

Injury-related Emergency Dept. Visits among MA Children Ages 0-17

2021*

Injuries are a leading cause of emergency department (ED) visits among Massachusetts children. In federal fiscal year (FFY) 2021, there were 87,835 injury-related ED visits.¹ Injury-related ED visits increased 25% among self-inflicted injuries from 2020 to 2021, while assault-related ED visits decreased by 20%. The leading injury mechanisms contributing to ED visits were unintentional falls, struck-by or against an object, and transportation injuries.

Key Indicators	INJURY INTENT					Missing ³	Totals
	Unintentional	Self-Inflicted	Assault	Undetermined	Legal/Other ²		
Total Counts by Intent	83,426	1,649	1,453	228	12	1,067	87,835
Percent by Intent	95.0%	1.9%	1.7%	0.3%	<0.1%	1.2%	100.0%
Rate per 100,000 population ⁴	6,522.3	128.9	113.6	17.8	0.9	83.4	6,867.0

Injury Mechanism	INJURY INTENT					Subtotal Counts	Percent of Total Count ⁵	Rate per 100,000 ⁴
	Unintentional	Self-Inflicted	Assault	Undetermined	Legal/Other ²			
Cut/pierce	4,810	764	43	22	0	5,639	6.4%	440.9
Drowning/Submersion	48	0	0	12		60	0.1%	4.7
Fall	29,365	<11	<11	37		29,407	33.5%	2,299.1
Fire/burn	1,090	--	<11	13	0	1,116	1.3%	87.2
<i>Fire/flare</i>	91	<11	<11	<11	0	100	0.1%	7.8
<i>Burns/hot objects & substances</i>	999	<11	0	<11		1,016	1.2%	79.4
Firearm	17	0	<11	<11	<11	28	0.0%	2.2
Machinery	66					66	0.1%	5.2
Natural/Environmental ^{6,‡}	3,831-3,842	0	0	<11		3,831-3,842	--	--
<i>Bites and stings, nonvenomous</i>	3,208					3,208	3.7%	250.8
<i>Bites and stings, venomous</i> [‡]	239-250	0	0	<11	0	239-250	--	--
<i>Natural/environmental, other</i> [‡]	384	0	0	0	0	384	0.4%	30.0
Overexertion	5,711					5,711	6.5%	446.5
Poisoning	1,115	636	<11	--	0	1,803	2.1%	141.0
<i>Poisoning, Drug</i>	802	611	<11	--		1,452	1.7%	113.5
<i>Poisoning, Non-Drug</i>	313	25	<11	--	0	351	0.4%	27.4
Struck by or against object	14,946	<11	919	49	<11	15,929	18.1%	1,245.3
Suffocation ⁷	24	<11	<11	<11	0	31	0.0%	2.4
Transport Injuries:	6,767	<11	<11	<11		6,770	7.7%	529.3
<i>Motor vehicle -- Traffic (MVT)</i>	4,402	<11	0	<11		4,405	5.0%	344.4
<i>MVT - Occupant</i> ^{8,‡}	3,588-3,600	<11	<11			3,588-3,600	--	--
<i>MVT - Motorcyclist</i>	244					244	0.3%	19.1
<i>MVT - Pedal cyclist</i>	382					382	0.4%	29.9
<i>MVT - Pedestrian</i>	183		0			183	0.2%	14.3
<i>MVT - Other person-type</i>	<11	<11				<11	--	--
<i>MVT - Undetermined intent</i>				0		0	0.0%	0.0
<i>Motor vehicle -- Nontraffic</i> ⁹	386					386	0.4%	30.2
<i>Pedal cyclist, other</i>	1,577					1,577	1.8%	123.3
<i>Pedestrian, other</i>	74					74	0.1%	5.8
<i>Other land transport</i>	290	0	0			290	0.3%	22.7
<i>Other transport</i>	38	0	0		0	38	0.0%	3.0
Other-specified & classifiable	2,985	<11	404	<11	<11	3,395	3.9%	265.4
<i>Child and adult abuse</i>			245			245	0.3%	19.2
<i>Foreign bodies</i>	835					835	1.0%	65.3
<i>Other specified & classifiable</i>	2,150	<11	159	<11	<11	2,315	2.6%	181.0
Other specified, not classifiable		190	40	39	0	269	0.3%	21.0
Unspecified	12,646	25	36	0	0	12,707	14.5%	993.4

Data Source: Massachusetts Outpatient Emergency Department Discharge Database, Center for Health Information and Analysis (CHIA). Data are collected and reported by Federal Fiscal Year (Oct. 1, 2020- Sept. 30, 2021). Due to the implementation of the International Classification of Diseases, Version 10, Clinical Modification (ICD-10-CM) in October 2015, counts and rates presented here should not be compared to prior data that were based on ICD-9-CM codes. ***Please note** that CHIA revised and re-released the FFY2021 files, and that numbers presented here may differ from later reports. Refer to page 2 for general notes, references, and footnotes.

(Continued)

General Notes:

- The injury case definition is based on the Council of State and Territorial Epidemiologists (CSTE) document: *Nonfatal Emergency Department Visits for All Injuries* and includes selected ICD-10-CM codes from diagnosis and external cause code (E-Code) fields. Only visits for active treatment of injuries are included.
 - Injury mechanism and intent categories are based on the Center for Disease Control and Prevention's (CDC) *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 injury mechanism and intent. The search order for our analysis 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 patients 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. Subcategories within transportation are also suppressed, with the exception of unintentional injuries, to ensure patient confidentiality.
 - All injury subcategories are shown in italics. For example, poisoning includes two subcategories – drug poisoning and non-drug poisoning.
 - Per data confidentiality guidelines, counts less than 11 (including sometimes 0 if necessary) are suppressed and complementary cells that allow calculation of totals are suppressed (indicated by "--").
- ‡ For certain categories, providing an exact count would allow calculation of other suppressed cells. A range is provided to show the approximate size for this category, but without allowing the calculation of suppressed cells.

References:

Council of State and Territorial Epidemiologists (CSTE). *Nonfatal Emergency Department Visits for All Injuries*. Refer to the CSTE's on-line ICD-10-CM Injury Surveillance Toolkit.

National Health Statistics Report. *The International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM): External Cause-of-injury Framework for Categorizing Mechanism and Intent of Injury*; #136, 12/30/2019.

Footnotes:

- 1) Includes MA residents under the age of 18 treated at a MA acute care hospital emergency department in FFY2021 (Oct. 1, 2020 - Sept. 30, 2021); deaths occurring prior to or during the ED visit are excluded. Counts represent the number of injury-related emergency department visits rather than the number of individuals treated.
- 2) Includes injuries resulting from police actions and war.
- 3) Includes injuries with no external cause code.
- 4) Crude rates per 100,000 MA residents are based on 2020 population estimates for under 18 years (1,279,086) 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. The other N/E category includes injuries from forces of nature (e.g., flood, storm, cold weather), animal injuries other than bites, etc.
- 7) Includes asphyxiation and hanging.
- 8) Includes motor vehicle drivers, passengers, and unspecified persons.
- 9) Includes motor vehicle drivers, passengers, and unspecified persons, injured in a crash that does not occur on a public roadway (e.g. driveway, parking lot, private road, etc.).