

# Hospitalizations for work-related injuries among 18- to 24-year-olds

Massachusetts  
2007 - 2011

**Table 1. Summary of All Hospitalizations**

N = Number of Hospitalizations

% = Percent of Hospitalizations

		All Hospitalizations		
		N	%	Hospitalizations per 10,000 FTEs
<b>Total</b>		<b>397</b>	<b>100.0</b>	<b>2.9</b>
<b>Age</b>	<b>18</b>	21	5.3	2.1
	<b>19</b>	43	10.8	3.9
	<b>20</b>	41	10.3	2.5
	<b>21</b>	64	16.1	3.5
	<b>22</b>	63	15.9	2.8
	<b>23</b>	84	21.2	3.0
	<b>24</b>	81	20.4	2.7
<b>Gender</b>	<b>Male</b>	336	84.6	4.6
	<b>Female</b>	61	15.4	1.0
<b>Race &amp; Ethnicity</b>	<b>White, non-Hispanic</b>	262	66.0	2.4
	<b>Hispanic</b>	68	17.1	4.8
	<b>Black, non-Hispanic</b>	29	7.3	3.5
	<b>Other</b>	23	5.8	3.7
<b>Year of Hospitalization</b>	<b>2007</b>	107	27.0	3.7
	<b>2008</b>	92	23.2	3.2
	<b>2009</b>	74	18.6	2.6
	<b>2010</b>	66	16.6	2.7
	<b>2011</b>	58	14.6	2.2

(continued on next page)

Source: Hospital Discharge Data, for 1 Jan 2007 through 31 Dec 2011, Massachusetts Center for Health Information and Analysis. Counts not shown and rates not calculated for cells with less than 11 cases based on the CHIA rules pertaining to confidentiality. Rates based on counts less than 20 may be unstable.

Numbers may not add to total due to missing information.

A hospitalization for an injury is defined as any case having an ICD-9-CM Nature of Injury Code of 800-999 in the primary diagnosis field.

Attribution of work-relatedness is based on designation of Workers' Compensation Insurance as expected payer.

Injuries per 10,000 FTE calculated as number of injury / FTE\*10,000; FTEs=total hours per year / 2000.

Total hours worked for Massachusetts residents obtained from Current Population Survey, Bureau of Labor Statistics, Jan 2007 through Dec 2011.

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**Table 1. Summary of All Hospitalizations**

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		All Hospitalizations		
		N	%	Hospitalizations per 10,000 FTEs
Nature of Injury	Fractures	176	44.3	1.3
	Open wounds	45	11.3	0.3
	Internal organ	34	8.6	0.3
	Burns	28	7.1	0.2
	Crushing	19	4.8	0.1
	Amputations	11	2.8	0.1
	Other <sup>a</sup>	53	13.4	0.4
	Unspecified & Missing	31	7.8	0.2
External Cause of Injury	Falls	110	27.7	0.8
	Machinery	50	12.6	0.4
	Struck by/against	41	10.3	0.3
	Cut/pierce	36	9.1	0.3
	Motor vehicle traffic	31	7.8	0.2
	Fire/burn	23	5.8	0.2
	Other transportation	17	4.3	0.1
	Other <sup>b</sup>	50	12.6	0.5
Unspecified & Missing	39	9.8	0.3	

(a) Other includes sprains, superficial/contusions, dislocations, blood vessels, nerve injuries, and system wide and late effects.

(b) Other includes other specified, firearm, poisonings, natural/environmental, overexertion, and not elsewhere classified.

Nature of Injury and Body Region groupings are based on Barell Injury Matrix, Barell et al., *Inj Prev*, 2002 Jun;8(2):91-96

External Cause of Injury groupings are based on 'ICD-9 Framework for Presenting Injury Mortality Data,' MMWR Recommendations and Reports, August 29, 1997, Volume 46/NORR-14.

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**Table 2. Nature of Injury by Gender and Race & Ethnicity**

N = Number of Hospitalizations  
% = Percent of Hospitalizations

		Gender				Race & Ethnicity							
		Males		Females		White, non-Hispanic		Hispanic		Black, non-Hispanic		Other	
		N	%	N	%	N	%	N	%	N	%	N	%
<b>Total</b>		<b>336</b>	<b>100</b>	<b>61</b>	<b>100</b>	<b>262</b>	<b>100</b>	<b>68</b>	<b>100</b>	<b>29</b>	<b>100</b>	<b>23</b>	<b>100</b>
<b>Nature of Injury</b>	<b>Fractures</b>	151	44.9	25	41.0	126	48.1	30	44.1	b		b	
	<b>Internal organ</b>	31	9.2	b		22	8.4	b		b		b	
	<b>Open wounds</b>	36	10.7	b		24	9.2	b		b		b	
	<b>Crushing</b>	16	4.8	b		14	5.3	b		b		b	
	<b>Burns</b>	21	6.3	b		18	6.9	b		b		b	
	<b>Other<sup>a</sup></b>	55	16.4	b		24	9.2	b		11	37.9	b	
	<b>Unspecified &amp; Missing</b>	26	7.7	b		22	6.5	b		b		b	

Source: Hospital Discharge Data, for 1 Jan 2007 through 31 Dec 2011, Massachusetts Center for Health Information and Analysis

a) Other includes sprains, superficial/contusions, dislocations, blood vessels, nerve injuries, amputations, and system wide and late effects.

b) Counts not shown for cells with less than 11 cases based on the CHIA rules pertaining to confidentiality.

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Nature of Injury and Body Region groupings are based on Barel Injury Matrix, Barel et al., *Inj Prev*, 2002 Jun;8(2):91-96.

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**Table 3. Nature of Injury by Age**

N = Number of Hospitalizations  
% = Percent of Hospitalizations

		Age													
		18		19		20		21		22		23		24	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
<b>Total</b>		<b>21</b>	<b>100</b>	<b>43</b>	<b>100</b>	<b>41</b>	<b>100</b>	<b>64</b>	<b>100</b>	<b>63</b>	<b>100</b>	<b>84</b>	<b>100</b>	<b>81</b>	<b>100</b>
<b>Nature of Injury</b>	<b>Fractures</b>	b		21	48.8	16	39.0	26	40.6	28	45.2	38	45.2	40	49.4
	<b>Internal organ</b>	b		b		b		b		b		12	14.3	b	
	<b>Open wounds</b>	b		b		b		11	17.2	b		b		b	
	<b>Other<sup>a</sup></b>	b		12	27.9	12	29.3	17	26.6	17	27.0	20	23.8	27	33.3
	<b>Unspecified &amp; Missing</b>	b		b		b		b		b		b		b	

Source: Hospital Discharge Data, for 1 Jan 2007 through 31 Dec 2011, Massachusetts Center for Health Information and Analysis.

a) Other includes sprains, amputations, burns, crushings, superficial/contusions, dislocations, blood vessels, nerve injuries, and system wide and late effects.

b) Counts not shown for cells with less than 11 cases based on the CHIA rules pertaining to confidentiality.

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Nature of Injury and Body Region groupings are based on Barel Injury Matrix, Barel et al., *Inj Prev*, 2002 Jun;8(2):91-96.

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**Table 4. Nature of Injury by Body Region**

N = Number of Hospitalizations  
% = Percent of Hospitalizations

		Hospitalizations	
		N	%
<b>Total</b>		<b>397</b>	<b>100</b>
<b>Nature of Injury by Body Region</b>	<b>Fractures</b>	<b>176</b>	<b>44.3</b>
	Extremities	122	69.3
	Head & neck	22	12.5
	Spine & back	20	11.4
	Torso	12	6.8
	<b>Open wounds</b>	<b>45</b>	<b>11.3</b>
	Extremities	37	82.2
	<b>Internal Organ</b>	<b>34</b>	<b>8.6</b>
	Torso	18	52.9
	Head & neck	16	47.0
	<b>Burns</b>	<b>28</b>	<b>7.1</b>
	Extremities	20	71.4
	<b>Crushing</b>	<b>19</b>	<b>4.8</b>
	Extremities	17	89.5
	<b>Amputations</b>	<b>11</b>	<b>2.8</b>
	Extremities	11	100
	<b>Other</b>	<b>53</b>	<b>13.4</b>
	Extremities	20	37.8
<b>Unspecified &amp; Missing</b>	<b>31</b>	<b>7.8</b>	

Source: Hospital Discharge Data, for 1 Jan 2007 through 31 Dec 2011, Massachusetts Center for Health Information and Analysis.

a) Other includes sprains, superficial/contusions, dislocations, blood vessels, nerve injuries, and system wide and late effects.

Counts not shown for cells with less than 11 cases based on the CHIA rules pertaining to confidentiality.

Numbers may not add to total due to missing information.

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Attribution of work-relatedness is based on designation of Workers' Compensation Insurance as expected payer.

Nature of Injury and Body Region groupings are based on Barell Injury Matrix, Barell et al., Inj Prev, 2002 Jun;8(2):91-96

# Hospitalizations for work-related injuries among 18- to 24-year-olds

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**Table 5: External Cause of Injury**

N = Number of Hospitalizations  
% = Percent of Hospitalizations

		Hospitalizations	
		N	%
<b>Total</b>		<b>397</b>	<b>100</b>
<b>External Cause of Injury</b>	<b>Falls</b>	<b>110</b>	<b>27.7</b>
	Fall to lower level	29	26.4
	Fall from ladder	23	20.9
	Fall from building	14	12.7
	Fall to same level	24	21.8
	Other falls	17	15.5
	<b>Machinery</b>	<b>50</b>	<b>12.6</b>
	<b>Motor vehicle traffic</b>	<b>31</b>	<b>7.8</b>
	Driver/passenger motor vehicle	16	51.6
	<b>Struck by/against</b>	<b>41</b>	<b>10.3</b>
	<b>Cut/pierce</b>	<b>36</b>	<b>9.1</b>
	<b>Fire/burn</b>	<b>23</b>	<b>5.8</b>
	Burn	18	78.3
	<b>Other transportation</b>	<b>17</b>	<b>4.3</b>
	<b>Other<sup>a</sup></b>	<b>50</b>	<b>12.6</b>
<b>Unspecified &amp; Missing</b>	<b>39</b>	<b>9.8</b>	

Source: Hospital Discharge Data, for 1 Jan 2007 through 31 Dec 2011, Massachusetts Center for Health Information and Analysis. Counts not shown for cells with less than 11 cases based on the CHIA rules pertaining to confidentiality.

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(a) Other includes other specified, firearm, poisonings, natural/environmental, overexertion, and not elsewhere classified.

External Cause of Injury groupings are based on 'ICD-9 Framework for Presenting Injury Mortality Data,' MMWR Recommendations and Reports, August 29, 1997, Volume 46/NORR-14.

# Hospitalizations for work-related injuries among 18- to 24-year-olds

**Table 6. Hospitalizations Distributed by Month**

N = Number of Hospitalizations

% = Percent of Hospitalizations

		Hospitalizations	
		N	%
Month of Injury	January	34	8.6
	February	33	8.3
	March	32	8.1
	April	26	6.5
	May	31	7.8
	June	35	8.8
	July	41	10.3
	August	35	8.8
	September	34	8.6
	October	35	8.8
	November	27	6.8
	December	34	8.6

Source: Hospital Discharge Data, for 1 Jan 2007 through 31 Dec 2011, Massachusetts Center for Health Information and Analysis.

Counts not shown for cells with less than 11 cases based on the CHIA rules pertaining to confidentiality.

A hospitalization for an injury is defined as any case having an ICD-9-CM Nature of Injury Code of 800-999 in the primary diagnosis field.

Attribution of work-relatedness is based on designation of Workers' Compensation Insurance as expected payer.