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National Trauma Data Bank 2014

Pediatric Report

NTDB PEDIATRIC REPORT 2014

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EDITOR'S NOTE

The Pediatric Report of the National Trauma Data Bank (NTDB) is an updated analysis of the largest aggregation of U.S./Canadian trauma registry data ever assembled. In total, the NTDB now contains more than 6 million records. The 2014 Pediatric Report is based on 141,067 2013 admission year records from 756 facilities.

In the interest of capturing a better picture of deaths in the NTDB, any patients who have been recorded as “Discharged to Hospice” have now been counted as deaths.

The mission of the American College of Surgeons Committee on Trauma (ACS COT) is to develop and implement meaningful programs for trauma care. In keeping with this mission, the NTDB is committed to being the principal national repository for trauma center registry data. The purpose of this report is to inform the medical community, the public, and decision makers about a wide variety of issues that characterize the current state of care for injured persons. It has implications in many areas, including epidemiology, injury control, research, education, acute care, and resource allocation.

The NTDB Committee would like to thank all of the trauma centers that contributed data and hopes that this report will attract new participants. The National Trauma Data Bank Pediatric Report is available on the ACS website as a PowerPoint PDF at www.ntdb.org. In addition, information is available on our website about how to obtain NTDB data for more detailed study.

Many dedicated individuals on the ACS COT, as well as at trauma centers, have contributed to the early development of the NTDB and its rapid growth in recent years. Building on these achievements, our goals in the coming years include improving data quality, updating analytic methods, and enabling more useful inter-hospital comparisons. These efforts will be reflected in future NTDB reports to participating hospitals as well as in the Pediatric Reports.



EDITOR'S NOTE, CONT'D

To cite figures used from the NTDB Pediatric Report, please specify the title of the report, the year, and the name of the figure in the following format:

Name of Figure, Committee on Trauma, American College of Surgeons. NTDB Annual/Pediatric Report 20XX. Chicago, IL. The content reproduced from the NTDB remains the full and exclusive copyrighted property of the American College of Surgeons. The American College of Surgeons is not responsible for any claims arising from works based on the original data, text, tables, or figures.



FACILITY INFORMATION



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Table
1

Pediatric-Only Facilities by Trauma Level

LEVEL	NUMBER	PERCENT
I	26	81.25
II	6	18.75
Total	32	100



Figure 1

Pediatric-Only Facilities by Trauma Level

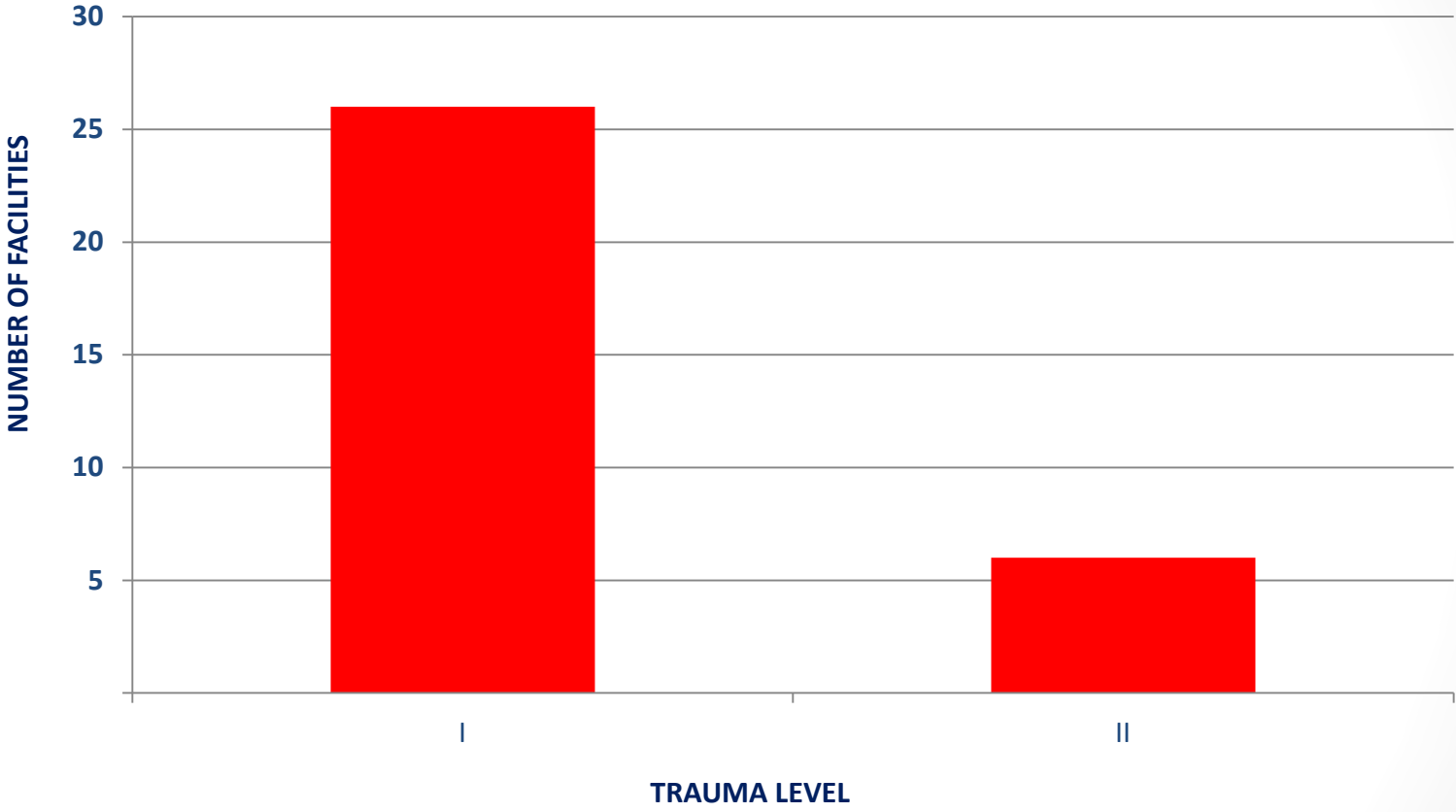


Table
2

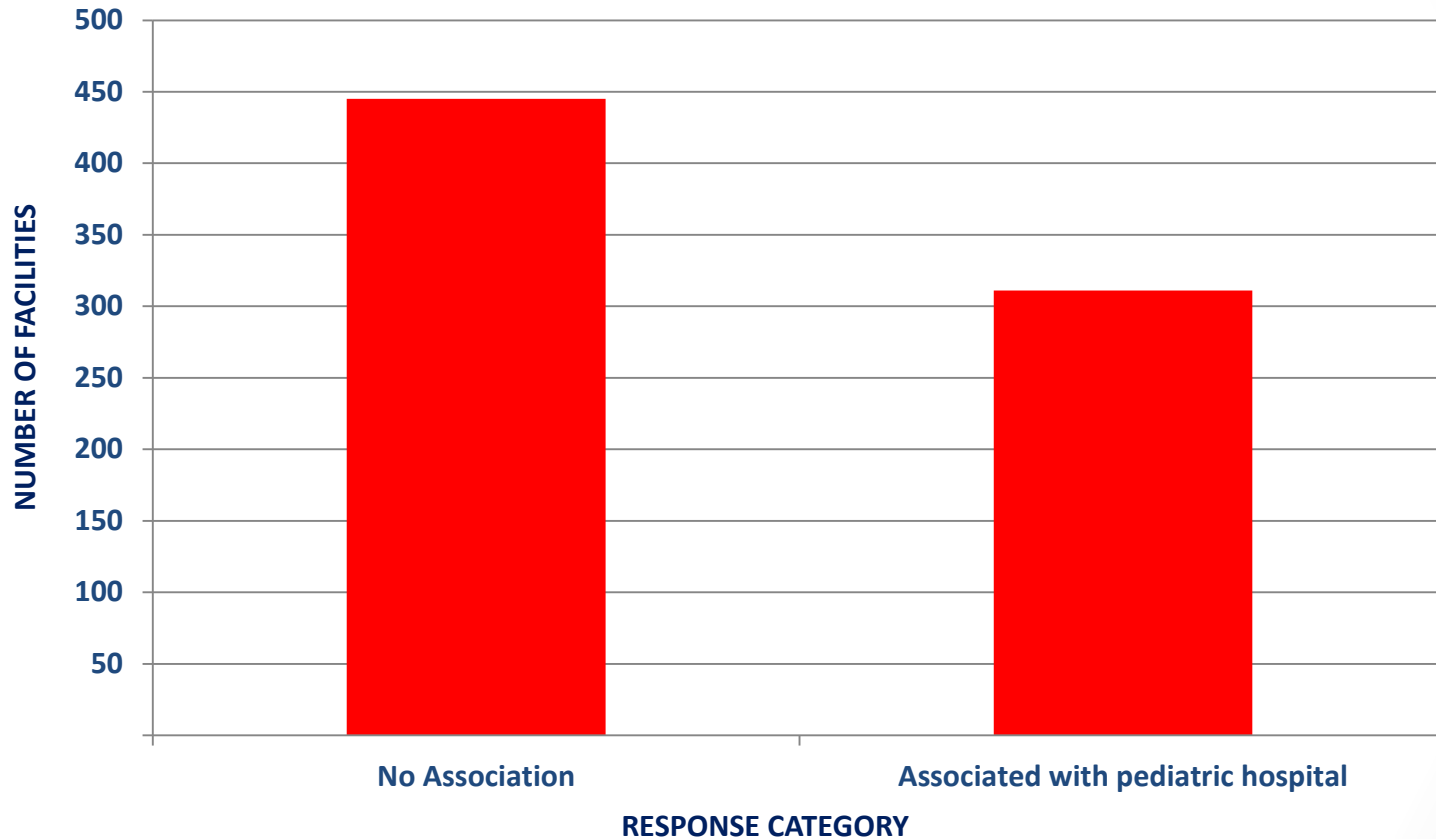
Facilities by Pediatric Hospital Association

PEDIATRIC ASSOCIATION	NUMBER	PERCENT
No association	445	58.86
Associated with pediatric hospital	311	41.14
Total	756	100

This report table excludes two facilities with no pediatric patients (patients aged <20).

Figure 2

Facilities by Pediatric Hospital Association



This figure excludes two facilities with no pediatric patients (patients aged <20).



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Table
3

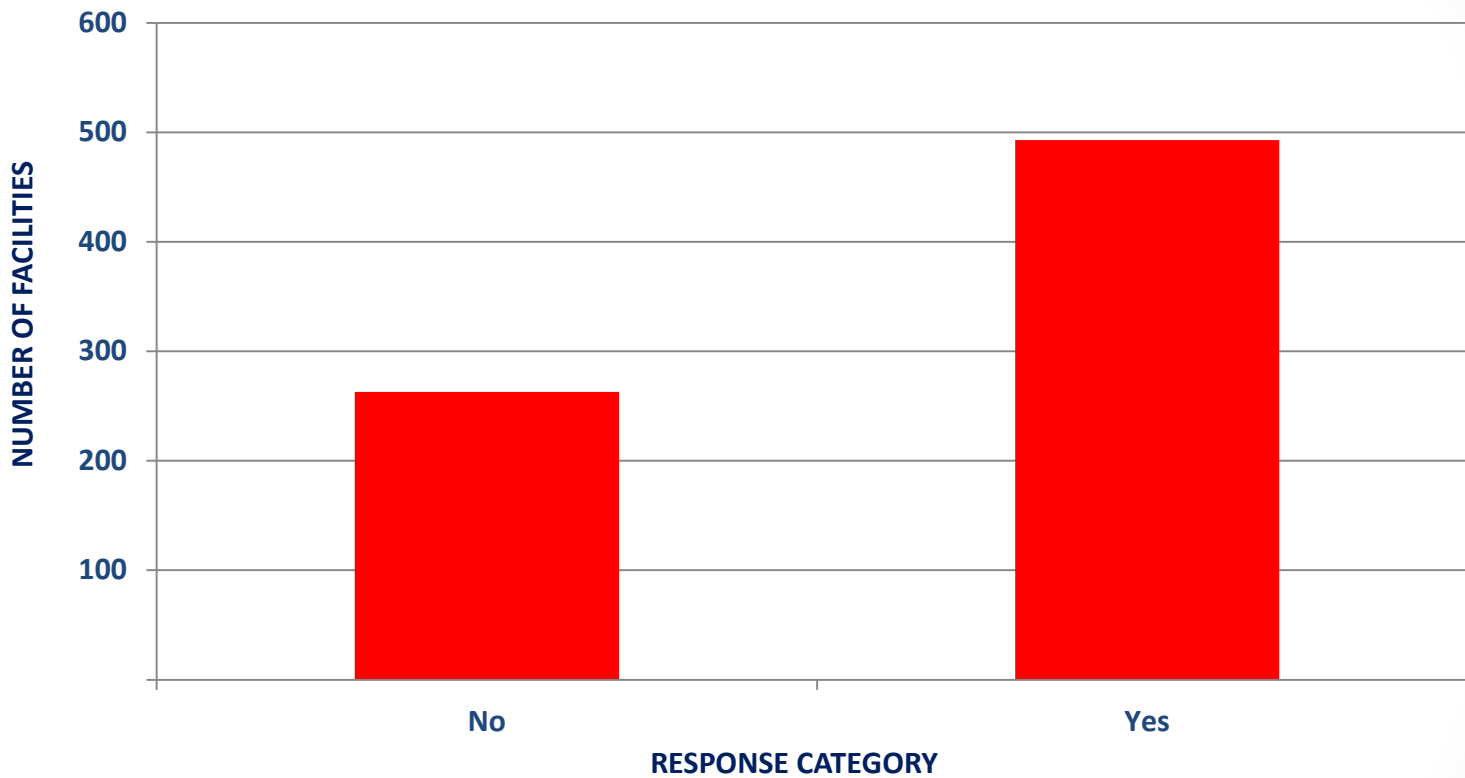
Facilities by Presence of Pediatric Ward

PEDIATRIC WARD	NUMBER	PERCENT
No	263	34.79
Yes	493	65.21
Total	756	100

This report table excludes two facilities with no pediatric patients (patients aged <20).

Figure 3

Facilities by Presence of Pediatric Ward



This figure excludes two facilities with no pediatric patients (patients aged <20).



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Table
4

Facilities by Presence of Pediatric ICU

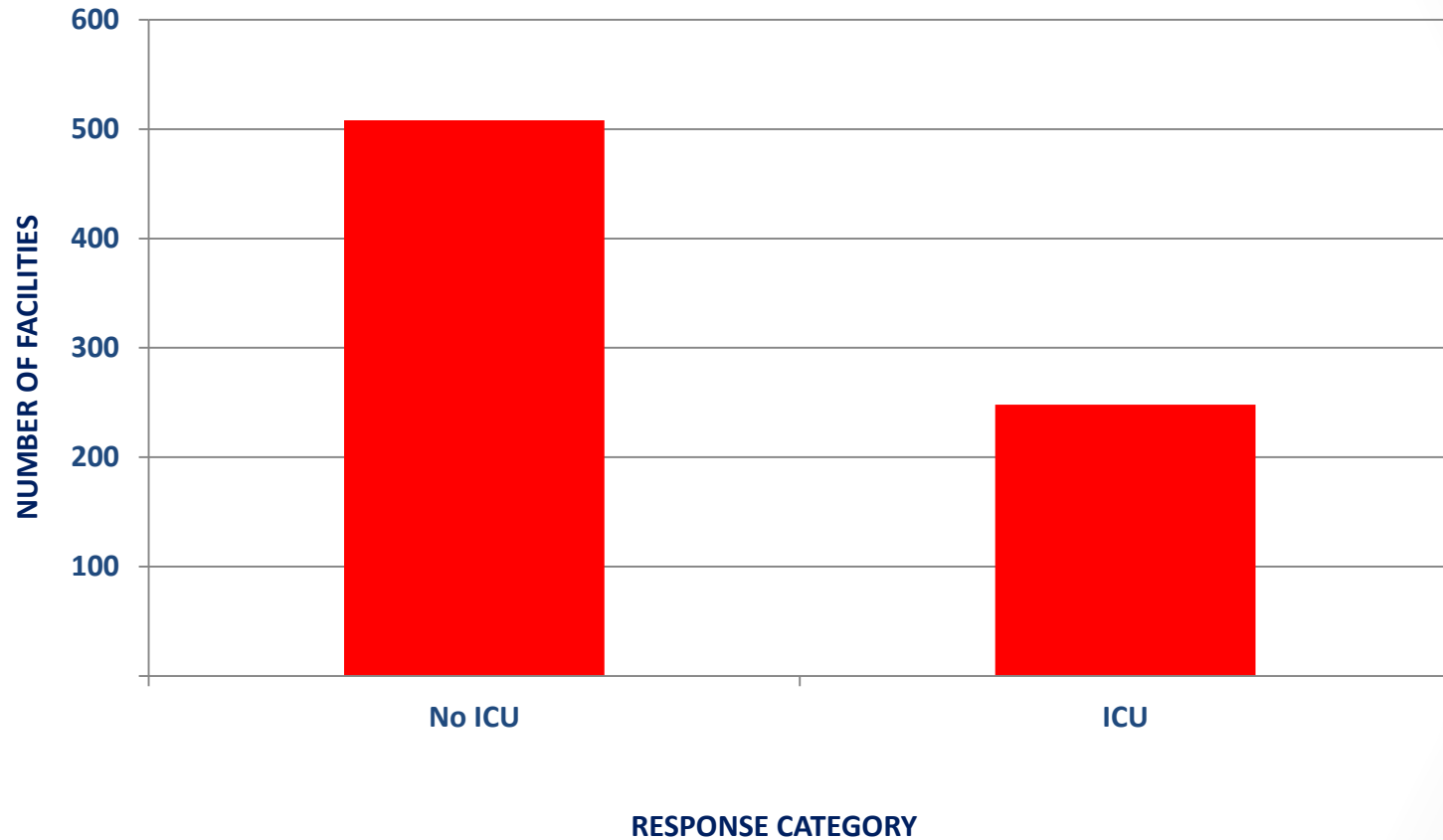
PEDIATRIC ICU	NUMBER	PERCENT
No ICU	508	67.20
ICU	248	32.80
Total	756	100



This report table excludes two facilities with no pediatric patients (patients aged <20).

Figure 4

Facilities by Presence of Pediatric ICU



This figure excludes two facilities with no pediatric patients (patients aged <20).



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Table
5

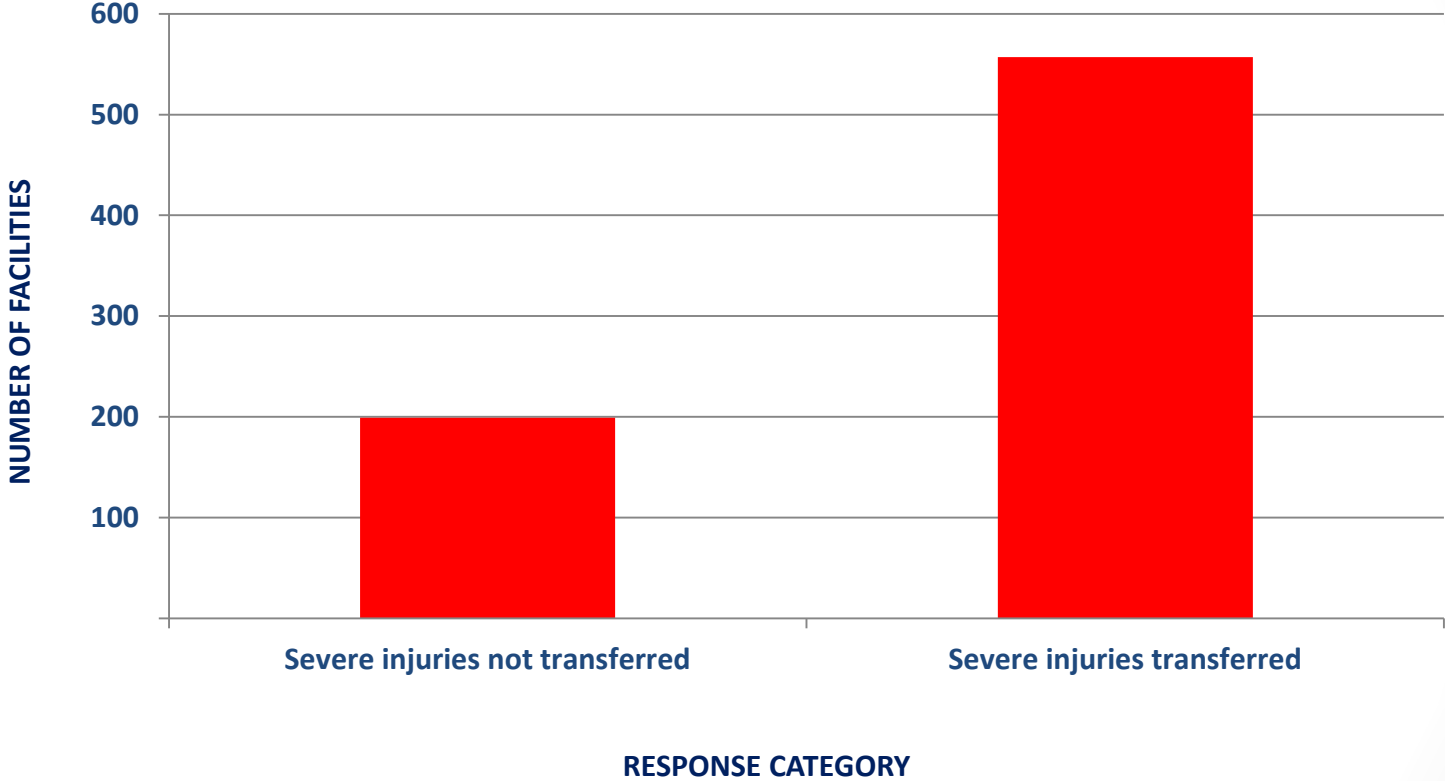
Facilities by Pediatric Transfer Status

PEDIATRIC TRANSFER	NUMBER	PERCENT
Severe injuries not transferred	199	26.32
Severe injuries transferred	557	73.68
Total	756	100

This report table excludes two facilities with no pediatric patients (patients aged <20).

Figure 5

Facilities by Pediatric Transfer Status



This figure excludes two facilities with no pediatric patients (patients aged <20).



Table
6

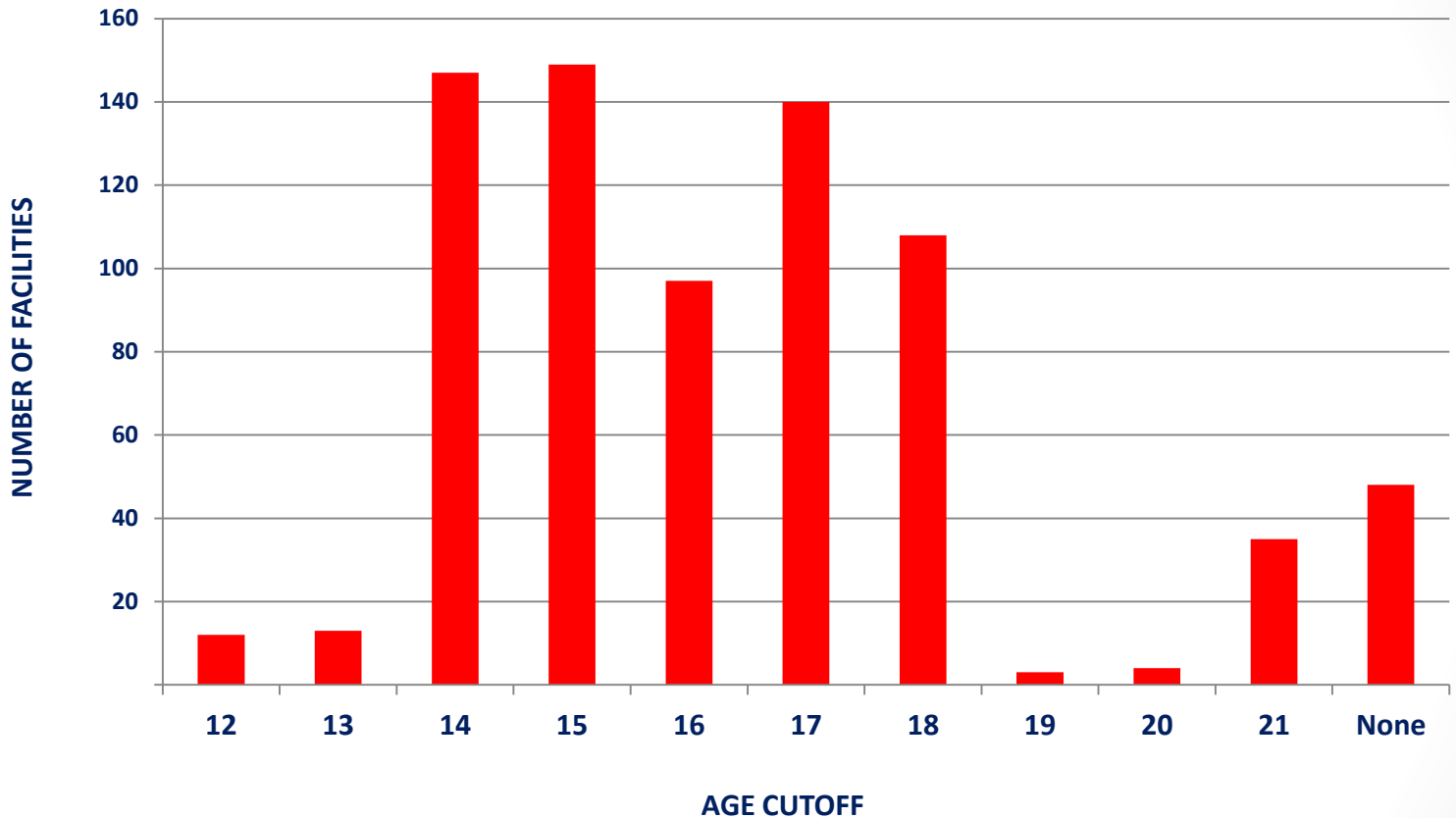
Facilities by Pediatric Age Cutoff

AGE	NUMBER	PERCENT
12	12	1.59
13	13	1.72
14	147	19.44
15	149	19.71
16	97	12.83
17	140	18.52
18	108	14.29
19	3	0.40
20	4	0.53
21	35	4.63
None	48	6.35
Total	756	100

This report table excludes two facilities with no pediatric patients (patients aged <20).

Figure 6

Facilities by Pediatric Age Cutoff



This figure excludes two facilities with no pediatric patients (patients aged <20).



DEMOGRAPHIC INFORMATION



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Table
7

Incidents and Case Fatality Rate by Age

AGE	NUMBER	PERCENT	DEATHS	CASE FATALITY RATE
<1 year	9,191	6.52	237	2.58
1	6,820	4.83	164	2.40
2	6,506	4.61	118	1.81
3	5,972	4.23	111	1.86
4	5,853	4.15	103	1.76
5	6,449	4.57	73	1.13
6	6,094	4.32	75	1.23
7	5,395	3.82	71	1.32
8	4,768	3.38	66	1.38
9	4,496	3.19	61	1.36
10	4,439	3.15	66	1.49
11	4,697	3.33	70	1.49
12	5,298	3.76	99	1.87
13	6,138	4.35	103	1.68
14	7,032	4.98	120	1.71
15	7,619	5.40	175	2.30
16	9,199	6.52	242	2.63
17	10,329	7.32	344	3.33
18	11,791	8.36	427	3.62
19	12,981	9.20	463	3.57
Total	141,067	100	3,188	2.26



Figure 7A

Incidents by Age

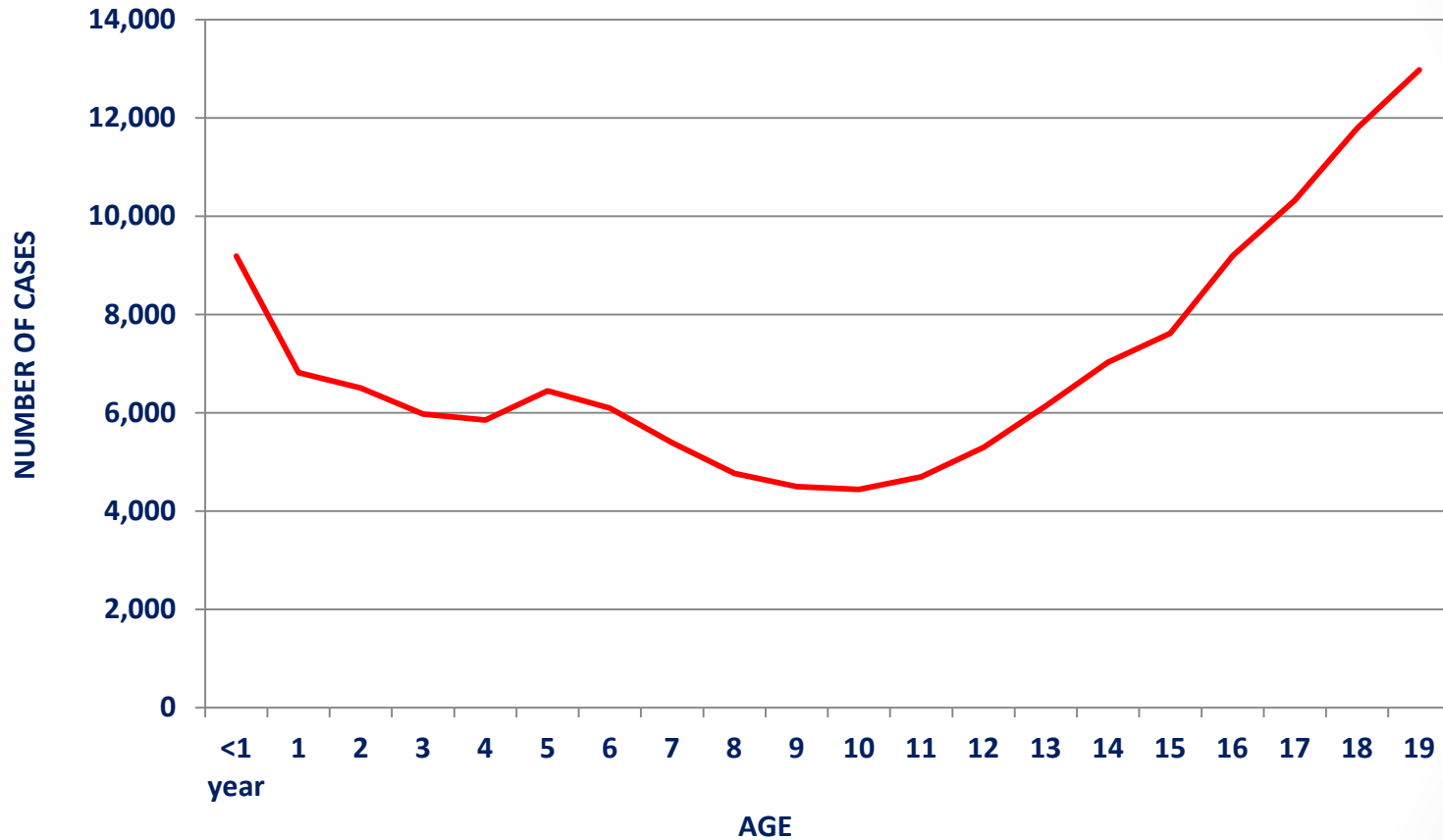


Figure 7B

Case Fatality Rate by Age

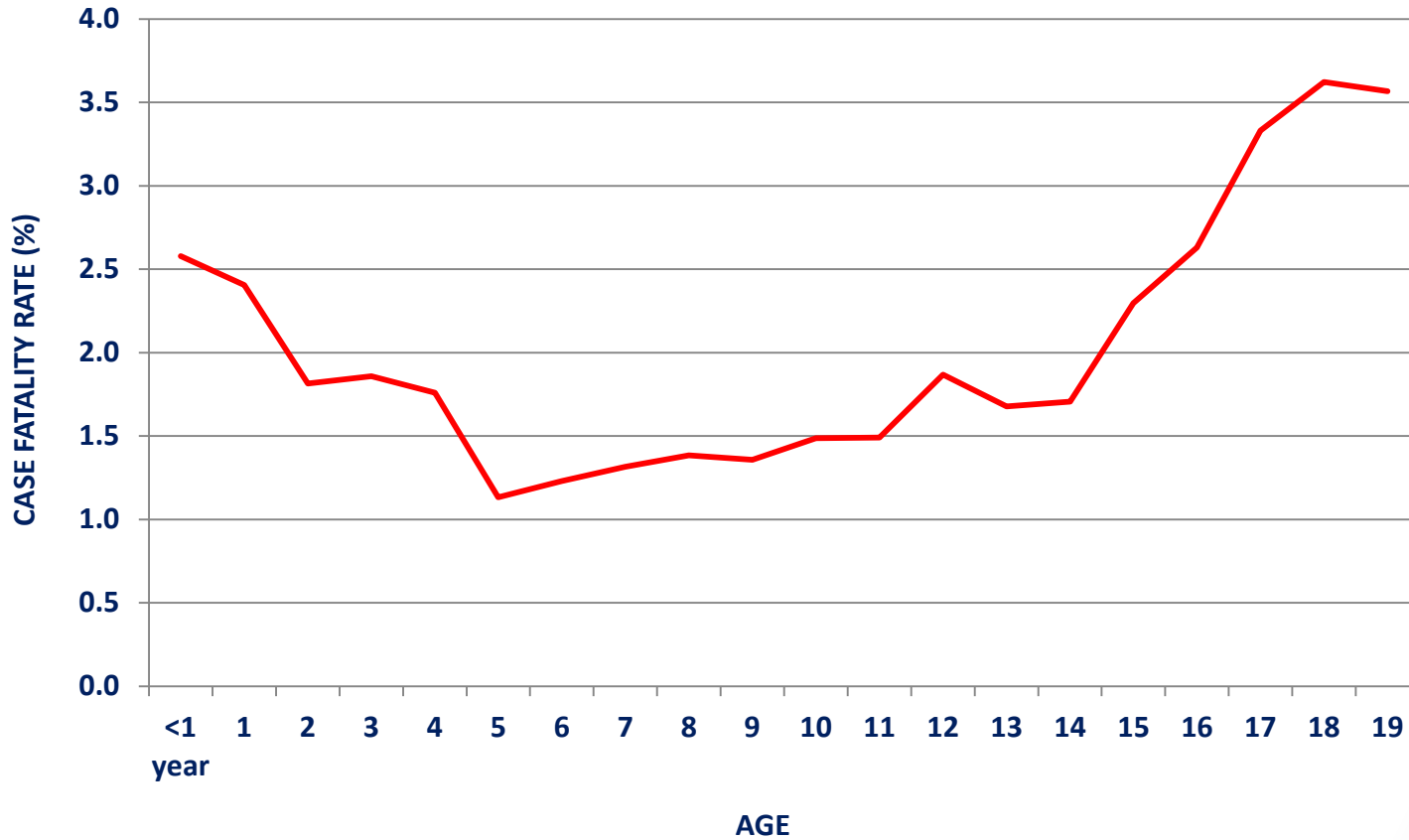


Table
8

Incidents and Case Fatality Rate by Age and Gender

AGE	NUMBER (FEMALE)	NUMBER (MALE)	DEATHS (FEMALE)	DEATHS (MALE)	CASE FATALITY RATE (FEMALE)	CASE FATALITY RATE (MALE)
<1 year	3,943	5,238	93	144	2.36	2.75
1	2,868	3,948	74	90	2.58	2.28
2	2,623	3,879	41	77	1.56	1.99
3	2,424	3,546	44	67	1.82	1.89
4	2,424	3,425	48	55	1.98	1.61
5	2,655	3,790	31	42	1.17	1.11
6	2,434	3,657	30	45	1.23	1.23
7	2,159	3,234	31	40	1.44	1.24
8	1,876	2,883	29	37	1.55	1.28
9	1,678	2,815	22	39	1.31	1.39
10	1,633	2,801	26	40	1.59	1.43
11	1,530	3,166	28	42	1.83	1.33
12	1,574	3,723	37	62	2.35	1.67
13	1,673	4,463	29	73	1.73	1.64
14	1,826	5,203	32	88	1.75	1.69
15	2,035	5,579	47	128	2.31	2.29
16	2,719	6,478	59	183	2.17	2.82
17	3,015	7,311	83	261	2.75	3.57
18	3,418	8,366	82	345	2.40	4.12
19	3,536	9,433	93	370	2.63	3.92
Total	48,043	92,938	959	2,228	2.00	2.40



Figure 8A

Incidents by Age and Gender

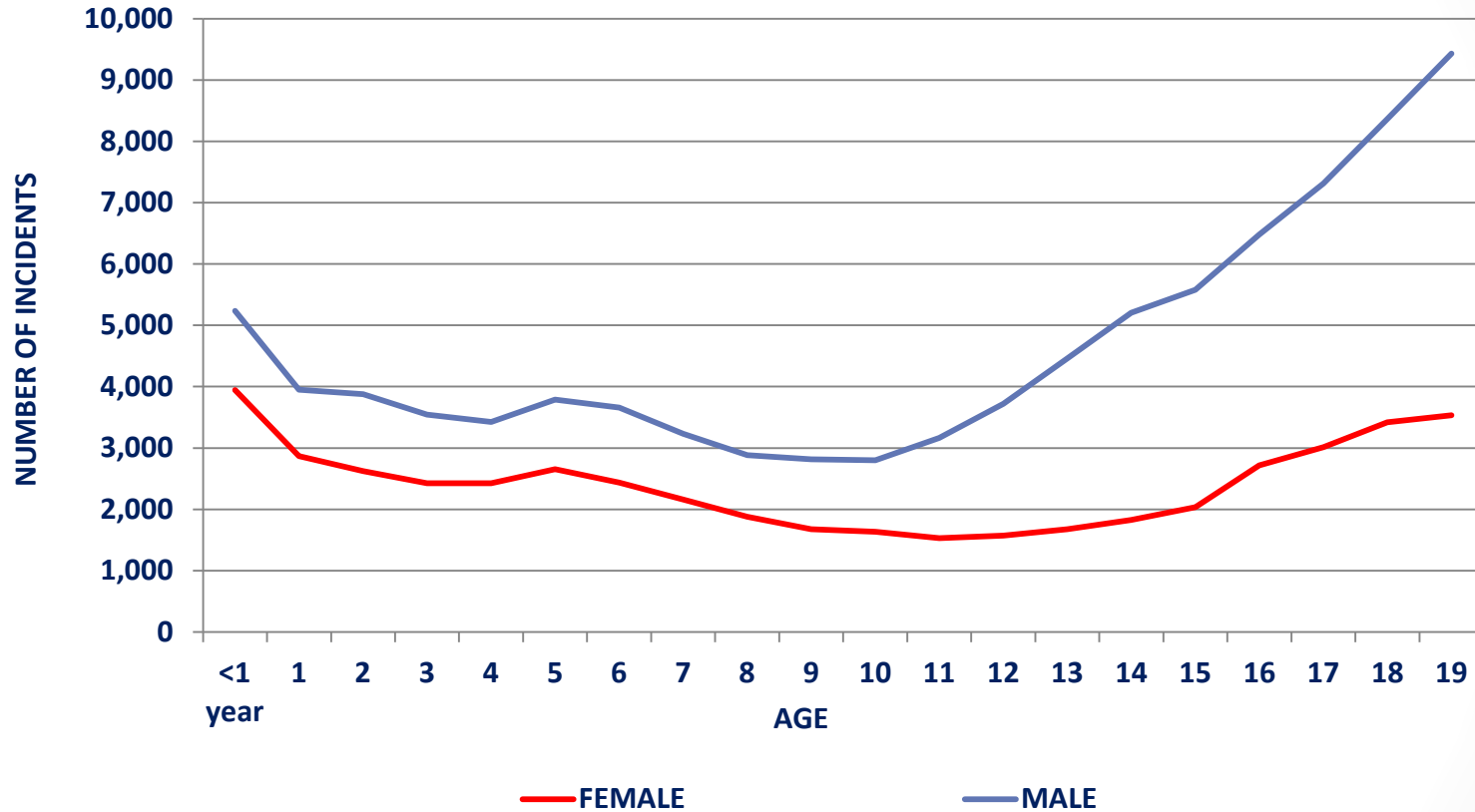


Figure 8B

Case Fatality Rate by Age and Gender

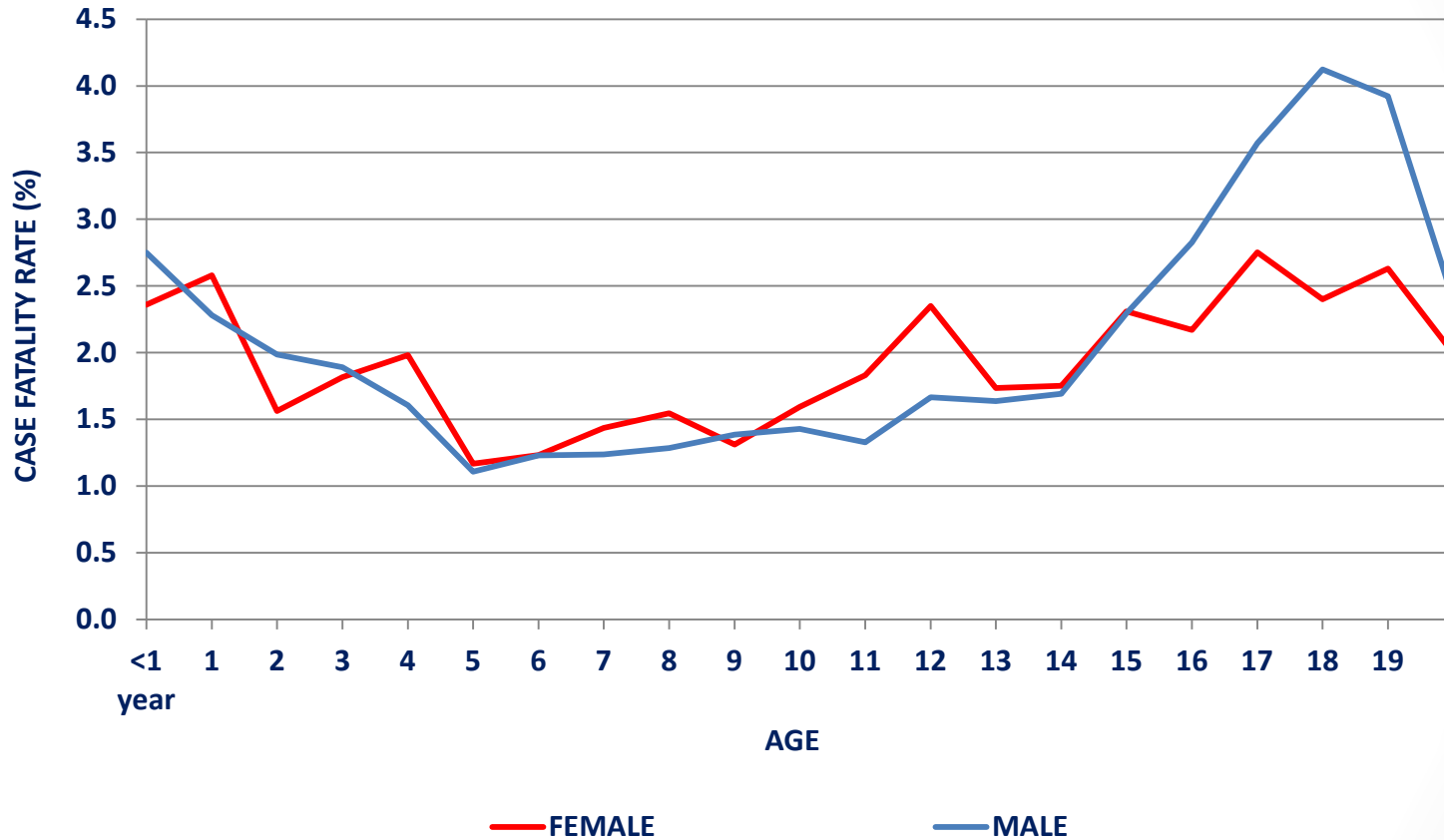


Table
9

Alcohol Use

ALCOHOL USE	NUMBER	PERCENT
No (confirmed by test)	26,417	18.73
No (not tested)	91,055	64.55
Yes (confirmed by test, beyond legal limit)	3,282	2.33
Yes (confirmed by test, trace levels)	2,410	1.71
Not applicable	6,609	4.69
NK/NR	11,294	8.01
Total	141,067	100



Figure 9

Alcohol Use

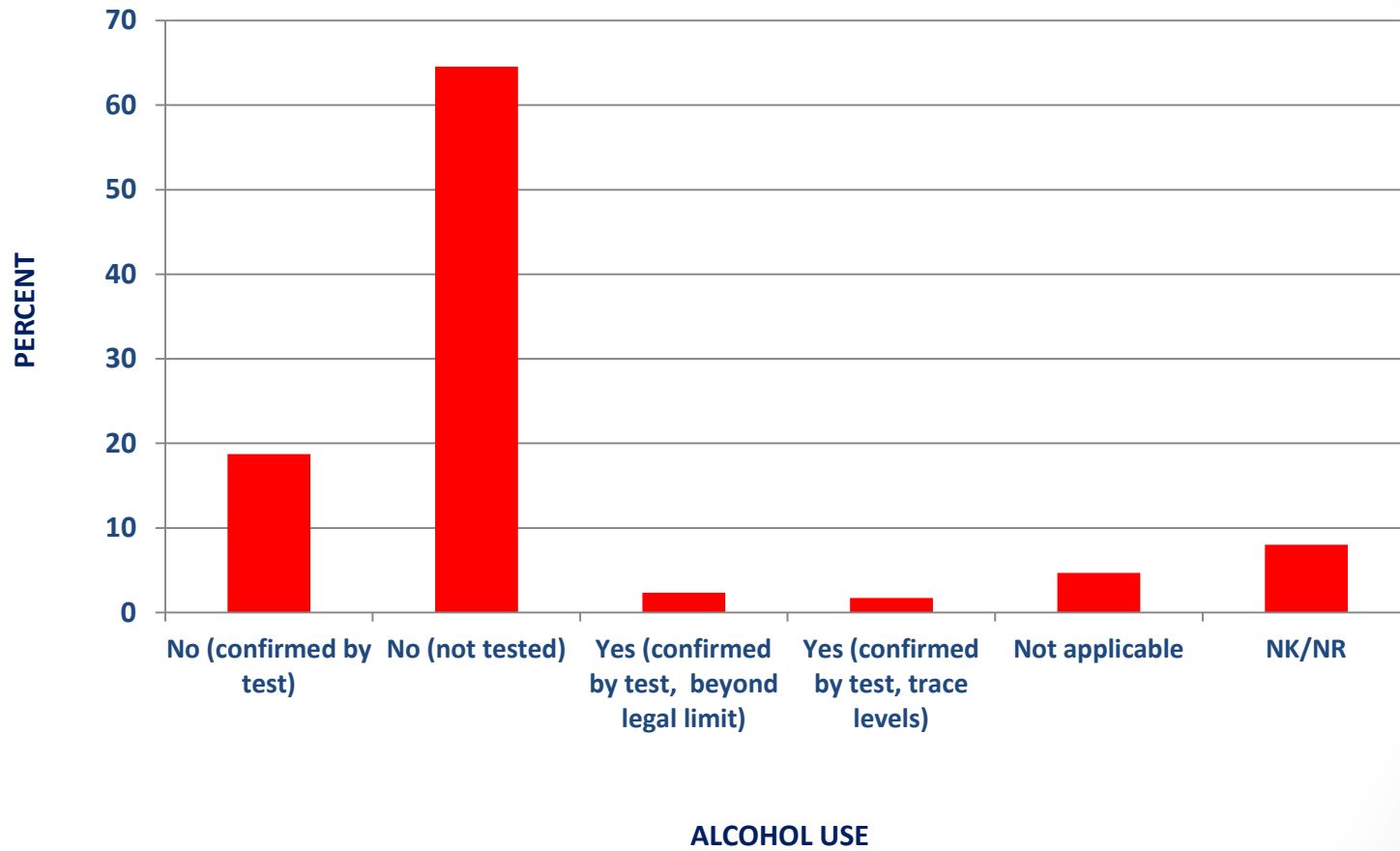


Table
10

Drug Use

DRUG USE	NUMBER	PERCENT
No (confirmed by test)	9,691	6.87
No (not tested)	96,695	68.55
Yes (confirmed by test, illegal drug use)	5,904	4.19
Yes (confirmed by test, prescription drug)	2,632	1.87
Not applicable	11,870	8.41
NK/NR	14,275	10.12
Total	141,067	100



Figure 10

Drug Use

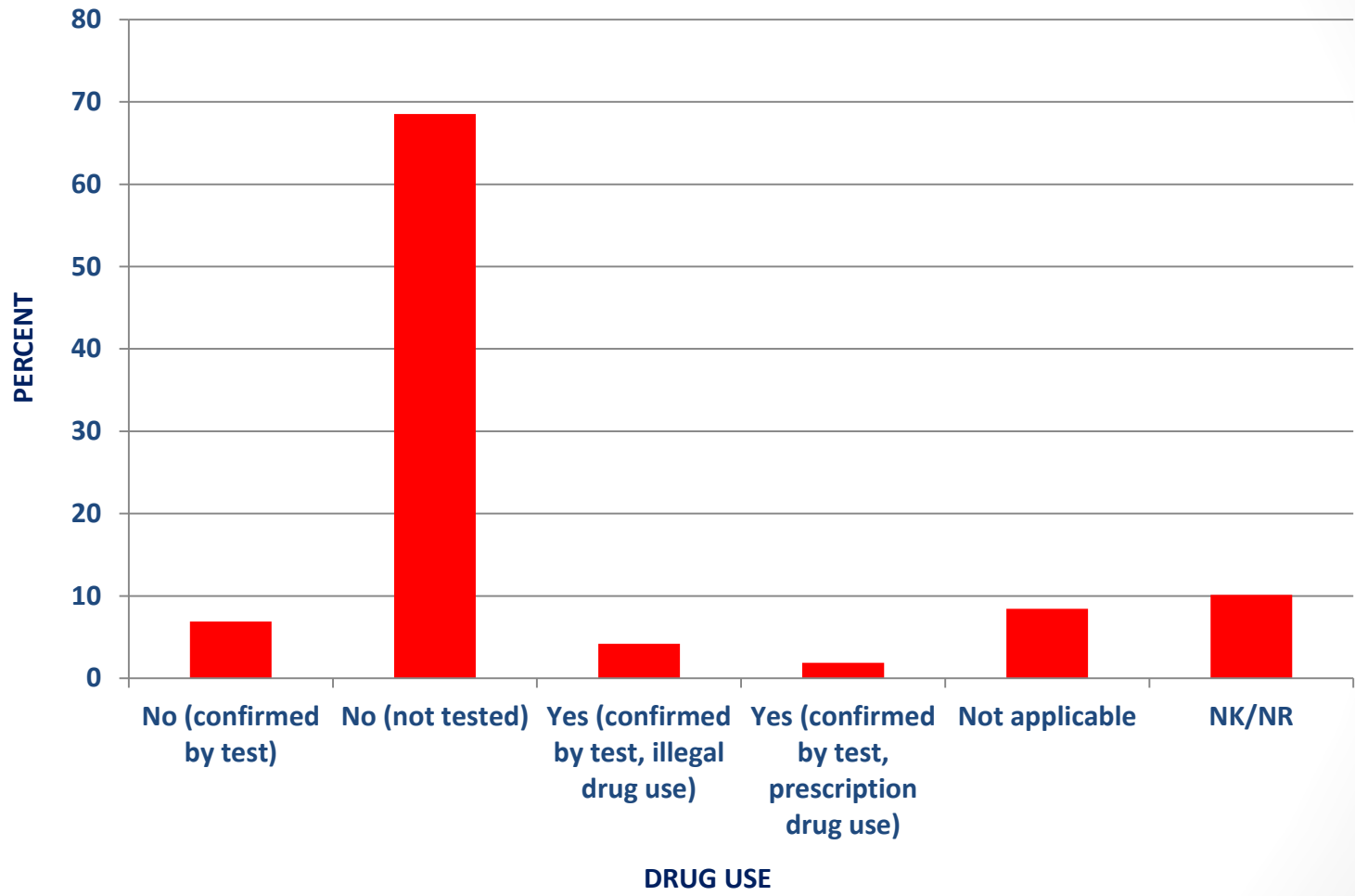


Table
11

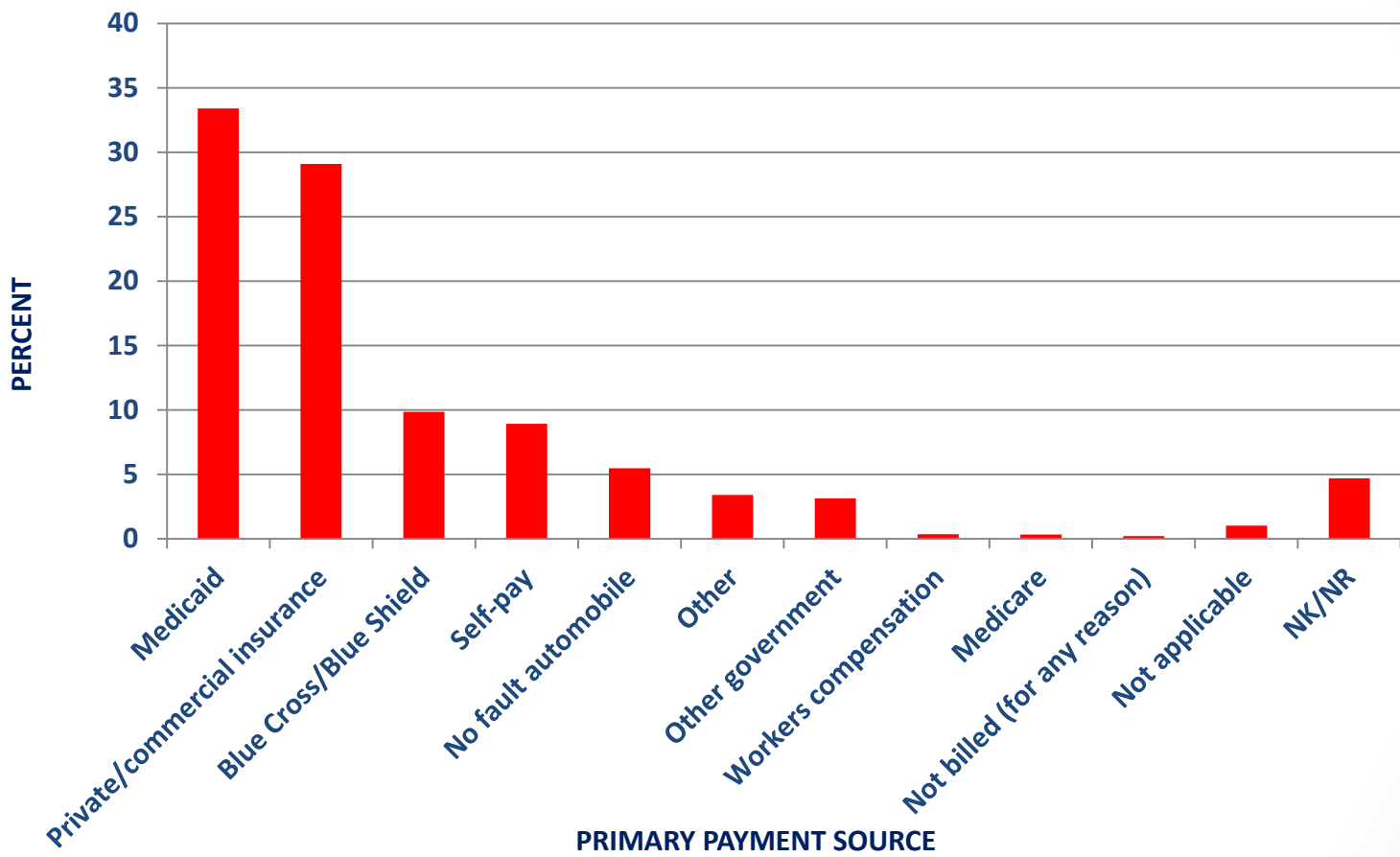
Primary Payment Source

PRIMARY PAYMENT SOURCE	NUMBER	PERCENT
Medicaid	47,098	33.39
Private/commercial insurance	41,040	29.09
Blue Cross/Blue Shield	13,916	9.86
Self-pay	12,592	8.93
No fault automobile	7,746	5.49
Other	4,805	3.41
Other government	4,445	3.15
Workers compensation	535	0.38
Medicare	488	0.35
Not billed (for any reason)	304	0.22
Not applicable	1,475	1.05
NK/NR	6,623	4.69
Total	141,067	100



Figure 11

Primary Payment Source



INJURY CHARACTERISTICS



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Table
12

Incidents and Case Fatality Rate by Mechanism of Injury

MECHANISM	NUMBER	PERCENT	DEATHS	CASE FATALITY RATE
Fall	47,876	33.94	360	0.75
Motor vehicle traffic	34,083	24.16	1,180	3.46
Struck by, against	15,005	10.64	135	0.90
Transport, other	9,874	7.00	147	1.49
Firearm	5,892	4.18	719	12.20
Pedal cyclist, other	4,865	3.45	34	0.70
Other specified and classifiable	4,807	3.41	208	4.33
Cut/pierce	4,649	3.30	77	1.66
Hot object/substance	4,060	2.88	2	0.05
Natural/environmental, bites and stings	2,459	1.74	24	0.98
Unspecified	1,514	1.07	47	3.10
Fire/flame	1,472	1.04	54	3.67
Overexertion	853	0.60	9	1.06
Other specified, not elsewhere classifiable	807	0.57	18	2.23
Pedestrian, other	659	0.47	39	5.92
Natural/environmental, other	588	0.42	9	1.53
Machinery	555	0.39	7	1.26
Poisoning	189	0.13	0	0.00
Suffocation	173	0.12	57	32.95
Drowning/submersion	137	0.10	30	21.90
Adverse effects, drugs	26	0.02	0	0.00
Adverse effects, medical care	22	0.02	0	0.00
NK/NR	502	0.36	32	6.37
Total	141,067	100	3,188	2.26



Figure 12A

Incidents by Selected Mechanism of Injury

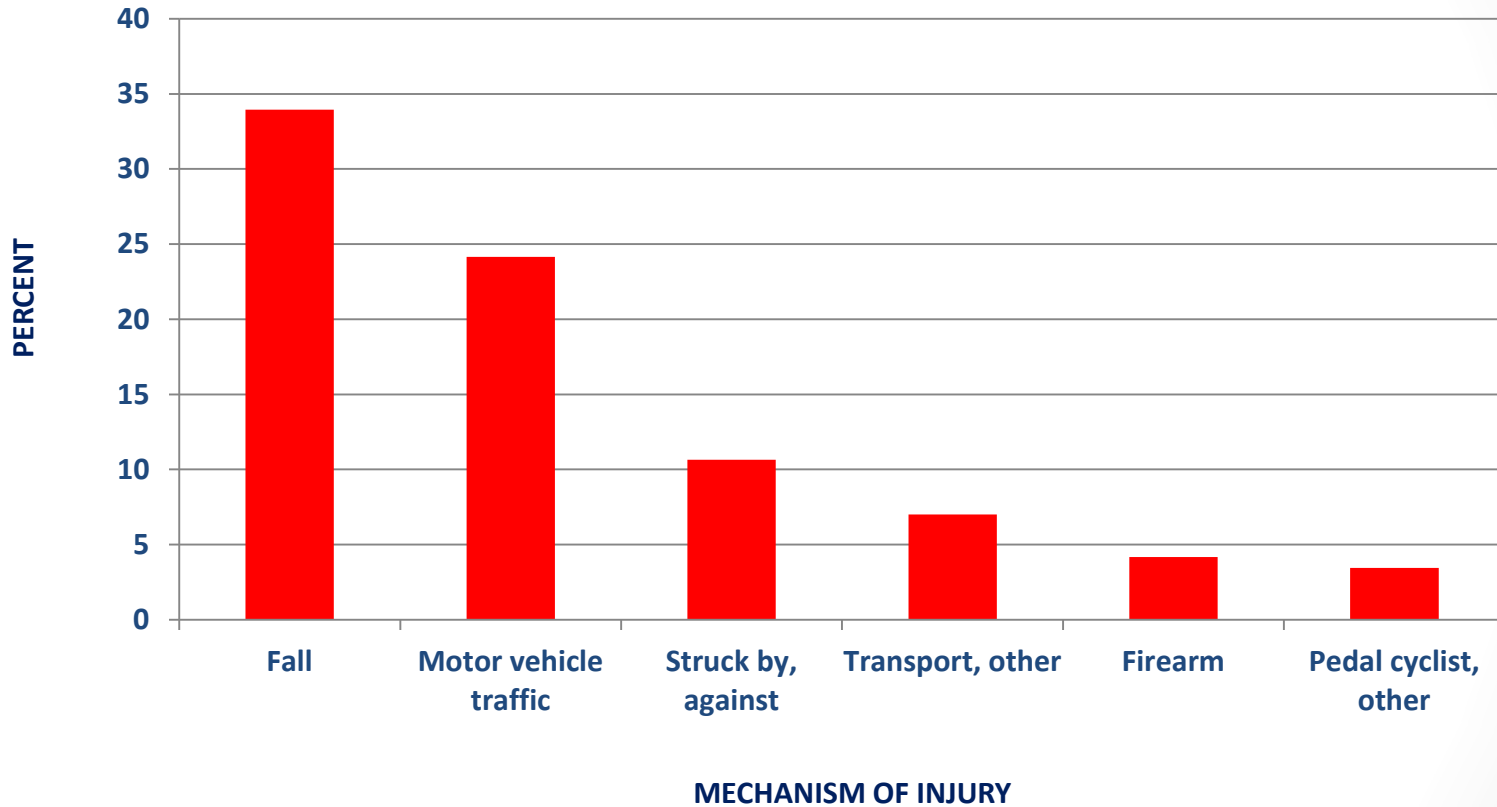


Figure 12B

Case Fatality Rate by Selected Mechanism of Injury

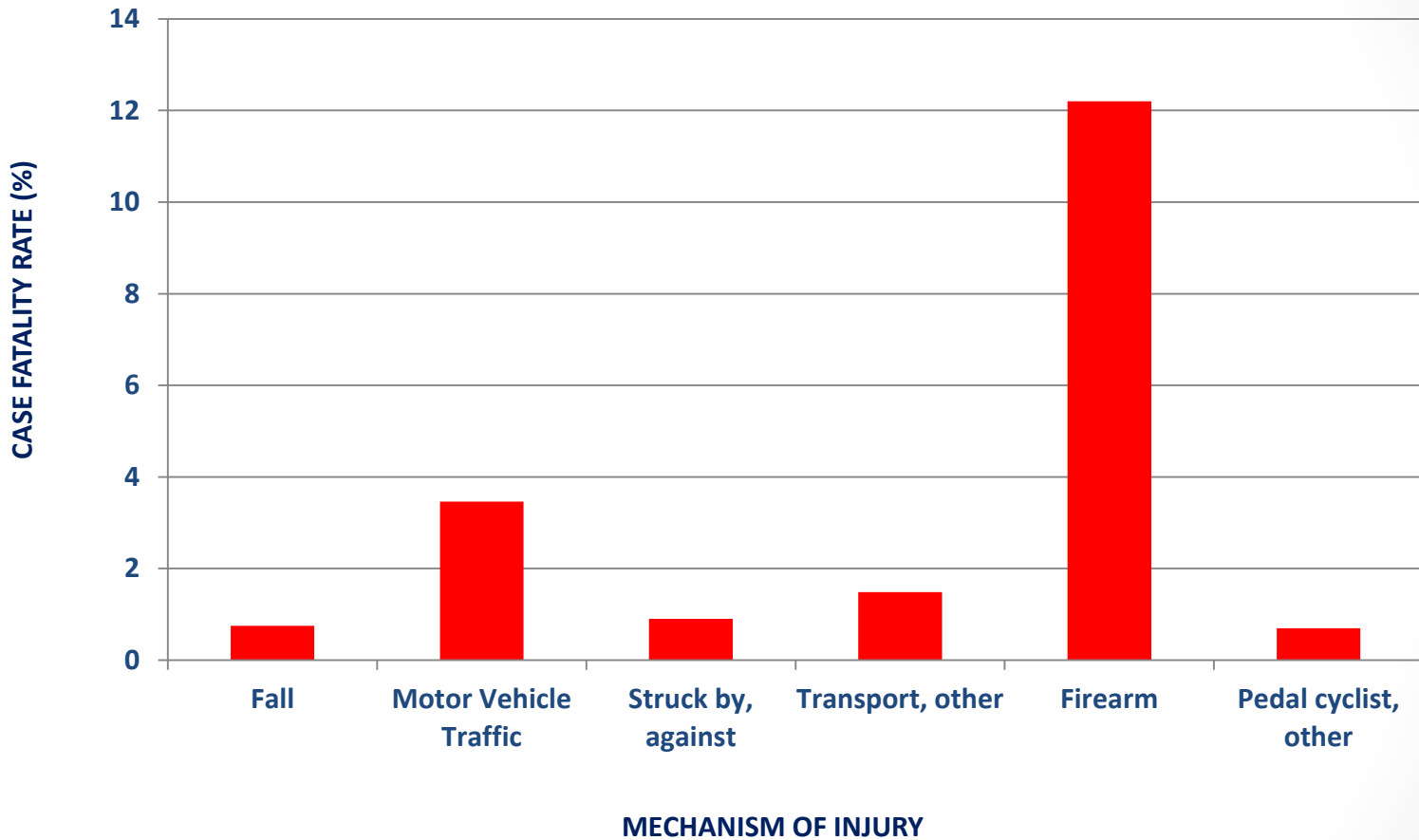


Table
13

Selected Mechanism of Injury by Age

AGE	FALL	MVT	STRUCK BY, AGAINST	TRANSPORT, OTHER	FIREARM	CUT/PIERCE
<1 year	4,984	456	332	49	31	36
1	3,086	544	422	45	28	107
2	3,377	713	557	126	41	109
3	3,112	873	483	130	59	146
4	3,161	827	417	205	48	130
5	3,754	841	444	270	42	120
6	3,315	982	419	272	33	114
7	2,707	949	404	313	35	92
8	2,116	888	398	325	31	97
9	1,918	800	452	326	40	86
10	1,659	889	497	426	41	93
11	1,706	888	562	499	60	84
12	1,762	1,011	766	690	67	104
13	1,818	1,195	1,061	790	133	159
14	1,846	1,472	1,258	947	259	235
15	1,657	2,004	1,392	934	379	319
16	1,592	3,324	1,422	895	667	390
17	1,387	4,234	1,401	862	976	562
18	1,466	5,367	1,132	841	1,333	749
19	1,453	5,826	1,186	929	1,589	917
Total	47,876	34,083	15,005	9,874	5,892	4,649



Figure 13

Incidents by Selected Mechanism of Injury by Age

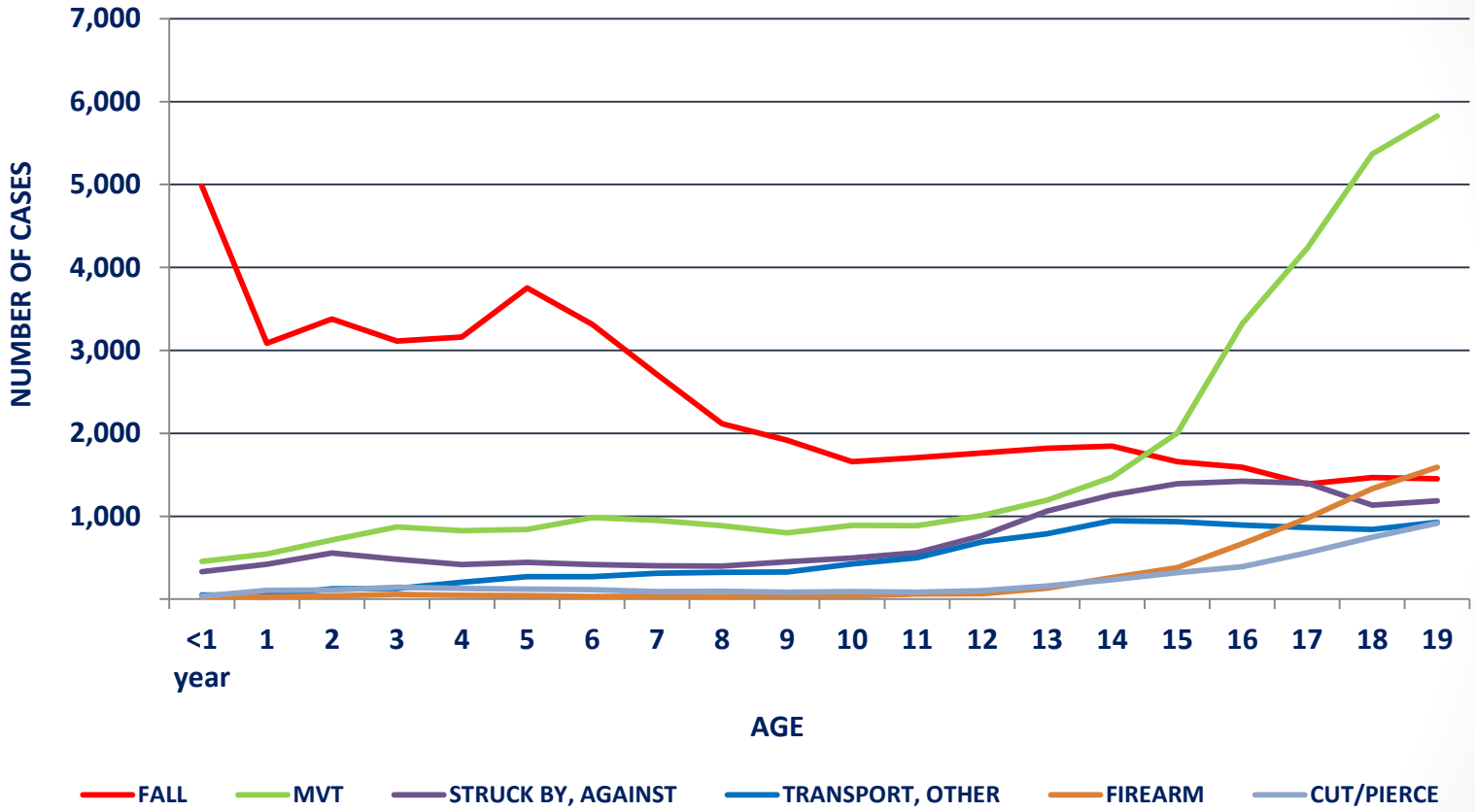


Table
14

Case Fatality Rate by Selected Mechanism of Injury and Age

AGE	FALL CASE FATALITY RATE	MVT CASE FATALITY RATE	STRUCK BY, AGAINST CASE FATALITY RATE	TRANSPORT, OTHER CASE FATALITY RATE	FIREARM CASE FATALITY RATE	CUT/PIERCE CASE FATALITY RATE
<1 year	0.64	9.65	1.20	6.12	35.48	2.78
1	0.71	6.25	3.55	6.67	25.00	2.80
2	0.59	4.35	1.97	3.17	12.20	0.92
3	0.74	5.27	1.45	0.77	8.47	0.00
4	0.92	4.35	1.44	0.00	8.33	1.54
5	0.72	3.21	0.68	0.74	9.52	0.00
6	0.60	3.56	0.48	1.10	9.09	2.63
7	0.55	2.42	1.49	1.28	17.14	0.00
8	0.71	3.27	1.76	1.54	3.23	0.00
9	0.73	2.88	0.44	0.92	17.50	0.00
10	0.66	3.60	0.80	1.64	12.20	0.00
11	0.64	2.82	0.18	2.40	8.33	3.57
12	1.02	3.17	0.26	1.88	22.39	0.00
13	0.77	2.93	0.75	1.01	17.29	0.00
14	0.70	2.72	0.72	0.42	11.97	1.70
15	0.66	3.44	0.50	1.61	13.19	0.94
16	1.19	2.92	0.91	1.45	10.79	1.03
17	0.58	3.38	1.43	1.86	11.89	2.85
18	1.09	3.48	0.09	1.66	12.60	2.40
19	1.51	3.30	0.59	1.83	11.39	2.07



Figure 14

Case Fatality Rate by Selected Mechanism of Injury by Age

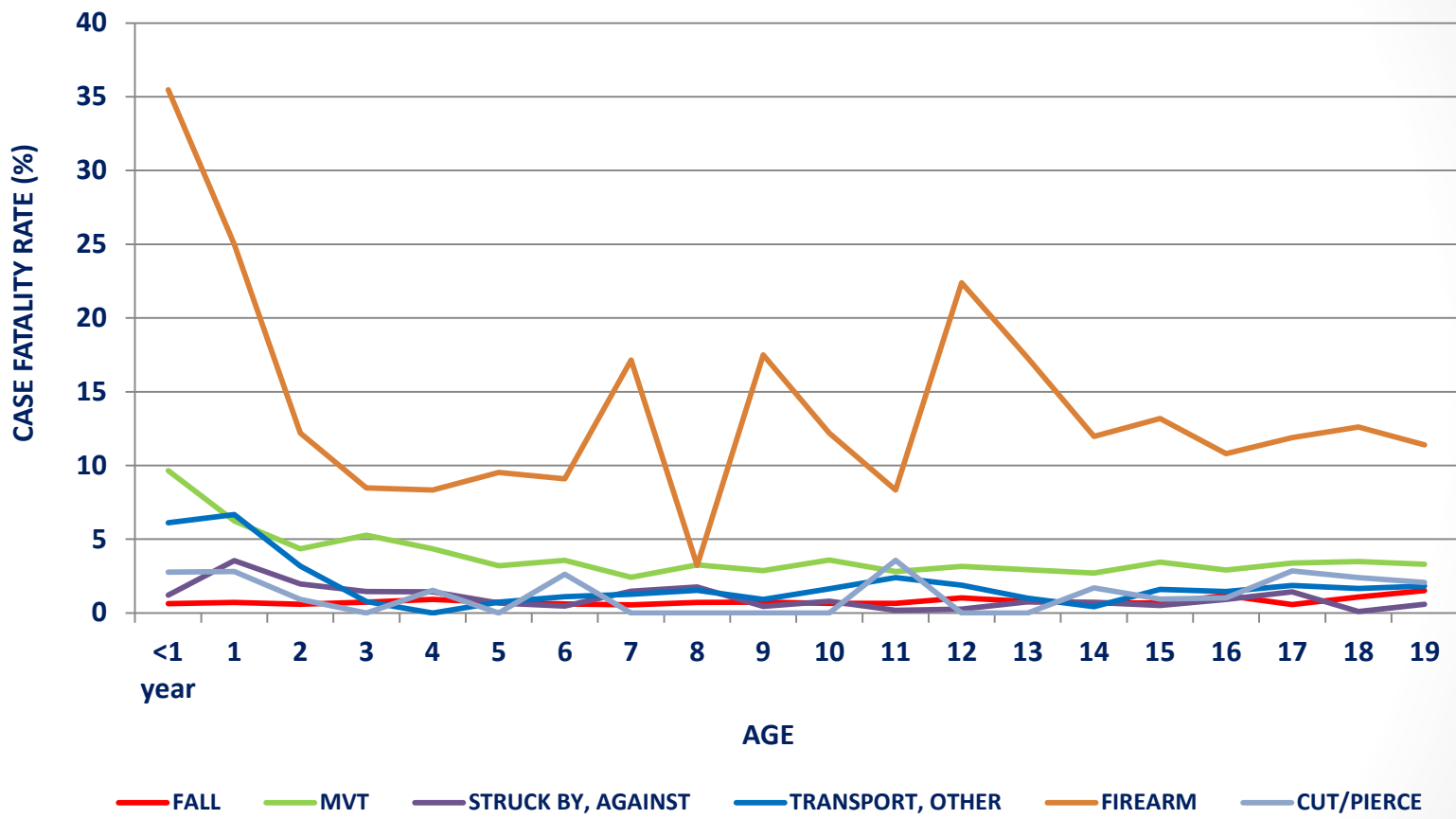


Table
15

Incidents and Case Fatality Rate by Mechanism of Injury and Gender

MECHANISM	PERCENT (FEMALE)	PERCENT (MALE)	CASE FATALITY RATE (FEMALE)	CASE FATALITY RATE (MALE)
Fall	37.14	32.28	0.78	0.74
Motor vehicle traffic	28.85	21.74	3.24	3.62
Struck by, against	6.89	12.57	1.15	0.82
Transport, other	6.61	7.20	1.51	1.48
Hot object/substance	3.61	2.50	0.06	0.04
Other specified and classifiable	3.49	3.36	4.53	4.22
Pedal cyclist, other	2.46	3.96	0.42	0.79
Natural/environmental, bites and stings	2.26	1.48	0.65	1.24
Cut/pierce	2.10	3.92	1.49	1.70
Firearm	1.55	5.53	10.31	12.48
Unspecified	1.07	1.07	3.30	3.01
Fire/flame	0.88	1.12	5.88	2.78
Natural/environmental, other	0.54	0.35	1.15	1.84
Other specified, not elsewhere classifiable	0.53	0.60	2.77	1.99
Overexertion	0.52	0.65	0.40	1.32
Pedestrian, other	0.49	0.46	4.68	6.60
NK/NR	0.31	0.38	5.41	6.78
Poisoning	0.24	0.08	0.00	0.00
Machinery	0.18	0.50	0.00	1.50
Suffocation	0.14	0.12	33.33	32.71
Drowning/submersion	0.10	0.10	21.74	21.98
Adverse effects, drugs	0.03	0.01	0	0
Adverse effects, medical care	0.01	0.02	0	0
Total	100	100		



Figure 15A

Incidents by Mechanism of Injury and Gender

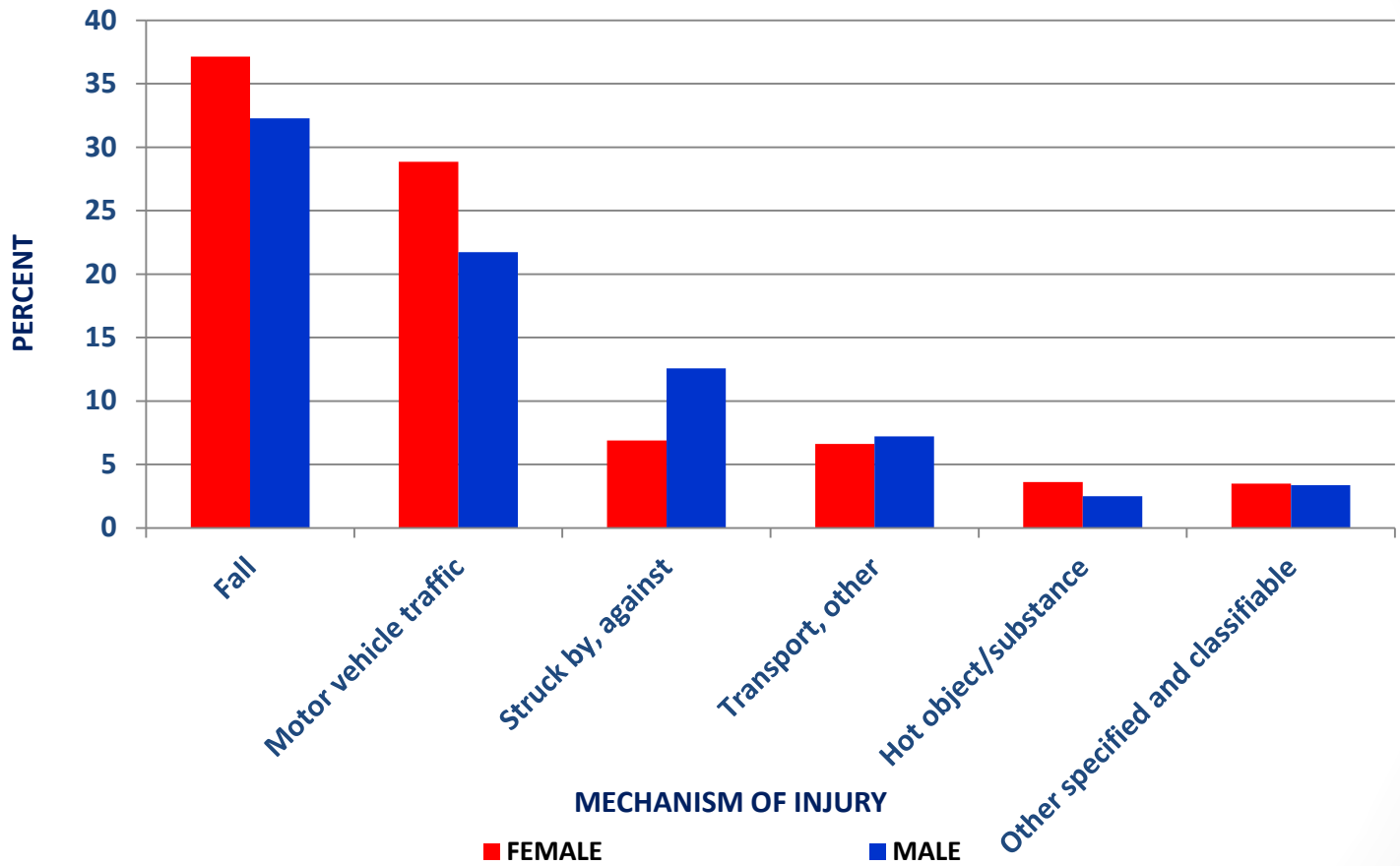


Figure 15B

Case Fatality Rate by Mechanism of Injury and Gender

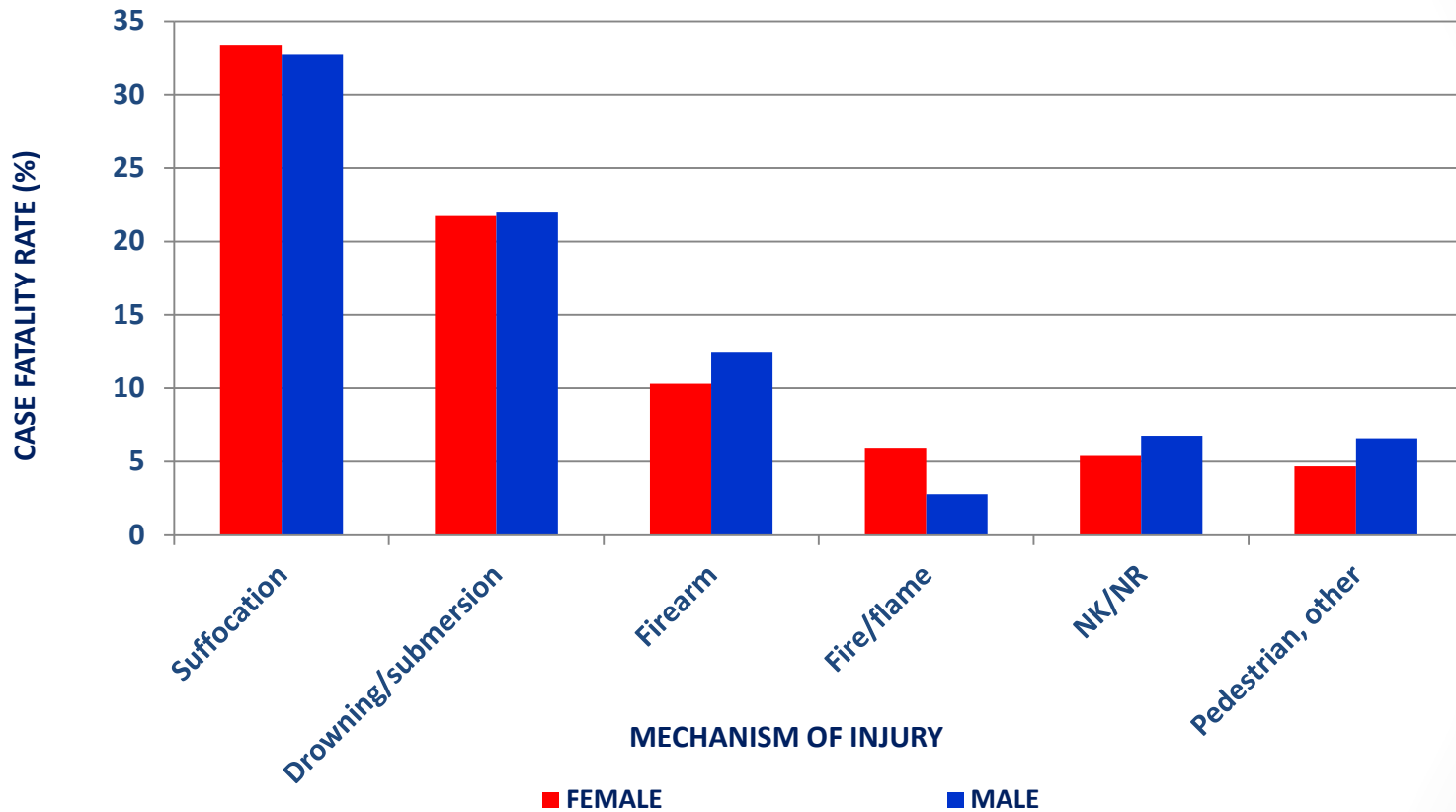


Table
16

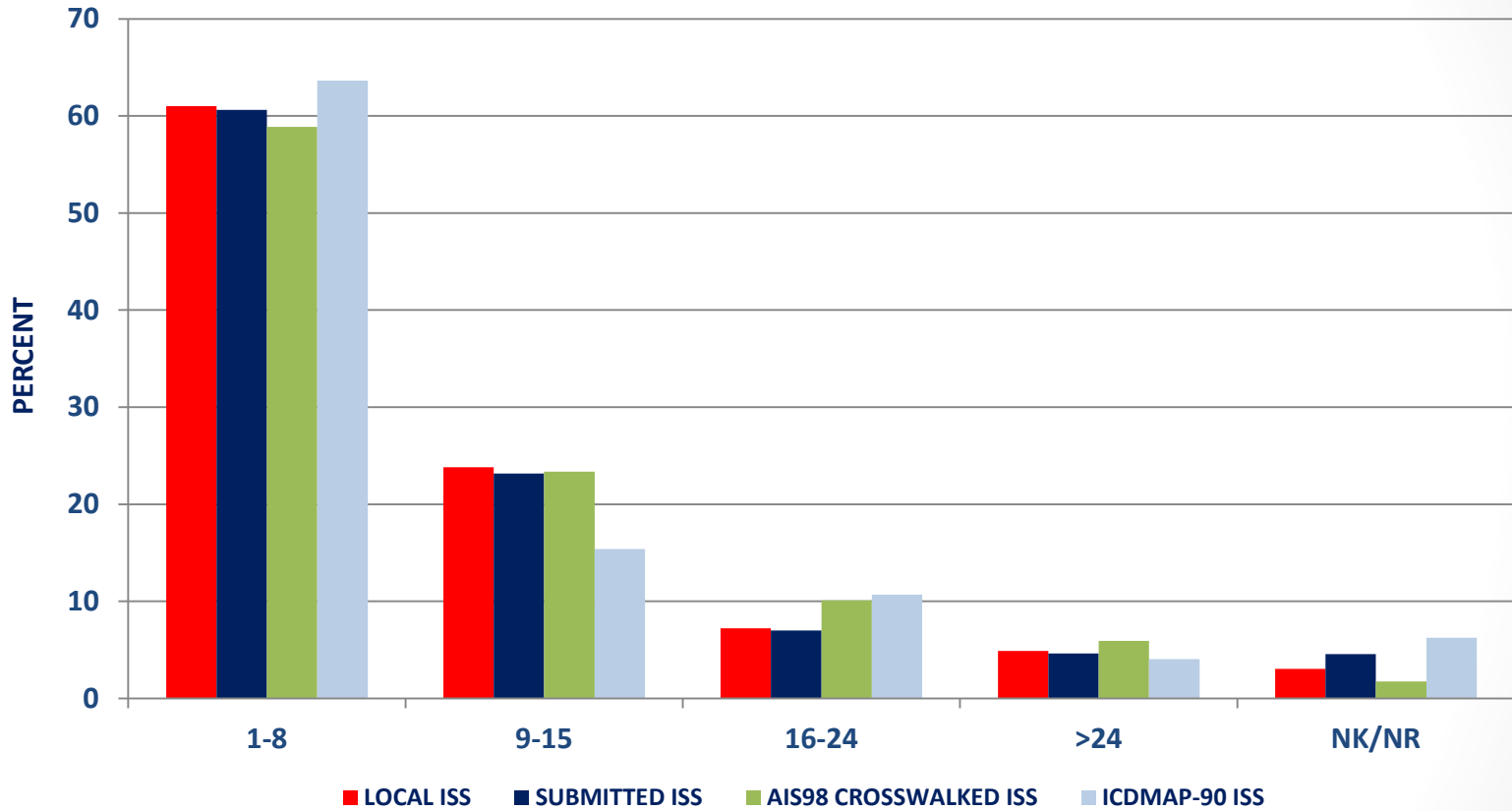
Incidents by Comparative Injury Severity Scores (ISS)

ISS	LOCAL ISS		SUBMITTED ISS		AIS98 CROSSWALKED ISS		ICDMAP-90 ISS	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
1-8	86,083	61.02	85,537	60.64	83,074	58.89	89,792	63.65
9-15	33,610	23.83	32,667	23.16	32,951	23.36	21,710	15.39
16-24	10,201	7.23	9,884	7.01	14,243	10.10	15,065	10.68
>24	6,890	4.88	6,533	4.63	8,346	5.92	5,701	4.04
NK/NR	4,283	3.04	6,446	4.57	2,453	1.74	8,799	6.24
Total	141,067	100	141,067	100	141,067	100	141,067	100

Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

Figure 16

Incidents by Comparative Injury Severity Scores (ISS)



Incidents and Case Fatality Rate by Injury Severity Score (ISS)

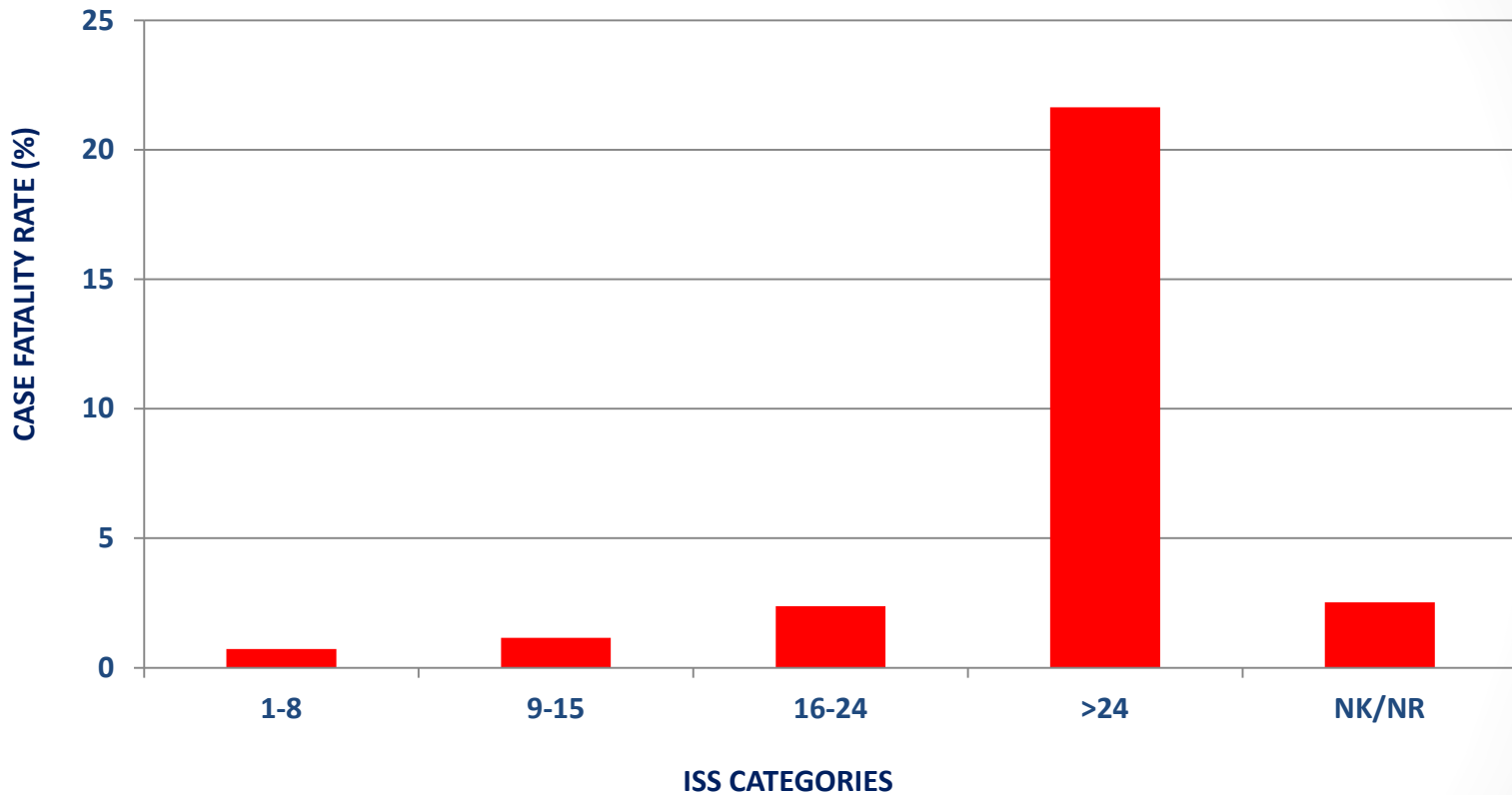
ISS	NUMBER	PERCENT	DEATHS	CASE FATALITY RATE
1-8	83,074	58.89	601	0.72
9-15	32,951	23.36	380	1.15
16-24	14,243	10.10	339	2.38
>24	8,346	5.92	1,806	21.64
NK/NR	2,453	1.74	62	2.53
Total	141,067	100	3,188	2.26

Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.



Figure 17

Case Fatality Rate by Injury Severity Score (ISS)



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Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

Table
18

Incidents by Injury Severity Score (ISS) and Age

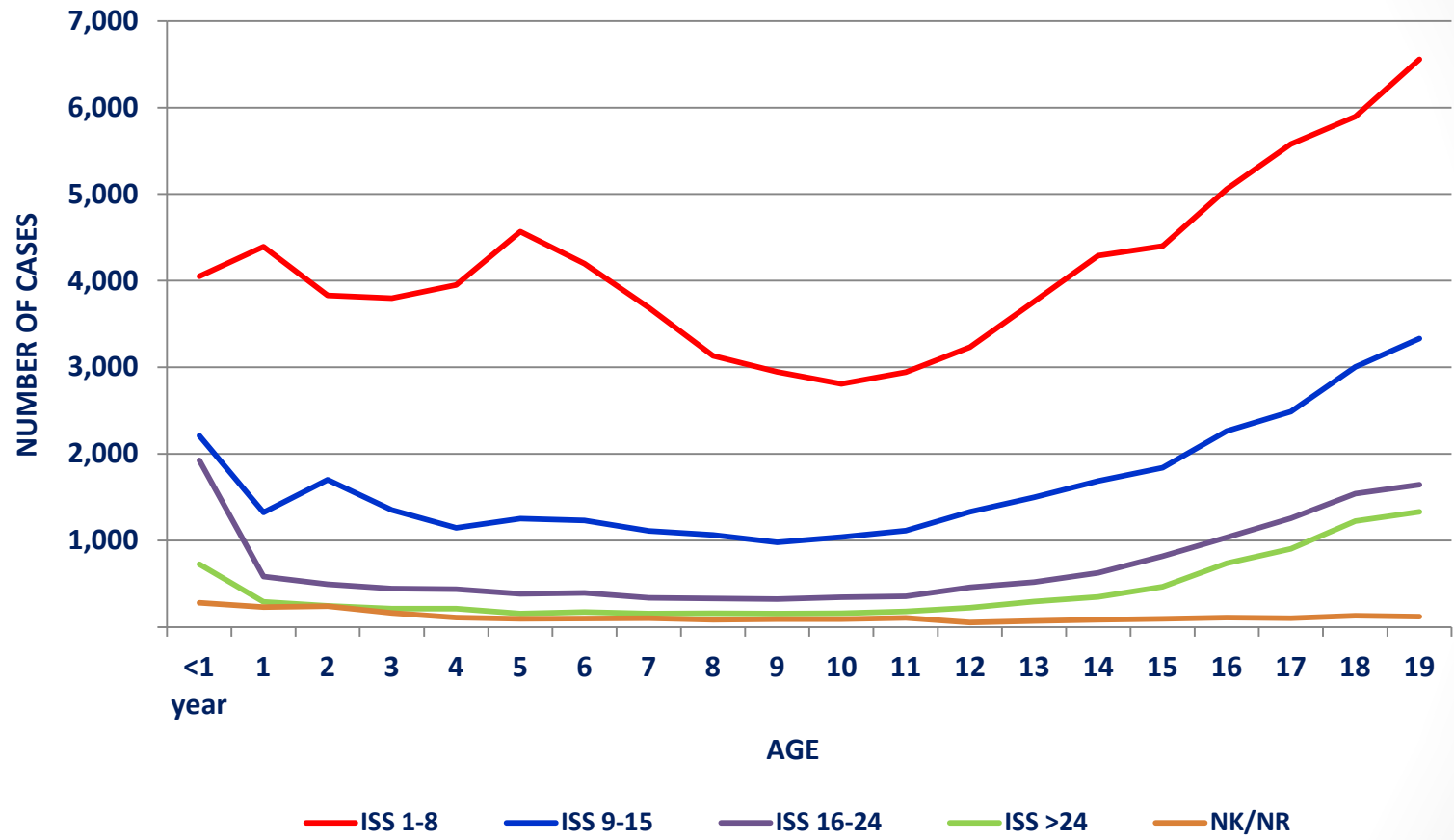
AGE	ISS 1-8	ISS 9-15	ISS 16-24	ISS >24	ISS NK/NR	TOTAL
<1 year	4,050	2,211	1,925	725	280	9,191
1	4,391	1,325	582	292	230	6,820
2	3,829	1,700	494	243	240	6,506
3	3,799	1,352	445	212	164	5,972
4	3,952	1,144	435	212	110	5,853
5	4,566	1,251	383	155	94	6,449
6	4,196	1,230	395	173	100	6,094
7	3,689	1,108	338	157	103	5,395
8	3,131	1,063	331	159	84	4,768
9	2,947	977	324	157	91	4,496
10	2,809	1,038	343	159	90	4,439
11	2,944	1,113	353	182	105	4,697
12	3,233	1,330	459	224	52	5,298
13	3,758	1,496	519	295	70	6,138
14	4,289	1,685	626	347	85	7,032
15	4,400	1,840	818	465	96	7,619
16	5,057	2,264	1,035	735	108	9,199
17	5,580	2,489	1,257	902	101	10,329
18	5,895	3,004	1,539	1,222	131	11,791
19	6,559	3,331	1,642	1,330	119	12,981
Total	83,074	32,951	14,243	8,346	2,453	141,067

Injury Severity Score tables are generated using AIS98 Crosswalked ISS.
Injury Severity Score definitions can be found in Appendix B.



Figure 18

Incidents by Injury Severity Score (ISS) and Age



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

Table
19

Case Fatality Rate by Injury Severity Score (ISS) and Age

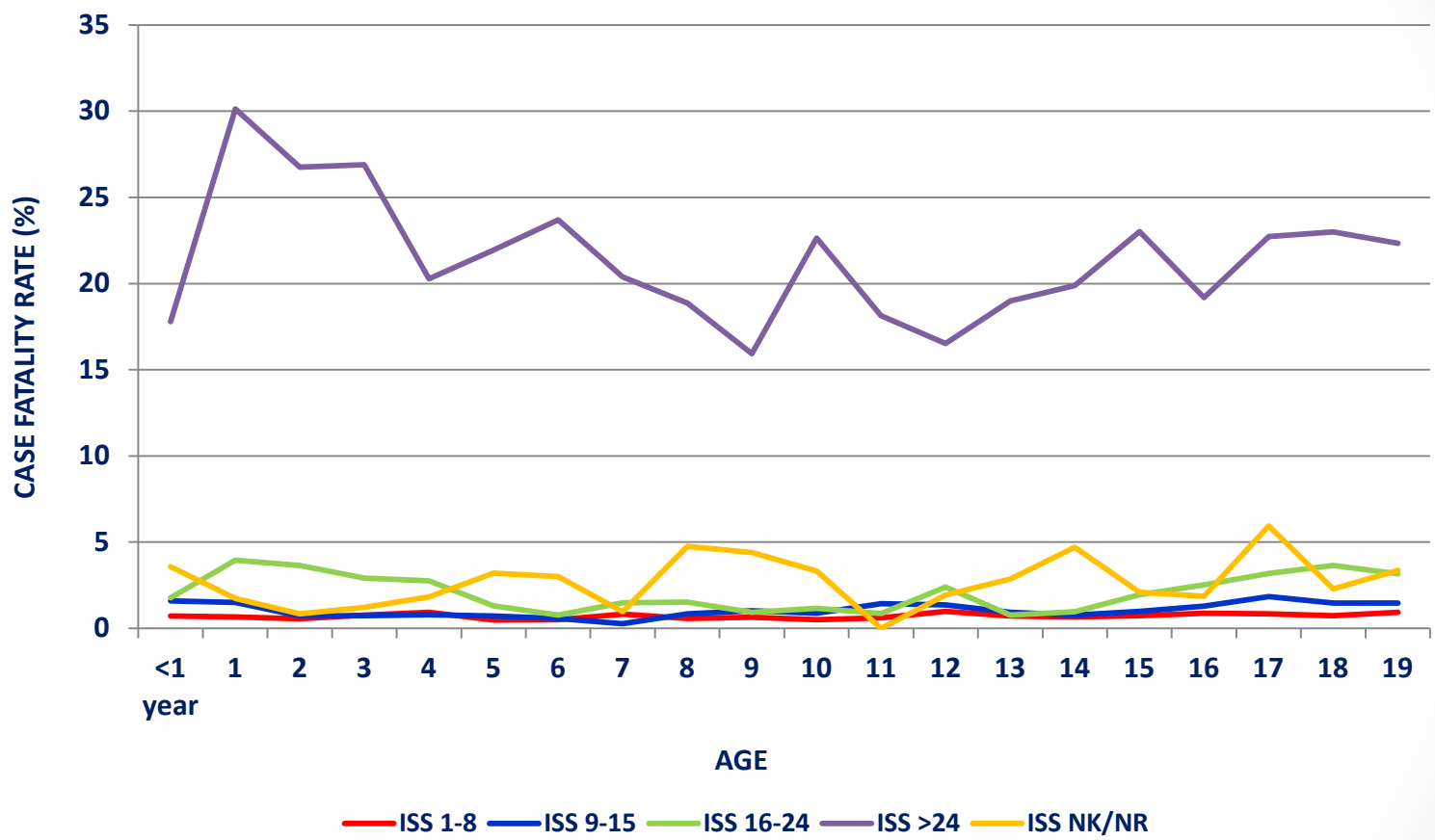
AGE	ISS 1-8 DEATHS	ISS 1-8 CASE FATALITY RATE	ISS 9-15 DEATHS	ISS 9-15 CASE FATALITY RATE	ISS 16-24 DEATHS	ISS 16-24 CASE FATALITY RATE	ISS >24 DEATHS	ISS >24 CASE FATALITY RATE	ISS NK/NR DEATHS	ISS NK/NR CASE FATALITY RATE
<1 year	29	0.72	35	1.58	34	1.77	129	17.79	129	3.57
1	29	0.66	20	1.51	23	3.95	88	30.14	88	1.74
2	21	0.55	12	0.71	18	3.64	65	26.75	65	0.83
3	29	0.76	10	0.74	13	2.92	57	26.89	57	1.22
4	37	0.94	9	0.79	12	2.76	43	20.28	43	1.82
5	22	0.48	9	0.72	5	1.31	34	21.94	34	3.19
6	21	0.50	7	0.57	3	0.76	41	23.70	41	3.00
7	30	0.81	3	0.27	5	1.48	32	20.38	32	0.97
8	18	0.57	9	0.85	5	1.51	30	18.87	30	4.76
9	19	0.64	10	1.02	3	0.93	25	15.92	25	4.40
10	14	0.50	9	0.87	4	1.17	36	22.64	36	3.33
11	18	0.61	16	1.44	3	0.85	33	18.13	33	0.00
12	32	0.99	18	1.35	11	2.40	37	16.52	37	1.92
13	27	0.72	14	0.94	4	0.77	56	18.98	56	2.86
14	28	0.65	13	0.77	6	0.96	69	19.88	69	4.71
15	32	0.73	18	0.98	16	1.96	107	23.01	107	2.08
16	44	0.87	29	1.28	26	2.51	141	19.18	141	1.85
17	47	0.84	46	1.85	40	3.18	205	22.73	205	5.94
18	43	0.73	44	1.46	56	3.64	281	23.00	281	2.29
19	61	0.93	49	1.47	52	3.17	297	22.33	297	3.36
Total	601	0.72	380	1.15	339	2.38	1,806	21.64	1,806	2.53

Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.



Figure 19

Case Fatality Rate by Injury Severity Score and Age



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

Table
20

Incidents and Case Fatality Rate by Intent

INTENT	NUMBER	PERCENT	DEATHS	CASE FATALITY RATE
Unintentional	125,401	88.89	2,095	1.67
Assault	12,535	8.89	787	6.28
Self-inflicted	1,434	1.02	203	14.16
Undetermined	1,019	0.72	57	5.59
Other	176	0.12	14	7.95
NK/NR	502	0.36	32	6.37
Total	141,067	100	3,188	2.26



Figure 20A

Incidents by Intent

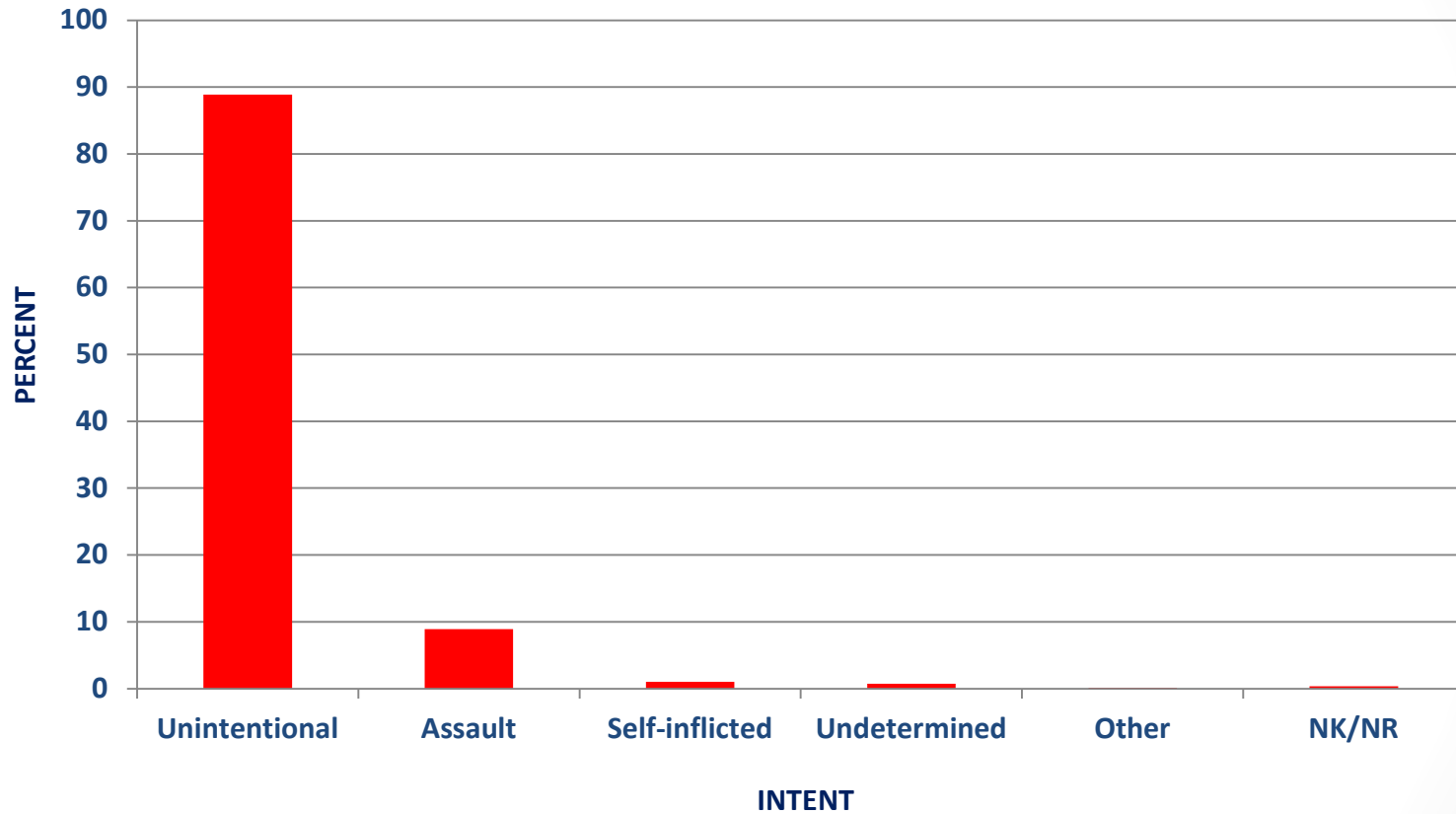


Figure 20B

Case Fatality Rate by Intent

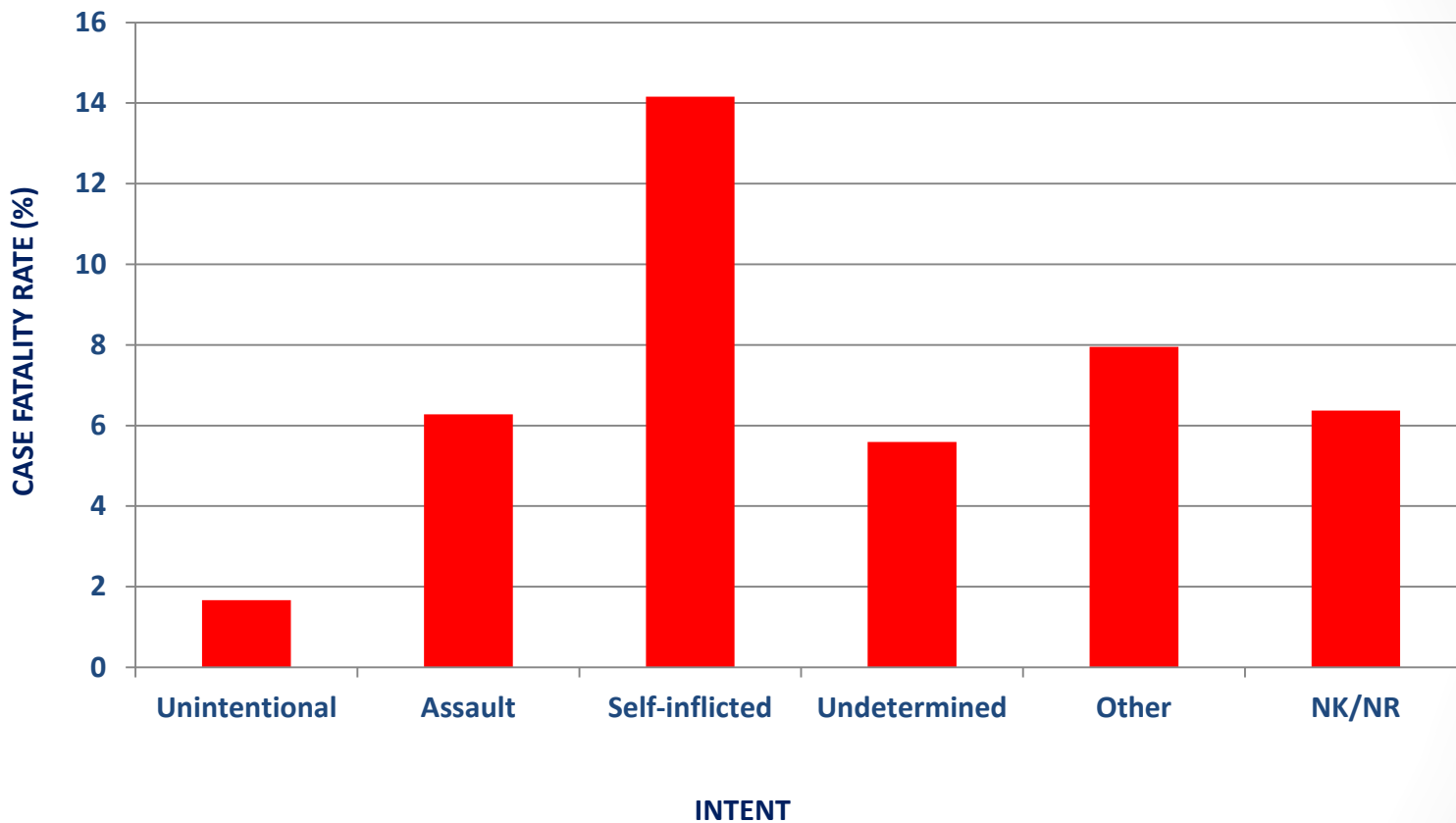


Table
21

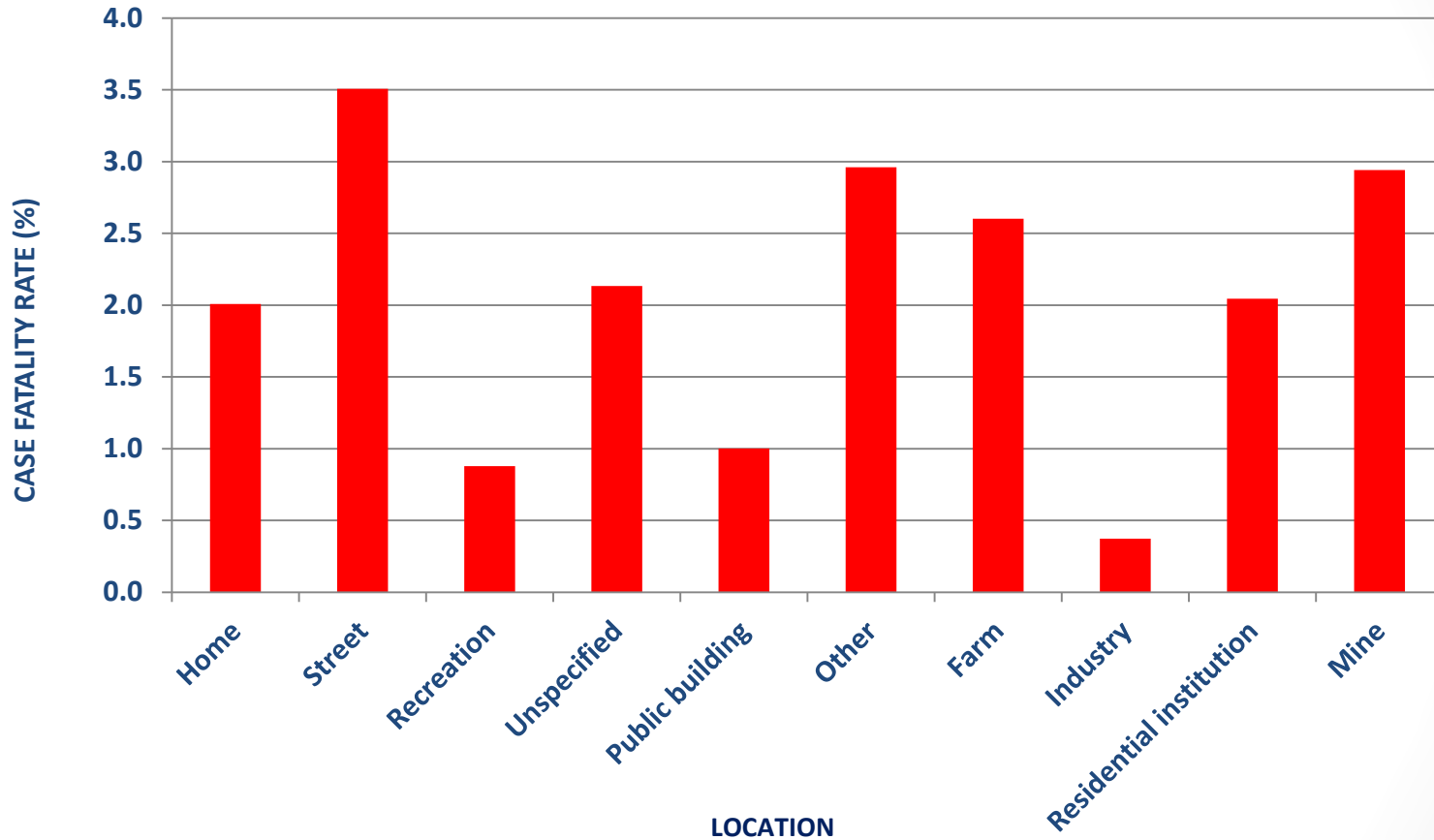
Incidents and Case Fatality Rate by Location E-Code

LOCATION E-CODE DESCRIPTION	NUMBER	PERCENT	DEATHS	CASE FATALITY RATE
Home	47,678	33.80	957	2.01
Street	41,661	29.53	1,461	3.51
Recreation	22,094	15.66	194	0.88
Unspecified	9,467	6.71	202	2.13
Public building	8,786	6.23	88	1.00
Other	6,079	4.31	180	2.96
Farm	884	0.63	23	2.60
Industry	538	0.38	2	0.37
Residential institution	489	0.35	10	2.04
Mine	34	0.02	1	2.94
Not applicable	57	0.04	2	3.51
NK/NR	3,300	2.34	68	2.06
Total	141,067	100	3,188	2.26



Figure 21

Case Fatality Rate by Location E-Code



Incidents and Case Fatality Rate by AIS Body Region

AIS BODY REGION	NUMBER	PERCENT	DEATHS	CASE FATALITY RATE
Head	52,011	36.87	2,000	3.85
Upper extremity	45,606	32.33	899	1.97
Lower extremity	38,261	27.12	940	2.46
Face	32,073	22.74	952	2.97
Thorax	17,998	12.76	1,422	7.90
Abdomen	17,387	12.33	860	4.95
External/other	15,379	10.90	415	2.70
Spine	12,929	9.17	472	3.65
Neck	2,633	1.87	188	7.14
NK/NR	2,164	1.53	99	4.57

A patient can have injuries in multiple body regions.



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Figure 22A

Incidents by AIS Body Region

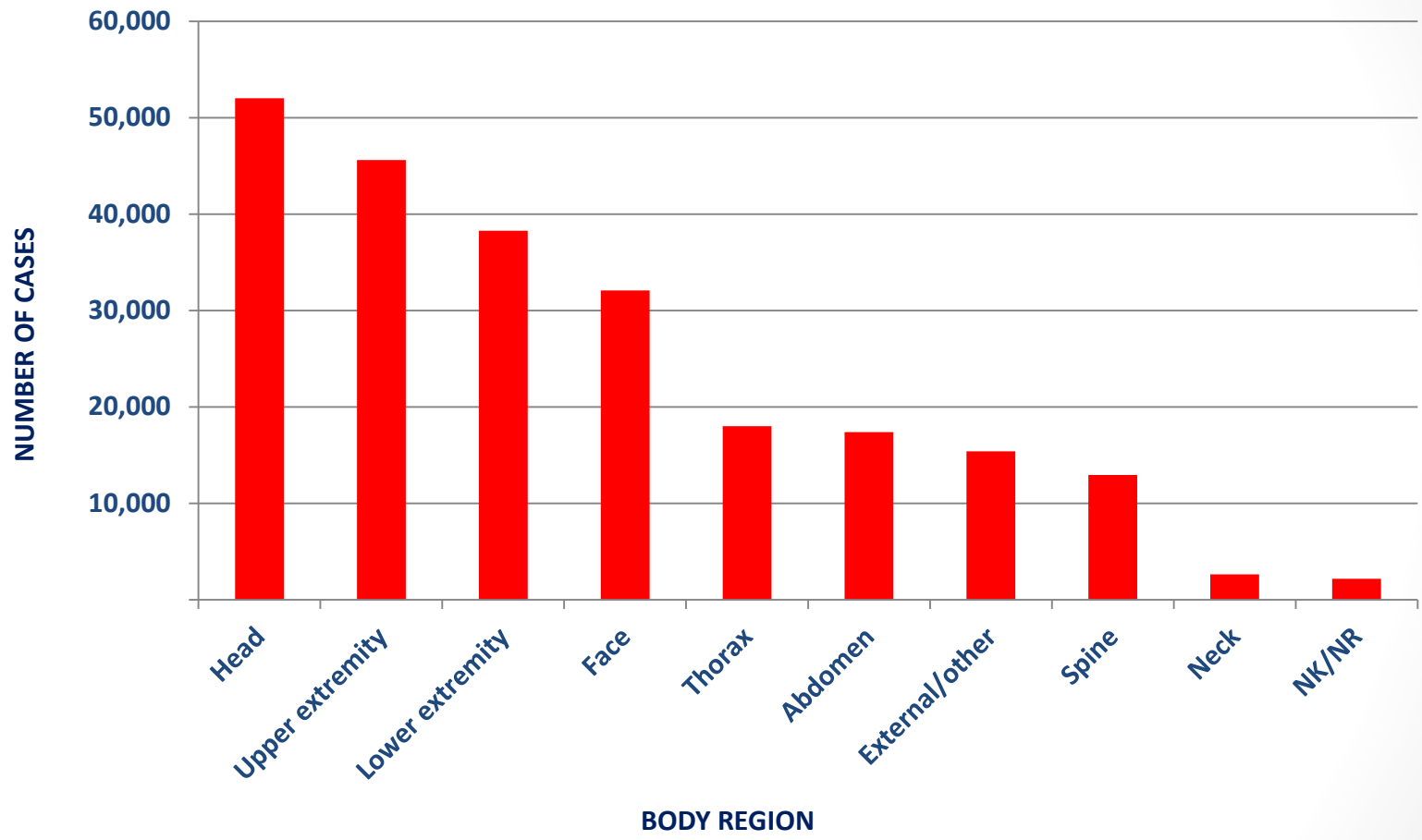


Figure 22B

Case Fatality Rate by AIS Body Region

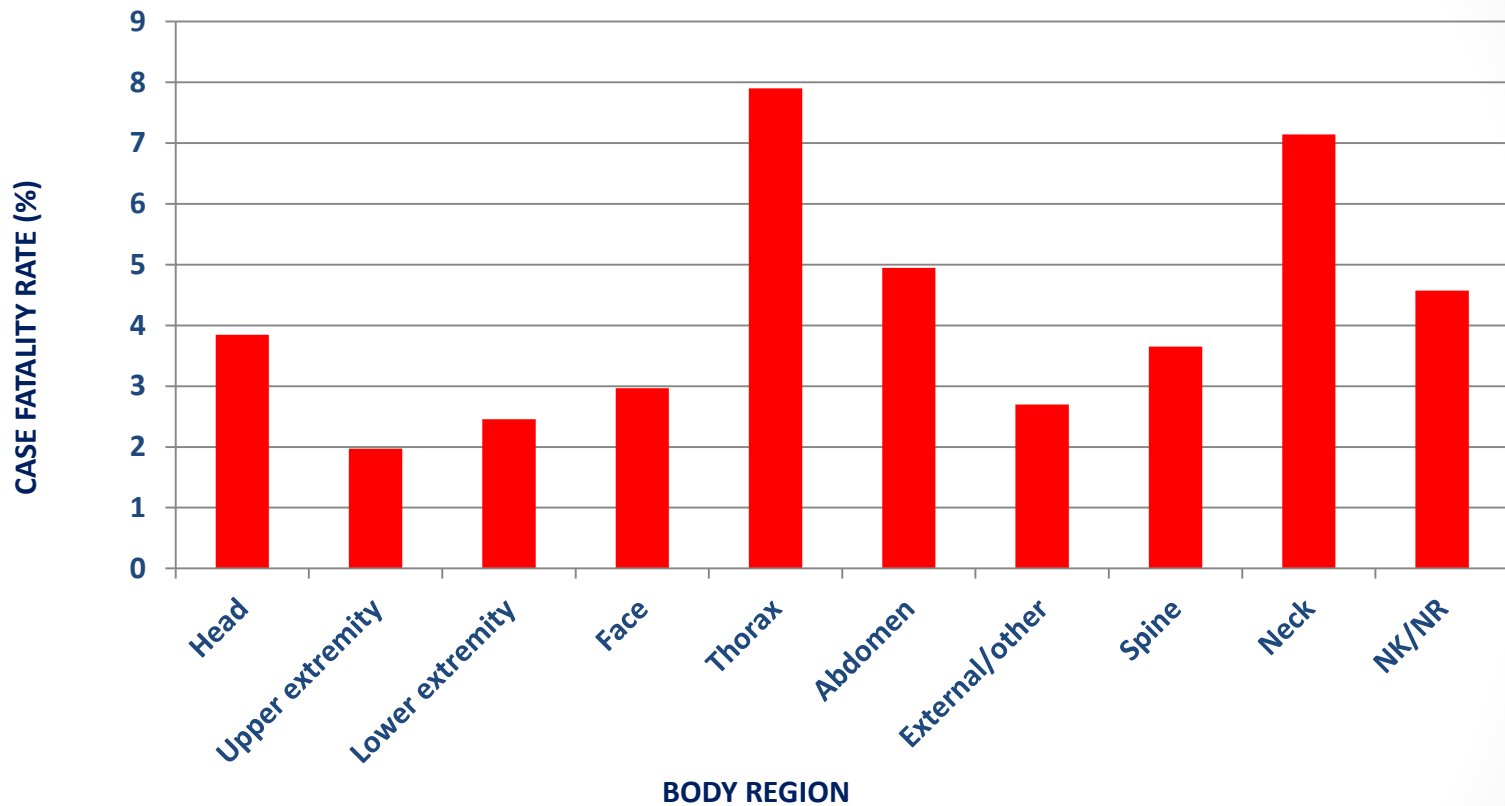


Table
23

Incidents and Case Fatality Rate with AIS \geq 3 by AIS Body Region

AIS BODY REGION	NUMBER	DEATHS	CASE FATALITY RATE
Head	21,502	1,710	7.95
Lower extremity	13,845	382	2.76
Thorax	12,834	1,218	9.49
Abdomen	5,933	461	7.77
Upper extremity	5,294	78	1.47
Spine	2,772	199	7.18
External/other	795	39	4.91
Face	538	48	8.92
Neck	333	62	18.62

A patient can have injuries in multiple body regions.

Figure 23A

Incidents with AIS ≥ 3 by AIS Body Region

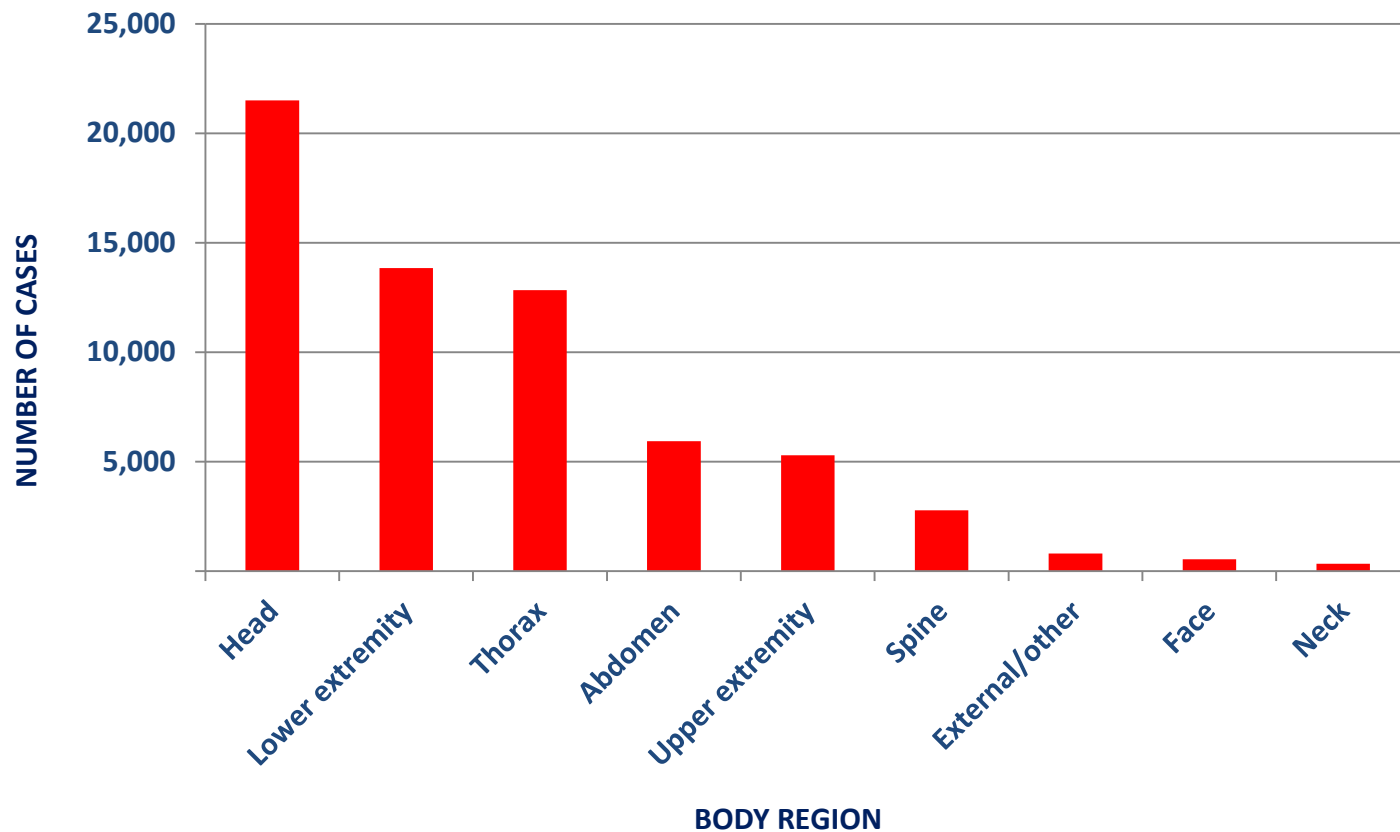
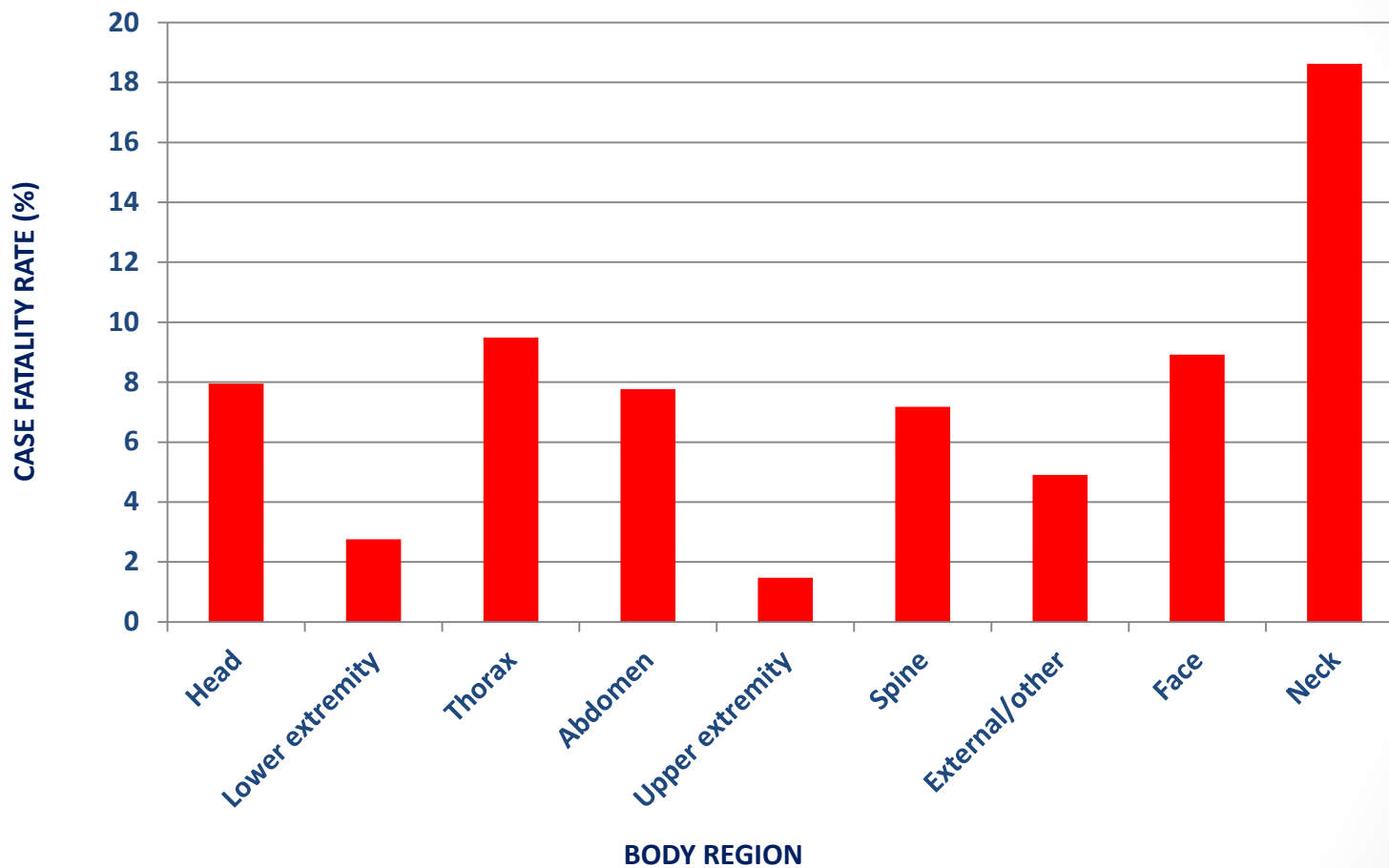


Figure 23B

Case Fatality Rate with AIS ≥ 3 by AIS Body Region



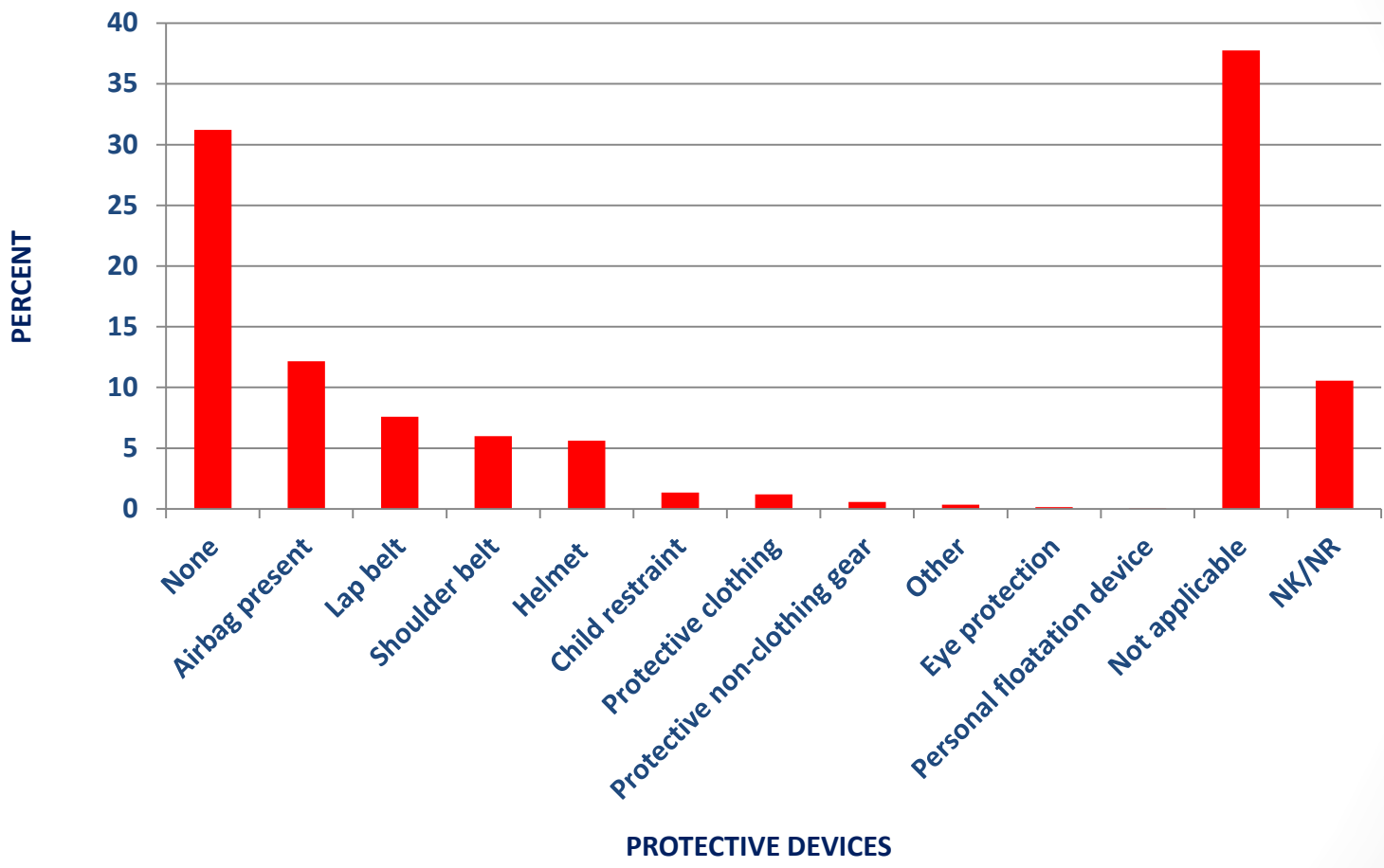
Incidents by Protective Devices

PROTECTIVE DEVICES	NUMBER	PERCENT
None	44,047	31.22
Airbag present	17,134	12.15
Lap belt	10,696	7.58
Shoulder belt	8,442	5.98
Helmet (e.g. bicycle, skiing, motorcycle)	7,933	5.62
Child restraint (booster seat or child car seat)	1,904	1.35
Protective clothing (e.g., padded leather pants)	1,691	1.20
Protective non-clothing gear (e.g., shin guards)	815	0.58
Other	478	0.34
Eye protection	206	0.15
Personal floatation device	61	0.04
Not applicable	53,260	37.76
NK/NR	14,890	10.56



Figure 24

Incidents by Protective Devices



OUTCOMES INFORMATION



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Median Prehospital Time (in Minutes) by Mechanism of Injury

MECHANISM	NUMBER	MEDIAN
Motor vehicle traffic	27,237	56
Fall	22,523	85
Struck by, against	7,909	69
Transport, other	6,310	84
Firearm	4,069	35
Cut/pierce	2,724	48
Pedal cyclist, other	2,695	78
Other specified and classifiable	2,368	101
Hot object/substance	1,804	112
Natural/environmental, bites and stings	1,229	84
Fire/flame	797	88
Unspecified	636	93
Pedestrian, other	465	56
Other specified, not elsewhere classifiable	381	78
Overexertion	381	80
Natural/environmental, other	338	100
NK/NR	332	1,440
Machinery	310	82
Suffocation	143	54
Poisoning	130	84
Drowning/submersion	104	57



Figure 25

Median Prehospital Time (in Minutes) by Selected Mechanism of Injury

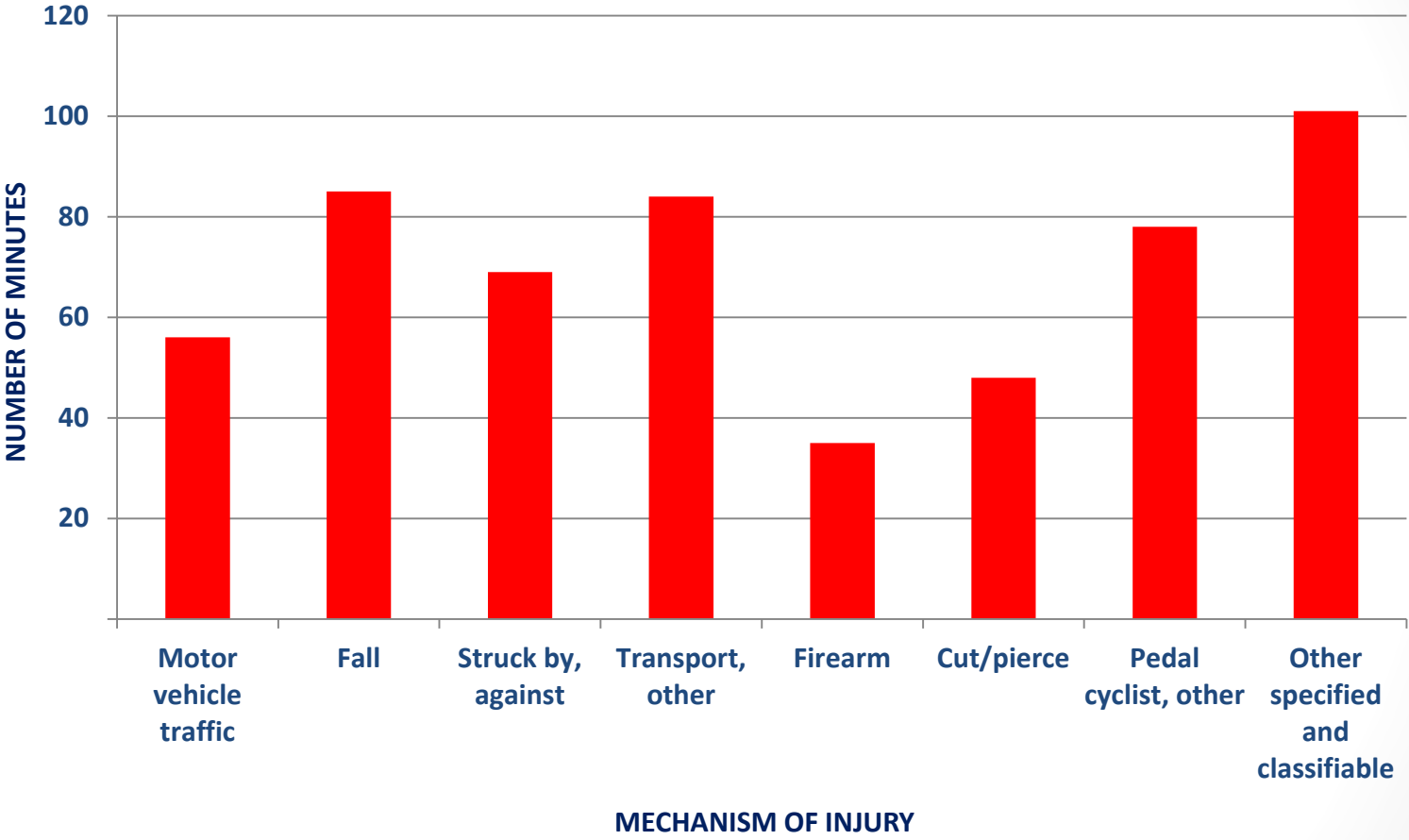


Table
26

Median Total Prehospital Time (in Minutes) by Injury Severity Score (ISS)

ISS	NUMBER	MEDIAN
1-8	43,909	67
9-15	21,071	72
16-24	9,928	69
>24	6,712	60
NK/NR	1,285	55



Figure 26

Median Total Prehospital Time (in Minutes) by Injury Severity Score (ISS)



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

Table
27

Median Length of Stay (in Days) by Mechanism of Injury

MECHANISM	NUMBER	MEDIAN
Fall	47,794	2
Motor vehicle traffic	34,035	3
Struck by, against	14,987	2
Transport, other	9,859	2
Firearm	5,880	3
Pedal cyclist, other	4,861	2
Other specified and classifiable	4,799	3
Cut/pierce	4,641	2
Hot object/substance	4,056	2
Natural/environmental, bites and stings	2,456	2
Unspecified	1,511	2
Fire/flame	1,468	2
Overexertion	851	2
Other specified, not elsewhere classifiable	804	2
Pedestrian, other	659	2
Natural/environmental, other	588	2
Machinery	554	2
NK/NR	497	3
Poisoning	189	2
Suffocation	173	3
Drowning/submersion	137	2



Figure 27

Median Length of Stay (in Days) by Selected Mechanism of Injury

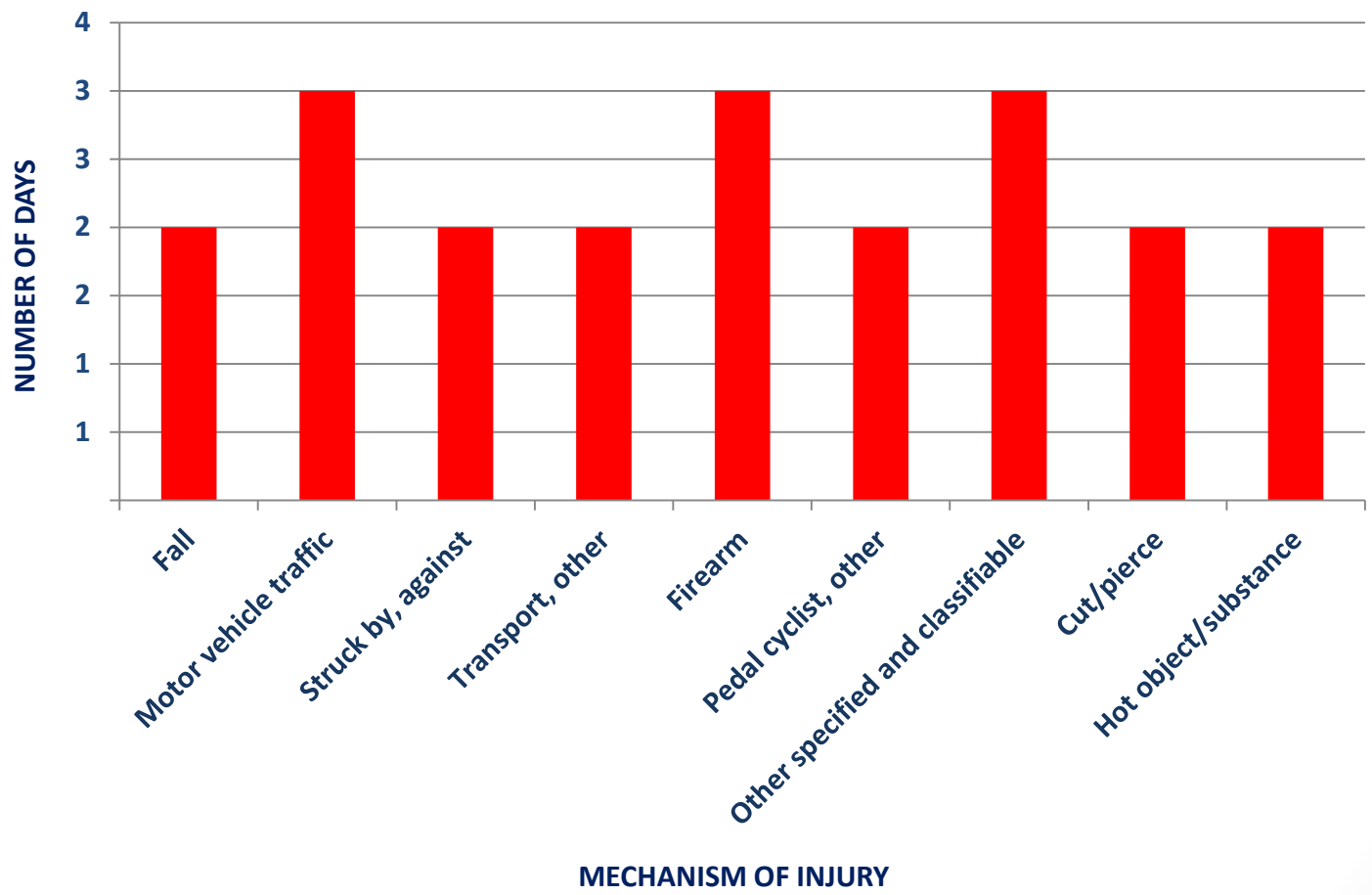


Table
28

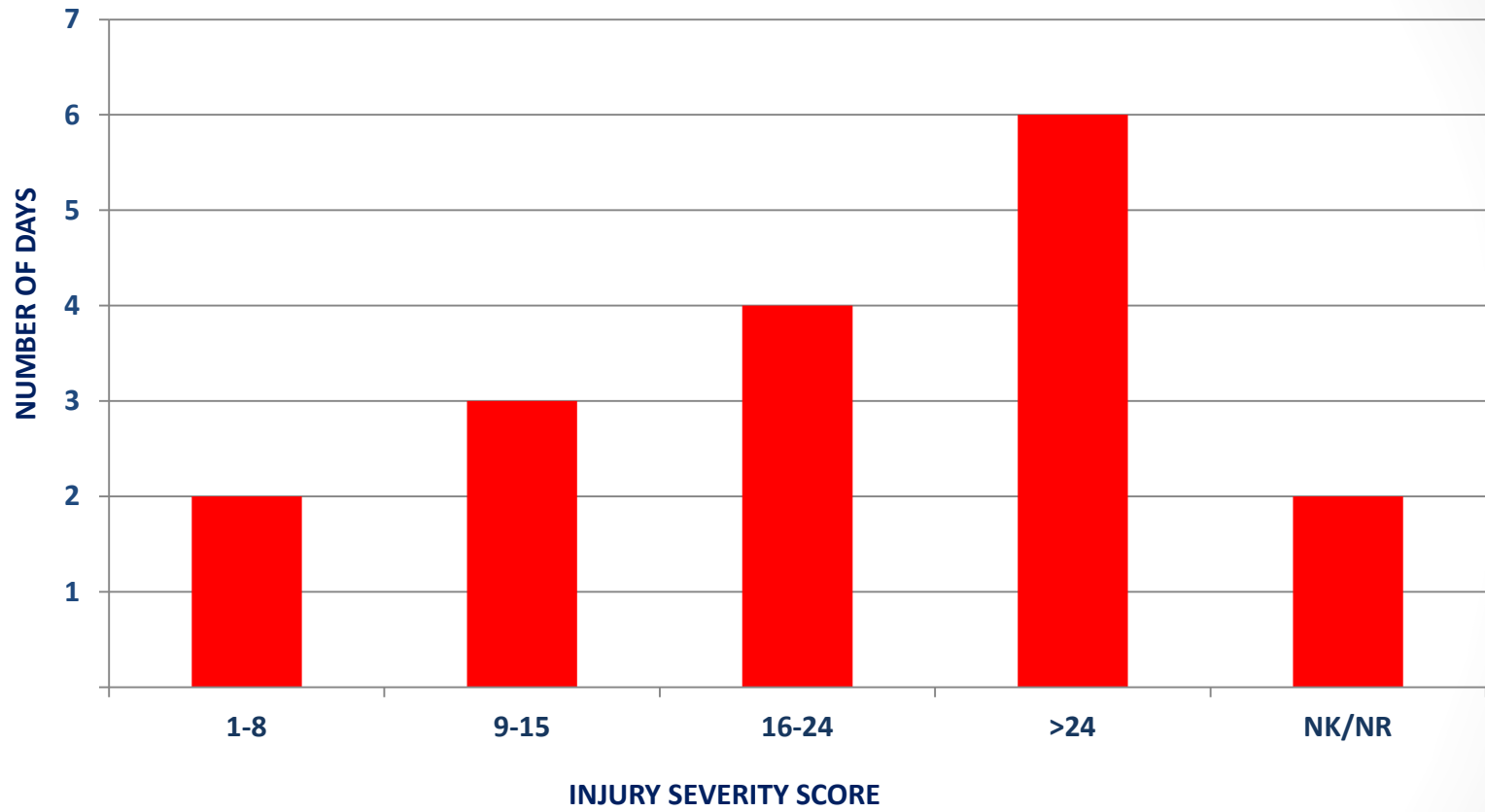
Median Length of Stay (in Days) by Injury Severity Score (ISS)

ISS	NUMBER	MEDIAN
1-8	82,932	2
9-15	32,918	3
16-24	14,218	4
>24	8,335	6
NK/NR	2,444	2



Figure 28

Median Length of Stay (in Days) by Injury Severity Score (ISS)



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

Table
29

Median Ventilator Days by Mechanism of Injury

MECHANISM	NUMBER	MEDIAN
Motor vehicle traffic	3,057	4
Firearm	673	4
Fall	616	3
Other specified and classifiable	503	5
Transport, other	435	3
Struck by, against	258	3
NK/NR	164	3
Cut/pierce	111	2
Fire/flame	108	4
Unspecified	93	4
Pedal cyclist, other	75	3
Suffocation	68	4
Natural/environmental, bites and stings	42	3
Drowning/submersion	36	4
Pedestrian, other	36	4
Other specified, not elsewhere classifiable	34	8
Hot object/substance	32	4
Natural/environmental, other	27	2
Machinery	16	4
Poisoning	8	5
Overexertion	2	16

In patients with ventilator days > 0.



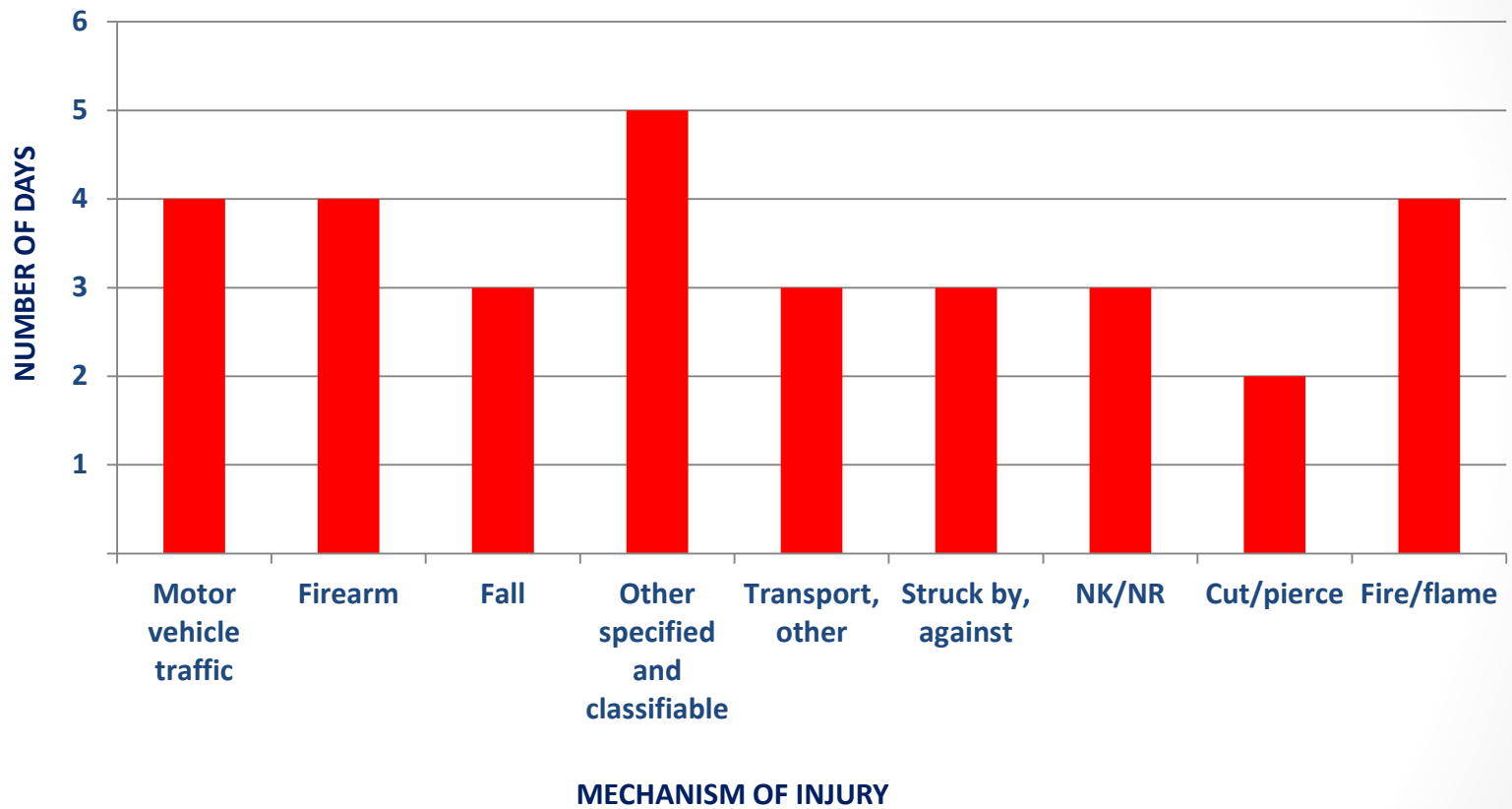
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Figure 29

Median Ventilator Days by Selected Mechanism of Injury



In patients with ventilator days > 0.

Median Ventilator Days by Injury Severity Score (ISS)

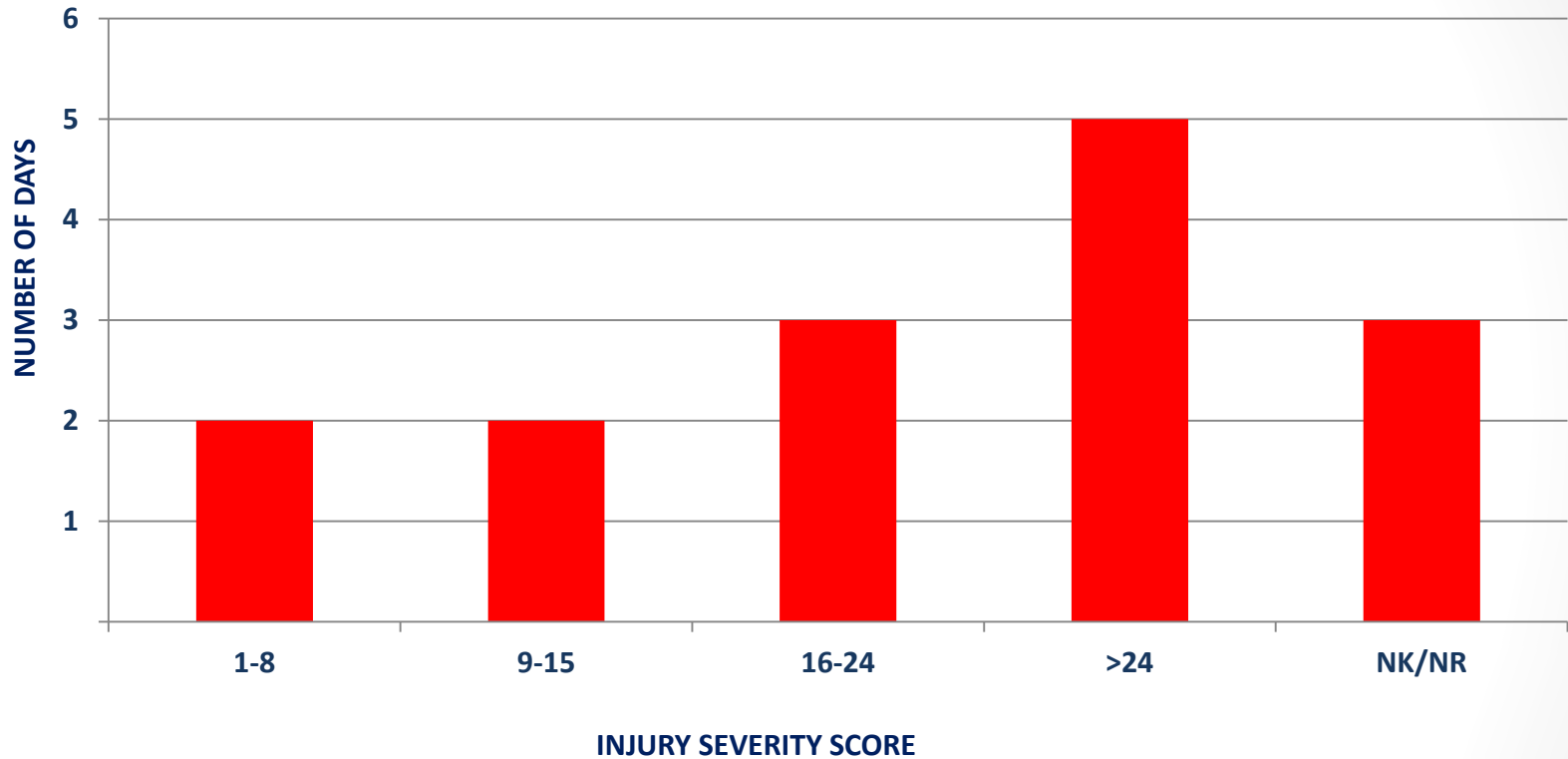
ISS	NUMBER	MEDIAN
1-8	505	2
9-15	867	2
16-24	1,631	3
>24	3,348	5
NK/NR	51	3

Injury Severity Score tables are generated using AIS98 Crosswalked ISS.
Injury Severity Score definitions can be found in Appendix B.
In patients with ventilator days > 0.



Figure 30

Median Ventilator Days by Injury Severity Score (ISS)



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B. In patients with ventilator days > 0.

Table
31

Median ICU Days by Mechanism of Injury

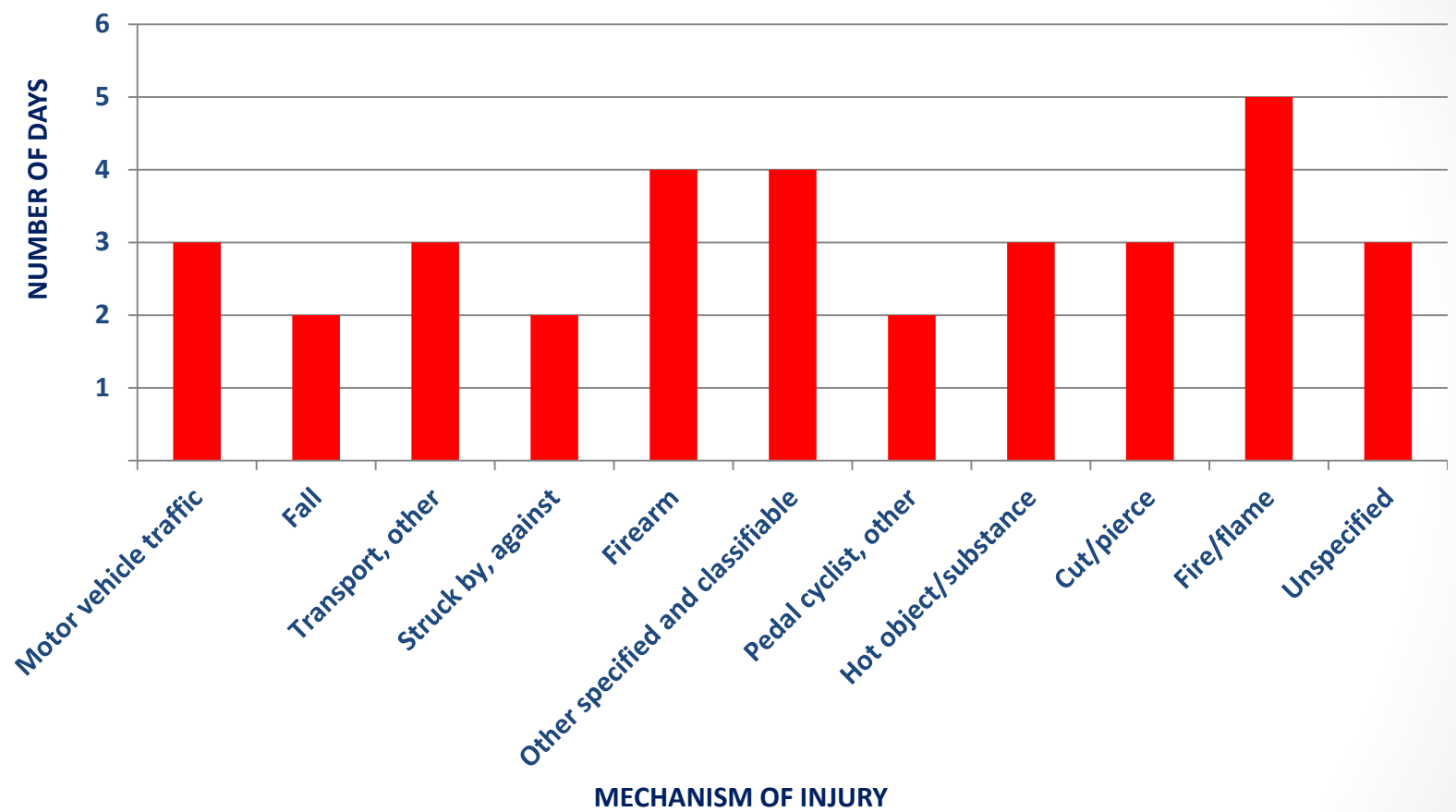
MECHANISM	NUMBER	MEDIAN
Motor vehicle traffic	7,475	3
Fall	3,576	2
Transport, other	1,540	3
Struck by, against	1,394	2
Firearm	1,389	4
Other specified and classifiable	1,053	4
Pedal cyclist, other	468	2
Hot object/substance	455	3
Cut/pierce	389	3
Fire/flame	306	5
Unspecified	240	3
Natural/environmental, bites and stings	151	3
Pedestrian, other	125	3
NK/NR	104	3
Other specified, not elsewhere classifiable	97	3
Natural/environmental, other	93	3
Suffocation	81	5
Machinery	71	3
Drowning/submersion	53	3
Overexertion	19	3
Poisoning	17	2

In patients with ICU days > 0.



Figure 31

Median ICU Days by Selected Mechanism of Injury



In patients with ICU days > 0.

Median ICU Days by Injury Severity Score (ISS)

ISS	NUMBER	MEDIAN
1-8	3,294	2
9-15	4,371	3
16-24	5,899	3
>24	5,431	5
NK/NR	117	2

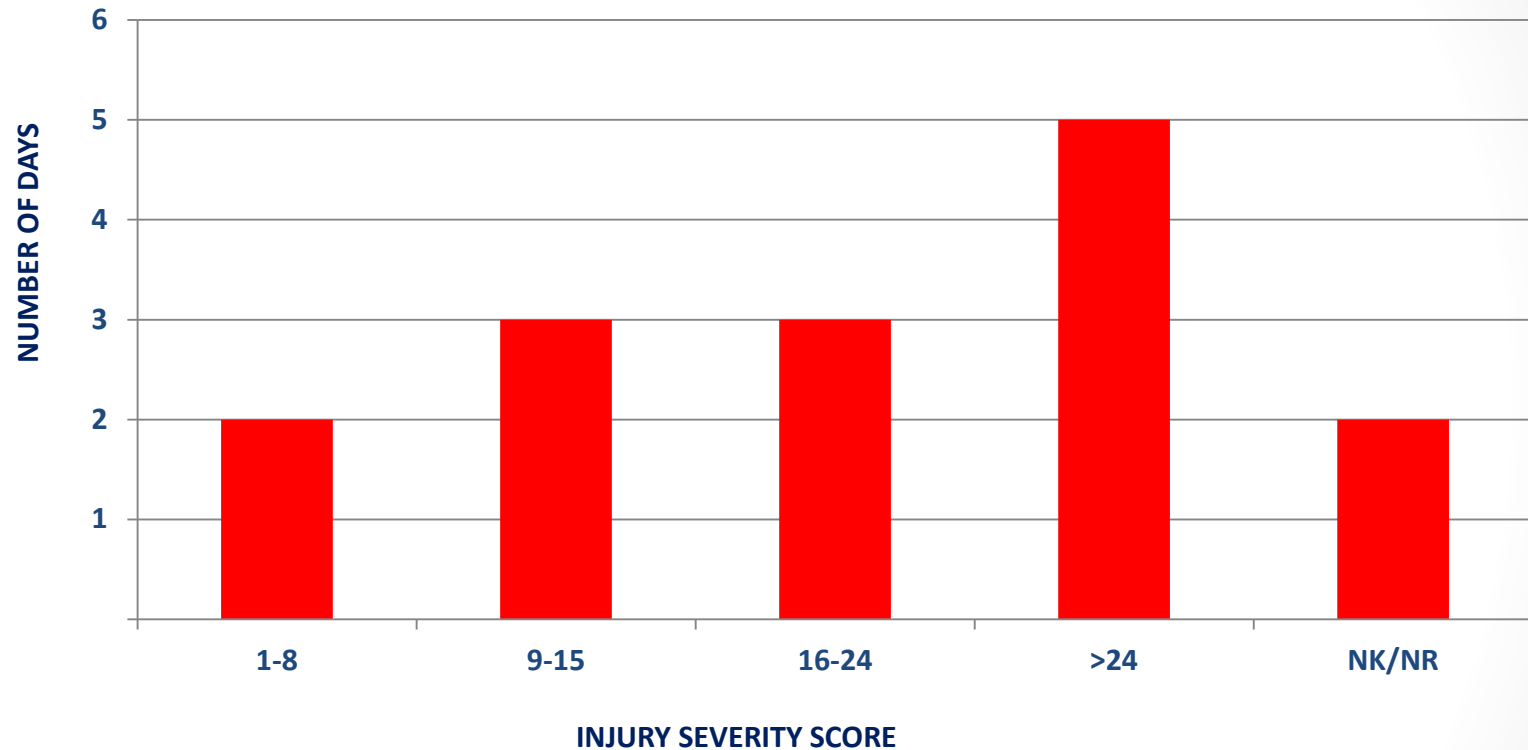
Injury Severity Score tables are generated using AIS98 Crosswalked ISS.
Injury Severity Score definitions can be found in Appendix B.

In patients with ICU days > 0.



Figure 32

Median ICU Days by Injury Severity Score (ISS)



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B. In patients with ICU days > 0.

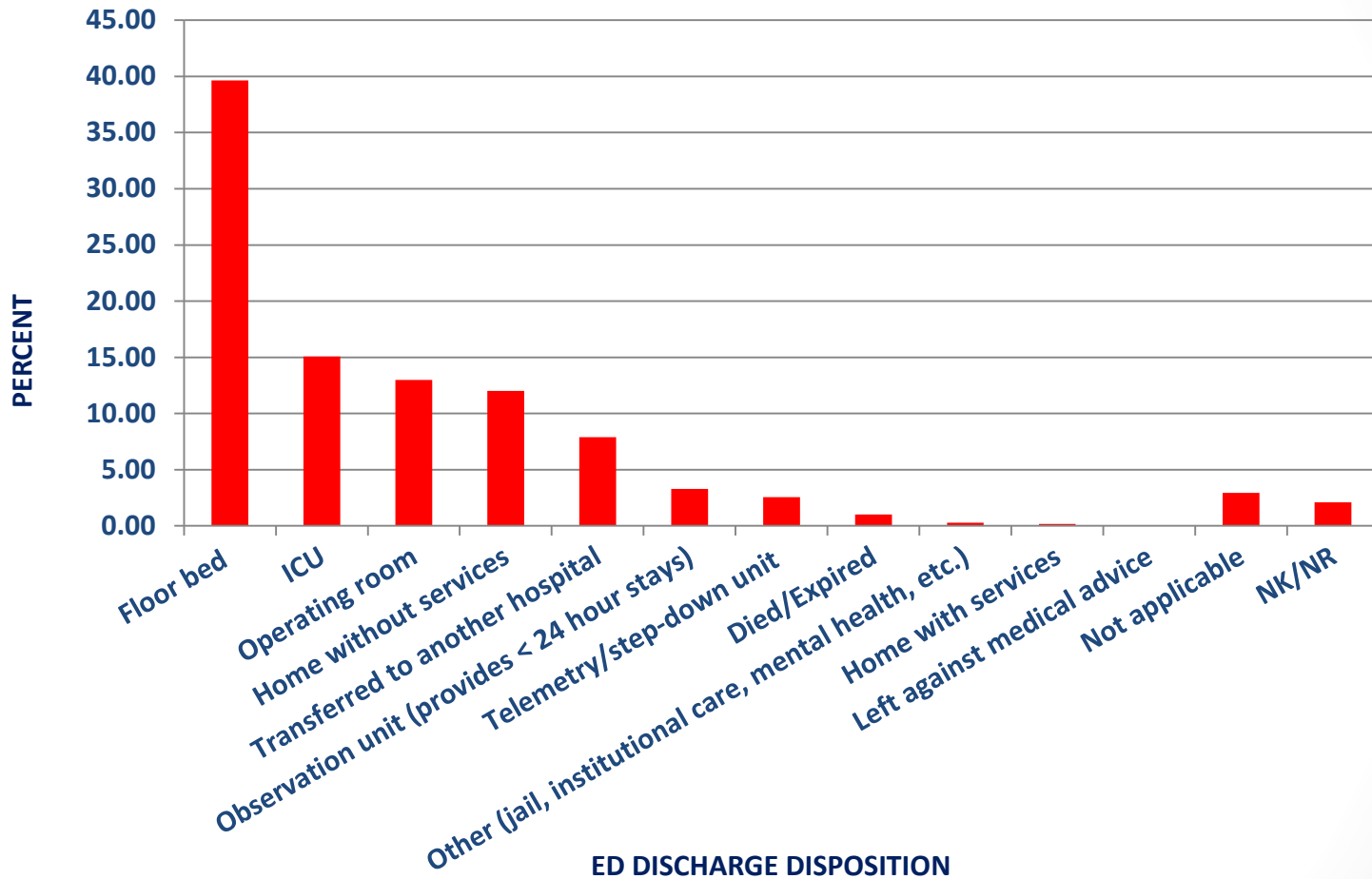
Incidents by ED Discharge Disposition

ED DISCHARGE DISPOSITION	NUMBER	PERCENT
Floor bed (general admission, non-specialty unit bed)	55,916	39.64
Intensive care unit (ICU)	21,269	15.08
Operating room	18,316	12.98
Home without services	16,927	12.00
Transferred to another hospital	11,125	7.89
Observation unit (unit that provides < 24 hour stays)	4,651	3.30
Telemetry/step-down unit (less acuity than ICU)	3,623	2.57
Died/expired	1,430	1.01
Other (jail, institutional care facility, mental health, etc.)	382	0.27
Home with services	226	0.16
Left against medical advice	84	0.06
Not applicable	4,147	2.94
NK/NR	2,971	2.11
Total	141,067	100



Figure 33

Incidents by ED Discharge Disposition



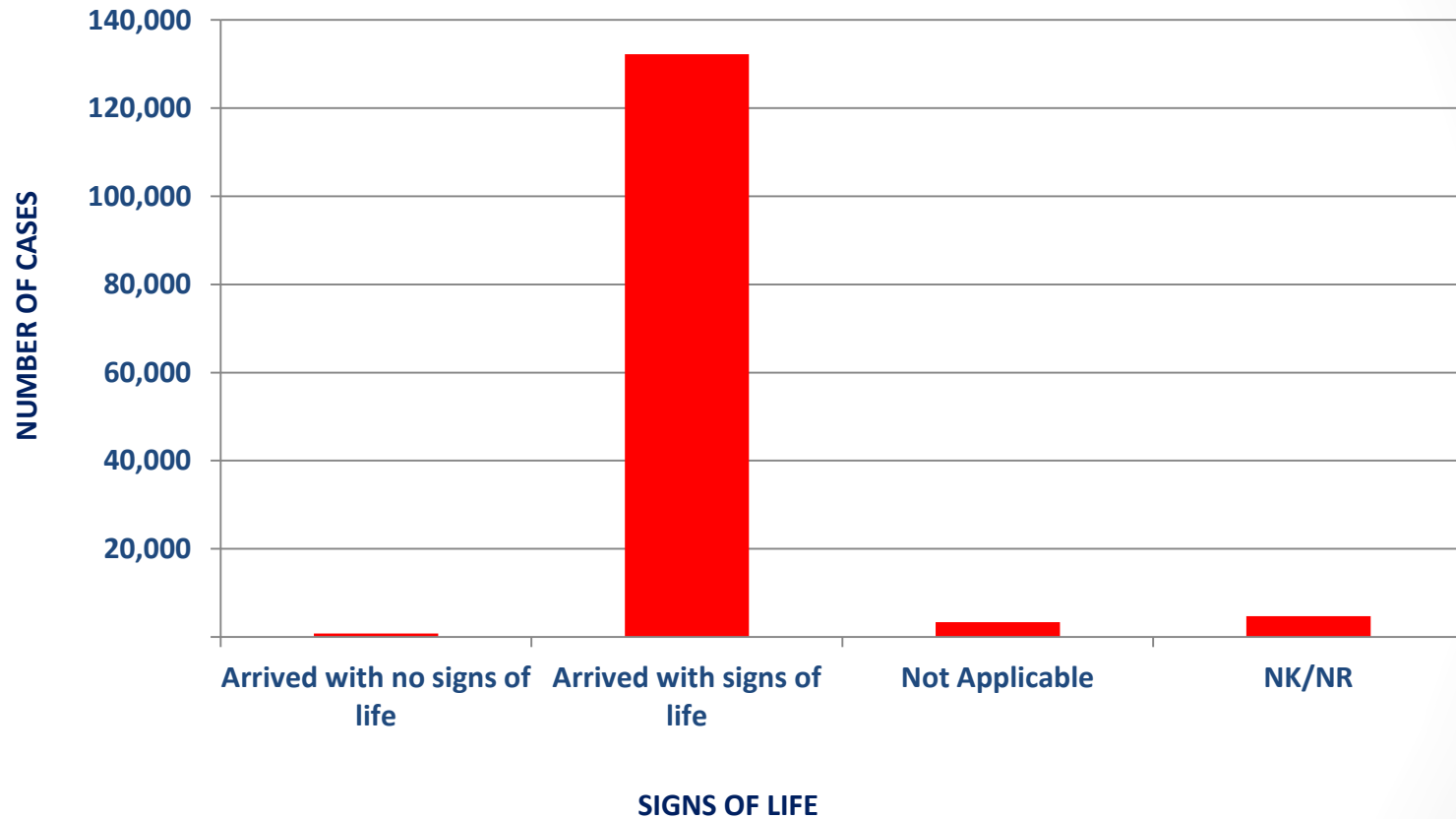
Signs of Life

SIGNS OF LIFE	NUMBER	PERCENT
Arrived with no signs of life	784	0.56
Arrived with signs of life	132,254	93.75
Not applicable	3,336	2.36
NK/NR	4,693	3.33
Total	141,067	100

Indication of whether patient arrived at ED/hospital with signs of life.

Figure 34

Signs of Life



Indication of whether patient arrived at ED/hospital with signs of life.



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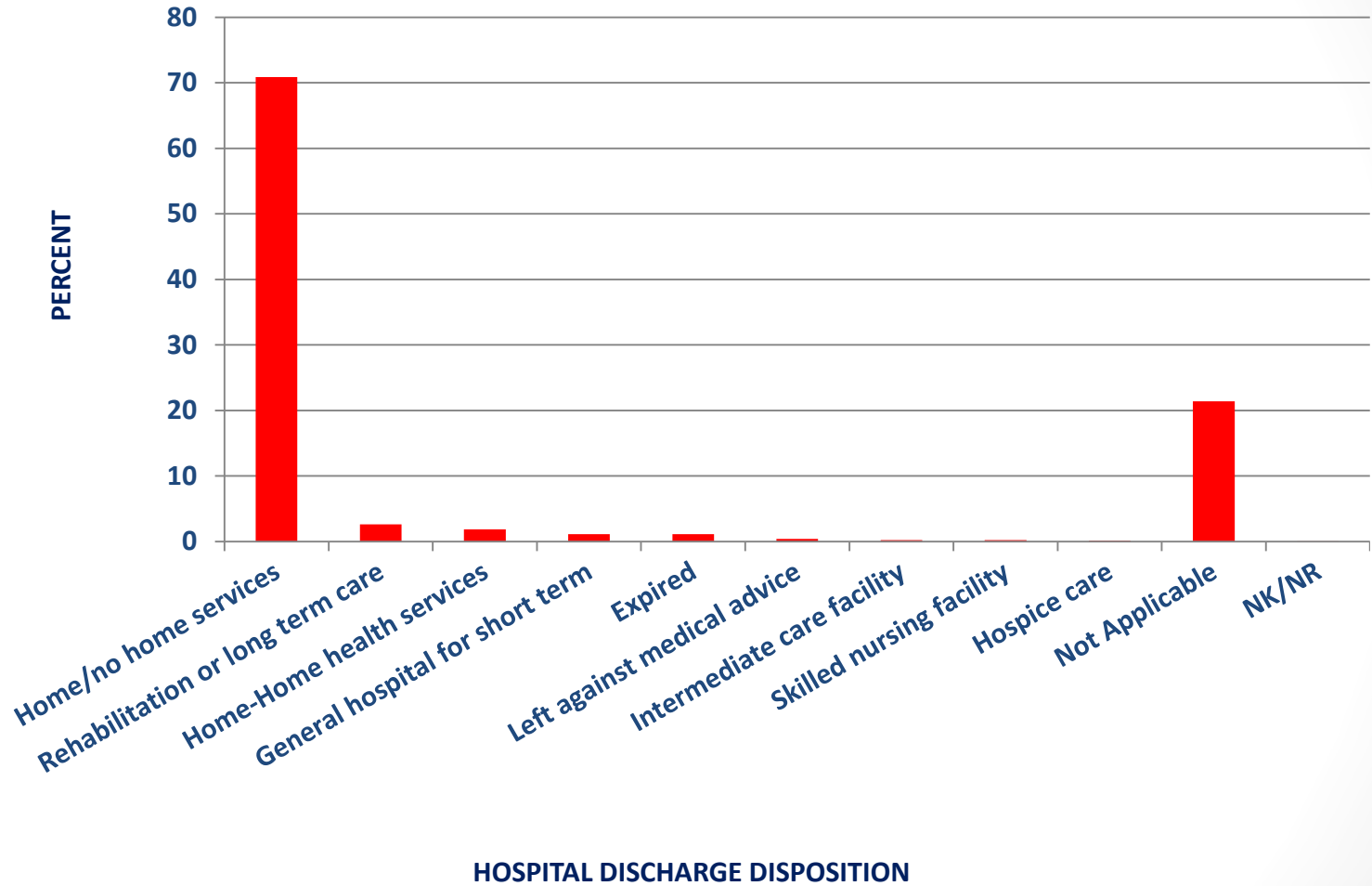
Incidents by Hospital Discharge Disposition

HOSPITAL DISCHARGE DISPOSITION	NUMBER	PERCENT
Discharged home with no home services	99,980	70.87
Discharged/transferred to another type of rehabilitation or long-term care	3,724	2.64
Discharge/transferred to home under care of organized home health service	2,624	1.86
Discharged/transferred to a short-term general hospital for inpatient care	1,618	1.15
Expired	1,598	1.13
Left against medical advice or discontinued care	566	0.40
Discharged/transferred to an Intermediate care facility (ICF)	314	0.22
Discharged/transferred to skilled nursing facility	301	0.21
Discharged/transferred to hospice care	160	0.11
Not applicable	30,174	21.39
NK/NR	8	0.01
Total	141,067	100



Figure 35

Incidents by Hospital Discharge Disposition



REGIONAL ANALYSIS



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Table
36

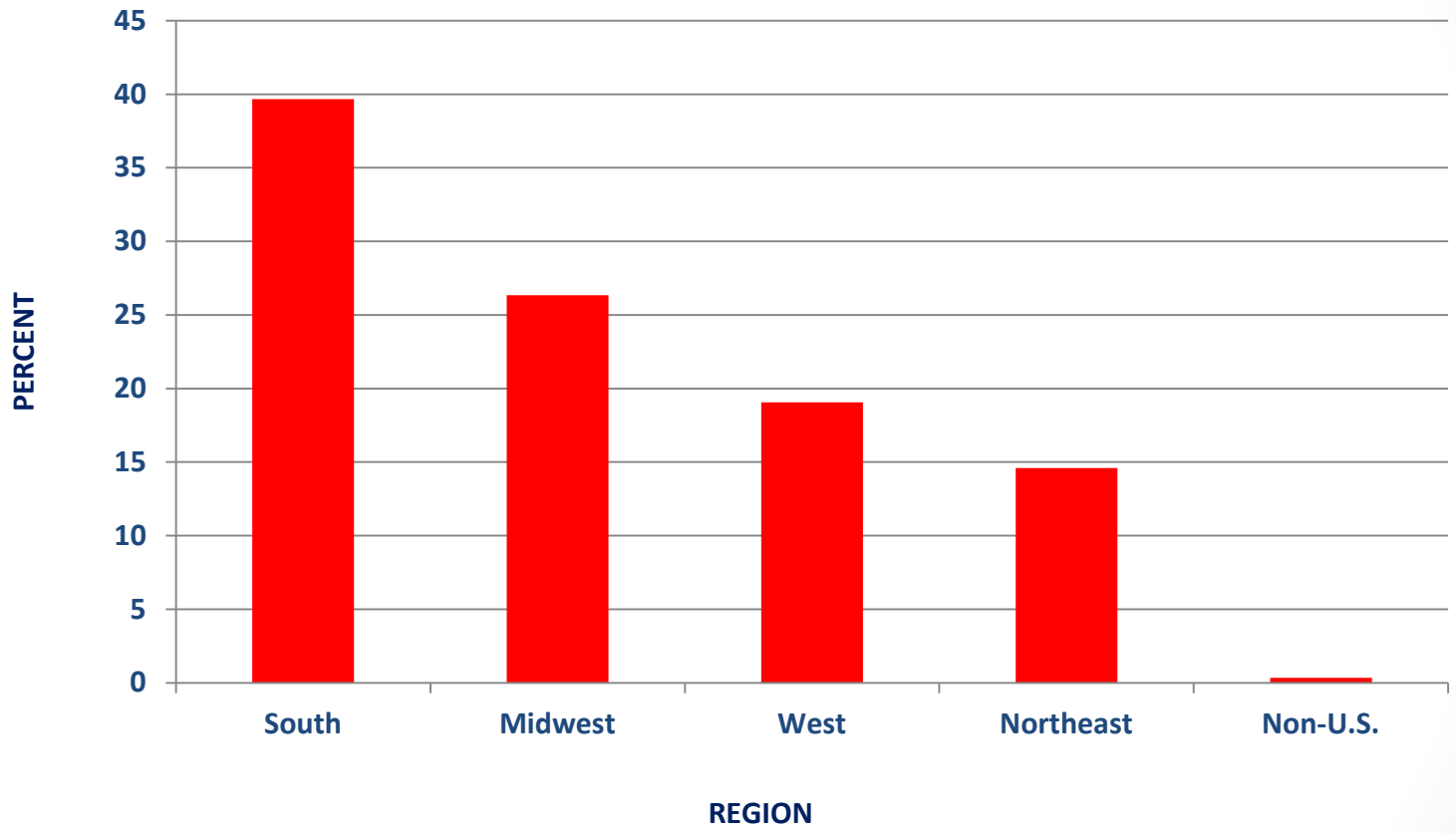
Incidents by Region

REGION	NUMBER	PERCENT
South	55,951	39.66
Midwest	37,148	26.33
West	26,880	19.05
Northeast	20,593	14.60
Non-U.S.	495	0.35
Total	141,067	100



Figure 36

Incidents by Region



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Table
37

Case Fatality Rate by Region

REGION	NUMBER	DEATHS	CASE FATALITY RATE
South	55,951	1,059	1.89
Midwest	37,148	724	1.95
West	26,880	557	2.07
Northeast	20,593	810	3.93
Non-U.S.	495	38	7.68
Total	141,067	3,188	2.26



Figure 37

Case Fatality Rate by Region

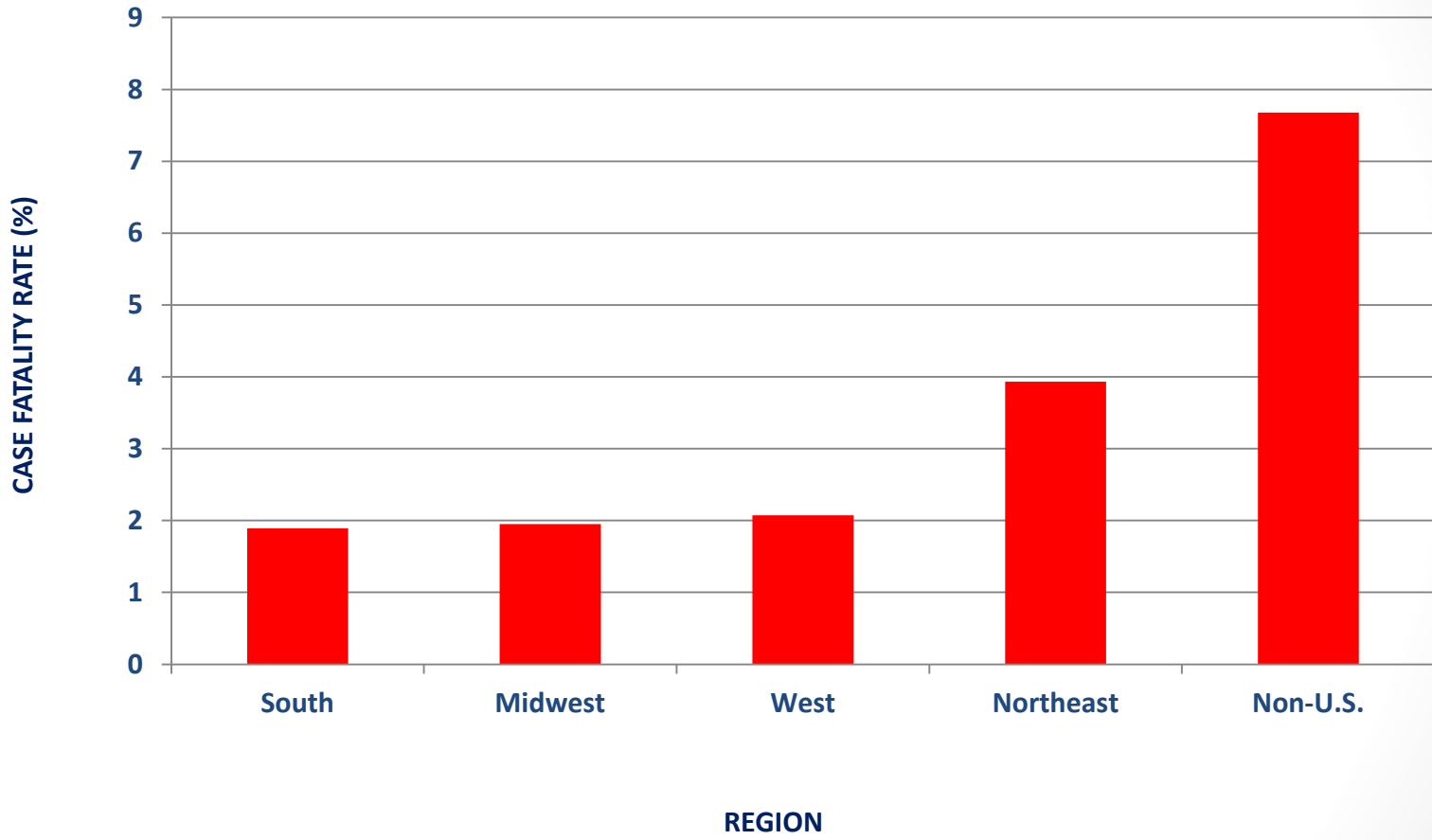


Table
38

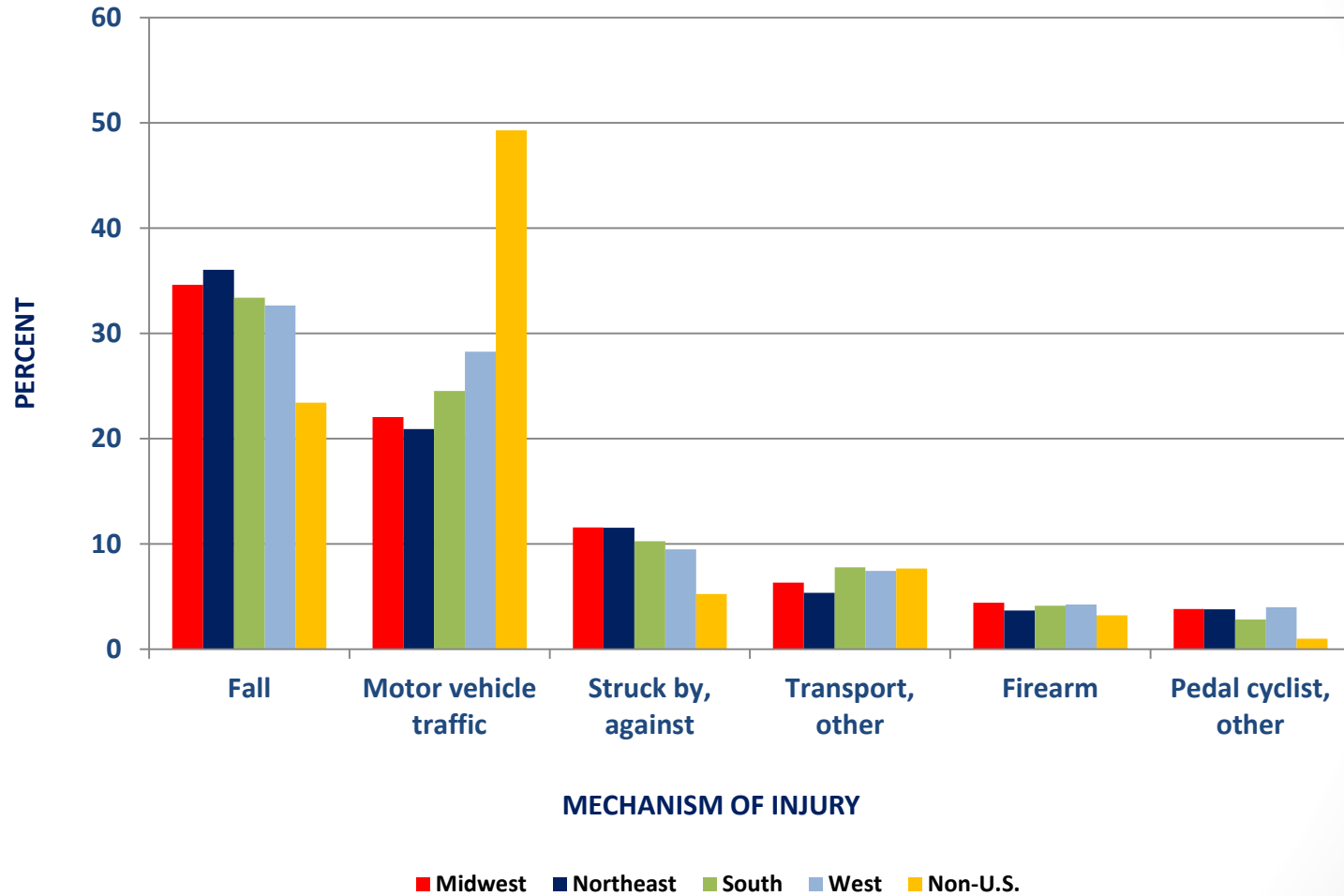
Mechanism of Injury by Region

MECHANISM	NUMBER	MIDWEST PERCENT	NORTHEAST PERCENT	SOUTH PERCENT	WEST PERCENT	NON-U.S. PERCENT
Fall	47,876	34.63	36.06	33.41	32.66	23.43
Motor vehicle traffic	34,083	22.08	20.92	24.54	28.26	49.29
Struck by, against	15,005	11.59	11.55	10.26	9.50	5.25
Transport, other	9,874	6.35	5.37	7.81	7.46	7.68
Firearm	5,892	4.43	3.70	4.15	4.26	3.23
Pedal cyclist, other	4,865	3.83	3.80	2.83	4.00	1.01
Other specified and classifiable	4,807	3.38	3.04	3.83	2.88	1.21
Cut/pierce	4,649	3.13	3.62	3.05	3.73	6.46
Hot object/substance	4,060	2.92	3.70	3.10	1.78	0.00
Natural/environmental, bites and stings	2,459	1.84	1.39	2.07	1.22	0.00
Unspecified	1,514	1.03	1.18	1.05	1.11	0.40
Fire/flame	1,472	1.19	1.12	1.16	0.55	0.61
Overexertion	853	0.65	0.87	0.60	0.36	0.00
Other specified, not elsewhere classifiable	807	0.59	0.74	0.56	0.43	1.01
Pedestrian, other	659	0.50	0.44	0.43	0.53	0.00
Natural/environmental, other	588	0.43	0.31	0.44	0.43	0.20
Machinery	555	0.50	0.39	0.37	0.30	0.00
NK/NR	502	0.20	1.56	0.07	0.24	0.00
Poisoning	189	0.38	0.03	0.03	0.09	0.00
Suffocation	173	0.16	0.09	0.10	0.14	0.20
Drowning/submersion	137	0.13	0.07	0.10	0.08	0.00
Adverse effects, drugs	26	0.03	0.01	0.02	0.01	0.00
Adverse effects, medical care	22	0.02	0.05	0.01	0.00	0.00
Total	141,067	100	100	100	100	100



Figure 38

Selected Mechanism of Injury by Region



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Injury Severity Score (ISS) by Region

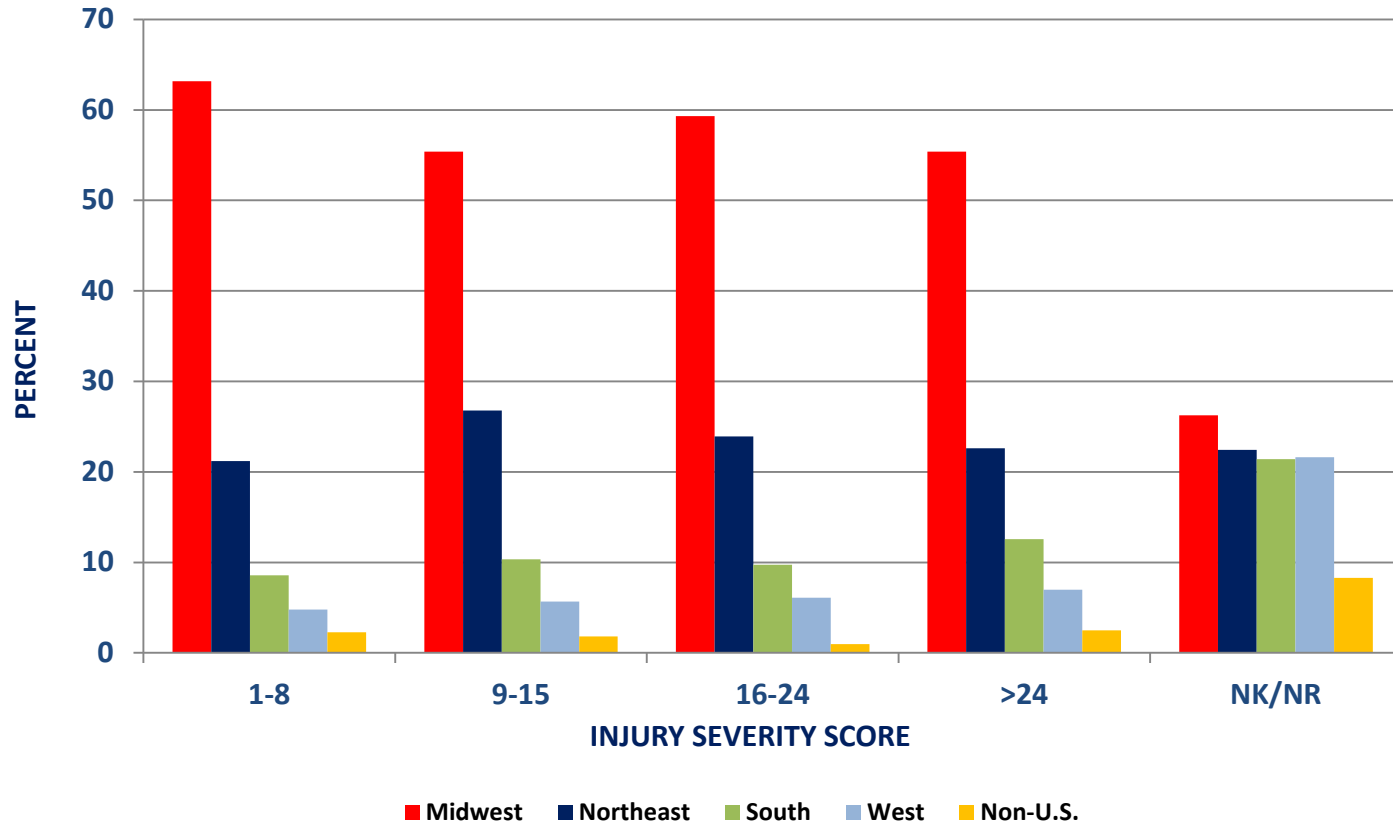
ISS	NUMBER	MIDWEST PERCENT	NORTHEAST PERCENT	SOUTH PERCENT	WEST PERCENT	NON-U.S. PERCENT
1-8	83,074	63.17	55.39	59.31	55.39	26.26
9-15	32,951	21.20	26.80	23.90	22.61	22.42
16-24	14,243	8.58	10.33	9.74	12.56	21.41
>24	8,346	4.80	5.65	6.11	6.98	21.62
NK/NR	2,453	2.26	1.83	0.95	2.47	8.28
Total	141,067	100	100	100	100	100

Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.



Figure 39

Injury Severity Score (ISS) by Region



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

Table
40

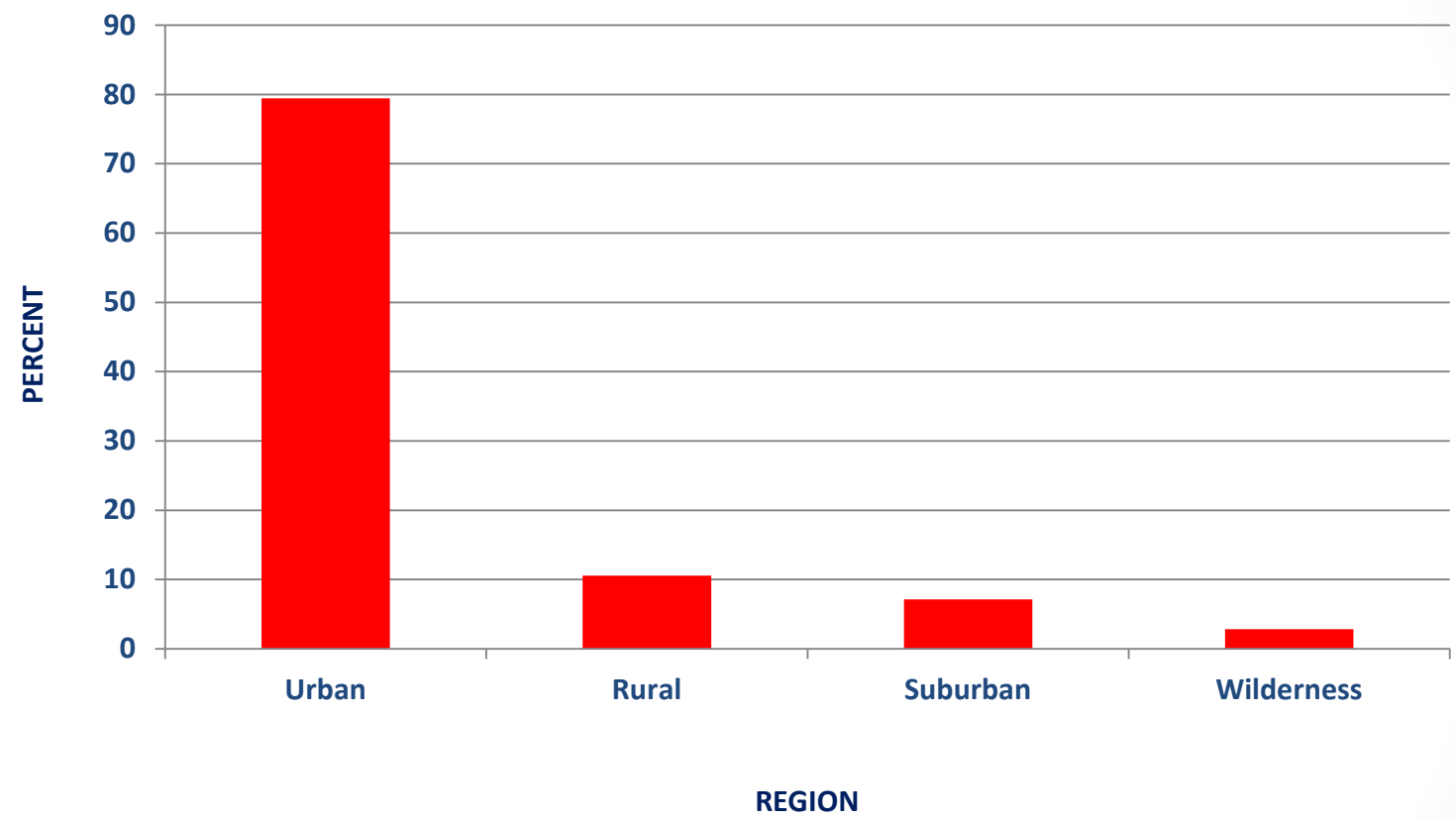
Incidents by Rurality

CATEGORY	NUMBER	PERCENT
Urban	61,730	79.45
Rural	8,210	10.57
Suburban	5,546	7.14
Wilderness	2,212	2.85
Total	77,698	100

All rurality tables are determined by Urban Influence Codes that are developed by the Office of Management and Budget. Urban influence codes only apply to incidents and are not available for every record in the NTDB.

Figure 40

Incidents by Rurality



All rurality tables are determined by Urban Influence Codes that are developed by the Office of Management and Budget. Urban influence codes only apply to incidents and are not available for every record in the NTDB.

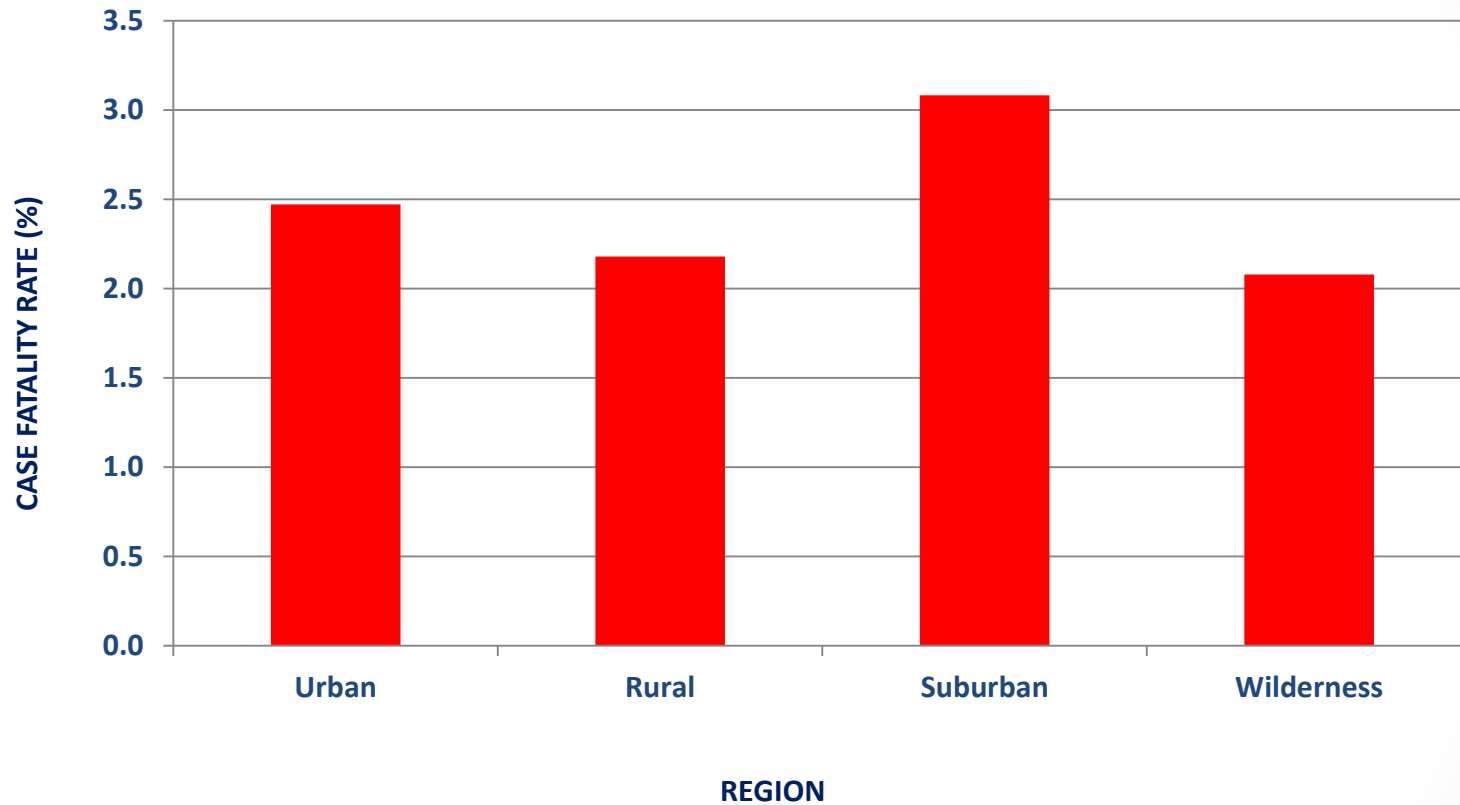
Case Fatality Rate by Rurality

CATEGORY	NUMBER	DEATHS	CASE FATALITY RATE
Urban	61,730	1,526	2.47
Rural	8,210	179	2.18
Suburban	5,546	171	3.08
Wilderness	2,212	46	2.08
Total	77,698	3,188	4.10

All rurality tables are determined by Urban Influence Codes that are developed by the Office of Management and Budget. Urban influence codes only apply to incidents and are not available for every record in the NTDB.

Figure
41

Case Fatality Rate by Rurality



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All rurality tables are determined by Urban Influence Codes that are developed by the Office of Management and Budget. Urban influence codes only apply to incidents and are not available for every record in the NTDB.

Table
42

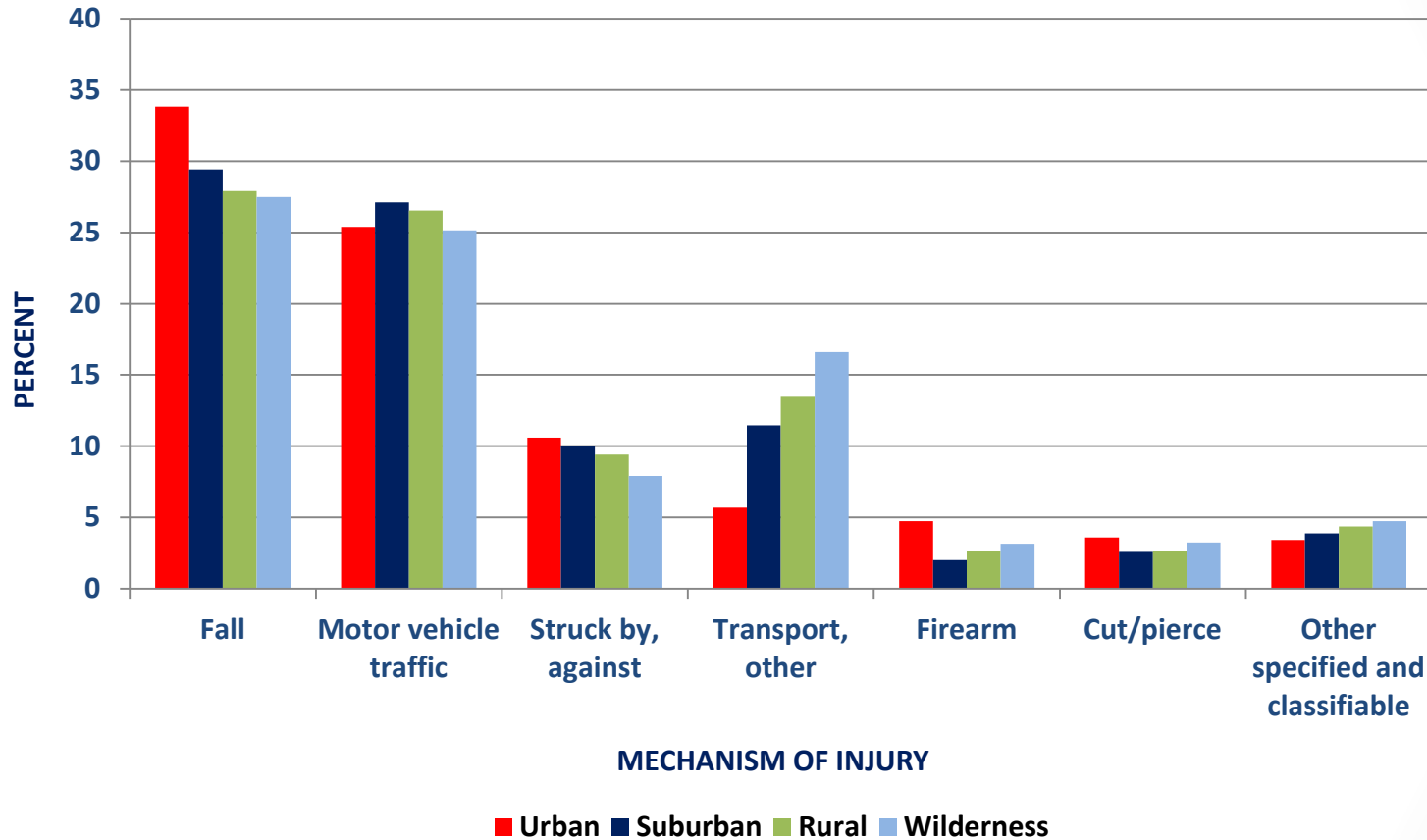
Mechanism of Injury by Rurality

MECHANISM	NUMBER (URBAN)	PERCENT (URBAN)	NUMBER (SUBURBAN)	PERCENT (SUBURBAN)	NUMBER (RURAL)	PERCENT (RURAL)	NUMBER (WILDERNESS)	PERCENT (WILDERNESS)
Fall	20,877	33.82	1,631	29.41	2,290	27.89	608	27.49
Motor vehicle traffic	15,667	25.38	1,503	27.10	2,178	26.53	556	25.14
Struck by, against	6,550	10.61	554	9.99	773	9.42	175	7.91
Transport, other	3,507	5.68	636	11.47	1,105	13.46	367	16.59
Firearm	2,926	4.74	112	2.02	220	2.68	70	3.16
Cut/pierce	2,222	3.60	143	2.58	216	2.63	72	3.25
Other specified and classifiable	2,107	3.41	216	3.89	358	4.36	105	4.75
Pedal cyclist, other	2,092	3.39	173	3.12	235	2.86	54	2.44
Hot object/substance	1,734	2.81	154	2.78	212	2.58	48	2.17
Natural/environmental, bites and stings	1,104	1.79	119	2.15	148	1.80	44	1.99
Fire/flame	577	0.93	77	1.39	123	1.50	27	1.22
Unspecified	559	0.91	58	1.05	55	0.67	10	0.45
Overexertion	385	0.62	29	0.52	33	0.40	7	0.32
Other specified, not elsewhere classifiable	352	0.57	28	0.50	35	0.43	15	0.68
Pedestrian, other	312	0.51	27	0.49	47	0.57	6	0.27
Natural/environmental, other	198	0.32	33	0.60	73	0.89	20	0.90
Machinery	163	0.26	32	0.58	67	0.82	16	0.72
Poisoning	119	0.19	3	0.05	15	0.18	3	0.14
NK/NR	114	0.18	4	0.07	7	0.09	2	0.09
Suffocation	81	0.13	9	0.16	8	0.10	5	0.23
Drowning/submersion	64	0.10	4	0.07	11	0.13	2	0.09
Adverse effects, medical care	12	0.02	1	0.02	0	0.00	0	0.00
Adverse effects, drugs	8	0.01	0	0.00	1	0.01	0	0.00
Total	61,730	100	5,546	100	8,210	100	2,212	100

All rurality tables are determined by Urban Influence Codes that are developed by the Office of Management and Budget. Urban influence codes only apply to incidents and are not available for every record in the NTDB.

Figure 42

Selected Mechanism of Injury by Rurality



All rurality tables are determined by Urban Influence Codes that are developed by the Office of Management and Budget. Urban influence codes only apply to incidents and are not available for every record in the NTDB.

Injury Severity Score (ISS) by Rurality

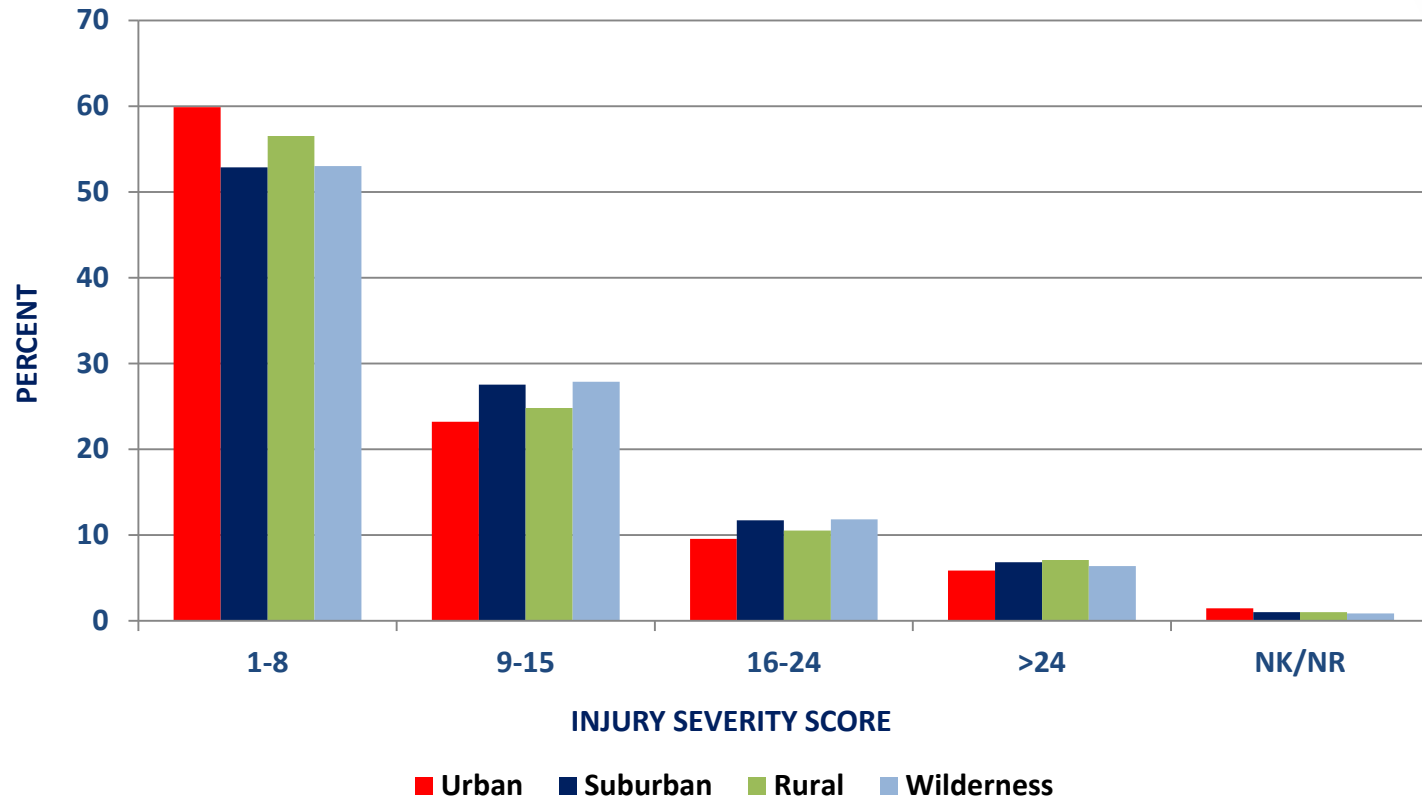
ISS	NUMBER (URBAN)	PERCENT (URBAN)	NUMBER (SUBURBAN)	PERCENT (SUBURBAN)	NUMBER (RURAL)	PERCENT (RURAL)	NUMBER (WILDERNESS)	PERCENT (WILDERNESS)
1-8	36,966	59.88	2,932	52.87	4,641	56.53	1,173	53.03
9-15	14,328	23.21	1,527	27.53	2,039	24.84	617	27.89
16-24	5,910	9.57	651	11.74	865	10.54	262	11.84
>24	3,614	5.85	379	6.83	582	7.09	141	6.37
NK/NR	912	1.48	57	1.03	83	1.01	19	0.86
Total	61,730	100	5,546	100	8,210	100	2,212	100

Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

All rurality tables are determined by Urban Influence Codes that are developed by the Office of Management and Budget. Urban influence codes only apply to incidents and are not available for every record in the NTDB.

Figure 43

Injury Severity Score (ISS) by Rurality



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

All rurality tables are determined by Urban Influence Codes that are developed by the Office of Management and Budget. Urban influence codes only apply to incidents and are not available for every record in the NTDB.

COMPARATIVE ANALYSIS



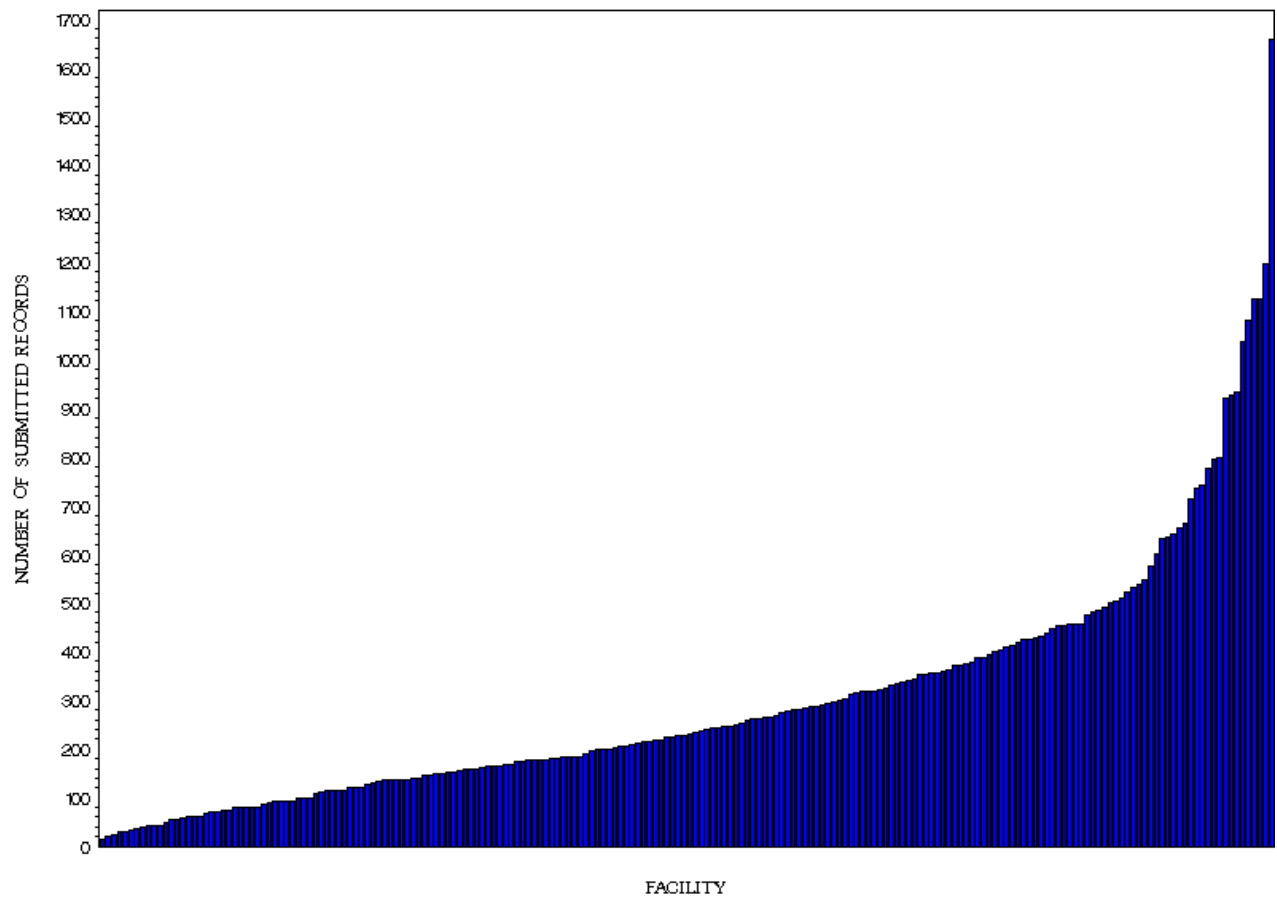
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Figure 44

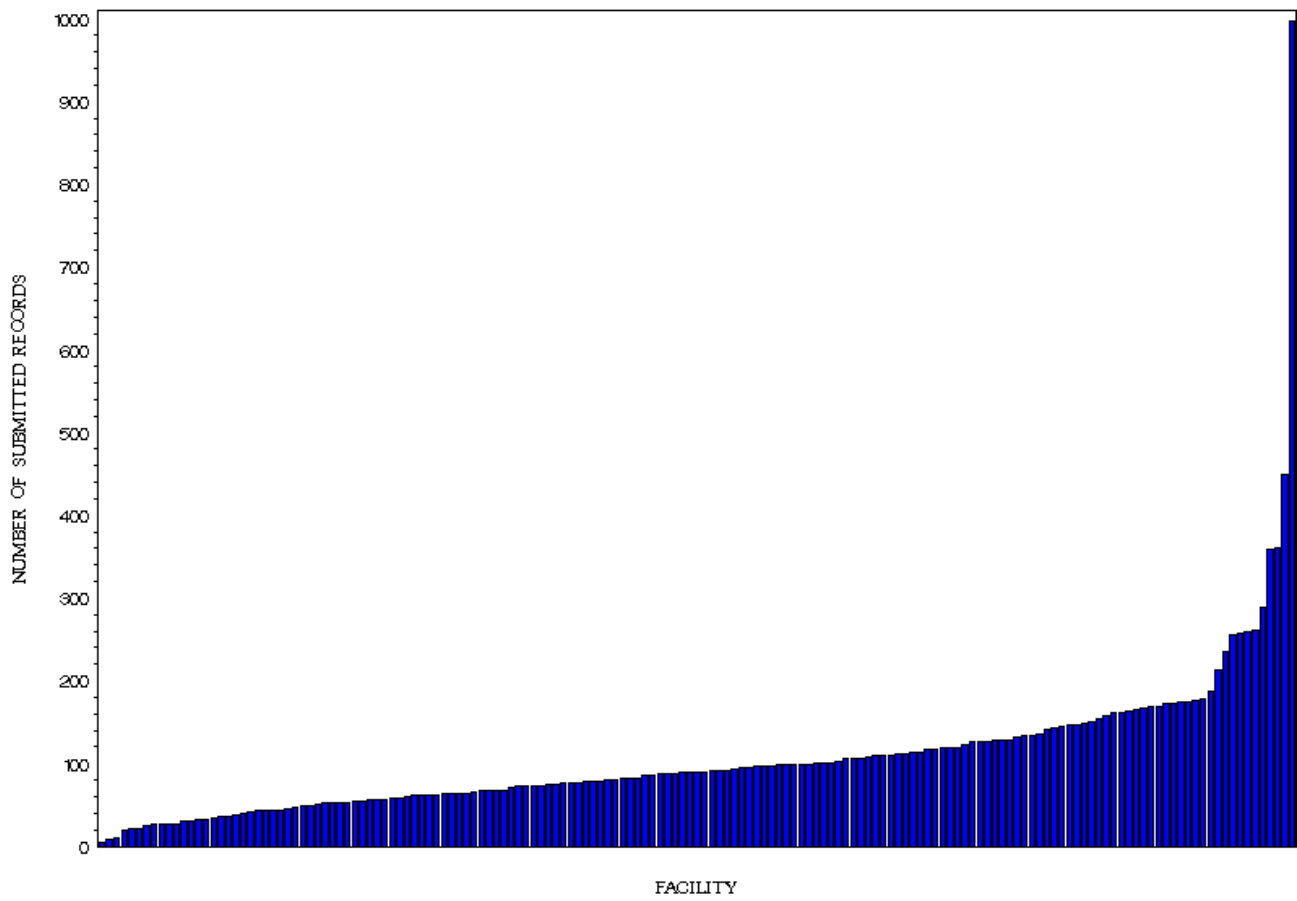
Number of Cases Submitted per Facility for Level I Facilities with Pediatric Cases (N=204)



Only cases with valid trauma diagnosis code per the NTDB criteria are included in the analysis. Trauma level is based on ACS verification and state designation.

Figure 45

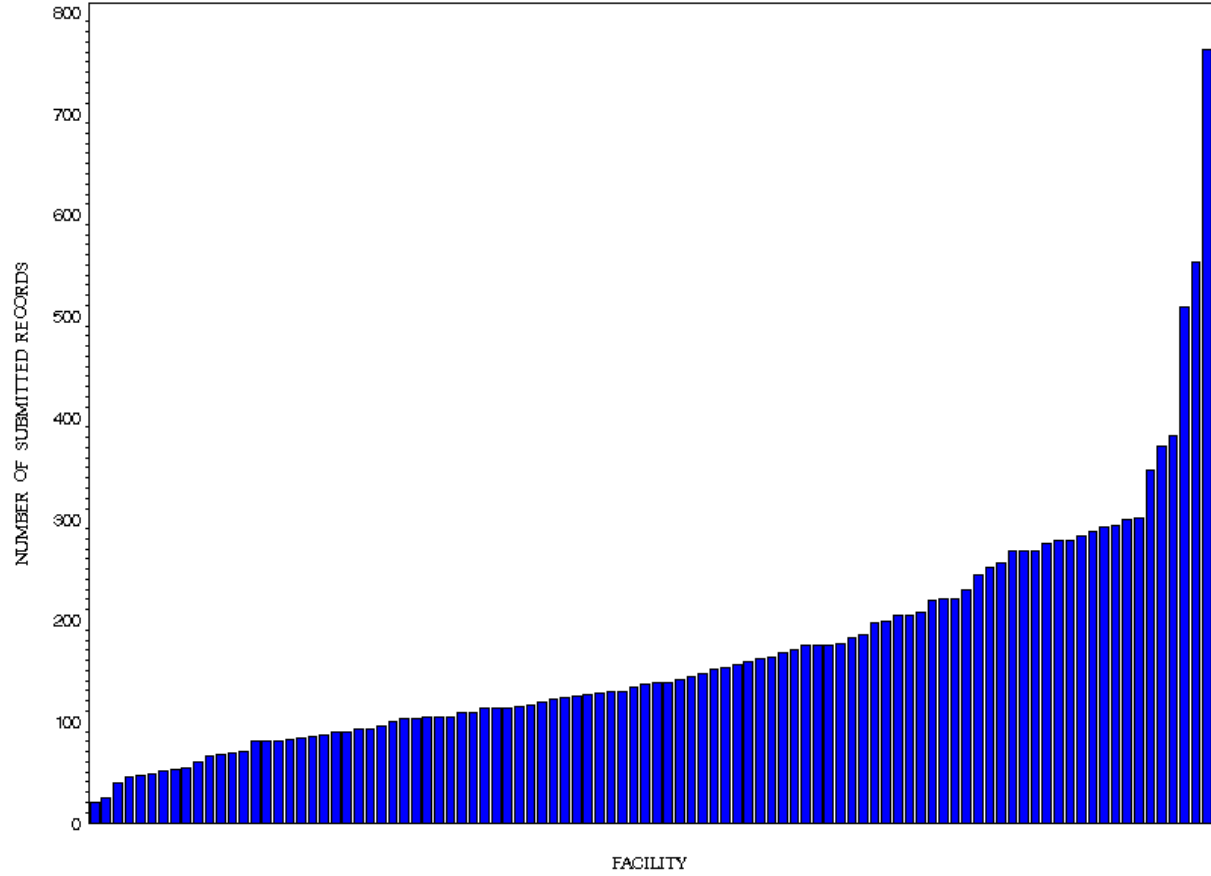
Number of Cases Submitted per Facility for Level II Facilities with Pediatric Cases (Bedsized ≤ 400 , N=161)



Only cases with valid trauma diagnosis code per the NTDB criteria are included in the analysis. Trauma level is based on ACS verification and state designation.

Figure 46

Number of Cases Submitted per Facility for Level II Facilities with Pediatric Cases (Bedsized > 400, N=98)

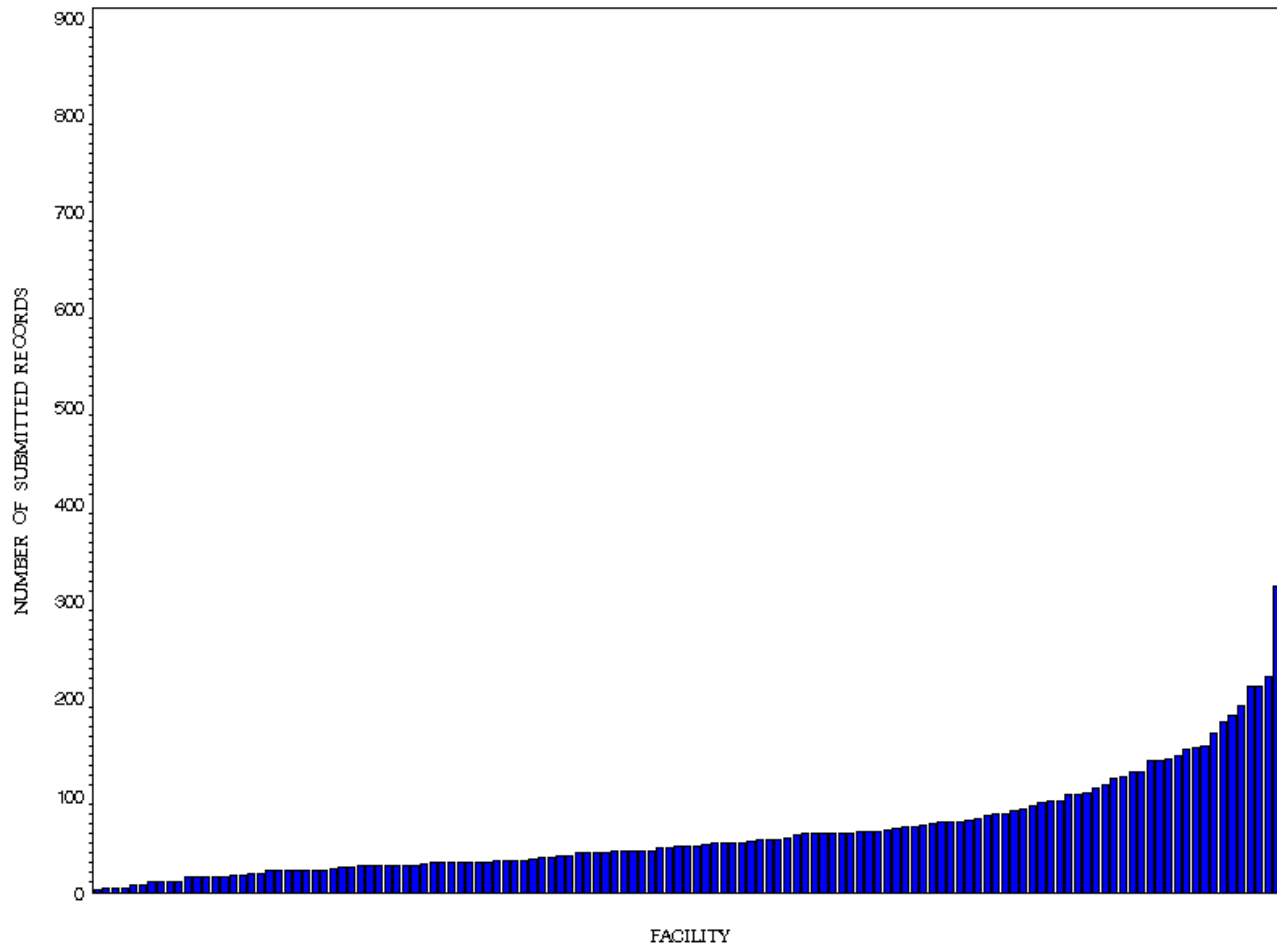


Only cases with valid trauma diagnosis code per the NTDB criteria are included in the analysis. Trauma level is based on ACS verification and state designation.



Figure 47

Number of Cases Submitted per Facility for Level III Facility with Pediatric Cases (N=132)

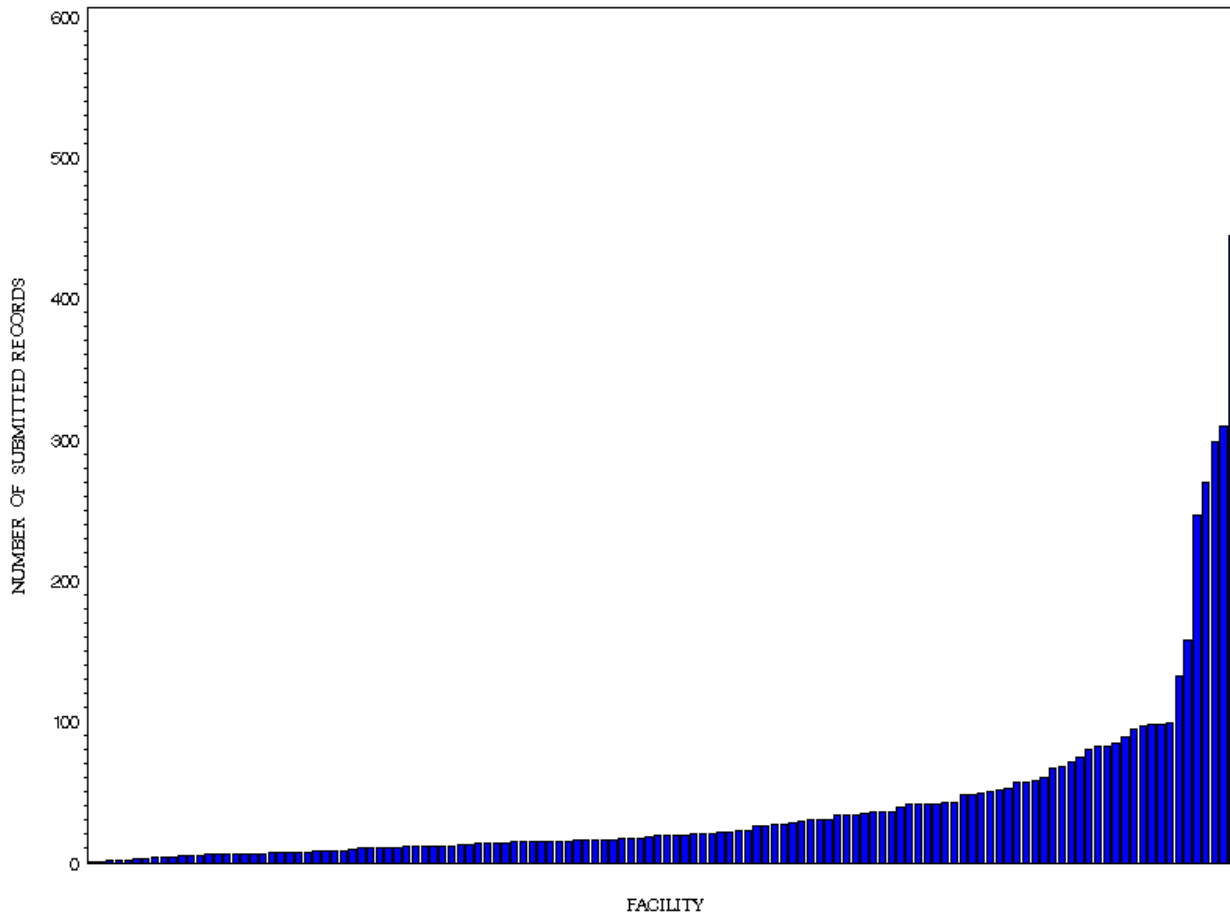


Only cases with valid trauma diagnosis code per the NTDB criteria are included in the analysis. Trauma level is based on ACS verification and state designation.



Figure 48

Number of Cases Submitted per Facility for Level IV, NA, or Other Facilities with Pediatric Cases (N=129)

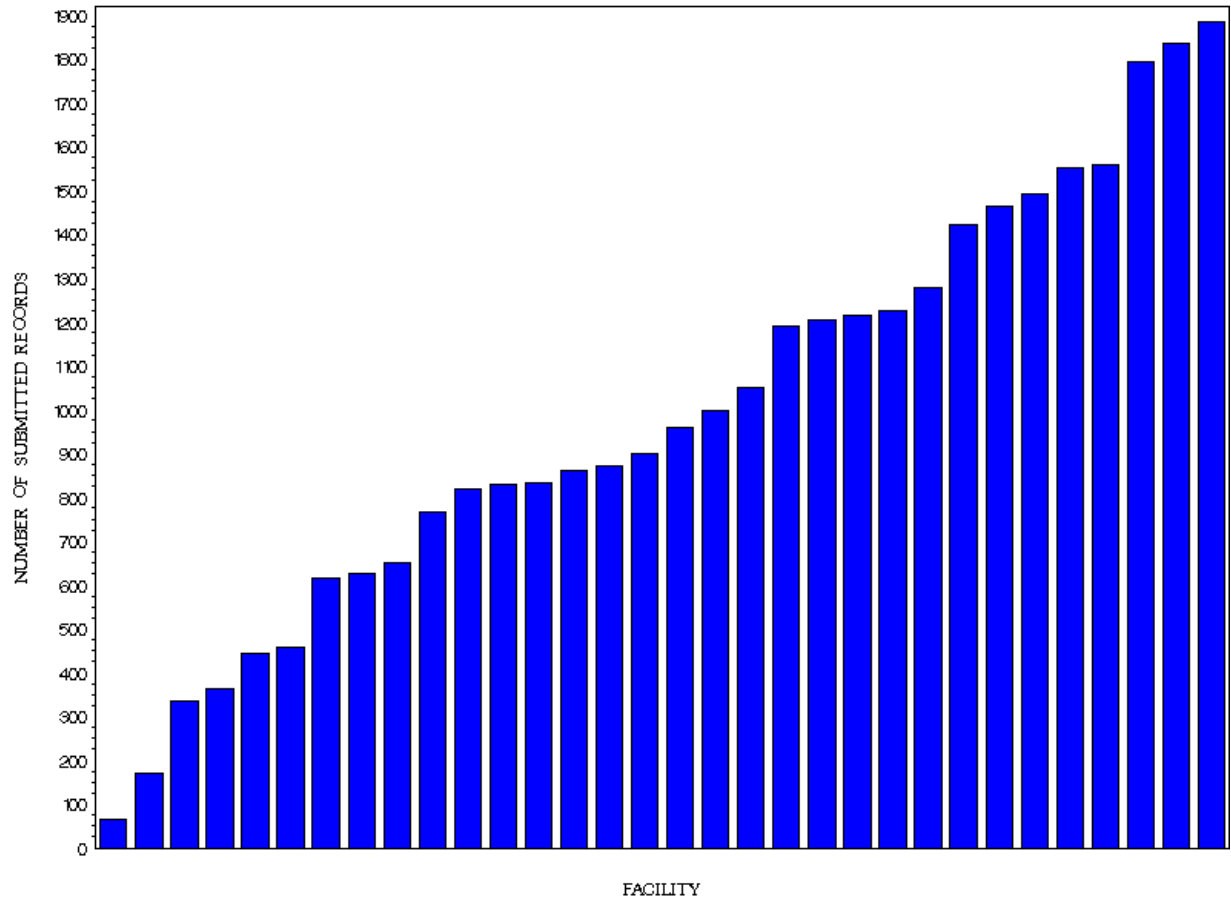


Only cases with valid trauma diagnosis code per the NTDB criteria are included in the analysis. Trauma level is based on ACS verification and state designation.



Figure 49

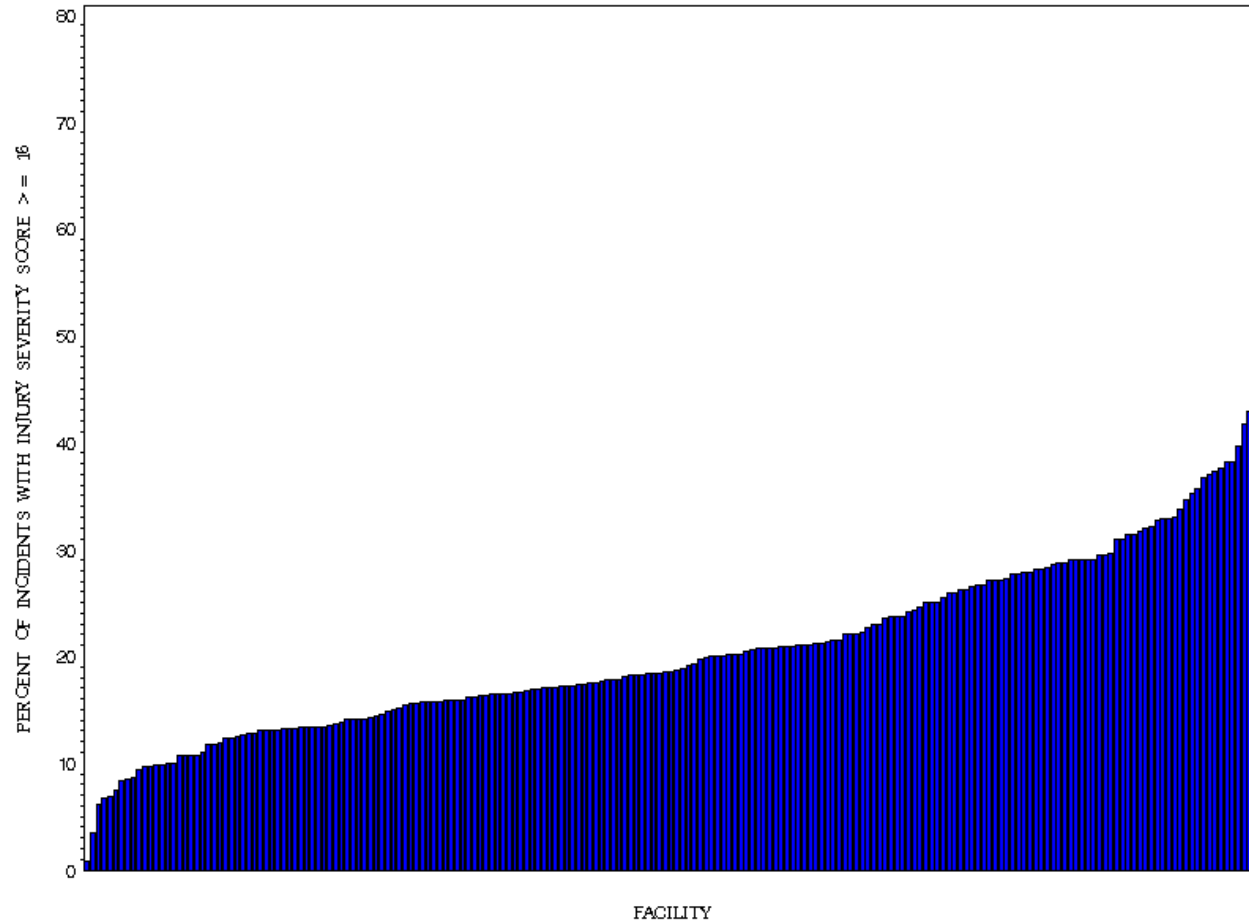
Number of Cases Submitted per Facility for Pediatric-Only Facilities (N=32)



Only cases with valid trauma diagnosis code per the NTDB criteria are included in the analysis. Trauma level is based on ACS verification and state designation.

Figure 50

Percent of Incidents with Injury Severity Score (ISS) ≥ 16 for Level I Facilities with Pediatric Cases (N=204)



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.



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Figure 51

Percent of Incidents with Injury Severity Score (ISS) ≥ 16 for Level II Facilities with Pediatric Cases (Bedsize ≤ 400 , N=161)

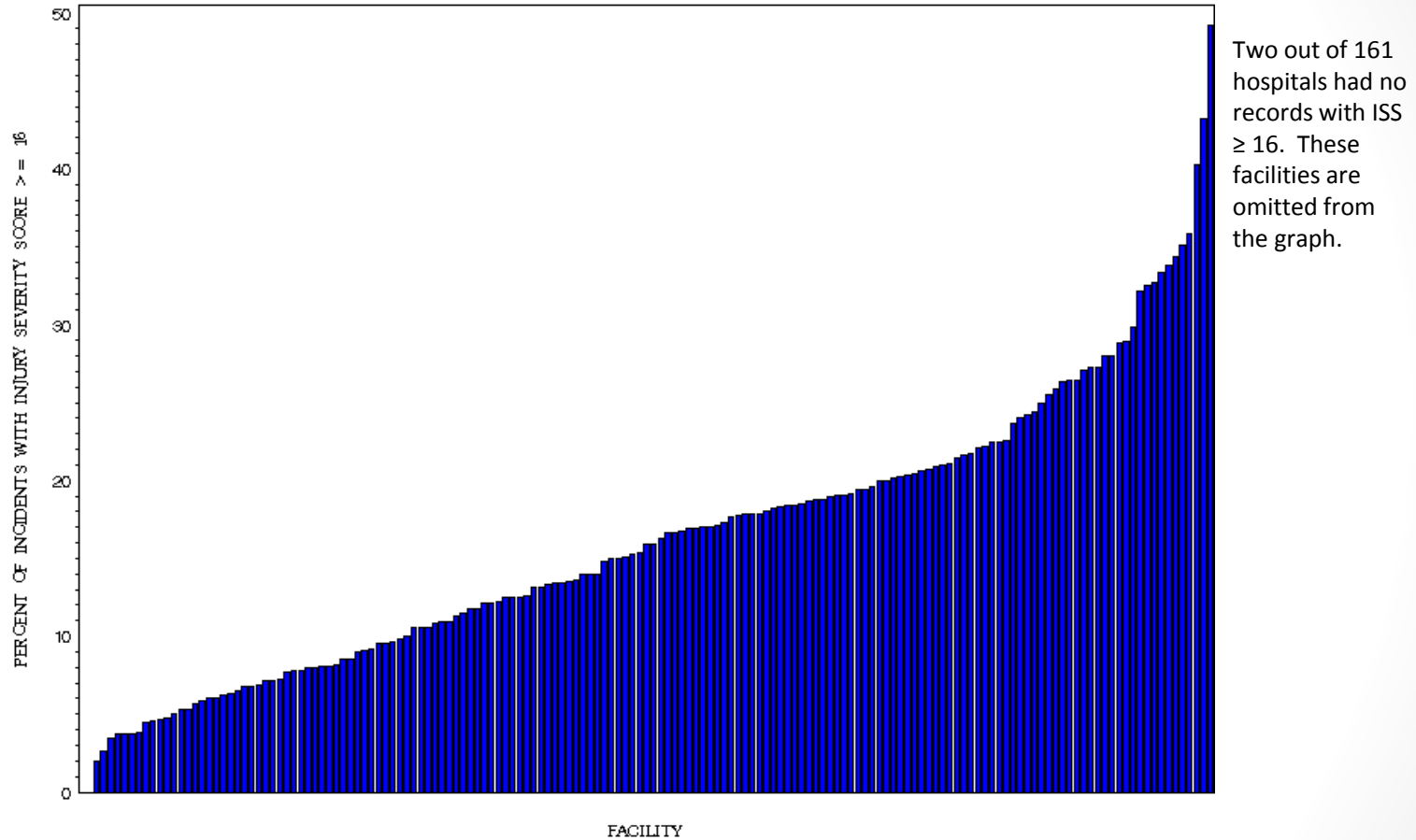
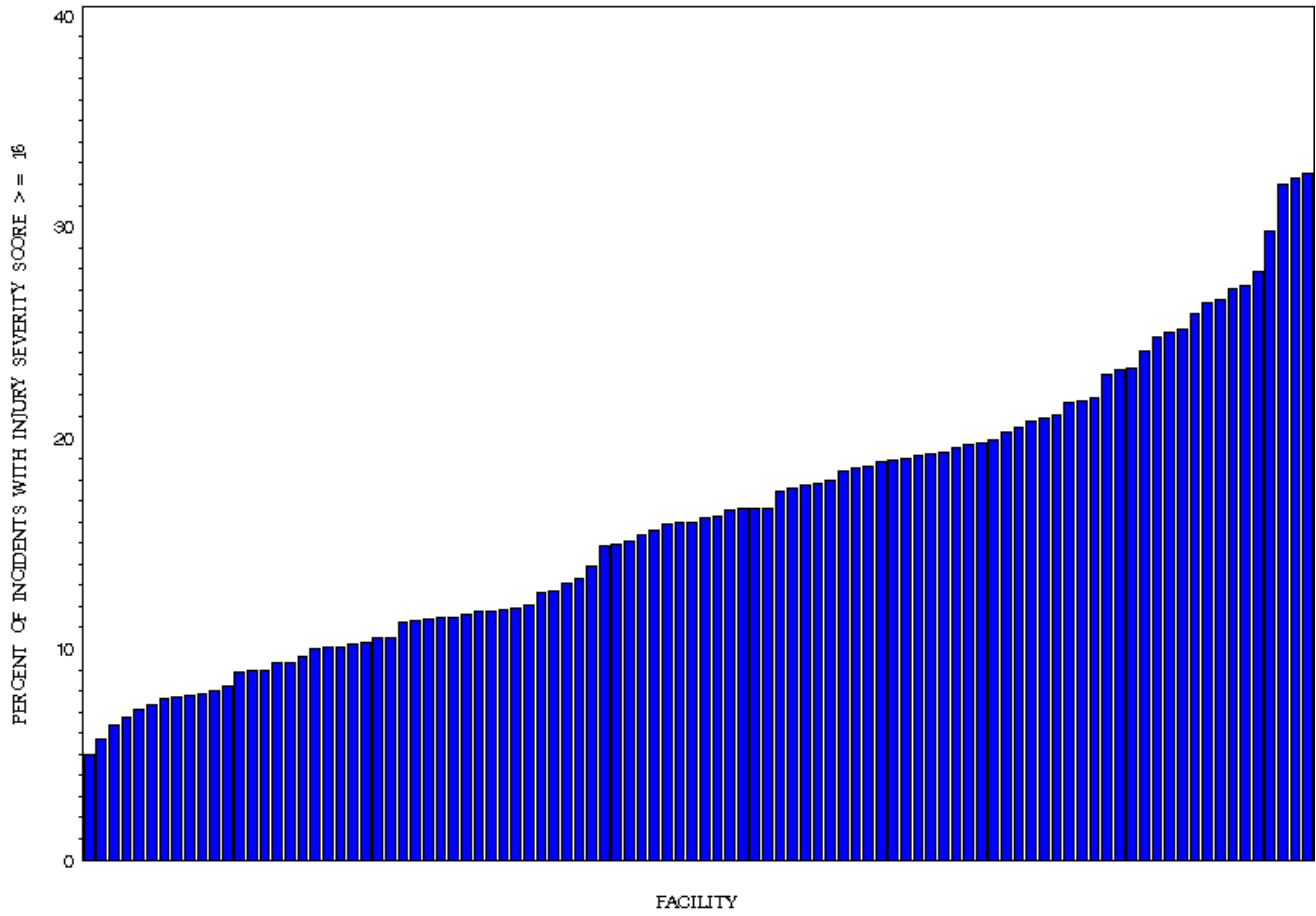


Figure 52

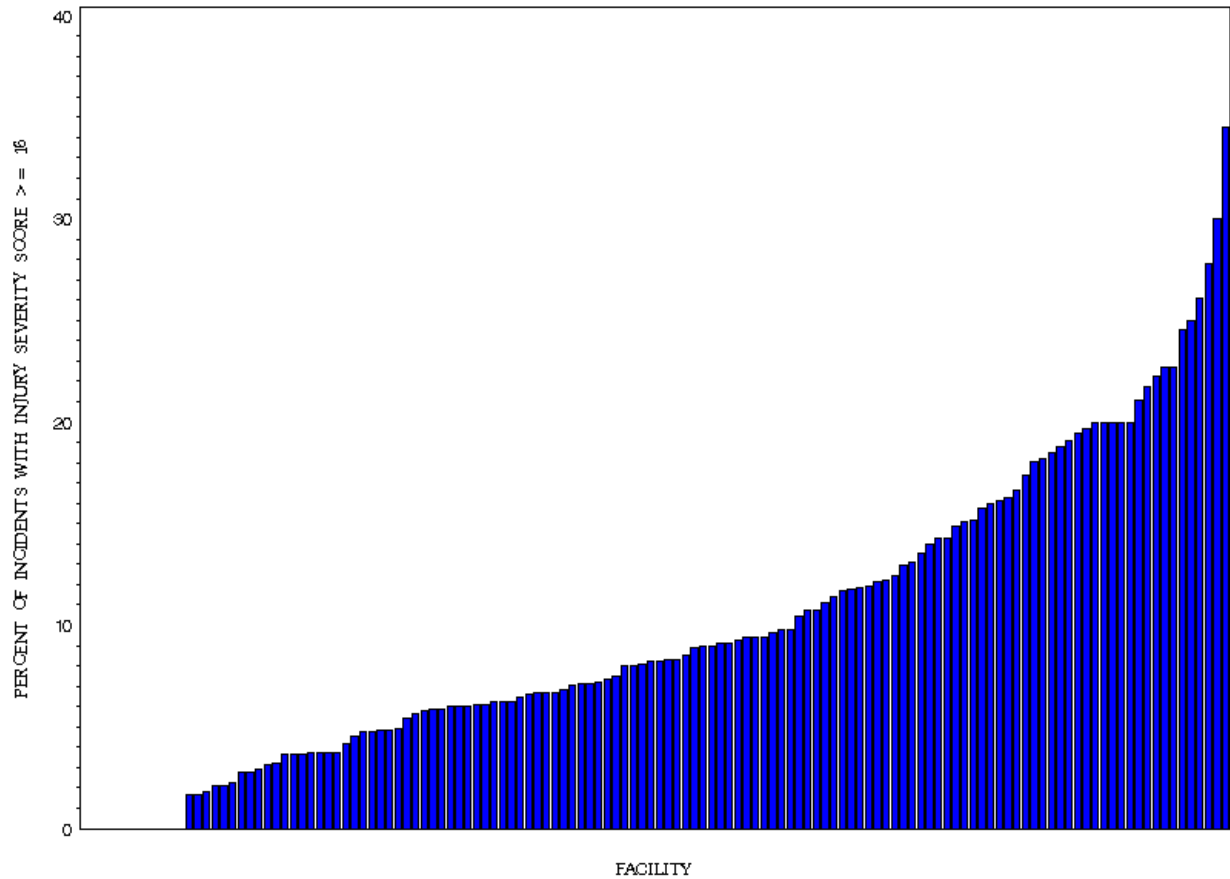
Percent of Incidents with Injury Severity Score (ISS) ≥ 16 for Level II Facilities with Pediatric Cases (Bedsize > 400, N=98)



Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

Figure 53

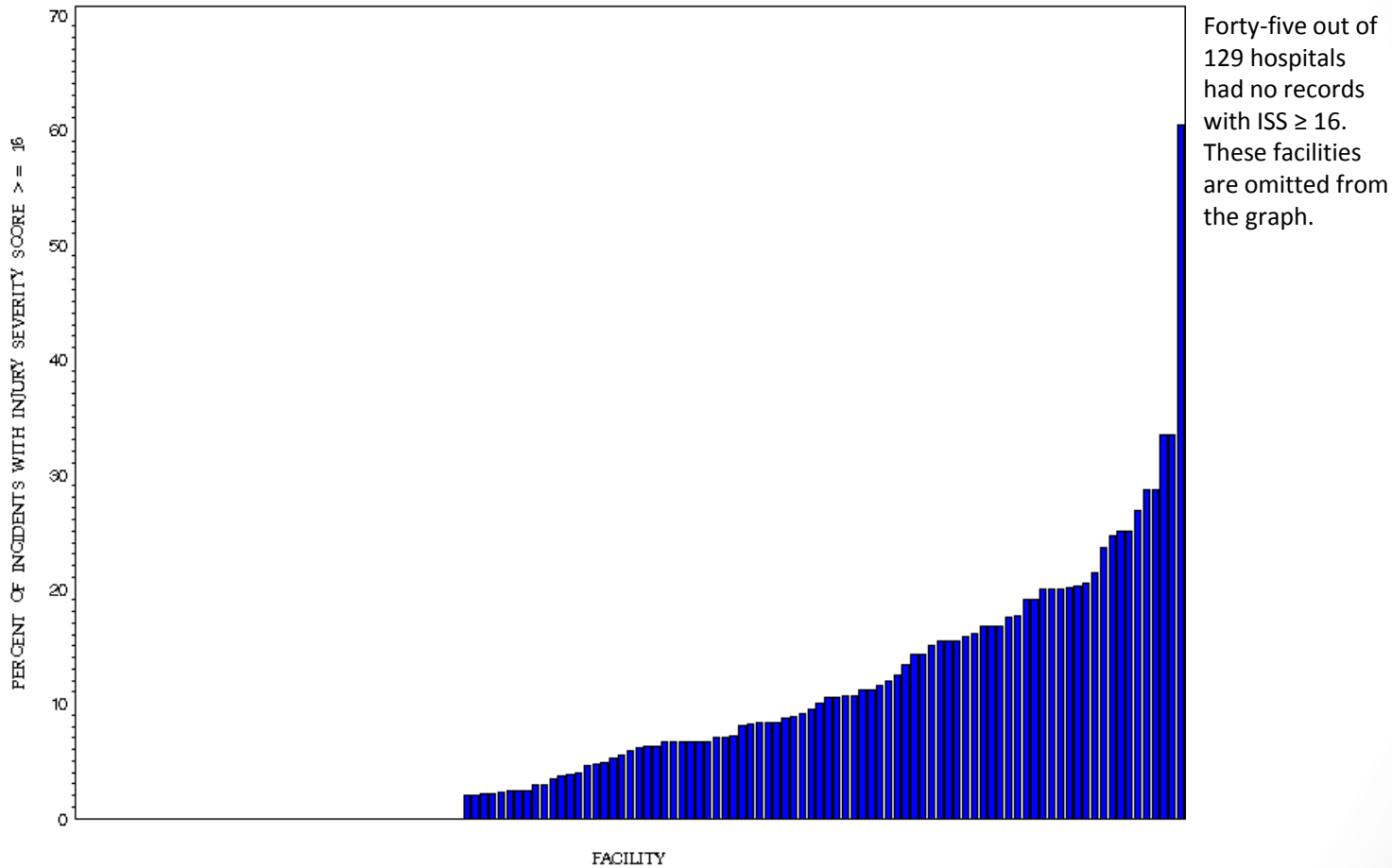
Percent of Incidents with Injury Severity Score (ISS) ≥ 16 for Level III Facilities with Pediatric Cases (N=132)



Twelve out of 132 hospitals had no records with ISS ≥ 16 . These facilities are omitted from the graph.

Figure 54

Percent of Incidents with Injury Severity Score (ISS) ≥ 16 for Level IV, NA, or Other Facilities with Pediatric Cases (N=129)



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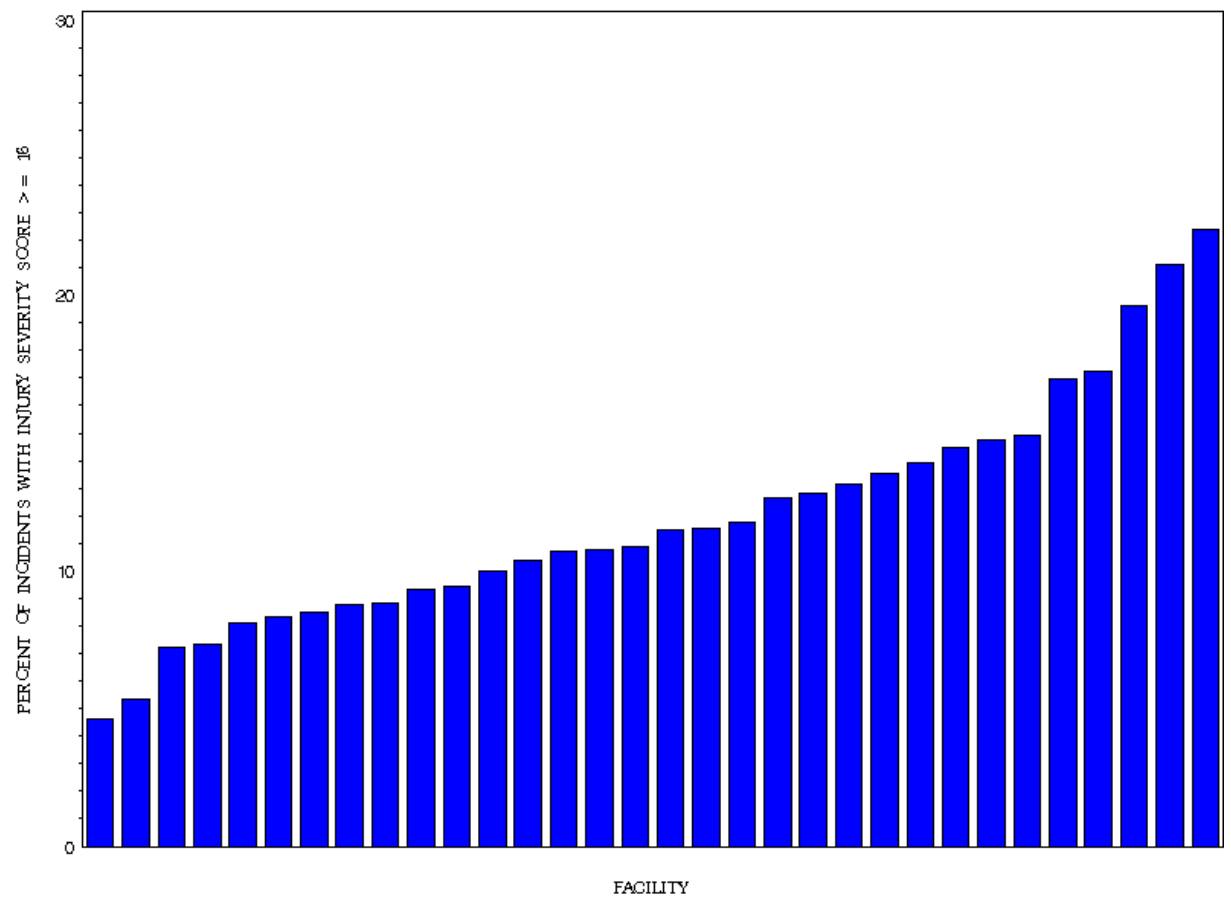
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Injury Severity Score tables are generated using AIS98 Crosswalked ISS.
Injury Severity Score definitions can be found in Appendix B.

Figure 55

Percent of Incidents with Injury Severity Score (ISS) ≥ 16 for Pediatric-Only Facilities (N=32)



Only cases with valid trauma diagnosis code per the NTDB criteria are included in the analysis. Trauma level is based on ACS verification and state designation.

Injury Severity Score tables are generated using AIS98 Crosswalked ISS. Injury Severity Score definitions can be found in Appendix B.

APPENDICES



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APPENDIX A

Definition of a Trauma Patient

Definition of a Trauma Patient Adopted by the NATIONAL TRAUMA DATA BANK®

At least one of the following injury diagnostic codes defined in the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM):

800-959.9

Excluding the following isolated injuries:

- 905-909.9 (late effects of injury)
- 910-924.9 (superficial injuries, including blisters, contusions, abrasions, and insect bites)
- 930-939.9 (foreign bodies)

AND MUST INCLUDE ONE OF THE FOLLOWING IN ADDITION TO (ICD-9-CM 800-959.9):

- Hospital admission as defined by your trauma registry inclusion criteria; **OR**
- Patient transfer via EMS transport (including air ambulance) from one hospital to another hospital; **OR**
- Death resulting from the traumatic injury (independent of hospital admission or hospital transfer status)



APPENDIX B

Comparative Injury Severity Score (ISS) Definitions

Local ISS: Injury Severity Scores as submitted by the facility.

AIS Submitted: Injury Severity Scores as calculated by the NTDB from AIS codes submitted by the facility.

AIS98 Crosswalked: Injury Severity Scores as calculated using AIS submitted by hospitals and then crosswalked to AIS98. If hospital does not submit AIS98 then ISS is based on AIS derived from ICDMAP-90.

AIS ICDMAP-90: Injury Severity Scores as calculated by the NTDB using ICD-9-CM diagnosis codes that are mapped to AIS90 codes using ICDMAP-90 software.



APPENDIX C

E-Code Grouping: Recommended Framework for E-Code Groupings for Presenting Injury Mortality and Morbidity Data

Mechanism/Cause	Manner/Intent				
	Unintentional	Self-Inflicted	Assault	Undetermined	Other
Cut/pierce	E920.0-.9	E956	E966	E986	E974
Drowning/ submersion	E830.0-.9, E832.0-.9, E910.0-.9	E954	E964	E984	
Fall	E880.0-E886.9, E888	E957.0-.9	E968.1	E987.0-.9	
Fire/burn ³	E890.0-E899, E924.0-.9	E958.1,.2,.7	E961, E968.0,.3, E979.3	E988.1,.2,.7	
Fire/flame ³	E890.0-E899	E958.1	E968.0, E979.3	E988.1	
Hot object/ substance	E924.0-.9	E958.2,.7	E961,E968.3	E988.2,37	
Firearm ³	E922.0-.3,.8,.9	E955.0-.4	E965.0-4, E979.4	E985.0-.4	E970
Machinery	E919 (.0-.9)				
Motor vehicle traffic ^{2,3}	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-E807(.2) E820-E825(.7) E826-E829(.0)				



APPENDIX C

E-Code Grouping: Recommended Framework for E-Code Groupings for Presenting Injury Mortality and Morbidity Data

Mechanism/Cause	Manner/Intent				
	Unintentional	Self-Inflicted	Assault	Undetermined	Other
Transport, other	E800-E807 (.0,.1,.8,.9) E820-E825 (.0-.5,.8,.9) E826.2-.8 E827-E829 (.2-.9) E831.0-.9, E833.0-E845.9	E958.6		E988.6	
Natural/environmental	E900.00-E909, E928.0-.2	E958.3		E958.3	
Bites/stings ³	E905.0-.6,.9 E906.0-.4,.5,.9				
Overexertion	E927				
Poisoning	E850.0-E869.9	E950.0-E952.9	E962.0-.9, E979.6,.7	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 ^{3,4}	E846-E848, E914-E915 E918, E921.0-39, E922.4,.5 E923.0-.9, E925.0-E926.9 E928(.3-.5), E929.0-.5	E9555,.6,.7,.9 E958.0,.4	E960.1,E965.5-.9 E967.0-.9, E968.4,.6,.7 E979 (.0-.2,.5,.8,.9)	E985.5,.6,.7 E988.0,.4	E971, E978 E990-E994, E996 E997.0-.2
Unspecified	E887. E928.9, E929.9	E958.9	E968.9	E988.9	E976, E997.9
All Injury ³	E800-E869, E880-E929	E950-E959	E960-E969, E979, E999.1	E980-E989	E970-E978, E990- E999.0
Adverse effects					E870-E879 E930.0-E949.9
Medical care					E870-E879
Drugs					E930.0-E949.9
All external causes					E800-E999



APPENDIX C

E-Code Grouping: Table Notes

¹Includes legal intervention (E970-E978) and operations of war (E990-E999).

²Three 4th-digit codes (.4 [occupant of streetcar], .5 [rider of animal], .8 [other specified person]) are not presented separately because of small numbers. However, because they are included in the overall Motor vehicle traffic category, the sum of these categories can be derived by subtraction.

³Codes in bold are for morbidity coding only. For details see Table 2.

⁴E849 (place of occurrence) has been excluded from the matrix. For mortality coding, an ICD-9 E849 code does not exist. For morbidity coding, an ICD-9-CM E849 code should never be first-listed E-code and should only appear as an additional code to specify the place of occurrence of the injury incident.

Note: ICD-9 E codes for coding underlying cause of death apply to injury-related death data from 1979 through 1998. Then there is a new ICD-10 external cause of injury matrix that applies to death data from 1999 and after. This can be found on the National Center for Health Statistics website at <http://www.cdc.gov/nchs/about/otheract/ice/projects.htm>.

Reference MM WR 1997; 46:1-30. Updated last time in 2009.



Resources

- www.ntdb.org for more information about NTDB
- www.ntdbdatacenter.com to submit data to NTDB
- www.ntdsdictionary.org for information on the data standard



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