

Injury-related Hospital Stays among MA Children Ages 0-17

2019

Injuries are a leading cause of hospitalization among Massachusetts children. In fiscal year 2019, there were 2,732 injury-related hospital stays, nearly 228 per month.¹ The leading injury mechanisms contributing to hospital stays were unintentional falls, poisoning/overdoses and motor vehicle traffic-related crashes.

Key Indicators	INJURY INTENT					Missing ³	Totals
	Unintentional	Self-Inflicted	Assault	Undetermined	Legal/Other ²		
Total Counts by Intent	2,095	329	94	23	0	191	2,732
Percent by Intent	76.7%	12.0%	3.4%	0.8%	0.0%	7.0%	100.0%
Rate per 100,000 population ⁴	151.5	23.8	6.8	1.7	0.0	13.8	197.6

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	--	21	18	<11	0	68	2.5%	4.9
Drowning/submersion	--	0	0	<11		19	0.7%	1.4
Fall	853	<11	0	<11		856	31.3%	61.9
Fire/burn	64	<11	0	<11	0	68	2.5%	4.9
<i>Fire/flare</i>	14	0	0	0		14	0.5%	1.0
<i>Burns/hot objects & substances</i>	50	<11	0	<11		54	2.0%	3.9
Firearm	--	0	<11	0	0	22	0.8%	1.6
Machinery	<11					<11	--	--
Natural/environmental ⁶	32	0		0		32	1.2%	2.3
<i>Bites and stings, nonvenomous</i>	23					23	0.8%	1.7
<i>Bites and stings, venomous</i>	<11					<11	--	--
<i>Natural/environmental, other</i>	<11	0		0		<11	--	--
Overexertion	28					28	1.0%	2.0
Poisoning/overdose	255	273	<11	--	0	540	19.8%	39.1
<i>Drug poisoning[‡]</i>	227	257-283	0	<11		502	18.4%	36.3
<i>Non-drug poisoning</i>	28	<11	0	<11	0	38	1.4%	2.7
Struck by or against object	138	<11	--	0	0	162	5.9%	11.7
Suffocation ⁷	--	<11	0	0	0	19	0.7%	1.4
Transport Injuries: [‡]	288-308	<11	0	<11	0	288-308	--	--
<i>Motor vehicle -- Traffic (MVT)[‡]</i>	168-188	<11	0	<11		168-188	--	--
<i>MVT - Occupant⁸</i>	88	0	0			88	3.2%	6.4
<i>MVT - Motorcyclist</i>	--					--	--	--
<i>MVT - Pedal cyclist</i>	30					30	1.1%	2.2
<i>MVT - Pedestrian</i>	45		0	0		45	1.6%	3.3
<i>MVT - Other person-type</i>	<11	<11				<11	--	--
<i>MVT - Undetermined intent</i>				<11		<11	--	--
<i>Motor vehicle -- Nontraffic⁹</i>	31					31	1.1%	2.2
<i>Pedal cyclist, other</i>	58					58	2.1%	4.2
<i>Pedestrian, other</i>	12					12	0.4%	0.9
<i>Other land transport</i>	18	0	0			18	0.7%	1.3
<i>Other transport</i>	0	0	0		0	0	0.0%	0.0
Other specified & classifiable	81	<11	38	<11	0	121	4.4%	8.8
<i>Child and adult abuse</i>			22			22	0.8%	1.6
<i>Foreign body</i>	61					61	2.2%	4.4
<i>Other specified & classifiable</i>	20	<11	16	<11	0	38	1.4%	2.7
Other specified, not classifiable		17	<11	<11	0	22	0.8%	1.6
Unspecified	275	<11	<11	0	0	283	10.4%	20.5

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, 2018 - Sept. 30, 2019). "Hospital Stays" combine hospital discharges and observation stays. 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. 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 Hospitalizations 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.
 - 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 Hospitalizations 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 in FY2019 (Oct. 1, 2018 - Sept. 30, 2019); deaths occurring during the hospital stay are excluded. Counts represent the number of injury-related hospital stays 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 2019 child population (under 18 years) estimates (1,382,582) 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.).