

INJURIES

INJURIES TO MASSACHUSETTS RESIDENTS

2007 DATA BOOK



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Notes, Information, and Acknowledgements

- 1) Source for all Massachusetts death data is the Registry of Vital Records and Statistics, MA Dept. of Public Health
- 2) Sources for nonfatal injuries are from the Division of Health Care Finance and Policy and include:
 - MA Inpatient Hospital Discharge Database
 - [MA Outpatient Observation Database](#)
 - MA Outpatient Emergency Department Database
- 3) "Hospital Stays" used in many of the data tables combines hospital discharges and observation bed stays into one category to assist in interpreting analysis.
- 4) Population data used to calculate rates (*unless otherwise specified*) are from:
 - National Center for Health Statistics. Estimates of the July 1, 2000-July 1, 2007, United States resident population from the Vintage 2007 postcensal series by year, county, age, sex, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. Available on the Internet from: <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>. September 5, 2007.

5) Acknowledgements

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6) Purpose of Report

This publication is intended as a reference document. It provides basic counts and rates on a broad range of injury topics using death data and data submitted by Massachusetts acute care hospitals. The Injury Surveillance Program (ISP) publishes additional data tables as well as bulletins on selected injury causes (e.g., Fall-related Injuries, Traumatic Brain Injuries in Massachusetts) on-line at:

<http://www.mass.gov/dph/isp>

Selected injury data are also available from the Department's free query system MassCHIP.

For more information about downloading MassCHIP visit their website at:

<http://masschip.state.ma.us/>

For more information about, or for custom data requests from the Injury Surveillance Program

Phone: (617) 624-5648 or (617) 624-5665 or

[Email: MDPH-ISP@state.ma.us](mailto:MDPH-ISP@state.ma.us)

7) To obtain hard copies of this report, contact:

Massachusetts Department of Public Health
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8) This report and other Massachusetts Department of Public Health publications and materials can be accessed on-line at:

<http://www.state.ma.us/dph/pubstats.htm>

To obtain more information on injuries to Massachusetts residents, contact Beth Hume at the Injury Surveillance Program (617-624-5648), or on-line at: <http://www.mass.gov/dph/isp>

For information on how to prevent injuries, contact the Injury Prevention and Control Program (617-624-5544) or on-line at:

<http://www.mass.gov/dph/fch/injury>

For other Department of Public Health data, register for MassCHIP, the Department's free internet-accessible data warehouse:

<http://masschip.state.ma.us/>

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The MA Outpatient Observation Database includes patients who receive outpatient observation services and are not admitted to the hospital. Outpatient Observation services is defined generally for reporting purposes in the Case Mix Regulation 114.1 CMR 17.00 as: Observation services are those furnished on a hospital's premises which are reasonable and necessary to further evaluate the patient's condition and provide treatment to determine the need for possible admission to the hospital. These services include the use of a bed and periodic monitoring by a hospital's physician, nursing, and other staff.

Division of Health Care Finance and Policy

http://www.mass.gov/Eeohhs2/docs/dhcfp/r/ooa/ooa_doc_manual_fy07_06-09.pdf

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Data Highlights: 2007

- Injuries were the leading cause of death to Massachusetts residents between the ages of 1 and 44 and the third leading cause of death among all ages.
- In 2007, an average of 8 residents died *every day* from injuries.
- Among Massachusetts residents ages 15-24, unintentional injuries were the leading intent of injury death, homicide was the second leading intent and suicide the third.
- There were 2,967 injury deaths to Massachusetts residents and more than 775,500 nonfatal injuries treated at acute care hospitals.
- The leading cause of injury death was poisoning which includes drug overdoses (N=965).
- The leading cause of nonfatal injury-related hospital stays (N=28,695) and emergency department visits (N=177,115) was fall.
- The leading causes of injury differ by intent of injury and by fatal and nonfatal status.
 - Poisoning was the leading cause of unintentional death, while suffocation/hanging was the leading cause of suicide, and firearm was the leading cause of homicide.
 - Fall was the leading cause of nonfatal unintentional injuries.
 - Poisoning was the leading cause of nonfatal self-inflicted injuries.
 - Injuries resulting from being struck by or against an object was the leading cause of nonfatal assault-related injuries.
- Total charges for inpatient hospital discharges in 2007 exceeded \$1.5 billion.
 - Unintentional injuries accounted for 77% of these charges (\$1,163,374,552).
 - Fire-related injuries had the highest mean charge among unintentional injuries (\$57,919).
 - Fall injuries had the highest mean charge among self-inflicted injuries (\$84,692).
 - Fire-related injuries had the highest mean charge among assault-related injuries (\$195,601).
- Total charges for all injury-related cases treated within an acute care hospital (includes inpatient hospital discharges, emergency department discharges, and observation stays) in 2007 exceeded \$2.4 billion.
- Length of stay for nonfatal injury-related hospital discharges differ by intent and cause.
 - Length of stay for unintentional injuries was longest for pedestrian injuries not involving a motor vehicle (8.4 days) and suffocation-related injuries (7.7 days).
 - Length of stay for self-inflicted injuries was longest for fall-related injuries (12.8 days).
 - Length of stay for assault-related injuries was longest for fire-related injuries (17 days).
- The leading combinations by nature of injury and body region among injury-related hospital stay cases were:
 - Fractures to the extremities (N=22,916)
 - Fractures to the torso (N=6,243)
 - Contusions and superficial wounds to the extremities (N=6,021)

- Open wound to the head and neck (N=5,616)
- The leading combinations by nature of injury and body region among injury-related emergency department cases were:
 - Contusions and superficial wounds to the extremities (N=126,334), sprains/strains and dislocations to the extremities (N=120,883), and open wounds to the extremities (N=101,792)
 - Spains/strains and dislocations to the spine and back (N=85,975)
 - Fractures to the extremities (N=73,166)
 - Open wound to the head and neck (N=70,350) and contusions and superficial wounds to the head and neck (N=67,093)
- Injury rates varied by region.
 - The statewide age-adjusted overall injury rate (fatal and nonfatal injuries combined) was 12,120.3 per 100,000 residents.
 - Counties with the highest age-adjusted overall injury rate included Barnstable (16,054.9 per 100,000), Berkshire (18,672.3 per 100,000), Dukes, (21,640.7 per 100,000), and Nantucket (26,452.4 per 100,000).
 - The Executive Office of Health and Human Services Region with the highest age-adjusted overall injury rate was the Southeast region (15,034.0 per 100,000).
 - Community Health Network Areas with the highest age-adjusted overall injury rate included:
 - Partners for a Healthier Community-Fall River Region (18,918.8 per 100,000)
 - The Community Health Network of Berkshire (18,627.8 per 100,000)
 - Cape Cod and Islands Community Health Network (16,772.9 per 100,000)
 - Greater New Bedford Health and Human Services Coalition (15,999.6 per 100,000)
- Statistically significant changes:
 - The rate of unintentional fall-related deaths increased by 11.3% per year between 2000 and 2007.
 - *This increase was due in part to improved identification of a fall as the underlying cause of death.*
 - The rate of unintentional motor vehicle traffic-related injury deaths declined 3% (per year) between 2000 and 2007.
 - Nonfatal rates of MVT emergency department discharges declined 7.4% (per year) between 2002 and 2007.
 - Traumatic brain injury (TBI) death rates increased 23.4% (per year) between 2004 and 2007.
 - Nonfatal rates of TBI hospital stays increased 4% (per year) between 2000 and 2007.
 - Nonfatal rates of TBI emergency department discharges increased 7.1% (per year) between 2002 and 2007.
 - The rate of unintentional and undetermined fatal poisoning overdoses increased 7.1% (per year) between 2000 and 2007.
 - Nonfatal rates of poisoning-related hospital stays increased 4.7% (per year) between 2000 and 2007.
 - Nonfatal rates of poisoning-related emergency department discharges increased 2.7% (per year) between 2002 and 2007.
 - Suicide rates increased 2.4% (per year) between 2000 and 2007, and increased 3.7% (per year) among persons ages 45-64.
 - Homicide rates increased 6.2% (per year) among persons ages 20-24 between 2000 and 2007.
 - Nonfatal rates of assault-related hospital stays increased 4.5% (per year) between 2000 and 2007.
 - Nonfatal rates of assault-related hospital stays also increased for age groups:

15-19 (5% per year), 20-24 (3% per year), 25-44 (4.9% per year), and 45-64 (6.6% per year).

Statistical Significance

The Joinpoint Regression Program was used to calculate the average annual percent of change per year, a summary measure of trend over a pre-specified fixed interval. The Joinpoint statistical software indicates where changes have occurred over time and whether those changes were statistically significant. We tested overall rates for each cause, and for selected causes by age group and sex.

Injury Classifications

Injuries are classified according to specific codes in the International Classification of Diseases (ICD) Manual. These codes provide information on the “intent” of the injury (e.g., assault-related, intentionally self-inflicted, unintentional), “cause” of the injury, such as fall or motor vehicle crash, and the “nature and anatomic location” of the injury (e.g., multiple fractures involving skull or face, dislocation of hip).

Intent of Injury¹

- Unintentional – “Accidental”
- Suicide/Intentional Self-inflicted
- Homicide/Assault-related
- Other/Legal
- Injury of Undetermined Intent
- Adverse Effects

External Cause of Injury

(Examples)

- Fall
- Firearm
- Poisoning/Drug overdose
- Motor vehicle
- Fire/burn
- Drowning
- Cut/pierce
- Machinery
- Struck by or against an object
- Suffocation/hanging

Nature and Anatomical Location of Injury

(Examples)

- Fracture of skull
- Open wound to the chest
- Sprain to ankle
- Dislocation to shoulder
- Internal injury to abdomen
- Burn to upper back
- Crushing injury of forearm
- Foreign body in trachea

¹ Unintentional injuries refer to those for which there was no intent to injure or harm oneself or another person. Unintentional intent is sometimes referred to as “accidental”. However, injuries are not “random” or chance events -- **they are predictable and preventable.**

While suicide refers to *completed* suicides, nonfatal self-inflicted injuries include suicide attempts, as well as other self-injurious behavior like cutting or burning oneself. There is no way (using existing ICD codes) to distinguish between those that are actual suicide attempts and those that are not, so the broader term of “self-inflicted injury” is used to describe these cases.

Homicide is defined as any death purposefully inflicted by one person against one or more other persons (with the exception of those that are a result of legal intervention). Assault-related injuries are purposefully inflicted by one person against one or more other persons but do not result in death.

Other/Legal intent includes injuries sustained from operations related to war, and legal interventions such as police actions.

Undetermined intent includes injuries for which there is not enough information to make a determination of intent.

Adverse effects from drugs and medical procedures also fall within the scope of injury and are presented in totals and all overview tables.

Table 1. Leading Causes of Death, Massachusetts Residents, 2007¹

Rank	Age Groups								
	<1 year	1-14 years	15-24 years	25-44 years	45-64 years	65-74 years	75-84 years	85+ years	All Ages
1	Short gestation	Unintentional Injury	Unintentional Injury	Unintentional Injury	Cancer	Cancer	Cancer	Heart disease	Cancer
2	Congenital malformations	Cancer	Homicide	Cancer	Heart disease	Heart disease	Heart disease	Cancer	Heart disease
3	SIDS	Homicide	Suicide	Heart disease	Unintentional Injury	Chronic Lower Resp. Disease	Chronic Lower Resp. Disease	Stroke	TOTAL injuries
4	Pregnancy complications	Congenital malformations	Cancer	Suicide	Chronic Liver Disease	Stroke	Stroke	Alzheimer's Disease	Stroke
5	Complications of placenta	Ill defined conditions	Heart disease	Homicide	Diabetes	Diabetes	Alzheimer's Disease	Influenza & pneumonia	Chronic Lower Resp. Disease
6	Neonatal hemorrhage	Heart disease	Ill defined conditions	Chronic Liver Disease	Chronic Lower Resp. Disease	Nephritis	Nephritis	Chronic Lower Resp. Disease	Alzheimer's Disease
7	Bacterial sepsis of newborn	Septicemia	Injuries of undetermined intent	Ill defined conditions	Stroke	Unintentional Injury	Influenza & pneumonia	Nephritis	Influenza & pneumonia
8	Circulatory system	Stroke	Congenital malformations	HIV/AIDS	Suicide	Influenza & pneumonia	Diabetes	Ill defined conditions	Nephritis
9	Necrotizing enterocolitis	In situ neoplasms	Other infections	Diabetes	Septicemia	Septicemia	Septicemia	Unintentional Injury	Diabetes
10	Respiratory distress	Meningitis	Chronic Lower Resp. Disease	Injuries of undetermined intent	Nephritis	Chronic Liver Disease	Unintentional Injury	Diabetes	Septicemia

1. This table is based on data from the report Massachusetts Deaths, 2007. The overall "TOTAL" injury ranking here is based on all intents (unintentional, suicide, homicide, and undetermined) and for all ages combined.

Source: Registry of Vital Records and Statistics, MDPH

Table 2. Injury Characteristics, MA Residents, 2007

		Deaths	Nonfatal Hospital Discharges	Nonfatal Observation Stays	Nonfatal Emergency Department Visits	TOTAL
Injury Totals	Number	2,967	60,115	7,671	707,883	778,636
	Crude rate	46.0	932.1	118.9	10,975.3	12,072.3
	Age-adjusted rate	43.2	859.2	114.8	11,132.7	12,150.0
Female	Number	1010	31,668	3,704	318,424	354,806
	Crude rate	30.4	952.9	111.5	9,581.7	10,676.4
	Age-adjusted rate	26.0	779.5	100.8	9,674.7	10,581.1
Male	Number	1,957	28,447	3,967	389,437	423,808
	Crude rate	62.6	909.9	126.9	12,456.0	13,555.4
	Age-adjusted rate	62.2	927.1	126.9	12,564.0	13,680.2
<1 year	Number	6	394	113	4,769	5,282
	Age-specific rate	7.9	521.4	149.5	6,310.7	6,989.5
1-14 years	Number	41	2,130	740	128,222	131,133
	Age-specific rate	3.8	195.0	67.8	11,740.0	12,006.5
15-24 years	Number	366	4,843	1,142	144,416	150,767
	Age-specific rate	40.4	534.5	126.0	15,937.1	16,638.0
25-44 years	Number	887	10,297	1,755	219,567	232,506
	Age-specific rate	49.3	572.7	97.6	12,210.9	12,930.4
45-64 years	Number	841	13,478	1,878	140,548	156,745
	Age-specific rate	48.9	784.2	109.3	8,177.2	9,119.6
65-74 years	Number	197	6,306	595	26,532	33,630
	Age-specific rate	47.5	1519.2	143.3	6,392.0	8,102.0
75-84 years	Number	280	11,744	776	27,085	39,885
	Age-specific rate	92.1	3861.8	255.2	8,906.5	13,115.6
85+ years	Number	348	10,923	672	16,741	28,684
	Age-specific rate	249.0	7815.9	480.8	11,978.9	20,524.6

Rates per 100,000 residents. Rates based on counts <20 may be unstable and should be interpreted with caution. Rates are not calculated on counts <5 for deaths or <7 (due to suppression rules) for nonfatal injuries.

Table 3. Total Number and Rate of Injury Deaths and Nonfatal Injury-related Cases by Sex and Age Group, MA Residents, 2007

	Injury Deaths		Hospital Stays		ED Visits		Total Injuries	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
Males²	1,957	62.6	32,414	1,036.8	389,437	12,455.9	423,805	13,555.3
<1	2	5.2	272	704.0	2,555	6,612.8	2,829	7,322.0
1-14	28	5.0	1,751	313.8	75,736	13,572.6	77,515	13,891.5
15-24	283	62.4	3,843	846.8	86,381	19,033.0	90,507	19,942.1
25-44	659	73.8	7,537	844.1	126,427	14,159.6	134,623	15,077.6
45-64	572	68.6	8,595	1,030.9	72,353	8,678.4	81,520	9,777.9
65-74	123	65.4	2,990	1,589.7	11,479	6,103.1	14,592	7,758.2
75-84	153	127.3	4,300	3,578.1	9,776	8,134.7	14,229	11,840.0
85+	136	330.5	3,126	7,595.9	4,727	11,486.1	7,989	19,412.5
Females	1,010	30.4	35,372	1,064.4	318,424	9,581.7	354,806	10,676.4
<1	4	10.8	235	636.3	2,214	5,994.6	2,453	6,641.8
1-14	13	2.4	1,119	209.5	52,486	9,825.6	53,618	10,037.5
15-24	83	18.4	2,142	473.6	58,033	12,830.3	60,258	13,322.2
25-44	228	25.2	4,515	498.8	93,136	10,288.3	97,879	10,812.3
45-64	269	30.4	6,761	763.9	68,180	7,703.4	75,210	8,497.7
65-74	74	32.6	3,911	1,722.9	15,052	6,631.0	19,037	8,386.5
75-84	127	69.0	8,220	4,469.2	17,309	9,410.9	25,656	13,949.1
85+	212	215.0	8,469	8,589.2	12,014	12,184.6	20,695	20,988.8
Total³	2,967	46.0	67,786	1,051.0	707,883	10,975.3	778,636	12,072.3
<1	6	7.9	507	670.9	4,769	6,310.7	5,282	6,989.5
1-14	41	3.8	2,870	262.8	128,222	11,740.0	131,133	12,006.5
15-24	366	40.4	5,985	660.5	144,416	15,937.1	150,767	16,638.0
25-44	887	49.3	12,052	670.3	219,567	12,210.9	232,506	12,930.4
45-64	841	48.9	15,356	893.4	140,548	8,177.2	156,745	9,119.6
65-74	197	47.5	6,901	1,662.6	26,532	6,392.0	33,630	8,102.0
75-84	280	92.1	12,520	4,117.0	27,085	8,906.5	39,885	13,115.6
85+	348	249.0	11,595	8,296.7	16,741	11,978.9	28,684	20,524.6

1. Represents crude rates per 100,000 residents. Rates based on counts <20 may be unstable and should be interpreted with caution. Rates are not calculated on counts <5 for deaths or <7 (due to suppression rules) for nonfatal injuries.

2. Total includes cases for which age was unknown or missing.

3. Total includes cases for which age and/or sex was unknown or missing.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 4. Number and Rate of Injuries by Intent, MA Residents, 2007

Intent of Injury	Injury Deaths		Nonfatal Hospital Stays		Nonfatal ED Visits		Total Injuries	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
Unintentional	2,113	32.8	49,733	771.1	660,996	10,248.4	712,842	11,052.2
Suicide and Self-Inflicted	504	7.8	4,305	66.7	6,720	104.2	11,529	178.8
Homicide and Assault	183	2.8	2,343	36.3	25,229	391.2	27,755	430.3
Undetermined Intent	112	1.7	894	13.9	5,715	88.6	6,721	104.2
Other/Legal	5	--	48	0.7	609	9.4	662	10.3
Adverse effects	50	0.8	2,906	45.1	1,214	18.8	4,170	64.7
Intent cannot be determined ²	0	0.0	7,557	117.2	7,400	114.7	14,957	231.9
Total	2,967	46.0	67,786	1,051.0	707,883	10,975.3	778,636	12,072.3

1. Represents crude rates per 100,000 residents. Rates based on counts <20 may be unstable and should be interpreted with caution. Rates are not calculated on counts <5 for deaths or <7 (due to suppression rules) for nonfatal injuries.

2. The ICD-9-CM external cause of injury code assigned was either incomplete or missing.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 5. Total Number and Rate of Injury Deaths and Nonfatal Injuries by Intent, Sex and Age Groups, MA Residents, 2007

	Unintentional				Suicide/Self-Inflicted				Homicide/Assaults				Undetermined Intent			
	Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
Males²	1334	42.7	384,785	12,307.2	398	12.7	4,696	150.2	135	4.3	18,001	575.8	61	2.0	3,953	126.4
<1	1	2.6	2,641	6,835.4	2	5.2	1	2.6	1	2.6	21	54.4	0	0.0	9	23.3
1-14	16	2.9	74,962	13,433.9	43	7.7	139	24.9	7	1.3	882	158.1	2	0.4	249	44.6
15-24	166	36.6	79,278	17,467.9	159	35.0	1,352	297.9	67	14.8	7,165	1,578.7	6	1.3	941	207.3
25-44	426	47.7	120,156	13,457.3	141	15.8	2,110	236.3	48	5.4	7,183	804.5	20	2.2	1,687	188.9
45-64	390	46.8	74,011	8,877.3	24	2.9	970	116.3	10	1.2	2,566	307.8	26	3.1	914	109.6
65-74	89	47.3	13,457	7,154.7	0	0.0	65	34.6	0	0.0	129	68.6	4	2.1	80	42.5
75-84	127	105.7	13,017	10,831.5	13	10.8	39	32.5	2	1.7	39	32.5	2	1.7	56	46.6
85+	119	289.2	7,261	17,643.5	16	38.9	20	48.6	0	0.0	16	38.9	0	0.0	17	41.3
Females	779	23.4	325,922	9,807.3	106	3.2	6,329	190.4	48	1.4	9,571	288.0	51	1.5	2,656	79.9
<1	2	5.4	2,305	6,241.0	0	0.0	0	0.0	2	5.4	26	70.4	0	0.0	17	46.0
1-14	4	0.7	51,771	9,691.8	7	1.3	305	57.1	9	1.7	502	94.0	0	0.0	156	29.2
15-24	68	15.0	52,755	11,663.4	34	7.5	2,217	490.1	6	1.3	3,438	760.1	1	0.2	696	153.9
25-44	161	17.8	88,023	9,723.5	48	5.3	2,580	285.0	16	1.8	4,122	455.3	14	1.5	1,007	111.2
45-64	175	19.8	69,765	7,882.5	11	1.2	1,116	126.1	12	1.4	1,353	152.9	28	3.2	599	67.7
65-74	54	23.8	17,899	7,885.2	0	0.0	70	30.8	3	1.3	64	28.2	4	1.8	70	30.8
75-84	109	59.3	24,061	13,081.9	6	3.3	33	17.9	0	0.0	43	23.4	1	0.5	65	35.3
85+	206	208.9	19,343	19,617.6	0	0.0	8	8.1	0	0.0	23	23.3	3	3.0	46	46.7
Total³	2113	32.8	710,729	11,019.5	504	7.8	11,025	170.9	183	2.8	27,572	427.5	112	1.7	6,609	102.5
<1	3	4.0	4,946	6,544.9	2	2.6	<7	--	3	4.0	47	62.2	0	0.0	26	34.4
1-14	20	1.8	126,733	11,603.7	50	4.6	444	40.7	16	1.5	1,384	126.7	2	0.2	405	37.1
15-24	234	25.8	132,035	14,570.8	193	21.3	3,569	393.9	73	8.1	10,603	1,170.1	7	0.8	1,637	180.7
25-44	587	32.6	208,183	11,577.8	189	10.5	4,690	260.8	64	3.6	11,305	628.7	34	1.9	2,694	149.8
45-64	565	32.9	143,791	8,365.9	35	2.0	2,086	121.4	22	1.3	3,919	228.0	54	3.1	1,513	88.0
65-74	143	34.5	31,357	7,554.4	0	0.0	135	32.5	3	0.7	193	46.5	8	1.9	150	36.1
75-84	236	77.6	37,078	12,192.6	19	6.2	72	23.7	2	0.7	82	27.0	3	1.0	121	39.8
85+	325	232.6	26,604	19,036.3	16	11.4	28	20.0	0	0.0	39	27.9	3	2.1	63	45.1

1. Represents crude rates per 100,000 residents. Rates based on counts <20 may be unstable and should be interpreted with caution. Rates are not calculated on counts <5 for deaths or <7 (due to suppression rules) for nonfatal injuries.

2. Total includes cases for which age was unknown or missing.

3. Total includes cases for which age and/or sex was unknown or missing.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA

Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 6. Number and Rate of Injury-related Cases by Cause, MA Residents, 2007

Cause of Injury	Injury Deaths		Nonfatal Hospital Stays		Nonfatal ED Visits		Total Injuries	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
Cut or pierce	53	0.8	1,781	27.6	73,079	1,133.1	74,913	1,161.5
Drowning, near drowning/submersion	73	1.1	32	0.5	172	2.7	277	4.3
Fall	470	7.3	28,695	444.9	177,115	2,746.1	206,280	3,198.3
Fire/Burn:	37	0.6	560	8.7	10,344	160.4	10,941	169.6
Fire/flare	35	0.5	225	3.5	1,784	27.7	2,044	31.7
Burns, hot object/substance	2	0.0	335	5.2	8,560	132.7	8,897	137.9
Firearm	231	3.6	411	6.4	415	6.4	1,057	16.4
Hanging, strangulation, or suffocation	341	5.3	569	8.8	636	9.9	1,546	24.0
Machinery	1	0.0	199	3.1	3,723	57.7	3,923	60.8
Natural/Environmental:	20	0.3	1,083	16.8	30,184	468.0	31,287	485.1
Dog bites	0	0.0	146	2.3	6,410	99.4	6,556	101.6
Other bites & stings	0	0.0	515	8.0	21,043	326.3	21,558	334.2
All other (e.g., extreme cold)	20	0.3	422	6.5	2,731	42.3	3,173	49.2
Overexertion	0	0.0	1,206	18.7	84,981	1,317.6	86,187	1,336.3
Poisoning	965	15.0	6,972	108.1	13,719	212.7	21,656	335.8
Struck by/against	13	0.2	2,237	34.7	113,882	1,765.7	116,132	1,800.6
Transport Injuries ²	470	7.3	5,617	87.1	84,284	1,306.8	90,371	1,401.2
Motor vehicle traffic-related ²	411	6.4	4,544	70.5	71,522	1,108.9	76,477	1,185.7
Injury to occupant	56	0.9	2,992	46.4	60,069	931.3	63,117	978.6
Injury to motorcyclist	59	0.9	531	8.2	2,364	36.7	2,954	45.8
Injury to pedal cyclist	3	0.0	140	2.2	1,133	17.6	1,276	19.8
Injury to pedestrian	74	1.1	663	10.3	3,199	49.6	3,936	61.0
Injury to other	0	0.0	28	0.4	238	3.7	266	4.1
Injury to unspecified	216	3.3	168	2.6	4,482	69.5	4,866	75.4
Pedal cyclist, non-traffic	9	0.1	375	5.8	7,645	118.5	8,029	124.5
Pedestrian, non-traffic	7	0.1	53	0.8	391	6.1	451	7.0
Other land transport	34	0.5	0	0.0	0	0.0	34	0.5
Other transport	9	0.1	645	10.0	4,726	73.3	5,380	83.4
Other specified & classifiable:	35	0.5	2,865	44.4	37,860	587.0	40,760	632.0
Human bites	0	0.0	96	1.5	1,685	26.1	1,781	27.6
Non-powder gun (bb, pellet)	0	0.0	13	0.2	391	6.1	404	6.3
Other specified & classifiable	35	0.5	2,756	42.7	35,784	554.8	38,575	598.1
Other specified, not classifiable	37	0.6	1,472	22.8	15,355	238.1	16,864	261.5
Unspecified	171	2.7	3,617	56.1	53,511	829.7	57,299	888.4
Adverse effects	50	0.8	2,906	45.1	1,214	18.8	4,170	64.7
Cause cannot be determined	0	0.0	7,564	117.3	7,409	114.9	14,973	232.1
Total	2,967	46.0	67,786	1,051.0	707,883	10,975.3	778,636	12,072.3

1. Represents crude rates per 100,000 residents. Rates based on counts <20 may be unstable and should be interpreted with caution. Rates are not calculated on counts <5 for deaths or <7 (due to suppression rules) for nonfatal injuries.

2. Includes motor vehicle injuries that are not included in subcategories (i.e., assault-related and self-inflicted MV-related injuries).

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 7. Total Number and Rate of Injury Deaths and Nonfatal Injuries by Sex and Age Groups for Selected Causes, MA Residents, 2007

Selected Causes for this table include: Poisoning/overdose, Fall, Cut/pierce, overexertion, natural and environmental, motor vehicle crash injuries to occupant, pedestrians, pedal cyclists, struck by or against an object, machinery, and suffocation/hanging.

	Poisoning / drug overdose				Fall				Cut/pierce				Overexertion			
	Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
Males²	613	19.6	10,028	320.7	250	8.0	93,308	2,984.4	43	1.4	48,700	1,557.7	0	0.0	46,566	1,489.4
<1	0	0.0	98	253.6	0	0.0	1,422	3,680.4	0	0.0	79	204.5	0	0.0	69	178.6
1-14	1	0.2	1,101	197.3	0	0.0	24,835	4,450.7	0	0.0	5,672	1,016.5	0	0.0	4,994	895.0
15-24	55	12.1	1,925	424.1	3	0.7	11,816	2,603.5	11	2.4	11,367	2,504.6	0	0.0	10,708	2,359.4
25-44	306	34.3	3,824	428.3	22	2.5	19,516	2,185.8	18	2.0	18,447	2,066.0	0	0.0	19,991	2,239.0
45-64	237	28.4	2,461	295.2	43	5.2	18,281	2,192.7	9	1.1	10,464	1,255.1	0	0.0	9,133	1,095.5
65-74	9	4.8	293	155.8	44	23.4	5,339	2,838.6	2	1.1	1,506	800.7	0	0.0	939	499.2
75-84	3	2.5	227	188.9	72	59.9	7,108	5,914.6	1	0.8	912	758.9	0	0.0	573	476.8
85+	2	4.9	99	240.6	66	160.4	4,991	12,127.6	2	4.9	251	609.9	0	0.0	159	386.4
Females	352	10.6	10,663	320.9	220	6.6	112,497	3,385.1	10	0.3	26,155	787.0	0	0.0	39,619	1,192.2
<1	0	0.0	64	173.3	0	0.0	1,203	3,257.2	0	0.0	62	167.9	0	0.0	87	235.6
1-14	0	0.0	1,026	192.1	0	0.0	18,305	3,426.8	0	0.0	3,243	607.1	0	0.0	5,397	1,010.3
15-24	15	3.3	2,549	563.5	6	1.3	9,192	2,032.2	1	0.2	5,324	1,177.1	0	0.0	7,403	1,636.7
25-44	147	16.2	3,657	404.0	5	0.6	19,711	2,177.4	3	0.3	9,236	1,020.3	0	0.0	14,601	1,612.9
45-64	160	18.1	2,415	273.0	25	2.8	24,016	2,713.5	5	0.6	6,176	697.8	0	0.0	9,139	1,032.6
65-74	18	7.9	387	170.5	17	7.5	9,249	4,074.5	1	0.4	1,012	445.8	0	0.0	1,346	593.0
75-84	10	5.4	377	205.0	56	30.4	15,906	8,648.0	0	0.0	730	396.9	0	0.0	1,141	620.4
85+	2	2.0	188	189.7	111	112.6	14,915	15,126.8	0	0.0	372	377.3	0	0.0	505	512.2
Total³	965	15.0	20,691	320.8	470	7.3	205,810	3,191.0	53	0.8	74,860	1,160.7	0	0.0	86,187	1,336.3
<1	0	0.0	162	214.4	0	0.0	2,625	3,473.6	0	0.0	141	186.6	0	0.0	156	206.4
1-14	1	0.1	2,127	194.7	0	0.0	43,140	3,949.9	0	0.0	8,915	816.3	0	0.0	10,391	951.4
15-24	70	7.7	4,474	493.7	9	1.0	21,008	2,318.4	12	1.3	16,692	1,842.1	0	0.0	18,111	1,998.7
25-44	453	25.2	7,481	416.0	27	1.5	39,228	2,181.6	21	1.2	27,683	1,539.5	0	0.0	34,592	1,923.8
45-64	397	23.1	4,877	283.7	68	4.0	42,300	2,461.1	14	0.8	16,644	968.4	0	0.0	18,274	1,063.2
65-74	27	6.5	680	163.8	61	14.7	14,589	3,514.7	3	0.7	2,518	606.6	0	0.0	2,285	550.5
75-84	13	4.3	604	198.6	128	42.1	23,014	7,567.8	1	0.3	1,642	539.9	0	0.0	1,714	563.6
85+	4	2.9	286	204.6	177	126.7	19,906	14,243.6	2	1.4	623	445.8	0	0.0	664	475.1

Table 7. continued

	Natural/environmental				MV Occupant ⁴				Pedestrian ⁵				Pedal Cyclist ⁵			
	Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
Males²	13	0.4	15,771	504.4	226	7.2	32,995	1,055.3	59	1.9	2,516	80.5	10	0.3	7,024	224.7
<1	0	0.0	79	204.5	0	0.0	49	126.8	0	0.0	<7	--	0	0.0	<7	--
1-14	0	0.0	3,513	629.6	0	0.0	1,603	287.3	3	0.5	442	79.2	3	0.5	2,846	510.0
15-24	1	0.2	1,971	434.3	79	17.4	9,903	2,182.0	7	1.5	584	128.7	1	0.2	1,616	356.1
25-44	2	0.2	4,288	480.2	75	8.4	13,129	1,470.4	8	0.9	758	84.9	4	0.4	1,429	160.0
45-64	4	0.5	4,078	489.1	48	5.8	6,600	791.6	24	2.9	541	64.9	0	0.0	998	119.7
65-74	2	1.1	979	520.5	8	4.3	902	479.6	8	4.3	89	47.3	1	0.5	89	47.3
75-84	3	2.5	693	576.6	10	8.3	629	523.4	7	5.8	77	64.1	1	0.8	40	33.3
85+	1	2.4	170	413.1	6	14.6	180	437.4	2	4.9	23	55.9	0	0.0	<7	--
Females	7	0.2	15,493	466.2	105	3.2	37,608	1,131.7	22	0.7	1,790	53.9	2	0.1	2,269	68.3
<1	0	0.0	68	184.1	0	0.0	40	108.3	0	0.0	<7	--	0	0.0	0	0.0
1-14	0	0.0	2,814	526.8	0	0.0	1,804	337.7	1	0.2	250	46.8	1	0.2	1,119	209.5
15-24	0	0.0	2,019	446.4	40	8.8	11,592	2,562.8	4	0.9	417	92.2	1	0.2	300	66.3
25-44	0	0.0	4,015	443.5	27	3.0	14,300	1,579.7	4	0.4	485	53.6	0	0.0	421	46.5
45-64	0	0.0	4,312	487.2	17	1.9	7,507	848.2	3	0.3	395	44.6	0	0.0	379	42.8
65-74	0	0.0	1,075	473.6	11	4.8	1,169	515.0	5	2.2	124	54.6	0	0.0	35	15.4
75-84	1	0.5	886	481.7	4	2.2	914	496.9	1	0.5	85	46.2	0	0.0	13	7.1
85+	6	6.1	304	308.3	6	6.1	282	286.0	4	4.1	33	33.5	0	0.0	<7	--
Total²	20	0.3	31,267	484.8	331	5.1	70,606	1,094.7	81	1.3	4,306	66.8	12	0.2	9,293	144.1
<1	0	0.0	147	194.5	0	0.0	89	117.8	0	0.0	<7	--	0	0.0	<7	--
1-14	0	0.0	6,327	579.3	0	0.0	3,407	311.9	4	0.4	692	63.4	4	0.4	3,965	363.0
15-24	1	0.1	3,990	440.3	119	13.1	21,495	2,372.1	11	1.2	1,001	110.5	2	0.2	1,916	211.4
25-44	2	0.1	8,304	461.8	102	5.7	27,429	1,525.4	12	0.7	1,243	69.1	4	0.2	1,850	102.9
45-64	4	0.2	8,392	488.3	65	3.8	14,110	820.9	27	1.6	936	54.5	0	0.0	1,377	80.1
65-74	2	0.5	2,054	494.8	19	4.6	2,071	498.9	13	3.1	213	51.3	1	0.2	124	29.9
75-84	4	1.3	1,579	519.2	14	4.6	1,543	507.4	8	2.6	162	53.3	1	0.3	53	17.4
85+	7	5.0	474	339.2	12	8.6	462	330.6	6	4.3	56	40.1	0	0.0	<7	--

Table 7. continued

	Struck by / against				Fire / Burn				Machinery				Suffocation / hanging			
	Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries		Injury Deaths		Nonfatal Injuries	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
Males²	11	0.4	76,574	2,449.2	19	0.6	5,723	183.0	1	0.0	3,408	109.0	257	8.2	638	20.4
<1	0	0.0	307	794.6	0	0.0	100	258.8	0	0.0	0	0.0	1	2.6	31	80.2
1-14	1	0.2	20,757	3,719.9	2	0.4	889	159.3	0	0.0	55	9.9	5	0.9	112	20.1
15-24	2	0.4	23,026	5,073.5	1	0.2	1,137	250.5	0	0.0	556	122.5	26	5.7	62	13.7
25-44	3	0.3	21,152	2,369.0	1	0.1	2,150	240.8	0	0.0	1,369	153.3	97	10.9	117	13.1
45-64	4	0.5	9,303	1,115.8	6	0.7	1,152	138.2	1	0.1	1,125	134.9	77	9.2	131	15.7
65-74	1	0.5	1,004	533.8	6	3.2	152	80.8	0	0.0	185	98.4	13	6.9	69	36.7
75-84	0	0.0	691	575.0	2	1.7	114	94.9	0	0.0	95	79.1	17	14.1	69	57.4
85+	0	0.0	334	811.6	1	2.4	29	70.5	0	0.0	23	55.9	20	48.6	47	114.2
Females	2	0.1	39,543	1,189.9	18	0.5	5,181	155.9	0	0.0	513	15.4	84	2.5	567	17.1
<1	0	0.0	235	636.3	0	0.0	98	265.3	0	0.0	0	0.0	1	2.7	38	102.9
1-14	0	0.0	10,195	1,908.6	3	0.6	749	140.2	0	0.0	23	4.3	4	0.7	113	21.2
15-24	1	0.2	9,500	2,100.3	3	0.7	1,034	228.6	0	0.0	127	28.1	4	0.9	43	9.5
25-44	1	0.1	10,524	1,162.5	0	0.0	1,731	191.2	0	0.0	186	20.5	17	1.9	67	7.4
45-64	0	0.0	6,178	698.0	6	0.7	1,150	129.9	0	0.0	155	17.5	17	1.9	90	10.2
65-74	0	0.0	1,029	453.3	1	0.4	224	98.7	0	0.0	18	7.9	9	4.0	59	26.0
75-84	0	0.0	1,155	628.0	4	2.2	139	75.6	0	0.0	<7	--	13	7.1	81	44.0
85+	0	0.0	727	737.3	1	1.0	56	56.8	0	0.0	<7	--	19	19.3	76	77.1
Total²	13	0.2	116,119	1,800.4	37	0.6	10,904	169.1	1	0.0	3,922	60.8	341	5.3	1,205	18.7
<1	0	0.0	542	717.2	0	0.0	198	262.0	0	0.0	0	0.0	2	2.6	69	91.3
1-14	1	0.1	30,952	2,834.0	5	0.5	1,638	150.0	0	0.0	78	7.1	9	0.8	225	20.6
15-24	3	0.3	32,527	3,589.5	4	0.4	2,171	239.6	0	0.0	683	75.4	30	3.3	105	11.6
25-44	4	0.2	31,677	1,761.7	1	0.1	3,881	215.8	0	0.0	1,555	86.5	114	6.3	184	10.2
45-64	4	0.2	15,481	900.7	12	0.7	2,302	133.9	1	0.1	1,281	74.5	94	5.5	221	12.9
65-74	1	0.2	2,033	489.8	7	1.7	376	90.6	0	0.0	203	48.9	22	5.3	128	30.8
75-84	0	0.0	1,846	607.0	6	2.0	253	83.2	0	0.0	98	32.2	30	9.9	150	49.3
85+	0	0.0	1,061	759.2	2	1.4	85	60.8	0	0.0	24	17.2	39	27.9	123	88.0

1. Represents crude rates per 100,000 residents. Rates based on counts <20 may be unstable and should be interpreted with caution. Rates are not calculated on counts <5 for deaths or <7 (due to suppression rules) for nonfatal injuries.

2. Total includes cases for which age was unknown or missing.

3. Total includes cases for which age and/or sex was unknown or missing.

4. Motor vehicle traffic-related injuries include: motor vehicle occupants (i.e., drivers and passengers of cars and light trucks), pedestrians and pedal cyclists struck by a motor vehicle in traffic, and motorcyclists.

5. Pedestrian and pedal cyclist injuries include persons struck by a motor vehicle in traffic as well as nontraffic injuries.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency

Department Database, Division of Health Care Finance and Policy

Table 8. Number and Rate of Injury-related Cases by Intent and Selected Causes, MA Residents, 2007

Intent and Cause	Injury Deaths	Nonfatal Hospital Stays	Nonfatal ED Visits	Totals ¹		
	Number	Number	Number	Total Injury Count	Rate ²	Case Fatality Ratio ³
Unintentional	2,113	49,733	660,996	712,842	11,052.2	0.3
Cut or pierce	0	670	68,875	69,463	1,077.0	0.0
Drowning or near drowning/submersion	51	30	166	247	3.8	20.6
Fall	452	28,624	176,999	206,075	3,195.1	0.2
Firearm	3	35	142	180	2.8	1.7
Fire/burn total	32	524	10,227	10,783	167.2	0.3
Fire/flame	30	200	1,711	1,941	30.1	1.5
Burns, hot object/substance	2	324	8,516	8,842	137.1	0.0
Hanging, strangulation, or suffocation	105	526	478	1,109	17.2	9.5
Poisoning/drug overdose	783	2,795	7,223	10,801	167.5	7.2
Transport Injuries:	467	5,595	84,247	90,309	1,400.2	0.5
Motor vehicle traffic-related	408	4,522	71,485	76,415	1,184.8	0.5
Injury to occupant ⁴	272	3,160	64,551	67,983	1,054.0	0.4
Injury to motorcyclist	59	531	2,364	2,954	45.8	2.0
Injury to pedal cyclist	3	140	1,133	1,276	19.8	0.2
Injury to pedestrian	74	663	3,199	3,936	61.0	1.9
Injury to other person	0	28	238	266	4.1	0.0
Pedestrian, non-traffic	7	53	391	451	7.0	1.6
Pedal cyclist, non-traffic	9	375	7,645	8,029	124.5	0.1
Other transport	43	645	4,726	5,414	83.9	0.8
Other and unspecified injuries	220	10,934	312,639	323,793	5,020.2	0.1
Suicide/Self-inflicted	504	4,305	6,720	11,529	178.8	4.4
Cut or pierce	19	545	2,415	2,979	46.2	0.6
Firearm	112	8	3	123	1.9	91.1
Hanging, strangulation, or suffocation	220	38	119	377	5.8	58.4
Poisoning/drug overdose	117	3,458	3,350	6,925	107.4	1.7
Other and unspecified injuries	36	256	3,248	3,539	54.9	1.0
Homicide/Assault	183	2,343	25,229	27,755	430.3	0.7
Cut or pierce	33	561	1,660	2,254	34.9	1.5
Firearm	113	350	222	685	10.6	16.5
Struck by or against an object	3	762	13,171	13,936	216.1	0.0
Other and unspecified injuries	34	670	10,176	10,880	168.7	0.3
Injuries of Undetermined Intent	112	894	5,715	6,721	104.2	1.7
Drowning or near drowning/submersion	12	0	4	16	0.2	75.0
Fall	5	24	75	104	1.6	4.8
Poisoning/drug overdose	63	713	3,104	3,880	60.2	1.6
Hanging, strangulation, or suffocation	6	<7	<7	13	0.2	46.2
Other and unspecified injuries	26	156	2,526	2,708	42.0	1.0
All other intents/causes	55	2,954	1,823	4,832	74.9	1.1
Intent and/or cause cannot be determined	0	7,557	7,400	14,957	231.9	0.0
Total	2,967	67,786	707,883	778,636	12,072.3	0.4

1. The total injury count includes the number of fatal and nonfatal injury cases among MA residents in 2007. The rate is based on those numbers.

2. Represents crude rates per 100,000 residents. Rates based on counts <20 may be unstable and should be interpreted with caution. Rates are not calculated on counts <5 for deaths or <7 (due to suppression rules) for nonfatal injuries.

3. The case fatality ratio (number of fatal injury cases among the total number of injury deaths and hospital events) is based only on Massachusetts residents who died in Massachusetts and those treated within a MA acute care hospital for an injury in 2007. MA residents who died out of state were not included in this ratio. Case fatality-ratio is presented here as a percent.

4. Occupant injuries include drivers, passengers, and unspecified persons.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database,

Division of Health Care Finance and Policy

Table 9. Charges* for Injury-related Hospital Discharges¹, Selected Causes by Intent, MA Residents, 2007

INTENT AND CAUSE OF INJURY ²	Number	Mean Charge	Total Charges
UNINTENTIONAL			
Fall	28,647	\$22,323	\$639,497,305
Motor Vehicle Traffic	4,391	\$41,317	\$181,422,770
Occupant	2,875	\$39,449	\$113,414,886
Motorcyclist	546	\$46,772	\$25,537,556
Pedal cyclist	136	\$44,375	\$6,035,033
Pedestrian	655	\$48,168	\$31,550,129
Other person	25	\$39,756	\$993,899
Unspecified Person	154	\$25,268	\$3,891,267
Poisoning/drug overdose	2,668	\$16,331	\$43,570,633
Struck by/against	1,293	\$18,527	\$23,954,805
Overexertion	1,068	\$15,062	\$16,085,773
Natural / environmental	1,065	\$14,074	\$14,988,955
Dog bite	139	\$11,745	\$1,632,511
Other bite or sting	494	\$8,538	\$4,217,736
All other	432	\$21,154	\$9,138,708
Cut / pierce	648	\$14,781	\$9,577,766
Other transport	624	\$31,882	\$19,894,375
Suffocation / hanging	589	\$34,765	\$20,476,538
Fire / burn	506	\$36,821	\$18,631,476
Fire/flame	197	\$57,919	\$11,409,994
Hot object / substance burn	309	\$23,370	\$7,221,482
Pedal cyclist, other	369	\$21,142	\$7,801,544
Machinery	190	\$27,445	\$5,214,467
Pedestrian, other	49	\$57,267	\$2,806,107
Firearms	35	\$34,175	\$1,196,115
Near drowning / submersion	32	\$33,024	\$1,056,764
Other specified & classifiable	2,673	\$26,275	\$70,233,422
Human bite	45	\$14,990	\$674,546
Non-powder gun	8	\$31,561	\$252,490
Other	2,620	\$26,453	\$69,306,386
Other specified, not classifiable	933	\$20,242	\$18,886,210
Unspecified	3,320	\$20,506	\$68,079,527
SELF-INFLICTED			
Poisoning/drug overdose	3,599	\$13,434	\$48,347,939
Cut / pierce	537	\$16,704	\$8,970,014
Suffocation / hanging	50	\$23,469	\$1,173,470
Fall	41	\$84,692	\$3,472,373
Fire / burn	19	\$16,152	\$306,884

Table 9. (continued)

Motor Vehicle Traffic	15	\$20,360	\$305,406
Firearm	14	\$53,917	\$754,843
Other specified & classifiable	12	\$47,361	\$568,335
Other specified, not classifiable	140	\$25,852	\$3,619,267
Unspecified	26	\$16,823	\$437,404
ASSAULT			
Struck by / against	693	\$23,007	\$15,943,698
Cut / pierce	523	\$27,844	\$14,562,304
Firearm	355	\$54,659	\$19,403,767
Fire / burn	11	\$195,601	\$2,151,609
Fall	8	\$24,775	\$198,199
Other specified & classifiable	158	\$17,781	\$2,809,361
Human bite	47	\$10,837	\$509,338
Other	111	\$20,721	\$2,300,023
Other specified, not classifiable	266	\$28,935	\$7,696,799
Unspecified	172	\$27,557	\$4,739,765
UNDETERMINED			
Poisoning/drug overdose	707	\$13,676	\$9,668,656
Firearm	9	\$29,932	\$269,392
Fall	22	\$69,958	\$1,539,071
Fire / burn	7	\$16,326	\$114,279
Natural / environmental	8	\$14,354	\$114,831
Other specified, not classifiable	85	\$21,378	\$1,817,138
Unspecified	32	\$25,694	\$830,855
OTHER /LEGAL			
Struck by / against	23	\$18,716	\$430,463
Firearm	7	\$83,779	\$586,456
Other specified, not classifiable	21	\$20,797	\$436,732
TOTALS BY INTENT OF INJURY			
UNINTENTIONAL	49,100	\$23,694	\$1,163,374,552
SELF-INFLICTED	4,458	\$15,264	\$68,048,144
ASSAULT	2,200	\$30,778	\$67,710,626
UNDETERMINED	879	\$16,532	\$14,531,737
OTHER /LEGAL	54	\$27,575	\$1,489,076
ADVERSE EFFECTS	3,020	\$31,909	\$96,364,404
CAUSE / INTENT NOT PROVIDED	3,269	\$30,947	\$101,167,141
<i>Injuries with no charges listed</i>	29	<i>na</i>	<i>na</i>
TOTAL (with charges)	62,980	\$24,019	\$1,512,685,680

1. Numbers presented here may not match other counts in this report. Charges are included for patients who died or were transferred to another acute care hospital.

2. Causes for which there were less than 7 counts are not included.

Source:

MA Inpatient Hospital Discharge Database, Division of Health Care Finance and Policy

*Charges are presented to provide an economic measurement associated with injuries overall, and for specific intents and causes. All three databases from the Division of Health Care Finance and Policy include charges associated with each visit. Charges that are issued by the treating hospital are not necessarily the amount that it costs the hospital to treat the patients, nor is it what is ultimately paid to the hospital by the insurer/payer. These represent initial hospital charges only. Final payment is typically less than initial charges, but such information is not included in the databases. This basic method of economic measurement, however, does not take into account costs associated with long-term or rehabilitative care, nor other costs associated with injury and disability such as lost wages.

Table 10. Length of Stay (*in days*) for Nonfatal Injury-related Hospital Discharges, MA Residents, 2007

INTENT AND CAUSE OF INJURY¹	Number	Mean	Median	Minimum	Maximum
UNINTENTIONAL					
Fall	27,390	5.1	4	1	172
Motor Vehicle Traffic	4236	5.5	3	1	129
Occupant	2781	5.2	3	1	126
Motorcyclist	522	5.9	4	1	55
Pedal cyclist	131	5.1	2	1	41
Pedestrian	626	6.5	4	1	129
Other person	25	6.3	3	1	37
Unspecified Person	151	4.9	4	1	26
Poisoning/drug overdose	2576	3.7	2	1	51
Struck by/against	1266	4.0	3	1	176
Overexertion	1053	3.8	3	1	65
Natural / environmental	1011	4.3	3	1	75
Dog bite	137	3.2	2	1	16
Other bite or sting	487	2.9	2	1	39
All other	387	6.4	4	1	75
Cut / pierce	643	3.7	3	1	56
Other transport	607	4.8	3	1	48
Fire / burn	488	6.2	3	1	108
Fire/flame	185	7.4	4	1	108
Hot object / substance burn	303	5.4	3	1	42
Pedal cyclist, other	360	3.4	2	1	36
Suffocation / hanging	503	7.7	5	1	55
Machinery	187	3.7	2	1	24
Pedestrian, other	49	8.4	5	1	46
Firearm	33	5.9	3	1	42
Near drowning / submersion	29	4.6	2	1	27
Other specified & classifiable	2565	6.5	4	1	234
Human bite	45	6.2	3	1	83
Non-powder gun	8	4.6	3	1	14
Other	2512	6.5	4	1	234
Other specified, not classifiable	903	5.2	4	1	65
Unspecified	3178	5.8	4	1	109
SELF-INFLICTED					
Poisoning/drug overdose	3300	3.7	2	1	57
Cut / pierce	519	7.1	4	1	113
Fall	39	12.8	9	1	65
Suffocation / hanging	37	5.3	4	1	25
Fire / burn	18	8.1	6	2	24
Motor Vehicle Traffic	14	4.7	4	1	11
Firearm	8	6.6	4	1	22
Other specified & classifiable	12	8.4	7	1	30

Other specified, not classifiable	136	11.4	5.5	1	179
Unspecified	25	7.5	4	1	33
ASSAULT					
Struck by / against	683	3.7	2	1	102
Cut / pierce	515	3.8	2	1	47
Firearm	332	8.0	3	1	163
Fall	7	4.1	3	1	10
Fire / burn	10	17.0	5.5	1	80
Other specified & classifiable	153	5.2	3	1	56
Other specified, not classifiable	259	6.8	4	1	84
Unspecified	165	4.6	3	1	37
UNDETERMINED					
Poisoning/drug overdose	656	3.7	2	1	49
Firearm	8	4.0	4.5	1	7
Fall	22	11.0	5.5	1	43
Fire / burn	7	4.1	4	2	7
Natural / environmental	8	4.3	3.5	1	9
Other specified, not classifiable	83	4.8	4	1	36
Unspecified	30	6.4	4	1	28
OTHER /LEGAL					
Struck by / against	20	6.0	3.5	1	28
Other specified, not classifiable	19	6.3	5	1	20
TOTALS BY INTENT OF INJURY					
UNINTENTIONAL	47,077	5.1	4	1	234
SELF-INFLICTED	4,112	4.6	3	1	179
ASSAULT	2,137	5.0	3	1	163
UNDETERMINED	823	4.1	3	1	49
OTHER /LEGAL	47	7.2	4	1	44
ADVERSE EFFECTS	2,867	7.2	5	1	180
CAUSE / INTENT NOT PROVIDED	3,052	7.4	4	1	143
TOTAL	60,115	5.3	4	1	234

1. Causes for which there were less than 7 counts are not included.

Source:

MA Inpatient Hospital Discharge Database, Division of Health Care Finance and Policy

Table 11. Total Count of Injuries by Nature and Body Region* for Nonfatal Injury-related Hospital Stay Cases, MA Residents, 2007

		Nature of Injury							TOTAL
		Fractures	Sprains/ Strains/ Dislocations	Internal	Open wound	Contusion/ superficial	Other	Un- specified	
Body Region									
Head / Neck	Total Head and Neck	4,576	25	4,516	5,616	4,402	399	1,274	20,808
Spine / Back	Spinal Cord Injury	195	0	177	0	0	0	0	372
	Vertebral Column Injury	4,731	973	0	0	0	0	0	5,704
	Total Spine and Back	4,926	973	177	0	0	0	0	6,076
Torso	Chest/thorax	3,643	76	2,184	175	857	115	0	7,050
	Abdomen	0	0	1,800	247	364	111	0	2,522
	Pelvis/urogenital	2,599	144	933	128	42	41	0	3,887
	Trunk	1	0	0	21	388	28	360	798
	Back and buttocks	0	68	0	93	598	72	0	831
	Total Torso	6,243	288	4,917	664	2,249	367	360	15,088
Extremity	Upper extremity	7,783	1,505	0	2,636	2,288	1,111	247	15,570
	Lower extremity	15,133	2,295	0	1,492	3,733	490	308	23,451
	Total Extremities	22,916	3,800	0	4,128	6,021	1,601	555	39,021
Other / Unspecified	Other and unspecified	14	161	16	46	748	528	123	1,636
	System wide / late effects								19,933
	Total Other / Unspecified	14	161	16	46	748	528	123	21,569
TOTAL		38,675	5,247	9,626	10,454	13,420	2,895	2,312	102,562

Source: MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy.

*Modified version of the Barell Injury Diagnosis Matrix.

Table 11 is a modified version of the Barell Matrix, a tool used to categorize all injuries into groupings by the nature of the injury and anatomical location. Because one injury producing incident can result in multiple injuries to the individual, the total number of injuries presented here will be higher than the number of injury-related emergency department "cases" presented elsewhere.

Table 12. Total Count of Injuries by Nature and Body Region* for Nonfatal Injury-related Emergency Department Cases, MA Residents

		Nature of Injury						
		Fractures	Sprains/ Strains/ Dislocations	Internal	Open wound	Contusion/ superficial	Other	Un- specified
Body Region								
Head / Neck	Total Head and Neck	9,155	344	11,694	70,350	67,093	2,316	40,043
Spine / Back	Spinal Cord Injury	58	0	67	0	0	0	0
	Vertebral Column Injury	2,729	85,975	0	0	0	0	0
	Total Spine and Back	2,787	85,975	67	0	0	0	0
Torso	Chest/thorax	5,869	1,877	416	515	17,105	458	0
	Abdomen	0	0	409	569	2,997	420	0
	Pelvis/urogenital	817	5,664	120	942	465	72	0
	Trunk	4	0	0	93	5,603	111	5,713
	Back and buttocks	0	10,503	0	457	11,687	322	0
	Total Torso	6,690	18,044	945	2,576	37,857	1,383	5,713
Extremity	Upper extremity	48,677	49,862	0	78,550	66,199	10,693	13,400
	Lower extremity	24,489	71,021	0	23,242	60,135	2,808	10,291
	Total Extremities	73,166	120,883	0	101,792	126,334	13,501	23,691
Other / Unspecified	Other and unspecified	54	8,135	17	380	12,160	2,390	2,992
	System wide / late effects							
	Total Other / Unspecified	54	8,135	17	380	12,160	2,390	2,992
TOTAL		91,852	233,381	12,723	175,098	243,444	19,590	72,439

Source: MA Inpatient Hospital Discharge Database, Division of Health Care Finance and Policy.

*Modified version of the Barell Injury Diagnosis Matrix.

Table 12 is a modified version of the Barell Matrix, a tool used to categorize all injuries into groupings by the nature of the injury and anatomical location. Because one injury-producing incident can result in multiple injuries to the individual, the total number of injuries presented here will be higher than the number of injury-related emergency department "cases" presented elsewhere.

2007

TOTAL
200,995
125
88,704
88,829
26,240
4,395
8,080
11,524
22,969
73,208
267,381
191,986
459,367
26,128
43,795
69,923
892,322

location.
than the number

Table 13. Fatal and Nonfatal Number and Rate of Selected Injury Causes by County, MA Residents, 2007

	Total Injuries					Unintentional Motor Vehicle Traffic ³		Unintentional Falls Among Elders (Ages 65+)		Unintentional and Undetermined Poisonings ⁴		Homicide/Assault		Suicide/Self-Inflicted	
	Deaths	Nonfatal	Total	Crude Rate ¹	Age-adjusted Rate ²	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal
Massachusetts*	2,967	775,669	778,636	12,096.4	12,120.3	408	76,007	363	57,505	846	13,835	183	27,572	504	11,025
Barnstable	171	34,734	34,905	15,410.2	16,054.9	26	3,094	50	3,626	37	406	1	931	29	395
Berkshire	70	23,824	23,894	18,106.3	18,627.3	8	1,589	12	1,903	16	300	2	641	16	414
Bristol	302	82,176	82,478	15,058.6	15,212.1	54	8,333	33	5,151	88	1,173	12	2,841	51	1,274
Dukes	6	3,304	3,310	21,211.2	21,640.7	0	167	1	266	4	35	0	46	0	15
Essex	367	93,525	93,892	12,511.1	12,650.4	45	8,478	45	7,305	113	1,467	16	2,979	59	1,211
Franklin	27	9,278	9,305	12,849.7	13,124.1	8	682	4	598	6	140	0	179	6	135
Hampden	215	64,719	64,934	13,912.3	13,969.5	38	8,430	11	4,049	60	1,555	25	3,238	29	1,031
Hampshire	62	14,966	15,028	9,759.6	10,004.2	14	1,244	6	1,222	16	265	1	332	12	285
Middlesex	506	146,905	147,411	10,067.8	10,125.2	57	12,952	76	12,564	147	2,316	15	3,901	90	1,756
Nantucket	7	2,556	2,563	25,391.3	26,452.4	1	70	1	149	1	19	0	29	3	13
Norfolk	277	69,804	70,081	10,675.4	10,856.4	32	6,015	39	6,555	70	1,217	12	1,918	49	810
Plymouth	223	65,603	65,826	13,226.4	13,475.0	39	7,512	17	4,042	63	1,026	15	2,091	43	778
Suffolk	367	74,962	75,329	11,497.0	11,355.0	25	9,687	32	4,308	128	1,943	68	5,467	41	1,067
Worcester	367	89,282	89,649	11,377.6	11,425.4	61	7,754	36	5,767	97	1,972	16	2,974	76	1,838

* Massachusetts total includes cases of unknown town including homeless persons where no specific town was provided.

1. Represents crude rates per 100,000 residents. County population to calculate rates is from MassCHIP (2005).

2. Age-adjusted rate is adjusted to the 2000 U.S. standard population. County population to calculate rates is from MassCHIP (2005).

3. Motor vehicle traffic-related injuries include: motor vehicle occupants (i.e., drivers and passengers of cars and light trucks), pedestrians and pedal cyclists injured by a motor vehicle, and motorcyclists.

4. Poisonings can include prescription medicines, household cleaners, carbon monoxide poisoning, toxic effects of legal or illegal drugs, etc.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Outpatient Hospital Discharge Database, MA Observation Stay Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

City and Town Listing for Counties:

Barnstable	Bristol	Essex	Franklin	Hampshire	Middlesex	Nantucket	Plymouth	Worcester
BARNSTABLE	ACUSHNET	AMESBURY	ASHFIELD	AMHERST	ACTON	NANTUCKET	ABINGTON	ASHBURNHAM
BOURNE	ATTLEBORO	ANDOVER	BERNARDSTON	BELCHERTOWN	ARLINGTON		BRIDGEWATER	ATHOL
BREWSTER	BERKLEY	BEVERLY	BUCKLAND	CHESTERFIELD	ASHBY	Norfolk	BROCKTON	AUBURN
CHATHAM	DARTMOUTH	BOXFORD	CHARLEMONT	CUMMINGTON	ASHLAND	AVON	CARVER	BARRE
DENNIS	DIGHTON	DANVERS	COLRAIN	EASTHAMPTON	AYER	BELLINGHAM	DUXBURY	BERLIN
EASTHAM	EASTON	ESSEX	CONWAY	GOSHEN	BEDFORD	BRAINTREE	EAST BRIDGEWATER	BLACKSTONE
FALMOUTH	FAIRHAVEN	GEORGETOWN	DEERFIELD	GRANBY	BELMONT	BROOKLINE	HALIFAX	BOLTON
HARWICH	FALL RIVER	GLOUCESTER	ERVING	HADLEY	BILLERICA	CANTON	HANOVER	BOYLSTON
MASHPEE	FREETOWN	GROVELAND	GILL	HATFIELD	BOXBOROUGH	COHASSET	HANSON	BROOKFIELD
ORLEANS	MANSFIELD	HAMILTON	GREENFIELD	HUNTINGTON	BURLINGTON	DEDHAM	HINGHAM	CHARLTON

PROVINCETOWN	NEW BEDFORD	HAVERHILL	HAWLEY	MIDDLEFIELD	CAMBRIDGE	DOVER	HULL	CLINTON
SANDWICH	NORTH ATTLEBORO	IPSWICH	HEATH	NORTHAMPTON	CARLISLE	FOXBOROUGH	KINGSTON	DOUGLAS
TRURO	NORTON	LAWRENCE	LEVERETT	PELHAM	CHELMSFORD	FRANKLIN	LAKEVILLE	DUDLEY
WELLFLEET	RAYNHAM	LYNN	LEYDEN	PLAINFIELD	CONCORD	HOLBROOK	MARION	EAST BROOKFIELD
YARMOUTH	REHOBOTH	LYNNFIELD	MONROE	SOUTH HADLEY	DRACUT	MEDFIELD	MARSHFIELD	FITCHBURG
ADAMS	SEEKONK	MANCHESTER	MONTAGUE	SOUTHAMPTON	DUNSTABLE	MEDWAY	MATTAPOISETT	GARDNER
ALFORD	SOMERSET	MARBLEHEAD	NEW SALEM	WARE	EVERETT	MILLIS	MIDDLEBOROUGH	GRAFTON
	SWANSEA	MERRIMAC	NORTHFIELD	WESTHAMPTON	FRAMINGHAM	MILTON	NORWELL	HARDWICK
Berkshire	TAUNTON	METHUEN	ORANGE	WILLIAMSBURG	GROTON	NEEDHAM	PEMBROKE	HARVARD
BECKET	WESTPORT	MIDDLETON	ROWE	WORTHINGTON	HOLLISTON	NORFOLK	PLYMOUTH	HOLDEN
CHESHIRE		NAHANT	SHELBURNE		HOPKINTON	NORWOOD	PLYMPTON	HOPEDALE
CLARKSBURG	Dukes	NEWBURY	SHUTESBURY		HUDSON	PLAINVILLE	ROCHESTER	HUBBARDSTON
DALTON	AQUINNAH	NEWBURYPORT	SUNDERLAND		LEXINGTON	QUINCY	ROCKLAND	LANCASTER
EGREMONT	CHILMARK	NORTH ANDOVER	WARWICK		LINCOLN	RANDOLPH	SCITUATE	LEICESTER
FLORIDA	EDGARTOWN	PEABODY	WENDELL		LITTLETON	SHARON	WAREHAM	LEOMINSTER
GREAT BARRINGTON	GOSNOLD	ROCKPORT	WHATELY		LOWELL	STOUGHTON	WEST BRIDGEWATER	LUNENBURG
HANCOCK	OAK BLUFFS	ROWLEY			MALDEN	WALPOLE	WHITMAN	MENDON
HINSDALE	TISBURY	SALEM	Hampden		MARLBOROUGH	WELLESLEY		MILFORD
LANESBOROUGH	WEST TISBURY	SALISBURY	AGAWAM		MAYNARD	WESTWOOD	Suffolk	MILLBURY
LEE		SAUGUS	BLANDFORD		MEDFORD	WEYMOUTH	BOSTON	MILLVILLE
LENOX		SWAMPSCOTT	BRIMFIELD		MELROSE	WRENTHAM	CHELSEA	NEW BRAINTREE
MONTEREY		TOPSFIELD	CHESTER		NATICK		REVERE	NORTH BROOKFIELD
MOUNT WASHINGTON		WENHAM	CHICOPEE		NEWTON		WINTHROP	NORTHBOROUGH
NEW ASHFORD		WEST NEWBURY	EAST LONGMEADOW		NORTH READING			NORTHBRIDGE
NEW MARLBOROUGH			GRANVILLE		PEPPERELL			OAKHAM
NORTH ADAMS			HAMPDEN		READING			OXFORD
OTIS			HOLLAND		SHERBORN			PAXTON
PERU			HOLYOKE		SHIRLEY			PETERSHAM
PITTSFIELD			LONGMEADOW		SOMERVILLE			PHILLIPSTON
RICHMOND			LUDLOW		STONEHAM			PRINCETON
SANDSFIELD			MONSON		STOW			ROYALSTON
SAVOY			MONTGOMERY		SUDBURY			RUTLAND
SHEFFIELD			PALMER		TEWKSBURY			SHREWSBURY
STOCKBRIDGE			RUSSELL		TOWNSEND			SOUTHBOROUGH
TYRINGHAM			SOUTHWICK		TYNGSBOROUGH			SOUTHBRIDGE
WASHINGTON			SPRINGFIELD		WAKEFIELD			SPENCER
WEST STOCKBRIDGE			TOLLAND		WALTHAM			STERLING
WILLIAMSTOWN			WALES		WATERTOWN			STURBRIDGE
WINDSOR			WEST SPRINGFIELD		WAYLAND			SUTTON
			WESTFIELD		WESTFORD			TEMPLETON
			WILBRAHAM		WESTON			UPTON
					WILMINGTON			UXBRIDGE
					WINCHESTER			WARREN
					WOBURN			WEBSTER
								WEST BOYLSTON
								WEST BROOKFIELD
								WESTBOROUGH
								WESTMINSTER
								WINCHENDON
								WORCESTER

Table 14. Fatal and Nonfatal Number and Rate of Selected Injury Causes by EOHHS Region, MA Residents, 2007

	Total Injuries					Unintentional Motor Vehicle Traffic ³		Unintentional Falls Among Elders (Ages 65+)		Unintentional and Undetermined Poisonings ⁴		Homicide/Assault		Suicide/Self-Inflicted	
	Deaths	Nonfatal	Total	Crude Rate ¹	Age-adjusted Rate ²	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal
Massachusetts*	2,967	775,669	778,636	12,096.4	12,120.3	408	76,007	363	57,505	846	13,835	183	27,572	504	11,025
Western	376	114,249	114,625	13,756.9	13,765.4	67	12,001	33	7,894	99	2,289	28	4,416	64	1,878
Central	401	95,564	95,965	11,360.8	11,419.4	70	8,305	39	5,910	107	2,019	16	3,050	78	1,879
Northeast	593	153,385	153,978	12,023.9	12,158.5	68	14,694	70	11,789	182	2,409	27	4,849	103	1,908
Metro West	505	145,661	146,166	9,819.1	9,905.9	55	11,763	85	14,096	131	2,460	16	3,749	90	1,760
Southeast	713	188,489	189,202	14,801.7	15,034.0	123	19,361	101	13,098	197	2,660	28	5,966	124	2,485
Boston	379	78,290	78,669	11,054.8	10,918.6	25	9,883	35	4,718	130	1,997	68	5,537	45	1,112

* Massachusetts total includes cases of unknown town including homeless persons where no specific town was provided.

1. Represents crude rates per 100,000 residents. Population to calculate rates is from MassCHIP (2005).

2. Age-adjusted rate is adjusted to the 2000 U.S. standard population. County population to calculate rates is from MassCHIP (2005).

3. Motor vehicle traffic-related injuries include: motor vehicle occupants (i.e., drivers and passengers of cars and light trucks), pedestrians and pedal cyclists injured by a motor vehicle, and motorcyclists.

4. Poisonings can include prescription medicines, household cleaners, carbon monoxide poisoning, toxic effects of legal or illegal drugs, etc.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Outpatient Hospital Discharge Database, MA Observation Stay Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

City and Town Listing for Executive Office of Health and Human Services Regions:

<u>Western Region</u>	<u>Western Region</u> (continued)	<u>Central Region</u>	<u>Northeast Region</u>	<u>Metro West Region</u>	<u>Southeast Region</u>	<u>Boston Region</u>
ADAMS	PITTSFIELD	ASHBURNHAM	AMESBURY	ACTON	ABINGTON	BOSTON
AGAWAM	PLAINFIELD	ASHBY	ANDOVER	ARLINGTON	ACUSHNET	BROOKLINE
ALFORD	RICHMOND	AUBURN	BEVERLY	ASHLAND	ATTLEBORO	CHELSEA
AMHERST	ROWE	AYER	BILLERICA	BEDFORD	AVON	REVERE
ASHFIELD	ROYALSTON	BARRE	BOXFORD	BELMONT	BARNSTABLE	WINTHROP
ATHOL	RUSSELL	BELLINGHAM	CHELMSFORD	BOXBOROUGH	BERKLEY	
BECKET	SANDISFIELD	BERLIN	DANVERS	BRAINTREE	BOURNE	
BELCHERTOWN	SAVOY	BLACKSTONE	DRACUT	BURLINGTON	BREWSTER	
BERNARDSTON	SHEFFIELD	BOLTON	DUNSTABLE	CAMBRIDGE	BRIDGEWATER	
BLANDFORD	SHELBURNE	BOYLESTON	ESSEX	CANTON	BROCKTON	
BUCKLAND	SHUTESBURY	BRIMFIELD	EVERETT	CARLISLE	CARVER	
CHARLEMONT	SOUTH HADLEY	BROOKFIELD	GEORGETOWN	COHASSET	CHATHAM	
CHESHIRE	SOUTHAMPTON	CHARLTON	GLOUCESTER	CONCORD	CHILMARK	
CHESTER	SOUTHWICK	CLINTON	GROVELAND	DEDHAM	DARTMOUTH	
CHESTERFIELD	SPRINGFIELD	DOUGLAS	HAMILTON	DOVER	DENNIS	
CHICOPEE	STOCKBRIDGE	DUDLEY	HAVERTHILL	FOXBOROUGH	DIGHTON	
CLARKSBURG	SUNDERLAND	EAST BROOKFIELD	IPSWICH	FRAMINGHAM	DUXBURY	
COLRAIN	TOLLAND	FITCHBURG	LAWRENCE	HINGHAM	EAST BRIDGEWATER	
CONWAY	TYRINGHAM	FRANKLIN	LOWELL	HOLLISTON	EASTHAM	
CUMMINGTON	WARE	GARDNER	LYNN	HOPKINTON	EASTON	

DALTON	WARWICK	GRAFTON	LYNNFIELD	HUDSON	EDGARTOWN
DEERFIELD	WASHINGTON	GROTON	MALDEN	HULL	FAIRHAVEN
EAST LONGMEADOW	WENDELL	HARDWICK	MANCHESTER	LEXINGTON	FALL RIVER
EASTHAMPTON	WEST SPRINGFIELD	HARVARD	MARBLEHEAD	LINCOLN	FALMOUTH
EGREMONT	WEST STOCKBRIDGE	HOLDEN	MEDFORD	LITTLETON	FREETOWN
ERVING	WESTFIELD	HOLLAND	MELROSE	MARLBOROUGH	GAY HEAD
FLORIDA	WESTHAMPTON	HOPEDALE	MERRIMAC	MAYNARD	GOSNOLD
GILL	WHATELY	HUBBARDSTON	METHUEN	MEDFIELD	HALIFAX
GOSHEN	WILBRAHAM	LANCASTER	MIDDLETON	MILLIS	HANOVER
GRANBY	WILLIAMSBURG	LEICESTER	NAHANT	MILTON	HANSON
GRANVILLE	WILLIAMSTOWN	LEOMINSTER	NEWBURY	NATICK	HARWICH
GREAT BARRINGTON	WINDSOR	LUNENBURG	NEWBURYPORT	NEEDHAM	HOLBROOK
GREENFIELD	WORTHINGTON	MEDWAY	NORTH ANDOVER	NEWTON	KINGSTON
HADLEY		MENDON	NORTH READING	NORFOLK	LAKEVILLE
HAMPDEN		MILFORD	PEABODY	NORTHBOROUGH	MANSFIELD
HANCOCK		MILLBURY	READING	NORWELL	MARION
HATFIELD		MILLVILLE	ROCKPORT	NORWOOD	MARSHFIELD
HAWLEY		NEW BRAintree	ROWLEY	PLAINVILLE	MASHPEE
HEATH		NORTH BROOKFIELD	SALEM	QUINCY	MATTAPOISETT
HINSDALE		NORTHBRIDGE	SALISBURY	RANDOLPH	MIDDLEBOROUGH
HOLYOKE		OAKHAM	SAUGUS	SCITUATE	NANTUCKET
HUNTINGTON		OXFORD	STONEHAM	SHARON	NEW BEDFORD
LANESBOROUGH		PAXTON	SWAMPSCOTT	SHERBORN	NORTH ATTLEBORO
LEE		PEPPERELL	TEWKSBURY	SOMERVILLE	NORTON
LENOX		PRINCETON	TOPSFIELD	SOUTHBOROUGH	OAK BLUFFS
LEVERETT		RUTLAND	TYNGSBOROUGH	STOW	ORLEANS
LEYDEN		SHIRLEY	WAKEFIELD	SUDBURY	PEMBROKE
LONGMEADOW		SHREWSBURY	WENHAM	WALPOLE	PLYMOUTH
LUDLOW		SOUTHBRIDGE	WEST NEWBURY	WALTHAM	PLYMPTON
MIDDLEFIELD		SPENCER	WESTFORD	WATERTOWN	PROVINCETOWN
MONROE		STERLING		WAYLAND	RAYNHAM
MONSON		STURBRIDGE		WELLESLEY	REHOBOTH
MONTAGUE		SUTTON		WESTBOROUGH	ROCHESTER
MONTEREY		TEMPLETON		WESTON	ROCKLAND
MONTGOMERY		TOWNSEND		WESTWOOD	SANDWICH
MOUNT WASHINGTON		UPTON		WEYMOUTH	SEEKONK
NEW ASHFORD		UXBRIDGE		WILMINGTON	SOMERSET
NEW MARLBOROUGH		WALES		WINCHESTER	STOUGHTON
NEW SALEM		WARREN		WOBURN	SWANSEA
NORTH ADAMS		WEBSTER		WRENTHAM	TAUNTON
NORTHAMPTON		WEST BOYLSTON			TISBURY
NORTHFIELD		WEST BROOKFIELD			TRURO
ORANGE		WESTMINSTER			WAREHAM
OTIS		WINCHENDON			WELLFLEET
PALMER		WORCESTER			WEST BRIDGEWATER
PELHAM					WEST TISBURY
PERU					WESTPORT
PETERSHAM					WHITMAN
PHILLIPSTON					YARMOUTH

Table 15. Fatal and Nonfatal Number and Rate of Selected Injury Causes by Community Health Network Region, MA Residents, 2007

	Total Injuries					Unintentional Motor Vehicle Traffic ³		Unintentional Falls Among Elders (Ages 65+)		Unintentional and Undetermined Poisonings ⁴		Homicide/Assault		Suicide/Self-Inflicted	
	Deaths	Nonfatal	Total	Crude Rate ¹	Age-adjusted Rate ²	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal
Massachusetts*	2,967	775,669	778,636	12,096.4	12,120.3	408	76,007	363	57,505	846	13,835	183	27,572	504	11,025
(1) Community Health Network of Berkshire	70	23,824	23,894	18,106.3	18,627.3	8	1,589	12	1,903	16	300	2	641	16	414
(2) Upper Valley Health Web (Franklin County)	34	11,811	11,845	13,383.3	13,690.4	8	831	5	772	7	181	0	228	7	170
(3) Partnership for Health in Hampshire County (Northampton)	60	14,615	14,675	9,667.2	9,924.7	13	1,209	6	1,213	16	264	1	319	11	281
(4) The Community Health Connection (Springfield)	145	41,068	41,213	13,761.1	13,833.1	21	5,698	8	2,484	37	1,104	25	2,354	21	596
(5) Community Health Network of Southern Worcester County	62	16,091	16,153	13,557.7	13,794.5	11	1,333	2	973	13	313	4	358	15	286
(6) Community Partners for Health (Milford)	74	17,433	17,507	10,906.4	11,246.7	15	1,356	8	993	18	257	3	340	13	245
(7) Community Health Network of Greater Metro West (Framingham)	111	39,824	39,935	10,518.7	11,017.1	15	3,035	18	3,158	34	635	2	810	17	637
(8) Community Wellness Coalition (Worcester)	143	33,544	33,687	11,093.3	11,023.1	20	3,161	14	2,066	49	934	8	1,535	24	799
(9) Fitchburg/Gardner Community Health Network	122	28,496	28,618	10,949.3	11,117.9	24	2,455	15	1,878	27	515	1	817	26	549
(10) Greater Lowell Community Health Network	122	30,701	30,823	11,294.9	11,484.8	13	3,304	14	1,872	39	411	4	960	22	409
(11) Greater Lawrence Community Health Network	86	24,282	24,368	12,485.1	12,464.4	12	2,553	9	1,393	28	308	5	989	14	328
(12) Greater Haverhill Community Health Network	70	19,636	19,706	13,265.0	13,629.7	11	1,538	14	1,438	22	293	2	486	9	322
(13) Community Health Network North (Beverly/Gloucester)	52	13,913	13,965	11,698.0	11,863.7	4	783	7	1,214	12	201	0	297	12	110
(14) North Shore Community Health Network	159	35,694	35,853	12,476.7	12,624.3	18	3,604	15	3,260	51	665	9	1,207	24	451
(15) Greater Woburn/Concord/Littleton Community Health Network	56	17,941	17,997	8,586.5	8,982.7	8	1,302	11	1,949	14	231	1	302	8	202
(16) North Suburban Health Alliance (Medford/Malden/Melrose)	104	29,159	29,263	11,376.0	11,480.5	10	2,912	11	2,612	30	531	7	910	22	288
(17) Greater Cambridge/Somerville Community Health Network	93	23,744	23,837	8,703.4	8,749.5	10	1,943	15	2,063	25	449	2	851	19	274

(18) West Suburban Health Network (Newton/Waltham)	81	22,467	22,548	8,907.3	8,846.0	7	1,476	20	2,795	18	338	1	407	14	190
(19) Alliance for Community Health (Boston/Chelsea/Revere/Winthrop)	379	78,290	78,669	11,054.8	10,918.6	25	9,883	35	4,718	130	1,997	68	5,537	45	1,112
(20) Blue Hills Community Health Alliance (Greater Quincy)	164	41,685	41,849	11,240.4	11,493.7	15	4,007	21	4,131	40	807	10	1,379	32	457
(21) Four (For) Communities (Holyoke, Chicopee, Ludlow, Westfield)	67	22,931	22,998	14,244.3	14,286.1	17	2,674	2	1,522	23	440	0	874	9	417
(22) Greater Brockton Community Health Network	127	32,332	32,459	13,390.5	13,361.6	22	4,660	9	1,764	42	556	11	1,276	22	409
(23) South Shore Community Partners in Prevention (Plymouth)	82	24,212	24,294	12,868.5	13,238.7	18	2,187	8	1,635	22	370	2	627	13	255
(24) Greater Attleboro-Taunton Health & Education Response	118	33,935	34,053	13,463.9	13,762.3	23	3,104	10	1,913	29	426	6	964	20	595
(25) Partners for a Healthier Community (Fall River)	103	26,144	26,247	18,486.8	18,918.8	15	2,674	11	1,812	38	345	6	917	16	354
(26) Greater New Bedford Health & Human Services Coalition	99	31,272	31,371	15,689.1	15,999.6	18	3,405	11	1,933	24	503	2	1,176	21	449
(27) Cape Cod & Islands Community Health Network	184	40,594	40,778	16,168.7	16,772.9	27	3,331	52	4,041	42	460	1	1,006	32	423

* Massachusetts total includes cases of unknown town including homeless persons where no specific town was provided.

1. Represents crude rates per 100,000 residents. Population to calculate rates is from MassCHIP (2005).

2. Age-adjusted rate is adjusted to the 2000 U.S. standard population. County population to calculate rates is from MassCHIP (2005).

3. Motor vehicle traffic-related injuries include: motor vehicle occupants (i.e., drivers and passengers of cars and light trucks), pedestrians and pedal cyclists injured by a motor vehicle, and motorcyclists.

4. Poisonings can include prescription medicines, household cleaners, carbon monoxide poisoning, toxic effects of legal or illegal drugs, etc.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Outpatient Hospital Discharge Database, MA Observation Stay Database, and MA Outpatient Emergency Department Database, Division of He

CHNA 1

ADAMS
ALFORD
BECKET
CHESHIRE
CLARKSBURG
DALTON
EGREMONT
FLORIDA
GREAT BARRINGTON
HANCOCK
HINSDALE
LANESBOROUGH
LEE
LENOX
MONTEREY
MOUNT WASHINGTON
NEW ASHFORD

CHNA 3

AMHERST
BELCHERTOWN
CHESTERFIELD
CUMMINGTON
EASTHAMPTON
GOSHEN
GRANBY
HADLEY
HATFIELD
MIDDLEFIELD
NORTHAMPTON
PELHAM
PLAINFIELD
SOUTH HADLEY
SOUTHAMPTON
WARE
WESTHAMPTON

CHNA 7

ASHLAND
FOXBOROUGH
FRAMINGHAM
HOLLISTON
HOPKINTON
HUDSON
MARLBOROUGH
MAYNARD
MEDFIELD
MILLIS
NATICK
NORFOLK
NORTHBOROUGH
PLAINVILLE
SHERBORN
SOUTHBOROUGH
STOW

CHNA 10

BILLERICA
CHELMSFORD
DRACUT
DUNSTABLE
LOWELL
TEWKSBURY
TYNGSBOROUGH
WESTFORD

CHNA 11

ANDOVER
LAWRENCE
METHUEN
MIDDLETON
NORTH ANDOVER

CHNA 16

EVERETT
MALDEN
MEDFORD
MELROSE
NORTH READING
READING
STONEHAM
WAKEFIELD

CHNA 17

ARLINGTON
BELMONT
CAMBRIDGE
SOMERVILLE
WATERTOWN

CHNA 23

CARVER
DUXBURY
HALIFAX
HANOVER
HANSON
KINGSTON
MARSHFIELD
PEMBROKE
PLYMOUTH
PLYMPTON
ROCKLAND

CHNA 24

ATTLEBORO
BERKLEY
DIGHTON
LAKEVILLE

CHNA 1 (continued)
NEW MARLBOROUGH
NORTH ADAMS
OTIS
PERU
PITTSFIELD
RICHMOND
SANDISFIELD
SAVOY
SHEFFIELD
STOCKBRIDGE
TYRINGHAM
WASHINGTON
WEST STOCKBRIDGE
WILLIAMSTOWN
WINDSOR

CHNA 2
ASHFIELD
ATHOL
BERNARDSTON
BUCKLAND
CHARLEMONT
COLRAIN
CONWAY
DEERFIELD
ERVING
GILL
GREENFIELD
HAWLEY
HEATH
LEVERETT
LEYDEN
MONROE
MONTAGUE
NEW SALEM
NORTHFIELD
ORANGE
PETERSHAM
PHILLIPSTON
ROWE
ROYALSTON
SHELBURNE
SHUTESBURY
SUNDERLAND
WARWICK
WENDELL
WHATELY

CHNA 3 (continued)
WILLIAMSBURG
WORTHINGTON

CHNA 4
AGAWAM
BLANDFORD
EAST LONGMEADOW
GRANVILLE
HAMPDEN
LONGMEADOW
MONSON
PALMER
RUSSELL
SOUTHWICK
SPRINGFIELD
TOLLAND
WEST SPRINGFIELD
WILBRAHAM

CHNA 5
BRIMFIELD
BROOKFIELD
CHARLTON
DUDLEY
EAST BROOKFIELD
HOLLAND
NORTH BROOKFIELD
OXFORD
SOUTHBRIDGE
SPENCER
STURBRIDGE
WALES
WARREN
WEBSTER
WEST BROOKFIELD

CHNA 6
BELLINGHAM
BLACKSTONE
DOUGLAS
FRANKLIN
HOPEDALE
MEDWAY
MENDON
MILFORD
MILLVILLE
NORTHBRIDGE
SUTTON
UPTON
UXBRIDGE

CHNA 7 (continued)
SUDBURY
WALPOLE
WAYLAND
WESTBOROUGH
WRENTHAM

CHNA 8
AUBURN
BOYLSTON
GRAFTON
HOLDEN
LEICESTER
MILLBURY
PAXTON
SHREWSBURY
WEST BOYLSTON
WORCESTER

CHNA 9
ASHBURNHAM
ASHBY
AYER
BARRE
BERLIN
BOLTON
CLINTON
FITCHBURG
GARDNER
GROTON
HARDWICK
HARVARD
HUBBARDSTON
LANCASTER
LEOMINSTER
LUNENBURG
NEW BRAINTREE
OAKHAM
PEPPERELL
PRINCETON
RUTLAND
SHIRLEY
STERLING
TEMPLETON
TOWNSEND
WESTMINSTER
WINCHENDON

CHNA 12
AMESBURY
BOXFORD
GEORGETOWN
GROVELAND
HAVERHILL
MERRIMAC
NEWBURY
NEWBURYPORT
ROWLEY
SALISBURY
WEST NEWBURY

CHNA 13
BEVERLY
ESSEX
GLOUCESTER
HAMILTON
IPSWICH
MANCHESTER
ROCKPORT
TOPSFIELD
WENHAM

CHNA 14
DANVERS
LYNN
LYNNFIELD
MARBLEHEAD
NAHANT
PEABODY
SALEM
SAUGUS
SWAMPSCOTT

CHNA 15
ACTON
BEDFORD
BOXBOROUGH
BURLINGTON
CARLISLE
CONCORD
LEXINGTON
LINCOLN
LITTLETON
WILMINGTON
WINCHESTER
WOBURN

CHNA 18
DEDHAM
DOVER
NEEDHAM
NEWTON
WALTHAM
WELLESLEY
WESTON
WESTWOOD

CHNA 19
BOSTON
BROOKLINE
CHELSEA
REVERE
WINTHROP

CHNA 20
BRAintree
CANTON
COHASSET
HINGHAM
HULL
MILTON
NORWELL
NORWOOD
QUINCY
RANDOLPH
SCITUATE
SHARON
WEYMOUTH

CHNA 21
CHESTER
CHICOPEE
HOLYOKE
HUNTINGTON
LUDLOW
MONTGOMERY
WESTFIELD

CHNA 22
ABINGTON
AVON
BRIDGEWATER
BROCKTON
EAST BRIDGEWATER
EASTON
HOLBROOK
STOUGHTON
WEST BRIDGEWATER
WHITMAN

CHNA 24 (continued)
MANSFIELD
MIDDLEBOROUGH
NORTH ATTLEBOROUGH
NORTON
RAYNHAM
REHOBOTH
SEEKONK
TAUNTON

CHNA 25
FALL RIVER
SOMERSET
SWANSEA
WESTPORT

CHNA 26
ACUSHNET
DARTMOUTH
FAIRHAVEN
FREETOWN
MARION
MATTAPOISETT
NEW BEDFORD
ROCHESTER
WAREHAM

CHNA 27
AQUINNAH
BARNSTABLE
BOURNE
BREWSTER
CHATHAM
CHILMARK
DENNIS
EASTHAM
EDGARTOWN
FALMOUTH
GOSNOLD
HARWICH
MASHPEE

CHNA 28
NANTUCKET
OAK BLUFFS
ORLEANS
PROVINCETOWN
SANDWICH
TISBURY
TRURO
WELLFLEET
WEST TISBURY
YARMOUTH

Table 16. Fatal and Nonfatal Number and Rate of Selected Injury Causes by City/Town, MA Residents, 2007

COMMUNITY	Total Injuries				Unintentional Motor Vehicle Traffic ³		Unintentional Falls Among Elders (Ages 65+)		Unintentional and Undetermined Poisonings ⁴		Homicide/Assault		Suicide/Self-Inflicted	
	Deaths	Nonfatal	Total	Crude Rate ¹	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal	Deaths	Nonfatal
Abington	5	1,925	1,930	11,793.5	0	203	0	114	2	36	1	49	1	25
Acton	6	1,796	1,802	8,683.1	1	119	0	128	0	21	0	18	3	13
Acushnet	6	1,221	1,227	11,749.5	0	172	2	68	1	20	0	30	3	11
Adams	3	1,572	1,575	19,174.6	1	113	0	98	0	19	0	47	0	28
Agawam	14	2,952	2,966	10,468.4	5	334	1	359	4	69	0	95	2	25
Alford	0	48	48	12,182.7	0	<7	0	<7	0	<7	0	0	0	<7
Amesbury	7	2,184	2,191	13,336.2	1	149	0	154	0	24	0	38	4	51
Amherst	7	1,442	1,449	4,227.6	1	153	0	187	3	32	0	37	2	44
Andover	9	2,484	2,493	7,490.1	1	148	2	301	2	25	0	41	1	29
Arlington	14	3,292	3,306	8,035.2	2	222	5	407	3	67	1	73	1	50
Ashburnham	1	424	425	7,132.1	1	42	0	20	0	<7	0	10	0	7
Ashby	2	259	261	8,865.5	0	29	1	13	1	<7	0	<7	0	<7
Ashfield	0	131	131	7,217.6	0	21	0	<7	0	0	0	0	0	<7
Ashland	2	1,540	1,542	9,762.0	1	111	1	97	0	30	0	23	0	15
Athol	7	2,143	2,150	18,531.2	0	122	1	145	1	33	0	44	1	27
Attleboro	24	5,929	5,953	13,807.9	2	416	4	415	6	76	2	184	4	128
Auburn	5	1,506	1,511	9,293.3	0	105	1	152	2	30	0	47	1	23
Avon	3	545	548	12,735.3	0	79	0	35	0	10	0	12	2	<7
Ayer	2	1,207	1,209	16,406.6	0	69	0	121	0	19	0	19	1	21
Barnstable	36	8,670	8,706	18,627.2	6	799	8	654	8	107	1	314	7	107
Barre	1	595	596	10,998.3	1	46	0	23	0	16	0	8	0	10
Becket	0	274	274	15,247.6	0	28	0	11	0	<7	0	<7	0	<7
Bedford	4	1,371	1,375	10,459.5	1	112	1	135	2	21	0	28	0	16
Belchertown	7	1,402	1,409	10,085.2	2	129	1	67	2	35	0	35	2	16
Bellingham	9	1,667	1,676	10,535.6	3	163	0	76	4	19	0	36	1	18
Belmont	8	1,945	1,953	8,361.9	2	122	2	257	3	30	0	32	1	26
Berkley	0	809	809	12,575.8	0	77	0	28	0	8	0	20	0	<7
Berlin	0	272	272	10,077.8	0	22	0	22	0	8	0	6	0	<7
Bernardston	0	230	230	10,337.1	0	19	0	10	0	3	0	0	0	<7
Beverly	10	4,960	4,970	12,679.2	1	335	1	411	3	68	0	130	1	51
Billerica	14	3,855	3,869	9,203.6	1	336	1	231	7	50	0	93	4	60
Blackstone	5	707	712	7,874.4	0	54	1	34	0	8	0	22	2	<7
Blandford	0	150	150	11,727.9	0	16	0	<7	0	<7	0	<7	0	<7
Bolton	0	392	392	8,748.0	0	31	0	22	0	7	0	<7	0	<7
Boston	311	64,489	64,800	10,811.7	23	8,436	26	3,442	105	1,683	60	4,876	33	912
Bourne	14	3,367	3,381	17,773.2	2	293	1	267	3	32	0	78	5	39
Boxborough	0	397	397	7,788.9	0	21	0	15	0	<7	0	<7	0	9
Boxford	2	723	725	8,979.4	0	47	1	48	0	9	0	<7	1	<7

Boylston	0	388	388	9,095.2	0	26	0	17	0	7	0	<7	0	<7
Braintree	17	3,771	3,788	11,004.6	0	328	4	407	3	71	1	107	3	47
Brewster	5	1,029	1,034	10,316.3	1	91	2	149	1	14	0	20	0	18
Bridgewater	6	2,295	2,301	9,018.6	0	218	0	128	3	36	0	76	2	40
Brimfield	1	528	529	14,316.6	0	50	0	33	0	8	0	8	0	9
Brockton	63	16,558	16,621	17,854.4	8	2,941	5	722	21	275	10	869	11	208
Brookfield	1	403	404	13,333.3	0	39	0	33	0	<7	0	<7	0	7
Brookline	12	3,328	3,340	6,094.1	0	196	3	410	2	54	0	70	4	45
Buckland	0	39	39	1,959.8	0	<7	0	<7	0	0	0	<7	0	0
Burlington	4	1,993	1,997	7,977.2	0	143	0	210	1	35	0	38	0	24
Cambridge	30	7,398	7,428	7,326.3	4	578	4	614	6	186	1	335	8	94
Canton	9	2,503	2,512	11,461.9	1	219	3	289	1	45	0	59	2	23
Carlisle	1	385	386	7,906.6	0	22	0	28	0	<7	0	<7	0	<7
Carver	3	1,844	1,847	15,995.5	1	185	0	87	1	27	0	41	1	25
Charlemont	1	185	186	13,591.1	0	15	0	<7	1	<7	0	<7	0	<7
Charlton	6	1,396	1,402	11,148.2	1	120	0	64	1	23	0	23	3	16
Chatham	5	615	620	9,218.0	0	52	2	112	1	7	0	13	2	<7
Chelmsford	15	2,864	2,879	8,435.9	1	215	3	335	6	26	0	41	3	35
Chelsea	19	3,314	3,333	8,724.4	1	396	1	274	9	89	4	260	2	46
Cheshire	4	497	501	15,186.4	0	45	0	23	0	8	1	<7	3	0
Chester	0	174	174	13,425.9	0	15	0	7	0	<7	0	<7	0	<7
Chesterfield	0	116	116	9,112.3	0	10	0	<7	0	<7	0	<7	0	<7
Chicopee	22	7,440	7,462	13,850.3	5	902	1	542	9	189	0	253	2	169
Chilmark	0	164	164	17,004.2	0	<7	0	26	0	0	0	0	0	<7
Clarksburg	1	236	237	14,560.4	0	11	0	14	1	<7	0	<7	0	<7
Clinton	5	2,350	2,355	16,785.5	2	193	0	156	2	44	0	58	0	42
Cohasset	3	602	605	8,423.8	0	47	0	80	0	7	0	12	1	<7
Colrain	0	228	228	12,391.3	0	16	0	12	0	<7	0	<7	0	<7
Concord	3	1,770	1,773	10,528.5	0	67	1	282	1	18	0	21	1	27
Conway	0	171	171	9,076.4	0	9	0	9	0	<7	0	<7	0	0
Cummington	1	92	93	9,548.3	0	10	0	<7	0	0	0	0	0	<7
Dalton	3	1,009	1,012	15,375.3	1	79	0	87	1	8	0	18	0	9
Danvers	10	3,028	3,038	11,363.0	1	205	0	347	2	49	0	58	3	27
Dartmouth	12	3,394	3,406	10,902.3	2	337	1	288	2	40	0	92	2	37
Dedham	14	2,632	2,646	10,964.7	1	210	3	349	4	34	0	74	3	26
Deerfield	2	530	532	11,245.0	1	25	1	41	0	<7	0	<7	0	<7
Dennis	19	2,401	2,420	15,640.1	1	231	7	290	4	41	0	62	5	31
Dighton	3	901	904	16,065.4	1	70	0	44	1	17	0	11	0	9
Douglas	7	911	918	3,112.1	2	72	0	29	0	19	0	16	2	14
Dover	2	512	514	4,768.1	1	14	0	30	0	8	0	8	0	<7
Dracut	19	3,290	3,309	100,577.5	4	352	3	187	1	54	0	73	5	27
Dudley	6	1,233	1,239	8,578.0	2	119	0	72	0	13	2	29	1	17
Dunstable	2	202	204	1,469.8	1	14	0	7	1	<7	0	<7	0	<7
Duxbury	8	1,449	1,457	70,420.5	2	82	1	164	1	18	0	22	1	11

East Bridgewater	5	1,493	1,498	9,841.0	2	171	0	80	2	31	0	32	0	20
East Brookfield	1	254	255	4,683.2	0	17	0	19	1	<7	0	<7	0	<7
East Longmeadow	5	1,105	1,110	6,909.9	0	100	1	199	2	31	0	25	2	23
Eastham	3	457	460	2,002.7	0	56	2	52	0	<7	0	14	1	10
Easthampton	9	1,900	1,909	48,699.0	1	163	1	144	3	38	1	45	1	33
Easton	8	2,193	2,201	163,037.0	3	207	2	152	1	28	0	35	1	26
Edgartown	2	919	921	59,921.9	0	47	1	63	1	13	0	9	0	<7
Egremont	1	148	149	4,483.9	0	7	1	19	0	<7	0	7	0	<7
Erving	0	225	225	603.7	0	8	0	11	0	<7	0	<7	0	<7
Essex	2	390	392	2,431.2	0	21	1	31	0	<7	0	7	0	<7
Everett	19	5,882	5,901	6,491.4	2	708	4	344	6	124	3	244	4	71
Fairhaven	8	2,007	2,015	6,060.7	0	218	2	206	3	44	0	50	1	33
Fall River	72	19,996	20,068	50,377.8	9	2,020	7	1,219	29	290	5	816	7	304
Falmouth	25	6,484	6,509	960,029.5	3	522	8	709	8	68	0	128	2	55
Fitchburg	23	4,685	4,708	28,887.0	2	537	1	335	8	98	0	242	6	143
Florida	0	100	100	154.7	0	9	0	<7	0	0	0	<7	0	<7
Foxborough	8	1,731	1,739	5,541.6	2	157	1	82	4	37	0	34	0	17
Framingham	18	7,651	7,669	85,831.0	4	793	2	674	6	119	0	217	3	131
Franklin	15	2,859	2,874	32,165.6	2	193	3	162	3	34	0	44	3	49
Freetown	3	1,188	1,191	13,329.6	1	127	0	29	0	11	0	17	1	11
Gardner	12	2,060	2,072	10,051.9	1	176	3	150	1	34	1	86	3	54
Gay Head (Aquinnah)	0	41	41	11,652.5	0	<7	0	<7	0	0	0	<7	0	0
Georgetown	1	859	860	10,556.0	0	61	0	36	1	<7	0	18	0	<7
Gill	0	151	151	10,950.0	0	9	0	<7	0	<7	0	<7	0	0
Gloucester	17	4,196	4,213	13,900.6	2	207	1	372	5	71	0	114	3	30
Goshen	1	55	56	5,857.7	1	<7	0	<7	0	0	0	0	0	0
Gosnold	0	4	4	4,761.9	0	0	0	0	0	0	0	0	0	0
Grafton	5	1,570	1,575	8,987.2	1	108	0	73	1	40	1	34	2	39
Granby	4	567	571	9,085.1	2	52	0	38	0	<7	0	13	1	10
Granville	0	184	184	10,978.5	0	22	0	11	0	<7	0	<7	0	0
Great Barrington	8	1,499	1,507	20,442.2	1	98	2	153	1	11	1	28	2	16
Greenfield	6	2,896	2,902	16,389.7	1	230	1	227	2	56	0	82	1	63
Groton	2	1,088	1,090	10,243.4	2	72	0	56	0	13	0	7	0	17
Groveland	2	821	823	11,887.9	1	66	0	73	1	<7	0	<7	0	7
Hadley	2	415	417	8,711.1	0	34	0	69	0	<7	0	7	0	<7
Halifax	5	977	982	12,753.2	1	101	1	49	1	24	0	26	0	15
Hamilton	3	751	754	9,208.6	0	44	0	42	0	15	0	<7	1	<7
Hampden	1	394	395	7,445.8	0	47	0	40	0	12	0	<7	1	<7
Hancock	0	36	36	3,327.2	0	<7	0	<7	0	0	0	0	0	0
Hanover	4	1,227	1,231	8,814.3	1	116	1	80	1	17	0	31	0	9
Hanson	1	1,066	1,067	10,717.2	0	95	0	53	0	24	0	29	1	7
Hardwick	3	341	344	12,981.1	1	17	0	21	1	<7	0	8	0	8
Harvard	0	500	500	8,331.9	0	19	0	25	0	<7	0	<7	0	<7
Harwich	10	1,500	1,510	12,190.2	2	139	5	238	1	23	0	28	0	13

Hatfield	0	297	297	9,116.0	0	21	0	23	0	<7	0	<7	0	7
Haverhill	38	9,060	9,098	15,188.1	7	853	8	605	16	155	1	338	1	180
Hawley	1	10	11	3,336.3	1	0	0	0	0	0	0	<7	0	<7
Heath	1	39	40	5,018.8	0	7	0	<7	0	0	0	<7	1	0
Hingham	7	1,713	1,720	7,680.6	0	129	0	221	1	23	0	36	2	16
Hinsdale	0	331	331	17,088.3	0	25	0	8	0	<7	0	7	0	<7
Holbrook	9	1,463	1,472	13,804.7	2	177	1	102	5	26	0	60	1	25
Holden	6	1,387	1,393	8,401.2	0	91	2	100	1	27	1	35	1	25
Holland	3	318	321	12,677.7	1	22	1	11	0	<7	0	12	0	10
Holliston	6	1,315	1,321	9,475.6	1	87	0	91	4	18	0	17	0	17
Holyoke	16	7,067	7,083	17,824.7	2	980	0	399	8	99	0	363	1	136
Hopedale	1	750	751	12,181.7	0	65	0	73	1	17	0	17	0	7
Hopkinton	3	1,242	1,245	8,702.0	1	71	1	84	0	19	0	14	1	20
Hubbardston	4	355	359	8,047.5	2	40	0	13	0	<7	0	<7	1	<7
Hudson	6	2,080	2,086	10,653.7	2	151	0	136	3	40	0	34	0	21
Hull	6	1,234	1,240	11,204.5	0	149	1	84	3	26	0	41	2	18
Huntington	2	351	353	16,096.7	1	35	0	9	0	<7	0	13	1	<7
Ipswich	7	1,316	1,323	9,988.7	0	64	1	120	2	13	0	14	4	7
Kingston	9	1,722	1,731	14,028.7	3	164	0	155	1	23	0	50	3	14
Lakeville	5	1,111	1,116	10,541.2	1	108	0	38	1	7	2	20	0	10
Lancaster	3	933	936	13,282.2	1	61	1	58	0	25	0	24	1	10
Lanesborough	0	456	456	15,773.1	0	28	0	25	0	<7	0	<7	0	7
Lawrence	38	12,460	12,498	17,837.5	5	1,539	3	383	12	166	5	703	7	176
Lee	1	813	814	14,027.2	0	61	0	80	0	11	0	15	0	7
Leicester	13	855	868	7,903.8	5	82	0	41	3	16	0	12	1	8
Lenox	2	710	712	13,947.1	1	34	0	148	0	<7	0	7	0	14
Leominster	24	4,985	5,009	12,179.1	4	471	5	397	5	99	0	152	6	89
Leverett	0	128	128	7,331.0	0	7	0	8	0	<7	0	0	0	7
Lexington	9	2,103	2,112	6,962.9	5	145	1	353	1	22	0	24	1	29
Leyden	1	<7	<7	--	0	0	0	0	1	0	0	0	0	0
Lincoln	2	497	499	6,242.2	0	20	0	64	1	<7	0	<7	0	<7
Littleton	1	845	846	9,708.5	0	53	0	66	0	12	0	15	1	12
Longmeadow	3	979	982	6,412.0	0	75	0	185	1	25	0	16	1	7
Lowell	52	14,812	14,864	14,359.7	5	1,897	2	743	22	223	3	627	7	230
Ludlow	7	2,133	2,140	9,699.9	1	208	1	181	1	49	0	106	2	35
Lunenburg	7	1,014	1,021	10,263.4	2	77	0	91	3	12	0	22	1	17
Lynn	61	12,840	12,901	14,808.0	9	1,678	4	762	24	284	4	640	5	228
Lynnfield	1	1,153	1,154	10,138.8	0	62	0	169	0	8	0	23	1	9
Malden	26	6,774	6,800	12,205.6	4	843	1	475	10	135	1	250	8	60
Manchester	1	440	441	8,376.1	0	21	0	41	0	8	0	<7	1	0
Mansfield	4	2,161	2,165	9,415.9	1	172	0	128	1	28	0	52	1	33
Marblehead	9	1,616	1,625	8,109.2	0	113	0	186	2	23	0	26	3	15
Marion	1	687	688	13,187.7	1	46	0	88	0	<7	0	<7	0	8
Marlborough	18	4,635	4,653	12,223.8	1	419	2	359	8	72	0	122	2	77

Marshfield	11	2,555	2,566	10,441.1	1	207	1	165	4	52	1	53	0	34
Mashpee	11	2,104	2,115	14,830.7	2	222	1	180	4	25	0	50	1	19
Mattapoisett	3	696	699	10,842.3	1	58	1	63	1	8	0	9	0	<7
Maynard	2	1,156	1,158	11,378.6	0	84	1	81	1	19	0	23	0	19
Medfield	1	1,050	1,051	8,568.4	0	55	1	74	0	18	0	11	0	<7
Medford	26	6,406	6,432	11,575.6	2	642	3	654	8	111	2	188	5	52
Medway	2	1,248	1,250	9,804.7	1	75	0	71	0	16	0	16	0	<7
Melrose	9	2,639	2,648	9,887.2	0	203	1	307	1	55	0	82	2	24
Mendon	3	624	627	10,872.2	1	48	0	27	1	10	0	8	0	<7
Merrimac	3	775	778	12,108.9	0	65	1	44	0	9	0	<7	1	18
Methuen	23	6,029	6,052	13,761.1	3	609	3	408	8	80	0	182	4	80
Middleborough	8	3,434	3,442	16,201.5	1	351	0	190	2	45	0	104	2	56
Middlefield	0	41	41	7,441.0	0	<7	0	<7	0	0	0	0	0	0
Middleton	3	788	791	8,462.6	0	56	0	41	2	7	0	30	1	13
Milford	14	3,583	3,597	13,193.7	1	325	2	246	5	60	2	98	0	44
Millbury	7	1,265	1,272	9,443.2	1	118	1	101	1	29	0	33	2	16
Millis	1	833	834	10,521.0	0	77	0	44	0	10	0	13	1	<7
Millville	2	350	352	12,420.6	0	29	0	15	1	<7	0	<7	1	<7
Milton	7	2,961	2,968	11,552.7	0	233	2	327	3	35	0	91	0	19
Monroe	0	13	13	13,541.7	0	<7	0	0	0	0	0	0	0	0
Monson	3	1,012	1,015	11,549.8	1	104	0	46	1	18	0	26	1	9
Montague	4	1,474	1,478	17,734.6	2	115	0	80	2	21	0	34	0	17
Monterey	0	103	103	10,729.2	0	8	0	8	0	<7	0	0	0	<7
Montgomery	0	60	60	7,957.6	0	<7	0	0	0	<7	0	0	0	0
Mount Washington	0	21	21	15,217.4	0	0	0	<7	0	0	0	0	0	0
Nahant	1	331	332	9,434.5	0	29	0	41	1	<7	0	<7	0	7
Nantucket	7	2,556	2,563	24,337.7	1	70	1	149	1	19	0	29	3	13
Natick	11	3,505	3,516	10,996.1	0	214	3	326	2	47	0	51	4	39
Needham	10	2,812	2,822	9,984.8	1	120	1	421	2	36	1	30	1	15
New Ashford	0	16	16	6,451.6	0	0	0	<7	0	0	0	0	0	0
New Bedford	57	16,639	16,696	18,177.7	12	1,953	5	911	17	311	2	860	9	273
New Braintree	0	107	107	9,622.3	0	14	0	<7	0	<7	0	<7	0	<7
New Marlborough	0	151	151	9,927.7	0	8	0	<7	0	<7	0	<7	0	<7
New Salem	0	130	130	13,131.3	0	<7	0	<7	0	0	0	<7	0	<7
Newbury	1	781	782	11,290.8	0	36	0	54	1	17	0	14	0	<7
Newburyport	8	2,013	2,021	11,788.4	1	90	1	263	2	35	1	19	2	22
Newton	18	7,542	7,560	9,078.5	1	486	9	1,026	2	107	0	113	2	66
Norfolk	4	952	956	8,979.9	1	62	0	30	1	20	0	25	1	14
North Adams	9	3,221	3,230	23,722.7	0	245	2	194	4	50	0	130	1	90
North Andover	13	2,521	2,534	9,168.9	3	201	1	260	4	30	0	33	1	30
North Attleboro	15	3,172	3,187	11,420.1	2	244	1	168	5	44	0	80	3	54
North Brookfield	2	479	481	9,981.3	1	43	0	27	0	11	0	11	1	<7
North Reading	6	1,283	1,289	9,193.4	1	87	1	85	1	12	1	31	0	7
Northampton	17	3,235	3,252	11,446.3	3	213	2	348	4	61	0	82	4	86

Northborough	4	1,190	1,194	8,171.9	1	83	0	106	0	25	0	26	1	14
Northbridge	4	1,867	1,871	13,015.7	2	115	0	121	0	34	0	42	2	45
Northfield	2	335	337	11,289.8	0	24	1	14	0	7	0	<7	0	<7
Norton	7	2,160	2,167	11,273.5	0	169	1	136	2	21	1	40	1	32
Norwell	4	892	896	8,723.6	1	73	1	89	1	11	0	16	0	7
Norwood	15	3,976	3,991	14,166.5	3	337	2	418	4	57	0	80	2	45
Oak Bluffs	2	610	612	16,403.1	0	29	0	53	1	<7	0	11	0	<7
Oakham	1	200	201	10,545.6	0	21	0	<7	1	8	0	<7	0	<7
Orange	3	1,258	1,261	16,175.0	0	73	0	65	0	20	0	24	2	15
Orleans	8	608	616	9,754.6	2	41	3	120	1	7	0	12	0	8
Otis	0	197	197	14,132.0	0	16	0	<7	0	0	0	<7	0	<7
Oxford	6	1,503	1,509	11,062.2	0	153	1	82	2	30	0	26	1	25
Palmer	9	2,312	2,321	18,063.7	1	192	0	154	4	38	2	62	1	36
Paxton	0	348	348	7,682.1	0	35	0	33	0	7	0	<7	0	<7
Peabody	33	6,725	6,758	13,137.4	3	585	5	854	10	113	1	152	3	58
Pelham	1	56	57	4,059.8	0	<7	0	<7	1	0	0	0	0	<7
Pembroke	8	1,913	1,921	10,330.7	2	170	1	84	3	27	0	44	0	18
Pepperell	4	1,092	1,096	9,606.5	0	86	0	41	1	18	0	15	0	14
Peru	0	56	56	6,682.6	0	<7	0	<7	0	0	0	0	0	0
Petersham	0	117	117	9,119.3	0	<7	0	13	0	<7	0	<7	0	<7
Phillipston	0	135	135	7,556.8	0	7	0	<7	0	<7	0	<7	0	<7
Pittsfield	29	10,082	10,111	23,551.7	4	632	5	778	8	142	0	326	6	189
Plainfield	0	49	49	8,166.7	0	<7	0	<7	0	<7	0	<7	0	0
Plainville	5	965	970	11,671.3	0	87	1	48	3	23	0	12	0	15
Plymouth	27	8,774	8,801	15,947.3	7	799	3	616	7	97	0	254	7	89
Plympton	0	358	358	12,914.9	0	29	0	22	0	<7	0	11	0	<7
Princeton	0	263	263	7,527.2	0	15	0	14	0	<7	0	<7	0	<7
Provincetown	0	250	250	7,374.6	0	23	0	24	0	<7	0	10	0	<7
Quincy	43	10,665	10,708	11,687.1	4	1,001	4	1,112	10	263	3	478	11	118
Randolph	16	3,598	3,614	11,979.6	2	613	0	261	4	72	4	173	1	37
Raynham	9	1,701	1,710	12,535.7	4	195	1	122	2	24	0	46	1	24
Reading	4	1,803	1,807	7,812.7	0	104	0	207	2	24	0	24	1	19
Rehoboth	1	860	861	7,497.4	0	71	1	49	0	7	0	11	0	11
Revere	30	5,642	5,672	10,249.2	1	714	4	436	10	125	4	276	4	84
Richmond	1	159	160	10,056.6	0	11	0	11	1	<7	0	<7	0	<7
Rochester	1	589	590	11,307.0	0	59	0	26	0	<7	0	10	1	<7
Rockland	6	2,327	2,333	13,121.5	0	239	0	160	3	55	1	66	0	28
Rockport	5	880	885	11,594.4	0	40	2	115	0	8	0	14	2	<7
Rowe	0	41	41	11,815.6	0	<7	0	8	0	0	0	0	0	0
Rowley	1	635	636	10,892.3	0	29	0	54	0	10	0	13	0	10
Royalston	0	138	138	10,011.6	0	14	0	11	0	<7	0	<7	0	<7
Russell	0	253	253	14,624.3	0	27	0	12	0	<7	0	<7	0	<7
Rutland	4	642	646	8,233.5	0	51	1	30	0	13	0	12	1	14
Salem	20	5,320	5,340	13,049.2	2	507	2	409	7	96	1	179	2	58

Salisbury	7	1,343	1,350	15,843.2	1	112	3	85	1	26	0	28	0	19
Sandisfield	0	67	67	8,004.8	0	0	0	<7	0	<7	0	<7	0	0
Sandwich	8	2,549	2,557	12,624.0	2	221	1	198	1	31	0	63	2	27
Saugus	21	3,279	3,300	12,135.9	1	325	3	291	5	62	3	97	7	29
Savoy	0	82	82	11,388.9	0	<7	0	<7	0	<7	0	<7	0	0
Scituate	11	1,447	1,458	8,153.9	2	129	1	157	2	33	0	38	3	14
Seekonk	8	490	498	3,663.7	2	36	1	24	1	10	0	8	0	18
Sharon	4	1,475	1,479	8,683.1	0	131	1	134	1	11	0	22	2	12
Sheffield	1	475	476	14,277.1	0	28	1	23	0	9	0	<7	0	8
Shelburne	0	408	408	20,039.3	0	25	0	45	0	<7	0	<7	0	<7
Sherborn	0	418	418	9,912.3	0	13	0	25	0	<7	0	<7	0	<7
Shirley	5	777	782	10,121.7	2	55	0	28	1	14	0	31	1	16
Shrewsbury	7	2,877	2,884	8,611.8	1	228	0	202	0	58	0	53	1	31
Shutesbury	0	97	97	5,289.0	0	11	0	7	0	<7	0	<7	0	0
Somerset	10	2,382	2,392	13,093.9	0	249	1	294	4	22	0	32	3	14
Somerville	30	8,358	8,388	11,273.4	2	773	2	488	7	137	0	336	7	74
South Hadley	5	1,564	1,569	9,255.5	2	140	0	167	1	31	0	29	1	30
Southampton	1	567	568	9,527.0	0	43	0	26	0	<7	0	<7	0	<7
Southborough	2	738	740	7,802.6	0	53	0	67	1	17	0	7	1	13
Southbridge	12	3,172	3,184	18,811.3	3	249	0	183	3	49	0	90	2	90
Southwick	2	1,142	1,144	12,130.2	0	109	0	85	1	18	0	18	0	12
Spencer	11	1,376	1,387	11,552.6	1	116	0	68	4	76	2	31	3	32
Springfield	91	25,827	25,918	17,285.8	11	4,094	4	964	21	789	23	1,952	9	405
Sterling	0	827	827	10,502.9	0	60	0	63	0	16	0	13	0	8
Stockbridge	1	207	208	9,319.0	0	25	0	12	0	<7	0	0	0	7
Stoneham	12	2,036	2,048	9,522.0	1	176	1	290	1	43	0	50	1	24
Stoughton	20	3,394	3,414	12,667.4	4	409	1	278	6	58	0	87	2	36
Stow	2	514	516	8,155.5	0	26	0	36	0	<7	0	<7	1	<7
Sturbridge	3	1,123	1,126	12,370.9	0	99	0	73	1	15	0	17	1	13
Sudbury	2	1,669	1,671	9,738.3	0	89	1	147	0	13	1	10	0	18
Sunderland	2	281	283	7,605.5	1	27	0	23	0	<7	0	<7	1	<7
Sutton	4	756	760	8,430.4	2	34	0	37	0	13	0	10	1	8
Swampscott	3	1,402	1,405	10,040.0	2	100	1	201	0	26	0	26	0	20
Swansea	14	1,902	1,916	11,800.2	2	194	2	178	5	20	0	30	5	14
Taunton	34	11,207	11,241	20,151.3	9	1,195	1	571	8	139	1	388	8	215
Templeton	4	629	633	8,133.1	0	48	1	43	1	10	0	17	1	14
Tewksbury	8	3,000	3,008	10,159.8	0	264	2	230	1	26	0	75	1	26
Tisbury	2	1,308	1,310	34,428.4	0	69	0	101	2	14	0	23	0	<7
Tolland	0	27	27	5,986.7	0	<7	0	<7	0	0	0	<7	0	0
Topsfield	6	593	599	9,873.1	1	34	1	54	1	7	0	<7	0	<7
Townsend	4	1,037	1,041	11,105.2	0	82	0	44	2	13	0	15	0	11
Truro	5	161	166	7,778.8	3	24	1	21	0	<7	0	<7	1	<7
Tyngsborough	4	975	979	8,254.6	0	97	0	40	1	13	1	23	1	13
Tyringham	0	35	35	10,204.1	0	<7	0	<7	0	0	0	<7	0	0

Upton	3	683	686	10,511.8	1	56	0	37	1	<7	0	7	1	12
Uxbridge	5	1,428	1,433	11,342.4	0	127	2	65	2	18	1	21	0	28
Wakefield	2	2,336	2,338	9,463.3	0	149	0	250	1	27	0	41	1	31
Wales	1	225	226	12,256.0	0	21	0	8	0	<7	0	<7	0	<7
Walpole	9	2,789	2,798	12,119.9	0	207	1	211	0	41	1	79	1	94
Waltham	20	4,543	4,563	7,635.8	1	468	1	429	7	104	0	136	4	53
Ware	3	2,202	2,205	22,198.7	0	170	1	93	2	31	0	52	0	32
Wareham	8	4,851	4,859	22,969.7	1	435	0	254	0	59	0	105	4	69
Warren	2	797	799	15,756.3	0	64	0	50	0	9	0	19	0	10
Warwick	1	81	82	10,933.3	0	7	1	<7	0	<7	0	<7	0	<7
Washington	0	51	51	9,306.6	0	<7	0	<7	0	<7	0	0	0	<7
Watertown	11	2,751	2,762	8,493.0	0	248	2	297	6	29	0	75	2	30
Wayland	2	1,164	1,166	8,957.5	0	49	1	128	1	16	0	13	0	13
Webster	5	2,718	2,723	16,300.5	1	175	0	199	1	61	0	67	2	41
Wellesley	8	2,071	2,079	7,704.3	2	89	2	218	1	25	0	20	3	15
Wellfleet	1	258	259	9,425.0	1	21	0	37	0	<7	0	<7	0	<7
Wendell	1	96	97	9,671.0	1	12	0	<7	0	<7	0	0	0	<7
Wenham	1	387	388	8,407.4	0	17	0	28	1	<7	0	<7	0	<7
West Boylston	0	788	788	10,129.8	0	60	0	47	0	13	0	59	0	20
West Bridgewater	1	783	784	11,738.3	0	80	0	89	0	11	0	17	0	7
West Brookfield	2	566	568	14,845.8	1	46	0	51	0	<7	0	11	1	<7
West Newbury	0	442	442	10,353.7	0	30	0	22	0	<7	0	<7	0	<7
West Springfield	13	3,521	3,534	12,803.0	2	464	2	264	2	74	0	116	3	48
West Stockbridge	2	151	153	10,573.6	0	10	0	17	0	<7	0	<7	2	<7
West Tisbury	0	258	258	9,817.4	0	15	0	22	0	<7	0	<7	0	0
Westborough	3	1,562	1,565	8,478.2	1	81	1	174	0	34	0	52	1	75
Westfield	20	5,766	5,786	14,407.4	8	534	0	384	5	97	0	133	3	72
Westford	8	1,703	1,711	7,852.2	1	129	3	99	0	17	0	23	1	16
Westhampton	0	143	143	9,016.4	0	7	0	7	0	<7	0	<7	0	<7
Westminster	4	579	583	7,891.2	2	47	0	45	0	<7	0	15	2	7
Weston	2	926	928	7,933.0	0	37	2	126	0	<7	0	<7	0	<7
Westport	7	1,864	1,871	12,361.3	4	211	1	121	0	13	1	39	1	22
Westwood	7	1,429	1,436	10,249.8	0	52	2	196	2	20	0	22	1	9
Weymouth	22	6,848	6,870	12,896.1	2	618	2	552	7	153	2	226	3	96
Whately	2	98	100	6,430.9	1	<7	0	8	0	0	0	<7	1	<7
Whitman	7	1,683	1,690	11,748.3	3	175	0	64	2	45	0	39	2	18
Wilbraham	4	1,150	1,154	8,224.1	1	107	0	157	1	19	0	30	1	22
Williamsburg	1	341	342	14,016.4	0	27	1	15	0	<7	0	<7	0	<7
Williamstown	4	914	918	11,322.2	0	38	1	142	0	<7	0	14	2	9
Wilmington	8	1,970	1,978	9,124.0	0	170	3	119	1	33	0	35	1	15
Winchendon	7	883	890	8,785.8	1	74	2	38	0	14	0	27	2	20
Winchester	11	1,390	1,401	6,628.2	0	79	4	201	4	16	1	17	0	14
Windsor	0	106	106	12,383.2	0	9	0	9	0	<7	0	0	0	0
Winthrop	7	1,517	1,524	7,561.8	0	141	1	156	4	46	0	55	2	25

Woburn	7	3,424	3,431	9,262.5	1	351	1	348	3	44	0	97	1	38
Worcester	100	22,560	22,660	13,025.5	12	2,308	10	1,300	41	707	6	1,253	16	628
Worthington	1	131	132	10,377.4	1	17	0	<7	0	<7	0	<7	0	0
Wrentham	2	1,125	1,127	10,138.5	0	66	1	138	0	14	0	17	0	9
Yarmouth	21	4,281	4,302	17,917.5	1	359	9	575	5	40	0	130	3	55

1. Represents crude rates per 100,000 residents. Population numbers for city/town of residence are from the 2007 Census estimates.

3. Motor vehicle traffic-related injuries include: motor vehicle occupants (i.e., drivers and passengers of cars and light trucks), pedestrians and pedal cyclists injured by a motor vehicle, and motorcyclists.

4. Poisonings can include prescription medicines, household cleaners, carbon monoxide poisoning, toxic effects of legal or illegal drugs, etc.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Outpatient Hospital Discharge Database, MA Observation Stay Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 17. Total Number and Rate of Fatal and Nonfatal Unintentional Fall-related Injuries, MA Residents, 2000-2007

	2000		2001		2002		2003		2004		2005		2006		2007	
Deaths	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
<1 year	0	0.0	1	--	1	--	0	0.0	1	--	0	0.0	0	0.0	0	0.0
1-14 years	1	--	2	--	3	--	2	--	3	--	1	--	1	--	0	0.0
15-24 years	3	--	2	--	5	0.6	4	--	3	--	7	0.8	5	0.6	7	0.8
25-44 years	12	0.6	17	0.9	14	0.7	19	1.0	15	0.8	10	0.5	12	0.7	19	1.1
45-64 years	30	2.1	35	2.4	37	2.4	35	2.2	50	3.1	43	2.6	48	2.9	63	3.7
65-74 years	28	6.6	34	8.1	28	6.7	19	4.6	33	8.1	27	6.6	56	13.7	61	14.7
75-84 years	60	18.9	77	24.2	65	20.4	72	22.6	80	25.3	84	26.8	115	37.2	126	41.4
85+ years	66	56.0	72	59.6	69	56.1	97	76.5	87	67.5	95	71.7	169	123.8	176	125.9
Total ²	200	3.1	240	3.7	222	3.5	248	3.9	272	4.2	267	4.2	406	6.3	452	7.0
Nonfatal Hospital Stays	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
<1 year	126	159.9	157	194.4	149	187.5	152	193.1	170	218.7	190	251.0	167	221.5	159	210.4
1-14 years	1,227	103.9	1,269	107.8	1,207	103.0	1,248	107.8	1,182	103.5	1,110	98.9	1,088	98.5	910	83.3
15-24 years	647	78.5	753	89.7	699	82.1	728	84.3	700	79.8	682	76.6	673	74.7	618	68.2
25-44 years	2,344	117.9	2,456	124.3	2,075	106.3	2,473	128.7	2,268	120.6	2,179	118.1	2,125	116.9	1,892	105.2
45-64 years	3,740	261.5	4,081	276.7	3,855	253.9	4,753	304.8	4,720	294.9	5,025	306.2	5,051	300.6	4,993	290.5
65-74 years	3,426	803.1	3,527	837.0	3,399	817.2	3,547	859.5	3,529	860.9	3,571	873.7	3,579	873.5	3,587	864.2
75-84 years	7,518	2,373.6	7,475	2,351.6	7,453	2,333.5	7,918	2,489.6	7,983	2,523.6	7,944	2,533.6	8,286	2,679.0	8,027	2,639.6
85+ years	7,430	6,305.5	7,142	5,916.6	7,202	5,859.9	7,691	6,063.0	7,828	6,071.7	7,836	5,911.1	8,344	6,111.1	8,438	6,037.8
Total ²	26,458	415.8	26,860	419.2	26,040	404.9	28,510	442.8	28,380	441.1	28,537	443.9	29,313	455.6	28,624	443.8
Nonfatal ED Visits					Number	Rate ¹										
<1 year	Data were not collected prior to 2002				2,291	2,883.5	2,298	2,919.3	2,353	3,027.5	2,295	3,032.1	2,480	3,289.6	2,464	3,260.6
1-14 years					46,173	3,942.0	44,825	3,870.6	42,008	3,678.8	40,099	3,574.4	41,667	3,772.8	42,206	3,864.4
15-24 years					20,045	2,353.8	21,125	2,445.7	19,410	2,212.4	19,439	2,182.5	19,961	2,215.5	20,341	2,244.7
25-44 years					39,320	2,013.5	43,044	2,240.7	38,691	2,056.7	38,144	2,067.3	37,550	2,066.0	37,256	2,071.9
45-64 years					29,605	1,949.7	35,025	2,246.1	34,045	2,127.3	34,676	2,113.1	35,924	2,137.6	37,279	2,168.9
65-74 years					10,372	2,493.6	11,334	2,746.4	11,003	2,684.2	10,656	2,607.3	10,787	2,632.8	11,001	2,650.3
75-84 years					14,526	4,547.9	14,821	4,660.0	14,843	4,692.1	14,442	4,606.0	14,911	4,820.9	14,984	4,927.3
85+ years					10,145	8,254.5	10,142	7,995.1	10,437	8,095.3	10,530	7,943.3	11,053	8,095.1	11,468	8,205.8
Total ²					172,477	2,681.6	182,619	2,836.4	172,792	2,685.7	170,282	2,648.6	174,336	2,709.4	176,999	2,744.3

1. Rates are age-specific (i.e., number of cases per 100,000 persons per age group). Rates based on counts less than 20 may be unstable.

Rates were not calculated on counts less than 5 for deaths and counts less than 7 for nonfatal injuries. Population data used to calculate rates (for all years) are from the 2007 MARS file.

2. Total includes cases for which age and/or sex was unknown or missing.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 18. Total Number and Rate of Fatal and Nonfatal Unintentional Motor Vehicle Traffic-related[†] Injuries, MA Residents, 2000-2007

	2000		2001		2002		2003		2004		2005		2006		2007	
Deaths	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
<1 year	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-14 years	16	1.4	19	1.6	5	0.4	17	1.5	19	1.7	10	0.9	11	1.0	5	0.5
15-24 years	116	14.1	124	14.8	127	14.9	125	14.5	128	14.6	111	12.5	112	12.4	129	14.2
25-44 years	133	6.7	171	8.7	168	8.6	146	7.6	146	7.8	119	6.4	112	6.2	113	6.3
45-64 years	107	7.5	104	7.1	107	7.0	95	6.1	119	7.4	113	6.9	117	7.0	89	5.2
65-74 years	37	8.7	36	8.5	40	9.6	42	10.2	24	5.9	38	9.3	32	7.8	32	7.7
75-84 years	52	16.4	62	19.5	59	18.5	62	19.5	46	14.5	34	10.8	39	12.6	22	7.2
85+ years	12	10.2	19	15.7	16	13.0	19	15.0	26	20.2	21	15.8	21	15.4	18	12.9
Total ²	473	7.4	535	8.3	522	8.1	506	7.9	508	7.9	446	6.9	444	6.9	408	6.3
Nonfatal Hospital Stays	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
<1 year	<7	--	<7	--	<7	7.6	8	10.2	7	9.0	10	13.2	<7	--	<7	--
1-14 years	237	20.1	294	25.0	322	27.5	301	26.0	316	27.7	241	21.5	246	22.3	200	18.3
15-24 years	1,216	147.5	1,286	153.3	1,482	174.0	1,360	157.5	1,459	166.3	1,363	153.0	1,318	146.3	1,086	119.8
25-44 years	1,726	86.8	1,667	84.4	1,765	90.4	1,709	89.0	1,672	88.9	1,624	88.0	1,497	82.4	1,283	71.4
45-64 years	938	65.6	1,062	72.0	1,107	72.9	1,073	68.8	1,136	71.0	1,225	74.6	1,197	71.2	1,168	68.0
65-74 years	386	90.5	375	89.0	357	85.8	341	82.6	338	82.5	348	85.1	329	80.3	288	69.4
75-84 years	444	140.2	378	118.9	458	143.4	408	128.3	419	132.5	375	119.6	394	127.4	354	116.4
85+ years	132	112.0	112	92.8	165	134.3	154	121.4	138	107.0	152	114.7	150	109.9	138	98.7
Total ²	5,181	81.4	5,177	80.8	5,662	88.0	5,354	83.2	5,486	85.3	5,338	83.0	5,134	79.8	4,522	70.1
Nonfatal ED Visits					Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
<1 year					67	84.3	79	100.4	78	100.4	84	111.0	78	103.5	87	115.1
1-14 years					6,519	556.6	6,288	543.0	5,514	482.9	5,048	450.0	4,571	413.9	4,081	373.7
15-24 years					32,167	3,777.3	32,147	3,721.8	29,060	3,312.3	25,900	2,907.9	23,266	2,582.3	21,746	2,399.8
25-44 years					41,544	2,127.4	41,814	2,176.7	37,295	1,982.5	33,675	1,825.1	30,113	1,656.8	27,733	1,542.3
45-64 years					15,757	1,037.7	16,669	1,068.9	15,547	971.5	14,973	912.4	14,392	856.4	14,098	820.2
65-74 years					2,396	576.0	2,496	604.8	2,438	594.8	2,211	541.0	2,139	522.1	2,007	483.5
75-84 years					1,749	547.6	1,758	552.8	1,681	531.4	1,435	457.7	1,390	449.4	1,353	444.9
85+ years					413	336.0	354	279.1	395	306.4	351	264.8	424	310.5	380	271.9
Total ²					100,613	1,564.3	101,608	1,578.1	92,010	1,430.1	83,677	1,301.5	76,374	1,187.0	71,485	1,108.3

* Includes any injury or death involving a motor vehicle including motorcycles (includes drivers, passengers, unspecified or other persons, pedestrians, and pedal cyclists).

1. Rates are age-specific (i.e., number of cases per 100,000 persons per age group). Rates based on counts less than 20 may be unstable. Rates were not calculated on counts less than 5 for deaths and counts less than 7 for nonfatal injuries. Population data used to calculate rates (for all years) are from the 2007 MARS file.

2. Total includes cases for which age and/or sex was unknown or missing.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy
 Injuries to Massachusetts Residents, 2007
 Injury Surveillance Program, MA Department of Public Health

Table 19. Total Number and Rate of Fatal and Nonfatal Unintentional Traumatic Brain Injuries, MA Residents, 2000-2007

	2000		2001		2002		2003		2004		2005		2006		2007	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
Deaths																
<1 year	0	0.0	2	--	0	0.0	0	0.0	2	--	0	0.0	2	--	0	0.0
1-14 years	11	0.9	13	1.1	7	0.6	8	0.7	8	0.7	6	0.5	12	1.1	5	--
15-24 years	44	5.3	52	6.2	57	6.7	46	5.3	43	4.9	63	7.1	72	8.0	95	10.5
25-44 years	48	2.4	76	3.8	58	3.0	48	2.5	42	2.2	58	3.1	70	3.9	100	5.6
45-64 years	58	4.1	64	4.3	63	4.1	44	2.8	71	4.4	74	4.5	103	6.1	126	7.3
65-74 years	43	10.1	33	7.8	36	8.7	28	6.8	33	8.1	32	7.8	54	13.2	65	15.7
75-84 years	73	23.0	84	26.4	73	22.9	60	18.9	61	19.3	79	25.2	89	28.8	99	32.6
85+ years	91	77.2	78	64.6	60	48.8	73	57.5	71	55.1	79	59.6	101	74.0	94	67.3
Total ²	368	5.8	402	6.3	354	5.5	307	4.8	331	5.1	391	6.1	503	7.8	584	9.1
Nonfatal Hospital Stays																
<1 year	118	149.7	145	179.5	155	195.1	162	205.8	183	235.5	178	235.2	162	214.9	162	214.4
1-14 years	610	51.7	575	48.8	499	42.6	536	46.3	502	44.0	489	43.6	488	44.2	407	37.3
15-24 years	651	79.0	670	79.8	726	85.3	798	92.4	809	92.2	820	92.1	782	86.8	659	72.7
25-44 years	868	43.7	814	41.2	916	46.9	924	48.1	917	48.7	926	50.2	911	50.1	735	40.9
45-64 years	680	47.5	701	47.5	798	52.6	857	55.0	983	61.4	1,166	71.1	1,099	65.4	1,118	65.0
65-74 years	403	94.5	390	92.6	406	97.6	465	112.7	495	120.8	492	120.4	543	132.5	565	136.1
75-84 years	657	207.4	682	214.6	712	222.9	768	241.5	910	287.7	846	269.8	1,042	336.9	1,055	346.9
85+ years	531	450.6	509	421.7	559	454.8	656	517.1	714	553.8	740	558.2	830	607.9	878	628.2
Total ²	4,518	71.0	4,486	70.0	4,772	74.2	5,166	80.2	5,513	85.7	5,657	88.0	5,857	91.0	5,579	86.5
Nonfatal ED Visits																
<1 year	Data were not collected prior to 2002				1,179	1,483.9	1,259	1,599.4	1,322	1,700.9	1,399	1,848.3	1,523	2,020.2	1,550	2,051.1
1-14 years					8,080	689.8	8,423	727.3	8,359	732.0	8,694	775.0	9,372	848.6	9,801	897.4
15-24 years					5,897	692.5	6,282	727.3	6,479	738.5	6,922	777.2	7,393	820.6	7,554	833.6
25-44 years					6,191	317.0	6,703	348.9	6,764	359.6	7,088	384.1	7,367	405.3	7,668	426.4
45-64 years					3,536	232.9	4,238	271.8	4,534	283.3	5,148	313.7	5,853	348.3	6,536	380.3
65-74 years					1,094	263.0	1,269	307.5	1,414	345.0	1,521	372.2	1,749	426.9	2,025	487.9
75-84 years					1,667	521.9	1,849	581.4	1,965	621.2	2,271	724.3	2,772	896.2	3,126	1,027.9
85+ years					1,253	1,019.5	1,373	1,082.4	1,622	1,258.1	1,897	1,431.0	2,343	1,716.0	2,617	1,872.6
Total ²					28,897	449.3	31,396	487.6	32,459	504.5	34,940	543.5	38,372	596.4	40,879	633.8

1. Rates are age-specific (i.e., number of cases per 100,000 persons per age group). Rates based on counts less than 20 may be unstable.

Rates were not calculated on counts less than 5 for deaths and counts less than 7 for nonfatal injuries. Population data used to calculate rates (for all years) are from the 2007 MARS file.

2. Total includes cases for which age and/or sex was unknown or missing.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 20. Total Number and Rate of Fatal and Nonfatal Unintentional and Undetermined Poisonings, MA Residents, 2000-2007

	2000		2001		2002		2003		2004		2005		2006		2007	
Deaths	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
<1 year	0	--	0	0.0	1	--	2	--	0	--	1	--	0	0.0	0	0.0
1-14 years	0	--	1	--	0	0.0	0	0.0	3	--	2	--	1	--	1	--
15-24 years	53	6.4	56	6.7	53	6.2	90	10.4	75	8.5	66	7.4	63	7.0	62	6.8
25-44 years	292	14.7	391	19.8	352	18.0	441	23.0	359	19.1	368	19.9	422	23.2	417	23.2
45-64 years	121	8.5	155	10.5	177	11.7	193	12.4	192	12.0	243	14.8	370	22.0	342	19.9
65-74 years	9	2.1	6	1.4	6	1.4	10	2.4	3	--	5	1.2	7	1.7	14	3.4
75-84 years	8	2.5	4	--	10	3.1	7	2.2	4	--	8	2.6	11	3.6	7	2.3
85+ years	2	1.7	7	5.8	3	--	6	4.7	3	--	2	--	1	--	3	--
Total	485	7.6	620	9.7	602	9.4	749	11.6	639	9.9	695	10.8	875	13.6	846	13.1
Nonfatal Hospital Stays	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
<1 year	11	14.0	20	24.8	15	18.9	20	25.4	14	18.0	24	31.7	25	33.2	22	29.1
1-14 years	325	27.5	282	23.9	267	22.8	204	17.6	232	20.3	222	19.8	211	19.1	194	17.8
15-24 years	396	48.0	401	47.8	421	49.4	425	49.2	427	48.7	417	46.8	442	49.1	366	40.4
25-44 years	948	47.7	930	47.1	1,002	51.3	1,129	58.8	1,124	59.7	1,166	63.2	1,129	62.1	1,013	56.3
45-64 years	531	37.1	616	41.8	765	50.4	816	52.3	1,037	64.8	1,136	69.2	1,098	65.3	1,144	66.6
65-74 years	182	42.7	183	43.4	180	43.3	207	50.2	215	52.5	267	65.3	288	70.3	289	69.6
75-84 years	202	63.8	215	67.6	246	77.0	210	66.0	278	87.9	250	79.7	307	99.3	328	107.9
85+ years	84	71.3	80	66.3	96	78.1	110	86.7	116	90.0	124	93.5	157	115.0	152	108.8
Total**	2,679	42.1	2,727	42.6	2,992	46.5	3,121	48.5	3,443	53.5	3,606	56.1	3,657	56.8	3,508	54.4
Nonfatal ED Visits					Number	Rate ¹										
<1 year					97	122.1	117	148.6	132	169.8	103	136.1	142	188.4	139	183.9
1-14 years					1,764	150.6	1,674	144.5	1,693	148.3	1,639	146.1	1,694	153.4	1,772	162.2
15-24 years					1,924	225.9	1,937	224.3	1,923	219.2	1,954	219.4	2,056	228.2	2,199	242.7
25-44 years					3,287	168.3	3,460	180.1	3,291	174.9	3,168	171.7	3,425	188.4	3,433	190.9
45-64 years	Data were not collected prior to 2002				1,462	96.3	1,606	103.0	1,770	110.6	1,895	115.5	2,022	120.3	2,159	125.6
65-74 years					211	50.7	200	48.5	228	55.6	227	55.5	266	64.9	279	67.2
75-84 years					167	52.3	131	41.2	171	54.1	189	60.3	229	74.0	228	75.0
85+ years					58	47.2	70	55.2	66	51.2	102	76.9	96	70.3	118	84.4
Total**					8,970	139.5	9,195	142.8	9,274	144.1	9,277	144.3	9,930	154.3	10,327	160.1

1. Rates are age-specific (i.e., number of cases per 100,000 persons per age group). Rates based on counts less than 20 may be unstable. Rates were not calculated on counts less than 5 for deaths and counts less than 7 for nonfatal injuries. Population data used to calculate rates (for all years) are from the 2007 MARS file.
 2. Total includes cases for which age and/or sex was unknown or missing.

Sources:
 Deaths - Registry of Vital Records and Statistics, MDPH
 Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 21. Total Number and Rate of Suicides and Self-inflicted Injuries, MA Residents, 2000-2007

	2000		2001		2002		2003		2004		2005		2006		2007	
Deaths	Number	Rate ¹														
<1 year	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-14 years	3	--	4	--	0	0.0	5	0.4	3	--	2	--	2	--	2	--
15-19 years	21	5.0	19	4.5	14	3.3	21	4.8	19	4.3	18	4.0	11	2.4	19	4.2
20-24 years	32	7.9	33	8.0	39	9.3	25	5.8	32	7.4	36	8.1	32	7.1	31	6.8
25-44 years	178	9.0	171	8.7	173	8.9	177	9.2	165	8.8	181	9.8	158	8.7	193	10.7
45-64 years	123	8.6	133	9.0	136	9.0	135	8.7	141	8.8	158	9.6	189	11.2	189	11.0
65-74 years	18	4.2	27	6.4	28	6.7	28	6.8	29	7.1	34	8.3	23	5.6	35	8.4
75-84 years	20	6.3	24	7.6	26	8.1	20	6.3	26	8.2	28	8.9	15	4.8	19	6.2
85+ years	6	5.1	9	7.5	9	7.3	12	9.5	14	10.9	12	9.1	7	5.1	16	11.4
Total ²	401	6.3	420	6.6	425	6.6	423	6.6	429	6.7	469	7.3	437	6.8	504	7.8
Nonfatal Hospital Stays	Number	Rate ¹														
<1 year	0	0.0	0	0.0	<7	--	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-14 years	139	11.8	119	10.1	104	8.9	131	11.3	130	11.4	110	9.8	68	6.2	56	5.1
15-19 years	609	146.1	586	138.1	551	128.0	569	130.4	465	105.2	513	114.3	514	113.6	451	99.5
20-24 years	530	130.1	480	115.7	504	119.7	518	121.2	538	123.6	488	110.5	523	116.6	517	114.2
25-44 years	2124	106.8	2067	104.6	1987	101.8	2100	109.3	2035	108.2	2,000	108.4	2,051	112.8	1,962	109.1
45-64 years	774	54.1	787	53.4	825	54.3	908	58.2	973	60.8	1,065	64.9	1,140	67.8	1,134	66.0
65-74 years	92	21.6	70	16.6	70	16.8	79	19.1	60	14.6	80	19.6	88	21.5	104	25.1
75-84 years	48	15.2	55	17.3	40	12.5	52	16.3	45	14.2	74	23.6	48	15.5	57	18.7
85+ years	23	19.5	21	17.4	16	13.0	19	15.0	31	24.0	26	19.6	22	16.1	24	17.2
Total ²	4,339	68.2	4,185	65.3	4,098	63.7	4,376	68.0	4,277	66.5	4,356	67.8	4,454	69.2	4,305	66.7
Nonfatal ED Visits					Number	Rate ¹										
<1 year					<7	--	<7	--	<7	--	<7	--	0	0.0	<7	--
1-14 years					422	36.0	479	41.4	589	51.6	512	45.6	484	43.8	388	35.5
15-19 years					1,465	340.3	1,519	348.2	1,596	361.0	1,682	374.7	1,580	349.2	1,506	332.2
20-24 years					963	228.7	976	228.3	971	223.1	1,132	256.3	1,095	244.1	1,095	241.8
25-44 years					2,784	142.6	2,560	133.3	2,560	136.1	2,676	145.0	2,798	153.9	2,728	151.7
45-64 years					759	50.0	747	47.9	872	54.5	900	54.8	948	56.4	952	55.4
65-74 years					28	6.7	22	5.3	23	5.6	31	7.6	37	9.0	31	7.5
75-84 years					18	5.6	18	5.7	14	4.4	13	4.1	18	5.8	15	4.9
85+ years					<7	--	8	6.3	7	5.4	9	6.8	9	6.6	<7	--
Total ²					6,445	100.2	6,330	98.3	6,633	103.1	6,956	108.2	6,969	108.3	6,720	104.2

1. Rates are age-specific (i.e., number of cases per 100,000 persons per age group). Rates based on counts less than 20 may be unstable.

Rates were not calculated on counts less than 5 for deaths and counts less than 7 for nonfatal injuries. Population data used to calculate rates (for all years) are from the 2007 MARS file.

2. Total includes cases for which age and/or sex was unknown or missing.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database, and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Table 22. Total Number and Rate of Homicides and Nonfatal Assault-related Injuries, MA Residents, 2000-2007

	2000		2001*		2002		2003		2004		2005		2006		2007	
Deaths	Number	Rate ¹														
<1 year	2	--	4	--	2	--	4	--	3	--	2	--	2	--	3	--
1-14 years	4	--	6	0.5	11	0.9	8	0.7	7	0.6	3	--	5	0.5	16	1.5
15-19 years	15	3.6	23	5.4	24	5.6	16	3.7	32	7.2	33	7.4	25	5.5	25	5.5
20-24 years	30	7.4	30	7.2	39	9.3	31	7.3	48	11.0	48	10.9	45	10.0	48	10.6
25-44 years	60	3.0	63	3.2	74	3.8	52	2.7	60	3.2	66	3.6	76	4.2	64	3.6
45-64 years	12	0.8	22	1.5	26	1.7	19	1.2	20	1.2	15	0.9	23	1.4	22	1.3
65-74 years	2	--	5	1.2	5	1.2	4	--	3	--	7	1.7	6	1.5	3	--
75-84 years	0	0.0	0	0.0	3	--	3	--	2	--	2	--	0	0.0	2	--
85+ years	0	0.0	0	0.0	1	--	2	--	0	0.0	1	--	1	--	0	0.0
Total ²	125	2.0	153	2.4	185	2.9	139	2.2	175	2.7	177	2.8	183	2.8	183	2.8
Nonfatal Hospital Stays	Number	Rate ¹														
<1 year	30	38.1	28	34.7	40	50.3	38	48.3	27	34.7	30	39.6	19	25.2	27	35.7
1-14 years	66	5.6	62	5.3	69	5.9	46	4.0	66	5.8	60	5.3	57	5.2	58	5.3
15-19 years	246	59.0	293	69.0	304	70.6	294	67.4	315	71.2	415	92.4	374	82.7	375	82.7
20-24 years	353	86.6	376	90.7	396	94.0	395	92.4	418	96.0	476	107.8	492	109.7	460	101.6
25-44 years	751	37.8	844	42.7	822	42.1	891	46.4	876	46.6	935	50.7	958	52.7	958	53.3
45-64 years	209	14.6	260	17.6	262	17.3	294	18.9	305	19.1	354	21.6	405	24.1	392	22.8
65-74 years	33	7.7	12	2.8	31	7.5	35	8.5	22	5.4	31	7.6	25	6.1	36	8.7
75-84 years	25	7.9	16	5.0	19	5.9	22	6.9	30	9.5	28	8.9	20	6.5	25	8.2
85+ years	10	8.5	10	8.3	19	15.5	10	7.9	8	6.2	<7	--	17	12.5	12	8.6
Total ²	1,723	27.1	1,901	29.7	1,962	30.5	2,025	31.5	2,067	32.1	2,335	36.3	2,367	36.8	2,343	36.3
Nonfatal ED Visits					Number	Rate ¹										
<1 year					17	21.4	30	38.1	19	24.4	16	21.1	24	31.8	20	26.5
1-14 years					1,633	139.4	1,590	137.3	1,506	131.9	1,411	125.8	1,488	134.7	1,326	121.4
15-19 years					4,394	1,020.7	4,486	1,028.4	4,267	965.1	4,156	925.7	4,464	986.7	4,346	958.6
20-24 years					5,137	1,219.9	4,994	1,168.0	5,047	1,159.7	4,815	1,090.1	5,139	1,145.7	5,421	1,197.3
25-44 years					10,748	550.4	10,520	547.6	10,023	532.8	9,897	536.4	10,051	553.0	10,347	575.4
45-64 years					2,760	181.8	2,775	178.0	2,810	175.6	2,819	171.8	3,141	186.9	3,526	205.1
65-74 years					153	36.8	155	37.6	127	31.0	141	34.5	110	26.8	157	37.8
75-84 years					59	18.5	69	21.7	61	19.3	69	22.0	58	18.8	57	18.7
85+ years					30	24.4	26	20.5	21	16.3	20	15.1	22	16.1	27	19.3
Total ²					24,931	387.6	24,645	382.8	23,881	371.2	23,344	363.1	24,497	380.7	25,229	391.1

1. Rates are age-specific (i.e., number of cases per 100,000 persons per age group). Rates based on counts less than 20 may be unstable.

Rates were not calculated on counts less than 5 for deaths and counts less than 7 for nonfatal injuries. Population data used to calculate rates (for all years) are from the 2007 MARS file.

2. Total includes cases for which age and/or sex was unknown or missing.

* Excludes 87 MA resident deaths resulting from the September 11, 2001 terrorist attacks.

Sources:

Deaths - Registry of Vital Records and Statistics, MDPH

Nonfatal Injuries - MA Inpatient Hospital Discharge Database, MA Outpatient Observation Database,

and MA Outpatient Emergency Department Database, Division of Health Care Finance and Policy

Technical Notes

Definitions:

Inpatient Hospital Discharges: Individuals discharged from an acute care hospital.

Observation Stays: Individuals discharged from an observation bed of an acute care hospital.

Hospital Stays: Combines hospital discharges and observation bed stays into one category to assist in interpreting analysis.

ED Visits: Individuals discharged from the emergency department of an acute care hospital.

Injury Parameters:

Injuries are classified using multiple parameters. For example, an injury may be classified by a diagnosis (e.g., a fracture), or by the mechanism or external cause of the injury (e.g., a fall). Injuries are also classified by intent: unintentional ("accidents") or intentional (assaults/homicides or self-inflicted/suicides).

In this report injuries are classified by their external cause and intent according to the International Classification of Diseases (ICD) system. In 1999 a revised version, ICD-10, was implemented for classifying deaths. Certain injury categories may not be comparable between ICD-9 (the previous version) and ICD-10.

A modified version of the *Matrix of E-code Groupings for Presenting Injury Mortality and Morbidity Data*, developed by the Centers for Disease Control and Prevention, was used to group injury categories. This grouping of ICD-9 and ICD-10 external causes of injury codes can be found in Appendix A and Appendix B.

Data Sources and Inclusion Criteria:

Injury Deaths:

Source: Registry of Vital Records and Statistics, Mass. Dept. of Public Health.

An injury death is defined as:

any death with an ICD-10 code of V01-Y36, Y40-Y89, U01-U03 in the underlying cause field. This includes Adverse Effects of Medical Care and Drugs.

Massachusetts residents who died in or out-of-state are included in these analyses; out-of-state residents who died in Massachusetts are *not* included.

Injury-Related Hospitalizations:

Source: Massachusetts Inpatient Hospital Discharge Database, MA Division of Health Care Finance and Policy.

An injury-related hospital discharge case is defined as:

any case having an ICD9-CM Nature of Injury Code of: 800-908, 9090-9092, 9094, 9099, 910-994, 99550-99559, 99580-99585, assigned to any of the ICD9 diagnosis fields.

Injury-related hospital discharge cases transferred to another acute care hospital or subsequently dying in the hospital are excluded from these analyses.

Residency is based on patient's state, city/town and ZIP code. Only Massachusetts residents are included in these analyses.

Injury-Related Observation Stays:

Source: MA Outpatient Observation Bed Database, MA Division of Health Care Finance and Policy.

This database contains cases admitted to a hospital bed for observation. They are *not* included in the hospital discharge database.

An injury-related "observation" case is defined as:

any case having an ICD9-CM Nature of Injury Code of: 800-908, 9090-9092, 9094, 9099, 910-994, 99550-99559, 99580-99585, assigned to any of the ICD9 diagnosis fields.

Residency is based on patient's state, city/town and ZIP code. Only Massachusetts residents are included in these analyses.

Injury-related observation cases subsequently dying in the hospital are excluded from these analyses.

A general definition of Outpatient Observation services is defined for reporting purposes in the Case Mix Regulation 114.1 CMR 17.02 as:

“Observation services are those furnished on a hospital’s premises which are reasonable and necessary to further evaluate a patient’s condition and provide treatment to determine the need for possible admission to the hospital. These services include the use of a bed and periodic monitoring by a hospital’s physician, nursing and other staff.”

Injury-Related Emergency Department Visits:

Source: Massachusetts Emergency Department Discharge Database, MA Division of Health Care Finance and Policy.

This database contains individuals discharged from any acute care emergency department in Massachusetts. These cases are *not* included in the hospital discharge or observation bed stay databases.

An emergency department injury-related case is defined as:

any case having an ICD9-CM Nature of Injury Code of: 800-908, 9090-9092, 9094, 9099, 910-994, 99550-99559, 99580-99585, assigned to any of the ICD9 diagnosis fields.

Residency is based on patient’s state, city/town and ZIP code. Only Massachusetts residents are included in these analyses.

Injury-related emergency department cases subsequently dying in the hospital are excluded from these analyses.

Population Source (*unless otherwise specified*):

National Center for Health Statistics. Estimates of the July 1, 2000-July 1, 2006, United States resident population from the Vintage 2006 postcensal series by year, county, age, sex, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. August 16, 2006.

Residency:

Analyses for injury *deaths* include Massachusetts residents who died in or out-of-state. All other analyses include Massachusetts residents admitted and released from a Massachusetts acute care hospital or treated and discharged from an emergency department. Massachusetts residents treated at hospitals out-of-state are not included. Non-Massachusetts residents were excluded from *all* analyses presented in this report.

External Cause (E-Code) Rates:

Among hospital discharge data, 96% of cases for which there was an injury assigned to one of the diagnostic fields had an external cause code provided. Among observation bed stay data the percentage was 84.6% and among emergency department data, the percentage was 98.6%. Overall, external cause codes were assigned to 98.3% of all injury-related cases.

Data Limitations and Exclusions:

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 (<20) should be interpreted cautiously as rates can fluctuate greatly from year to year with even a small increase or decrease in the number of cases.

Exclusions: Due to data quality issues, the external cause of injury codes (E-Codes) for two hospitals, were excluded from all ED analysis. Total injury counts presented in this report include primary diagnostic codes for these hospitals, but associated diagnostic codes have been excluded.

Rates:

All rates reported are per 100,000 individuals.

Crude Death Rate

The crude death rate represents the “true” number of occurrences of a health event in a specified time and population per unit time. It is calculated as follows.

Formula:

$$\text{Crude Rate} = \frac{\text{(# of resident injury cases in a year)}}{\text{(resident population for that year)}} \times 100,000$$

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 (Cape Cod) 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.

Age-Specific Rate

A rate for a specified age group is calculated by dividing the actual number of cases in a given year for a specific age group by the population in that age group for that year. The numerator (number of cases) and the denominator (population) refer to the same age group.

Formula:

$$\text{Age-specific Rate (for ages 25-34)} = \frac{\text{(# of injury cases among residents, ages 25-34 in a given year)}}{\text{(population of residents, ages 25-34 in that year)}} \times 100,000$$

Trend Data

The Joinpoint Regression Program was used to calculate the average annual percent of change per year, a summary measure of trend over a pre-specified fixed interval. The Joinpoint statistical software indicates where changes have occurred over time and whether those changes were statistically significant. Information about this software and how the APC (average annual percent change) is computed can be found at:

<http://srab.cancer.gov/joinpoint/>

APPENDIX A

Recommended Framework of E-code Groupings for Presenting Injury Morbidity Data*					
Mechanism/Cause	Intent				
	Unintentional	Self-inflicted	Assault	Undetermined	Other
Cut/pierce	E920.0-.9	E956	E966	E986	E974
Drowning/submersion	E830.0-.9, E832.0-.9	E954	E964	E984	
	E910.0-.9				
Fall	E880.0-E886.9, E888	E957.0-.9	E968.1	E987.0-.9	
Fire/burn: Fire/flame	E890.0-E899	E958.1	E968.0, E979.3	E988.1	
Fire/burn: Hot object/substance	E924.0-.9	E958.2,.7	E961, E968.3	E988.2,.7	
Firearm	E922.0-.3,.8,.9	E955.0-.4	E965.0-4, E979.4	E985.0-.4	E970
Machinery	E919 (.0-.9)				
Motor vehicle traffic	E810-E819 (.0-.9)	E958.5	E968.5	E988.5	
Occupant	E810-E819 (.0,.1)				
Motorcyclist	E810-E819 (.2,.3)				
Pedal cyclist	E810-E819 (.6)				
Pedestrian	E810-E819 (.7)				
Unspecified	E810-E819 (.9)				
Pedal cyclist, other	E800-E807 (.3)				
	E820-E825 (.6), E826.1,.9				
	E827-E829 (.1)				
Pedestrian, other	E800-807 (.2)				
	E820-E825 (.7)				
	E826-E829 (.0)				
Transport, other	E800-E807 (.0,.1,.8,.9)	E958.6		E988.6	
	E820-E825 (.0-.5,.8,.9)				
	E826.2-.8				
	E827-E829 (.2-.9),				
	E831.0-.9, E833.0-				
	E845.9				
Natural/environmental	E900.0-E909, E928.0-.2	E958.3		E988.3	
Dog bites	E906.0				
Overexertion	E927				
Poisoning	E850.0-E869.9	E950.0-E952.9	E962.0-.9	E980.0-E982.9	E972
Struck by, against	E916-E917.9		E960.0; E968.2		E973, E975
Suffocation	E911-E913.9	E953.0-.9	E963	E983.0-.9	
Other specified and classifiable	E846-E848, E914-E915, E918, E921(0-.9), E922(.4, .5), E923(0-.9), E925.0-E926.9, E928(.3-.5), E929(.0-.5)	E955(.5,.6,.7,.9), E958(.0,.4)	E960.1, E965(.5-.9), E967(.0-.9), E968(.4,.6,.7), E979(.0-.2), E979(.5-.9)	E985(.5,.6,.7), E988(.0,.4)	E971, E978, E990-E994, E996, E997(.0-.2)
Other specified, not elsewhere classifiable	E928.8, E929.8	E958.8, E959	E968.8, E969	E988.8, E989	E977, E995, E997.8, E998, E999
Unspecified	E887, E928.9, E929.9	E958.9	E968.9	E988.9	E976, E997.9
Adverse effects: Medical care					E870-E879
Adverse effects: Drugs					E930.0-E949.9
All injury by Intent	E800-E869, E880-E929	E950-E959	E960-E969, E979	E980-E989	E970-E978, E990-E999
All external causes	E800-E999				

*Modified version of the CDC Recommended E-Code Groupings for Presenting Injury Morbidity, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

APPENDIX B

Recommended Framework of E-Code Groupings for Presenting Injury Mortality Data*					
Mechanism/Cause	Intent				
	Unintentional	Self-inflicted	Assault	Undetermined	Other
Cut/pierce	W25-W29, W45	X78	X99	Y28	Y35.4
Drowning/submersion	W65-W74	X71	X92	X21	
Fall	W00-W19	X80	Y01	Y30	
Fire/burn: Fire/flame	X00-X09	X76	X97, U01.3	Y26	Y36.3
Fire/burn: Hot object/substance	X10-X19	X77	X98	Y27	
Firearm	W32-W34	X72-X74	X93-X95, U01.4	Y22-Y24	Y35.0
Machinery	W24, W30-W31				
Motor vehicle traffic:					
Occupant	V30-V79 (.4-.9), V83-V86 (.0-.3)				
Motorcyclist	V20-V28 (.3-.9), V29 (.4-.9)				
Pedal cyclist	V12-V14 (.3-.9), V19 (.4-.6)				
Pedestrian	V02-V04 (.1, .9), V09.2				
Other	V80 (.3-.5), V81.1, V82.1				
Unspecified	V87 (.0-.8), V89.2				
Pedal cyclist, other	V10-V11, V12-V14 (.0-.2), V15-V18, V19 (.0-.3, .8, .9)				
Pedestrian, other	V01, V02-V04 (.0), V05, V06, V09 (.0, .1, .3, .9)				
Land Transport, other	V20-V28 (.0-.2), V29 (.0-.3), V30-V79 (.0-.3), V80 (.0-.2, .6-.9), V81-V82 (.0, .2-.9), V83-V86 (.4-.9), V87.9, V88 (.0-.9), V89 (.0, .1, .3, .9)	X82	Y03	Y32	
Transport, other	V90-V99		U01.1		Y36.1
Natural/environmental	W42-W43, W53-W64, W92-W99, X20-X39, X51-X57				
Overexertion	X50				
Poisoning	X40-X49	X60-X69	X85-X90, U01(.6, .7)	Y10-Y19	Y35.2
Struck by, against	W20-W22, W50-W52	X79	Y00, Y04	Y29	Y35.3
Suffocation	W75-W84	X70	X91	Y20	
Other specified and classifiable	W23, W35-W41, W44, W49, W85-W91, Y85	X75, X81, U03.0	X96, Y02, Y05-Y07, U01 (.0, .2, .5)	Y25-Y31	Y35 (.1, .5), Y36 (.0, .2, .4-.8)
Other specified, not elsewhere classifiable	X58, Y86	X83, Y87.0	Y08, Y87.1, U01.8, U02	Y33, Y87.2	Y35.6, Y89 (.0, .1)
Unspecified	X59	X84, U03.9	Y09, U01.9	Y34, Y89.9	Y35.7, Y36.9
Adverse effects: Medical care					Y40-Y59, Y88.0
Adverse effects: Drugs					Y60-Y84, Y88 (.1-.3)
All injury by Intent	V01-X59, Y85-Y86	X60-X84, Y87.0, U03	X85-Y09, Y87.1, U01, U02	Y10-Y34, Y87.2, Y89.9	Y35-Y36, Y89.0, Y89.1
All external causes					V01-Y36, Y85-Y87, Y89, U01-U03

*CDC Recommended E-Code Groupings for Presenting Injury Mortality, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

APPENDIX C

Interpretation of Selected E-Codes

The following list provides sample scenarios to assist with the interpretation of selected ICD9 External Cause of Injury codes. This is *not* a comprehensive listing.

Mechanism/Cause	Intent	ICD-9 E Codes	Sample
Fall	Assault-Related	E968.1	Pushed down a flight of stairs.
	Self-Inflicted	E957.0-E957.9	Jumped off building with intent to harm self.
	Unintentional	E880.0-E886.9, E888	Fell from bed. Tripped down stairs. Slipped on ice. Fell during football game.
Fire/Burn	Assault-Related	E961, E968.0, E968.3	Purposely burned by boiling water thrown by another person.
	Self-Inflicted	E958.1, E958.2, 958.7	Purposely burned oneself with cigarette.
	Unintentional	E890.0-E899, E924.0-E924.9	Spilled hot coffee. Burned on stove. Burned in bath water that was too hot.
Motor Vehicle Traffic -Motorcycle	Unintentional	E810-E819(.2, .3)	Rider injured in crash with truck. Motorcycle slid on gravel.
Motor Vehicle Traffic -Occupant	Self-Inflicted	E958.5	Driver purposely ran into telephone pole.
Motor Vehicle Traffic -Occupant	Unintentional	E810-E819(.0, .1)	Car rear-ended at stop sign. Head on collision with another car. .0 indicates driver, .1 indicates passenger
Motor Vehicle Traffic -Unspecified	Unintentional	E810-E819(.8, .9)	Injury to someone involved in motor vehicle crash but unknown if occupant, or other, etc.
Overexertion	Unintentional	E927	Pulled muscle during sports. Twisted ankle walking down stairs. Injured back lifting heavy boxes.
Pedal Cycle: motor vehicle & non-motor vehicle-related	Unintentional	E810-E819(.6) E800-E807(.3) E820-E825(.6) E826.1 E826.9 E827-E829(.1)	Hit by a car while riding bike in the street. Fell off bike on mountain trail. Ran into a pedestrian on the sidewalk. Ran into a dog with tricycle.
Pedestrian: motor vehicle & non-motor vehicle-related	Unintentional	E810-E819(.7) E800-E807(.2) E820-E825(.7) E826-E829(.0)	Hit by car while walking across street. Collision with bicycle courier. Run over by three-wheeler.
Poisoning	Assault-Related	E962.0-E962.9	Was served drink intentionally laced with
	Self-Inflicted	E950.0-E952.9	Purposely breathed exhaust fumes from car. Intentional overdose of sleeping pills.
	Unintentional	E850.0-E869.9	Child drank cleanser from bottle under sink. Unknowingly ate poisonous mushroom.
Nature/Environment: (e.g., animal bites, insect stings, exposure to cold/heat, earthquake, etc.)	Unintentional	E905.0-E905.6 E905.9 E906.0-.5 E906.9	Bitten by any animal, including dog, cat, rat, or snake. Bitten or stung by an insect, including bee, wasp, spider, scorpion.
Struck by/against	Unintentional	E916-918	Struck by falling box. Crushed fingers in car door. Collided with another player during football game.
Suffocation/hanging	Assault-Related	E963	Person strangled.
	Self-Inflicted	E953.0-E953.9	Hanged self.
	Unintentional	E911-E913.9	Choked on piece of meat.

APPENDIX D

Selected Class of Agents¹ (drug/medication) for Poisoning/Overdose Cases

Class of Agent	Examples
Antibiotics	Penicillins, Chloramphenicol Group, Tetracycline Group, Cephalosporin Group, Antimycobacterial
Analgesics, Antipyretics, and Antirheumatics	Heroin, Methadone, Other Opiates and related Narcotics, Salicylates, Aromatic Analgesics-not elsewhere classified, Pyrazole Derivatives, Antirheumatics (antiphlogistics), Other Non-Narcotic Analgesics, Other and Unspecified Analgesics and Antipyretics
Sedatives and Hypnotics	Barbiturates, Chloral Hydrate Group, Paraldehyde, Bromine Compounds, Methaqualone Compounds, Glutethimide Group, Mixed Sedatives, Other and Unspecified Sedatives and Hypnotics
Other Central Nervous System Depressants and Anesthetics	Central Nervous System Muscle-Tone Depressants, Halothane, Other Gaseous Anesthetics, Intravenous Anesthetics, Other and Unspecified General Anesthetics, Peripheral Nerve- and Plexus-Blocking Anesthetics, Spinal Anesthetics, Other and Unspecified Local Anesthetics
Psychotropic Agents	Antidepressants, Phenothiazine-based Tranquilizers, Butyrophenone-based Tranquilizers, Other Antipsychotics, Neuroleptics, and Major Tranquilizers, Benzodiazepine-based Tranquilizers, Other Tranquilizers, Psychodysleptics (Hallucinogens), Psychostimulants, Other and Unspecified Psychotropic Agents
Central Nervous System Stimulants	Analeptics, Opiate Antagonists, Other Specified and Unspecified Central Nervous System Stimulants
Drugs Primarily Affecting the Autonomic Nervous System	Parasympathomimetics (Cholinergics), Parasympatholytics (Anticholinergics and Antimuscarinics) and Spasmolytics, Sympathomimetics (Adrenergics), Sympatholytics (Antiadrenergics), Unspecified Drug Primarily Affecting the Autonomic Nervous System
Agents primarily affecting the cardiovascular system	Cardiac Rhythm Regulators, Cardiotonic Glycosides, Antilipemic and Antiartherosclerotic Drugs, Ganglion-blocking agents, Coronary Vasodilators, Other Antihypertensive Agents
Hormones and Synthetic Substitutes	Adrenal Cortical Steroids, Androgens and Anabolic Congeners, Ovarian Hormones and Synthetic Substitutes, Insulins and Antidiabetic Agents, Anterior Pituitary Hormones, Posterior Pituitary Hormones, Parathyroid and Parathyroid Derivatives, Thyroid and Thyroid Derivatives, Antithyroid Agents, Other and Unspecified Hormones and Synthetic Substitutes

¹ Source: Generic ICD-9-CM, Hospital Version, 2007 (Channel Publishing Ltd.)