	5.1	230	4.3	57	9.4	77	7.7	18	3.4	8	4.3
2006	369	4.8	220	4.1	72	11.1	63	5.9	10	1.8	3	--[4]
2007	380	4.9	206	3.9	66	10.2	81	7.4	18	3.1	4	--[4]
2008	381	5.0	192	3.7	79	11.9	86	7.9	16	2.7	8	5.1
2009	366	4.9	205	4.1	54	7.8	78	7.1	20	3.4	9	7.8
2010	319	4.4	163	3.4	56	8.2	65	6.1	25	4.3	7	4.4
2011	310	4.2	158	3.4	47	6.7	75	5.8	22	3.6	6	4.2
2012	309	4.3	158	3.5	57	8.2	71	5.4	17	2.6	4	--[4]
2013	298	4.2	161	3.6	63	8.9	49	3.9	15	2.4	3	--[4]
2014	321	4.5	169	3.8	54	7.6	62	5.0	20	3.2	8	10.5

NEONATAL MORTALITY (birth to 27 days)

	State Total[1]		White non-Hispanic		Black non-Hispanic		Hispanic		Asian, non-Hispanic		Other[2]	
Year	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]
2004	291	3.7	167	3.0	51	8.4	57	5.8	12	2.2	4	--[4]
2005	282	3.7	168	3.1	40	6.6	57	5.8	11	2.1	5	2.7
2006	279	3.6	173	3.3	53	8.2	42	3.9	7	1.3	3	--[4]
2007	263	3.4	141	2.7	48	7.4	53	4.9	15	2.6	4	--[4]
2008	290	3.8	152	2.9	57	8.6	65	6.0	10	1.7	6	3.8
2009	276	3.7	162	3.2	36	5.2	54	4.9	17	2.9	7	6.0
2010	238	3.3	121	2.5	43	6.3	47	4.4	20	3.4	5	4.6
2011	230	3.1	111	2.4	33	4.7	60	4.7	19	3.1	3	--[4]
2012	216	3.0	111	2.5	41	5.9	46	3.5	13	2.0	3	--[4]
2013	221	3.1	119	2.6	45	6.3	39	3.1	10	1.6	0	--[4]
2014	236	3.3	122	2.7	38	5.3	50	3.9	15	2.3	6	9.5

POST NEONATAL MORTALITY (28-365 days)

	State Total[1]		White non-Hispanic		Black non-Hispanic		Hispanic		Asian non-Hispanic		Other[2]	
Year	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]	#	Rate[3]
2004	85	1.1	43	0.8	19	3.1	18	1.8	3	--[4]	2	--[4]
2005	109	1.4	62	1.2	17	2.8	20	2.0	7	1.3	3	--[4]
2006	90	1.2	47	0.9	19	2.9	21	2.0	3	--[4]	0	0.0
2007	117	1.5	65	1.2	18	2.8	28	2.6	3	--[4]	0	0.0
2008	91	1.2	40	0.8	22	3.3	21	1.9	6	1.0	2	--[4]
2009	90	1.2	43	0.9	18	2.6	24	2.2	3	--[4]	2	--[4]
2010	81	1.1	42	0.9	13	1.9	18	1.7	5	0.9	2	--[4]
2011	80	1.1	47	1.0	14	2.0	15	1.2	3	--[4]	3	--[4]
2012	93	1.3	47	1.0	16	2.3	25	1.9	4	--[4]	1	--[4]
2013	77	1.1	42	0.9	18	2.5	10	0.8	5	0.8	1	--[4]
2014	85	1.2	47	1.1	16	2.2	12	0.9	5	0.8	2	--[4]

1. Deaths of infants of unknown race are included in the total calculation. For rate computations, births of infants of unknown race are allocated into the race categories according to the distribution of births of known race. 2. Other: American Indian and Other races. 3. Rates are expressed per 1,000 live births. 4. Calculations based on values 1-4 are excluded.

Table 30. Infant, Neonatal, and Post Neonatal Deaths by Cause, Massachusetts: 2014

Cause of Death[1]	ICD-10 Code	Infant (<1 year) #	Infant (<1 year) %	Neonatal (<28 days) #	Neonatal (<28 days) %	Post Neonatal (28-365 days) #	Post Neonatal (28-365 days) %
TOTAL		**321**	**100.0**	**236**	**100.0**	**85**	**100.0**
Infectious and parasitic diseases	**A00-B99**	**9**	**4.1**	**3**	**--[2]**	**6**	**10.2**
Cancer	**C00-C97**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
Diseases of the blood and blood forming organs (anemia)	**D50-D89**	**1**	**--[2]**	**0**	**0.0**	**1**	**--[2]**
Diseases of nervous system and ear	**G00-G98, H60-H93**	**7**	**3.2**	**2**	**--[2]**	**5**	**8.5**
Diseases of the respiratory system	**J00-J98**	**7**	**3.2**	**2**	**--[2]**	**5**	**8.5**
Diseases of digestive system	**K00-K92**	**4**	**--[2]**	**1**	**--[2]**	**3**	**--[2]**
Congenital malformations	**Q00-Q99**	**50**	**22.9**	**32**	**20.1**	**18**	**30.5**
Congenital malformations of nervous system	Q00-Q07	5	2.3	4	--[2]	1	1.7
Anencephalus and similar malformations	Q00	0	0.0	0	0.0	0	0.0
Congenital malformations of heart	Q20-Q24	15	6.9	7	4.4	8	13.6
Congenital malformations of respiratory system	Q30-Q34	3	--[2]	3	--[2]	0	0.0
Congenital malformations of genitourinary system	Q50-Q64	2	--[2]	2	--[2]	0	0.0
Congenital malformations of musculoskeletal system	Q65-Q85	8	3.7	4	--[2]	4	6.8
Chromosomal abnormalities	Q90-Q99	8	3.7	7	4.4	1	1.7
Certain conditions originating in the perinatal period	**P00-P96**	**189**	**86.7**	**183**	**115.1**	**6**	**10.2**
Newborn affected by maternal conditions which may be unrelated to present pregnancy	P00	1	--[2]	1	--[2]	0	0.0
Newborn affected by maternal complications of pregnancy	P01	24	11.0	23	14.5	1	--[2]
Newborn affected by complications of placenta, cord and membrane	P02	13	6.0	13	8.2	0	0.0
Newborn affected by other complications of labor and delivery	P03	2	--[2]	2	--[2]	0	0.0
Disorders relating to short gestation and low birthweight	P07	85	39.0	85	53.5	0	0.0
Intrauterine hypoxia and birth asphyxia	P20-P21	4	--[2]	4	--[2]	0	0.0
Respiratory distress of newborn	P22	4	--[2]8	4	--[2]	0	0.0
Other respiratory conditions of newborn	P23-P28	7	3.2	4	--[2]	3	--[2]
Infections specific to the perinatal period	P35-P39	9	4.1	9	5.7	0	0.0
Neonatal hemorrhage	P50-P52, P54	8	3.7	8	5.0	0	0.0
Other and ill-defined conditions originating in the perinatal period	P90-P96	9	4.1	8	5.0	1	--[2]
Symptoms, signs, and ill-defined conditions	**R00-R99**	**39**	**17.9**	**8**	**5.0**	**31**	**52.5**
Sudden Infant Death Syndrome (SIDS)	R95	18	8.3	3	--[2]	15	25.4
Unintentional Injuries	**V01-X59**	**3**	**--[2]**	**1**	**--[2]**	**2**	**--[2]**
Homicide	**X85-Y09**	**1**	**--[2]**	**0**	**0.0**	**1**	**--[2]**
All other causes	**Residual**	**11**	**5.0**	**4**	**2.5**	**7**	**11.9**

1. Please see Technical Notes in the Appendix for an explanation of ICD-10 codes. 2. Calculations based on values 1-4 are excluded.

Table 31. Infant Deaths by Major Causes, Race and Hispanic Ethnicity, Massachusetts: 2014

Cause of Death[2]	ICD-10 Code	White non-Hispanic[1]		Black non-Hispanic[1]		Asian non-Hispanic[1]		Hispanic	
		#	%	#	%	#	%	#	%
TOTAL		**169**	**100.0%**	**54**	**100.0%**	**20**	**100.0%**	**62**	**100.0%**
Certain conditions originating in the perinatal period	P00- P96	96	56.8%	34	29	53.7%	60.0%	42	67.7%
Congenital malformations	Q00-Q99	30	17.8%	7	7	13.0%	--[3]	7	11.3%
Symptoms, signs, and ill-defined conditions	R00-R99	22	13.0%	8	8	14.8%	--[3]	5	8.1%
SIDS	R95	10	5.9%	4	--[3]	1	--[3]	2	--[3]
Unintentional Injuries	V01-X59	3	--[3]	0	0.0%	0	0.0%	0	0.0%
Homicide	X85-Y09	0	0.0%	0	0.0%	1	--[3]	0	0.0%
All other causes	Residual	18	10.7%	10	18.5%	2	--[3]	8	12.9%

1. Race and ethnicity data in this table are presented as mutually exclusive categories and Cape Verdeans are not included with Blacks. Persons of Hispanic ethnicity are not included in a race category. Please see Technical Notes in the Appendix for a more detailed explanation. 2. Deaths are coded according to ICD-10. Please see Appendix for comparability ratios. 3. Calculations based on values 1-4 are excluded.

Table 32. Target Status for Selected Healthy People 2020 Mortality Objectives (underlying cause of death only)

HEALTHY PEOPLE 2020 OBJECTIVE	TARGET 2020[1]	MA 2010	MA 2013	MA 2014	TARGET STATUS
Overall Cancer death rate	160.6	171.0	159.5	155.6	√
Lung Cancer	45.5	47.3	41.4	40.7	√
Female Breast Cancer (per 100,000 females)	20.6	19.1	18.4	18.0	√
Uterine Cervix (per 100,000 females)	2.2	4.3	1.0	1.3	√
Colorectal Cancer	14.5	14.9	13.0	12.6	√
Oropharyngeal Cancer	2.3	3.0	2.4	2.3	√
Prostate Cancer (per 100,000 males)	21.2	21.2	18.5	18.8	√
Malignant Melanoma	2.4	3.1	3.2	3.6	●
COPD, ages 45+	98.5	84.4	86.8	85.8	√
Coronary Heart Disease	100.8	96.5	87.6	82.4	√
Stroke	33.8	31.2	31.8	39.4	**O**
Cirrhosis	8.2	5.4	4.6	5.5	√
Drug-induced deaths	11.3	12.5	19.0	23.5	●
HIV/AIDS	3.3	1.6	1.0	0.7	√
Injury Deaths	53.3	43.3	46.7	51.6	√
Residential fire deaths	0.9	0.2	0.2	0.4	√
Falls	7.0	6.9	7.8	7.9	**O**
Falls, ages 65+	45.3	48.1	55.4	52.2	**O**
Firearm- related	9.2	4.0	3.2	3.1	√
Poisonings	13.1	12.5	18.4	23.6	●
Poisonings, ages 35-54	25.5	22.8	30.5	30.5	**O**
Unintentional or Undetermined Intent injuries	11.1	10.9	16.5	16.5	●
Unintentional or Undetermined Intent injuries, ages 35-54	21.6	20.0	30.5	30.7	●
Unintentional Injuries	36.0	28.3	33.9	39.4	**O**
Motor vehicle crashes	12.4	5.4	5.2	5.7	√
Drowning	1.1	1.2	1.3	1.0	√
Hanging, strangulation or suffocation	1.7	5.8	5.4	3.8	●
Homicide	5.5	3.2	2.3	2.3	√
Suicide	10.2	8.7	8.5	8.5	√
Infant and Child Health					
Infant deaths (per 1,000 live births)	6.0	4.4	4.2	4.5	√
Neonatal deaths (per 1,000 live births)	4.1	3.3	3.1	3.3	√
Post neonatal deaths (per 1,000 live births)	2.0	1.1	1.1	1.2	√
Birth defects (per 1,000 live births)	1.3	0.7	0.8	0.7	√
Congenital heart defects (per 1,000 live births)	0.34	0.14	0.20	0.21	√
Sudden infant death syndrome (SIDS) (per 1,000 live births)	0.50	0.47	0.21	0.25	√
Child/Adolescent/Young Adults Death Rates					
1-4 years old	25.7	13.6	15.4	14.7	√
5-9 years old	12.3	7.3	8.4	5.3	√
10-14 years old	15.2	8.6	10.3	6.8	√
15-19 years old	55.7	30.9	27.8	19.5	√
20-24 years old	88.5	65.2	66.6	40.9	√
Asthma deaths (per million)					
Ages 35-64 years	6.0	6.3	10.3	11.4	●
Ages 65+ years	22.9	29.9	31.3	35.4	●

✓ = YES, met target O = NO, but within 25% of target ● = NO, > 25% from target

Note: Death rates are per 100,000 and age adjusted to the 2010 US Population except when noted.
1. Data 2020 the Healthy People 2020 Database. CDC Wonder website.

Table 33. Rank of Premature Mortality Rates for the Largest 30 Communities, Massachusetts: 2014 (Sorted by PMR)

Largest 30 Communities[1]	Number of Premature Deaths	PMR[2] (per 100,000)
Fall River	467	513.1*
Lowell	447	484.9*
New Bedford	447	472.4*
Brockton	422	456.7*
Worcester	711	439.9*
Springfield	607	439.3*
Haverhill	259	427.0*
Lynn	348	405.9*
Pittsfield	207	403.9*
Taunton	235	402.6*
Lawrence	246	393.3*
Plymouth	249	380.1*
Chicopee	230	376.5*
Quincy	359	363.4*
Revere	181	341.0*
Attleboro	153	340.9*
Barnstable	189	331.0*
Methuen	157	324.8
Weymouth	194	321.4
Boston	1,671	320.3*
Peabody	178	308.4
Somerville	167	291.6
Malden	166	283.9
Waltham	154	271.9
Medford	152	266.4
Framingham	182	261.0
Arlington	99	204.1*
Cambridge	163	193.8*
Newton	151	162.4*
Brookline	90	151.7*
STATE	**21,013**	**274.9**

1. These communities had the largest populations in Massachusetts, based on 2010 Census. Rates for cities and towns were calculated using MDPH population estimates for 2010, which are the most up-to-date information available on the number of persons by age, race, and sex at the sub-state level. 2. Rates are age-adjusted to the 2000 US Standard Population for person ages 0-74 years.

*** significantly different from State PMR.**

Table 34. Premature Mortality Rates by Community, Massachusetts: 2014

City/Town	Premature Deaths (#)	PMR[1] (per 100,000 population)
STATE	**21,013**	**274.9**
Abington	62	372.4
Acton	42	211.1
Acushnet	27	220.9
Adams	42	422.0
Agawam	118	357.0
Alford	1	--[2]
Amesbury	52	302.4
Amherst	30	153.4
Andover	71	203.2
Aquinnah	2	--[2]
Arlington	99	204.1
Ashburnham	16	286.1
Ashby	12	358.7
Ashfield	4	--[2]
Ashland	41	250.6
Athol	71	573.4
Attleboro	153	340.9
Auburn	49	274.0
Avon	16	303.5
Ayer	42	569.8
Barnstable	189	331.0
Barre	23	423.1
Becket	6	196.3
Bedford	35	253.4
Belchertown	58	401.5
Bellingham	36	205.3
Belmont	32	119.9
Berkley	20	375.5
Berlin	7	166.2
Bernardston	9	337.8
Beverly	130	305.4
Billerica	144	324.8
Blackstone	29	334.4
Blandford	1	--[2]
Bolton	14	247.9
Boston	1671	320.3
Bourne	69	301.9
Boxborough	4	--[2]
Boxford	19	204.2
Boylston	10	228.2
Braintree	115	291.8
Brewster	34	240.0
Bridgewater	73	301.5
Brimfield	12	266.3
Brockton	422	456.7
Brookfield	14	333.1

Table 34. Premature Mortality Rates by Community, Massachusetts: 2014

City/Town	Premature Deaths (#)	PMR[1] (per 100,000 population)
Brookline	90	151.7
Buckland	6	227.6
Burlington	75	265.0
Cambridge	163	193.8
Canton	72	286.3
Carlisle	5	68.8
Carver	54	421.3
Charlemont	6	321.0
Charlton	34	277.2
Chatham	25	196.1
Chelmsford	93	238.2
Chelsea	118	430.5
Cheshire	13	362.1
Chester	5	337.8
Chesterfield	2	--[2]
Chicopee	230	376.5
Chilmark	3	--[2]
Clarksburg	6	253.0
Clinton	64	449.2
Cohasset	24	338.9
Colrain	5	191.6
Concord	32	147.3
Conway	3	--[2]
Cummington	3	--[2]
Dalton	25	346.5
Danvers	104	337.3
Dartmouth	102	280.6
Dedham	90	337.3
Deerfield	15	235.6
Dennis	67	325.1
Dighton	26	352.8
Douglas	21	284.3
Dover	6	112.5
Dracut	109	359.8
Dudley	44	399.5
Dunstable	3	--[2]
Duxbury	29	162.6
East Bridgewater	52	341.2
East Brookfield	7	277.6
East Longmeadow	58	316.2
Eastham	25	397.1
Easthampton	79	445.9
Easton	62	260.4
Edgartown	6	103.8
Egremont	4	--[2]
Erving	3	--[2]
Essex	14	342.0
Everett	158	418.7
Fairhaven	64	347.8

Table 34. Premature Mortality Rates by Community, Massachusetts: 2014

City/Town	Premature Deaths (#)	PMR[1] (per 100,000 population)
Fall River	467	513.1
Falmouth	128	304.8
Fitchburg	151	393.5
Florida	2	--[2]
Foxborough	54	296.5
Framingham	182	261.0
Franklin	84	303.5
Freetown	25	250.5
Gardner	107	509.0
Georgetown	28	320.7
Gill	7	491.9
Gloucester	122	324.3
Goshen	6	528.0
Gosnold	0	--[2]
Grafton	47	271.1
Granby	24	344.7
Granville	4	--[2]
Great Barrington	34	366.9
Greenfield	67	339.5
Groton	24	268.0
Groveland	22	307.4
Hadley	16	232.6
Halifax	26	305.7
Hamilton	12	160.5
Hampden	16	275.0
Hancock	0	--[2]
Hanover	38	251.2
Hanson	34	310.2
Hardwick	9	332.3
Harvard	10	133.6
Harwich	55	314.2
Hatfield	16	279.8
Haverhill	259	427.0
Hawley	1	--[2]
Heath	1	--[2]
Hingham	42	152.8
Hinsdale	8	289.5
Holbrook	49	417.1
Holden	62	307.6
Holland	8	331.1
Holliston	24	156.8
Holyoke	149	388.3
Hopedale	24	420.3
Hopkinton	29	231.0
Hubbardston	10	244.6
Hudson	46	214.1
Hull	31	221.8
Huntington	12	454.1
Ipswich	38	227.0

Table 34. Premature Mortality Rates by Community, Massachusetts: 2014

City/Town	Premature Deaths (#)	PMR[1] (per 100,000 population)
Kingston	39	299.6
Lakeville	28	226.4
Lancaster	16	213.9
Lanesborough	10	234.4
Lawrence	246	393.3
Lee	28	366.4
Leicester	35	287.1
Lenox	17	237.3
Leominster	153	358.1
Leverett	2	--[2]
Lexington	50	163.9
Leyden	3	--[2]
Lincoln	10	141.8
Littleton	8	76.1
Longmeadow	31	161.4
Lowell	447	484.9
Ludlow	65	269.2
Lunenburg	27	205.0
Lynn	348	405.9
Lynnfield	32	250.5
Malden	166	283.9
Manchester	7	104.5
Mansfield	60	313.6
Marblehead	42	162.8
Marion	11	176.1
Marlborough	121	319.1
Marshfield	94	318.0
Mashpee	54	249.1
Mattapoisett	23	287.6
Maynard	23	196.0
Medfield	16	159.2
Medford	152	266.4
Medway	39	330.9
Melrose	67	232.8
Mendon	7	111.0
Merrimac	25	450.7
Methuen	157	324.8
Middleborough	113	422.6
Middlefield	1	--[2]
Middleton	26	269.3
Milford	96	329.8
Millbury	48	319.0
Millis	31	352.1
Millville	13	421.8
Milton	60	222.6
Monroe	1	--[2]
Monson	23	236.7
Montague	37	411.0
Monterey	3	--[2]

Table 34. Premature Mortality Rates by Community, Massachusetts: 2014

City/Town	Premature Deaths (#)	PMR[1] (per 100,000 population)
Montgomery	4	--
Mount Washington	0	--
Nahant	10	177.9
Nantucket	38	334.8
Natick	72	204.7
Needham	48	159.4
New Ashford	0	--[2]
New Bedford	447	472.4
New Braintree	2	--[2]
New Marlborough	5	413.2
New Salem	4	--[2]
Newbury	23	292.1
Newburyport	48	221.2
Newton	151	162.4
Norfolk	19	153.6
North Adams	75	530.3
North Andover	58	209.8
North Attleboro	88	317.0
North Brookfield	11	202.3
North Reading	39	260.4
Northampton	121	401.7
Northborough	25	179.9
Northbridge	56	368.7
Northfield	11	300.8
Norton	59	316.6
Norwell	43	370.9
Norwood	77	247.6
Oak Bluffs	10	179.8
Oakham	8	441.6
Orange	51	565.1
Orleans	23	249.5
Otis	3	--[2]
Oxford	60	393.1
Palmer	62	476.5
Paxton	10	182.1
Peabody	178	308.4
Pelham	3	--[2]
Pembroke	64	344.8
Pepperell	53	472.5
Peru	0	--[2]
Petersham	2	--[2]
Phillipston	5	227.1
Pittsfield	207	403.9
Plainfield	3	--[2]
Plainville	27	298.7
Plymouth	249	380.1
Plympton	10	241.5
Princeton	8	157.9
Provincetown	17	338.0

Table 34. Premature Mortality Rates by Community, Massachusetts: 2014

City/Town	Premature Deaths (#)	PMR[1] (per 100,000 population)
Quincy	359	363.4
Randolph	100	296.5
Raynham	44	313.2
Reading	58	233.8
Rehoboth	35	258.3
Revere	181	341.0
Richmond	7	328.7
Rochester	22	407.7
Rockland	88	482.0
Rockport	29	345.1
Rowe	0	--[2]
Rowley	23	326.0
Royalston	2	--[2]
Russell	4	--[2]
Rutland	23	328.3
Salem	123	296.9
Salisbury	53	489.4
Sandisfield	3	--
Sandwich	59	252.9
Saugus	102	328.8
Savoy	1	--[2]
Scituate	52	274.4
Seekonk	23	135.3
Sharon	34	189.8
Sheffield	6	111.3
Shelburne	10	427.2
Sherborn	13	353.1
Shirley	30	428.7
Shrewsbury	57	156.1
Shutesbury	2	--[2]
Somerset	59	263.4
Somerville	167	291.6
South Hadley	61	309.8
Southampton	17	222.3
Southborough	23	236.5
Southbridge	80	472.2
Southwick	31	309.9
Spencer	52	368.3
Springfield	607	439.3
Sterling	20	217.1
Stockbridge	4	--[2]
Stoneham	58	222.1
Stoughton	117	379.5
Stow	8	98.6
Sturbridge	21	196.1
Sudbury	19	120.3
Sunderland	6	243.8
Sutton	23	245.4
Swampscott	26	159.5

Table 34. Premature Mortality Rates by Community, Massachusetts: 2014

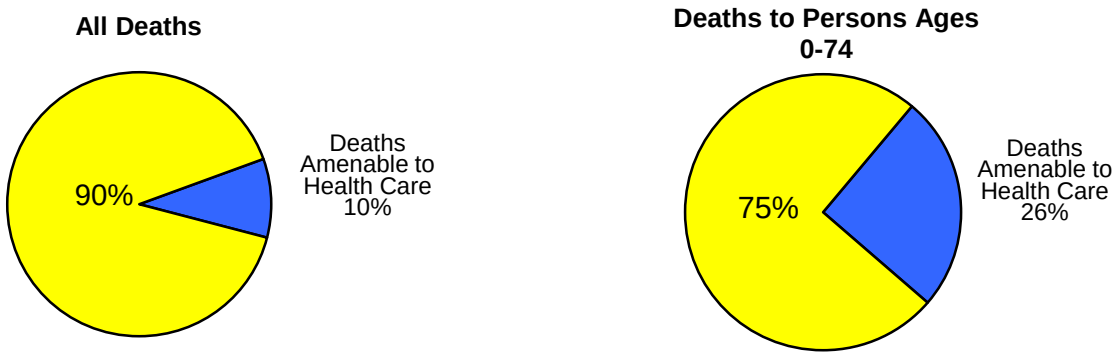
City/Town	Premature Deaths (#)	PMR[1] (per 100,000 population)
Swansea	58	304.4
Taunton	235	402.6
Templeton	39	424.6
Tewksbury	99	301.8
Tisbury	11	217.3
Tolland	1	--[2]
Topsfield	8	105.5
Townsend	32	382.2
Truro	12	302.5
Tyngsborough	26	239.7
Tyringham	1	--[2]
Upton	19	214.9
Uxbridge	41	273.1
Wakefield	81	296.7
Wales	11	511.5
Walpole	58	225.4
Waltham	154	271.9
Ware	47	425.8
Wareham	139	515.8
Warren	25	491.8
Warwick	5	389.6
Washington	2	--[2]
Watertown	67	205.6
Wayland	19	143.2
Webster	94	510.3
Wellesley	27	92.7
Wellfleet	9	274.3
Wendell	8	833.6
Wenham	6	113.2
West Boylston	27	304.0
West Bridgewater	25	326.3
West Brookfield	12	278.3
West Newbury	7	156.6
West Springfield	91	298.0
West Stockbridge	3	--[2]
West Tisbury	8	234.4
Westborough	35	195.5
Westfield	130	309.8
Westford	42	189.0
Westhampton	0	--[2]
Westminster	25	316.3
Weston	19	191.8
Westport	60	289.2
Westwood	30	186.4
Weymouth	194	321.4
Whately	6	247.8
Whitman	52	361.9
Wilbraham	36	209.2
Williamsburg	5	193.9

Table 34. Premature Mortality Rates by Community, Massachusetts: 2014

City/Town	Premature Deaths (#)	PMR[1] (per 100,000 population)
Williamstown	14	191.2
Wilmington	63	276.0
Winchendon	37	352.9
Winchester	44	204.2
Windsor	0	--[2]
Winthrop	76	348.5
Woburn	107	257.8
Worcester	711	439.9
Worthington	5	476.1
Wrentham	40	311.4
Yarmouth	95	325.2

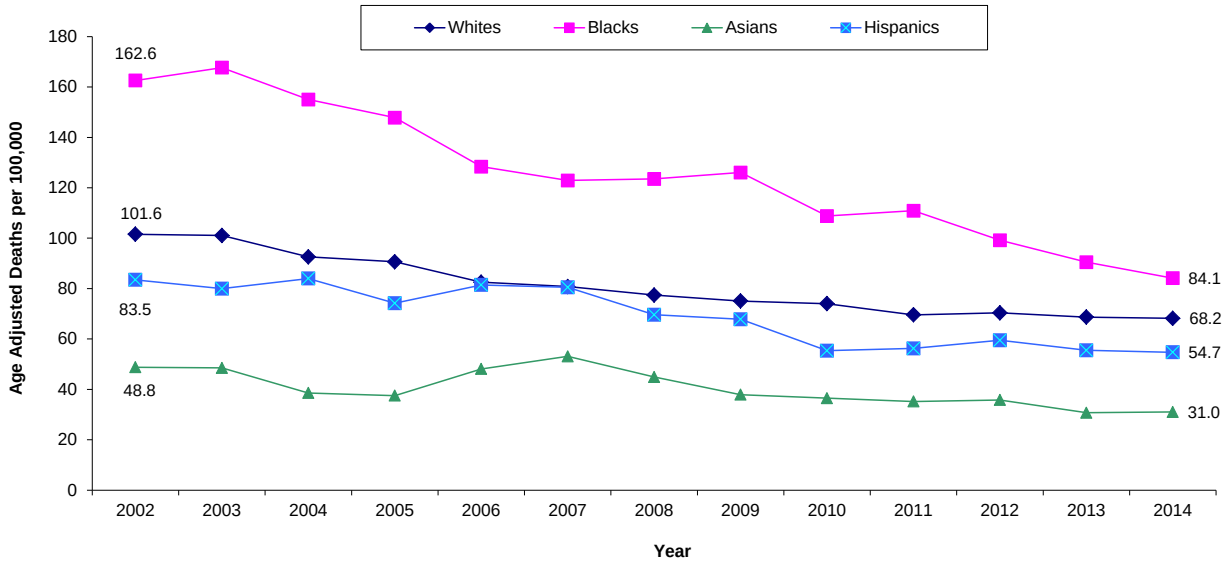
1. Premature mortality rates (PMR) are age-adjusted to the 2000 US Standard Population for persons ages 0-74 years. 2. Age-adjusted rates based on values 1-4 are excluded.

Figure 17. Percent of Deaths Amenable to Health Care, Massachusetts: 2014



Note: See Table A10 for a complete list of ICD codes including in this category.

Figure 18. Amenable Mortality by Race and Hispanic ethnicity, Massachusetts: 2002-2014



Note: See Table A10 for a complete list of ICD codes including in this category.

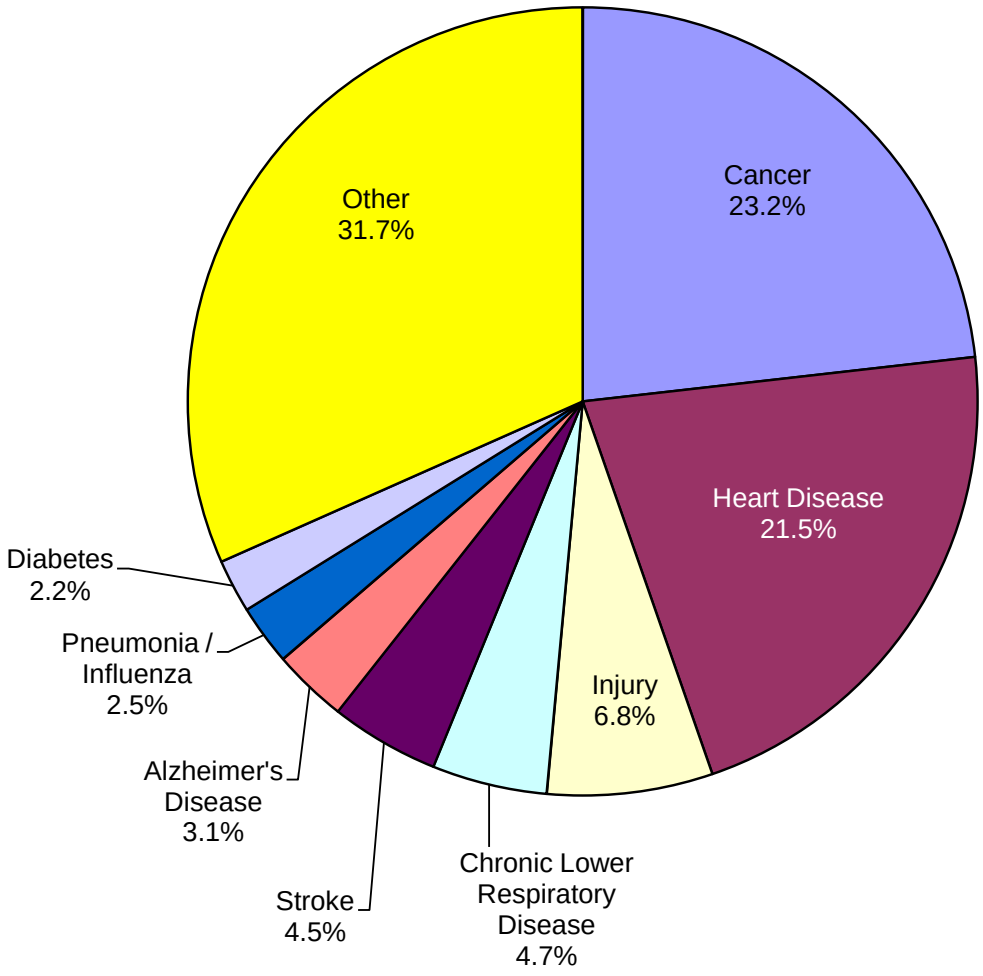
APPENDIX

Additional Tables & Figures

Technical Notes

Glossary

Figure 19. Percent Distribution of Leading Underlying Causes of Death, Massachusetts: 2014



1. Total Number of Deaths = 55,159
2. Causes of Death are classified according to ICD-10

Table 35. Number and Age-Specific Rates for Selected Causes of Death by Race and Hispanic Ethnicity, Massachusetts: 2014

Selected Causes[1]	Total		White non-Hispanic[2]		Black non-Hispanic[2]		Asian non-Hispanic[2]		Hispanic[2]	
	#	Rate[3]	#	Rate	#	Rate	#	Rate	#	Rate
Age: 1-14, TOTAL	**129**	**12.1**	**69**	**9.8**	**16**	**16.0**	**10**	**13.0**	**30**	**16.5**
Unintentional Injuries[4]	24	2.2	8	1.1	5	5.0	3	--[6]	8	4.4
Cancer	17	1.6	11	1.6	2	--[6]	1	--[6]	3	--[6]
Congenital malformations	11	1.0	4	--[6]	1	--[6]	0	0.0	5	2.7
Ill defined conditions	8	0.7	6	0.9	0	0.0	1	--[6]	1	--[6]
Age: 15-24, TOTAL	**441**	**46.5**	**308**	**47.0**	**59**	**69.9**	**12**	**17.1**	**50**	**36.7**
Unintentional Injuries[4]	211	22.2	174	26.6	12	14.2	2	--[6]	19	13.9
Suicide	64	6.7	51	7.8	6	7.1	1	--[6]	4	--[6]
Homicide	48	5.1	7	1.1	25	29.6	1	--[6]	12	8.8
Cancer	25	2.6	16	2.4	6	7.1	1	--[6]	2	--[6]
Age: 25-44, TOTAL	**2,234**	**126.3**	**1,699**	**137.6**	**187**	**133.7**	**55**	**34.5**	**250**	**108.6**
Unintentional Injuries[4]	924	52.3	752	60.9	43	30.7	16	10.0	98	42.6
Cancer	271	15.3	200	16.2	21	15.0	15	9.4	28	12.2
Suicide	186	10.5	156	12.6	10	7.1	5	3.1	11	4.8
Heart Disease	176	10.0	124	10.0	27	19.3	5	3.1	18	7.8
Age: 45-64, TOTAL	**9,214**	**492.2**	**7,839**	**511.8**	**620**	**542.6**	**180**	**194.7**	**465**	**359.5**
Cancer	3,118	166.6	2,688	175.5	182	159.3	91	98.5	123	95.1
Heart Disease	1,573	84.0	1,355	88.5	112	98.0	27	29.2	64	49.5
Unintentional Injuries[4]	807	43.1	699	45.6	50	43.8	8	8.7	45	34.8
Chronic liver disease	350	18.7	291	19.0	18	15.8	2	--[6]	34	26.3
Age: 65+, TOTAL	**42,818**	**4,213.4**	**39,536**	**4,397.2**	**1,448**	**3,324.1**	**661**	**1,953.3**	**845**	**2,224.1**
Heart Disease	10,083	992.2	9,421	1,047.8	327	750.7	115	339.8	154	405.3
Cancer	9,366	921.6	8,540	949.8	348	798.9	198	585.1	211	555.4
Chronic lower respiratory disease[5]	2,265	222.9	2,143	238.3	56	128.6	27	79.8	29	76.3
Stroke	2,223	218.7	2,016	224.2	89	204.3	45	133.0	52	136.9

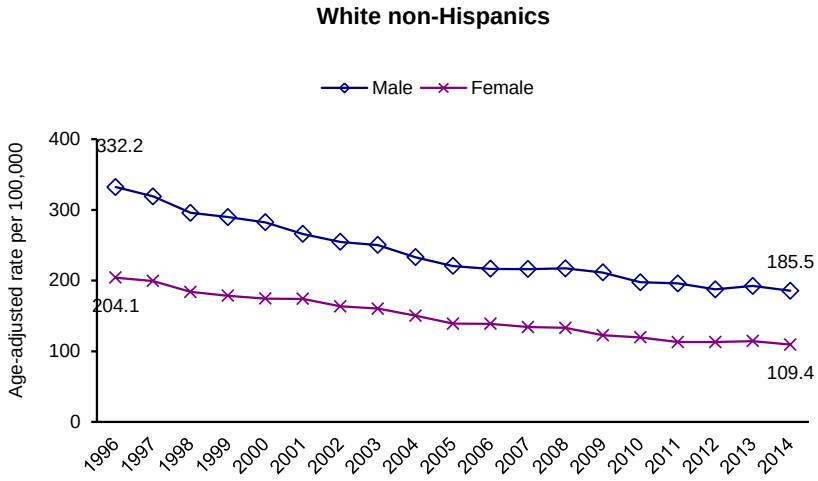
1. Deaths are coded according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table. 2. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see Table A1 in the Appendix for death data by race according to Federal definitions, which include persons of Hispanic ethnicity in a race category. Please see Technical Notes in the Appendix for a more detailed explanation. 3. Number of deaths per 100,000 persons in each age group. 4. Unintentional injuries include injuries such as motor vehicle-related and other transportation related deaths, falls, fires, and drownings that were not intended to occur. 5. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title). 6. Calculations based on values 1-4 are excluded.

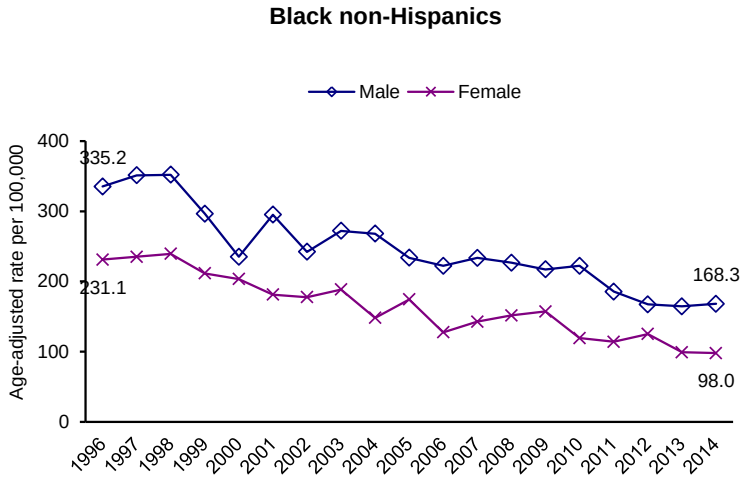
Table 35 (continued). Number and Age-Specific Rates for Selected Causes of Death by Race and Hispanic Ethnicity, Massachusetts: 2014

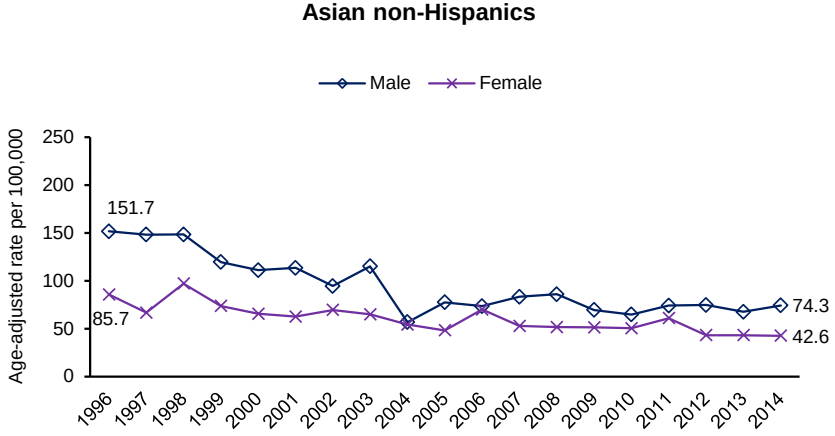
	Total		White non-Hispanic[1]		Black non-Hispanic[1]		Asian non-Hispanic[1]		Hispanic	
Selected Causes[2]	**#**	**Rate[3]**	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**
Age: 65-74, TOTAL	**8,678**	**1,541.9**	**7,691**	**1,565.9**	**436**	**1,677.6**	**155**	**759.9**	**311**	**1,282.4**
Cancer	3,259	579.1	2,902	590.9	149	573.3	75	367.7	111	457.7
Heart Disease	1,655	294.1	1,465	298.3	101	388.6	23	112.8	51	210.3
Chronic Lower Respiratory Disease	524	93.1	491	100.0	18	69.3	0	0.0	11	45.4
Stroke	294	52.2	237	48.3	27	103.9	9	44.1	14	57.7
Age: 75-84, TOTAL	**12,784**	**4,315.3**	**11,651**	**4,432.3**	**495**	**3,948.0**	**231**	**2,277.2**	**286**	**2,804.5**
Cancer	3,346	1,129.5	3,065	1,166.0	122	973.0	75	739.4	57	558.9
Heart Disease	2,645	892.8	2,449	931.7	90	717.8	28	276.0	56	549.1
Chronic Lower Respiratory Disease	842	284.2	789	300.2	27	215.3	14	138.0	8	78.4
Stroke	652	220.1	572	217.6	35	279.2	14	138.0	22	215.7
Age: 85+, TOTAL	**21,356**	**13,585.8**	**20,194**	**13,916.1**	**517**	**10,270.2**	**275**	**8,335.9**	**248**	**6,997.7**
Heart Disease	5,783	3,678.9	5,507	3,795.0	136	2,701.6	64	1,940.0	47	1,326.2
Cancer	2,761	1,756.4	2,573	1,773.1	77	1,529.6	48	1,455.0	43	1,213.3
Stroke	1,277	812.4	1,207	831.8	27	536.4	22	666.9	16	451.5
Alzheimer's Disease	1,157	736.0	1,086	748.4	29	576.1	19	575.9	18	507.9

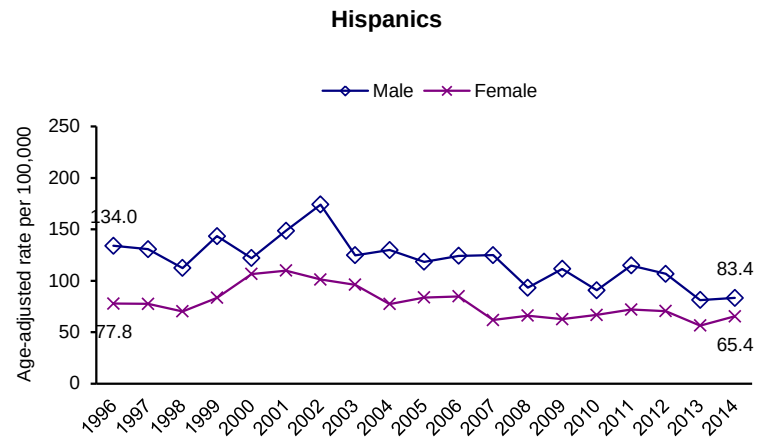
1. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see Table A1 in the Appendix for death data by race according to Federal definitions, which include persons of Hispanic ethnicity in a race category. Please see Technical Notes in the Appendix for a more detailed explanation. 2. Deaths are coded according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table. 3. Number of deaths per 100,000 persons in each age group. 4. Unintentional injuries include injuries such as motor vehicle-related and other transportation related deaths, falls, fires, and drownings that were not intended to occur. 5. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title). 6. Calculations based on values 1-4 are excluded.

Figure 20. Heart Disease Death Rates[1] by Race/Ethnicity and Gender, Massachusetts: 1996-2014[2]





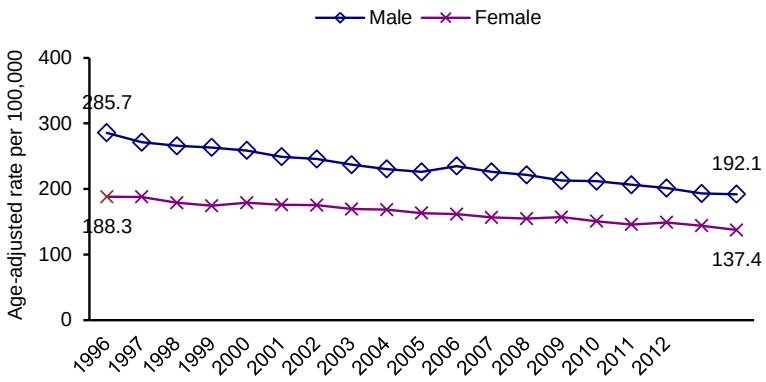




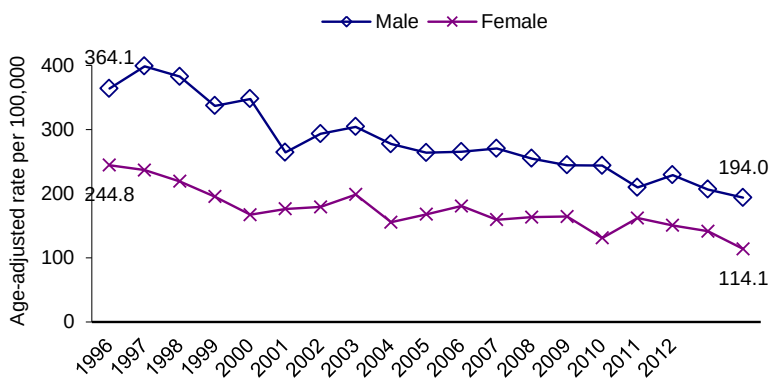
1. Rates are per 100,000 population, age-adjusted to the 2010 U.S. Standard Population. 2. For 1996-1998 the comparability-modified rates were used)

Figure 21. Cancer Death Rates[1] by Race/Ethnicity and Gender, Massachusetts: 1996-2014[2]

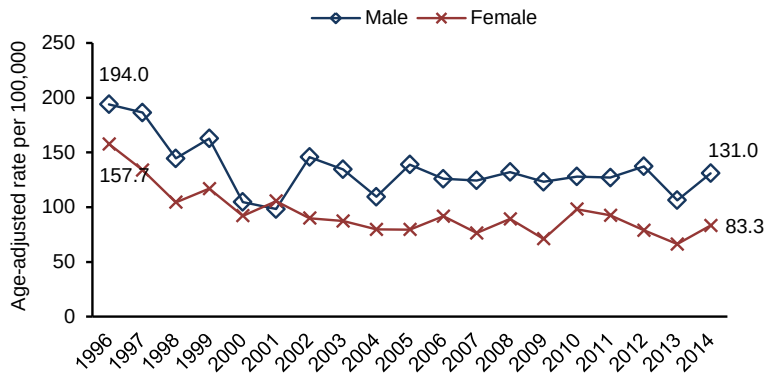
White non-Hispanics



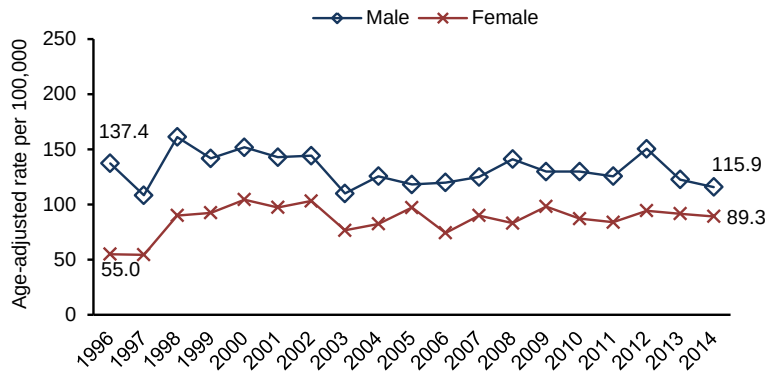
Black non-Hispanics



Asian non-Hispanics



Hispanics



1. Rates are per 100,000 population, age-adjusted to the 2010 U.S. Standard Population. 2. For 1996-1998 the comparability-modified rates were used)

Table 36. HIV/AIDS[1] Deaths by Race, Hispanic Ethnicity, and Gender of Persons Ages 25-44, Massachusetts: 2000-2014

	White non-Hispanic[2]		Black non-Hispanic[2]		Hispanic	
Year	**#**	**Rate[3]**	**#**	**Rate[3]**	**#**	**Rate[3]**
2000	60	3.7	28	23.8	40	27.6
2001	70	4.4	35	29.3	31	20.3
2002	42	2.7	24	20.1	35	22.1
2003	63	4.1	19	15.8	25	15.1
2004	38	2.6	17	14.0	31	18.0
2005	29	2.0	22	18.2	19	10.7
2006	35	2.5	17	14.2	23	12.9
2007	16	1.2	11	9.1	12	6.6
2008	19	1.4	9	7.4	8	4.3
2009	11	0.8	7	5.7	12	6.3
2010	9	0.7	6	4.7	12	6.1
2011	6	0.5	7	5.4	7	3.4
2012	6	0.5	3	--[4]	9	4.4
2013	1	--[4]	3	--[4]	2	--[4]
2014	1	--[4]	9	6.4	5	2.2
MALE						
2000	39	4.9	17	30.1	27	37.9
2001	46	5.8	19	33.3	23	30.6
2002	29	3.8	15	26.3	21	26.8
2003	42	5.6	10	17.3	19	23.1
2004	30	4.1	11	18.9	19	22.1
2005	21	2.9	12	20.4	11	12.3
2006	22	3.2	12	20.5	12	13.3
2007	16	2.4	5	8.5	9	9.7
2008	13	2.0	3	--[4]	6	6.2
2009	8	1.2	4	--[4]	5	5.5
2010	3	--[4]	3	--[4]	3	--[4]
2011	4	--[4]	4	--[4]	3	--[4]
2012	5	0.8	1	--[4]	5	4.8
2013	1	--[4]	2	--[4]	1	--[4]
2014	1	--[4]	6	8.8	3	--[4]
FEMALE						
2000	21	2.5	11	17.9	13	17.6
2001	24	2.9	16	25.7	8	10.3
2002	13	1.6	9	14.4	14	17.4
2003	21	2.7	9	14.4	6	7.2
2004	8	1.1	6	9.6	12	13.9
2005	8	1.1	10	16.0	8	9.0
2006	13	1.8	5	8.2	11	12.5
2007	0	0.0	6	9.8	3	--[4]
2008	6	0.9	6	9.8	2	--[4]
2009	3	--[4]	3	--[4]	7	7.0
2010	6	0.9	3	--[4]	9	9.3
2011	2	--[4]	3	--[4]	4	--[4]
2012	1	--[4]	2	--[4]	4	--[4]
2013	0	0.0	1	--[4]	1	--[4]
2014	0	0.0	3	--[4]	2	--[4]

1. AIDS and HIV disease deaths coded using ICD-10: B20-B24. 2. Race and ethnicity data in this table are presented as mutually exclusive categories. Persons of Hispanic ethnicity are not included in a race category. Please see Technical Notes in the Appendix for a more detailed explanation. 3. Number of deaths per 100,000 residents in the specified population group. 4. Calculations based on values 1-4 are excluded.

Table 37. Premature Mortality Rates by Community Health Network Area (CHNA), Massachusetts: 2014

CHNA (Name and Number)	Number of Deaths	PMR[1] (per 100,000 population)
Massachusetts	**21,013**	**274.9**
1. Community Health Network of Berkshire	530	332.4
2. Upper Valley Health Web (Franklin County)	353	346.6
3. Partnership for Health in Hampshire County (Northampton)	497	319.6
4. The Community Health Connection (Springfield)	1,087	358.3
5. Community Health Network of Southern Worcester County	485	373.8
6. Community Partners for Health (Milford)	488	293.7
7. Community Health Network of Greater Metro West (Framingham)	925	226.1
8. Common Pathways (Worcester)	1,056	350.7
9. Community Health Network of North Central Massachusetts	962	353.6
10. Greater Lowell Community Health Network	963	348.8
11. Greater Lawrence Community Health Network	558	304.8
12. Greater Haverhill Community Health Network	559	348.2
13. Community Health Network North (Beverly/Gloucester)	366	266.5
14. North Shore Community Health Network	965	313.1
15. Northwest Suburban Health Alliance	475	202.8
16. North Suburban Health Alliance (Medford/Malden/Melrose)	779	280.4
17. Greater Cambridge/Somerville Community Health Network	528	209.5
18. West Suburban Health Network (Newton/Waltham)	525	195.1
19. Alliance for Community Health (Boston/Chelsea/Revere/Winthrop)	2,136	312.9
20. Blue Hills Community Health Alliance (Greater Quincy)	1,203	287.6
21. Community Health Network of Chicopee, Holyoke, Ludlow, Westfield	591	346.9
22. Greater Brockton Community Health Network	930	381.4
23. South Shore Community Health Network	725	338.8
24. Greater Attleboro-Taunton Health & Education Response	884	330.7
25. Partners for Healthier Communities (Fall River)	644	421.4
26. Greater New Bedford Community Health Network	860	388.8
27. Cape Cod and Islands Health Network	939	288.5

1. Rates are per 100,000 population age-adjusted to the 2000 US Standard Population for persons ages 0-74 years.

Table 38. Premature Mortality Rates by County, Massachusetts: 2014

County	Number of Deaths	PMR[1] (per 100,000 population)
Massachusetts	**21,013**	**274.9**
Barnstable	861	286.7
Berkshire	530	314.4
Bristol	2,114	330.7
Dukes	40	158.6
Essex	2,448	276.3
Franklin	273	295.3
Hampden	1,697	324.0
Hampshire	509	285.5
Middlesex	3,859	225.1
Nantucket	38	294.0
Norfolk	1,912	240.7
Plymouth	1,915	312.9
Suffolk	2,046	289.1
Worcester	2,771	302.9

1. Rates are per 100,000 population age-adjusted to the 2000 US Standard Population for persons ages 0-74 years.

Table 39. Selected Causes of Death by Community, Massachusetts: 2014

CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Massachusetts	**55,157**	**662.5**	**11,845**	**12,797**	**3,309**	**820**	**2,459**	**2,596**	**1,214**	**1,363**	**393**	**152**	**616**	**1,337**
Abington	129	821.1	29	40	15	1	7	6	2	2	1	0	0	2
Acton	112	576.2	19	27	7	1	5	7	2	4	0	0	1	3
Acushnet	101	761.8	20	23	4	0	7	7	4	4	1	0	3	0
Adams	98	764.0	23	28	7	1	3	5	1	3	0	0	1	2
Agawam	346	739.5	61	74	17	9	21	16	7	4	3	1	6	3
Alford	2	-[4]	0	1	0	0	1	0	0	0	0	0	0	0
Amesbury	140	773.3	28	34	10	3	8	9	9	5	3	0	1	1
Amherst	126	494.2	30	26	2	3	9	5	3	1	0	0	0	2
Andover	231	595.2	52	53	6	3	14	8	6	4	0	0	1	5
Aquinnah	4	-[4]	0	2	0	0	0	0	0	0	0	0	0	1
Arlington	340	547.4	68	88	17	3	24	3	4	7	1	0	5	5
Ashburnham	38	813.0	9	8	4	0	2	2	1	0	1	0	1	1
Ashby	22	805.4	4	3	0	0	0	4	2	0	1	0	0	0
Ashfield	16	785.8	6	4	0	1	1	1	0	0	0	0	1	0
Ashland	89	594.8	26	21	6	1	5	4	1	0	2	0	1	1
Athol	145	977.3	40	32	14	3	5	9	6	3	2	0	6	2
Attleboro	388	788.3	80	98	40	3	20	23	5	12	2	1	4	10
Auburn	180	693.9	44	44	14	1	7	10	6	3	2	0	0	1
Avon	49	806.5	11	12	3	1	5	3	3	0	0	0	0	2
Ayer	90	1,216.10	24	20	7	0	4	1	3	2	1	0	0	1
Barnstable	526	719.0	136	117	23	12	22	24	10	9	4	0	10	12
Barre	40	673.4	7	11	2	0	1	4	1	0	0	0	1	0
Becket	13	713.4	2	4	1	0	1	3	0	0	0	0	0	0
Bedford	159	726.4	24	42	10	3	6	8	2	1	1	0	2	3
Belchertown	101	768.8	26	19	8	0	7	3	3	3	3	0	1	2
Bellingham	92	624.1	28	21	4	2	2	3	1	5	2	0	4	2
Belmont	164	477.6	25	39	2	0	7	2	3	3	0	0	0	3
Berkley	41	1,033.30	13	3	1	0	3	2	1	1	1	0	1	2
Berlin	26	690.8	7	7	3	0	2	2	0	0	0	0	0	0
Bernardston	27	888.2	3	12	4	0	1	0	0	2	0	0	0	0
Beverly	390	745.4	95	92	24	5	16	25	6	8	1	0	2	8
Billerica	321	876.3	77	79	17	7	11	16	3	10	2	0	3	12

Table 39. Selected Causes of Death by Community, Massachusetts: 2014

CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Blackstone	63	699.4	20	20	6	2	3	0	2	1	1	0	1	2
Blandford	4	-[4]	2	1	0	0	0	0	0	0	0	0	0	0
Bolton	20	446.7	6	6	1	0	0	0	0	0	0	0	0	0
Boston	3,626	674.4	696	832	221	52	162	140	111	74	24	52	31	106
Bourne	196	671.1	51	39	13	3	17	3	4	3	2	0	2	5
Boxborough	14	412.2	2	4	2	0	0	0	1	0	0	0	0	0
Boxford	51	635.4	13	14	2	0	3	1	0	0	1	0	2	0
Boylston	29	626.9	6	4	0	0	0	0	1	1	0	0	0	0
Braintree	377	718.5	79	70	16	3	24	19	12	8	3	1	3	8
Brewster	144	582.7	33	34	10	7	4	7	9	2	0	0	2	1
Bridgewater	151	659.5	30	32	8	1	6	10	2	3	3	0	3	4
Brimfield	27	686.2	3	7	3	0	2	2	1	3	0	0	0	0
Brockton	823	858.6	202	161	44	7	33	44	25	16	14	12	7	25
Brookfield	26	677.3	7	6	2	0	1	2	0	1	0	0	0	2
Brookline	287	425.0	53	86	17	8	14	4	3	4	3	0	5	1
Buckland	19	770.0	0	6	2	1	1	3	0	1	0	0	0	0
Burlington	232	746.6	42	51	12	2	10	13	5	6	0	1	0	3
Cambridge	471	556.0	93	117	24	11	20	12	4	7	3	2	9	8
Canton	261	763.2	57	66	14	6	6	8	4	7	1	0	3	4
Carlisle	18	499.3	6	8	2	1	0	0	0	0	0	0	0	0
Carver	107	794.2	22	27	7	1	1	9	4	10	1	0	2	5
Charlemont	11	603.7	3	3	1	2	1	0	0	1	0	0	0	0
Charlton	104	716.1	23	19	7	1	4	5	5	2	0	1	2	1
Chatham	88	464.2	26	23	5	1	6	2	1	0	0	0	0	1
Chelmsford	316	711.2	66	71	18	7	16	15	5	10	2	0	5	3
Chelsea	273	952.0	46	56	12	3	16	18	5	5	2	4	0	6
Cheshire	30	780.5	9	4	1	0	1	3	1	0	0	0	1	0
Chester	6	391.3	1	0	0	0	0	0	1	0	1	0	1	0
Chesterfield	6	427.2	2	2	0	0	1	0	0	0	0	0	0	0
Chicopee	566	755.1	131	120	37	8	23	33	7	23	1	2	7	7
Chilmark	10	519.7	2	3	0	2	2	1	0	0	0	0	0	1
Clarksburg	20	895.8	5	6	1	0	1	0	1	1	0	0	0	0
Clinton	132	857.0	37	32	6	1	4	4	4	1	0	0	1	4
Cohasset	78	779.3	18	19	3	2	2	4	0	5	0	0	0	3
Colrain	11	480.2	2	5	2	0	0	0	1	0	0	0	0	0

Table 39. Selected Causes of Death by Community, Massachusetts: 2014

CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Concord	162	461.0	43	30	4	3	7	7	0	5	0	0	2	0
Conway	11	764.1	1	0	0	0	0	2	2	0	0	0	0	0
Cummington	7	578.5	0	3	0	0	0	0	0	0	0	0	0	0
Dalton	87	839.3	17	19	5	3	3	5	2	3	0	0	0	0
Danvers	336	792.1	67	68	21	3	18	9	3	8	2	0	2	4
Dartmouth	311	662.6	79	65	17	2	14	10	8	10	3	1	3	7
Dedham	326	782.0	71	62	16	0	17	16	8	5	2	0	3	4
Deerfield	44	705.9	10	14	3	0	4	1	2	2	0	0	1	0
Dennis	242	744.0	64	59	11	4	11	13	9	2	1	0	3	8
Dighton	61	829.5	15	11	2	3	7	1	1	2	2	0	3	0
Douglas	37	624.5	8	9	3	1	1	2	1	0	1	0	2	0
Dover	23	508.8	2	7	0	1	1	1	0	0	1	0	0	0
Dracut	256	837.5	60	59	21	7	6	16	5	11	3	0	3	6
Dudley	99	874.6	25	23	7	3	4	5	3	2	1	0	0	2
Dunstable	10	493.6	3	2	0	0	1	0	1	0	0	0	0	0
Duxbury	122	580.0	31	29	10	3	5	5	2	1	0	0	1	2
East Bridgewater	124	892.7	28	36	8	0	3	9	1	3	1	0	3	2
East Brookfield	13	547.5	0	2	1	0	1	0	1	0	1	0	0	0
East Longmeadow	218	717.9	49	50	15	3	11	8	2	5	1	0	3	1
Eastham	82	796.2	14	27	6	2	2	4	4	1	1	0	1	5
Easthampton	186	876.1	37	51	13	7	5	23	2	3	0	0	2	2
Easton	158	722.1	27	45	15	2	5	5	6	2	0	0	2	7
Edgartown	25	563.9	7	7	3	0	1	1	0	1	0	0	0	0
Egremont	22	1,085.30	3	6	1	0	2	0	1	1	0	0	0	0
Erving	12	569.6	3	3	1	1	0	0	1	0	0	0	1	0
Essex	25	581.6	5	8	1	0	4	1	0	0	0	0	1	0
Everett	304	739.5	70	67	12	6	9	17	7	6	2	2	2	29
Fairhaven	201	729.0	44	31	4	3	6	10	3	5	2	0	3	2
Fall River	958	850.8	201	211	71	14	34	52	16	35	7	1	17	37
Falmouth	454	740.1	87	101	25	7	38	21	9	7	4	0	1	7
Fitchburg	358	793.7	67	76	25	3	20	24	13	12	1	2	1	12
Florida	4	-[4]	1	1	0	0	1	0	0	0	0	0	0	0
Foxborough	135	764.2	25	41	13	4	5	6	4	2	1	0	1	3
Framingham	564	646.9	134	132	33	8	16	26	11	11	5	0	8	11
Franklin	185	697.9	37	61	16	5	5	4	2	0	0	0	2	4

Table 39. Selected Causes of Death by Community, Massachusetts: 2014

CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Freetown	59	757.2	14	9	3	0	0	1	1	6	1	0	2	2
Gardner	229	873.0	52	62	21	3	28	12	3	6	1	0	4	5
Georgetown	51	695.0	11	12	2	1	2	5	0	0	0	0	2	2
Gill	12	778.1	1	1	1	0	3	0	1	0	0	0	0	2
Gloucester	316	754.1	65	65	19	3	13	27	10	3	2	0	9	6
Goshen	10	997.9	0	4	1	1	0	1	0	1	0	0	1	1
Gosnold	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grafton	104	612.5	24	26	8	3	4	7	2	2	1	0	1	2
Granby	44	660.6	18	10	0	0	0	2	0	0	1	0	1	2
Granville	8	473.4	4	1	0	1	0	1	0	0	0	0	0	0
Great Barrington	82	726.4	14	18	2	4	7	2	2	3	0	0	1	1
Greenfield	213	778.0	49	41	14	2	12	7	7	7	1	0	2	3
Groton	63	705.4	14	19	2	3	5	2	3	0	2	0	0	0
Groveland	58	747.5	11	17	3	1	0	4	0	1	0	0	0	1
Hadley	53	543.4	9	11	1	0	1	5	0	3	0	0	1	1
Halifax	62	751.0	12	20	6	2	8	5	0	1	1	0	2	0
Hamilton	44	578.1	13	8	3	0	2	2	0	1	0	0	0	1
Hampden	54	731.8	11	10	1	1	2	1	2	3	0	1	0	2
Hancock	4	-[4]	1	1	0	0	0	0	0	0	0	0	0	0
Hanover	111	796.3	23	35	3	5	8	1	1	4	2	0	0	1
Hanson	74	849.1	19	21	5	0	3	3	0	2	2	0	1	0
Hardwick	21	712.4	5	8	2	0	0	2	0	0	1	0	0	0
Harvard	38	852.2	9	10	1	0	1	2	1	1	0	0	0	0
Harwich	177	653.4	41	40	15	1	9	15	4	1	1	0	4	1
Hatfield	40	749.1	10	10	4	0	1	1	1	1	0	0	1	1
Haverhill	599	878.6	145	116	26	16	18	38	4	18	5	0	7	35
Hawley	1	-[4]	0	1	0	0	0	0	0	0	0	0	0	0
Heath	4	-[4]	3	0	0	0	0	1	0	0	0	0	0	0
Hingham	255	587.8	79	50	9	3	13	7	5	3	0	0	0	0
Hinsdale	19	740.3	4	5	2	0	1	1	1	0	0	0	0	2
Holbrook	105	820.3	21	31	7	1	5	6	5	2	1	0	0	4
Holden	154	697.5	27	46	9	5	8	6	2	8	1	0	1	5
Holland	11	520.9	3	2	0	1	0	1	0	0	3	0	0	0
Holliston	88	713.1	23	24	2	2	2	5	0	1	0	0	1	0
Holyoke	446	874.0	81	88	28	4	24	16	7	18	8	2	0	10

Table 39. Selected Causes of Death by Community, Massachusetts: 2014

CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Hopedale	64	849.1	15	14	0	0	2	4	1	0	1	0	1	4
Hopkinton	76	763.5	14	21	4	2	2	1	1	1	0	0	2	3
Hubbardston	25	824.6	9	7	1	2	2	0	0	3	0	0	1	2
Hudson	135	660.4	31	29	4	1	7	11	3	3	1	0	2	1
Hull	84	726.9	21	17	6	2	3	1	1	3	1	0	0	3
Huntington	17	737.1	2	7	3	0	0	0	1	0	0	0	1	0
Ipswich	107	541.8	22	31	9	2	7	5	1	1	1	0	1	4
Kingston	147	847.6	26	30	6	1	6	11	2	3	3	0	2	2
Lakeville	99	931.6	22	20	3	2	8	9	2	4	1	0	0	1
Lancaster	58	765.2	16	9	2	1	6	4	2	1	1	0	0	1
Lanesborough	20	513.5	6	8	1	2	0	1	0	0	1	0	0	0
Lawrence	475	774.4	70	100	20	2	24	23	14	14	6	6	2	24
Lee	70	733.5	16	11	7	0	3	4	1	2	0	0	0	2
Leicester	87	724.5	17	25	6	1	3	4	3	2	0	1	0	1
Lenox	112	671.7	33	18	5	0	5	11	3	0	1	0	0	0
Leominster	386	760.2	67	92	23	7	32	17	11	6	4	0	5	10
Leverett	8	460.2	3	1	1	0	0	0	1	0	0	0	0	0
Lexington	234	447.2	32	57	7	5	19	7	1	6	0	0	2	2
Leyden	4	-[4]	0	1	0	0	0	0	0	1	2	0	0	0
Lincoln	33	397.6	5	17	3	3	0	0	1	0	0	0	0	0
Littleton	34	307.6	5	7	1	1	1	1	1	3	0	0	0	0
Longmeadow	161	519.8	36	35	8	1	8	10	1	4	0	0	2	0
Lowell	869	914.8	170	166	54	9	30	28	21	34	11	5	13	39
Ludlow	209	698.7	51	36	9	0	18	9	6	7	0	0	2	2
Lunenburg	71	633.8	18	12	4	0	8	4	1	1	0	0	0	2
Lynn	738	818.1	157	165	48	9	17	33	20	15	7	7	4	42
Lynnfield	109	649.2	15	31	6	2	6	2	2	2	1	0	1	1
Malden	400	661.7	81	106	36	5	16	19	8	11	2	1	4	18
Manchester	32	438.4	9	13	1	1	2	0	0	0	0	0	0	0
Mansfield	128	729.0	28	37	11	3	3	3	1	0	2	0	2	2
Marblehead	157	570.1	36	41	4	2	5	5	0	3	1	1	3	0
Marion	48	509.4	13	6	1	0	4	2	0	1	0	0	2	0
Marlborough	317	749.2	58	69	14	5	11	20	8	11	2	0	4	9
Marshfield	204	819.6	45	54	19	2	5	6	7	7	3	0	3	6
Mashpee	167	679.4	32	54	13	4	9	6	2	1	0	0	1	3

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CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Mattapoisett	64	721.8	15	14	3	1	2	2	0	1	0	0	1	0
Maynard	60	550.1	22	10	1	2	2	4	1	0	0	0	2	2
Medfield	52	476.9	15	10	3	2	2	2	3	2	0	0	1	0
Medford	493	643.7	97	118	40	4	17	25	14	17	2	1	6	14
Medway	93	774.6	23	26	9	1	3	4	1	3	1	1	0	0
Melrose	210	572.1	46	61	21	3	9	11	4	2	0	0	0	4
Mendon	28	655.0	13	5	0	1	1	2	0	0	0	0	0	0
Merrimac	52	878.5	12	15	7	0	1	3	1	1	0	0	1	0
Methuen	408	713.1	95	107	32	5	12	22	9	8	2	0	6	12
Middleborough	228	853.2	47	64	25	5	9	9	2	5	4	0	3	5
Middlefield	2	-[4]	0	1	1	0	0	0	0	0	0	0	0	0
Middleton	51	539.2	13	8	3	1	3	2	0	3	1	0	1	2
Milford	230	694.3	54	54	21	5	7	10	10	5	2	0	3	4
Millbury	126	753.7	30	19	6	0	3	12	6	2	4	0	2	4
Millis	59	804.2	14	18	4	0	1	3	0	0	0	0	0	1
Millville	18	647.2	4	4	2	0	2	1	0	2	0	0	1	0
Milton	206	544.4	51	52	12	1	8	10	5	4	1	2	0	4
Monroe	2	-[4]	1	0	0	0	0	0	0	0	0	0	0	0
Monson	53	595.5	14	11	5	2	0	0	3	3	0	0	3	0
Montague	90	802.7	13	18	5	0	4	6	1	3	1	0	0	1
Monterey	8	586.6	3	2	0	0	1	0	0	0	0	0	0	0
Montgomery	6	668.4	1	3	1	0	0	0	0	1	0	0	0	0
Mount Washington	2	-[4]	1	0	0	0	0	0	0	0	0	0	0	0
Nahant	31	467.4	7	10	2	0	3	1	0	0	0	0	1	0
Nantucket	81	770.3	17	21	9	4	3	0	4	2	0	0	4	1
Natick	289	712.3	62	51	12	3	16	11	4	4	0	0	3	7
Needham	247	529.6	60	59	18	4	12	11	0	6	1	0	3	0
New Ashford	1	-[4]	1	0	0	0	0	0	0	0	0	0	0	0
New Bedford	1,010	839.5	218	199	48	19	41	56	12	35	9	4	12	28
New Braintree	5	488.0	3	0	0	0	1	0	1	0	0	0	0	0
New Marlborough	13	793.0	2	3	1	0	0	1	0	0	0	0	0	1
New Salem	7	777.8	1	1	0	0	1	1	0	0	0	0	0	0
Newbury	49	702.3	11	15	4	0	0	3	2	3	0	0	1	1
Newburyport	160	632.7	37	33	8	4	9	14	6	1	0	0	2	5
Newton	549	449.6	142	139	28	5	29	15	12	13	0	0	4	6

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CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Norfolk	56	837.7	15	17	5	0	0	1	0	2	0	0	1	1
North Adams	194	1,016.40	51	34	11	2	9	13	7	4	1	1	2	5
North Andover	244	637.5	57	50	12	2	11	6	3	5	1	0	1	3
North Attleboro	217	829.5	61	54	6	5	10	13	4	3	2	0	2	6
North Brookfield	36	647.2	9	9	3	1	1	2	1	3	0	0	1	1
North Reading	110	756.2	18	28	4	2	5	4	3	3	2	0	1	2
Northampton	293	839.6	49	63	17	3	22	13	6	6	1	0	6	11
Northborough	122	777.5	32	24	6	1	10	8	3	1	0	0	1	0
Northbridge	142	725.5	28	36	10	4	4	6	3	1	3	0	3	1
Northfield	27	691.5	6	5	3	0	4	1	2	1	0	0	2	0
Norton	149	890.8	32	32	7	1	4	14	0	4	0	0	0	4
Norwell	114	808.8	15	26	5	3	4	5	1	3	3	0	1	3
Norwood	307	685.3	88	67	17	5	9	15	4	7	3	0	4	4
Oak Bluffs	48	678.8	12	11	2	0	0	2	0	2	0	0	0	1
Oakham	9	491.0	2	1	0	0	0	1	1	0	1	0	0	0
Orange	97	1,040.00	22	27	10	0	3	6	4	6	1	0	1	2
Orleans	106	595.0	29	25	3	2	8	5	1	0	0	0	1	0
Otis	8	431.3	0	1	1	0	0	2	2	1	0	0	0	0
Oxford	107	769.9	23	26	8	2	5	7	5	2	1	0	1	5
Palmer	140	882.8	32	24	8	4	8	4	2	5	2	0	3	1
Paxton	28	503.7	7	5	2	0	3	1	0	1	1	0	0	1
Peabody	642	683.6	135	109	41	6	44	38	13	13	2	0	8	13
Pelham	16	986.5	2	4	0	0	1	2	0	2	0	0	0	0
Pembroke	118	777.2	20	38	6	3	10	6	3	2	1	0	1	5
Pepperell	88	887.0	17	28	6	1	3	4	1	2	0	0	1	3
Peru	2	-[4]	1	0	0	0	0	0	0	0	0	0	0	0
Petersham	10	759.9	2	2	1	0	0	0	1	1	0	0	0	0
Phillipston	10	808.8	3	2	0	0	0	1	0	0	0	0	0	0
Pittsfield	495	744.3	119	109	31	6	27	35	13	8	3	0	6	14
Plainfield	7	831.5	0	4	2	0	0	1	0	0	0	0	0	0
Plainville	55	647.2	14	14	6	2	2	6	0	0	0	0	2	4
Plymouth	557	853.9	111	154	40	9	25	26	13	14	6	0	9	17
Plympton	22	830.8	7	4	1	0	0	1	1	1	0	0	0	0
Princeton	19	597.9	5	5	0	0	2	1	0	0	0	0	0	1
Provincetown	48	925.3	6	10	1	2	6	0	3	1	0	0	0	1

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CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Quincy	930	767.7	186	215	65	20	28	42	23	27	8	1	10	37
Randolph	246	677.3	59	55	12	3	13	8	7	7	4	1	4	7
Raynham	125	814.5	28	24	6	1	11	8	1	1	1	0	1	5
Reading	186	592.5	40	37	4	2	6	12	1	8	0	0	3	4
Rehoboth	92	876.8	26	17	3	1	3	4	5	1	2	0	3	0
Revere	464	717.9	92	100	34	5	11	22	12	16	4	0	5	25
Richmond	17	856.9	4	5	1	0	0	1	0	0	0	0	0	0
Rochester	38	747.3	9	12	6	0	2	1	1	0	2	0	0	1
Rockland	195	960.6	38	46	13	3	8	13	5	5	1	1	4	6
Rockport	104	844.9	26	21	4	4	3	3	3	4	1	0	0	2
Rowe	1	-[4]	0	0	0	0	0	0	0	1	0	0	0	0
Rowley	55	864.0	12	15	4	4	0	3	1	1	0	0	2	0
Royalston	5	426.4	3	0	0	0	1	0	0	0	0	0	0	0
Russell	7	450.3	0	1	0	1	0	1	0	0	0	0	0	0
Rutland	52	915.5	8	15	6	1	0	2	3	1	2	1	1	2
Salem	295	634.8	62	79	18	5	16	11	7	11	2	0	3	12
Salisbury	95	990.4	20	26	12	3	3	9	0	1	0	0	3	4
Sandisfield	7	496.9	3	1	1	0	0	1	0	0	0	0	0	0
Sandwich	168	666.1	36	38	10	3	8	8	2	6	0	0	1	3
Saugus	264	721.3	47	74	16	4	12	15	2	7	0	0	3	8
Savoy	3	-[4]	1	1	1	0	0	0	0	0	0	0	0	0
Scituate	165	694.2	39	44	7	2	9	10	2	6	2	0	1	5
Seekonk	84	518	19	27	8	1	2	5	4	0	0	0	0	1
Sharon	99	550.8	29	25	7	0	0	5	1	2	2	1	0	3
Sheffield	17	322.9	4	4	1	0	2	2	0	1	0	0	1	1
Shelburne	26	838.0	7	6	1	0	0	4	0	1	0	0	0	2
Sherborn	33	824.3	5	9	3	0	1	1	1	1	0	0	0	1
Shirley	50	775.7	3	17	2	1	2	0	3	3	0	1	2	3
Shrewsbury	225	512.9	53	65	19	2	5	11	4	10	0	0	1	1
Shutesbury	9	816.4	2	3	0	1	2	0	0	0	0	0	0	0
Somerset	250	712.3	77	56	10	3	22	8	4	10	1	1	1	2
Somerville	434	712.2	90	114	36	2	20	14	15	9	2	1	1	14
South Hadley	178	664.5	40	50	12	3	10	5	1	6	0	0	2	0
Southampton	47	833.8	8	13	2	3	6	2	1	1	1	0	1	0
Southborough	60	740.9	11	16	4	2	0	5	2	1	0	0	0	0

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Southbridge	181	853.3	34	33	10	0	4	9	10	4	3	0	1	3
Southwick	94	804.2	21	26	8	3	7	6	3	1	1	0	1	2
Spencer	107	776.7	14	33	8	3	3	8	0	6	0	0	3	3
Springfield	1,201	815.7	265	271	61	13	50	47	29	26	13	11	13	21
Sterling	63	682.7	11	19	2	3	2	4	0	0	1	0	1	0
Stockbridge	9	219.4	2	5	0	0	0	1	0	0	0	0	0	0
Stoneham	200	571.9	46	51	18	3	9	10	2	5	1	0	2	5
Stoughton	286	802.3	53	71	13	2	6	9	8	8	0	0	3	10
Stow	30	476.9	5	7	1	1	1	1	0	2	0	0	1	0
Sturbridge	76	723.8	20	17	7	0	5	4	4	1	0	0	0	1
Sudbury	89	515.0	17	20	5	2	2	6	2	2	0	0	1	0
Sunderland	23	674.5	5	7	2	2	0	1	1	2	0	0	0	0
Sutton	57	823.9	5	26	7	1	0	3	2	2	1	0	1	0
Swampscott	110	452.9	25	23	5	2	5	5	0	3	0	0	0	3
Swansea	156	690.1	35	39	10	0	6	5	3	4	2	2	6	5
Taunton	560	861.1	128	127	29	9	17	23	10	14	4	0	7	18
Templeton	74	811.3	14	23	10	3	4	2	1	3	0	0	0	2
Tewksbury	257	762.9	40	72	26	6	10	9	3	9	0	0	6	7
Tisbury	22	399.8	4	9	0	1	0	1	0	2	0	0	1	1
Tolland	1	-[4]	0	0	0	0	0	0	0	0	0	0	0	0
Topsfield	52	473.3	11	11	6	2	1	7	1	1	0	0	0	1
Townsend	61	893.7	11	16	5	1	3	1	2	2	1	0	3	2
Truro	27	779.4	4	7	2	0	1	4	2	1	0	0	0	0
Tyngsborough	62	758.6	12	16	9	2	1	3	1	3	0	0	0	1
Tyringham	3	-[4]	0	0	0	0	0	0	0	0	0	0	0	0
Upton	43	647.0	12	15	5	1	1	2	1	0	1	0	1	0
Uxbridge	103	728.3	21	26	5	0	4	4	3	2	1	0	0	1
Wakefield	233	739.4	44	56	14	2	10	10	4	8	1	0	5	5
Wales	18	1,033.10	8	0	0	0	1	0	1	0	0	0	0	0
Walpole	211	644.6	60	48	15	1	10	9	6	0	1	0	1	1
Waltham	428	657.6	95	109	26	5	17	17	13	10	1	3	2	10
Ware	105	855.4	21	28	10	0	2	6	7	3	0	0	0	4
Wareham	265	923.7	55	61	16	4	8	14	13	6	4	2	6	9
Warren	45	879.4	8	7	1	0	2	4	1	1	1	0	1	2
Warwick	7	648.1	1	4	1	0	0	1	1	0	0	0	0	0

Table 39. Selected Causes of Death by Community, Massachusetts: 2014

CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Washington	3	-[4]	0	0	0	0	0	0	0	1	0	0	0	0
Watertown	240	582.5	54	55	15	2	7	5	5	5	0	0	4	3
Wayland	98	528.1	20	29	2	0	4	3	1	5	0	0	0	1
Webster	211	900.6	46	48	12	2	7	15	4	9	1	0	3	4
Wellesley	161	458.5	41	29	7	4	11	1	4	1	0	0	1	0
Wellfleet	42	866.9	7	6	2	0	2	2	1	1	0	0	1	1
Wendell	8	783.3	2	2	0	0	0	0	2	0	0	0	2	0
Wenham	30	481.1	7	10	1	0	0	1	0	2	0	0	1	1
West Boylston	98	737.7	20	19	7	2	2	3	1	6	0	0	0	3
West Bridgewater	79	747.9	16	12	3	0	2	3	2	2	1	0	1	4
West Brookfield	41	649.9	8	10	3	0	3	2	2	1	0	0	0	2
West Newbury	20	532.3	9	1	0	0	0	0	1	0	0	0	0	0
West Springfield	275	744.2	43	62	13	4	17	14	3	5	3	0	5	6
West Stockbridge	7	277.5	2	2	1	0	1	0	0	0	0	0	0	0
West Tisbury	17	578.5	2	1	0	0	3	0	1	0	0	1	0	1
Westborough	149	647.0	32	33	7	2	5	7	3	2	1	0	2	1
Westfield	375	771.0	67	95	19	4	16	24	8	11	3	0	6	8
Westford	115	742.2	26	31	5	2	5	4	0	1	0	0	1	2
Westhampton	9	621.5	2	1	0	0	1	0	0	0	0	0	0	0
Westminster	50	688.7	12	16	7	2	1	2	2	0	0	0	0	1
Weston	87	509.4	16	20	3	0	5	3	0	3	0	0	1	1
Westport	170	777.4	41	49	17	2	3	8	2	3	1	1	2	4
Westwood	132	499.4	20	31	6	5	5	6	1	2	2	0	2	2
Weymouth	508	748.2	118	125	30	15	20	32	15	14	1	1	7	14
Whately	16	733.7	4	5	0	0	1	0	0	0	0	0	0	0
Whitman	105	833.4	22	24	11	1	6	9	2	2	3	0	1	2
Wilbraham	162	648.2	39	32	4	3	9	6	2	7	3	0	0	1
Williamsburg	20	643.3	2	3	1	0	1	1	0	0	0	0	1	0
Williamstown	65	439.5	15	6	1	0	2	3	0	1	0	0	1	1
Wilmington	183	744.2	29	47	14	4	5	7	4	1	2	0	1	4
Winchendon	84	887.1	22	19	6	1	5	9	1	1	1	0	1	2
Winchester	181	568.6	36	32	9	0	23	4	3	2	1	1	2	4
Windsor	2	-[4]	0	1	0	0	0	0	0	0	0	0	0	0
Winthrop	192	804.5	48	44	10	4	3	13	4	6	0	0	3	3
Woburn	342	642.6	69	75	15	5	16	18	4	11	1	0	2	5

Table 39. Selected Causes of Death by Community, Massachusetts: 2014

CITY/TOWN	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[5]
Worcester	1,660	860.6	329	371	94	25	69	79	50	53	7	6	12	56
Worthington	6	554.1	2	1	0	0	0	1	0	1	0	0	0	0
Wrentham	112	805.3	18	23	4	3	7	3	2	4	1	0	0	1
Yarmouth	387	721.6	87	91	15	5	22	13	5	9	3	0	2	6

1. Rates are per 100,000 population age-adjusted to the 2000 US Standard Population and calculated using MDPH population estimates for 2010, which are the most up-to-date information available on the number of persons by age, race, and sex at the sub-state level. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table. 2. Includes only female breast cancer. 3. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title). 4. Rates based on 1 to 4 deaths are not calculated. 5. Deaths due to narcotics and hallucinogens including cannabis, cocaine, codeine, heroin, lysergic acid diethylamide (LSD), mescaline, methadone, morphine, and opium (alkaloids).

Table 40. Selected Causes of Death by Community Health Network Area (CHNA), Massachusetts: 2014

CHNA Name	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Female Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioid-related[4]
Massachusetts	**55,159**	**662.5**	**11,845**	**12,797**	**3,309**	**820**	**2,459**	**2,596**	**1,214**	**1,363**	**393**	**153**	**616**	**1,337**
1. Community Health Network of Berkshire	1,439	702.5	343	304	83	18	71	94	35	29	6	1	13	29
2. Upper Valley Health Web (Franklin County)	876	769.6	196	206	66	13	44	45	33	32	7	0	16	12
3. Partnership for Health in Hampshire County (Northampton)	1,256	714.3	258	304	74	20	67	71	24	31	6	0	17	26
4. The Community Health Connection (Springfield)	2,730	752.4	578	601	141	45	133	114	54	64	26	13	36	37
5. Community Health Network of Southern Worcester County	1,102	782.0	231	242	72	13	43	66	38	35	11	1	12	26
6. Community Partners for Health (Milford)	1,155	694.8	268	317	88	23	35	45	27	21	14	1	19	18
7. Community Health Network of Greater Metro West (Framingham)	2,879	659.7	653	666	154	44	111	143	56	55	14	0	34	48
8. Common Pathways (Worcester)	2,691	758.2	557	624	165	39	104	133	75	88	16	7	17	74
9. Community Health Network of North Central Massachusetts	2,172	775.6	459	541	148	33	138	110	60	45	19	4	23	54
10. Greater Lowell Community Health Network	2,206	818.6	454	496	150	40	80	91	39	78	18	5	31	70
11. Greater Lawrence Community Health Network	1,409	692.9	287	318	73	13	64	61	32	34	10	6	11	46
12. Greater Haverhill Community Health Network	1,330	792.2	309	298	78	32	44	89	24	31	9	0	21	49
13. Community Health Network North (Beverly/Gloucester)	1,100	675.7	253	259	68	17	48	71	21	20	5	0	14	23
14. North Shore Community Health Network	2,682	700.0	551	600	161	33	126	119	47	62	15	8	25	83
15. Northwest Suburban Health Alliance	1,704	570.5	312	397	86	28	92	72	24	39	5	2	12	24
16. North Suburban Health Alliance (Medford/Malden/Melrose)	2,136	652.7	442	524	149	27	81	108	43	60	10	4	23	81
17. Greater Cambridge/Somerville Community Health Network	1,649	581.3	330	413	94	18	78	36	31	31	6	3	19	33
18. West Suburban Health Network (Newton/Waltham)	1,953	542.2	447	456	104	24	97	70	38	40	7	3	16	23
19. Alliance for Community Health (Boston/Chelsea/Revere/Winthrop)	4,842	671.2	935	1,118	294	72	206	197	135	105	33	56	44	141
20. Blue Hills Community Health Alliance (Greater Quincy)	3,630	702.9	839	831	203	65	139	166	80	96	29	7	33	95
21. Community Health Network of Chicopee, Holyoke, Ludlow, Westfield	1,619	771.9	333	346	96	16	81	82	30	59	13	4	17	27
22. Greater Brockton Community Health Network	2,009	805.0	439	464	127	16	78	104	56	40	24	12	20	62
23. South Shore Community Health Network	1,719	809.4	354	458	116	29	79	86	38	50	20	1	25	44
24. Greater Attleboro-Taunton Health & Education Response	2,172	807.4	499	514	141	34	97	114	36	47	21	1	26	54
25. Partners for Healthier Communities	1,534	798.7	354	355	108	19	65	73	25	52	11	5	26	48
26. Greater New Bedford Community Health Network	2,097	778.2	467	420	102	29	84	103	42	68	22	7	32	49
27. Cape Cod and Islands Health Network	3,061	681.1	697	725	168	60	174	132	71	51	16	1	34	60

1. Rates are per 100,000 population age-adjusted to the 2000 US Standard Population. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table. 2. Includes only female breast cancer. 3. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title).
4. The term opioid designates a class of drugs derived naturally from the opium poppy (opium, morphine, codeine), synthesized or derived from a natural opiate (heroin, oxycodone, hydrocodone), or manufactured synthetically with a chemical structure similar to opium (fentanyl, methadone). (Opioid Overdose Response Strategies in Massachusetts, MDPH, 2014). This report combines all opioid overdoses since classification of specific drugs can be difficult. For example, many deaths related to heroin cannot be specifically coded as such due to the fast metabolism of heroin into morphine, as well as, the possible interaction of multiple drugs.
*Please note that CHNA totals add to seven less than the state total, which is due to seven persons missing age and could not be included in the calculation of age-adjusted rates

Table 41. Selected Causes of Death by County, Massachusetts: 2014

County	Total Deaths	Age-Adjusted Death Rate[1]	Heart Disease	Total Cancer	Lung Cancer	Female Breast Cancer[2]	Stroke	CLRD[3]	Diabetes	Influenza & Pneumonia	Motor Vehicle	Homicide	Suicide	Opioids-related[4]
Massachusetts	**55,159**	**662.5**	**11,845**	**12,797**	**3,309**	**820**	**2,459**	**2,596**	**1,214**	**1,363**	**393**	**153**	**616**	**1,337**
Barnstable	2,854	671.2	653	671	154	53	165	127	66	44	16	0	29	54
Berkshire	1,439	687.2	343	304	83	18	71	94	35	29	6	1	13	29
Bristol	5,219	740.4	1,186	1,157	312	72	218	258	91	152	43	11	74	142
Dukes	126	508.7	27	33	5	3	6	5	1	5	0	1	1	5
Essex	6,521	663.5	1,400	1,475	380	95	282	340	124	147	39	14	71	201
Franklin	706	728.7	148	170	51	10	38	35	26	28	5	0	10	10
Hampden	4,388	739.3	923	949	237	62	217	199	85	126	42	17	52	64
Hampshire	1,273	674.2	260	311	77	20	67	71	25	31	6	0	18	26
Middlesex	11,001	597.1	2,281	2,623	645	156	468	447	209	284	55	18	123	270
Nantucket	81	662.3	17	21	9	4	3	0	4	2	0	0	4	1
Norfolk	5,678	620.6	1,266	1,361	342	101	223	241	122	127	39	8	60	124
Plymouth	4,490	716.5	996	1,077	286	61	198	227	99	110	60	15	54	110
Suffolk	4,555	639.6	882	1,032	277	64	192	193	132	101	30	56	39	140
Worcester	6,821	712.0	1,463	1,613	451	101	311	358	195	177	52	11	68	160

Please note that 2011 population estimates are used for county rates.

1. Rates are per 100,000 population age-adjusted to the 2000 US Standard Population. Data presented in this table are classified according to ICD-10. Please see Appendix for a list of ICD-10 codes used in this table. 2. Includes only female breast cancer. 3. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title). 4. The term opioid designates a class of drugs derived naturally from the opium poppy (opium, morphine, codeine), synthesized or derived from a natural opiate (heroin, oxycodone, hydrocodone), or manufactured synthetically with a chemical structure similar to opium (fentanyl, methadone). (Opioid Overdose Response Strategies in Massachusetts, MDPH, 2014). This report combines all opioid overdoses since classification of specific drugs can be difficult. For example, many deaths related to heroin cannot be specifically coded as such due to the fast metabolism of heroin into morphine, as well as, the possible interaction of multiple drugs.
*Please note that county totals add to seven less than the state total, which is due to 7 persons missing age and could not be included in the calculation of age-adjusted rates

TECHNICAL NOTES

DATA SOURCES

Data for this document are derived from Massachusetts death certificates, Massachusetts birth certificates, the US Census, the Massachusetts Institute for Social and Economic Research (MISER) (population data pre-2000), and the National Center for Health Statistics (NCHS).

CHANGES TO MORTALITY DATA, EFFECTIVE 1999

Beginning with data year 1999, two major changes in Federal classification and tabulation procedures occurred that affects the tabulation and analyses of mortality data over time. First, a new revision for classifying causes of death was implemented: The International Classification of Diseases, Tenth Revision (ICD-10) replaced the International Classification of Diseases, Ninth Revision (ICD-9) for coding all mortality data. Second, a new standard population for the tabulation of age-adjusted mortality rates was also implemented.

CHANGES TO THE PRESENTATION OF RACE AND ETHNICITY DATA

The 2003 revision of the Standard Certificate of Death allows the reporting of more than one race in accordance with the revised standards issued by the Office of Management and Budget (OMB) in 1997. The revised standards require federal data collection programs to allow respondents to select *one or more race categories*. In order to provide uniformity and comparability of the data during the transition period, before multiple-race data are available for all reporting areas, it is necessary to "bridge" the responses of those who reported more than one race to a single-race. The method used to bridge responses for those who report more than one race to a single race is based on a procedure whereby multiple races are assigned to the smallest minority group first (i.e. Asian and White becomes Asian or Black and Native American becomes Native American). All multiple races that include Hispanic will be assigned as Hispanic and this group also includes all respondents who reported Hispanic ethnicities as well.

Decedent Race

☐ American Indian/Alaska Native (specify tribal nation): _____	☐ Native Hawaiian
☐ Asian	☐ Samoan
☐ Black	☐ White
☐ Guamanian or Chamorro	☐ Other Pacific Islander (specify):_____
☐ Hispanic/Latino/Black	☐ Other race not listed (specify):_____
☐ Hispanic/Latino/White	☐ Refused
☐ Hispanic/Latino/Other(specify):_____	☐ Not obtainable
	☐ Unknown

Decedent Race

Enter race to appear on death certificate: _____

Decedent Ethnicity

☐ African (specify):_____	☐ Laotian
☐ African-American	☐ Mexican, Mexican American, Chicano
☐ American	☐ Middle Eastern (specify):_____
☐ Asian Indian	☐ Native American (specify tribal nation(s)):_____
☐ Brazilian	☐ Portuguese
☐ Cambodian	☐ Puerto Rican
☐ Cape Verdean	☐ Russian
☐ Caribbean Islander (specify): _____	☐ Salvadoran
☐ Chinese	☐ Vietnamese
☐ Colombian	☐ Other Asian (specify): _____
☐ Cuban	☐ Other Central American (specify): _____
☐ Dominican	☐ Other Pacific Islander (specify): _____
☐ European (specify): _____	☐ Other Portuguese (specify): _____
☐ Filipino	☐ Other South American (specify): _____
☐ Guatemalan	☐ Other ethnicity (ies) not listed (specify): _____
☐ Haitian	☐ Refused
☐ Honduran	☐ Not obtainable
☐ Japanese	☐ Unknown
☐ Korean	

POPULATION ESTIMATES

Two sources of population estimates were used to calculate population-based rates in *Massachusetts Deaths 2014*:

a. State and County Death Rates: The 2014 Modified Age, Race/Ethnicity, and Sex file (MARS), which is a bridged population file produced by the National Center for Health Statistics (NCHS) and the Census Bureau Population Estimates Program was used to calculate state rates by race and Hispanic ethnicity, e.g., teen birth rates. This file has data by single years of age, sex, race and Hispanic ethnicity in the five mutually exclusive categories used by the Department: White Non-Hispanic, Black Non-Hispanic, Asian Non-Hispanic, American Indian/Alaska Native Non-Hispanic, and Hispanic. Available from: http://www.cdc.gov/nchs/nvss/bridged_race.htm as of July 2, 2015.

b. City and town death rates: The Massachusetts Department of Public Health Race Allocated Census 2010 Estimates (MRACE 2010), which are population estimates based upon the Census 2010 Summary File 1, was used to calculate city and town rates. In this estimates file, the Census 2010 race categories, "Two or more races" and "Some other race" are redistributed to the MDPH standard race categories: Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Asian and Pacific Islander, and Non-Hispanic American Indian and Alaska Native. All persons in the Census 2010 Hispanic ethnicity category are counted as "Hispanic" race in the MDPH estimates. This kind of file is often referred to as a "bridged" file, that is, one that bridges the new race and ethnicity collections to the conventionally used categories. These population estimates are available from MassCHIP (http://masschip.state.ma.us).

LIMITATIONS OF SMALL NUMBERS

Cells in some tables contain small numbers. Rates and proportions based on fewer than five observations are suppressed, and trends based upon small numbers should be interpreted cautiously.

APPLYING COMPARABILITY RATIOS TO EXAMINE TRENDS IN MORTALITY

Beginning with 1999, mortality data are coded according to the International Classification of Diseases-10th revision (ICD-10). Due to the changes in coding rules, comparison of mortality trends over time using different revisions of ICD is challenging. A method was devised to assess if changes in causes of death are "real" changes, or due to the new classification system. Using this method, death data for 1996 were coded twice; once according to ICD-9 and again according to ICD-10. A comparability ratio (CR) was then calculated by dividing the number of deaths coded according to ICD-10 by the number of deaths coded according to the most similar codes in ICD-9 (please refer to Table A7. Preliminary Comparability Ratios for a list of codes and CR used in this publication).

A CR of 1.00 indicates that the same number of deaths was assigned to a cause of death whether ICD-9 or ICD-10 was used. A CR of less than 1.00 results from 1) a decrease in the number of deaths assigned to a cause in ICD-10 compared with ICD-9 or 2) the cause described in ICD-10 is only a part of the ICD-9 title to which it is being compared. A CR of more than 1.00 results from 1) an increase in the assignments of deaths to a cause in ICD-10 compared with ICD-9 or 2) the ICD-10 title is broader than the ICD-9 title to which it is being compared.

EXAMPLE: **Influenza and Pneumonia[1] Deaths: Massachusetts, 1996-2000**

Year	Age-adjusted rate[2]	Comparability Ratio	Comparability Modified Rate (=age-adjusted rate* Comparability Ratio)
1996	41.5	0.6982	29.0
1997	39.1	0.6982	27.3
1998	40.2	0.6982	28.1
1999	30.3		
2000	29.3		

1. Influenza and pneumonia defined as ICD-9: 480-487 for years 1996-1998 and ICD-10: J10-J18 for year 1999 and 2000.
2. Age-adjusted to the 2000 US standard population, per 100,000.

If you look only at the age-adjusted rate over time, not taking the ICD coding changes into account, it appears that deaths from influenza and pneumonia have decreased between 1996-1999. However, because the coding rules changed between ICD-9 and ICD-10 revisions, we need to apply the comparability ratio to the rates for 1996-1998. (This is done by multiplying the age-adjusted rate by the comparability ratio.) Now we can make a fairer comparison and examine the changes between the comparability modified rate and the 1999 or 2000 rate. We see that deaths to influenza and pneumonia have remained constant between 1996-2000, and have actually increased between 1998 and 1999 (28.1 to 30.3 per 100,000, respectively) after taking the changes in the classification system into account.

PLEASE NOTE: the comparability ratios used in this report are based on the Preliminary Comparability Study conducted by the National Center for Health Statistics (NCHS), February 2001, and are subject to change once the Final Comparability Study is completed.

TESTS OF STATISTICAL SIGNIFICANCE

Beginning with *Massachusetts Deaths 2004,* statistics presented in the text section have been tested to determine whether they differ significantly from a target statistic. For example, the number of deaths in 2008 was compared with the number of deaths in 2007 to determine whether their difference was unlikely to have occurred by chance. When a difference is unlikely to have occurred by chance, it is referred to as "significant."

Note that with respect to statistical difference, the language of this year's report differs from the language of reports prior to 2004, and caution must be used when comparing the text of previous reports with this year's report.

In testing for statistical significance, we have used the testing methods from the National Center for Health Statistics (NCHS). These methods are presented in the following document:

> National Vital Statistics Reports, Volume 52, Number 10
> Births: Final Data for 2002
> by Joyce A. Martin, M.P.H.; Brady E. Hamilton, Ph.D.; Paul D. Sutton, Ph.D.; Stephanie J. Ventura, M.A.; Fay Menacker, Dr. P.H.; and Martha L. Munson, M.S.;
> From the Division of Vital Statistics, NCHS. (Technical Notes, "Significance testing" section begins on page 110).

This document is available from the following website:
http://www.cdc.gov/nchs/products/pubs/pubd/nvsr/52/52-23.htm

For comparisons of more than 100 events, whether they are rates, proportions, or numbers, the binomial distribution is assumed, and confidence intervals are examined to see whether they overlap (Refer to the "Confidence Intervals" section in the next page for an explanation of using confidence intervals to determine statistical significance). When the number of events is less than 100, a Poisson distribution is assumed, and confidence intervals are constructed based upon the Poisson distribution. For more details and exact formulas for calculating confidence intervals or other tests of statistical significance, refer to the publication listed above.

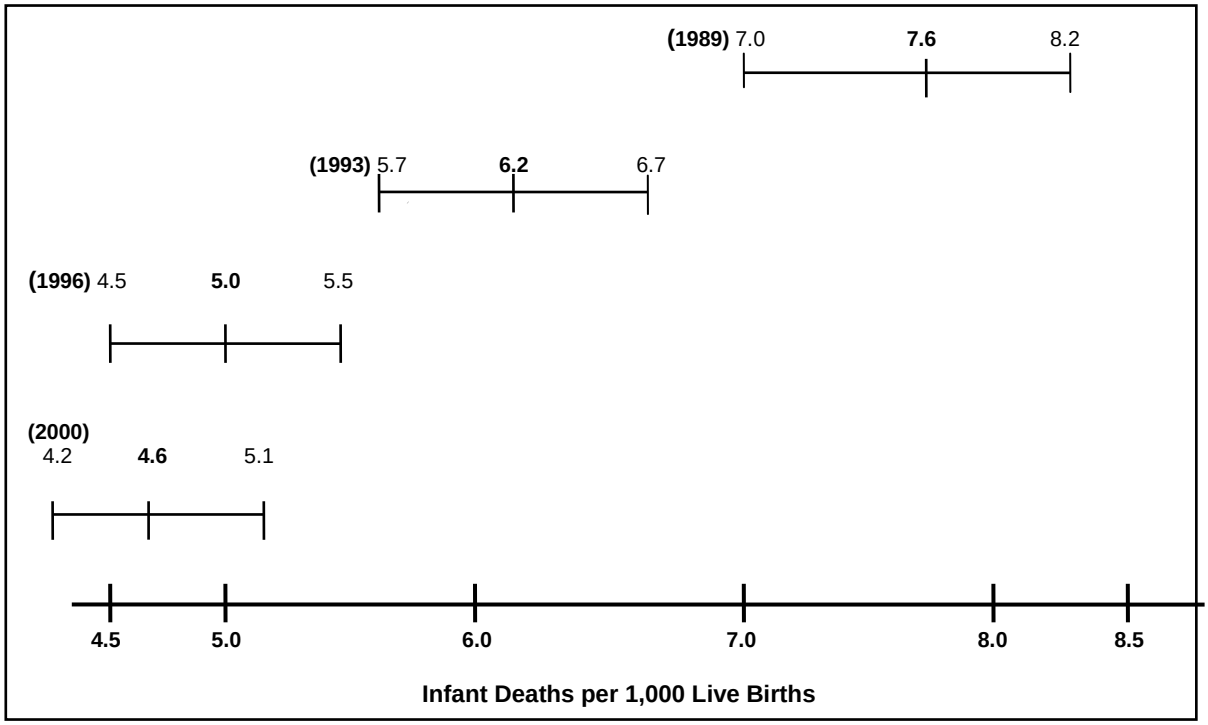
When two statistics are determined to differ significantly, they are referred to in the text with language expressing differences, such as, "higher" and "lower", or "increased" and "decreased". Otherwise, differences that are not significant are reported as having "no change" or "no statistical difference."

CONFIDENCE INTERVALS AND INFANT MORTALITY RATES

The confidence interval (CI) provides a measure of stability of the infant mortality rates (IMR) and a basis for comparing rates to determine if they are statistically different. Rates can be compared for the same group in different years or for different groups in the same year. The width of the CI reflects the stability of the IMR. For example, a narrow CI reflects high stability, and a wide CI reflects low stability. If the CIs around two IMRs being compared do not overlap, the difference between the two rates is statistically significant. The following table and chart illustrate the concept of statistically significant differences using actual data from 1989, 1993, 1996, and 2000.

Comparison of Infant Mortality Rates and Confidence Intervals for Selected Years

Year	IMR (per 1,000 births)	95% Confidence Interval
1989	7.6	(7.0-8.2)
1993	6.2	(5.7-6.7)
1996	5.0	(4.5-5.5)
2000	4.6	(4.2-5.1)



The difference between the 1993 IMR and 1996 IMR is statistically significant – the confidence intervals do not overlap. The same is true for the differences between the 1989 IMR and each annual IMR for 1993, 1996, and 2000. However, the difference between the 1996 and 2000 IMRs is not statistically significant, since their confidence intervals overlap.

GLOSSARY

Age-Adjusted Rate
A summary rate designed to minimize the distortions created by differences in age distribution when comparing rates for populations with different age compositions. Age-adjusted rates are useful when comparing death rates from different populations or in the same population over time. For example, if one wished to compare the 1998 death rates between Barnstable County and Hampshire County, the age-adjusted formula would account for the fact that 24% of the Barnstable County residents were 65 years of age or older, whereas only 11% of the Hampshire County residents were in this age group.

Age-adjusted rates are calculated by weighting the age-specific rates for a given year by the age distribution of a standard population. The weighted age-specific rates are then added to produce the adjusted rate for all ages combined. (Please see example below).

The 2000 US projected population is used as the standard population in this document for consistency with data published by the National Center for Health Statistics (NCHS). **ONLY RATES USING THE SAME STANDARD POPULATION CAN BE COMPARED**. All age-adjusted rates published in this report have been re-calculated using the 2000 US standard population. These rates should NOT be compared with age-adjusted rates previously published that used the 1940 US standard population.

Example: Calculation of 1999 Age-Adjusted Mortality Rate
Massachusetts: All Causes of Death

A	B	C	D	E	F	G
Age group (in years)	# of deaths (1999)	Population (1998)	1940 US standard	2000 US standard	Age-adjusted rate (using1940 standard) =[((B/C)*D)*100,000]	Age-adjusted rate (using 2000 standard) =[((B/C)*E)*100,000]
< 1	418	79,860	0.015343	0.013818	8.0	7.2
1-4	65	320,000	0.064718	0.055317	1.3	1.1
5-14	100	806,670	0.170355	0.145565	2.1	1.8
15-24	407	883,830	0.181677	0.138646	8.4	6.4
25-34	701	1,005,337	0.162066	0.135573	11.3	9.5
35-44	1,696	1,019,365	0.139237	0.162613	23.2	27.1
45-54	2,870	818,660	0.117811	0.134834	41.3	47.3
55-64	4,561	495,555	0.080294	0.087247	73.9	80.3
65-74	9,782	442,003	0.048426	0.066037	107.2	146.1
75-84	17,397	299,482	0.017303	0.044842	100.5	260.5
85+	17,765	120,501	0.002770	0.015508	40.8	228.6
Total					**418.0**	**815.9**

Age-Specific Rate
A rate for a specified age group. Age-specific death rates are calculated by dividing the number of deaths for a specific age group by its population for that year. The numerator and denominator refer to the same age group.

$$\text{Age-specific death rate (ages 25-34)} = \frac{\text{Number of deaths among residents ages 25-34 in a given year}}{\text{population ages 25-34 in that year}} \times 100{,}000$$

Community Health Network Areas (CHNA)
The Department of Public Health, in collaboration with health service providers, coalition members, and interested citizens, has designated 27 areas for community health planning. It is the Department's intention to foster in each of these areas the development of Community Health Networks – consortia of health care providers, human service agencies, schools, churches, youth, parents, elders, advocacy groups, and individual consumers -- to address the health needs of the community. CHNAs mobilize around key health issues impacting the community, promote prevention efforts, enhance access to care, provide opportunities for more collaboration among agencies, and create a client-centered, outcome-oriented health service delivery system. CHNAs also promote efficiency in service delivery by working to reduce duplication and overlap, and by identifying gaps in service. These community coalitions participate in monitoring outcomes and progress of strategies and responses to those health needs. To determine which cities and towns make up a particular CHNA, please see Table A8, which provides the CHNA code for each city and town based on the geographic definitions established in 1997.

Comparability Modified Rate
A rate designed to assist in the analysis of mortality trends between revisions of the International Classification of Diseases (ICD). A comparability-modified rate is calculated by multiplying the cause-specific comparability ratio by the cause-specific rate for years 1994-1998. Comparability modified rates should be used to compare trends between causes of death in 1994-1998 with causes of death in 1999 forward.

Comparability Ratio (CR)
A factor used to adjust mortality statistics for causes of death classified in ICD-9 to be comparable with mortality statistics classified in ICD-10. It is calculated by dividing the number of deaths for a selected cause of death classified by the new revision (i.e. ICD-10) by the number of deaths for a selected cause of death classified by the old revision (i.e. ICD-9).

More specifically, the CRs used in this report were calculated by the National Center for Health Statistics (NCHS) based on a national sample of death records. Death records for 1996 were double coded, once according to ICD-9 and again according to ICD-10. Secondly, the leading causes of death were grouped according to ICD-10 titles, using the ICD-10 codes for data coded in ICD-10, and the most similar ICD-9 titles for data coded in ICD-9. Finally, the number of deaths coded in ICD-10 were divided by the number of deaths in ICD-9 to produce a CR for the cause of death.

A CR of 1.00 indicates that the same number of deaths was assigned to a cause of death whether ICD-9 or ICD-10 was used.

A CR of less than 1.00 results from 1) a decrease in the number of deaths assigned to a cause in ICD-10 compared with ICD-9 or 2) the cause described in ICD-10 is only a part of the ICD-9 title to which it is being compared.

A CR of more than 1.00 results from 1) an increase in the assignments of deaths to a cause in ICD-10 compared with ICD-9 or 2) the ICD-10 title is broader than the ICD-9 title to which it is being compared.

Preliminary comparability ratios supplied by the National Center for Health Statistics (NCHS) in February 2001 are used in this report (see Table A7 and A8).

See also, comparability modified rate.

Crude Death Rate
An estimate of the proportion of a population that died during the year. The numerator is the number of persons who died during the year and the denominator is the size of the population. The death rate in a population is calculated by the formula:

$$\text{Crude death rate} = \frac{\text{Number of resident deaths in a year}}{\text{Number of residents}} \times 100{,}000$$

Death Certificate
A vital record can be signed by a licensed physician doctor (which includes ME's) or a Nurse Practitioner. Starting in 2016 Physician Assistants (PA) can also sign. Death certificates include cause of death, decedent's name, gender, birth date, place of residence, and place of occurrence. (A copy of the Massachusetts death certificate used is in the Appendix). In a properly completed death certificate, the immediate cause of death is recorded on line 29a. The other mentioned causes are written on lines 29 b-d. The underlying cause of death is the disease or injury that initiated the events leading to the death. All causes of death are data entered and processed by a software program supplied by NCHS. This software assigns the appropriate ICD-10 codes. Trained nosologists review the ICD-10 codes assigned.

International Classification of Diseases, Ninth Revision (ICD-9)
The International Classification of Diseases (ICD) classifies mortality information for statistical purposes. The ICD was first used in 1900 and has since been revised about every 10 years, with the exception of the ICD-9, which was in use between 1979-1998. ICD-9 codes used in this publication are listed on Tables A1-Table A6.

Because of coding changes between the Ninth and Tenth revision, caution should be used when comparing data coded under ICD-9 and ICD-10.

International Classification of Diseases, Tenth Revision (ICD-10)
The tenth revision of the International Classification of Diseases was used to code mortality data beginning in 1999. For a list of ICD-10 codes used in the publication, please see Tables A1-A6.

Because of coding changes between the Ninth and Tenth revision, caution should be used when comparing data coded under ICD-9 and ICD-10.

Life expectancy at birth
Life expectancy at birth is based on the expected age at death for a newborn infant, based upon the actual experience of mortality of the population in Massachusetts.

NCHS
National Center for Health Statistics (US Department of Health and Human Services, Centers for Disease Control and Prevention).

Occurrence Death
Occurrence deaths include all deaths that occur within the state, including deaths of nonresidents. An interstate exchange agreement among the 50 states, Washington, DC, Canada, the US Virgin Islands, and Guam provides for exchanges of copies of birth and death records. These out-of-state records are used for statistical purposes only and allow each state or province to track the births and deaths of residents.

Opioid
The term opioid designates a class of drugs derived naturally from the opium poppy (opium, morphine, codeine), synthesized or derived from a natural opiate (heroin, oxycodone, hydrocodone), or manufactured synthetically with a chemical structure similar to opium (fentanyl, methadone). (Opioid Overdose Response Strategies in Massachusetts, MDPH, 2014)

This report combines all opioid overdoses since classification of specific drugs can be difficult. For example, many deaths related to heroin cannot be specifically coded as such due to the fast metabolism of heroin into morphine, as well as, the possible interaction of multiple drugs.

Other and unspecified narcotics (T40.6)
The Injury Surveillance Workgroup (ISW7) Consensus Recommendations for national and state poisoning surveillance (Safe States Alliance, 2012) states that this category is intended for other and unspecified drugs classified pharmacologically as narcotics (opioids/opiates). However, in practice it may also be used for drugs classified legally as narcotics such as cocaine. The proportion of this category made up by opioids/opiates varies by jurisdiction, so inclusion of this code depends on more detailed analysis of death certificate text and/or medical examiner records. Reviews in Massachusetts indicate that most deaths classified as T40.6 were opioid-related overdose deaths. For that reason, we include T40.6 in our opioid-related definition.

Potential Years of Life Lost (PYLL)
PYLL is calculated by multiplying the number of deaths for each group by the years of life lost (the difference between life expectancy and the midpoint of the age group, then adding the figures for all age groups).

A measure of the impact of death from various diseases on society, highlighting the total loss to society, especially the loss contributed by early deaths. For calculating PYLL, since *Massachusetts Deaths 2002*, we have adjusted the maximum age to be 75 years so that we do not include deaths beyond average life expectancy. Data after 2002 are not comparable with previous publications because we used a different maximum age cutoff.

Premature Mortality Rate
Premature mortality rate (PMR) measures the rate of premature death, that is, death before the age of 75 years, and it is given as a rate per 100,000 and it is adjusted to the 2000 US population. PMR is considered the best single measure to reflect the health status of a population.

Resident Death
The death of a person whose usual place of residence or permanent address (as reported by the informant) is in one of the 351 cities or towns of Massachusetts, regardless of where the death took place. Unless otherwise noted, all data in this publication are resident data. An interstate exchange agreement among the 50 states, Washington, DC, Canada, the US Virgin Islands, and Guam provides for exchange of copies of birth and death records. These records are used for statistical purposes only and allow each state or province to track the births and deaths of residents.

Total Rate of Change
The total rate of change is calculated as follows:

$$\frac{P_n - P_o}{P_o}$$

where P_n is the rate during the later time period and P_o is the rate during the earlier time period.

Underlying Cause of Death
The disease or injury that initiated the series of events leading to death, or the circumstances of the unintentional or intentional injury that resulted in the death. The underlying cause of death is used for all analyses published in this report except for diabetes mortality.

Table A1. ICD-10 and ICD-9 Codes Used in this Publication

(Sorted by ICD-10 Codes)

Cause of Death	ICD-10 Code	ICD-9 Code
Infectious and parasitic diseases	A00-B99	001-139
Septicemia	A40-A41	038
Human Immunodeficiency Virus (HIV) disease	B20-B24	042-044
Cancer (Malignant Neoplasms)	C00-C97	140-208
of esophagus	C15	150
of stomach	C16	151
of colon, rectum, rectum and anus	C18-C21	153-154, 159.9
of pancreas	C25	157
of trachea, bronchus and lung	C33-C34	162
of female breast	C50	174
of cervix uteri	C53	180
of corpus uteri and uterus, part unspecified	C54-C55	179,182
of ovary	C56	183.0
of prostate	C61	185
of kidney and renal pelvis	C64-C65	189.0-189.1
of bladder	C67	188
of meninges, brain & other parts of central nervous system	C70-C72	191-192
Hodgkin Disease	C81	201
Non-Hodgkin lymphoma	C82-C85	200, 202 (except 202.4)
Leukemia	C91-C95	202.4, 204-208
Multiple myeloma and immunoproliferative neoplasms	C88, C90	203
Diabetes Mellitus	E10-E14	250
Alzheimer's disease	G30	331.0
Heart Disease	I00-I09, I11, I13, I20-I51	390-398, 402, 404^{--4}29
Stroke (Cerebrovascular disease)	I60-I69	430^{--4}38
Influenza and pneumonia	J10-J18	480^{--4}87
Chronic lower respiratory diseases[1]	J40-J47	490^{--4}96
Chronic liver disease and cirrhosis	K70, K73-K74	571
Nephritis	N00-N07, N17-N19, N25-N27	580-589
Congenital malformations, deformations, and chromosomal abnormalities	Q00-Q99	740-759
Certain conditions originating in the perinatal period (Perinatal Conditions)	P00-P96	760-779
Ill-defined conditions	R00-R99	780-797, 798.1-798.9, 799
Sudden infant death syndrome (SIDS)	R95	798.0
External causes of injuries and poisonings (intentional, unintentional and of undetermined intent)	V01-Y89	E800-E999
Accidents (Unintentional Injuries)	V01-X59, Y85-Y86	E800-E949
Motor Vehicle-related injuries	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2	E810-E825
Unintentional non-transport injuries	W00-X59, Y86	E850-E869, E880-E928, E929.2-E929.9
Suicide	X60-X84, Y87.0	E950-E959
Homicide	X85-Y09, Y87.1	E960-E969
Injuries of undetermined intent	Y10-Y34,Y87.2,Y89.9	E980-E989

1. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title).

Table A2. ICD-10 and ICD-9 Codes Used in this Publication

(Sorted by Cause of Death)

Cause of Death	ICD-10 Code	ICD-9 Code
Alzheimer's Disease	G30	331.0
Cancer (Malignant Neoplasms)	C00-C97	140-208
of bladder	C67	188
of cervix uteri	C53	180
of colon, rectum, rectum and anus	C18-C21	153-154, 159.9
of corpus uteri and uterus, part unspecified	C54-C55	179,182
of esophagus	C15	150
of female breast	C50	174
Hodgkin Disease	C81	201
of kidney and renal pelvis	C64-C65	189.0-189.1
Leukemia	C91-C95	202.4, 204-208
of meninges, brain & other parts of central nervous system	C70-C72	191-192
Multiple myeloma and immunoproliferative neoplasms	C88, C90	203
Non-Hodgkin lymphoma	C82-C85	200, 202 (except 202.4)
of ovary	C56	183.0
of prostate	C61	185
of stomach	C16	151
of pancreas	C25	157
of trachea, bronchus and lung	C33-C34	162
Certain conditions originating in the perinatal period (Perinatal Conditions)	P00-P96	760-779
Chronic liver disease and cirrhosis	K70, K73-K74	571
Chronic lower respiratory diseases[1]	J40-J47	490--496
Congenital malformations, deformations, and chromosomal abnormalities	Q00-Q99	740-759
Diabetes Mellitus	E10-E14	250
External causes of injuries and poisonings (intentional, unintentional and of undetermined intent)	V01-Y98	E800-E999
Homicide	X85-Y09, Y87.1	E960-E969
Injuries of undetermined intent	Y10-Y34,Y87.2,Y89.9	E980-E989
Suicide	X60-X84, Y87.0	E950-E959
Accidents (Unintentional Injuries)	V01-X59	E800-E949
Motor Vehicle-related injuries	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2	E810-E825 E850-E869, E880-
Unintentional non-transport injuries	W00-X59, Y86	E928, E929.2-E929.9
Heart Disease	I00-I09, I11, I13, I20-I51	390-398, 402, 404--429
Infectious and parasitic diseases	A00-B99	001-139
Human Immunodeficiency Virus (HIV) disease (AIDS)	B20-B24	042-044
Septicemia	A40-A41	038
Influenza and pneumonia	J10-J18	480--487
Nephritis	N00-N07, N17-N19, N25-N27	580-589
Stroke (Cerebrovascular disease)	I60-I69	430--438
Ill-defined conditions	R00-R99	780-797, 798.1-798.9, 799
Sudden infant death syndrome (SIDS)	R95	798.0

1. The title of this cause of death has changed between ICD-10 and ICD-9. Chronic Lower Respiratory Disease (ICD-10 title) corresponds to Chronic Obstructive Pulmonary Disease (COPD) (ICD-9 title).

Table A3. ICD-10 Injury Codes Used in this Publication

Cause of Death	ICD-10 Code
Suicide	X60-X84, Y87.0
Poisoning	X60-X69
Hanging, strangulation or suffocation	X70
Firearm	X72-X74
Other and unspecified	Residual
Homicide	X85-Y09, Y87.1
Firearm	X93-X95
Cut or pierce	X99
Other and unspecified	Residual
Unintentional Injuries (Accidents)	V01-X59, Y85-Y86
Falls	W00-W19
Hanging, strangulation or suffocation	W75-W84
Drowning or submersion	W65-W74
Smoke, fire and flames and contact with heat and hot substances	X00-X19
Poisoning	X40-X49
Firearm	W32-W34
Motor Vehicle-related	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Injury to pedestrian	V02-V04, V09.0, V09
Injury to pedal cyclist	V12-V14, V19.0, V19.2, V19.4, V19.5, V19.6
Injury to motorcyclist	V20-V29
Injury to occupant	V30-V79, V80.3, V80.4, V80.5, V81.0,V81.1, V82.0, V82.1, V83-V86
Other and unspecified	Residual
Other and unspecified	Residual
Events of Undetermined Intent	Y10-Y34, Y87.2, Y89.9
Poisoning	Y10-Y19
Drowning or submersion	Y21
Other and unspecified	Residual
Legal Intervention	Y35-Y36, Y89.0, Y89.1
Firearm	Y35.0
Adverse Effects	Y40-Y59, Y60-Y84, Y88
Drugs	Y40-Y59, Y88.0
Medical Care	Y60-Y84, Y88.1, Y88.2, Y88.3

Table A4. ICD-10 Codes for Selected Healthy People 2020 Mortality Objectives Used in this Publication

(Sorted by Objective Number)

Cause of Death*	ICD-10 Identifying Codes
Cancer (all sites)	C00-C97
Lung cancer	C33-C34
Female breast cancer	C50
Uterine Cervix cancer	C53
Colorectal cancer	C18-C21
Oropharyngeal cancer	C00-C14
Prostate cancer	C61
Malignant melanoma	C43
Coronary heart disease	I11, I20-I25
COPD	J40-J44
Stroke	I60-I69
HIV infection	B20-B24
Firearm-related deaths	W32-W34, X72-X74, Y22-Y24, Y35.0, X93-X95
Poisoning	X40-X49, X60-X69, X85-X90, Y10-Y19, Y35.2
Hanging, strangulation or suffocation	W75-W84, X70, X91, Y20
Unintentional injuries (Accidents)	V01-X59, Y85-Y86
Motor vehicle-related	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Residential fire deaths	X00, X02
Falls	W00-W19, X80, Y01, Y30
Drownings	W65-W74, X71, X92, Y21
Homicides	X85-Y09, Y87.1
Birth defects	Q00-Q99
Congenital heart and vascular defects	Q20-Q24
Sudden infant death syndrome (SIDS)	R95
Suicide	X60-X84, Y87.0
Asthma	J45-J46
Motor-vehicle crash deaths	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Cirrhosis	K74
Drug induced deaths	F11.0-F11.5, F11.7-F11.9, F12.0-F12.5, F12.7-F12.9, F13.0-F13.5, F13.7-F13.9, F14.0-F14.5, F14.7-F14.9, F15.0-F15.5, F15.7-F15.9, F16.0-F16.5, F16.7-F16.9, F17.0, F17.3-F17.5, F17.7-F17.9, F18.0-F18.5, F18.7-F18.9, F19.0-F19.5, F19.7-F19.9,X40-X44,X60-64, X85,Y10-Y14

These Healthy People 2010 objectives use underlying cause of death data.

Table A5. Preliminary Comparability Ratios

Cause of Death	ICD-10 Code	ICD-9 Code (most similar title)	Comparability Ratio
Infectious and parasitic diseases	**A00-B99**		**NA**
Septicemia	A40-A41	038	1.1949
Human Immunodeficiency Virus (HIV) disease	B20-B24	042-044	1.0637[1] and 1.1448[2]
Cancer (Malignant Neoplasms)	C00-C97	140-208	1.0068
of esophagus	C15	150	0.9965
of stomach	C16	151	1.0063
of colon, rectum, rectum and anus	C18-C21	153-154	0.9993
of pancreas	C25	157	0.9980
of trachea, bronchus and lung	C33-C34	162	0.9837
of breast	C50	174-175	1.0056
of cervix uteri	C53	180	0.9871
of corpus uteri and uterus, part unspecified	C54-C55	179,182	1.0260
of ovary	C56	183.0	0.9954
of prostate	C61	185	1.0134
of kidney and renal pelvis	C64-C65	189.0-189.1	1.0000
of bladder	C67	188	0.9968
of meninges, brain & other parts of central nervous system	C70-C72	191-192	0.9691
Hodgkin Disease	C81	201	0.9855
Non-Hodgkin lymphoma	C82-C85	200, 202	0.9781
Leukemia	C91-C95	204-208	1.0119
Multiple myeloma and immunoproliferative neoplasms	C88, C90	203	1.0383
Diabetes Mellitus	E10-E14	250	1.0082
Alzheimer's Disease	G30	331.0	1.5536
Heart Disease	I00-I09, I11, I13, I20-I51	390-398, 402, 404, 410[--4]29	0.9858
Stroke (Cerebrovascular disease)	I60-I69	430[--4]34, 436[--4]38	1.0588
Influenza and pneumonia	J10-J18	480[--4]87	0.6982
Chronic lower respiratory diseases	J40-J47	490[--4]94,496	1.0478
Chronic liver disease and cirrhosis	K70, K73-K74	571	1.0367
Nephritis	N00-N07, N17-N19, N25-N27	580-589	1.2320
Congenital malformations, deformations, and chromosomal abnormalities	Q00-Q99	740-759	0.8470
Certain conditions originating in the perinatal period (Perinatal Conditions)	P00-P96	760-771.2, 771.4-779	1.0658
External causes of injuries and poisonings (intentional, unintentional and of undetermined intent)	V01-Y89	E800-E999	NA
Accidents (Unintentional Injuries)	V01-X59, Y85-Y86	E800-E869, E880-E929	1.0305
Motor Vehicle-related injuries	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2	E810-E825	0.9754[3]
Non-transport injuries	W00-X59, Y86	E850-E869, E880-E928, E929.2-E929.9	1.0763
Suicide	X60-X84, Y87.0	E950-E959	0.9962
Homicide	X85-Y09, Y87.1	E960-E969	0.9983
Injuries of undetermined intent	Y10-Y34,Y87.2,Y89.9	E980-E989	*

Source: National Center for Health Statistics, Preliminary Comparability Study. February 2001. NA: not available *: not reliable

Please refer to Appendix for an example of how to apply comparability ratios. 1. Comparability Modified number and rate based on preliminary comparability ratios (CR) from NCHS based on 1996 data (February 2001). 2. Comparability Modified number and rate based on preliminary comparability ratios (CR) from NCHS based on 1998 data (revised June 2001). 3. This is the revised comparability ratio for motor vehicle-related injuries, effective May 2001.

Table A6. Preliminary Comparability Ratios: Causes of Infant Death

Cause of Death	ICD-10 Code	ICD-9 Code (most similar title)	Comparability Ratio
Certain infectious and parasitic diseases	A00-B99	001-033, 034.1-134, 136-139, 771.3	0.7339
Septicemia	A40-A41	038	1.3802
Human Immunodeficiency Virus (HIV) disease	B20-B24	042-044	1.0455
Cancer (Malignant Neoplasms)	C00-C97	140-208	1.0435
Influenza and pneumonia	J10-J18	480-487	0.7624
Certain conditions originating in the perinatal period (Perinatal Conditions)	P00-P96	760-771.2, 771.4-779	1.0581
Newborn affected by maternal complications of pregnancy	P01	761	1.0295
Newborn affected by complications of placenta, cord and membranes	P02	762	1.0470
Disorders relating to short gestation and low birthweight	P07	765	1.1060
Intrauterine hypoxia and birth asphyxia	P20-P21	768	1.4477
Respiratory distress of newborn	P22	769	1.0257
Other respiratory conditions originating in perinatal period	P23-P28	770	0.8455
Infections specific to the perinatal period	P35-P39	771.0-771.2, 771.4-771.8	1.0199
Neonatal hemorrhage	P50-P52, P54	772	1.4369
Congenital malformations, deformations, and chromosomal abnormalities	Q00-Q99	740-759	0.9064
Anencephaly and similar malformations	Q00	740	1.0000
Congenital malformations of heart	Q20-Q24	745-746	0.9951
Congenital malformations of respiratory system	Q30-Q34	748	0.6322
Congenital malformations of digestive system	Q35-Q45	749-751	*
Congenital malformations of genitourinary system	Q50-Q64	752-753	0.9432
Congenital malformations of musculoskeletal system	Q65-Q85	754-757	0.8650
Sudden Infant Death Syndrome (SIDS)	R95	798.0	1.0362
External causes of injuries and poisonings (intentional, unintentional and of undetermined intent)	V01-Y89	E800-E999	NA
Accidents (Unintentional Injuries)	V01-X59	E800-E869, E880-E929	1.0246
Motor Vehicle-related injuries	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2	E810-E825	0.9167
Homicide	X85-Y09	E960-E969	0.9481
Injuries of undetermined intent	Y10-Y34,Y87.2,Y89.9	E980-E989	*

Source: National Center for Health Statistics, Preliminary Comparability Study. February 2001. NA: not available *: not reliable
Please refer to Appendix for an example of how to apply comparability ratios.

Table A7. Population Estimates for Massachusetts Community Health Network Areas (CHNA) and Counties: 2010 and 2014

CHNA	POPULATION[1]	COUNTY	POPULATION[2]
1. Community Health Network of Berkshire County	131,219	Barnstable	214,914
2. Upper Valley Health Web (Franklin County)	87,130	Berkshire	128,715
3. Partnership for Health in Hampshire County (Northampton)	155,900	Bristol	554,194
4. The Community Health Connection (Springfield)	296,850	Dukes	17,356
5. Community Health Network of Southern Worcester County	119,539	Essex	769,091
6. Community Partners for Health (Milford)	166,824	Franklin	70,862
7. Community Health Network of Greater Metro West (Framingham)	388,909	Hampden	468,161
8. Common Pathways (Worcester)	309,013	Hampshire	160,939
9. Community Health Network of North Central Massachusetts	262,652	Middlesex	1,570,315
10. Greater Lowell Community Health Network	275,404	Nantucket	10,856
11. Greater Lawrence Community Health Network	194,172	Norfolk	692,254
12. Greater Haverhill Community Health Network	148,563	Plymouth	507,022
13. Community Health Network North (Beverly/Gloucester)	115,782	Suffolk	767,254
14. North Shore Community Health Network	284,642	Worcester	813,475
15. Northwest Suburban Health Alliance	215,757		
16. North Suburban Health Alliance (Medford/Malden/Melrose)	270,281	**STATE**	**6,745,408**
17. Greater Cambridge/Somerville Community Health Network	280,404		
18. West Suburban Health Network (Newton/Waltham)	258,843		
19. Alliance for Community Health (Boston/Chelsea/Revere/Winthrop)	780,755		
20. Blue Hills Community Health Alliance (Greater Quincy)	377,279		
21. Community Health Network of Chicopee, Holyoke, Ludlow, Westfield	160,892		
22. Greater Brockton Community Health Network	236,778		
23. South Shore Community Health Network (Plymouth)	190,549		
24. Greater Attleboro-Taunton Health & Education Response	256,322		
25. Partners for Healthier Communities (Fall River)	138,419		
26. Greater New Bedford Community Health Network	202,156		
27. Cape Cod and Islands Health Network	242,595		

1. The Massachusetts Department of Public Health Race Allocated Census 2010 Estimates (MRACE 2010), which are population estimates based upon the Census 2010 Summary File 1, was used to calculate city and town rates.

2. National Center for Health Statistics. Postcensal estimates of the resident population of the United States for April 1, 2010-July 1, 2014, by year, county, single-year of age (0, 1, 2, .., 85 years and over), bridged race, Hispanic origin, and sex (Vintage 2014). Prepared under a collaborative arrangement with the U.S. Census Bureau. Available from: http://www.cdc.gov/nchs/nvss/bridged_race.htm as of June 2, 2015.

Table A8. Population Estimates for Massachusetts Communities, 2010

TOWN NAME	COUNTY	CHNA	POPULATION	TOWN NAME	COUNTY	CHNA	POPULATION
Abington	Plymouth	22	15,985	Concord	Middlesex	15	17,668
Acton	Middlesex	15	21,924	Conway	Franklin	2	1,897
Acushnet	Bristol	26	10,303	Cummington	Hampshire	3	872
Adams	Berkshire	1	8,485	Dalton	Berkshire	1	6,756
Agawam	Hampden	4	28,438	Danvers	Essex	14	26,493
Alford	Berkshire	1	494	Dartmouth	Bristol	26	34,032
Amesbury	Essex	12	16,283	Dedham	Norfolk	18	24,729
Amherst	Hampshire	3	37,819	Deerfield	Franklin	2	5,125
Andover	Essex	11	33,201	Dennis	Barnstable	27	14,207
Aquinnah (Gay Head)	Dukes	27	311	Dighton	Bristol	24	7,086
Arlington	Middlesex	17	42,844	Douglas	Worcester	6	8,471
Ashburnham	Worcester	9	6,081	Dover	Norfolk	18	5,589
Ashby	Middlesex	9	3,074	Dracut	Middlesex	10	29,457
Ashfield	Franklin	2	1,737	Dudley	Worcester	5	11,390
Ashland	Middlesex	7	16,593	Dunstable	Middlesex	10	3,179
Athol	Worcester	2	11,584	Duxbury	Plymouth	23	15,059
Attleboro	Bristol	24	43,593	East Bridgewater	Plymouth	22	13,794
Auburn	Worcester	8	16,188	East Brookfield	Worcester	5	2,183
Avon	Norfolk	22	4,356	East Longmeadow	Hampden	4	15,720
Ayer	Middlesex	9	7,427	Eastham	Barnstable	27	4,956
Barnstable	Barnstable	27	45,193	Easthampton	Hampshire	3	16,053
Barre	Worcester	9	5,398	Easton	Bristol	22	23,112
Becket	Berkshire	1	1,779	Edgartown	Dukes	27	4,067
Bedford	Middlesex	15	13,320	Egremont	Berkshire	1	1,225
Belchertown	Hampshire	3	14,649	Erving	Franklin	2	1,800
Bellingham	Norfolk	6	16,332	Essex	Essex	13	3,504
Belmont	Middlesex	17	24,729	Everett	Middlesex	16	41,667
Berkley	Bristol	24	6,411	Fairhaven	Bristol	26	15,873
Berlin	Worcester	9	2,866	Fall River	Bristol	25	88,857
Bernardston	Franklin	2	2,129	Falmouth	Barnstable	27	31,531
Beverly	Essex	13	39,502	Fitchburg	Worcester	9	40,318
Billerica	Middlesex	10	40,243	Florida	Berkshire	1	752
Blackstone	Worcester	6	9,026	Foxborough	Norfolk	7	16,865
Blandford	Hampden	4	1,233	Framingham	Middlesex	7	68,318
Bolton	Worcester	9	4,897	Franklin	Norfolk	6	31,635
Boston	Suffolk	19	617,594	Freetown	Bristol	26	8,870
Bourne	Barnstable	27	19,754	Gardner	Worcester	9	20,228
Boxborough	Middlesex	15	4,996	Georgetown	Essex	12	8,183
Boxford	Essex	12	7,965	Gill	Franklin	2	1,500
Boylston	Worcester	8	4,355	Gloucester	Essex	13	28,789
Braintree	Norfolk	20	35,744	Goshen	Hampshire	3	1,054
Brewster	Barnstable	27	9,820	Gosnold	Dukes	27	75
Bridgewater	Plymouth	22	26,563	Grafton	Worcester	8	17,765
Brimfield	Hampden	5	3,609	Granby	Hampshire	3	6,240
Brockton	Plymouth	22	93,810	Granville	Hampden	4	1,566
Brookfield	Worcester	5	3,390	Great Barrington	Berkshire	1	7,104
Brookline	Norfolk	19	58,732	Greenfield	Franklin	2	17,456
Buckland	Franklin	2	1,902	Groton	Middlesex	9	10,646
Burlington	Middlesex	15	24,498	Groveland	Essex	12	6,459
Cambridge	Middlesex	17	105,162	Hadley	Hampshire	3	5,250
Canton	Norfolk	20	21,561	Halifax	Plymouth	23	7,518
Carlisle	Middlesex	15	4,852	Hamilton	Essex	13	7,764
Carver	Plymouth	23	11,509	Hampden	Hampden	4	5,139
Charlemont	Franklin	2	1,266	Hancock	Berkshire	1	717
Charlton	Worcester	5	12,981	Hanover	Plymouth	23	13,879
Chatham	Barnstable	27	6,125	Hanson	Plymouth	23	10,209
Chelmsford	Middlesex	10	33,802	Hardwick	Worcester	9	2,990
Chelsea	Suffolk	19	35,177	Harvard	Worcester	9	6,520
Cheshire	Berkshire	1	3,235	Harwich	Barnstable	27	12,243
Chester	Hampden	21	1,337	Hatfield	Hampshire	3	3,279
Chesterfield	Hampshire	3	1,222	Haverhill	Essex	12	60,879
Chicopee	Hampden	21	55,298	Hawley	Franklin	2	337
Chilmark	Dukes	27	866	Heath	Franklin	2	706
Clarksburg	Berkshire	1	1,702	Hingham	Plymouth	20	22,157
Clinton	Worcester	9	13,606	Hinsdale	Berkshire	1	2,032
Cohasset	Norfolk	20	7,542	Holbrook	Norfolk	22	10,791
Colrain	Franklin	2	1,671	Holden	Worcester	8	17,346

Table A8 (continued). Population Estimates for Massachusetts Communities, 2010

TOWN NAME	COUNTY	CHNA	POPULATION	TOWN NAME	COUNTY	CHNA	POPULATION
Holland	Hampden	5	2,481	New Marlborough	Berkshire	1	1,509
Holliston	Middlesex	7	13,547	New Salem	Franklin	2	990
Holyoke	Hampden	21	39,880	Newbury	Essex	12	6,666
Hopedale	Worcester	6	5,911	Newburyport	Essex	12	17,416
Hopkinton	Middlesex	7	14,925	Newton	Middlesex	18	85,146
Hubbardston	Worcester	9	4,382	Norfolk	Norfolk	7	11,227
Hudson	Middlesex	7	19,063	North Adams	Berkshire	1	13,708
Hull	Plymouth	20	10,293	North Andover	Essex	11	28,352
Huntington	Hampshire	21	2,180	North Attleboro	Bristol	24	28,712
Ipswich	Essex	13	13,175	North Brookfield	Worcester	5	4,680
Kingston	Plymouth	23	12,629	North Reading	Middlesex	16	14,892
Lakeville	Plymouth	24	10,602	Northampton	Hampshire	3	28,549
Lancaster	Worcester	9	8,055	Northborough	Worcester	7	14,155
Lanesborough	Berkshire	1	3,091	Northbridge	Worcester	6	15,707
Lawrence	Essex	11	76,377	Northfield	Franklin	2	3,032
Lee	Berkshire	1	5,943	Norton	Bristol	24	19,031
Leicester	Worcester	8	10,970	Norwell	Plymouth	20	10,506
Lenox	Berkshire	1	5,025	Norwood	Norfolk	20	28,602
Leominster	Worcester	9	40,759	Oak Bluffs	Dukes	27	4,527
Leverett	Franklin	2	1,851	Oakham	Worcester	9	1,902
Lexington	Middlesex	15	31,394	Orange	Franklin	2	7,839
Leyden	Franklin	2	711	Orleans	Barnstable	27	5,890
Lincoln	Middlesex	15	6,362	Otis	Berkshire	1	1,612
Littleton	Middlesex	15	8,924	Oxford	Worcester	5	13,709
Longmeadow	Hampden	4	15,784	Palmer	Hampden	4	12,140
Lowell	Middlesex	10	106,519	Paxton	Worcester	8	4,806
Ludlow	Hampden	21	21,103	Peabody	Essex	14	51,251
Lunenburg	Worcester	9	10,086	Pelham	Hampshire	3	1,321
Lynn	Essex	14	90,329	Pembroke	Plymouth	23	17,837
Lynnfield	Essex	14	11,596	Pepperell	Middlesex	9	11,497
Malden	Middlesex	16	59,450	Peru	Berkshire	1	847
Manchester	Essex	13	5,136	Petersham	Worcester	2	1,234
Mansfield	Bristol	24	23,184	Phillipston	Worcester	2	1,682
Marblehead	Essex	14	19,808	Pittsfield	Berkshire	1	44,737
Marion	Plymouth	26	4,907	Plainfield	Hampshire	3	648
Marlborough	Middlesex	7	38,499	Plainville	Norfolk	7	8,264
Marshfield	Plymouth	23	25,132	Plymouth	Plymouth	23	56,468
Mashpee	Barnstable	27	14,006	Plympton	Plymouth	23	2,820
Mattapoisett	Plymouth	26	6,045	Princeton	Worcester	9	3,413
Maynard	Middlesex	7	10,106	Provincetown	Barnstable	27	2,942
Medfield	Norfolk	7	12,024	Quincy	Norfolk	20	92,271
Medford	Middlesex	16	56,173	Randolph	Norfolk	20	32,112
Medway	Norfolk	6	12,752	Raynham	Bristol	24	13,383
Melrose	Middlesex	16	26,983	Reading	Middlesex	16	24,747
Mendon	Worcester	6	5,839	Rehoboth	Bristol	24	11,608
Merrimac	Essex	12	6,338	Revere	Suffolk	19	51,755
Methuen	Essex	11	47,255	Richmond	Berkshire	1	1,475
Middleborough	Plymouth	24	23,116	Rochester	Plymouth	26	5,232
Middlefield	Hampshire	3	521	Rockland	Plymouth	23	17,489
Middleton	Essex	11	8,987	Rockport	Essex	13	6,952
Milford	Worcester	6	27,999	Rowe	Franklin	2	393
Millbury	Worcester	8	13,261	Rowley	Essex	12	5,856
Millis	Norfolk	7	7,891	Royalston	Worcester	2	1,258
Millville	Worcester	6	3,190	Russell	Hampden	4	1,775
Milton	Norfolk	20	27,003	Rutland	Worcester	9	7,973
Monroe	Franklin	2	121	Salem	Essex	14	41,340
Monson	Hampden	4	8,560	Salisbury	Essex	12	8,283
Montague	Franklin	2	8,437	Sandisfield	Berkshire	1	915
Monterey	Berkshire	1	961	Sandwich	Barnstable	27	20,675
Montgomery	Hampden	4	838	Saugus	Essex	14	26,628
Mt. Washington	Berkshire	1	167	Savoy	Berkshire	1	692
Nahant	Essex	14	3,410	Scituate	Plymouth	20	18,133
Nantucket	Nantucket	27	10,172	Seekonk	Bristol	24	13,722
Natick	Middlesex	7	33,006	Sharon	Norfolk	20	17,612
Needham	Norfolk	18	28,886	Sheffield	Berkshire	1	3,257
New Ashford	Berkshire	1	228	Shelburne	Franklin	2	1,893
New Bedford	Bristol	26	95,072	Sherborn	Middlesex	7	4,119
New Braintree	Worcester	9	999	Shirley	Middlesex	9	7,211

Table A8 (continued). Population Estimates for Massachusetts Communities, 2010

TOWN NAME	COUNTY	CHNA	POPULATION
Shrewsbury	Worcester	8	35,608
Shutesbury	Franklin	2	1,771
Somerset	Bristol	25	18,165
Somerville	Middlesex	17	75,754
South Hadley	Hampshire	3	17,514
Southampton	Hampshire	3	5,792
Southborough	Worcester	7	9,767
Southbridge	Worcester	5	16,719
Southwick	Hampden	4	9,502
Spencer	Worcester	5	11,688
Springfield	Hampden	4	153,060
Sterling	Worcester	9	7,808
Stockbridge	Berkshire	1	1,947
Stoneham	Middlesex	16	21,437
Stoughton	Norfolk	22	26,962
Stow	Middlesex	7	6,590
Sturbridge	Worcester	5	9,268
Sudbury	Middlesex	7	17,659
Sunderland	Franklin	2	3,684
Sutton	Worcester	6	8,963
Swampscott	Essex	14	13,787
Swansea	Bristol	25	15,865
Taunton	Bristol	24	55,874
Templeton	Worcester	9	8,013
Tewksbury	Middlesex	10	28,961
Tisbury	Dukes	27	3,949
Tolland	Hampden	4	485
Topsfield	Essex	13	6,085
Townsend	Middlesex	9	8,926
Truro	Barnstable	27	2,003
Tyngsborough	Middlesex	10	11,292
Tyringham	Berkshire	1	327
Upton	Worcester	6	7,542
Uxbridge	Worcester	6	13,457
Wakefield	Middlesex	16	24,932
Wales	Hampden	5	1,838
Walpole	Norfolk	7	24,070
Waltham	Middlesex	18	60,632
Ware	Hampshire	3	9,872
Wareham	Plymouth	26	21,822
Warren	Worcester	5	5,135
Warwick	Franklin	2	780
Washington	Berkshire	1	538
Watertown	Middlesex	17	31,915
Wayland	Middlesex	7	12,994
Webster	Worcester	5	16,767
Wellesley	Norfolk	18	27,982
Wellfleet	Barnstable	27	2,750
Wendell	Franklin	2	848
Wenham	Essex	13	4,875
West Boylston	Worcester	8	7,669
West Bridgewater	Plymouth	22	6,916
West Brookfield	Worcester	5	3,701
West Newbury	Essex	12	4,235
West Springfield	Hampden	4	28,391
West Stockbridge	Berkshire	1	1,306
West Tisbury	Dukes	27	2,740
Westborough	Worcester	7	18,272
Westfield	Hampden	21	41,094
Westford	Middlesex	10	21,951
Westhampton	Hampshire	3	1,607
Westminster	Worcester	9	7,277
Weston	Middlesex	18	11,261
Westport	Bristol	25	15,532
Westwood	Norfolk	18	14,618
Weymouth	Norfolk	20	53,743
Whately	Franklin	2	1,496
Whitman	Plymouth	22	14,489
Wilbraham	Hampden	4	14,219
Williamsburg	Hampshire	3	2,482
Williamstown	Berkshire	1	7,754
Wilmington	Middlesex	15	22,325
Winchendon	Worcester	9	10,300
Winchester	Middlesex	15	21,374
Windsor	Berkshire	1	899
Winthrop	Suffolk	19	17,497
Woburn	Middlesex	15	38,120
Worcester	Worcester	8	181,045
Worthington	Hampshire	3	1,156
Wrentham	Norfolk	7	10,955
Yarmouth	Barnstable	27	23,793

1. The Massachusetts Department of Public Health Race Allocated Census 2010 Estimates (MRACE 2010), which are population estimates based upon the Census 2010 Summary File 1, was used to calculate city and town rates.

Table A9. 2014 Massachusetts Population Estimates[1] By Age Group, Gender, Race and Hispanic Ethnicity[2] (mutually exclusive)

AGE	GENDER	TOTAL	WHITE Non-Hispanic	BLACK Non-Hispanic	ASIAN Non-Hispanic	HISPANIC
Under 1	Male	37,405	23,487	3,209	2,821	7,803
	Female	35,795	22,468	3,056	2,686	7,505
	Total	73,200	45,955	6,265	5,507	15,308
1 TO 4	Male	149,906	94,436	15,067	11,461	28,571
	Female	142,949	90,117	14,054	11,162	27,243
	Total	292,855	184,553	29,121	22,623	55,814
5 TO 14	Male	395,591	266,503	36,448	27,349	64,307
	Female	378,894	254,598	34,472	26,961	61,924
	Total	774,485	521,101	70,920	54,310	126,231
15 TO 24	Male	475,980	328,847	42,388	33,701	69,769
	Female	472,608	326,507	41,970	36,336	66,588
	Total	948,588	655,354	84,358	70,037	136,357
25 TO 34	Male	461,938	318,866	36,721	40,485	64,777
	Female	468,464	321,291	37,926	45,853	62,320
	Total	930,402	640,157	74,647	86,338	127,097
35 TO 44	Male	409,602	292,236	31,337	34,846	50,344
	Female	428,130	302,443	33,893	38,207	52,714
	Total	837,732	594,679	65,230	73,053	103,058
45 TO 54	Male	480,774	384,078	31,445	26,059	38,021
	Female	505,837	400,192	33,659	28,386	42,399
	Total	986,611	784,270	65,104	54,445	80,420
55 TO 64	Male	424,699	360,510	23,000	17,697	22,554
	Female	460,599	386,728	26,153	20,287	26,374
	Total	885,298	747,238	49,153	37,984	48,928
65 TO 74	Male	260,285	228,759	11,046	9,451	10,524
	Female	302,511	262,387	14,943	10,946	13,727
	Total	562,796	491,146	25,989	20,397	24,251
75 TO 84	Male	123,751	110,191	4,680	4,669	3,970
	Female	172,496	152,674	7,858	5,475	6,228
	Total	296,247	262,865	12,538	10,144	10,198
85 +	Male	50,893	46,772	1,508	1,267	1,264
	Female	106,301	98,340	3526	2,032	2,280
	Total	157,194	145,112	5,034	3,299	3,544
ALL AGES	**Male**	**3,270,824**	**2,454,685**	**236,849**	**209,806**	**361,904**
	Female	**3,474,584**	**2,617,745**	**251,510**	**228,331**	**369,302**
	Total	**6,745,408**	**5,072,430**	**488,359**	**438,137**	**731,206**

1. National Center for Health Statistics. Postcensal estimates of the resident population of the United States for April 1, 2010-July 1, 2014, by year, county, single-year of age (0, 1, 2, .., 85 years and over), bridged race, Hispanic origin, and sex (Vintage 2014). Prepared under a collaborative arrangement with the U.S. Census Bureau. Available from: http://www.cdc.gov/nchs/nvss/bridged_race.htm as of July 2, 2015.
2. Persons of Hispanic ethnicity are NOT included in the race categories. These estimates are used to calculate population based rates published in this report.

Table A10. Causes of Death Considered Amenable to Health Care

Cause of Death Considered Amenable to Health Care	Age	ICD-10 Codes
Intestinal infections	0-14	A00-A09
Tuberculosis	0-74	A15-A19, B90
Other infectious (Diphtheria, Tetanus, Poliomyelitis)	0-74	A36, A35,A80, A40-A41
Whooping cough	0-14	A37
Measles	1 to 14	B05
Malignant neoplasm of colon and rectum	0-74	C18-C21
Malignant neoplasm of skin,	0-74	C44
Malignant neoplasm of breast,	0-74	C50
Malignant neoplasm of cervix uteri	0-74	C53
Malignant neoplasm of cervix uteri and body of the uterus	0-44	C54, C55
Malignant neoplasm of testis	0-74	C62
Hodgkin's disease	0-74	C81
Leukemia	0-44	C91-C95
Diseases of the thyroid	0-74	E00-E07
Diabetes mellitus	0-49	E10-E14
Epilepsy	0-74	G40-G41
Chronic rheumatic heart disease	0-74	I05-I09
Hypertensive disease	0-74	I10-I13, I15
Ischemic heart disease	0-74	I20-I25
Cerebrovascular disease	0-74	I60-I69
All respiratory diseases (excl. pneumonia/influenza)	1 to 14	J00-J09, J20-J99
Influenza	0-74	J10-J11
Pneumonia	0-74	J12-J18
Peptic ulcer	0-74	K25-K27
Appendicitis	0-74	K35-K38
Abdominal hernia	0-74	K40-K46
Cholelithiasis & cholecystitis	0-74	K80-K81
Nephritis and nephrosis	0-74	N00-N07, N17-N19, N25-N27
Benign prostatic hyperplasia	0-74	N40
Misadventures to patients during surgical and medical care	All	Y60-Y69, Y83-Y84
Maternal deaths	All	O00-O99
Congenital cardiovascular anomalies	0-74	Q20-Q28
Perinatal deaths, all causes excluding stillbirths	All	P00-P96

Note: Amenable Causes are from E. Nolte and M. McKee, *Does Healthcare Save Lives*? *Avoidable Mortality Revisited* (London: Nuffield Trust, 2004). Available at http://content.healthaffairs.org/cgi/data/27/1/58/DC1/1. Accessed 7/15/2010

Massachusetts Death Certificate: 2014

Commonwealth of Massachusetts
Registry of Vital Records and Statistics
CERTIFICATE OF DEATH

State File #
Registered #

Form R-301 08012015

DECEDENT

Place of Death
Date of Death | *Age* | *Sex*
Current Name
Surname at Birth or Adoption | *SSN*
AKA
Date of Birth | *Birthplace*
Residence
Race | *Education*
Marital Status | *Occupation/Industry*
Last Spouse – Last, First, Middle (Surname at Birth or Adoption) | *Decedent: U.S. Veteran (Most Recent)*
Mother/Parent Name – Last, First Middle (Surname at Birth or Adoption) | *Birthplace*
Father/Parent Name – Last, First Middle (Surname at Birth or Adoption) | *Birthplace*

MEDICAL CERTIFIER

Part I. Cause of Death – Sequentially list immediate cause then antecedent causes then underlying cause | *Interval between onset and death*
a. Immediate Cause (Final condition resulting in death)
b. Due to or as a consequence of:
c. Due to or as a consequence of:
d. Due to or as a consequence of:

Part II. Other significant conditions contributing to death but not resulting in underlying cause

Manner of Death:
Time of Death:
Result of Injury:

Certifier | *Lic #*
Addr.

DISPOSITION

Funeral Licensee/ Designee | *Lic #*
Facility/Addr.
Immediate Disposition
Date of Immediate Disposition
Place/Address

Date of Record
Date of Amendment

If U.S. war veteran, specify war/conflict(s)			
Branch of military (most recent)		*Rank/organization/outfit(most recent)*	
Date entered(most recent)	*Date Discharged (most recent)*	*Service Number(most recent)*	
Place of Death Type		*Date of Pronouncement*	*Time of Pronouncement*
RN/NP/PA Pronouncement?	*Name of RN/NP/PA Pronouncing Death*		*Lic #*
RN/NP/PA Employing Agency or Institution		*Name of Physician or Medical Examiner notified*	
Was M.E. Notified?	*Provider in charge of patient's care, if not certifier*		
Autopsy Performed?	*Findings available for Cause?*	*Tobacco contribute to death?*	*Pregnancy Status, if female*
Date of Injury	*Time of Injury*	*Injury at Work?*	*If Transportation Injury, specify:*
Place of Injury		*Location/Address of Injury:*	
Describe How Injury Occurred			
Expanded Race:			
Ethnicity:			
Informant Name			*Relationship*
Addr.			
Date Disposition Permit Issued:		*Board of Health Agent*	
State Tracking No.		*Local Permit No.*	

Circumstance for Referral to the Office of the Chief Medical Examiner (OCME)

http://www.mass.gov/legis/laws/mgl/38-3.htm

CHAPTER 38. MEDICAL EXAMINERS AND INQUESTS

Chapter 38: Section 3. Duty to report deaths; failure to report

Section 3. It shall be the duty of any person having knowledge of a death which occurs under the circumstances enumerated in this paragraph immediately to notify the office of the chief medical examiner, or the medical examiner designated to the location where the death has occurred, of the known facts concerning the time, place, manner, circumstances and cause of such death:

(1) death where criminal violence appears to have taken place, regardless of the time interval between the incident and death, and regardless of whether such violence appears to have been the immediate cause of death, or a contributory factor thereto;

(2) death by accident or unintentional injury, regardless of time interval between the incident and death, and regardless of whether such injury appears to have been the immediate cause of death, or a contributory factor thereto;

(3) suicide, regardless of the time interval between the incident and death;

(4) death under suspicious or unusual circumstances;

(5) death following an unlawful abortion;

(6) death related to occupational illness or injury;

(7) death in custody, in any jail or correctional facility, or in any mental health or mental retardation institution;

(8) death where suspicion of abuse of a child, family or household member, elder person or disabled person exists;

(9) death due to poison or acute or chronic use of drugs or alcohol;

(10) skeletal remains;

(11) death associated with diagnostic or therapeutic procedures;

(12) sudden death when the decedent was in apparent good health;

(13) death within twenty-four hours of admission to a hospital or nursing home;

(14) death in any public or private conveyance;

(15) fetal death, as defined by section two hundred and two of chapter one hundred and eleven, where the period of gestation has been twenty weeks or more, or where fetal weight is three hundred and fifty grams or more;

(16) death of children under the age of 18 years from any cause;

(17) any person found dead;

(18) death in any emergency treatment facility, medical walk-in center, day care center, or under foster care; or

(19) deaths occurring under such other circumstances as the chief medical examiner shall prescribe in regulations promulgated pursuant to the provisions of chapter thirty A.

A physician, police officer, hospital administrator, licensed nurse, department of social services social worker, or licensed funeral director, within the commonwealth, who, having knowledge of such an unreported death, fails to notify the office of the chief medical examiner of such death shall be punished by a fine of not more than five hundred dollars. Such failure shall also be reported to the appropriate board of registration, where applicable.

Massachusetts Deaths: 2014 Evaluation Form

TO OUR READERS:
In an attempt to better serve our users, we are enclosing this evaluation form. Please take the time to complete this questionnaire and return it to the address at the bottom of the page. Thank you.

What tables and charts do you find most useful?
What tables and charts do you find least useful?
Are there other tables and charts that you would like added to this publication? If yes, please describe them in detail.
Do you have other comments or suggestions?
Name (optional): **Address:** **(For those who received the publication by mail)** Is the mailing label address correct? If not, please correct the address. Thank you.

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Massachusetts Department of Public Health
Registry of Vital Records and Statistics
150 Mt. Vernon Street 1st Floor
Dorchester, MA 02125