08/31/2022

GEORGIA TRAUMA REGISTRY

2020 ANNUAL REPORT

GEORGIA DEPARTMENT OF PUBLIC HEALTH

CONTENTS

INTRODUCTION

The Georgia Trauma Annual Report 2020 is a demographic epidemiological analysis of the Georgia Trauma Registry data for the year 2020 based on data downloaded on Oct 1, 2021. The Designated Trauma Centers (DTC) in Georgia participate in the National Trauma Data Bank (NTDB). In 2020, Georgia had 31 DTC; 6 facilities were designated at Level I, 9 were Level II, 8 were Level III, and 8 were designated at Level IV. Included in facility totals are one Level I pediatric facility and two Level II pediatric facilities. A total of 36,192 trauma cases were reported in 2020 from 31 DTC in Georgia.

Facility information such as trauma levels is provided to allow readers to have an overall picture of the Georgia Designated Trauma Centers (Appendix 1). Trauma registry criteria are provided in the Appendix 2. This report provides analysis of time to definitive care, patient's demographic information, injury characteristics, payment sources, intents, mortality, and outcomes.

The mission of the Georgia trauma system is to save lives and provide the best possible outcomes through improved trauma care and injury prevention. The Georgia Trauma Registry is dedicated to collect trauma data and provide useful information to benefit the public health of Georgia's citizens.

The purpose of this report is to inform the medical community, the public, and the decision makers about issues that characterize the most recent state of care for trauma patients. Implications of this report are wide in areas including epidemiology, injury prevention, research, education, acute care, resource allocation, and policy decision.

The Georgia Department of Public Health, Office of EMS and Trauma would like to thank all the trauma centers that contributed data. Many thanks go to the Georgia trauma coordinators, trauma registrars and staff for their great efforts in collecting data and improving data quality.

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VISION, MISSION, CORE VALUES

VISION

A Healthy and Safe Georgia – exceptional patient outcomes through comprehensive, statewide, integrated, data–driven, equitable, and people–centered Emergency Medical Services and time–sensitive systems of care.

MISSION

The mission of the Georgia Office of EMS and Trauma is to reduce death and disability by providing regulation, guidance, and leadership to enable the assessment, planning, development, and promotion of statewide Emergency Medical Services and time–sensitive systems of care.

CORE VALUES

DPH's workforce is guided by the following core values in carrying out our public health work:

- **People** – We value our employees as professional colleagues. We treat out customers, clients, partners, and those we serve with respect by listening, understanding, and responding to needs.
- **Excellence** - Commitment, accountability, and transparency for optimal efficient, effective, and responsive performance.
- **Partnership** – Internal and external teamwork to solve problems, make decisions, and achieve common goals.
- **Innovation** – New approaches and progressive solutions to problems. Embracing change and accepting reasonable risk.
- **Science** – The application of the best available research, data and analysis leading to improved outcomes.

SUMMARY

HOSPITALS

31 designated trauma hospitals submitted data in 2020.

- 5 Level I adult centers
  - 1 Level I pediatric center.
- 7 Level II adult centers
  - 2 Level II pediatric centers.
- 8 Level III adult centers.
- 8 Level IV adult centers.

AGE

- The frequency of injuries initially peak in ages 20 to 31, primarily from MVT-related incidents, and peak again between the ages of 56 and 82, when falls begin to increase.
- Fall-related injuries spike in children aged 0-8 and adults over the age of 60.
- Males account for 68.2% of all incidents up to age 70; after age 70, most patients are female.

MECHANISM OF INJURY

The mechanism of injury was based on NTDB published reference 'External Cause of Injury Matrix and Trauma Type Map (https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb).

- Falls account for 43.2% of cases in the registry data. The frequency of Fall related injuries increases in children under age 9 and adults over the age of 60.
- Motor vehicle traffic related (MVT) injuries account for 29.5% of cases in the registry data. The frequency of MVT injuries peak between age 18 to 31.
- Firearm injuries account for 8.3% of cases in the registry data and peak between age 18 to 31.
- Suffocation and firearm injuries have the highest case fatality rates, with suffocation at 16.7% and firearm at 15.5%.

INJURY SEVERITY SCORE

The Injury Severity Score (ISS) is a system for numerically stratifying injury severity. The ISS system has a range of 1-75, and injury severity increases with a higher score. This report groups ISS 1-8 as minor; 9-15 as moderate; 16-24 as severe; and greater than 24 as very severe.

- Almost half (44.8%) of the trauma registry patients suffered minor injuries and about one-third (38.9%) have moderate injuries.
- Case fatality rates increase with injury severity, with the most severe group experiencing a case fatality rate of almost 42.3%.
- Median Length of Stay (LOS) increases for each consecutive severity grouping.
- Median Ventilator Days increase for each consecutive severity grouping.
- Median Intensive Care Unit (ICU) Days increase for each consecutive severity grouping.

MORTALITY

- The overall mortality rate is 4.4%.
- Case fatality rates are highest in the patient age group 25-34.
- The male case fatality rate (5.2%) is much higher than female case fatality rate (3.1%).
- The largest number of deaths is caused by motor vehicle traffic injuries, followed by firearm injuries and fall-related injuries.
- Firearm, suffocation, and poisoning have the highest case fatality rates.
- Firearm injuries have the highest case fatality rate at 15.5% among the selected mechanisms (top six) shown in the report.

PAYMENT

- Medicare is the largest payment source at 26.9%.
- Private/Commercial insurance is the second largest category at 20.9%.
- Self-Pay is the third largest category at 19.6%.
- Medicaid is the fourth largest category at 11.5%.

FACILITY INFORMATION

All facilities seeking designation status are expected to meet specific criteria as set forth by the Department of Public Health, Office of EMS and Trauma (OEMST). The department utilizes the document, "Resources for Optimal Care of the Injured Patient", published by the American College of Surgeons. All designated hospital must submit trauma registry data to the OEMST and maintain a performance improvement process with thorough documentation.

LEVEL I TRAUMA FACILITY

The highest level of trauma center designation offers the greatest level of comprehensive trauma care, from prevention through rehabilitation. Level I facilities have the major responsibility for leading in trauma education, research, and planning. Facilities that meet Level I criteria will be academic facilities.

LEVEL II TRAUMA FACILITY

The second level of trauma center designation offers the same level of clinical care as a Level I, but usually does not have the focus on research, education, and systems planning. Some patients with very complex injuries, such as replantation, may require transfer to a Level I center.

LEVEL III TRAUMA FACILITY

The third level of trauma center designation provides trauma assessment, resuscitation, emergency surgery, stabilization, and if needed, transfer of patients requiring more definitive care to Level I or II centers. Well trained emergency department physicians and general surgeons are required.

LEVEL IV TRAUMA FACILITY

The fourth level of trauma center designation provides advanced trauma life support and stabilization of patients received in their facility. Well trained mid-level providers may assist to expedite the transfer of patients requiring more definitive care to Level I or II centers. Level IV centers may be a clinic or hospital in a remote or rural area and may or may not have a physician available 24 hours a day.

DATA TABLES AND FIGURES

Table 1: Facilities by Level

More than half of the designated trauma facilities are either a Level III or Level IV trauma center.

Level	Number	Percent
I	6	19.4
II	9	29.0
III	8	25.8
IV	8	25.8
Total	31	100.0

Table 2: Incidents by Facility Level

About 88.7% trauma patients were treated in Level I or Level II trauma facilities.

Level	Number	Percent
I	18,713	51.7
II	13,403	37.0
III	3,569	9.9
IV	507	1.4
Total	36,192	100.0

Figure 1: Facilities by Level

This chart represents the overall counts of facilities by designation level.

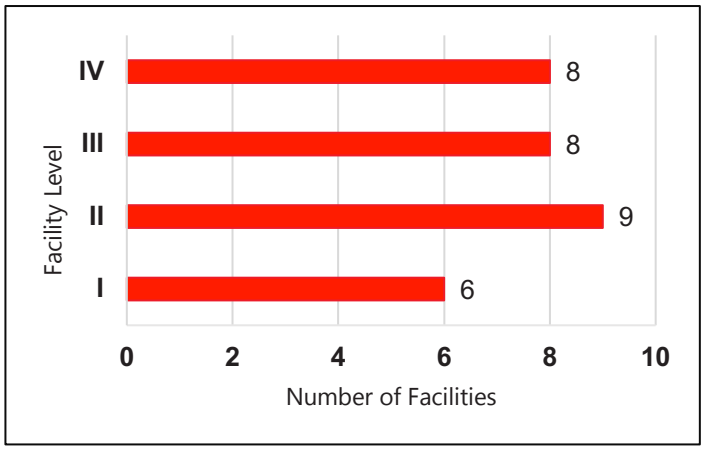


Figure 2A: Incidents by Facility Level

This chart represents the overall counts of facilities by designation level.

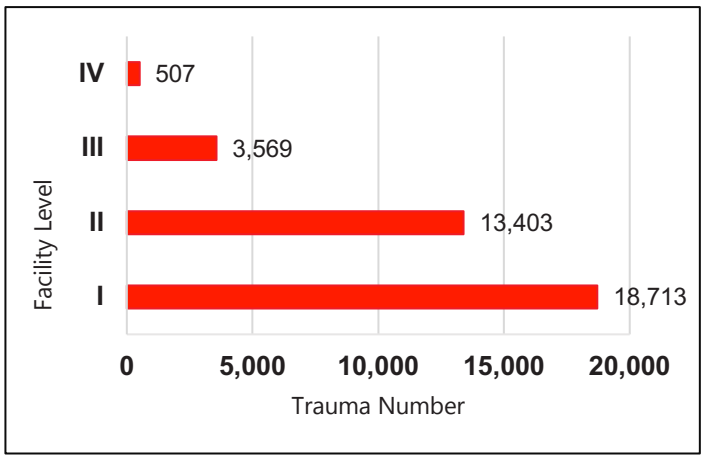
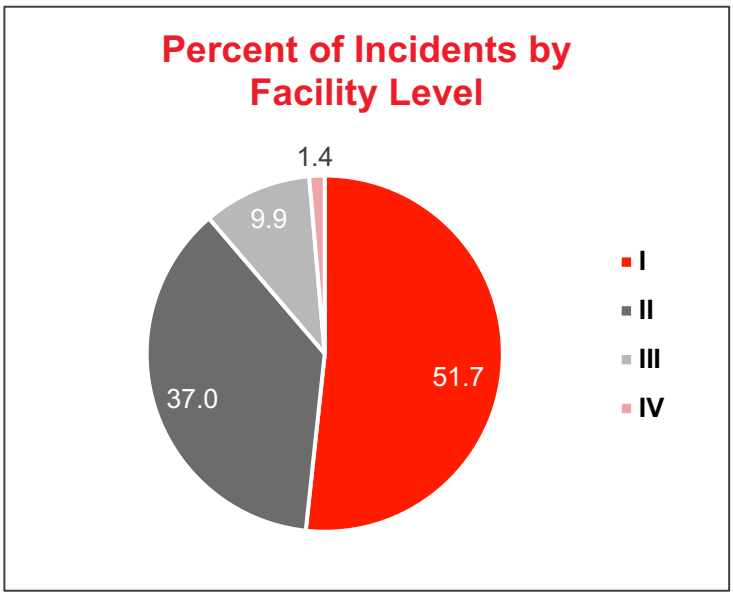


Figure 2B: Percent of Incidents by Facility Level

This graph represents the percentage of incidents by facility designation level.



PREHOSPITAL INFORMATION

The goal of the Emergency Medical Services (EMS) system is to prevent further injury, initiate resuscitation, and provide safe and timely transport of the injured patient. Patients should be transported directly to the center most appropriately equipped and staffed to handle the patient's injuries. The tables and graphs in this section display data indicating where patients came from before arriving at a designated trauma center.

Table 3: Incidents by EMS Region

The frequency of trauma patients in Table 3 represents the number of patients treated in designated trauma centers located in different EMS regions. In 2020, there were no designated trauma centers in EMS Region 4. Facilities in EMS Region 3 treated the most trauma patients (47.3%).

EMS Region	Frequency	Percent
R1	2,506	6.9
R2	2,262	6.3
R3	17,133	47.3
R5	3,892	10.8
R6	2,943	8.1
R7	1,182	3.3
R8	705	2.0
R9	3,666	10.1
R10	1,903	5.3
Total	36,192	100.0

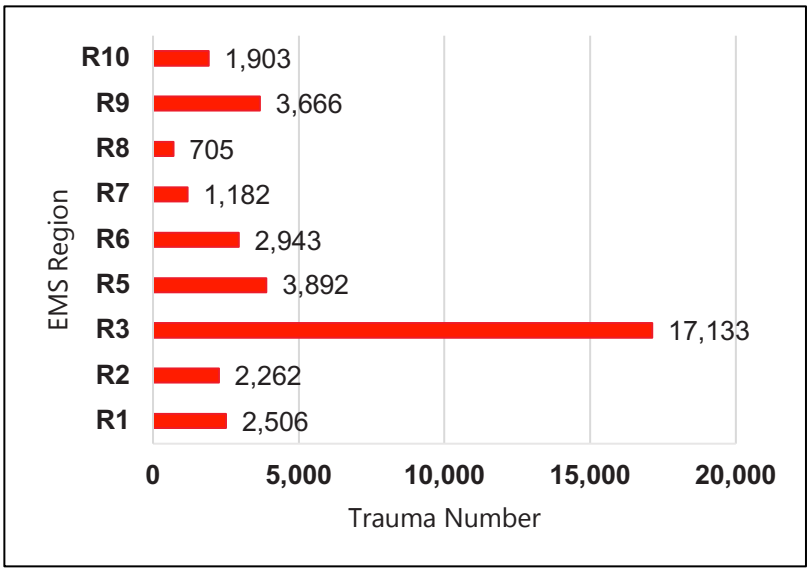
Table 4: Frequency of Patients by the Location the Patient Arrived from and ISS Groups

The table represents the counts of patients by the location the patient arrived from and Injury Severity Score groups. The frequency missing equals 86.

Frequency	ISS<=15	ISS>15	Total	Percent
Scene	18,768	4,865	23,633	65.5
Referring Hospital	6,900	1,352	8,252	22.9
Home	2,464	183	2,647	7.3
Other	704	65	769	2.1
Not Applicable	20	6	26	0.1
Unknown	615	164	779	2.2
Total	29,471	6,635	36,106	100.0

Figure 3A: Incidents by EMS Region

This chart represents the overall counts of incidents by EMS region.



TIME TO DEFINITIVE CARE ANALYSIS PART I

The time to definitive care analysis is presented in two parts. The first part represents the cases involving medical transport from the scene of injury to the hospital emergency department where the patient received definitive trauma care. In the trauma registry data, 23,633 cases (65.5%) reported the patient arrived from the 'Scene' of the injury, which are the original data sources for **Scene Group** (S Group).

The second part represents the cases involving the patient being referred to a second hospital for definitive trauma care. Additionally, 8,252 cases (22.9%) reported the patient arrived from a 'Referring Hospital', which are the original data sources for **Referring Group** (R Group).

For Patients from the 'Scene' of the Injury: S Group

There are 23,633 cases reported to have arrived from the 'Scene' of the injury. Among these 23,633 cases, 21,029 cases were linked with a Prehospital Provider data. Among these 21,029 cases, 19,790 cases have the Emergency Medical Service (EMS) provider's role as 'Transport from Scene to Facility'. These 19,790 cases are the data sources of the S Group.

Time from EMS Dispatch Time to EMS Scene Arrival Time (Tables 5A1, 5A2, 5A3)

Among these 19,790 cases, 17,980 cases (90.9%) have valid values in the four fields: EMS Dispatch Date, EMS Dispatch Time, EMS Scene Arrival Date, and EMS Scene Arrival Time. Among these 19,790 cases, **9.1% of the cases have missing data in at least one of the four fields.** The data in the 17,980 cases is used to calculate the median time from EMS Dispatch to EMS Scene Arrival.

Time from EMS Scene Arrival Time to EMS Scene Departure Time (Tables 5B1, 5B2, 5B3)

Among these 19,790 cases, 17,906 cases (90.5%) have valid values in the four fields: EMS Scene Arrival Date, EMS Scene Arrival Time, EMS Scene Departure Date, and EMS Scene Departure Time. Among these 19,790 cases, **9.5% of the cases have missing data in at least one of the four fields.** The data from these 17,906 cases is used to calculate the median time from EMS Scene Arrival Time to EMS Scene Departure Time.

Time from EMS Scene Departure Time to Hospital Emergency Department (ED) Arrival Time (Tables 5C1, 5C2, 5C3)

Among these 19,790 cases, 17,917 cases (90.5%) have valid values in the four fields: EMS Scene Departure Date, EMS Scene Departure Time, ED Arrival Date, and ED Arrival Time. Among these 19,790 cases, **9.5% of the cases have missing data in at least one of the four fields.** The data from these 17,917 cases is used to calculate the median time from EMS Scene Departure Time to the Hospital ED Arrival Time.

Time from EMS Dispatch Time to Hospital ED Arrival Time (Tables 5D1, 5D2, 5D3)

Among these 19,790 cases, 18,011 cases (91.0%) have valid values in the four fields: EMS Dispatch Date, EMS Dispatch Time, ED Arrival Date, and ED Arrival Time. Among these 19,790 cases, **9.0% of the cases have missing data in at least one of the four fields.** The data from these 18,011 cases is used to calculate the median time from EMS Dispatch Time to Hospital ED Arrival Time.

Table 5A1: S Group, All ISS, Median Time from EMS Dispatch Time to EMS Scene Arrival Time

This chart represents the median overall time (HH:MM:SS) from EMS dispatch to EMS scene arrival for all Injury Severity Scores. The median total time from EMS dispatch time to EMS scene arrival time is 9 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	9,258	0:09:00
II	6,929	0:08:00
III	1,666	0:08:00
IV	127	0:09:00
Total	17,980	0:09:00

Table 5A2: S Group, ISS <=15, Median Time from EMS Dispatch Time to EMS Scene Arrival Time

This chart represents the median time for Injury Severity Scores less than or equal to 15 from EMS dispatch to EMS scene arrival time (HH:MM:SS) by hospital designation level.

Hospital Designation Level	Frequency	Median Total Time
I	6,984	0:09:00
II	5,513	0:08:00
III	1,436	0:08:00
IV	113	0:09:00
Total	14,046	0:09:00

Table 5A3: S Group, ISS >15, Median Time from EMS Dispatch Time to EMS Scene Arrival Time

This chart represents the median time for Injury Severity Scores greater than 15 from EMS dispatch to EMS scene arrival time (HH:MM:SS) by hospital designation level.

Hospital Designation Level	Frequency	Median Total Time
I	2,274	0:09:00
II	1,416	0:08:00
III	230	0:08:00
IV	14	0:12:00
Total	3,934	0:08:00

Table 5B1: S Group, All ISS, Median Time from EMS Scene Arrival Time to EMS Scene Departure Time

This chart represents the median overall time (HH:MM:SS) from EMS scene arrival to EMS scene departure for all Injury Severity Scores. The median total time from EMS scene arrival to EMS scene departure time is 18 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	9,210	0:19:00
II	6,906	0:17:00
III	1,663	0:20:00
IV	127	0:18:00
Total	17,906	0:18:00

Table 5B2: S Group, ISS<=15, Median Time from EMS Scene Arrival Time to EMS Scene Departure Time

This chart represents the median time for Injury Severity Scores less than or equal to 15 from EMS scene arrival time to EMS scene departure time (HH:MM:SS) by hospital designation level.

Hospital Designation Level	Frequency	Median Total Time
I	6,946	0:19:00
II	5,495	0:17:00
III	1,434	0:20:00
IV	113	0:18:00
Total	13,988	0:18:00

Table 5C1: S Group, All ISS, Median Time from EMS Scene Departure Time to Hospital ED Arrival Time

This chart represents the median overall time (HH:MM:SS) from EMS scene departure to Hospital ED arrival time for all Injury Severity Scores. The median total time from EMS scene departure to Hospital ED arrival time is 24 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	9,220	0:23:00
II	6,908	0:24:00
III	1,662	0:23:30
IV	127	0:18:00
Total	17,917	0:24:00

Table 5B3: S Group, ISS>15, Median Time from EMS Scene Arrival Time to EMS Scene Departure Time

This chart represents the median time for Injury Severity Scores greater than 15 from EMS scene arrival time to EMS scene departure time (HH:MM:SS) by hospital designation level.

Hospital Designation Level	Frequency	Median Total Time
I	2,264	0:16:00
II	1,411	0:14:00
III	229	0:18:00
IV	14	0:21:30
Total	3,918	0:16:00

Table 5C2: S Group, ISS<=15, Median Time from EMS Scene Departure Time to Hospital ED Arrival Time

This chart represents the median time for Injury Severity Scores less than or equal to 15 from EMS scene departure time to Hospital ED arrival time (HH:MM:SS) by hospital designation level.

Hospital Designation Level	Frequency	Median Total Time
I	6,951	0:24:00
II	5,495	0:25:00
III	1,433	0:24:30
IV	133	0:19:00
Total	13,992	0:24:00

Table 5C3: S Group, ISS>15, Median Time from EMS Scene Departure Time to Hospital ED Arrival Time

This chart represents the median time for Injury Severity Scores greater than 15 from EMS scene departure time to Hospital ED arrival time (HH:MM:SS) by hospital designation level.

Hospital Designation Level	Frequency	Median Total Time
I	2,269	0:22:00
II	1,413	0:20:00
III	229	0:22:00
IV	114	0:12:30
Total	3,925	0:21:00

Table 5D1: S Group, All ISS, Median Time from EMS Dispatch Time to Hospital ED Arrival Time

This chart represents the median overall time (HH:MM:SS) from EMS dispatch time to Hospital ED arrival time for all Injury Severity Scores. The median total time from EMS dispatch time to Hospital ED arrival time is 53 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	9,284	0:55:00
II	6,935	0:51:00
III	1,664	0:54:00
IV	127	0:49:00
Total	18,011	0:53:00

Table 5D2: S Group, ISS<=15, Median Time from EMS Dispatch Time to Hospital ED Arrival Time

This chart represents the median time for Injury Severity Scores less than or equal to 15 from EMS dispatch time to Hospital ED arrival time (HH:MM:SS) by hospital designation level.

Hospital Designation Level	Frequency	Median Total Time
I	7,000	0:56:00
II	5,517	0:53:00
III	1,435	0:55:00
IV	113	0:49:00
Total	14,065	0:55:00

Table 5D3: S Group, ISS>15, Median Time from EMS Dispatch Time to Hospital ED Arrival Time

This chart represents the median time for Injury Severity Scores greater than 15 from EMS dispatch time to Hospital ED arrival time (HH:MM:SS) by hospital designation level.

Hospital Designation Level	Frequency	Median Total Time
I	2,284	0:50:00
II	1,418	0:44:00
III	230	0:52:00
IV	14	0:53:30
Total	3,946	0:48:00

Table 5D4: S Group, ISS All, Median Time from EMS Dispatch Time to Hospital ED Arrival Time

In Destination EMS Region 8, the median total time from EMS Dispatch Time to Hospital ED Arrival Time is longest (60 minutes). EMS Region 4 is not included due to no data reported.

Destination EMS Region	Frequency	Median Total Time
1	953	0:52:00
2	1,259	0:56:00
3	9,330	0:52:00
5	1,529	0:57:00
6	1,480	0:53:00
7	388	0:47:00
8	412	1:00:00
9	1,484	0:52:00
10	1,176	0:54:00
Total	18,011	0:53:00

Table 5D5: S Group, ISS <=15, Median Time from EMS Dispatch Time to Hospital ED Arrival Time

In Destination EMS Region 8, for Patients ISS <=15, the median total time from EMS Dispatch Time to Hospital ED Arrival Time is the longest (59 minutes). EMS Region 4 is not included due to no data reported.

Destination EMS Region	Frequency	Median Total Time
1	819	0:53:00
2	1,042	0:57:00
3	7,055	0:54:00
5	1,236	0:57:00
6	1,133	0:54:00
7	293	0:48:00
8	329	0:59:00
9	1,183	0:52:00
10	975	0:55:00
Total	14,065	0:55:00

Table 5D6: S Group, ISS >15, Median Time from EMS Dispatch Time to Hospital ED Arrival Time

In Destination EMS Region 8, for patients ISS >15, median total time from EMS Dispatch Time to Hospital ED Arrival Time is the longest (63 minutes). EMS Region 4 is not included due to no data reported.

Destination EMS Region	Frequency	Median Total Time
1	134	0:50:00
2	217	0:51:00
3	2,275	0:45:00
5	293	0:55:00
6	347	0:49:00
7	95	0:40:00
8	83	1:03:00
9	301	0:52:00
10	201	0:48:00
Total	3,946	0:48:00

Table 5D7: S Group, Median Time from EMS Dispatch Time to Hospital ED Arrival Time by ISS groups and Quarters

In Q4 2020 (Oct-Dec), the median total time (ISS all) is one minute longer than that in Q1, Q2, and Q3.

ISS	Q1 (Jan-Mar)	Q2 (Apr-Jun)	Q3 (Jul-Sep)	Q4 (Oct-Dec)	Total (Jan-Dec)
ISS <= 15	0:54:00	0:54:00	0:54:00	0:55:00	0:55:00
ISS > 15	0:48:00	0:47:00	0:47:00	0:48:00	0:48:00
Median Total Time	0:53:00	0:53:00	0:53:00	0:54:00	0:53:00

Table 5D8: S Group, All ISS, Median Time by EMS Region and Discharge Status

The table lists the counts of patients that were discharged alive or deceased with the corresponding median time to definitive care per EMS region. Trauma patients who survived their injuries in EMS region 8 had the longest median time to definitive care (1:00:00 HH:MM:SS). Trauma patients who died from their injuries in EMS region 1 had the longest median time to definitive care (00:53:00 HH:MM:SS). EMS Region 4 is not included due to no data reported.

Hospital Destination EMS Region	Discharge Status	Frequency	Median Total Time
1	Alive	908	0:52:00
1	Dead	45	0:53:00
2	Alive	1,206	0:56:00
2	Dead	53	0:47:00
3	Alive	8,698	0:53:00
3	Dead	632	0:40:00
5	Alive	1,443	0:58:00
5	Dead	86	0:44:30
6	Alive	1,384	0:53:00
6	Dead	96	0:45:00
7	Alive	361	0:48:00
7	Dead	27	0:37:00
8	Alive	389	1:00:00
8	Dead	23	0:48:00
9	Alive	1,398	0:53:00
9	Dead	86	0:40:30
10	Alive	1,135	0:55:00
10	Dead	41	0:51:00
Total		18,011	0:53:00

Figure 5D9: S Group, All ISS, Median Time by EMS Region and Discharge Status

The scatter plot graph represents cumulative counts of trauma patients by the discharge status on the EMS Region lines by their median total time to definitive care. All Injury Severity Scores are represented in the graph. Trauma patients who survived their injuries in EMS region 8 had the longest median time to definitive care (1:00:00 HH:MM:SS). Trauma patients who died from their injuries in EMS region 1 had the longest median time to definitive care (00:53:00 HH:MM:SS). EMS Region 4 is not included due to no data reported.

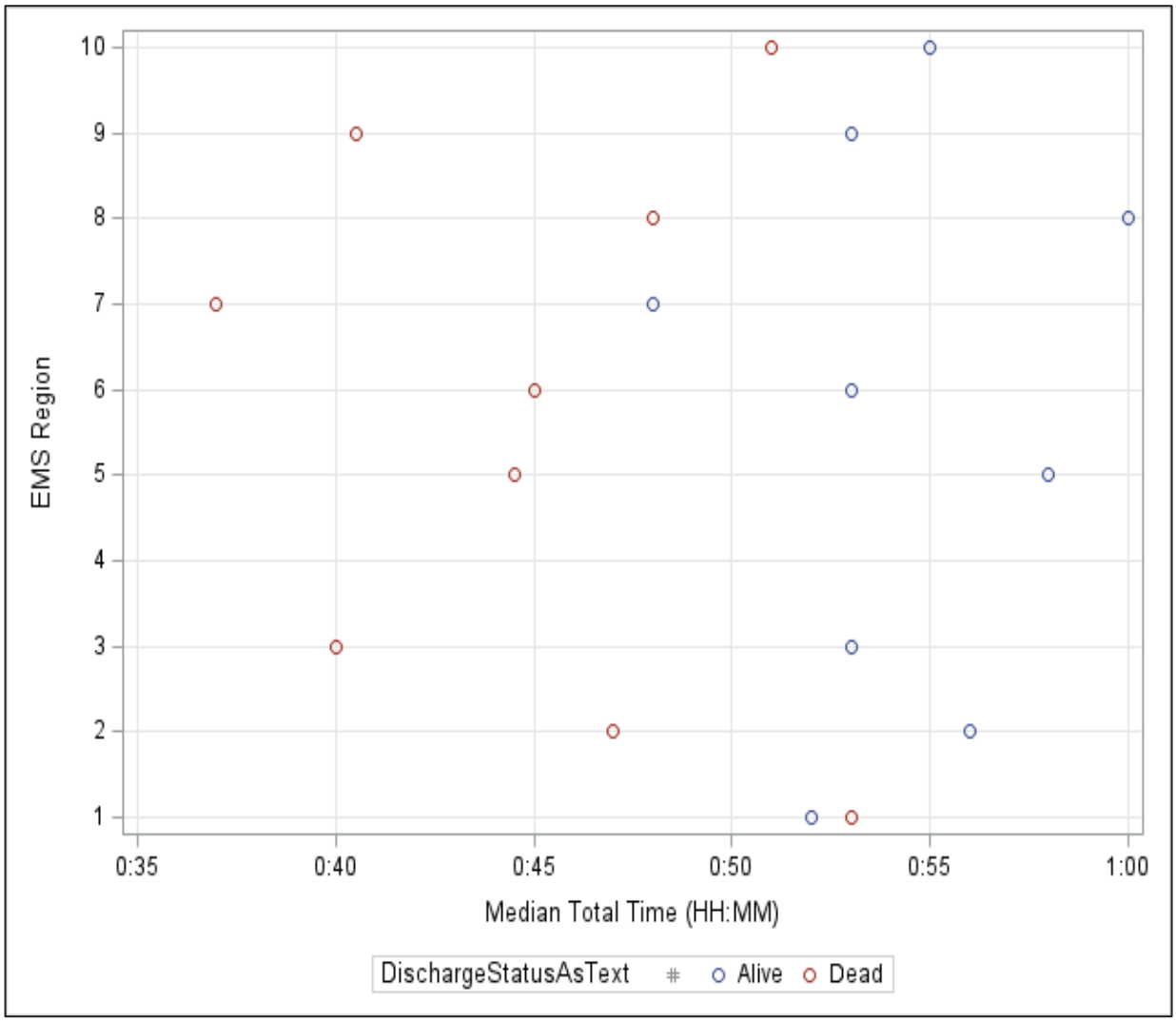


Table 5D10: S Group, ISS <=15, Median Time by EMS Region and Discharge Status

The table lists the counts of patients that were discharged alive or deceased with the corresponding median time to definitive care per EMS region. Trauma patients with an ISS less than or equal to 15 who survived their trauma injuries in EMS region 8 had the longest median time to definitive care (1:00:00 HH:MM:SS). Trauma patients with an ISS less than or equal to 15 who died from their injuries in EMS region 10 had the longest median time to definitive care (00:57:30 HH:MM:SS). EMS Region 4 is not included due to no data reported.

Hospital Destination EMS Region	Discharge Status	Frequency	Median Total Time
1	Alive	797	0:53:00
1	Dead	22	0:54:30
2	Alive	1,017	0:57:00
2	Dead	25	0:50:00
3	Alive	6,876	0:55:00
3	Dead	179	0:43:00
5	Alive	1,206	0:58:00
5	Dead	30	0:38:30
6	Alive	1,094	0:54:00
6	Dead	39	0:52:00
7	Alive	286	0:48:00
7	Dead	7	0:28:00
8	Alive	319	1:00:00
8	Dead	10	0:51:00
9	Alive	1,153	0:52:00
9	Dead	30	0:48:00
10	Alive	959	0:55:00
10	Dead	16	0:57:30
Total		14,065	0:55:00

Figure 5D11: S Group, ISS <=15, Median Time by EMS Region and Discharge Status

The scatter plot graph represents cumulative counts of trauma patients by the discharge status on the EMS Region lines by their median total time to definitive care. Trauma patients with an Injury Severity Score less than or equal to 15 are represented in the graph. Trauma patients who survived their injuries in EMS region 8 had the longest median time to definitive care (1:00:00 HH:MM:SS). Trauma patients who died from their injuries in EMS region 10 had the longest median time to definitive care (00:57:30 HH:MM:SS). EMS Region 4 is not included due to no data reported.

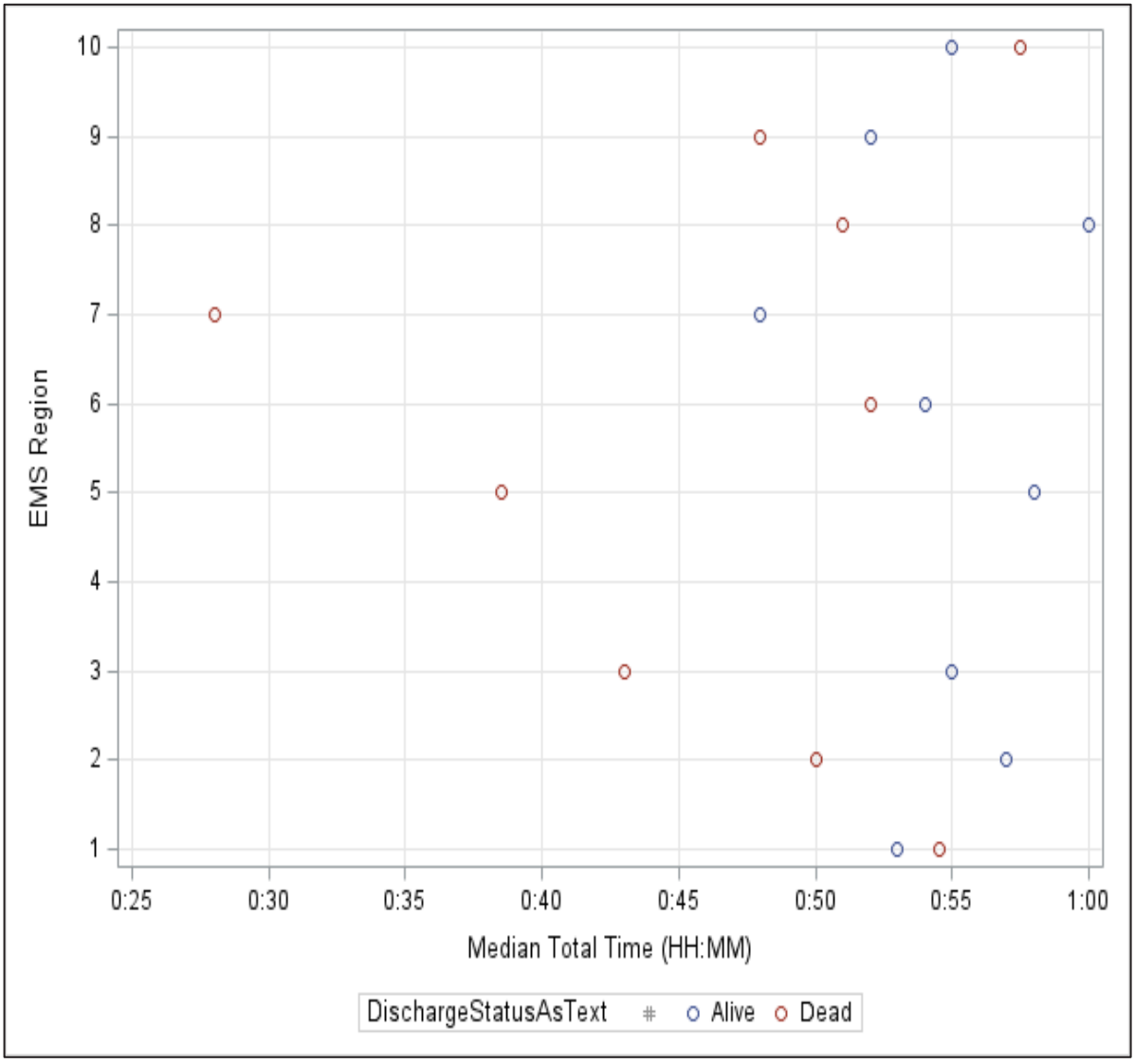


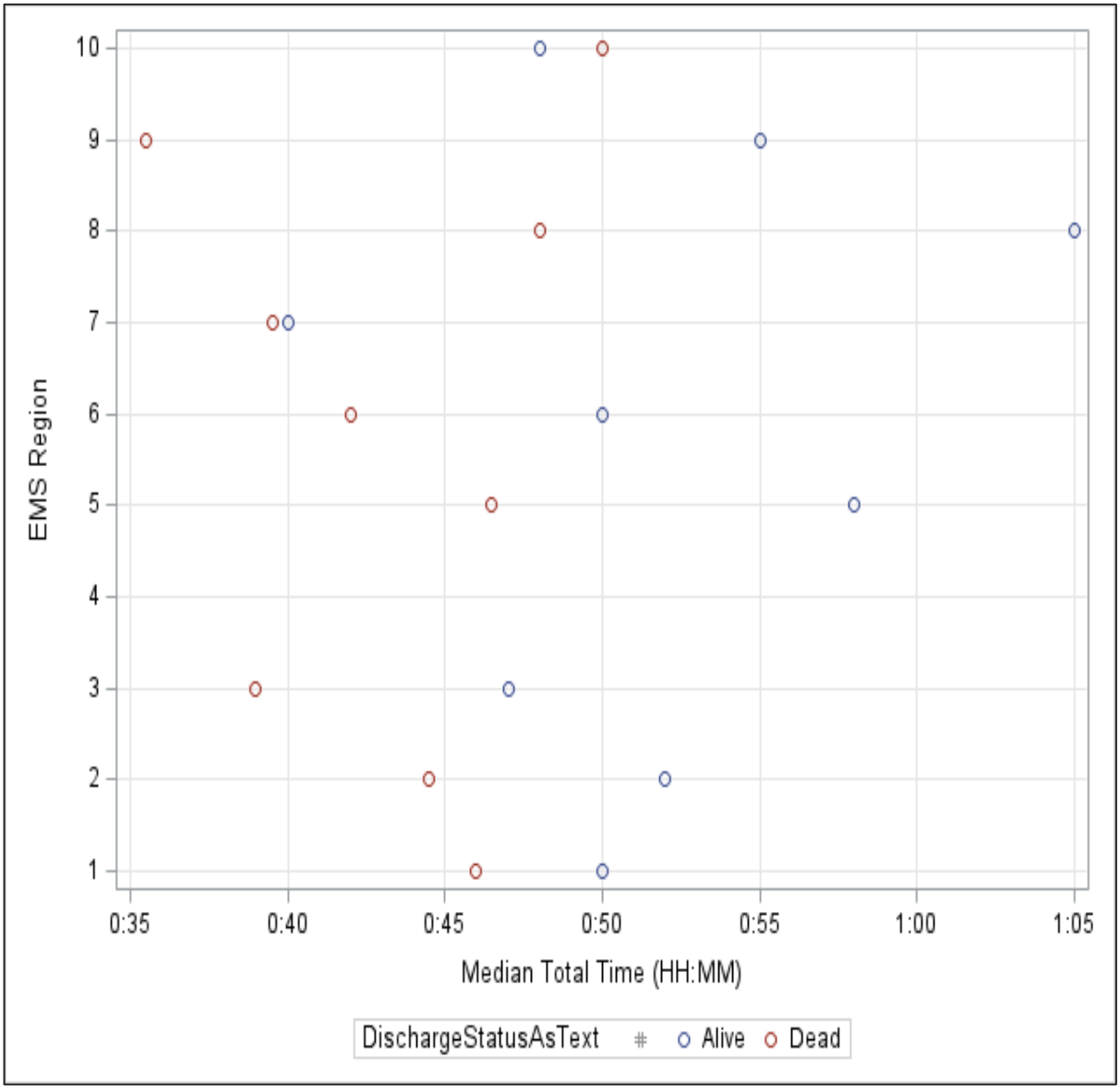
Table 5D12: S Group, ISS >15, Median Time by EMS Region and Discharge Status

The table lists the counts of patients that were discharged alive or deceased with the corresponding median time to definitive care per EMS region. Trauma patients with an ISS greater than 15 who survived their trauma injuries in EMS region 8 had the longest median time to definitive care (1:05:00 HH:MM:SS). Trauma patients with an ISS greater than 15 who died from their injuries in EMS region 10 had the longest median time to definitive care (00:50:00 HH:MM:SS). EMS Region 4 is not included due to no data reported.

Hospital Destination EMS Region	Discharge Status	Frequency	Median Total Time
1	Alive	111	0:50:00
1	Dead	23	0:46:00
2	Alive	189	0:52:00
2	Dead	28	0:44:30
3	Alive	1,822	0:47:00
3	Dead	453	0:39:00
5	Alive	237	0:58:00
5	Dead	56	0:46:30
6	Alive	290	0:50:00
6	Dead	57	0:42:00
7	Alive	75	0:40:00
7	Dead	20	0:39:30
8	Alive	70	1:05:00
8	Dead	13	0:48:00
9	Alive	245	0:55:00
9	Dead	56	0:35:30
10	Alive	176	0:48:00
10	Dead	25	0:50:00
Total		3,946	0:48:00

Figure 5D13: S Group, ISS >15, Median Time by EMS Region and Discharge Status

The scatter plot graph represents cumulative counts of trauma patients by the discharge status on the EMS Region lines by their median total time to definitive care. Trauma patients with an Injury Severity Score greater than 15 are represented in the graph. Trauma patients who survived their injuries in EMS region 8 had the longest median time to definitive care (1:05:00 HH:MM:SS). Trauma patients who died from their injuries in EMS region 10 had the longest median time to definitive care (00:50:00 HH:MM:SS). EMS Region 4 is not included due to no data reported.



TIME TO DEFINITIVE CARE ANALYSIS PART II

As noted earlier in this report, the second part of the time to definitive care analysis represents the cases involving the patient being referred to a second hospital for definitive trauma care. The analysis provides us with 8,252 cases (22.9%) that report the patient arrived from a 'Referring Hospital', which are the original data sources for **Referring Group** (R Group).

For Patients from a Referral Hospital: R Group

There are 8,252 cases reported to have arrived from a 'Referring Hospital'. Among these 8,252 cases, 8,229 cases were linked with Referring Hospital data. Among these 8,229 cases, 4,654 cases were linked with Prehospital Provider data. Among these 4,654 cases, 3,259 cases have the EMS provider's role as 'Transport from Scene to Facility'. These 3,259 cases are used for analysis for R Group time analysis.

Time from EMS Dispatch to EMS Scene Arrival Time (Tables 6A1, 6A2, 6A3)

Among these 3,259 cases, 754 cases (23.1%) have valid values in the four fields: EMS Dispatch Date, EMS Dispatch Time, EMS Scene Arrival Date, and EMS Scene Arrival Time. Among these 3,259 cases, **76.9% of the cases have missing data in at least one of the four fields.** The data with these 754 cases is used to calculate the median time from EMS Dispatch Time to EMS Scene Arrival Time.

Time from EMS Scene Arrival Time to EMS Scene Departure Time (Tables 6B1, 6B2, 6B3)

Among these 3,259 cases, 748 cases (23.0%) have valid values in the four fields: EMS Scene Arrival Date, EMS Scene Arrival Time, EMS Scene Departure Date, and EMS Scene Departure Time. Among these 3,259 cases, **77.0% of the cases have missing data in at least one of the four fields.** The data with these 748 cases is used to calculate the median time from EMS Scene Arrival Time to EMS Scene Departure Time.

Time from EMS Scene Departure Time to Referral Hospital Arrival Time (Tables 6C1, 6C2, 6C3)

Among these 3,259 cases, 607 cases (18.6%) have valid values in the four fields: EMS Scene Departure Date, and EMS Scene Departure Time, Referral Hospital Arrival Date, and Referral Hospital Arrival Time. Among these 3,259 cases, **81.4% of the cases have missing data in at least one of the four fields.** The data from the 607 cases is used to calculate the median time from EMS Scene Departure Time to Referral Hospital Arrival Time.

Time from Referral Hospital Arrival Time to the Final Destination Hospital ED Arrival Time (Tables 6D1, 6D2, 6D3)

Among these 3,259 cases, 2,142 cases (65.7%) have valid values in the four fields: Referral Hospital Arrival Date, Referral Hospital Arrival Time, final destination Hospital ED arrival Date, and final destination Hospital ED arrival Time. Among these 3,259 cases, **34.3% of the cases have missing data in at least one of the four fields.** The data from the 2,142 cases is used to calculate the median time from Referral Hospital Arrival Time to the final destination Hospital ED Arrival Time.

Time from EMS Dispatch Time to the Final Destination Hospital ED Arrival Time (Tables 6E1, 6E2, 6E3)

Among these 3,259 cases, 758 cases (23.3%) have valid values in the four fields: EMS Dispatch Date, EMS Dispatch Time, final destination Hospital ED arrival Date, and final destination Hospital ED arrival Time. Among these 3,259 cases, **76.7% of the cases have missing data in at least one of the four fields.** The data from the 758 cases is used to calculate the mean and median time from EMS Dispatch Time to the final destination Hospital ED Arrival Time.

Table 6A1: R Group, All ISS, Median Time from EMS Dispatch Time to EMS Scene Arrival Time

This chart represents the median overall time (HH:MM:SS) from EMS dispatch time to EMS scene arrival time for all Injury Severity Scores. The median total time from EMS dispatch time to EMS scene arrival time is 9 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	498	0:09:00
II	230	0:08:00
III	26	0:11:00
Total	754	0:09:00

Table 6A2: R Group, ISS <=15, Median Time from EMS Dispatch Time to EMS Scene Arrival Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores less than or equal to 15 from EMS dispatch time to EMS scene arrival time. The median total time from EMS dispatch time to EMS scene arrival time is 9 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	375	0:09:00
II	177	0:08:00
III	20	0:12:00
Total	572	0:09:00

Table 6A3: R Group, ISS >15, Median Time from EMS Dispatch Time to EMS Scene Arrival Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores greater than 15 from EMS dispatch time to EMS scene arrival time. The median total time from EMS dispatch time to EMS scene arrival time is 9 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	123	0:09:00
II	53	0:09:00
III	6	0:09:30
Total	182	0:09:00

Table 6B1: R Group, All ISS, Median Time from EMS Scene Arrival Time to EMS Scene Departure Time

This chart represents the median overall time (HH:MM:SS) from EMS scene arrival time to EMS scene departure time for all Injury Severity Scores. The median total time from EMS scene arrival to EMS scene departure time is 17 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	493	0:18:00
II	229	0:16:00
III	26	0:15:00
Total	748	0:17:00

Table 6B2: R Group, ISS <=15, Median Time from EMS Scene Arrival Time to EMS Scene Departure Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores less than or equal to 15 from EMS scene arrival time to EMS scene departure time. The median total time from EMS scene arrival time to EMS scene departure time is 17 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	370	0:18:00
II	176	0:16:00
III	20	0:13:30
Total	566	0:17:00

Table 6B3: R Group, ISS >15, Median Time from EMS Scene Arrival Time to EMS Scene Departure Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores less than 15 from EMS scene arrival time to EMS scene departure time. The median total time from EMS scene arrival time to EMS scene departure time is 18 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	123	0:18:00
II	53	0:17:00
III	6	0:18:30
Total	182	0:18:00

Table 6C1: R Group, All ISS, Median Time from EMS Scene Departure Time to Referral Hospital Arrival Time

This chart represents the median overall time (HH:MM:SS) from EMS scene departure time to Referral Hospital arrival time for all Injury Severity Scores. The median total time from EMS scene departure time to Referral Hospital arrival time is 18 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	396	0:17:00
II	196	0:19:00
III	15	0:12:00
Total	607	0:18:00

Table 6C2: R Group, ISS <=15, Median Time from EMS Scene Departure Time to Referral Hospital Arrival Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores less than or equal to 15 from EMS scene departure time to Referral Hospital arrival time. The median total time from EMS scene departure time to Referral Hospital arrival time is 18 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	293	0:18:00
II	153	0:19:00
III	13	0:12:00
Total	459	0:18:00

Table 6C3: R Group, ISS >15, Median Time from EMS Scene Departure Time to Referral Hospital Arrival Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores greater than 15 from EMS scene departure time to Referral Hospital arrival time. The median total time from EMS scene departure time to Referral Hospital arrival time is 17 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	103	0:17:00
II	43	0:19:00
III	2	0:13:00
Total	148	0:17:00

Table 6D2: R Group, ISS <=15, Median Time from Referral Hospital Arrival Time to Final Destination Hospital ED Arrival Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores less than or equal to 15 from Referral Hospital Arrival Time to Final Destination Hospital ED arrival time. The median total time from Referral Hospital Arrival Time to Final Destination Hospital ED arrival time is 4 hours and 53 minutes.

Table 6D1: R Group, All ISS, Median Time from Referral Hospital Arrival Time to Final Destination Hospital ED Arrival Time

This chart represents the median overall time (HH:MM:SS) from Referral Hospital Arrival Time to Final Destination Hospital ED arrival time for all Injury Severity Scores. The median total time from Referral Hospital Arrival Time to Final Destination Hospital ED arrival time is 4 hours and 41 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	1,506	4:40:00
II	616	4:41:30
III	20	5:15:00
Total	2,142	4:41:00

Table 6D3: R Group, ISS >15, Median Time from Referral Hospital Arrival Time to Final Destination Hospital ED Arrival Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores greater than 15 from Referral Hospital Arrival Time to Final Destination Hospital ED arrival time. The median total time from Referral Hospital Arrival Time to Final Destination Hospital ED arrival time is 3 hours and 59 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	1,142	4:52:00
II	509	4:53:00
III	14	5:52:00
Total	1,665	4:53:00

Hospital Designation Level	Frequency	Median Total Time
I	364	3:53:00
II	107	4:10:00
III	6	5:04:30
Total	477	3:59:00

Table 6E1: R Group, All ISS, Median Time from EMS Dispatch Time to Final Destination Hospital ED Arrival Time

This chart represents the median overall time (HH:MM:SS) from EMS dispatch time to Final Destination Hospital ED arrival time for all Injury Severity Scores. The median total time from EMS dispatch time to Final Destination Hospital ED arrival time is 5 hours and 39 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	503	5:36:00
II	229	6:06:00
III	26	2:00:00
Total	758	5:39:00

Table 6E2: R Group, ISS <=15, Median Time from EMS Dispatch Time to Final Destination Hospital ED Arrival Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores less than or equal to 15 from EMS dispatch time to Final Destination Hospital ED arrival time. The median total time from EMS dispatch time to Final Destination Hospital ED arrival time is 5 hours and 57 minutes.

Hospital Designation Level	Frequency	Median Total Time
I	379	5:51:00
II	176	6:22:00
III	20	2:45:00
Total	575	5:57:00

Table 6E3: R Group, ISS >15, Median Time from EMS Dispatch Time to Final Destination Hospital ED Arrival Time

This chart represents the median overall time (HH:MM:SS) for Injury Severity Scores greater than 15 from EMS dispatch time to Final Destination Hospital ED arrival time. The median total time from EMS dispatch time to Final Destination Hospital ED arrival time is 4 hours and 51 minutes. For the more severely injured patients (ISS>15), the median total time is about 66 minutes less than that of minor and moderately injured patients. (ISS<=15).

Hospital Designation Level	Frequency	Median Total Time
I	124	4:36:30
II	53	5:19:00
III	6	1:49:30
Total	183	4:51:00

Table 6E4: R Group, Median Time from EMS Dispatch Time to Final Destination Hospital ED Arrival Time

In Q4 2020 (Oct-Dec), median total time (ISS all) is longer than that in Q1, Q2, and Q3.

ISS	Q1 (Jan-Mar)	Q2 (Apr-Jun)	Q3 (Jul-Sep)	Q4 (Oct-Dec)	Total (Jan-Dec)
ISS <= 15	6:01:00	5:40:00	5:57:30	6:01:00	5:57:00
ISS > 15	5:07:00	4:45:30	4:53:00	4:42:00	4:51:00
Median Total Time	5:44:00	5:25:00	5:41:00	5:52:00	5:39:00

Table 6E5: R Group, All ISS, Median Time by EMS Region and Discharge Status

The table includes the counts of patients that were transferred from a referring facility to a final destination facility with the discharge status and corresponding median time to definitive care per EMS region of the final destination hospital. All Injury Severity Scores are represented in the table. Patients discharged alive at a destination hospital in EMS region 10 had the longest median time to definitive care (07:04:30 HH:MM:SS). Trauma patients who died at a destination hospital in EMS region 5 had the longest median time to definitive care (05:04:00 HH:MM:SS). Destination hospitals in EMS Regions 1, 6, 7, and 10 did not have any reported deaths during the period for the specific analysis. EMS Region 4 is not included due to no data reported.

Hospital Destination EMS Region	Discharge Status	Frequency	Median Total Time
1	Alive	7	1:17:00
2	Alive	66	6:12:30
2	Dead	6	4:22:00
3	Alive	249	6:12:00
3	Dead	15	4:40:00
5	Alive	129	5:51:00
5	Dead	16	5:04:00
6	Alive	25	5:36:00
7	Alive	2	4:21:00
8	Alive	14	1:55:30
8	Dead	1	0:44:00
9	Alive	185	5:22:00
9	Dead	11	2:56:00
10	Alive	32	7:04:30
Total		758	5:39:00

Figure 6E6: R Group, All ISS, Median Time by EMS Region and Discharge Status

The scatter plot graph represents cumulative counts of trauma patients by the discharge status on the EMS Region lines by their median total time to definitive care. All Injury Severity Scores are represented in the graph. Trauma patients who survived their injuries in EMS region 10 had the longest median time to definitive care (07:04:30 HH:MM:SS). Trauma patients who died from their injuries in EMS region 5 had the longest median time to definitive care (05:04:00 HH:MM:SS). EMS Regions 1, 6, 7, and 10 did not have any reported deaths during the period for the specific analysis. EMS Region 4 is not included due to no data reported.

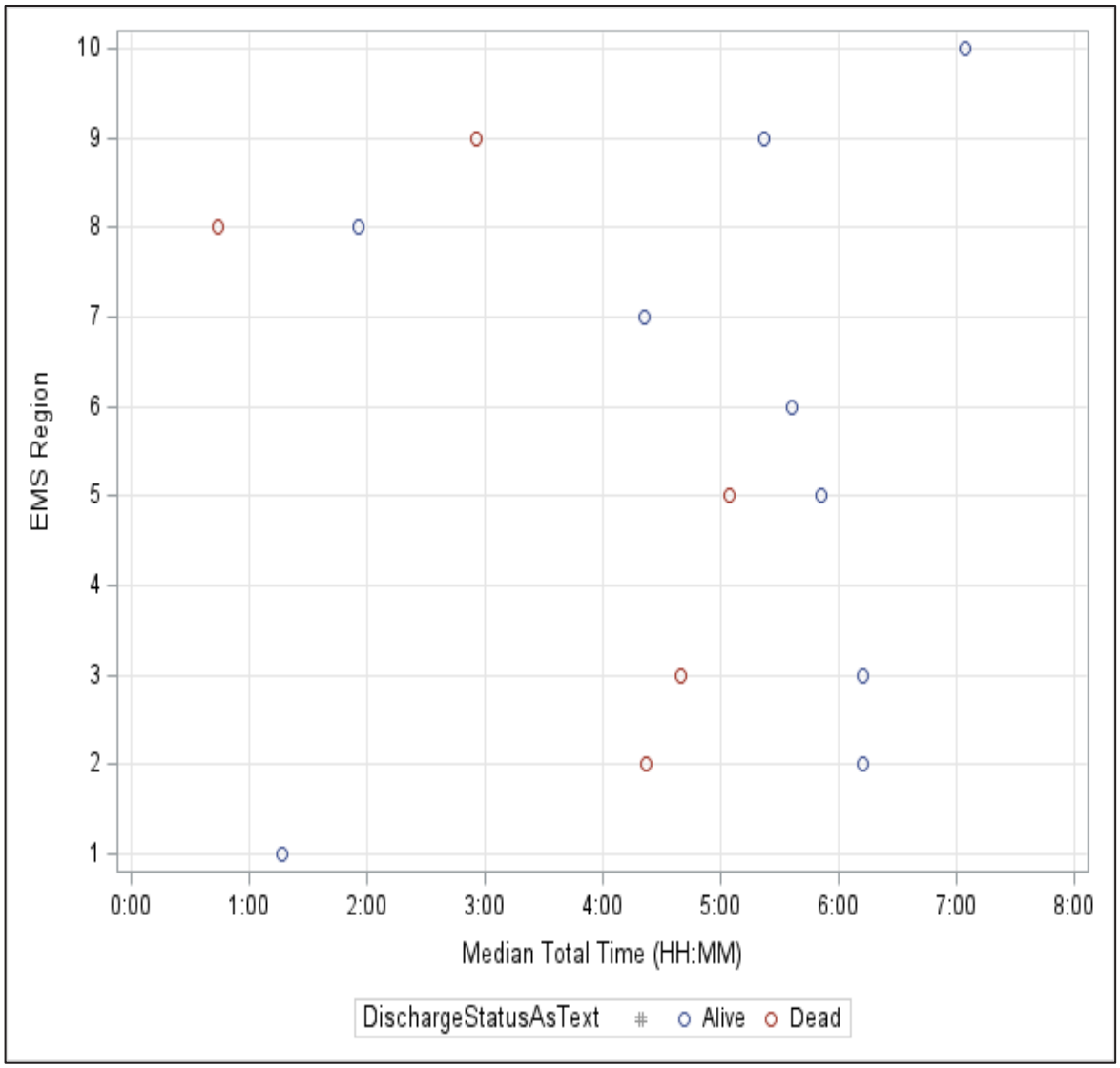


Table 6E7: R Group, ISS <=15, Median Time by EMS Region and Discharge Status

The table lists the counts of patients that were discharged alive or deceased with the corresponding median time to definitive care per EMS region. Trauma patients with an ISS less than or equal to 15 who survived their trauma injuries in EMS region 10 had the longest median time to definitive care (07:41:30 HH:MM:SS). Trauma patients with an ISS less than or equal to 15 who died from their injuries in EMS region 5 had the longest median time to definitive care (06:27:00 HH:MM:SS). Destination hospitals in EMS Regions 1, 6, 7, 8, and 10 did not have any reported deaths with ISS <= 15 during the period for the specific analysis. EMS Region 4 is not included due to no data reported.

Hospital Destination EMS Region	Discharge Status	Frequency	Median Total Time
1	Alive	7	1:17:00
2	Alive	51	5:59:00
2	Dead	2	3:57:00
3	Alive	202	6:26:30
3	Dead	6	5:51:30
5	Alive	102	6:01:30
5	Dead	4	6:27:00
6	Alive	21	6:01:00
7	Alive	2	4:21:00
8	Alive	9	1:49:00
9	Alive	143	5:27:00
9	Dead	2	3:32:30
10	Alive	24	7:41:30
Total		575	5:57:00

Figure 6E8: R Group, ISS <=15, Median Time by EMS Region and Discharge Status

The scatter plot graph represents cumulative counts of trauma patients by the discharge status on the EMS Region lines by their median total time to definitive care. Cases with Injury Severity Scores <=15 are represented in the graph. Trauma patients who survived their injuries in EMS region 10 had the longest median time to definitive care (07:41:30 HH:MM:SS). Trauma patients who died from their injuries in EMS region 5 had the longest median time to definitive care (06:27:00 HH:MM:SS). EMS Regions 1, 6, 7, 8, and 10 did not have any reported deaths during the period for the specific analysis. EMS Region 4 is not included due to no data reported.

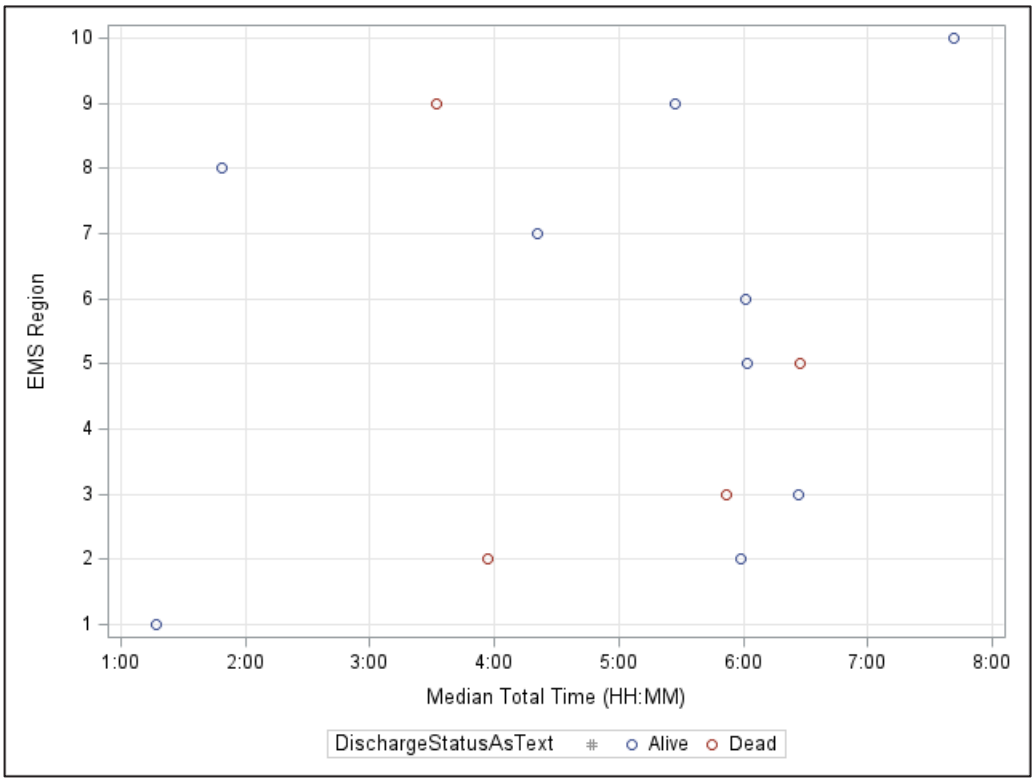


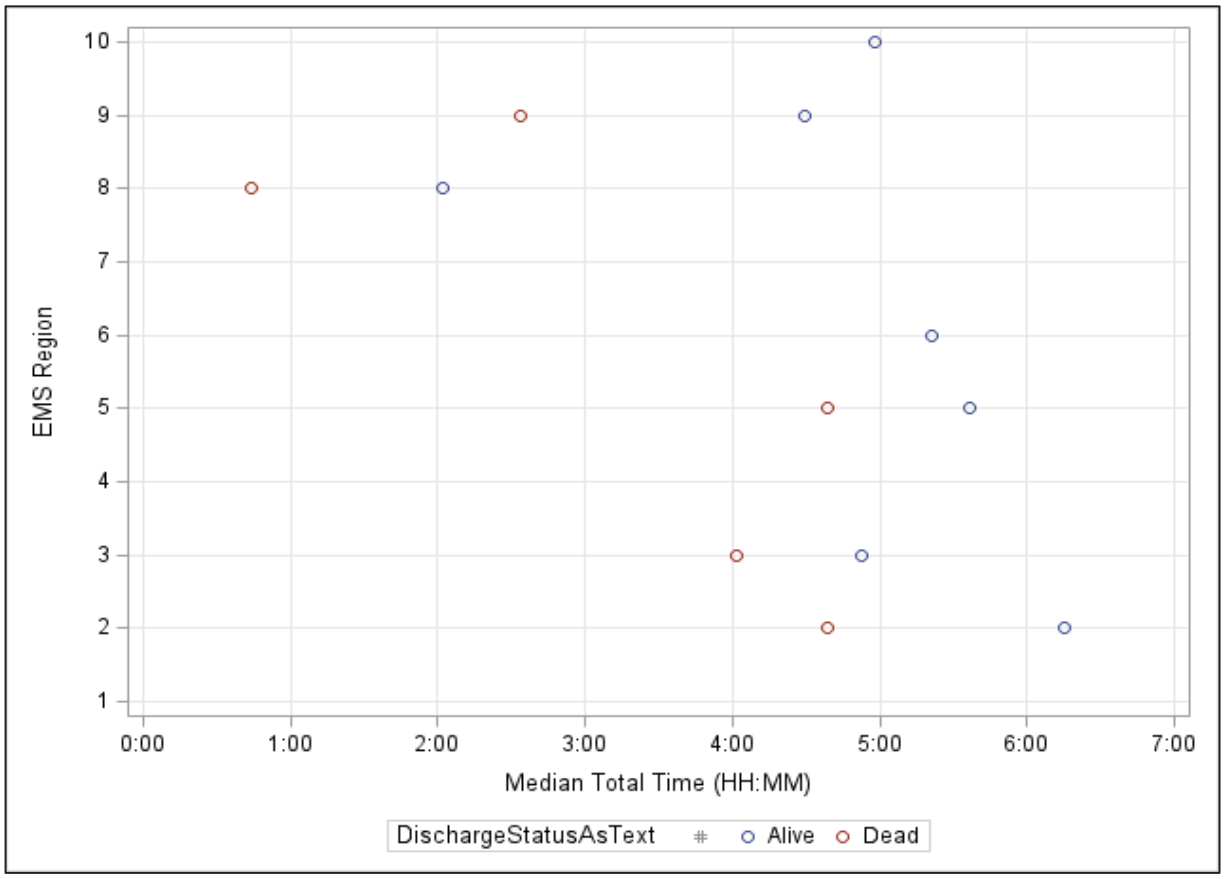
Table 6E9: R Group, ISS >15, Median Time by EMS Region and Discharge Status

The table lists the counts of patients that were discharged alive or deceased with the corresponding median time to definitive care per EMS region. Trauma patients with an ISS greater than 15 who survived their trauma injuries in EMS region 2 had the longest median time to definitive care (06:15:00 HH:MM:SS). Trauma patients with an ISS greater than 15 who died from their injuries in EMS region 5 had the longest median time to definitive care (04:39:00 HH:MM:SS). Destination hospitals in EMS Regions 6 and 10 did not have any reported deaths with ISS >15 during the period for the specific analysis. EMS Regions 1, 4, and 7 are not included due to no data reported for the specific analysis.

Hospital Destination EMS Region	Discharge Status	Frequency	Median Total Time
2	Alive	15	6:15:00
2	Dead	4	4:38:30
3	Alive	47	4:53:00
3	Dead	9	4:02:00
5	Alive	27	5:37:00
5	Dead	12	4:39:00
6	Alive	4	5:21:00
8	Alive	5	2:02:00
8	Dead	1	0:44:00
9	Alive	42	4:29:30
9	Dead	9	2:34:00
10	Alive	8	4:58:00
Total		183	4:51:00

Figure 6E10: R Group, ISS >, Median Time by EMS Region and Discharge Status

The scatter plot graph represents cumulative counts of trauma patients by the discharge status on the EMS Region lines by their median total time to definitive care. Cases with Injury Severity Scores >15 are represented in the graph. Trauma patients who survived their injuries in EMS region 2 had the longest median time to definitive care (06:15:00 HH:MM:SS). Trauma patients who died from their injuries in EMS region 5 had the longest median time to definitive care (04:39:00 HH:MM:SS). Destination hospitals in EMS Regions 6 and 10 did not have any reported deaths with ISS >15 during the period for the specific analysis. EMS Regions 1, 4, and 7 are not included due to no data reported for the specific analysis.



DEMOGRAPHIC INFORMATION

Demographics are used to identify age groups and genders that may be at high risk for certain injuries. With this type of information, injury prevention programs can focus on the causes of injuries, a target audience, and specific regions of the state.

Table 7: Incidents by Age

The highest fatality rate was 5.6% and fell within the age group 25-34. It is to be noted that there were 2 deaths out of 3 not known (NK)/not recorded (NR) that accounted for a 66.7% fatality rate. Not known/Not recorded was recorded because the patient's age was unknown, undetermined, or not documented.

Age Group	Count	Percent	Deaths	Case Fatality Rate
<1	448	1.2	10	2.2
1-4	1,061	2.9	15	1.4
5-9	1,226	3.4	9	0.7
10-14	1,283	3.5	21	1.6
15-19	2,027	5.6	93	4.6
20-24	2,551	7.0	134	5.3
25-34	5,001	13.8	282	5.6
35-44	3,739	10.3	165	4.4
45-54	3,468	9.6	145	4.2
55-64	4,121	11.4	174	4.2
65-74	4,122	11.4	169	4.1
75-84	4,120	11.4	210	5.1
>=85	3,022	8.3	147	4.9
NK/NR	3	0.0	2	66.7
Total	36,192	100.0	1,576	4.4

Figure 7A: Incidents by Age

This graph represents the incident rates by age group.

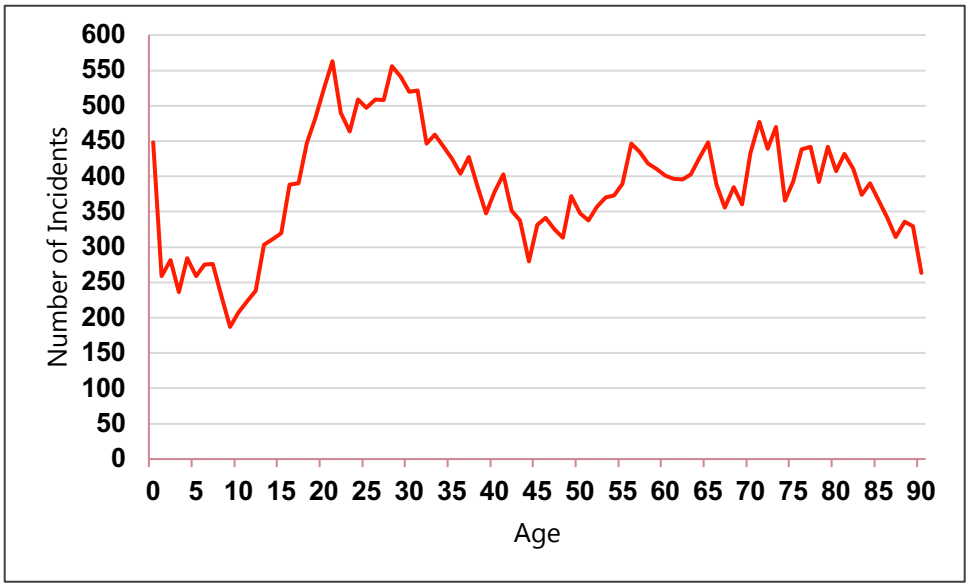


Figure 7B: Case Fatality Rate by Age

The case fatality rate by age group.

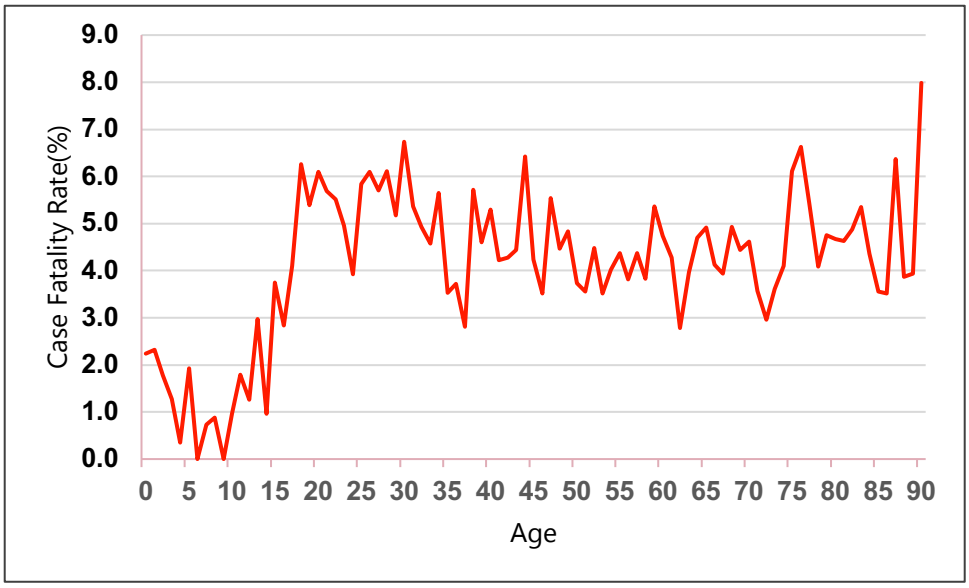


Table 8: Incidents and Case Fatality Rate by Age and Gender

The Incidents number of males (22,031) is much higher than that of female (14,157). Male Case Fatality Rate (5.2%) is higher than female Case Fatality Rate (3.1%). In the female population, the Case Fatality Rate in age group 25-34 is the highest (4.1%). In the male population, the Case Fatality Rate in age group equal or above 85 is the highest (9.3%). Not known/Not recorded was recorded because the patient's age was unknown, undetermined, or not documented.

Age Group	Number (Female)	Number (Male)	Deaths (Female)	Deaths (Male)	Case Fatality Rate (Female)	Case Fatality Rate (Male)
<1	191	257	5	5	2.6	1.9
1-4	439	622	9	6	2.1	1.0
5-9	518	708	8	1	1.5	0.1
10-14	393	890	4	17	1.0	1.9
15-19	572	1,454	21	72	3.7	5.0
20-24	681	1,870	23	111	3.4	5.9
25-34	1,257	3,743	51	231	4.1	6.2
35-44	993	2,746	28	137	2.8	5.0
45-54	1,035	2,433	34	111	3.3	4.6
55-64	1,488	2,633	42	132	2.8	5.0
65-74	2,026	2,096	56	113	2.8	5.4
75-84	2,474	1,646	92	118	3.7	7.2
>=85	2,090	931	60	87	2.9	9.3
NK/NR	0	2	0	1	0.0	50.0
Total	14,157	22,031	433	1142	3.1	5.2

Figure 8A: Incidents by Age and Gender

This graph represents incidents by age and gender.

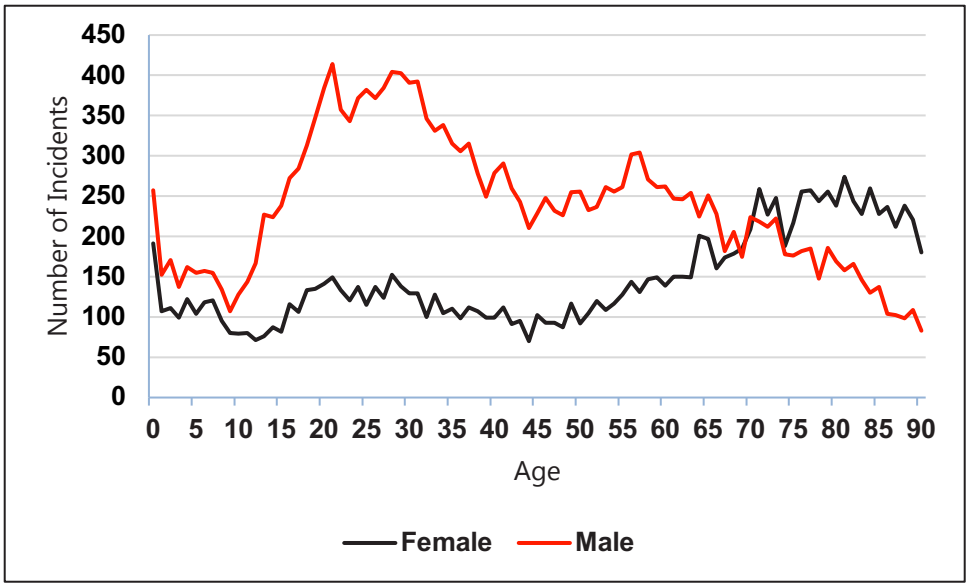


Figure 8B: Case Fatality Rate by Age and Gender

This graph represents the case fatality rate by age and gender.

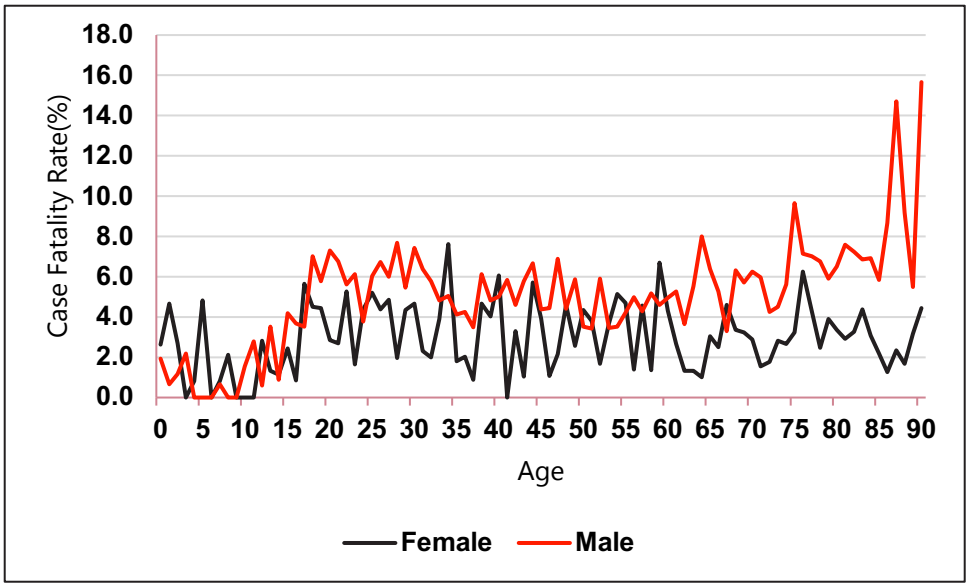


Table 9A: Incidents by Alcohol Use

The incidents count of Alcohol level beyond legal limit (confirmed by test) is 2,368 (6.5%). There were 3 records missing from incidents by alcohol use compared to the incidents by age due to incomplete information.

Alcohol Use Indicator	Count	Percent
No (Not Tested)	25,512	70.5
No (Confirmed by Test)	7,356	20.3
Yes (Confirmed by Test [Beyond Legal Limit])	2,368	6.5
Yes (Confirmed by Test [Trace Levels])	831	2.3
Not Applicable	108	0.3
Unknown	14	0.0
Total	36,189	100.0

Table 9B: Alcohol Use Indicator (Yes) by Age Group

The incidents count of alcohol use indicator is the highest in age group 25-34 (23.7%).

Age Group	Yes (Confirmed by Test [Beyond Legal Limit])	Yes (Confirmed by Test [Trace Levels])	Total	Percent
1-4	0	1	1	0.0
10-14	2	3	5	0.2
15-19	42	41	83	2.6
20-24	219	81	300	9.4
25-34	575	184	759	23.7
35-44	490	137	627	19.6
45-54	358	105	463	14.5
55-64	427	126	553	17.3
65-74	186	76	262	8.2
75-84	61	59	120	3.8
>=85	8	18	26	0.8
Total	2368	831	3199	100.0

Table 10A: Incidents by Drug Use

The incidents count of illegal drug use (confirmed by test) is 2,634 (7.3%). There were 3 records missing from incidents by drug use compared to the incidents by age due to incomplete information.

Drug Code	Count	Percent
No (Not Tested)	28,098	77.6
No (Confirmed by Test)	3,362	9.3
Yes (Confirmed by Test [Illegal Use Drug])	2,634	7.3
Not Applicable	1,515	4.2
Yes (Confirmed by Test [Prescription Drug])	470	1.3
Yes (Confirmed by Test (Unknown if Prescribed or Illegal))	96	0.3
Unknown	14	0.0
Total	36,189	100.0

Table 10B: Drug Use Indicator (Yes) by Age Group

The incidents count of drug use is the highest in age group 25-34 (24.7%).

Age Group	Yes (Confirmed by Test [Illegal Use Drug])	Yes (Confirmed by Test [Prescription Drug])	Yes (Confirmed by Test (Unknown if Prescribed or Illegal))	Total	Percent
<1	1	0	0	1	0.0
1-4	0	1	1	2	0.1
5-9	0	1	0	1	0.0
10-14	11	2	1	14	0.4
15-19	184	12	4	200	6.3
20-24	363	26	7	396	12.4
25-34	706	63	21	790	24.7
35-44	496	59	15	570	17.8
45-54	365	62	19	446	13.9
55-64	355	95	12	462	14.4
65-74	118	89	12	219	6.8
75-84	27	41	4	72	2.3
>=85	8	19	0	27	0.8
Total	2634	470	96	3200	100.0

Table 11: Primary Payment Source

The most frequent primary payor is Medicare (26.9%). There were 3 records missing from the primary payment source due to incomplete information.

Primary Payor	Count	Percent
Medicare	9,728	26.9
Private/Commercial Insurance	7,560	20.9
Self-Pay	7,108	19.6
Medicaid	4,152	11.5
No Fault Automobile	1,409	3.9
Blue Cross/Blue Shield	1,200	3.3
Other Government	821	2.3
Workers Compensation	496	1.4
Other	110	0.3
Unknown	3,608	10.0
Total	36,192	100.0

INJURY CHARACTERISTICS

Mechanism of injury or causes of injury are identified and tracked in the trauma registry. Some age groups may be identified as at risk for certain injuries such as motor vehicle crashes or falls. This information is also used to target injury prevention programs. In some cases, road improvements, pedestrian walkways and driving laws have been improved to reduce injury.

Table 12: Incidents by Mechanism of Injury

The most frequent type of injury is fall injuries, followed by motor vehicle traffic injuries and firearm injuries. Among these top three injuries, firearm injury has the highest case fatality rate (15.5%). There were 269 records missing from the incidents of mechanism of injury due to incomplete information.

Mechanism	Count	Percent	Deaths	Case Fatality Rate
Fall	15,524	43.2	433	2.8
Motor vehicle traffic	10,583	29.5	571	5.4
Firearm	2,967	8.3	459	15.5
Struck by, against	1,883	5.2	34	1.8
Cut/pierce	1,606	4.5	21	1.3
Transport, other	1,060	3.0	9	0.8
Pedal cyclist, other	554	1.5	4	0.7
Other specified and classifiable	485	1.4	6	1.2
Natural/environmental, Bites and stings	307	0.9	0	0.0
Machinery	240	0.7	1	0.4
Pedestrian, other	191	0.5	11	5.8
Natural/environmental, Other	131	0.4	1	0.8
Unspecified	98	0.3	5	5.1
Overexertion	91	0.3	0	0.0
Other specified, not elsewhere classifiable	80	0.2	4	5.0
Fire/flame	64	0.2	1	1.6

Hot object/substance	48	0.1	0	0.0
Suffocation	6	0.0	1	16.7
Drowning/submersion	3	0.0	0	0.0
Adverse effects, medical care	1	0.0	0	0.0
Poisoning	1	0.0	1	100.0
Total	35,923	100.0	1,562	4.3

Figure 12A: Case Fatality Rate by Selected Mechanism of Injury

This graph represents the case fatality rate by selected mechanisms of injury with firearm injuries accounting for the highest case fatality rate (15.5%).

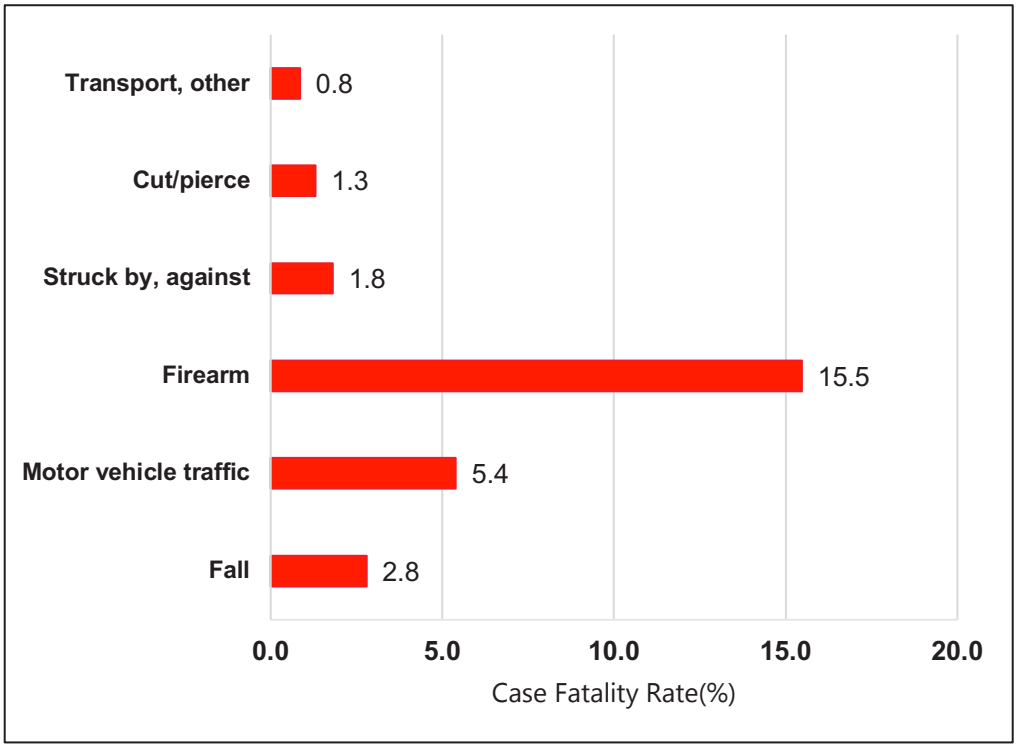


Table 13: Incidents by Selected Mechanism of Injury and Age Group

The table represents the incidents by selected mechanisms of injury and age groups. For people age less than 15 years and older than 54 years, the number of fall injuries is higher than motor vehicle traffic injuries. For people age between 15 to 54 years, the number of motor vehicle traffic injuries is higher than fall injuries.

Age	Fall	Motor Vehicle Crash	Firearm	Struck by against	Cut/Pierce	Transport, other
<1	219	46	3	16	4	1
1-4	581	129	27	55	24	32
5-9	602	167	23	95	24	78
10-14	402	242	83	119	38	180
15-19	209	888	395	158	98	148
20-24	202	1,221	590	131	186	99
25-34	559	2,208	942	369	446	165
35-44	677	1,585	470	285	326	107
45-54	1,003	1,363	235	255	210	110
55-64	1,976	1,244	123	239	149	87
65-74	2,861	812	42	92	82	37
75-84	3,461	503	17	44	13	13
>=85	2,772	175	15	25	6	3
NK/NR	0	0	2	0	0	0
Total	15,524	10,583	2,967	1,883	1,606	1,060

Figure 13A: Incidents by Selected Mechanism of Injury and Age Group

The table represents the incidents by selected mechanisms of injury and age groups. Mechanism of injuries represented in this graph include falls, motor vehicle traffic, and firearm. For people age less than 15 years and older than 54 years, the number of fall injuries is higher than motor vehicle.

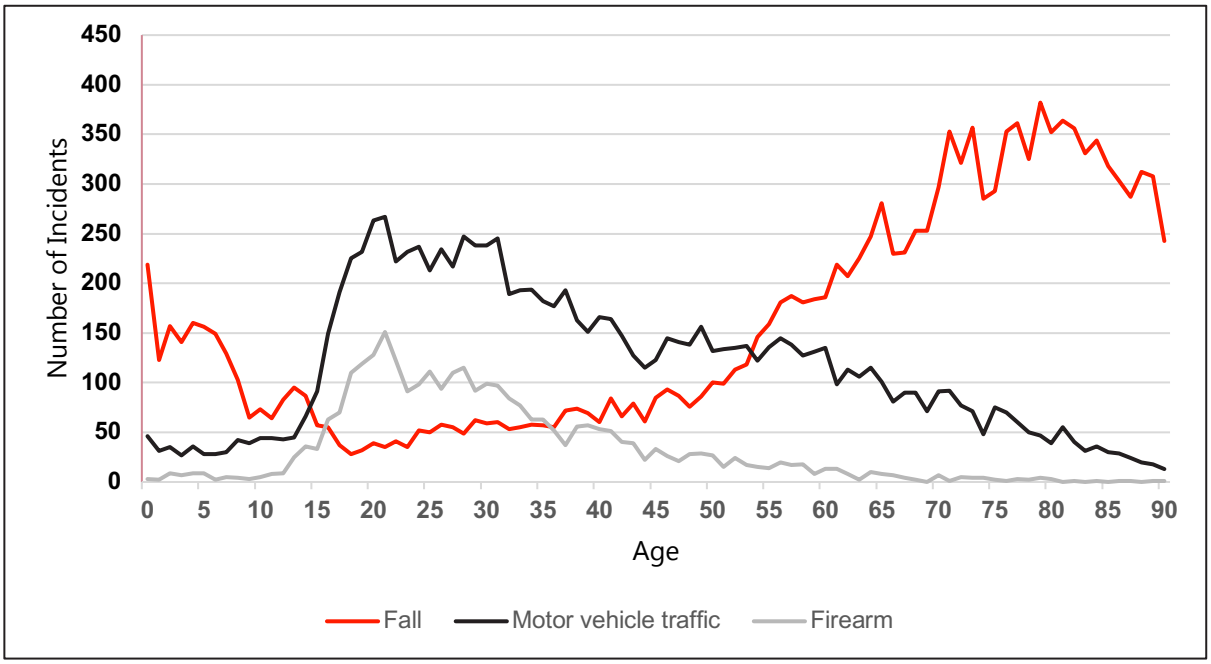


Figure 13B: Incidents by Selected Mechanism of Injury and Age Group

The table represents the incidents by selected mechanisms of injury and age groups. Mechanism of injuries represented in this graph include struck by, against, cut/pierce, and transport, other. For all ages, the number of incidents for injury and age accounted for 51 incidents or less.

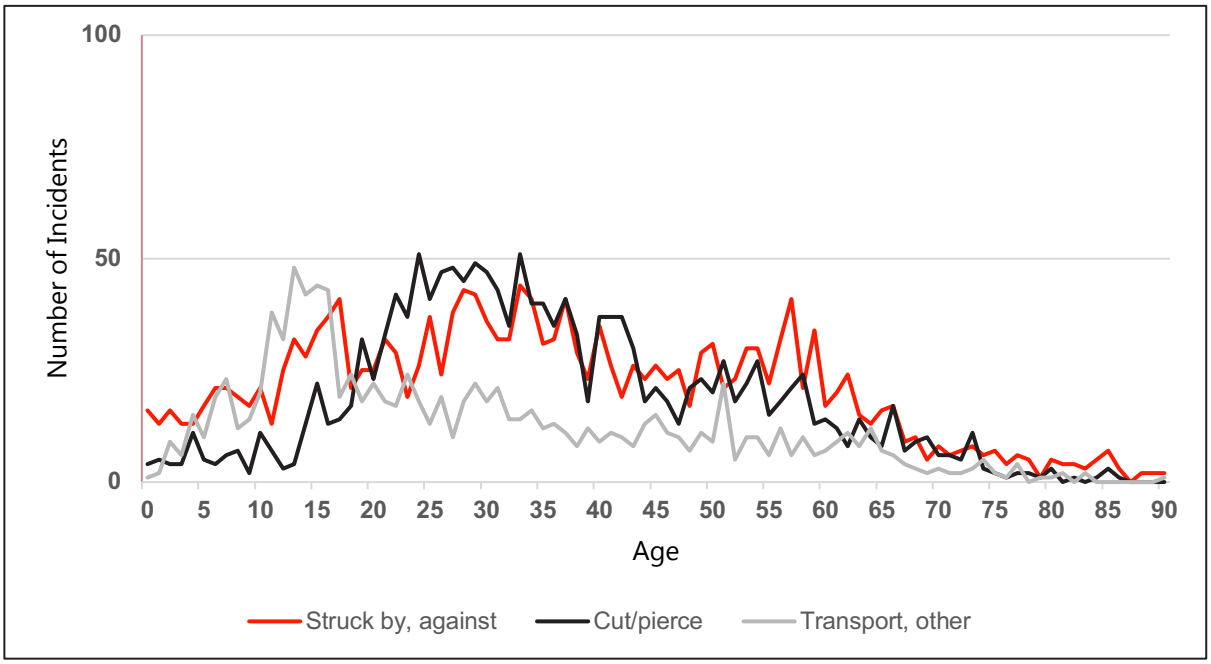


Table 14: Case Fatality Rate by Selected Mechanism of Injury and Age Group

The table represents the case fatality rate by the selected mechanism of injury and age group. The highest mechanism of injury total fatality rate represented in this table is firearm at 15.5%.

Age	Fall	Motor Vehicle Crash	Firearm	Struck by against	Cut/Pierce	Transport, other
<1	0.0	10.9	0.0	0.0	0.0	0.0
1-4	0.0	4.7	7.4	0.0	0.0	0.0
5-9	0.0	1.2	21.7	0.0	0.0	0.0
10-14	0.0	3.3	12.0	0.0	0.0	0.6
15-19	1.0	3.8	13.4	1.3	1.0	0.0
20-24	1.5	3.8	13.2	0.8	0.5	2.0
25-34	1.4	4.6	15.3	2.2	1.8	1.2
35-44	1.6	4.3	16.2	1.1	1.5	0.0
45-54	2.2	4.8	20.9	1.2	1.4	0.0
55-64	2.7	6.9	15.4	2.5	1.3	2.3
65-74	2.9	8.3	16.7	5.4	1.2	5.4
75-84	4.1	11.1	41.2	6.8	0.0	0.0
>=85	3.9	15.4	46.7	12.0	0.0	0.0
NK/NR	0.0	0.0	100.0	0.0	0.0	0.0
Total	2.8	5.4	15.5	1.8	1.3	0.8

Figure 14A: Case Fatality Rate by Selected Mechanism of Injury and Age

The graph represents the case fatality rates by selected mechanisms of injury and ages. Mechanism of injuries represented in this graph include fall, motor vehicle traffic, and firearm. Firearms account for highest fatality rate among these three mechanisms of injury and age.

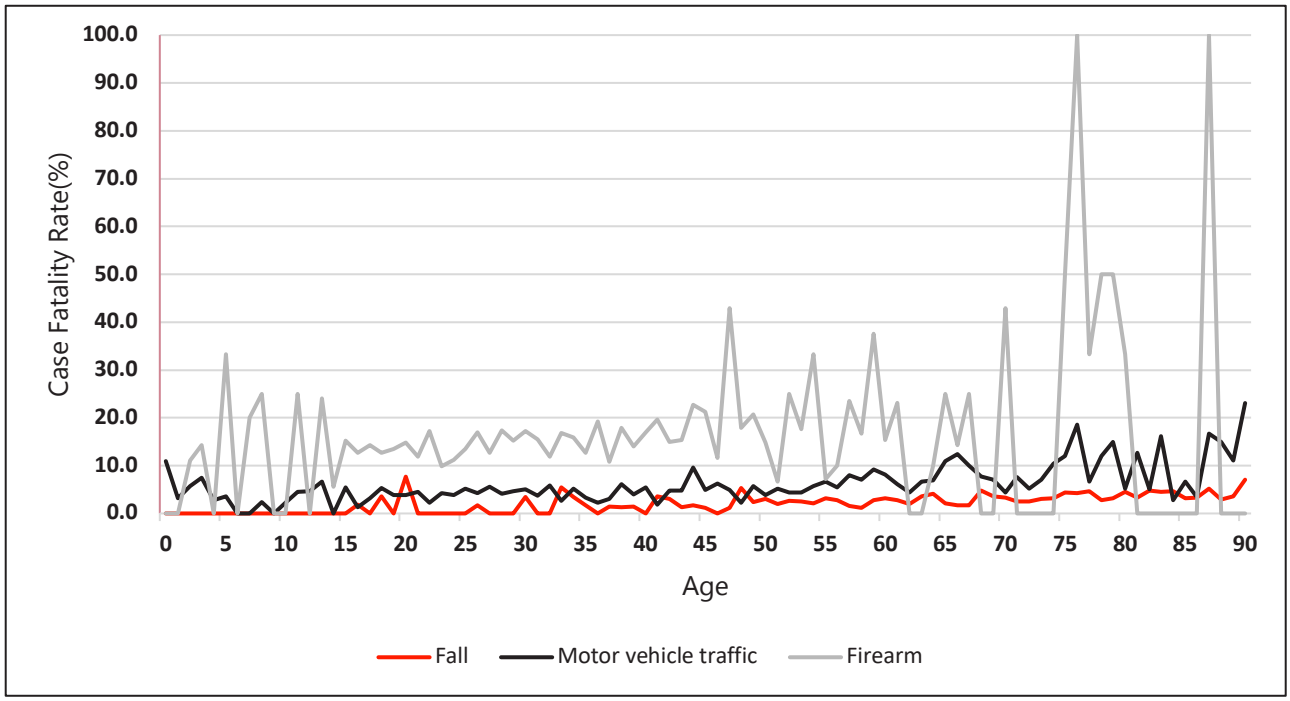


Figure 14B: Case Fatality Rate by Selected Mechanism of Injury and Age

The graph represents the case fatality rates by selected mechanisms of injury and ages. Mechanism of injuries represented in this graph include struck by, against, cut/pierce, and transport, other. For all ages, the number of case fatality rates accounted for 50% or less.

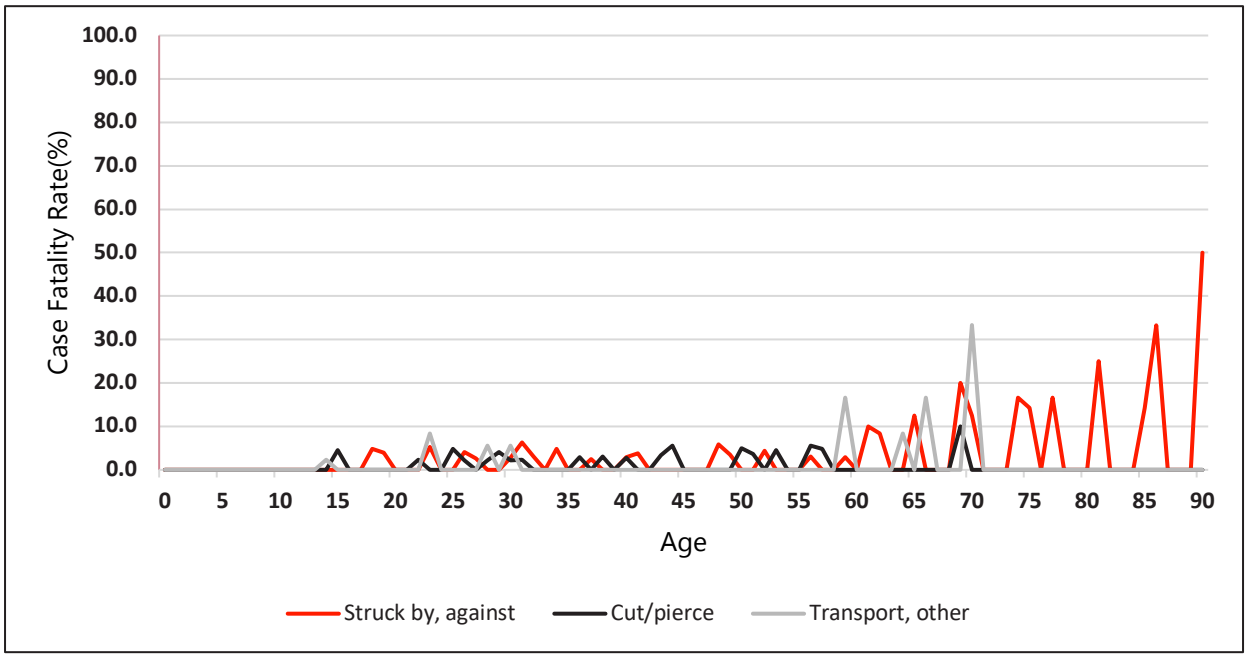


Table 15: Incidents and Case Fatality Rate by Mechanism of Injury and Gender

The table represents the rate of incidents by gender and case fatality rates for mechanisms of injury. The percent of fall injuries in female (58.1%) is much higher than that in male (33.7%). The percent of firearm injuries in male (11.7%) is much higher than that in female (2.9%). The total case fatality rate in male (5.2%) is much higher than that in female (3.0%).

Mechanism	Percent (Female)	Percent (Male)	Case Fatality Rate (Female)	Case Fatality Rate (Male)
Fall	58.1	33.7	2.1	3.6
Motor vehicle traffic	27.8	30.5	4.5	5.9
Firearm	2.9	11.7	15.5	15.4
Struck by, against	2.8	6.8	2.0	1.7
Cut/pierce	1.6	6.3	1.3	1.3
Transport, other	2.4	3.3	0.3	1.1
Pedal cyclist, other	1.0	1.9	0.0	1.0
Other specified and classifiable	0.6	1.8	0.0	1.5
Machinery	0.2	1.0	4.3	0.0
Natural/environmental, Bites and stings	1.0	0.7	0.0	0.0
Pedestrian, other	0.5	0.6	4.3	6.6
Unspecified	0.1	0.4	7.1	4.8
Natural/environmental, Other	0.5	0.3	0.0	1.5
Other specified, not elsewhere classifiable	0.2	0.3	8.3	3.6
Overexertion	0.3	0.2	0.0	0.0
Fire/flame	0.1	0.2	0.0	2.1
Hot object/substance	0.1	0.2	0.0	0.0
Suffocation	0.0	0.0	50.0	0.0
Drowning/submersion	0.0	0.0	0.0	0.0
Adverse effects, medical care	0.0	0.0	0.0	0.0
Poisoning	0.0	0.0	100.0	0.0
Total	100.0	100.0	3.0	5.2

Figure 15A: Percentage of Incidents by Selected Mechanism of Injury and Gender

The graph represents the percentage rate of incidents by select mechanisms of injury and gender.

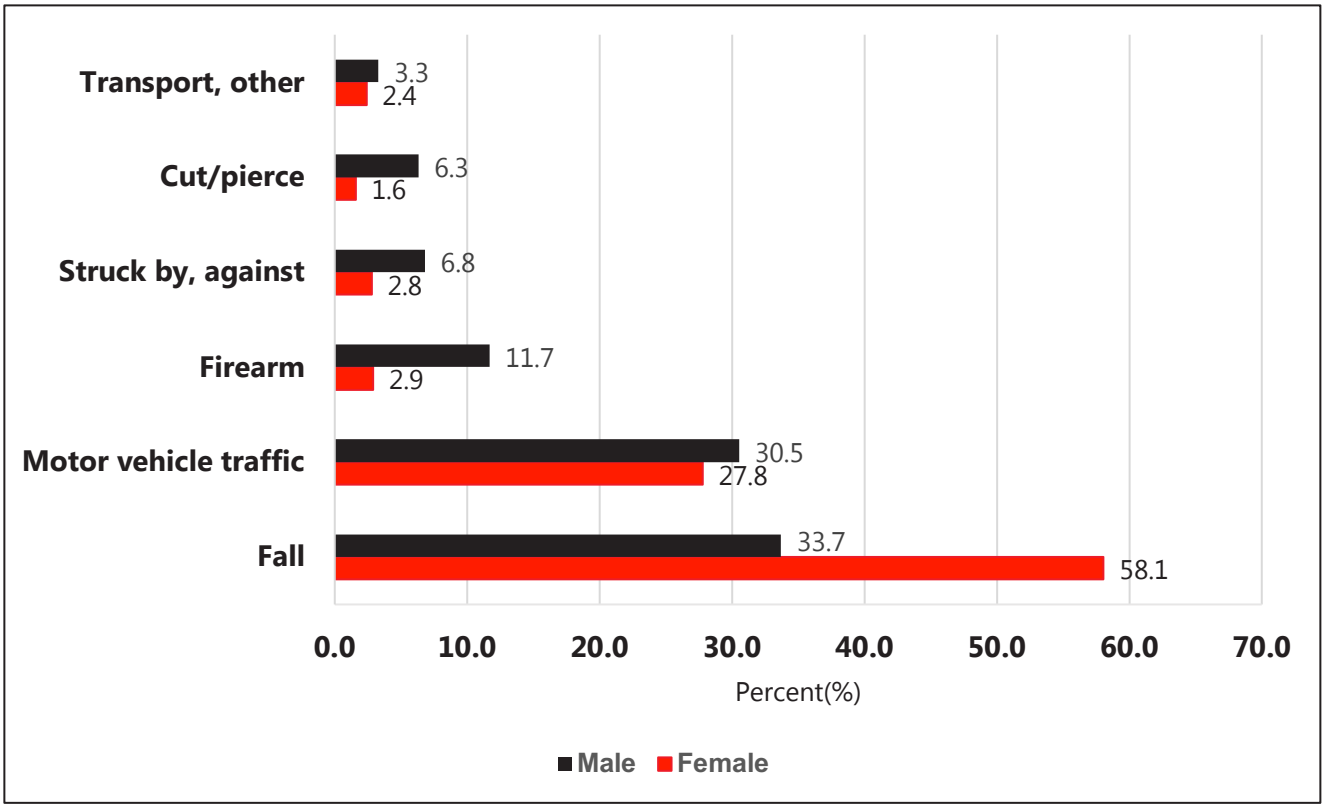


Figure 15B: Case Fatality Rate by Selected Mechanism of Injury and Gender

The graph represents the case fatality rate by select mechanisms of injury and gender.

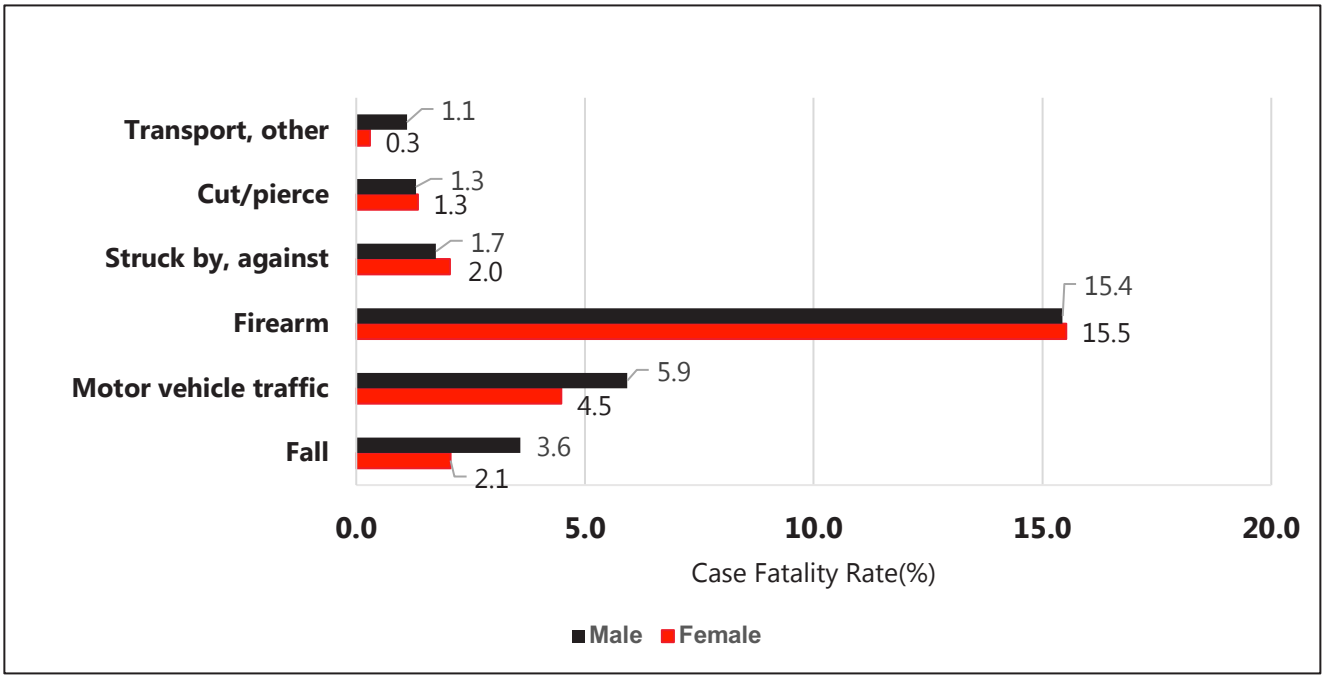


Table 16: Incidents and Case Fatality Rate by Injury Severity Score (ISS)

The table represents the case fatality rate by injury severity score. Minor injuries (44.8%) and moderate injuries (38.9%) account for 83.7 percent of all the injuries. Patients with severe injuries with an ISS greater than 24 have the highest case fatality rate (42.3%).

ISS	Number	Percent	Deaths	Case Fatality Rate (%)
1-8	15,517	44.8	202	1.3
9-15	13,458	38.9	303	2.3
16-24	3,717	10.7	282	7.6
>24	1,860	5.4	787	42.3
NK/NR	64	0.2	2	3.1
Total	34,616	100.0	1,576	4.6

Figure 16A: Case Fatality Rate by Injury Severity Score (ISS)

The graph represents the case fatality rate by injury severity score. Minor injuries (44.8%) and moderate injuries (38.9%) account for 83.7 percent of all the injuries. Patients with severe injuries with an ISS greater than 24 have the highest case fatality rate (42.3%).

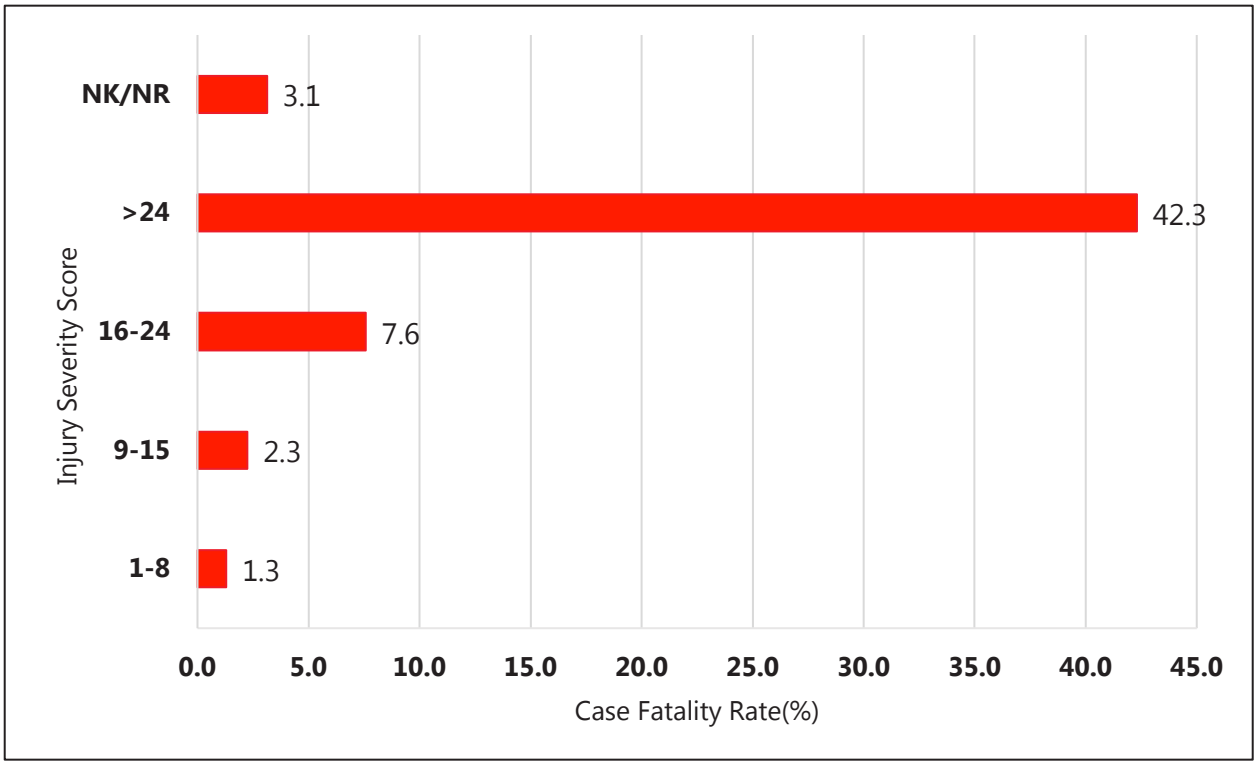


Table 17: Incidents by Injury Severity Score (ISS) and Age

The table represents the incidents by injury severity score and age. The largest number (516) of very severe injuries (ISS >24) is in age group 25-34.

Age	ISS 1-8	ISS 9-15	ISS 16-24	ISS > 24	ISS NK/NR	Total
<1	179	206	46	16	1	448
1-4	706	273	51	30	1	1,061
5-9	938	224	39	24	1	1,226
10-14	842	304	83	53	1	1,283
15-19	971	649	220	186	1	2,027
20-24	1,079	848	349	269	6	2,551
25-34	2,333	1,478	661	516	13	5,001
35-44	1,697	1,235	492	306	9	3,739
45-54	1,550	1,198	443	269	8	3,468
55-64	1,694	1,581	519	320	7	4,121
65-74	1,500	1,889	462	264	7	4,122
75-84	1,360	2,096	408	252	4	4,120
>=85	869	1,779	226	141	7	3,022
NK/NR	1	1	0	1	0	3
Total	15,719	13,761	3,999	2,647	66	36,192

Figure 17: Incidents by Injury Severity Score (ISS) and Age

The graph represents the incidents by injury severity score and age. Points on the line added together in the age ranges represent the counts seen in Table 17.

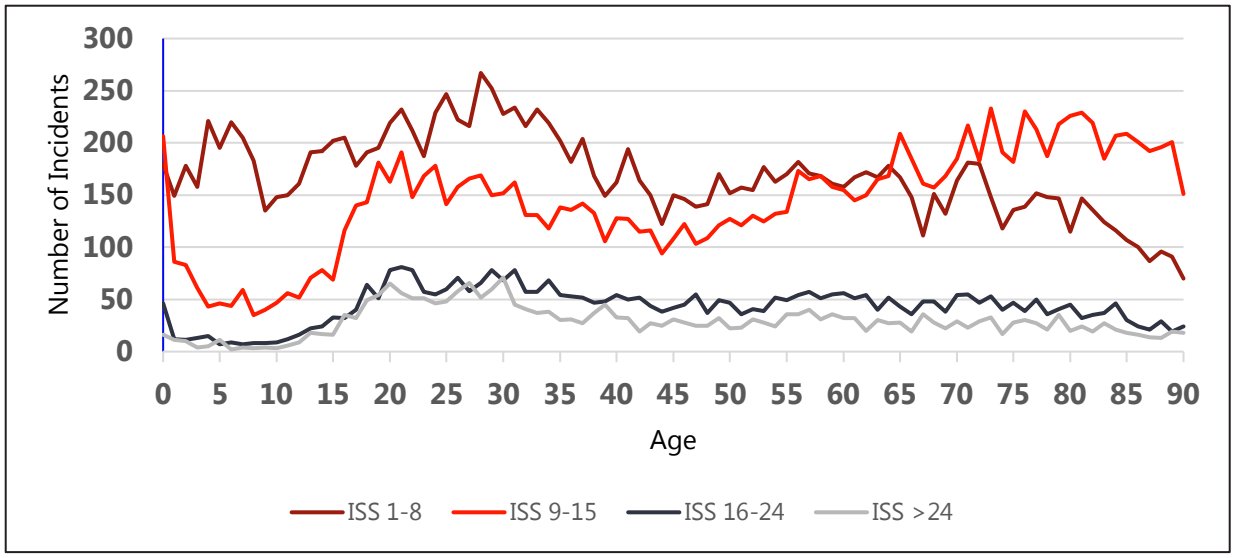


Table 18: Case Fatality Rate by Injury Severity Score (ISS) and Age

The table represents the incidents by injury severity score and age. The highest total fatality rate (5.6%) is in age group 25-34.

Age	ISS 1-8	ISS 9-15	ISS 16-24	ISS > 24	ISS NK/NR	Total
<1	0.0	1.5	10.9	12.5	0.0	2.2
1-4	0.0	0.7	3.9	36.7	0.0	1.4
5-9	0.1	0.0	5.1	25.0	0.0	0.7
10-14	0.1	0.7	3.6	28.3	0.0	1.6
15-19	1.0	2.0	7.3	29.0	0.0	4.6
20-24	1.2	2.6	6.0	29.0	0.0	5.3
25-34	1.5	1.8	6.7	34.3	0.0	5.6
35-44	1.3	2.0	4.9	30.7	0.0	4.4
45-54	1.4	2.4	5.6	25.3	12.5	4.2
55-64	1.2	1.8	6.2	28.8	0.0	4.2
65-74	1.7	1.9	9.1	25.4	0.0	4.1
75-84	2.1	2.6	10.5	32.9	25.0	5.1
>=85	2.5	3.5	10.2	27.7	0.0	4.9
NK/NR	100.0	0.0	0.0	100.0	0.0	66.7
Total	1.3	2.2	7.1	29.7	3.0	4.4

Figure 18: Case Fatality Rate by Injury Severity Score (ISS) and Age

The graph represents the case fatality rate by injury severity score and age. Points on the line added together in the age ranges represent the counts seen in Table 18.

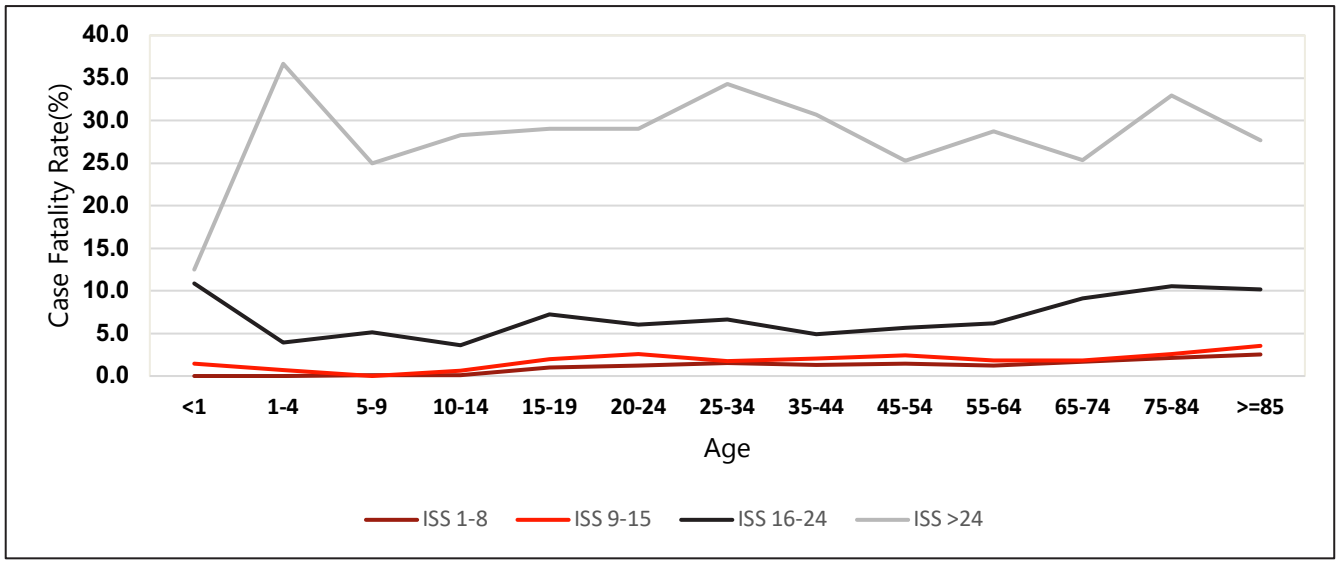


Table 19: Incidents and Case Fatality Rate by Work-Related Injury

The table represents work-related injuries by frequency and fatality rate. In 2020, there were 1,220 confirmed work-related injuries, which account for 3.4% of all trauma injuries. The case fatality rate for the confirmed work-related injuries is 2.6%.

Work-Related Injury	Number	Percent	Deaths	Case Fatality Rate
False	34,896	96.4	1,541	4.4
True	1,220	3.4	32	2.6
Unknown	76	0.2	3	3.9
Total	36,192	100.0	1,576	4.4

Figure 19A: Case Fatality Rate by Work-Related Injury

The graph represents the case fatality rate of work-related injuries. The case fatality rate of the unconfirmed work-related injuries seems significant; however, the patient ratio 3:76 is lower than the other two segments.

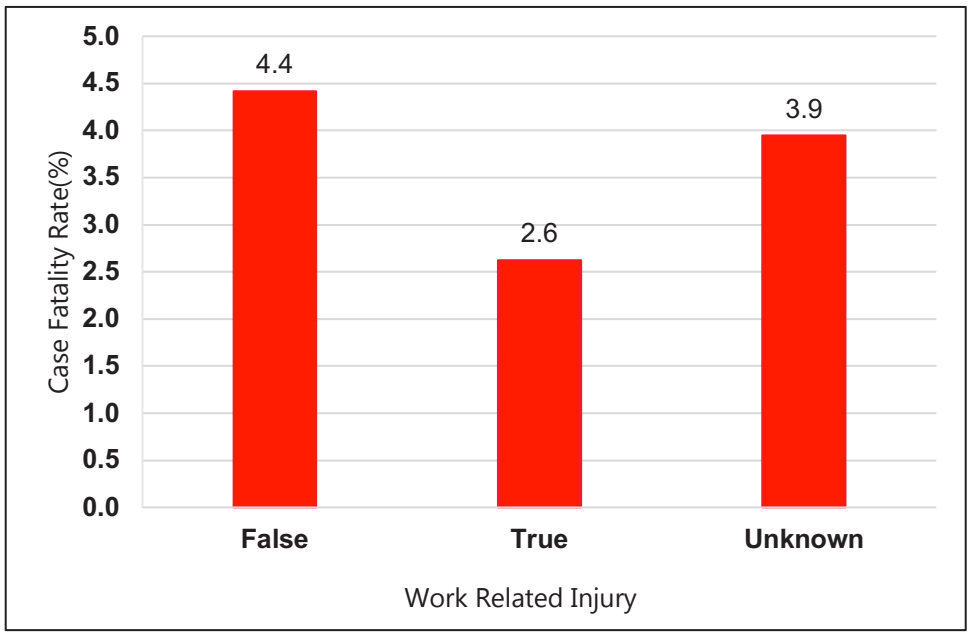


Table 20: Incidents and Case Fatality Rate by Intent

The table represents the frequency and case fatality rate of injuries by the intent of the injury. Most of the injuries are unintentional injuries (86.5%). Assault injuries account for 10.7% of all the injuries. The case fatality rate of self-inflicted is the highest (24.9%). The number of records missing data is 43. These records are not counted in the total.

Intent	Number	Percent	Deaths	Case Fatality Rate
Unintentional	31,262	86.5	1,081	3.5
Assault	3,875	10.7	313	8.1
Undetermined	504	1.4	58	11.5
Self-inflicted	457	1.3	114	24.9
Other	51	0.1	8	15.7
Total	36,149	100.0	1,574	4.4

Figure 20A: Case Fatality Rate by Intent

The graph represents the case fatality rate of injuries by the intent. The case fatality rate of self-inflicted is the highest (24.9%).

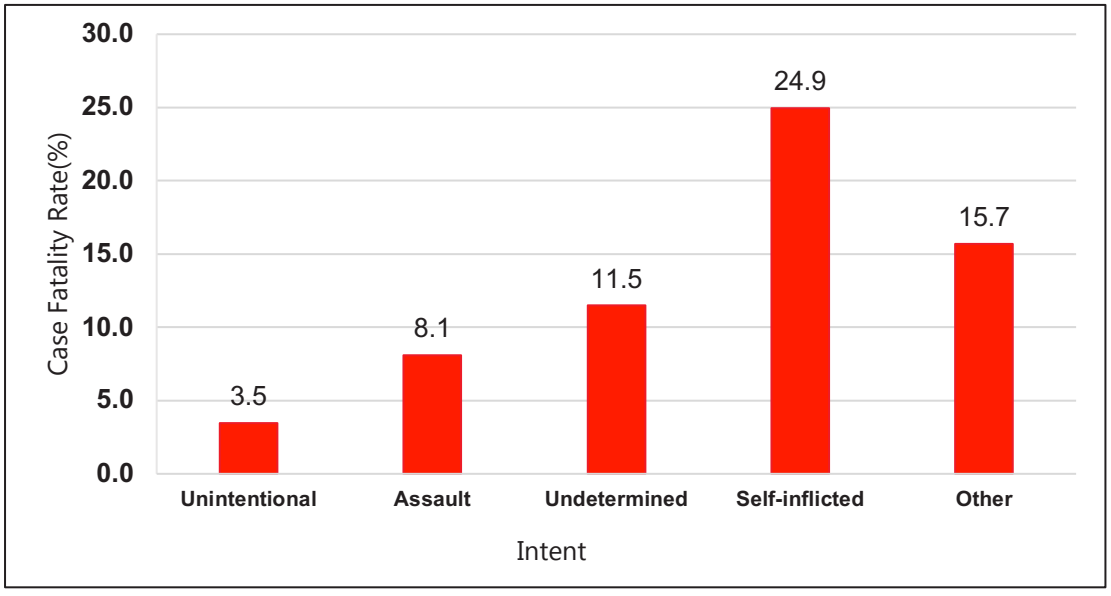


Table 21: Incidents and Case Fatality Rate by the Top 40 Places of Injury

The table represents the frequency and case fatality rate of injuries by the location of the injury. The documented location with the highest frequency is unspecified. The highest number of deaths (263) resulted from injuries that occurred on a local resident or business street. The unspecified place is used by registrars when inadequate documentation is available.

ICD10 Injury Place	Number	Percent	Deaths	Case Fatality Rate
Unspecified place or not applicable	5,066	14.0	119	2.3
Local residential or business street	4,415	12.2	263	6.0
Unspecified street and highway	3,513	9.7	142	4.0
Unspecified place in single-family (private) house	2,549	7.0	118	4.6
Unspecified place in unspecified non-institutional (private) residence	1,810	5.0	67	3.7
State road	1,581	4.4	129	8.2
Other place in single-family (private) house	1,297	3.6	69	5.3
Interstate highway	1,191	3.3	70	5.9
Garden or yard in single-family (private) house	1,153	3.2	50	4.3
Other place in unspecified non-institutional (private) residence	756	2.1	17	2.2
Bedroom of single-family (private) house	716	2.0	47	6.6
Garden or yard of unspecified non-institutional (private) residence	669	1.8	8	1.2
Bathroom of single-family (private) house	620	1.7	35	5.6

Unspecified place in nursing home	608	1.7	21	3.5
Parking lot	532	1.5	44	8.3
Bedroom of unspecified non-institutional (private) residence	472	1.3	7	1.5
Kitchen of single-family (private) house	471	1.3	14	3.0
Unspecified place in apartment	410	1.1	24	5.9
Bedroom in nursing home	395	1.1	14	3.5
Private driveway to single-family (private) house	376	1.0	23	6.1
Unspecified place in prison	374	1.0	5	1.3
Other trade areas	371	1.0	24	6.5
Other specified places	343	0.9	10	2.9
Bathroom of unspecified private residence single-family or house	340	0.9	7	2.1
Parkway	271	0.7	24	8.9
Other recreation area	259	0.7	3	1.2
Kitchen of unspecified non-institutional (private) residence	252	0.7	8	3.2
Other paved roadways	250	0.7	9	3.6
Sidewalk	250	0.7	6	2.4
Other place in apartment	208	0.6	11	5.3
Unknown	207	0.6	4	1.9

Other specified industrial and construction area	191	0.5	5	2.6
Restaurant or cafe	186	0.5	8	4.3
Other wilderness area	185	0.5	5	2.7
Private garage of single-family (private) house	174	0.5	10	5.7
Gas station	168	0.5	16	9.5
Building [any] under construction	163	0.5	5	3.1
Supermarket, store or market	160	0.4	10	6.3
Other specified sports and athletic area	159	0.4	2	1.3
Bathroom in nursing home	149	0.4	8	5.4

Table 22: Incidents by AIS Severity and Case Fatality Rate

The table represents the frequency of injury severity by fatality rate. Patients with the maximum AIS severity have the highest case fatality rate (84.0%)

AIS Severity	Number	Percent	Deaths	Case Fatality Rate %
Maximum	75	0.2	63	84.0
Critical	1,663	4.6	602	36.2
Severe	2,624	7.3	277	10.6
Serious	14,369	39.8	407	2.8
Moderate	13,379	37.0	106	0.8
Minor	4,016	11.1	119	3.0
Total	36,126	100.0	1,574	4.4

Figure 22A: Incidents by AIS Severity

The graph represents the frequency of injuries by the severity levels. Most injuries were considered serious.

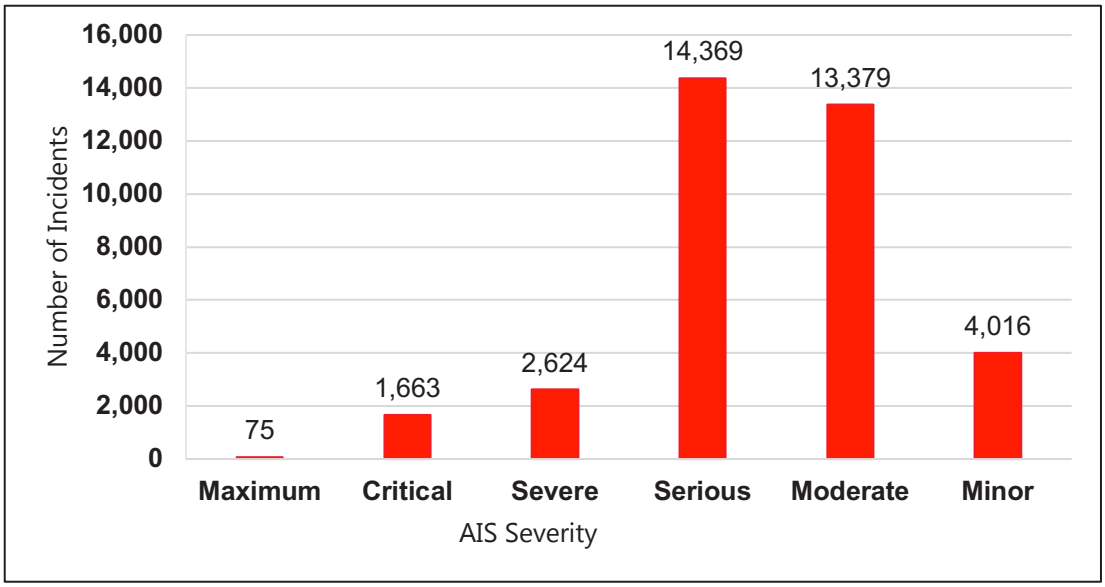


Figure 22B: Case Fatality Rate (%) by AIS Severity

The graph represents the frequency of death from trauma injuries. Patients with the maximum AIS severity have the highest case fatality rate (84%).

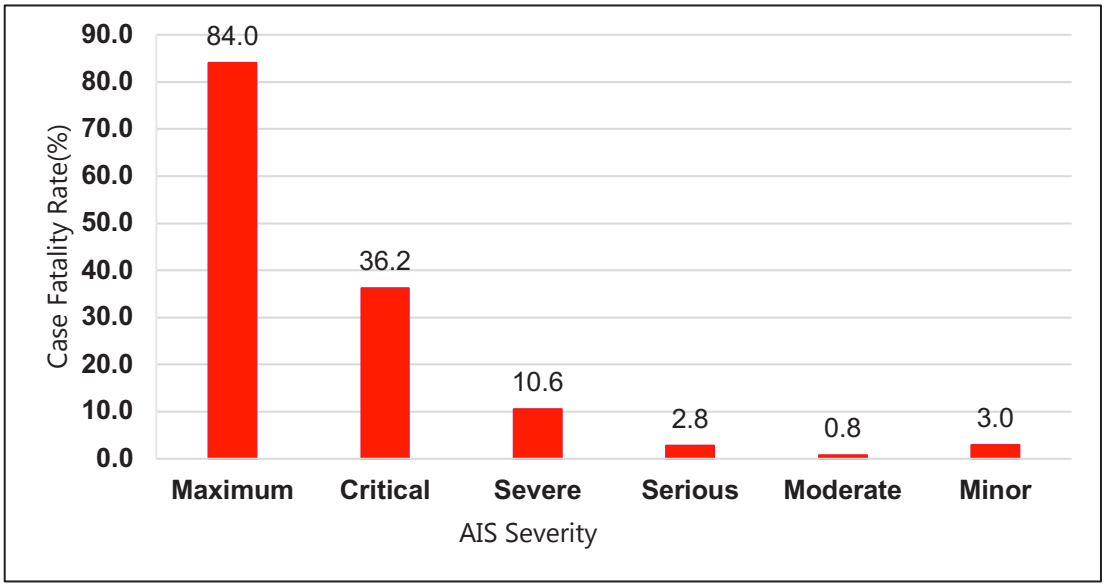


Table 23: Incidents by ISS Body Region and Discharge Status

The table represents the frequency of injuries by the ISS body regions with the case fatality rate for each body region. If a patient has multiple injured body regions, only one region with the highest AIS severity is counted. Patients with the highest AIS severity in the head or neck region have the highest case fatality rate (8.9%).

ISS Body Region	Number	Percent	Deaths	Case Fatality Rate %
Extremities or Pelvic Girdle	14,764	40.9	211	1.4
Head or Neck	8,310	23.0	738	8.9
Chest	5,669	15.7	318	5.6
External	3,187	8.8	161	5.1
Abdominal or Pelvic Contents	2,702	7.5	138	5.1
Face	1,494	4.1	8	0.5
Total	36,126	100.0	1,574	4.4

Figure 23A: Incidents by ISS Body Region

The graph represents the frequency of injuries by ISS body region. Most injuries occur in the extremities or pelvic girdle ISS body region, which correlates to the most frequent mechanism of injury, falls and MVC.

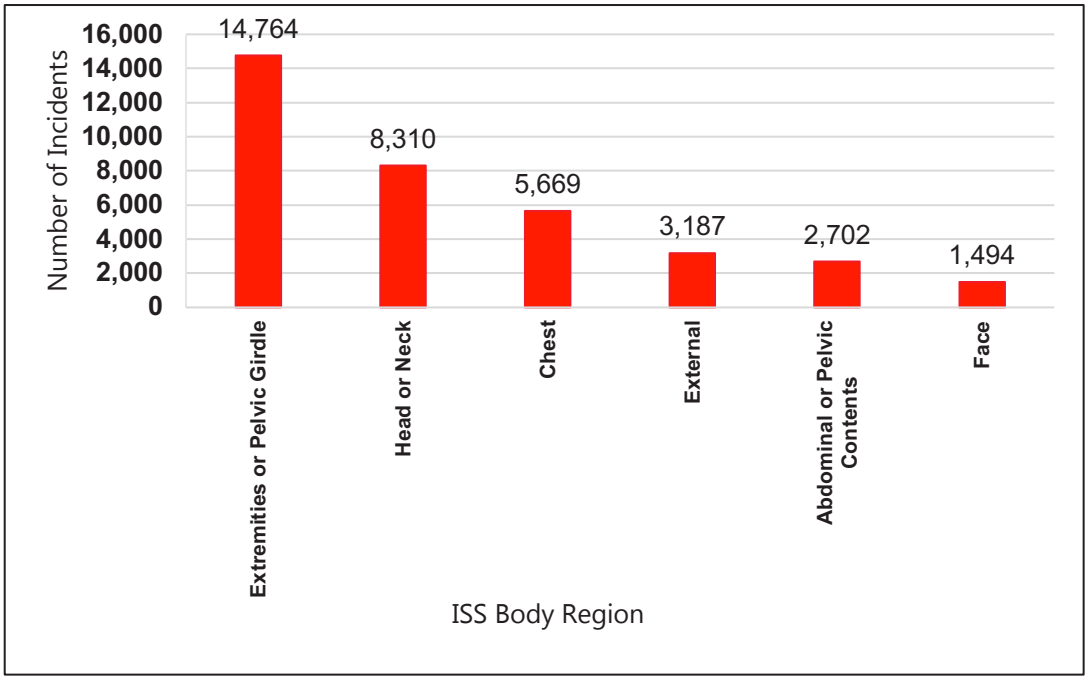


Figure 23B: Incidents by Case Fatality Rate and ISS Body Region

The graph represents the case fatality rate by ISS body region. Most fatalities involve an injury to the head or neck region which could be caused by a firearm, MVC, or fall. See Figure 15B for fatal MOI detail.

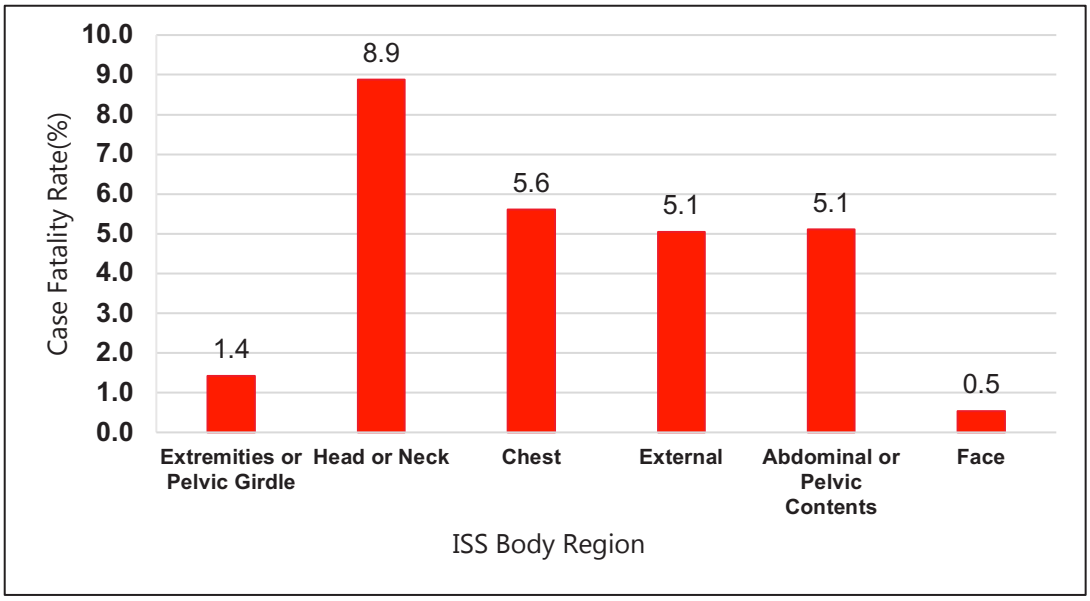


Table 24: Incidents by Protective Devices

The table displays the frequency of protective device use by injured patients. Case fatality rate is highest in the head neck region. MCC or bicycle injuries represent % of the total patients. Helmets are reported as used in only 5% of the injured patients.

Protective Device	Frequency	Percent
None	29,198	80.7
Not Applicable	4,685	12.9
Helmet	1,810	5.0
Unknown	420	1.2
Protective Clothing	31	0.1
Other	23	0.1
Protective Non-Clothing Gear (e.g., Shin Guard, Padding)	10	0.0
Eye Protection	8	0.0
Personal Floatation Device	5	0.0
Hard Hat	2	0.0
Total	36,192	100.0

OUTCOMES INFORMATION

Outcome measurements describe the results of intervention and management of injuries. Positive patient outcomes result from an effective and efficient system of care.

Table 25: Median Length of Stay (LOS) in Days by Mechanism of Injury (MOI)

The table represents the frequency of the mechanisms of injury for patients and the median length of stay in days for each mechanism. Patients with a suffocation MOI have the highest median LOS of 8 days.

Mechanism of Injury	Frequency	Median Days
Fall	14,501	4
Motor vehicle traffic	9,622	3
Firearm	2,455	3
Struck by, against	1,570	2
Cut/pierce	1,389	2
Transport, other	924	2
Pedal cyclist, other	461	2
Other specified and classifiable	418	1
Natural/environmental, Bites and stings	224	1
Machinery	212	1
Pedestrian, other	164	3
Natural/environmental, Other	117	2
Unspecified	85	2
Overexertion	82	2
Other specified, not elsewhere classifiable	70	2
Fire/flame	41	1
Hot object/substance	24	1
Suffocation	5	8
Drowning/submersion	3	1

Figure 25: Median Length of Stay (LOS) in Days by Selected Mechanisms of Injury

The graph displays the top eight frequent mechanisms of injury with the median length of stay. Note that table 25 contains other mechanisms of injury with the same LOS in days as the graph displays. Not seen in the graph due to the low frequency are patients with suffocation MOI. The five patients who experienced a suffocation injury have the highest median LOS of 8 days.

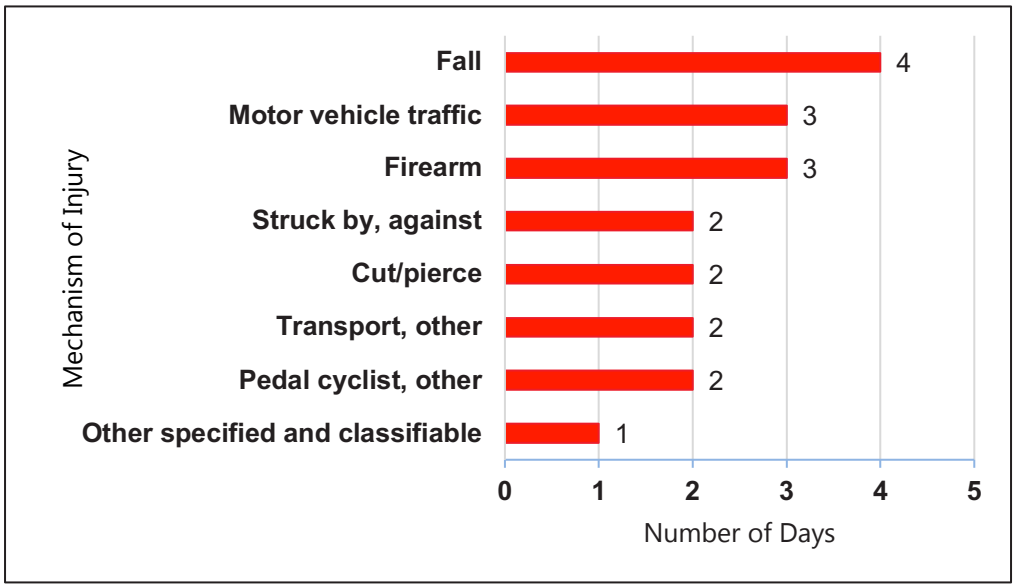


Table 26: Median Length of Stay (LOS) in Days by Injury Severity Score

The median length of stay increases as the injury severity score increases. Records with a blank ISS entry are omitted.

Injury Severity Score	Frequency	Median Days
1-8	13,178	2
9-15	13,178	4
16-24	3,813	6
>24	2,404	9
NK/NR	48	1

Figure 26: Median Length of Stay (LOS) in Days by Injury Severity Score

The graph displays the median length of stay in days by injury severity score groups.

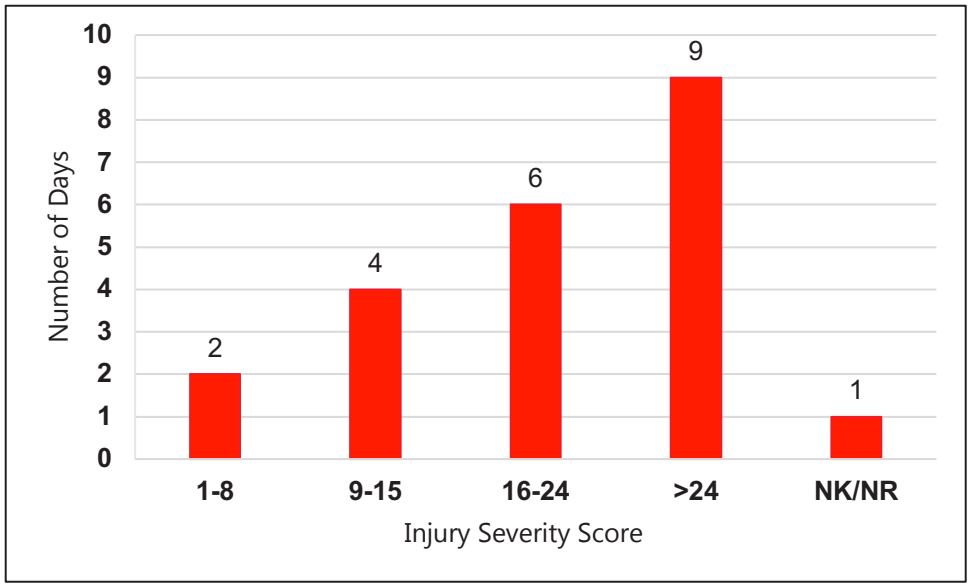


Table 27: Median Ventilator Days by Mechanism of Injury (MOI)

The table represents the admitted trauma patients with ventilator days greater than zero. Patients with Pedal cyclist, Natural/environmental other, and Natural/environmental Bites and stings injuries have the highest median ventilator days.

Mechanism of Injury	Frequency	Median Ventilator Days
Motor vehicle traffic	1,487	4
Fall	780	4
Firearm	565	2
Struck by, against	96	4
Cut/pierce	94	2
Transport, other	67	3
Other specified and classifiable	21	2
Pedal cyclist, other	17	6
Pedestrian, other	17	4
Unspecified	17	4
Other specified, not elsewhere classifiable	15	3
Natural/environmental, Other	12	5
Fire/flame	10	2

Machinery	8	3
Natural/environmental, Bites and stings	7	6
Suffocation	6	2
Drowning/submersion	1	1
Hot object/substance	1	2

Figure 27: Median Ventilator Days by Selected Mechanism of Injury

The graph displays the median ventilator days by the top nine mechanism of injury.

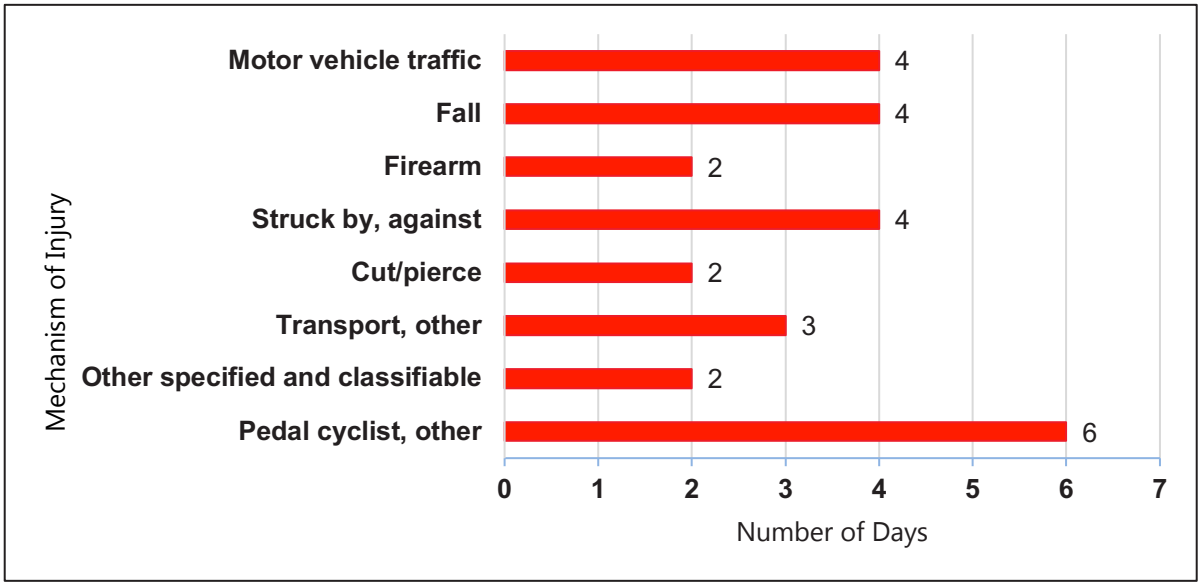


Table 28: Median Ventilator Days by Injury Severity Score (ISS)

The table represents the frequency of patients within the same ISS group and the median ventilator days. Patients with an ISS greater than 16 were on the ventilator for the same number of median days.

Injury Severity Score	Frequency	Median Ventilator Days
1-8	353	2
9-15	659	3
16-24	830	4
>24	1,408	4
NK/NR	2	2

Figure 28: Median Ventilator Days by Injury Severity Score (ISS)

The graph displays the median ventilator days by injury severity score. The higher the ISS the longer patients required the ventilator.

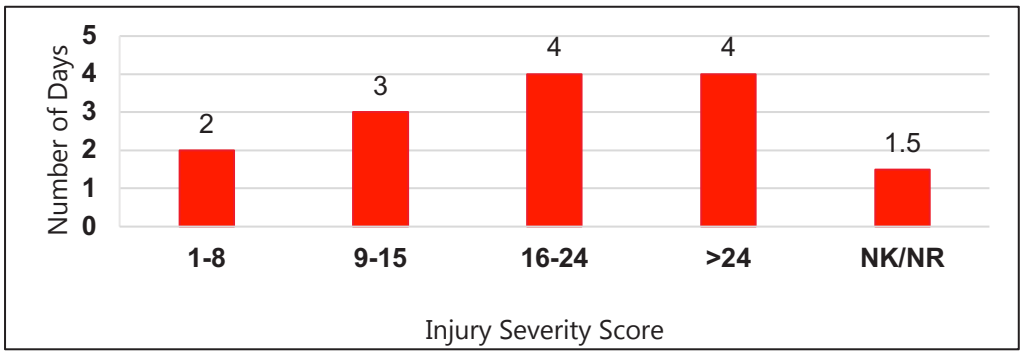


Table 29: Median ICU Days by Mechanism of Injury

The table represents inpatients with Intensive Care Unit (ICU) days >0. Patient with fire/flame, suffocation, and other specified injuries, not elsewhere classifiable injuries have the highest median ICU days of 5 days.

Mechanism of Injury	Frequency	Median ICU Days
Fall	3,218	3
Motor vehicle traffic	3,190	4
Firearm	899	4
Struck by, against	322	3
Cut/pierce	241	3
Transport, other	230	3
Pedal cyclist, other	86	3
Other specified and classifiable	66	2
Pedestrian, other	47	4
Machinery	32	3
Unspecified	30	4
Natural/environmental, Other	27	3
Other specified, not elsewhere classifiable	21	5
Natural/environmental, Bites and stings	19	3
Fire/flame	9	5
Suffocation	5	5
Overexertion	4	4
Hot object/substance	1	2

Figure 29: Median ICU Days by Selected Mechanism of Injury

The graph displays the top eight most frequent mechanisms of injury with their respective median number of ICU days.

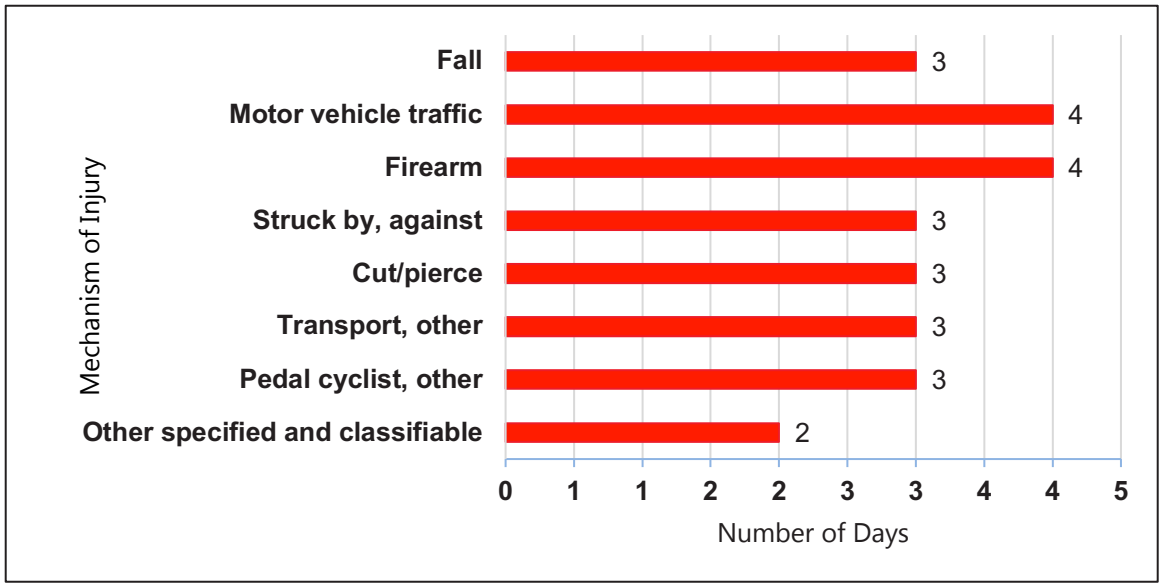


Table 30: Median ICU Days by Injury Severity Score (ISS)

The table represents the median ICU days by injury severity group. The median ICU days increase with injury severity scores.

Injury Severity Score	Frequency	Median ICU Days
1-8	1,328	2
9-15	2,893	3
16-24	2,255	4
>24	2,024	6
NK/NR	5	4

Figure 30: Median ICU days by Injury Severity Score

The graph displays the median ICU days for all trauma registry patients. As expected, patients with higher ISS experienced more ICU days.

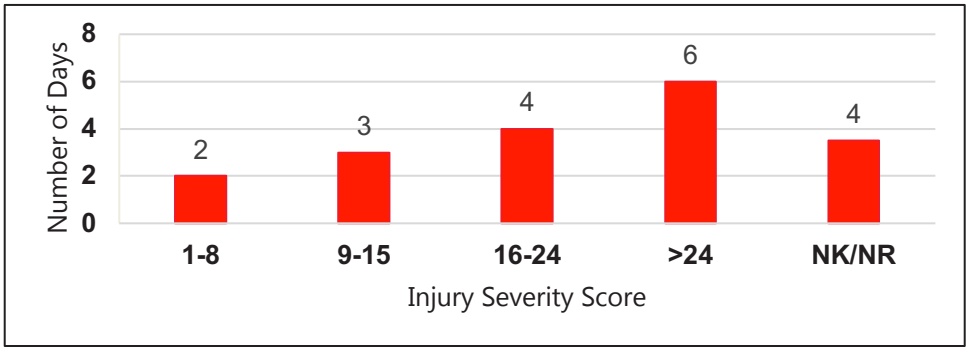


Table 31: Incidents by ED Discharge Disposition

The table represents the frequency of ED Dispositions. Less than half of the ED Dispositions were to a Floor Bed (45.5%). Of the 36,189 trauma registry cases, the Emergency Department (ED) disposition mortality rate was 1.7%, representing 618 lives lost. The frequency missing is equal to 3.

ED Disposition	Frequency	Percent
Floor Bed (General Admission, Non-Specialty Unit Bed)	16,477	45.5
Intensive Care Unit (ICU)	6,045	16.7
Operating Room	5,845	16.2
Home without Services	2,540	7.0
Transferred to Another Hospital	1,787	4.9
Observation Unit (Unit that Provides LT 24 Hour Stays)	1,134	3.1
Telemetry/Step-Down Unit (Less Acuity than ICU)	982	2.7
Died/Expired	618	1.7
Not Applicable	469	1.3
Left Against Medical Advice	138	0.4
Other (Jail, Institutional Care, Mental Health, etc.)	83	0.2
Burn Center	60	0.2
Home with Services	11	0.0
Total	36,189	100.0

Table 32: Incidents by Signs of Life

The table represents the frequency of patients arriving to the trauma center with and without signs of life. Most patients (85.6%) arrived with signs of life. The frequency of missing data is equal to 2.

Signs of Life	Frequency	Percent
Arrived with Signs of Life	30,972	85.6
Not Applicable	4,815	13.3
Arrived with No Signs of Life	402	1.1
Unknown	1	0.0
Total	36,190	100.0

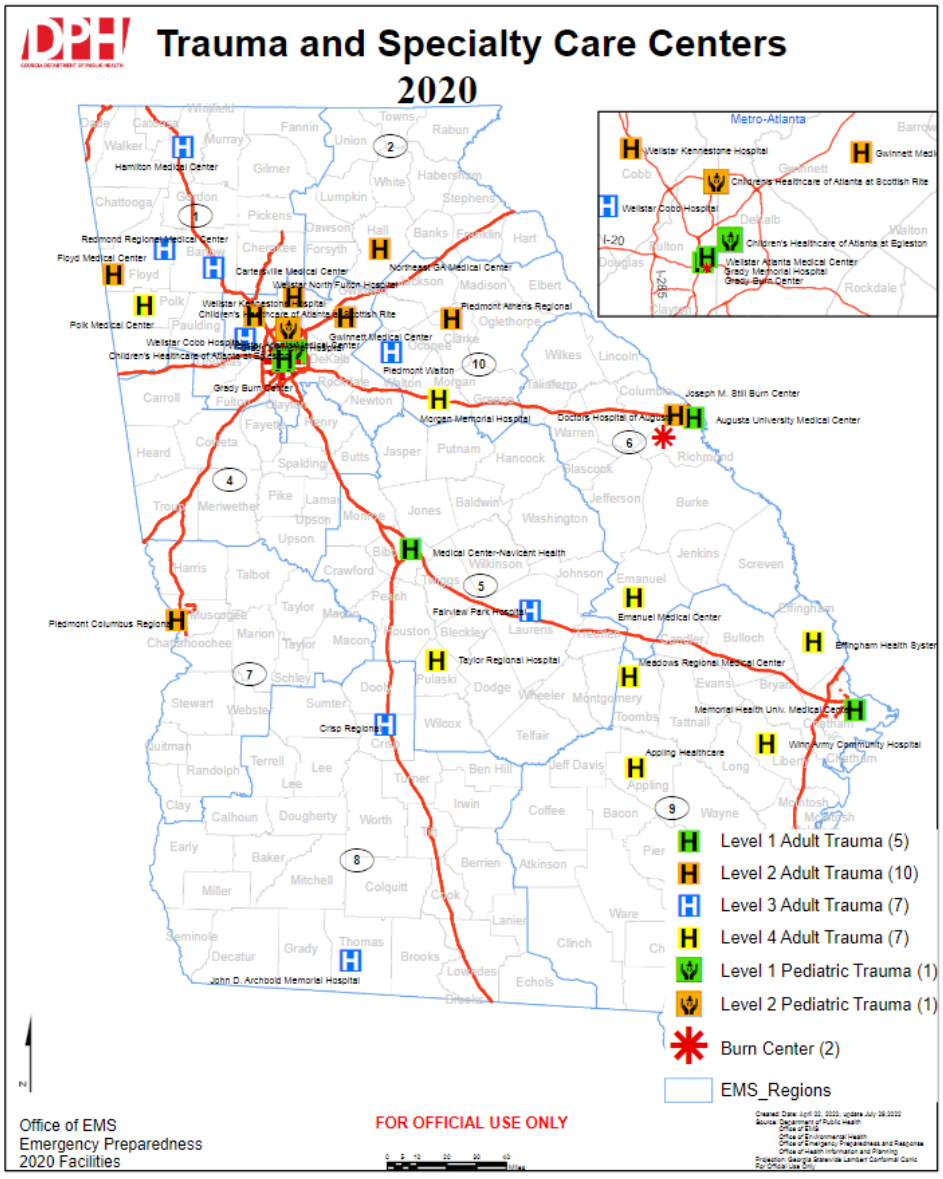
Table 33: Frequency of Hospital Discharge Disposition

The table represents the hospital discharge disposition of 36,192 trauma registry cases. The hospital mortality rate was 3.3%, representing 1,179 lives lost.

Hospital Discharge Disposition	Frequency	Percent
Discharged Home with No Home Services	20,646	57.0
Discharge/Transferred to Home Under Care of Organized Home Health Service	2,813	7.8
Discharged/Transferred to Inpatient Rehab or Designated Unit	2,680	7.4
Discharged/Transferred to Skilled Nursing Facility (SNF)	2,581	7.1
Discharged/Transferred to a Short-Term General Hospital for Inpatient Care	1,313	3.6
Expired	1,179	3.3
Discharged/Transferred to Hospice Care	474	1.3
Left Against Medical Advice or Discontinued Care	401	1.1
Discharged/Transferred to Court/Law Enforcement	330	0.9
Discharged/Transferred to Long Term Care Hospital (LTCH)	182	0.5
Discharged/Transferred to an Intermediate Care Facility (ICF)	175	0.5
Discharged/Transferred to a Psychiatric Hospital or Distinct Part Unit of a Hosp	140	0.4
Discharged/Transferred to Another Type of Institution not Defined Elsewhere	99	0.3
Burn Center	46	0.1
RETIRED 2014 - Discharged/Transferred to Another Type of Rehab or LTCF	2	0.0
Not Applicable	3,129	8.6
Unknown	2	0.0
Total	36,192	100.0

APPENDIX 1

2020 TRAUMA CENTERS AND SPECIALTY CARE CENTERS IN GEORGIA WITHIN EMS REGIONS



APPENDIX 2

2020 ANNUAL TRAUMA REGISTRY INCLUSION CRITERIA

Georgia Trauma Registry Inclusion Criteria

Any patient presenting with a traumatic injury occurring within 14 days of initial hospital visit and with an ICD-10_CM diagnosis code below:

o S00-S99 w/ 7th character modifiers of A, B, or C. (see exclusions)
o T07 (unspecified multiple injuries)
o T14 (injury of unspecified body region)
o T20-T28 with 7th character A only or T30-T32 (patient must also have a non-burn trauma diagnosis)*
o T79.A1 – T79.A9 w/ 7th character modifier A (Traumatic Compartment Syndrome – initial diagnosis)

EXCLUDING patients with isolated injuries:

o Diagnosis codes of ICD-10-CM superficial injuries: S00, S10, S20, S30, S40, S50, S60, S70, S80, S90
o Late effect codes w/ the 7th character modifier of D through S
o Patients w/ isolated burn injuries T20-T28 w/7th modifier A or T30-T32*
o Patients admitted for elective and/or planned surgical intervention
o Patients w/ injuries older than 14 days from first ED arrival date

AND must include one of the following in addition to a valid trauma diagnosis code from the listed above

o Admitted to the hospital after discharge from the ED, regardless of length of stay
o Transferred to or from another acute care facility
o Died, regardless of length of stay
o DOA: defined as a patient that died from a traumatic injury before hospital arrival

Additional criteria/notes:

o The Georgia data collection standard for blood utilization includes data for any blood products administered within the first 4 hours from the patient arrival time.
o Unplanned readmissions must be associated with the initial trauma injury, have a trauma diagnosis, ISS total, and be readmitted within 72 hours of discharge from the first visit.
o *Indicates a difference between the Georgia Criteria and the NTDS Criteria
o The ICD-9 codes were retired 01/01/2017.
o Per the Centers for Medicare and Medicaid Services, Acute Care Hospital is defined as a hospital capable of providing inpatient medical care with services for surgery, acute medical conditions or injuries.

Revised: 7/22/2020, 11/15/2019 eff.01/01/2020, Blood collection revised 07/10/2019, 12/18/2017 eff. 01/01/2018, 03/01/2016, 05/20/2015, 04/23/2014, 02/14/2013, 12/31/2012 eff. 01/01/2013; Created: 06/26/2002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