

Injury-related Hospital Stays among MA Residents

2017

Injuries¹ are a leading cause of death and hospitalization among Massachusetts residents. In fiscal year 2017, there were over 46,474 injury-related hospital stays, more than 3,800 per month. The leading injury mechanisms contributing to hospital stays were falls, poisoning/overdoses and motor vehicle traffic-related crashes.

Key Indicators	INJURY INTENT					Missing ³	Totals
	Unintentional	Self-Inflicted	Assault	Undetermined	Legal/Terrorism ²		
Total Counts by Intent[†]	39,061	3,029	1,254	280	16	2,834	46,474
Percent by Intent	84.0%	6.5%	2.7%	0.6%	0.0%	6.1%	100.0%
Rate per 100,000 population ⁴	564.7	43.8	18.1	4.0	0.2	41.0	671.9

Injury Mechanism	INJURY INTENT					Subtotal Counts	Percent of Total Count ⁵	Rate per 100,000 ⁴
	Unintentional	Self-Inflicted	Assault	Undetermined	Legal/Terrorism ²			
Cut/pierce	292	229	254	--	--	784	1.7%	11.3
Drowning/Submersion	16	--	--	13	--	30	0.1%	0.4
Fall	24,829	22	--	--	--	24,860	53.5%	359.4
Fire/burn	385	28	--	--	0	421	0.9%	6.1
<i>Fire/flare</i>	130	--	--	--	0	138	0.3%	2.0
<i>Burns/hot objects & substances</i>	255	24	--	--	--	283	0.6%	4.1
Firearm	95	--	194	--	--	307	0.7%	4.4
Machinery	165	--	--	--	--	165	0.4%	2.4
Natural/Environmental ^b	443	0	0	0	--	443	1.0%	6.4
<i>Bites and stings, nonvenomous</i>	219	--	--	--	--	219	0.5%	3.2
<i>Bites and stings, venomous</i>	51	0	0	0	--	51	0.1%	0.7
<i>Natural/environmental, other</i>	173	0	0	0	--	173	0.4%	2.5
Overexertion	451	--	--	--	--	451	1.0%	6.5
Poisoning	4,398	2,562	--	219	--	7,189	15.5%	103.9
<i>Drug poisoning</i>	4,018	2,473	--	--	--	6,703	14.4%	96.9
<i>Non-Drug poisoning</i>	380	89	--	16	--	486	1.0%	7.0
Struck by or against object	1,162	17	535	--	--	1,724	3.7%	24.9
Suffocation ⁷	91	15	--	--	--	106	0.2%	1.5
Transport Injuries:	4,221	--	--	--	--	4,231	9.1%	61.2
<i>Motor vehicle traffic-related</i>	3,229	--	--	--	--	3,237	7.0%	46.8
<i>MV Occupant⁸</i>	2,096	--	--	--	--	2,101	4.5%	30.4
<i>Motorcyclist</i>	462	--	--	--	--	462	1.0%	6.7
<i>Pedal cyclist</i>	196	--	--	--	--	196	0.4%	2.8
<i>Pedestrian</i>	475	--	--	--	--	477	1.0%	6.9
<i>Other person</i>	--	--	--	--	--	--	--	--
<i>Unspecified</i>	--	--	--	--	--	--	--	--
<i>Nontraffic-related</i>	754	--	--	--	--	754	1.6%	10.9
<i>MV-Motorcycle Occupant⁹</i>	290	--	--	--	--	290	0.6%	4.2
<i>Pedal cyclist</i>	294	--	--	--	--	294	0.6%	4.3
<i>Pedestrian</i>	170	--	--	--	--	170	0.4%	2.5
<i>Other land transport</i>	--	--	--	--	--	211	0.5%	3.1
<i>Other transport</i>	29	--	--	--	--	29	0.1%	0.4
Other-specified & classifiable	440	--	85	--	--	527	1.1%	7.6
<i>Child and adult abuse</i>	--	--	55	--	--	55	0.1%	0.8
<i>Foreign body</i>	299	--	--	--	--	299	0.6%	4.3
<i>Other specified & classifiable</i>	141	--	30	--	--	173	0.4%	2.5
Other specified, not classifiable	--	122	79	--	--	216	0.5%	3.1
Unspecified	2,073	16	88	--	--	2,178	4.7%	31.5

Data Sources: Massachusetts Inpatient Hospital Discharge and Outpatient Observation Stay Databases, Center for Health Information and Analysis (CHIA). Data are collected and reported by fiscal year (Oct. 1, 2016 - Sept. 30, 2017). "Hospital Stays" combine hospital discharges and observation stays. Due to the implementation of ICD-10-CM in October 2015, counts and rates presented here should not be compared to data that were based on ICD-9-CM codes. *Please note that injury intent counts and rates in FY2016 are lower than for FY2017. The MA Outpatient Observation Stays database did not include a designated external cause of injury code (E-code) field until FY2017 so a large percentage of injuries in the FY2016 file did not have a corresponding cause/intent code assigned.

General Notes: The injury case definition is based on the Council for State and Territorial Epidemiologists (CSTE) document: *Nonfatal Hospitalizations for All Injuries* and includes selected ICD-10-CM codes from the primary diagnosis field. Only visits for active treatment of injuries are included in the total. Injury mechanism and intent categories are based on the CDC's CDC's *The International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM) External Cause-of-Injury Framework for Categorizing Mechanism and Intent of Injury* and are categorized based on the first external cause code or diagnosis code providing mechanism and intent. The search order is principal E-code field, primary diagnosis field, then associated diagnosis fields. This search order may underestimate the number of injuries in some categories as some cases are assigned more than one ICD-10-CM injury code. Gray cells indicate that there are no ICD-10-CM codes assigned to the category. All injury subcategories are shown in italics. For example, poisoning includes two subcategories – drug and non-drug poisoning.

Footnotes: 1) Includes MA residents treated at a MA acute care hospital in FY2017 (Oct. 1, 2016 - Sept. 30, 2017); deaths and transfers to another acute care hospital are excluded. Counts represent the number of injury-related hospital stays rather than the number of individuals treated. Per data confidentiality guidelines, counts less than 11, and complementary cells that allow calculation of totals are suppressed (indicated by "--"). 2) Includes injuries resulting from police actions, terrorism and war. 3) Includes injuries with no external cause code provided. 4) Crude rates per 100,000 MA residents are based on 2017 population estimates (6,916,667) developed by the University of Massachusetts Donahue Institute (UMDI) in partnership with the Massachusetts Department of Public Health, Bureau of Environmental Health. 5) Totals may not sum to 100% due to rounding. 6) Natural/Environmental (N/E) injuries includes bites and stings from animals and insects, grouped into nonvenomous and venomous categories. The other N/E category includes injuries from forces of nature (e.g., flood, storm, cold weather), animal injuries other than bites, harmful algae and other plant toxins, etc. 7) Includes asphyxiation and hanging. 8) Includes motor vehicle drivers, passengers and unspecified persons. 9) Includes car/truck or motorcycle drivers and passengers, and unspecified persons injured in a crash that does not occur on a public roadway (e.g. driveway, parking lot, private road, etc.).