2019

Annual Trauma Registry Report

NEVADA

BUREAU OF HEALTH PROTECTION AND PREPAREDNESS

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DIVISION OF PUBLIC AND BEHAVIORAL HEALTH
Helping People. It's Who We Are and What We Do.

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PURPOSE OF REPORT

The purpose of this report is to provide a picture of trauma within the state of Nevada based upon data submitted by hospitals to the Nevada Trauma Registry (NTR). This report presents data in a usable form for local health authorities, healthcare providers, and the public. The Nevada Division of Public and Behavioral Health (DPBH) shall prepare an Annual Trauma Report in accordance with Nevada Administrative Code (NAC) 450B.768. The data contained within this annual report is based upon calendar year and summarizes the data submitted by hospitals regarding the reported traumas handled by each facility.

It should be noted, that data depicted in this report reflects only data entered and reported to the NTR. If, for some reason access to or recording of data was not feasible, data may not have been captured in a facility's Electronic Medical Record (EMR), thus would not be recorded in the NTR and therefore not seen in this report.

INTRODUCTION

WHAT IS THE NEVADA TRAUMA REGISTRY (NTR)?

Per Nevada Revised Statutes (NRS) 450B.238, and Nevada Administrative Code (NAC) 450B.768, the NTR was established in 1987, to collect data on persons who sustain a physical (blunt or penetrating) injury caused by an accident or by violence. The NTR data is collected from all licensed acute care hospitals and trauma centers in Nevada.

Acute Care hospitals provide care to those suffering injuries that range from a sprained ankle to a heart attack, and Trauma centers are a specialist hospital responsible for the care of patients with the most extreme injuries. In the state of Nevada, the following are currently designated Trauma centers:

- Level 1:
  - University Medical Center (Adult/Pediatric)
- Level 2:
  - Renown Regional (Adult)
  - Sunrise Hospital (Adult)
- Level 3:
  - St. Rose Siena (Adult)

Facilities are designated/verified as Adult and/or Pediatric Trauma Centers. It is not uncommon for facilities to have different designations for each group (i.e.. a Trauma Center may be a Level I Adult facility and a Level II Pediatric Facility).

Level I

Level I Trauma Center is a comprehensive regional resource that is a tertiary care facility central to the trauma system. A Level I Trauma Center can provide total care for every aspect of injury – from prevention through rehabilitation.

Elements of Level I Trauma Centers Include:

- 24-hour in-house coverage by general surgeons, and prompt availability of care in specialties such as orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology, internal medicine, plastic surgery, oral and maxillofacial, pediatric and critical care.
- Referral resource for communities in nearby regions.
- Provides leadership in prevention, public education to surrounding communities.
- Provides continuing education of the trauma team members.
- Incorporates a comprehensive quality assessment program.
- Operates an organized teaching and research effort to help direct new innovations in trauma care.
- Program for substance abuse screening and patient intervention.
- Meets minimum requirement for annual volume of severely injured patients.

Level II

A Level II Trauma Center can initiate definitive care for all injured patients.

Elements of Level II Trauma Centers Include:

- 24-hour immediate coverage by general surgeons, as well as coverage by the specialties of orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology and critical care.
- Tertiary care needs such as cardiac surgery, hemodialysis and microvascular surgery may be referred to a Level I Trauma Center.
- Provides trauma prevention and continuing education programs for staff.
- Incorporates a comprehensive quality assessment program.

Level III

A Level III Trauma Center has demonstrated an ability to provide prompt assessment, resuscitation, surgery, intensive care and stabilization of injured patients and emergency operations.

Elements of Level III Trauma Centers Include:

- 24-hour immediate coverage by emergency medicine physicians and the prompt availability of general surgeons and anesthesiologists.
- Incorporates a comprehensive quality assessment program.
- Has developed transfer agreements for patients requiring more comprehensive care at a Level I or Level II Trauma Center.
- Provides back-up care for rural and community hospitals.
- Offers continued education of the nursing and allied health personnel or the trauma team.

- Involved with prevention efforts and must have an active outreach program for its referring communities.

Level IV

A Level IV Trauma Center has demonstrated an ability to provide advanced trauma life support (ATLS) prior to transfer of patients to a higher-level trauma center. It provides evaluation, stabilization, and diagnostic capabilities for injured patients.

Elements of Level IV Trauma Centers Include:

- Basic emergency department facilities to implement ATLS protocols and 24-hour laboratory coverage. Available trauma nurse(s) and physicians available upon patient arrival.
- May provide surgery and critical-care services if available.
- Has developed transfer agreements for patients requiring more comprehensive care at a Level I or Level II Trauma Center.
- Incorporates a comprehensive quality assessment program.
- Involved with prevention efforts and must have an active outreach program for its referring communities.

Level V

A Level V Trauma Center provides initial evaluation, stabilization and diagnostic capabilities and prepares patients for transfer to higher levels of care.

Elements of Level V Trauma Centers Include:

- Basic emergency department facilities to implement ATLS protocols.
- Available trauma nurse(s) and physicians available upon patient arrival.
- After-hours activation protocols if facility is not open 24-hours a day.
- May provide surgery and critical-care services if available.
- Has developed transfer agreements for patients requiring more comprehensive care at a Level I through III Trauma Centers.

For the 2019 Annual Trauma Report, ICD-10 codes were utilized. Per *National Trauma Data Bank* criteria, for an injury to be reported as a trauma, it must have at least one ICD-10 code from the following ranges: S00 -S99 (7th Character Modifier A, B, or C), T07, T14, T20-T28 (7th Character modifier A), T30-32, and T79.A1-T79.A9 (7th character modifier A) and the patient must have either:

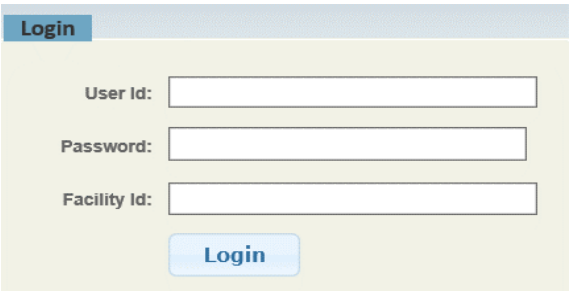
- been admitted to a facility for at least 24 hours;
- died following treatment or evaluation; **or**
- been transferred into or out of a facility.

The NTR currently collects the required data points from both the National Trauma Data Bank (NTDB) established by the *American College of Surgeons* and data points identified in NAC 450B.766 and 450B.768. Included (but not limited to) are data on the event causing the injury, severity of the injury, place of the injury, length of hospital stays, diagnosis(es) of the patient, discharge destination of the patient and payer source.

The NTR can provide information on the incidence, prevalence, morbidity, and mortality of injuries reported in Nevada. The data can be broken down to a specific county, specific hospital, specific race, or specific age group. These data are available for state, private or federal entities and can be used for grant applicants to measure the impact of trauma in Nevada; as well as initiate health education programs that address traumatic injuries.

The 2019 Annual Trauma Report is based upon data submitted to the NTR by Nevada's four designated trauma centers and 37 non-trauma center hospitals, for a total of 41 facilities that operated during the calendar year. To be considered compliant with NAC 450B.768, a hospital must enter all trauma records into the NTR, or notify the State NTR Manager that no records met the criteria to be submitted, by the quarterly due date.

Non-trauma centers submit trauma data by logging into the NTR via a username and password. Trauma centers utilize their in-house version of the NTR software and electronically transfer the data from their software to the state NTR.



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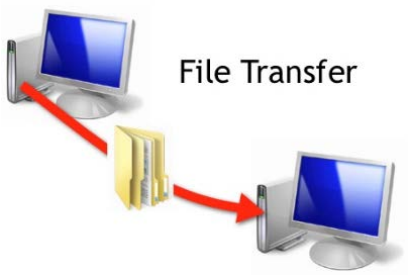


Per NAC 450B.768 – all trauma data (non-trauma centers & trauma centers) must be submitted to the Nevada Trauma Registry no later than 60 days after the calendar year quarter.

- Quarter 1 = January 1 – March 31 (due on June 1)
- Quarter 2 = April 1 – June 30 (due on Sept. 1)
- Quarter 3 = July 1 – September 30 (due on Dec. 1)
- Quarter 4 = October 1 – December 31 (due on March 1)

Below is a summary table that outlines per year the percentage of facilities that were compliant with submitting data to the NTR.

YEAR	% of Non-Trauma Centers Compliant	% of Trauma Centers Compliant
2014	41%	0%
2015	100%	0%
2016	100%	75%
2017	100%	100%
2018	98%	100%
2019*	89%	75%

*See Methodology section starting on page 10.

In 2019, three of the four trauma centers submitted all required trauma data to the NTR. There was a total of five instances of non-compliance over the 12-month period from all data sources. There were no instances of repeated noncompliance from any individual facility. State NTR staff continue to train personnel at non-trauma center hospitals to improve data entry accuracy.

The NTR vendor, Digital Innovation, Inc., has been working with each designated trauma center to ensure at least 10 years' worth of historical data is transferred into the NTR. As of June 2020, all four trauma centers have submitted 10 years of historical data.

Due to multiple progressive changes throughout the years, it is advised to not compare the year over year data with regard to Nevada's Annual Trauma Reports. The 2015 Annual Trauma Report had data exclusively from the non-trauma centers. The 2017 year required facilities to transition from the use of ICD-9 to ICD-10 diagnosis coding. There are significant changes in the diagnosis detail within the ICD-10 coding, making a comparison between 2017 and previous years inaccurate. An additional facility was added in 2018 making this report not 100% comparable to previous years.

Along with continual training of non-trauma center hospital personnel on the NTR software, the NTR Manager utilized quarterly facility report cards for each hospital to educate data entry staff. These report cards are tailored for each facility and include information about the facility's compliance and accuracy of data entry against the general accuracy reports of their peer facilities. Additionally, these quarterly report cards provide tips, hints, and notes for each facility about how to improve data entry. The quality and accuracy of data entered into the NTR has a direct impact on what can be analyzed for the Annual Trauma Registry Report and is therefore critical in nature.

Finally, collaborative relationships have continued to be built with trauma personnel from various disciplines throughout the state. Some of the methods being utilized in these efforts include:

- Hosting quarterly conference calls with trauma center staff to assist with any trouble with data entry and encourage open communication;
- When possible, meeting in person with hospital personnel responsible for NTR data entry either through meetings at facilities or hosting facility CEOs and/or administrators to assist in collaborative relationships beyond the data entry staff;
- Participating in local healthcare coalitions;

Overall, through regular communication; offering NTR user trainings; delivering reminders about quarterly trauma data due dates; and revitalization and development of relationships across the state;; hospital data entry compliance has dramatically increased from the 2014 submissions of data to 2019 years' submissions. Additionally, as compliance from the state's hospitals continue to improve on the adequacy of their data submissions; the amount and quality of the data available for analyses within the NTR will continue to improve, resulting in strengthened detail and depth of future annual trauma reports.

NEVADA TRAUMA REGISTRY BACKGROUND

The definition of a trauma incident and the requirements for trauma reporting are outlined in both the Nevada Revised Statutes and Nevada Administrative Code. These statutes and codes are outlined below.

NEVADA REVISED STATUTE (NRS)

NRS 450B.105 **"Trauma" defined.** "Trauma" means any acute injury which, per standardized criteria for triage in the field, involves a significant risk of death or the precipitation of complications or disabilities.

NRS 450B.238 **Regulations requiring hospital to record and maintain information.** The State Board of Health shall adopt regulations which require each hospital to record and maintain information concerning the treatment of trauma in the hospital. The Board shall consider the guidelines adopted by the American College of Surgeons which concern the information which must be recorded.

NEVADA ADMINISTRATIVE CODE (NAC)

The NAC regarding the treatment of trauma in Nevada and the corresponding Trauma Registry reporting requirements, guidelines, and procedures can be found at NAC 450B.760 through NAC 450B.774, inclusive.

In summary, the regulations state that the Division of Public and Behavioral Health shall develop a standardized system for the collection of information concerning the treatment of trauma and carry out a system for the management of that information. The system must provide for the recording of information concerning treatment received before and after admission to a hospital. This system is called the NTR.

Each hospital shall submit to the Division trauma data on a quarterly basis which complies with the criteria prescribed by the Division and contains at least the minimum data set required by the National Trauma Data Bank (NTDB) established by the American College of Surgeons and any other information required by the Division or the State Board of Health.

The Division shall prepare an annual report for the preceding calendar year summarizing the data submitted by hospitals on patients with traumas.

METHODOLOGY

**Please note that there was an additional facility added within the final quarter of 2019 reporting. The 2019 data is not directly comparable from previous years*.

The NTR is a depository of trauma incident data from across the state. All hospitals within Nevada are required to submit data quarterly to the NTR. To be classified as a trauma, a series of criteria identified by the American College of Surgeons must be met. For an incident to be classified as a trauma, the patient must have:

- At least one diagnostic code for injury:
    - ICD-10 code from the following ranges: S00 -S99 (7th Character Modifier A, B, or C), T07, T14, T20-T28 (7th Character modifier A), T30-32, and T79.A1-T79.A9 (7th character modifier A) and the patient must have:
- At least one of the following criteria:
    - Patient was in the hospital for at least 24 hours due to injuries;

- Injury resulted in death; **or**
- Patient was transferred between hospitals using EMS or air ambulance.

Each year, the data within the NTR will be statistically analyzed to evaluate incident traumas in Nevada. This evaluation is presented in the Annual Trauma Report, written by the state, in accordance with NAC 450B.768.

In 2019, the NTR captured 11,256 trauma cases. This report includes cases for patients with an Emergency Department/Hospital Arrival Date between January 1, 2019 and December 31, 2019. All data was analyzed using SAS Version 9.4 (SAS Institute, Cary, NC).

All trauma rates were calculated per 100,000 Nevada residents using the *Nevada State Demographer*, age, gender, race, and Hispanic origin (ASRHO) estimates and projections, and vintage 2019 population data. The vintage year refers to the final year of the time series. The results for the previous year are released after July 1 of the following year. When appropriate, a 95% Confidence Interval (CI) was calculated for comparing rate estimates. CIs provide a range of values that describe the uncertainty surrounding an estimate and may be used to assess statistical significance. When comparing trauma rates within a table, if the range of the CIs for two rates do not overlap, the rates can be considered significantly different. If the CI ranges overlap, then the difference is not significant.

It should be noted, data depicted in this report is a reflection based solely on data points recorded within the NTR. It does not include patient history or examination.

Example:

Group	Count [Confidence Interval]
A	392 [385, 398]
B	390 [380, 399]
C	826 [796, 857]

In the example table above, the CIs for groups A and B share a range of values (385-398), thus there is no statistically significant difference in these rates. However, there is a statistically significant difference between group A and group C and between group B and group C as the ranges for their CIs do not overlap.

RESULTS

From January 1, 2019 through December 31, 2019, a total of 11,256 traumas were recorded in the NTR by the 41 facilities in Nevada. In 2018, 11,533 traumas were recorded from 41 facilities in Nevada.

The following pages includes data analysis of:

- Trauma cases;
- Demographics;
- Place and mechanism of injury;

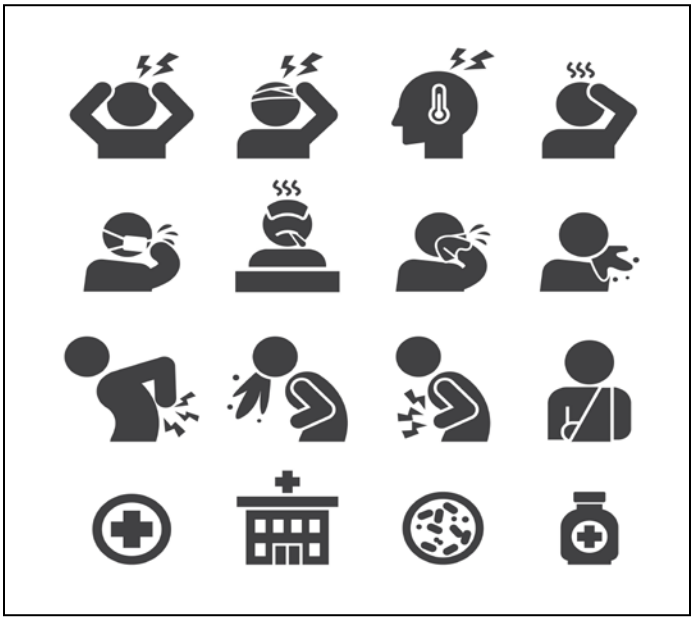
- Injury characteristics;
- Patient transportation;
- Patient discharge and transfer;
- Risk factors;
- Safety equipment; and
- The breakdown of falls data.

Technical Notes: Throughout this report, trauma cases are presented in several different ways.

- **Total trauma cases** include all cases reported to the Nevada Trauma Registry, including transfers between facilities. Therefore, if a trauma patient presents at one facility and is transferred to another facility, that case is represented twice.

- **Unique trauma cases** are calculated by matching trauma records based on birth date, injury date, patient zip code, and discharge/arrival date. Unique trauma cases include only the first presentation to a facility, and not transfers between facilities; except in Tables 4, 7, 8, 11, 13, 14, 15, 30, 33, 36, 39, 40, 43, 45, 46, 47, 55, 58, 61, 64, 65, 68, 70, 71, 72, 81 and Figure 2, 10, 11, 22, 23, 33, and 34 where traumas are assigned to the last transfer facility. This logic was used to account for the following situations:
    - When considering traumas that resulted in deaths, it is important to analyze based on the facility at time of death. Therefore, throughout this report, when a table lists Mortality Proportion and 11,253 in Unique Traumas, the table is based upon last facility.
    - There were some instances where the mechanism of injury differed between facility of first presentation and facility at time of death. In this case the mechanism was assigned based on facility at time of death.
        - Please note, the state of Nevada does not change/correct patient records at the first facility if it does not match information at the last facility.

- **Patient Transfer trauma cases** are determined by the following question reported by the facilities, "If transferred, facility?" This question is self-reported by hospital staff and does not always align with the results to calculate unique trauma cases.



TRAUMA CASES BY FACILITY

11,256
Traumas in 2019
(down 277 from 2018)

Table 1: Trauma Cases by Facility, 2019 (includes Nevada Residents and Non-Residents)

County	Facility	Unique Traumas Trauma Patients^		Total Trauma Cases*	
Clark County	Boulder City Hospital	50	0.4%	50	0.4%
	Centennial Hills Hospital	317	2.8%	319	2.6%
	Desert Springs Hospital Center	27	0.2%	27	0.2%
	Henderson ER at Green Valley Ranch	104	0.9%	104	0.8%
	Henderson Hospital	406	3.6%	406	3.3%
	Mesa View Regional Hospital	59	0.5%	59	0.5%
	Mountain View ER at Aliante	11	0.1%	11	0.1%
	Mountain View Hospital	655	5.8%	665	5.4%
	North Vista Hospital	165	1.5%	165	1.3%
	Southern Hills ER at the Lakes	13	0.1%	13	0.1%
	Southern Hills Hospital Medical Center	96	0.9%	98	0.8%
	Spring Valley ER at Blue Diamond	6	0.1%	6	0.0%
	Spring Valley Hospital Medical Center	787	7.0%	865	7.0%
	St. Rose Dominican Hospital Blue Diamond	10	0.1%	10	0.1%
	St. Rose Dominican Hospital De Lima Campus	146	1.3%	146	1.2%
	St. Rose Dominican Hospital North Las Vegas	47	0.4%	47	0.4%
	St. Rose Dominican Hospital San Martin Campus	110	1.0%	127	1.0%
	St. Rose Dominican Hospital Siena Campus	522	4.6%	531	4.3%
	St. Rose Dominican Hospital West Flamingo	5	0.0%	5	0.0%
	St. Rose Dominican Hospital West Sahara	13	0.1%	13	0.1%
	Summerlin Hospital Medical Center	277	2.5%	291	2.4%
	Sunrise Hospital Medical Center	2,086	18.5%	2,328	18.9%
	University Medical Center	2,715	24.1%	3,113	25.3%
	Valley Hospital Medical Center	37	0.3%	37	0.3%
Washoe County	Incline Village Community Hospital	0	0.0%	0	0.0%
	Northern Nevada Medical Center	150	1.3%	156	1.3%
	Renown Regional Medical Center	740	6.6%	995	8.1%
	Renown South Meadows Medical Center	204	1.8%	205	1.7%
	St. Mary's Regional Medical Center	224	2.0%	227	1.8%
All Other Counties	Banner Churchill Community Hospital	128	1.1%	128	1.0%
	Battle Mountain General Hospital	33	0.3%	33	0.3%
	Carson Tahoe Regional Medical Center	263	2.3%	263	2.1%
	Carson Valley Medical Center	166	1.5%	166	1.4%
	Desert View Hospital	303	2.7%	303	2.5%
	Grover C. Dils Medical Center	20	0.2%	20	0.2%
	Humboldt General Hospital	47	0.4%	48	0.4%
	Mt. Grant General Hospital	10	0.1%	10	0.1%
	Northeastern Nevada Regional Hospital	195	1.7%	196	1.6%
	Pershing General Hospital	26	0.2%	26	0.2%
	South Lyon Medical Center	24	0.2%	24	0.2%
	Williams Bee Ririe Hospital	59	0.5%	59	0.5%
Nevada (Total)		**11,256**	**100.0%**	**12,295**	**100.0%**

^Unique Trauma Patients are calculated by matching transferred patient based on birth date, injury date, patient zip code, and discharge/arrival date and only counted once by the facility where they first presented with the trauma (except when mortality data is analyzed), which is represented as Unique Trauma throughout the report.
**Total Trauma cases are all the cases reported to the Nevada Trauma Registry, for 2019.*

Out of all the facilities listed in Table 1, the designated trauma centers had the highest number of trauma cases. University Medical Center had the highest number of unique trauma cases at 2,715 (24.1%), followed by Sunrise Hospital Medical Center 2,086 cases (18.5%), and finally, Renown Medical Center at 740 cases (6.6%).

Out of the non-trauma centers, the facility with the highest number of trauma cases was Mountain View Medical Center at 625 cases (5.4%), followed by Spring Valley Hospital Medical Center at 455 cases (3.9%), and finally, Summerlin Hospital Medical Center at 370 cases (3.2%).

DEMOGRAPHICS

Of 11,256 unique traumas recorded in the NTR between January 1, 2019 and December 31, 2019, 54.8% were in male patients, 45.2% were in female patients. (*Table 2*)

Table 2: Nevada Trauma Cases by Gender (Unique Traumas)

Gender	Count	Percent	Rate per 100,000 (95% CI)
Male	6,164	54.8%	405.7 (395.6-415.9)
Female	5,084	45.2%	336.1 (326.8-345.3)
Gender Not Reported	8	0.1%	-
Total	11,256	100%	371.3 (364.4-378.1)

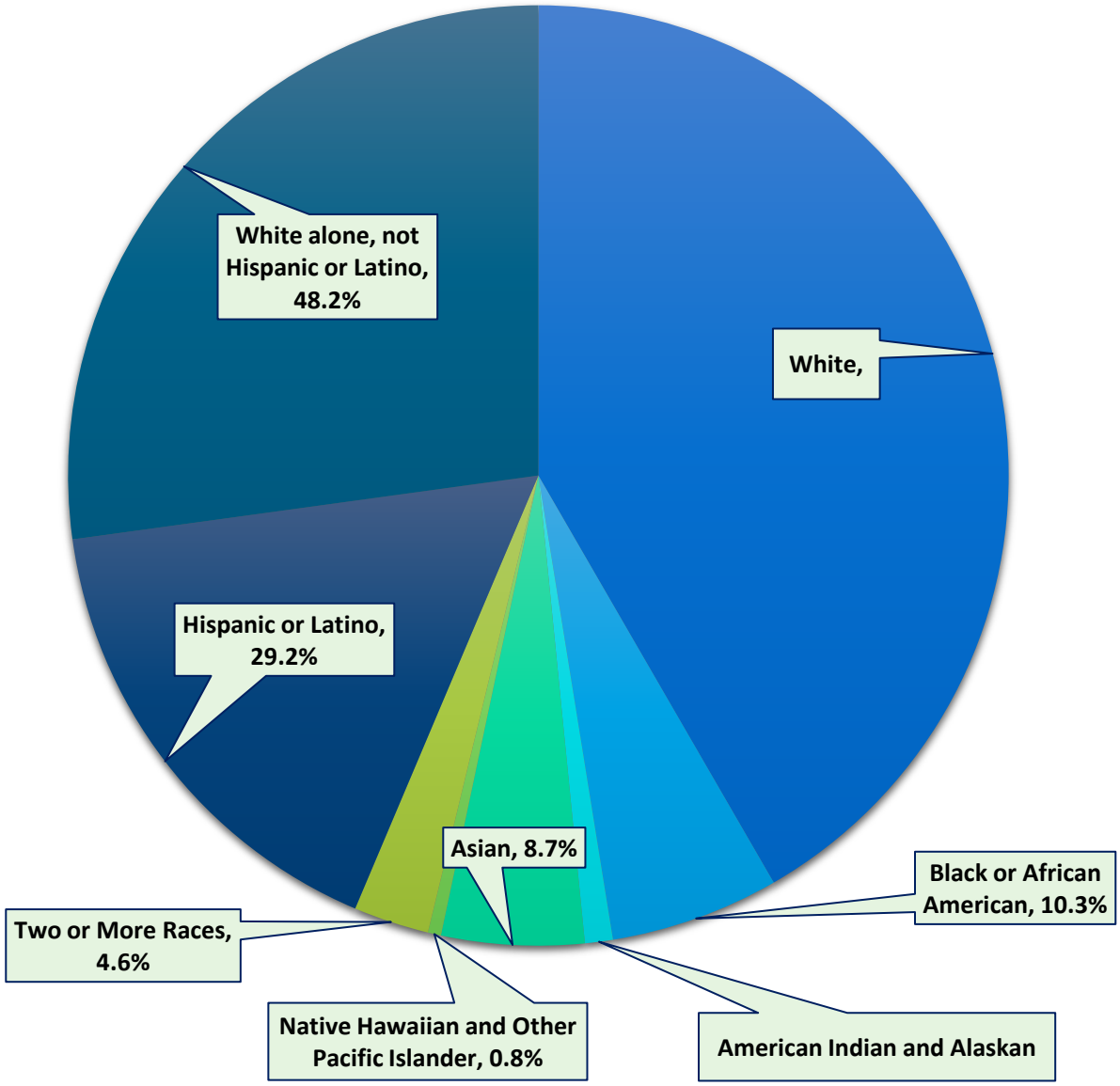
Table 3: Nevada Trauma Cases by Race/Ethnicity (Unique Traumas)

Race/Ethnicity	Count	Percent	Rate per 100,000 (95% CI)
Caucasian	6,852	60.9%	442.9 (432.4-453.4)
African American	946	8.4%	355.5 (332.8-378.1)
American Indian, Alaskan Native	83	0.7%	236.4 (185.5-287.2)
Asian	477	4.2%	163.8 (149.1-178.5)
Hispanic	1,277	11.3%	143.1 (135.3-151.0)
Other	541	4.8%	. (.-.)
Unknown	1,080	9.6%	. (.-.)
Total	11,256	100.0%	371.3 (364.4-378.1)

The unique traumas per race/ethnicity are significantly higher due to the higher natural population of Caucasian individuals in the state of Nevada. (**Figure 1**)

Figure 1: *2019 Nevada Census Race/Ethnicity*

Trauma affects people of all races and ethnicities. Per the 2019 Nevada Census, Nevada's highest populations by Race and Ethnicity were Caucasians (73.9%), Hispanic's (29.2%), and African American's (10.3%):



Due to Nevada having higher percentages of Caucasian, Hispanic, and Black/African American populations over other races/ethnicities, the data reflects that higher percentages of trauma cases also occur to Caucasian, Hispanic, and Black/African American people. The unique traumas per race/ethnicity are significantly higher due to the higher population of Caucasian individuals in the state of Nevada. This should not give the impression that world-wide these populations are more affected by Trauma injuries than others. The chart is based off the population for the state of Nevada only.

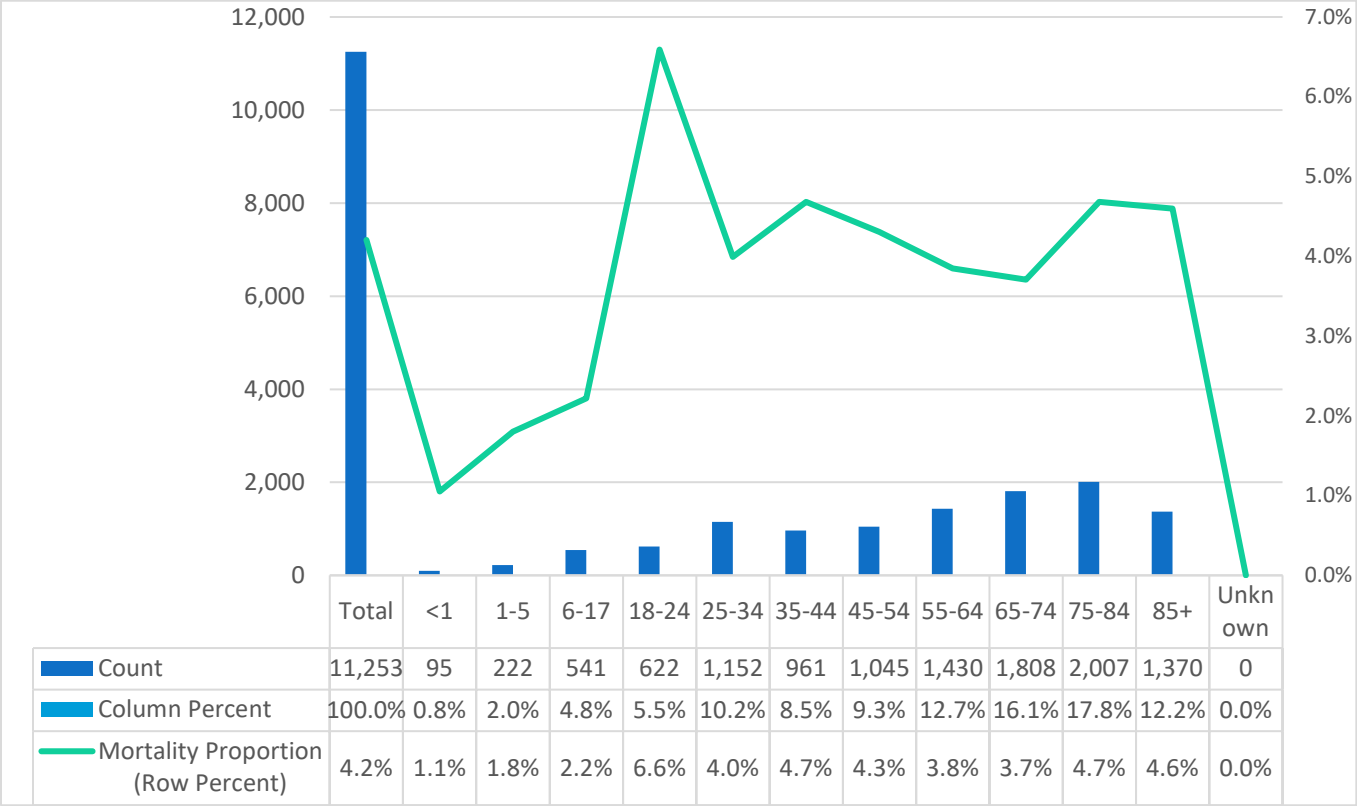
Table 4: Age-Specific Trauma Cases and Mortality Proportion (Unique Traumas*)

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Total	11,253	100.0%	473	4.2%
<1	95	0.8%	1	1.1%
1-5	222	2.0%	4	1.8%
6-17	541	4.8%	12	2.2%
18-24	622	5.5%	41	6.6%
25-34	1,152	10.2%	46	4.0%
35-44	961	8.5%	45	4.7%
45-54	1,045	9.3%	45	4.3%
55-64	1,430	12.7%	55	3.8%
65-74	1,808	16.1%	67	3.7%
75-84	2,007	17.8%	94	4.7%
85+	1,370	12.2%	63	4.6%
Unknown	0	0.0%	0	0.0%

Note: when a table lists Mortality Proportion and 11,253 in Unique Traumas, the table is based upon last facility that the patient received treatment from.

Table 4 breaks the number of trauma cases down by age, deaths, and the percentage of death per age group. Out of the 11,256 unique trauma cases in Nevada for 2019, the age group with the highest number/percentage of traumas was age 75-84 years old at 2,007 cases or 17.8%, second was 64-74 years old at 1,808 cases or 16.1%, and third was 55-64 years old at 1,430 cases or 12.7%. The age group of 18-24 years old has the highest percentage of death from their trauma at 6.6%, followed by 35-44 and 75-84 years old at 4.7%, and 85+ years old at 4.6% as illustrated in ***Figure 2***.

Figure 2: *Age-Specific Trauma Cases and Mortality Proportion Chart (Unique Traumas)*



	Total	<1	1-5	6-17	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unknown
Count	11,253	95	222	541	622	1,152	961	1,045	1,430	1,808	2,007	1,370	0
Column Percent	100.0%	0.8%	2.0%	4.8%	5.5%	10.2%	8.5%	9.3%	12.7%	16.1%	17.8%	12.2%	0.0%
Mortality Proportion (Row Percent)	4.2%	1.1%	1.8%	2.2%	6.6%	4.0%	4.7%	4.3%	3.8%	3.7%	4.7%	4.6%	0.0%

Table 5: Age and Gender-Specific Trauma Rate per 100,000 Nevada Residents (Unique Traumas)

Age Group	Male		Female		Total	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	430	117.0 (105.9-128.0)	288	82.3 (72.8-91.8)	718	100.1 (92.7-107.4)
Adult 18-64	2,665	280.2 (269.6-290.9)	1,398	151.2 (143.3-159.1)	4,064	216.7 (210.0-223.3)
Geriatric >64	1,806	900.0 (858.5-941.5)	2,594	1089.6 (1047.7-1131.5)	4,404	1003.8 (974.1-1033.4)
Total	4,901	322.6 (313.6-331.6)	4,280	282.9 (274.5-291.4)	9,186	303.0 (296.8-309.2)

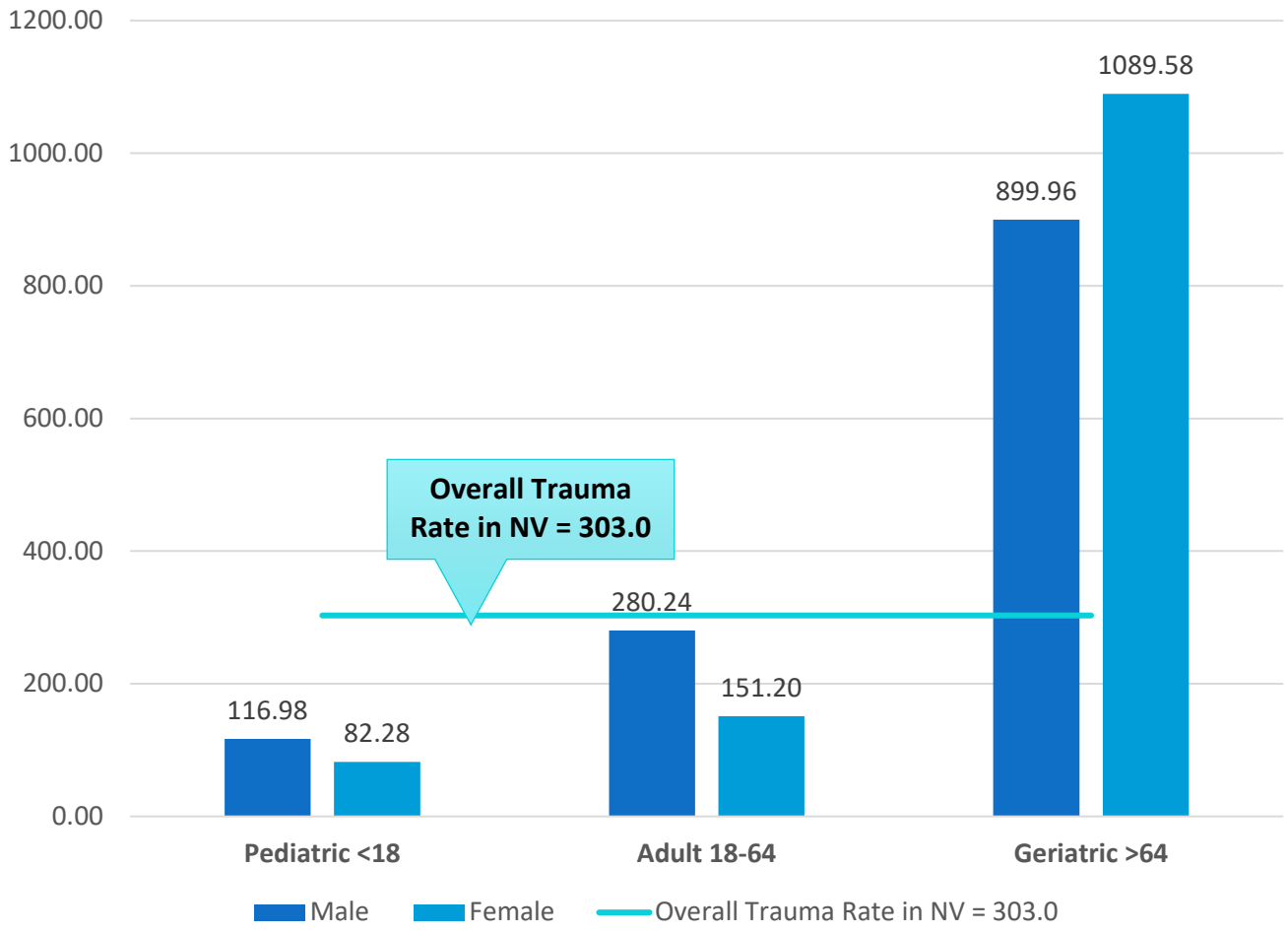
Note: There were 5 cases where gender was unknown.

To further breakdown the number of trauma cases in Nevada Residents only, males overall account for 55% of the trauma cases, whereas females account for 45%. The age and gender of the highest number of trauma cases in 2019 were males aged 18-64 years old at 29% of the total cases.

Traumas per age and gender per 100,000 NV Residents

#1 - **SENIORS** are more likely to have a trauma with senior females even more likely than senior males.

Figure 3: Age and Gender-Specific Trauma Rates per 100,000 Nevada Residents



Highest Trauma Rate

When comparing the number of cases per 100,000 in each county, **rural counties had a higher rate of traumas than urban counties.**

#1 Nye County **#2** Lander County **#3** White Pine County

See also Table 6

Table 6: Nevada Trauma Cases by County of Injury (non-duplicated)

County	Count	Rate per 100,000 (95% CI)
Carson City	156	278.8 (235.1-322.6)
Churchill	129	499.7 (413.5-585.9)
Clark	7,571	339.2 (331.5-346.8)
Douglas	162	331.2 (280.2-382.2)
Elko	171	318.8 (271.0-366.5)
Esmeralda	3	309.9 (0.0-660.6)
Eureka	7	379.6 (98.4-660.8)
Humboldt	53	313.6 (229.2-398.1)
Lander	37	604.6 (409.8-799.4)
Lincoln	25	492.3 (299.3-685.3)
Lyon	128	230.9 (190.9-270.9)
Mineral	18	390.3 (210.0-570.6)
Nye	411	876.3 (791.6-0,961.1)
Pershing	33	495.9 (326.7-665.2)
Storey	5	121.2 (15.0-227.4)
Washoe	714	156.6 (145.1-168.1)
White Pine	59	548.5 (408.6-688.5)
Out of State	1,076	371.3 (364.4-378.1)
Unknown	498	0.0 (0.0-0.0)

Utilizing the FIPS coding standards allows unique identification of counties and county equivalents in the United States. Where trauma occurred per Federal Information Processing Standard (FIPS) code, it should be noted that Trauma Rates per county are based upon ICD-10 diagnosis coding recorded by the treating facilities, and does not include backgrounds, patient history, or examination.

Highest Trauma Cases (Figure 4)

Utilizing FIPS codes of where an injury occurred:

#**1)** Clark County recorded the highest number of trauma cases at 7,571 cases.

#**2)** Washoe with 714 trauma cases.

#**3)** Nye County with 411 trauma cases.

However, there were 1,076 trauma cases that occurred out-of-state, and 498 were unknown.

Figure 4: *NV Trauma Cases by County of Injury (Unique Traumas)*

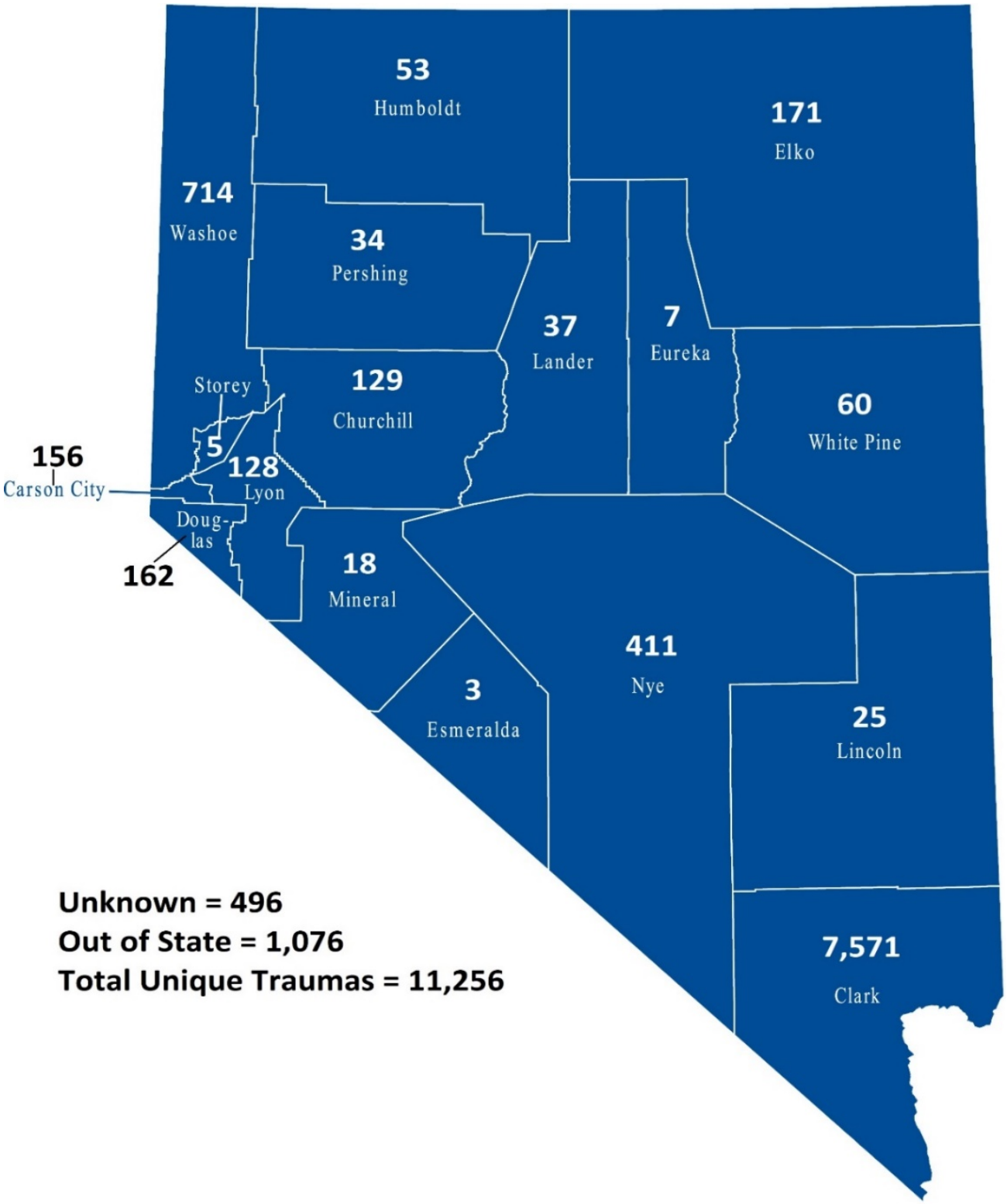
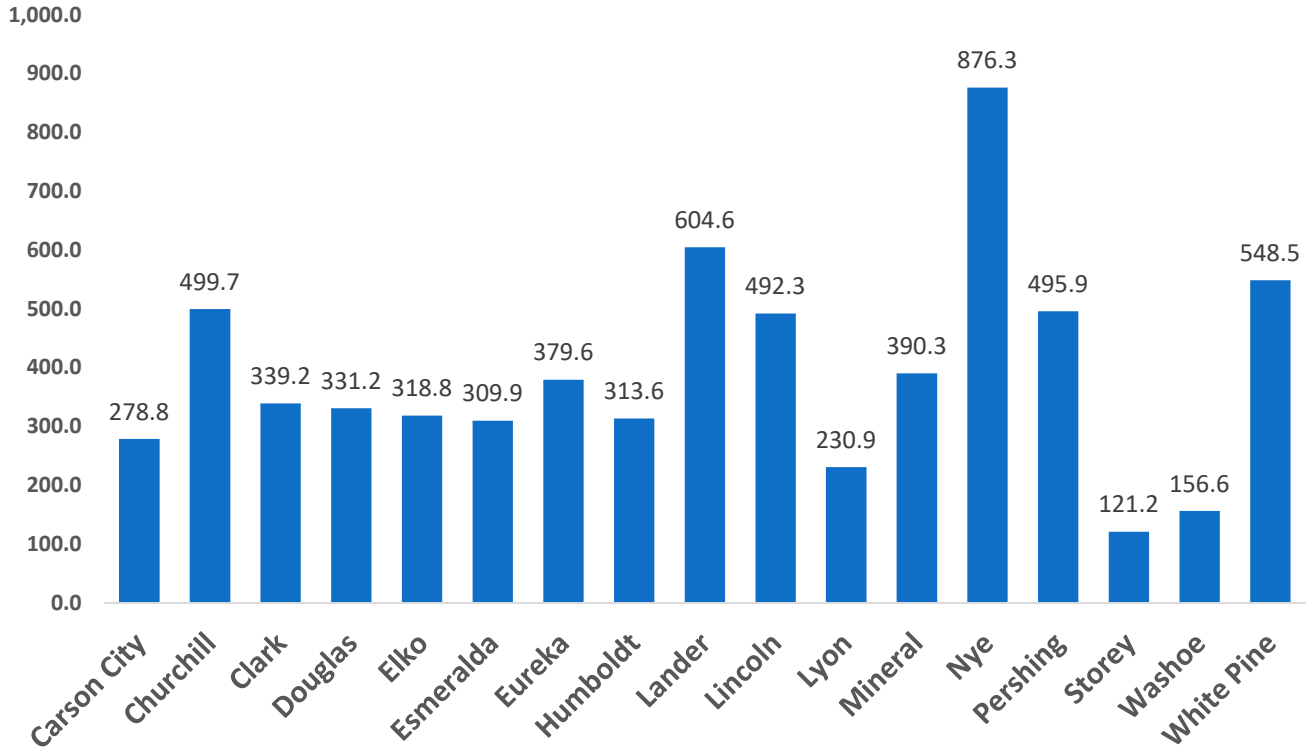


Figure 5: *County-Specific Trauma Rates per 100,000 County Residents*



When analyzing the number of trauma cases per 100,000 people in Nevada, this analysis shows that Nye County had the highest rate at 872.1 cases per 100,000 people. This was then followed by Lander County with 604.6 cases per 100,000 people, and then White Pine County at 548.5 cases per 100,000 people.

Table 7: Age-Specific Traumatic Brain Injury and Mortality Proportion (Unique Traumas)

Age Group	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Pediatric <18	190	9.0%	12	6.3%
Adult 18-64	977	46.4%	104	10.6%
Geriatric >64	940	44.6%	99	10.5%
Unknown	0	0.0%	0	0.0%
Total	2107	100.0%	215	10.2%

Mortality Proportions Post Traumatic Brain Injury by Age Group

When comparing the number of cases per age group, adults between the ages of 18-64 had the highest number of Traumatic Brain Injuries as well as having had the highest amount of mortalities after a brain injury.

#1 Adult

#2 Geriatric

#3 Pediatric

Table 8: Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Total	2,107	100.0%	215	10.2%
<1	36	1.7%	0	0.0%
1-5	44	2.1%	4	9.1%
6-17	110	5.2%	8	7.3%
18-24	125	5.9%	26	20.8%
25-34	198	9.4%	18	9.1%
35-44	173	8.2%	20	11.6%
45-54	204	9.7%	20	9.8%
55-64	277	13.1%	20	7.2%
65-74	341	16.2%	25	7.3%
75-84	367	17.4%	45	12.3%
85+	232	11.0%	29	12.5%
Unknown	0	0.0%	0	0.0%

Note: when a table lists Mortality Proportion in Unique Traumas, the table is based upon last facility that the patient received treatment from.

Of the 11,256 total traumas reported in Nevada in 2019, the majority were paid for through Medicare, followed by private health insurance, Medicaid, and then Self-Pay. This order was the same in 2018.

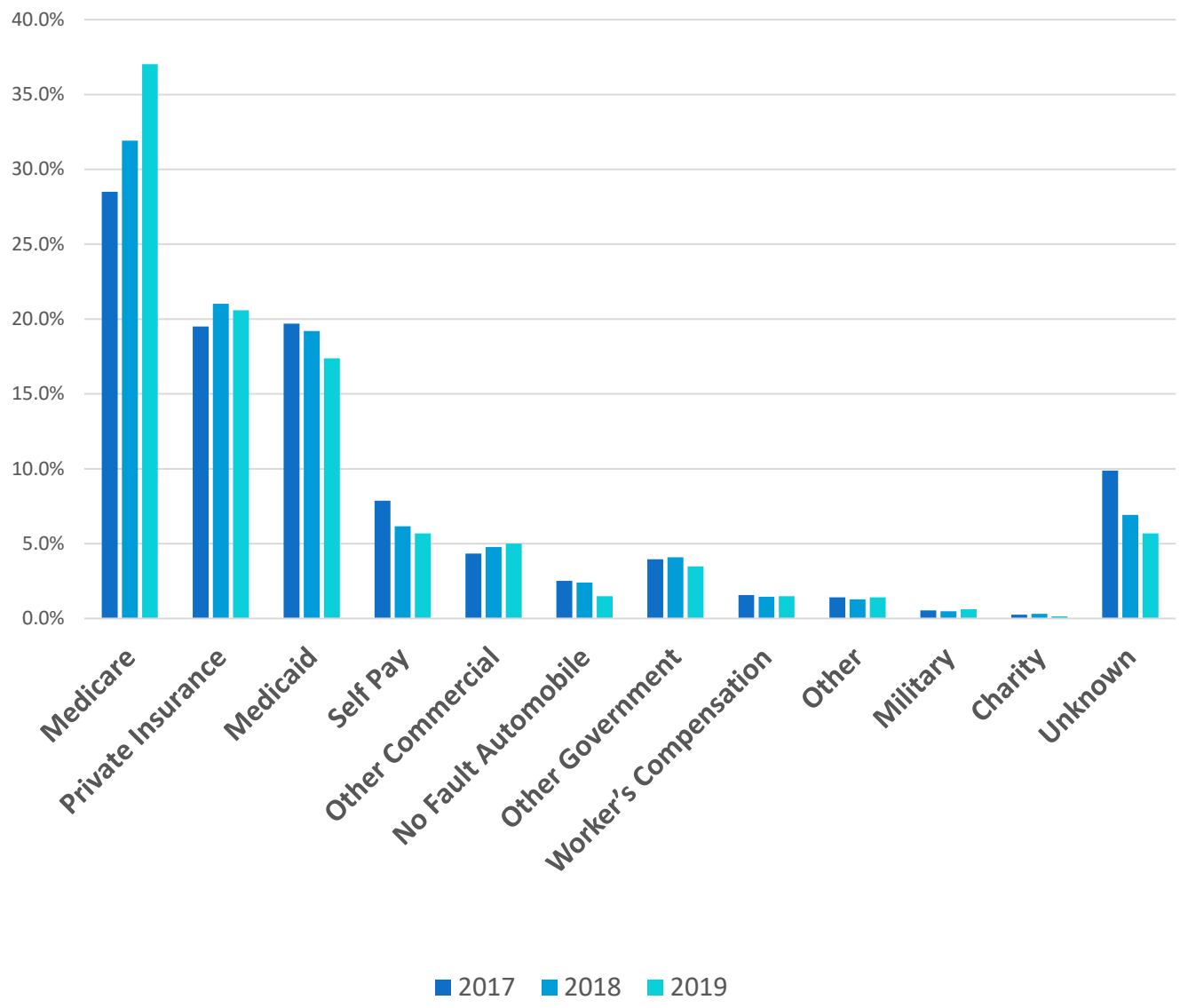
Table 9 displays the difference in Primary Source of Payment between 2017, 2018, and 2019 in a column chart.

Table 9: Primary Payment Source Proportion for 2017, 2018, 2019*

Primary Source of Payment	2017	2018	2019
Medicare	28.5%	31.9%	37.0%
Private Insurance	19.5%	21.0%	20.6%
Medicaid	19.7%	19.2%	17.4%
Self-Pay	7.9%	6.2%	5.7%
Other Commercial	4.3%	4.8%	5.0%
No Fault Automobile	2.5%	2.4%	1.5%
Other Government	4.0%	4.1%	3.5%
Worker's Compensation	1.6%	1.4%	1.5%
Other	1.4%	1.3%	1.4%
Military	0.5%	0.5%	0.6%
Charity	0.3%	0.3%	0.1%
Unknown	9.9%	6.9%	5.7%

***In the Introduction section on page 7 of this report, it is recommended to not compare 2015 and 2016 data or 2016 and 2017 data. However, prior years' data in Table 7 was included due to the data being from proportions.**

Figure 6: *Primary Payment Source Proportion for 2017, 2018, 2019 Traumas in Nevada**



*Please note that there was an additional facility added to the reporting within the final quarter the data set from 2017-2018 and is not always directly comparable.

PLACE AND MECHANISM OF INJURY

#1 place of injury was in the **HOME**

Table 10: Trauma Incidence by Place of Injury (Unique Traumas)

Place of Injury	Trauma Count	Percent
Residential	5,244	47%
Street	2,858	25%
Trade and Service Area	588	5%
Recreation area	288	3%
Sports Area	158	1%
Wilderness	171	2%
Other Specified	228	2%
School or Public Area	182	2%
Industrial and Construction	82	1%
Farm	27	0%
Transport Vehicle as Place	37	0%
Military Training Ground	3	0%
Railroad Track	3	0%
Slaughterhouse	0	0%
Unknown/Unspecified	1,387	12%
Total	11,256	100%

Table 11: Trauma Incidence and Mortality Proportion by Mechanism of Injury (Unique Traumas)

Mechanism	Count	Percent	Deaths	Mortality Proportion (Row Percent)
Falls	6,389	56.8%	177	2.8%
Motor Vehicle Traffic	1,901	16.9%	152	8.0%
Struck by/Against	723	6.4%	14	1.9%
Firearm	360	3.2%	86	23.9%
Cut/Pierce	422	3.8%	6	1.4%
Motor Vehicle Non-Traffic	128	1.1%	4	3.1%
Other Transport (Land, Sea, Sky)	120	1.1%	5	4.2%
Other Specified	252	2.2%	6	2.4%
Pedal Cyclist, Other	147	1.3%	1	0.7%
Natural/Environmental	180	1.6%	1	0.6%
Pedestrian, Other	59	0.5%	5	8.5%
Unspecified	68	0.6%	2	2.9%
Fire/Burn	73	0.6%	0	0.0%
Unknown	141	1.3%	3	2.1%
Machinery	58	0.5%	0	0.0%
Overexertion	57	0.5%	0	0.0%
Drowning	5	0.0%	4	80.0%
Suffocation	170	1.5%	7	4.1%
Total	11,253	100.0%	473	4.2%

Note: when a table lists Mortality Proportion and 11,253 in Unique Traumas, the table is based upon last facility that the patient received treatment from.

In 2019, out of the 11,253 total unique trauma cases, the top three mechanisms of traumatic injury in Nevada were Falls (56.8%), Motor Vehicle Traffic-Related (16.9%), and Struck by/Against (6.4%). Additionally, out of the total trauma cases, higher proportions of death were from Drowning (80%), Firearm incidents (23.9%), and Pedestrian Incidents (8.5%), and Motor Vehicle Traffic Incidents (8.0%).

Currently the NTR collects trauma data via ICD-10 codes. With ICD-10 codes, some trauma mechanisms are not available as a code. For example, a facility can choose one of the following ICD-10 codes if the

cause of the trauma is not available as an ICD-9 choice: Pedestrian, Other; Other Specified, Unspecified, and Unknown.

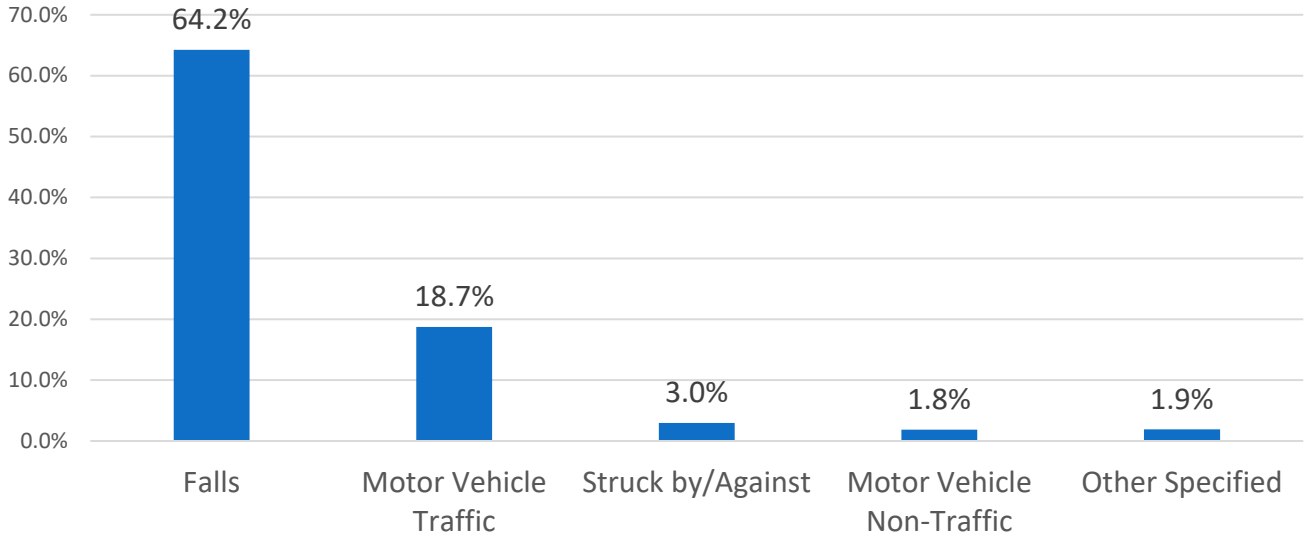
Table 12: Trauma Rates for Top Three Mechanisms of Injury by Age (Unique Traumas)

Age Group	Falls		Struck by/Against		Motor Vehicle Traffic	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	361	50.3 (45.1-55.5)	74	10.3 (8.0-12.7)	130	18.1 (15.0-21.2)
Adult 18-64	1,718	91.6 (87.3-95.9)	530	28.3 (25.9-30.7)	1,317	70.2 (66.4-74.0)
Geriatric >64	4,299	979.8 (950.5-1009.1)	111	25.3 (20.6-30.0)	422	96.2 (87.0-105.4)
Total	6,378	210.4 (205.2-215.5)	715	23.6 (21.9-25.3)	1,869	61.6 (58.8-64.4)

Table 12 outlines the top three mechanism for injury by age. The number one trauma injury per all age groups in 2019 were Falls.

FALLS
#1 cause of unintentional trauma

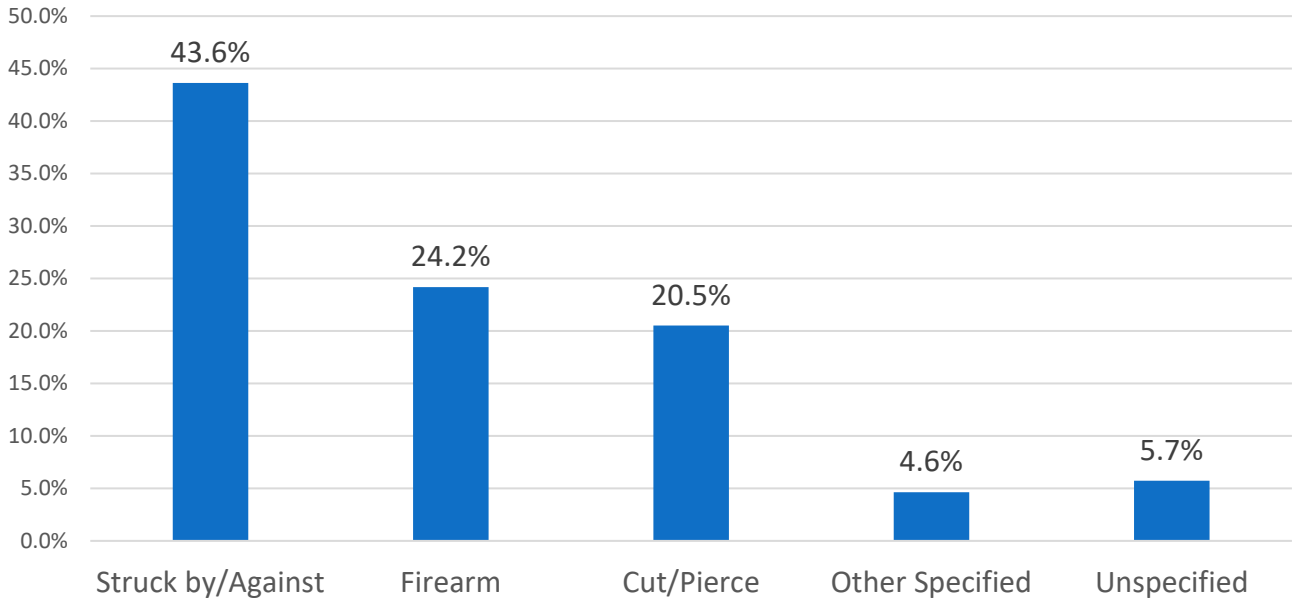
Figure 7: *Top Five Mechanisms of Unintentional Trauma (n=9,883)*



Homicide/Assault

#1 Struck by/Against
#2 Firearm
#3 Cut/Pierce

Figure 8: *Top Five Mechanisms of Homicide/Assault-Related Trauma (n=926)*



Suicide/Self- Inflicted

#1 Cut/Pierce
#2 Firearm
#3 Falls

Figure 9: *Top Five Mechanisms of Suicide/Self-Inflicted Trauma (n=199)*

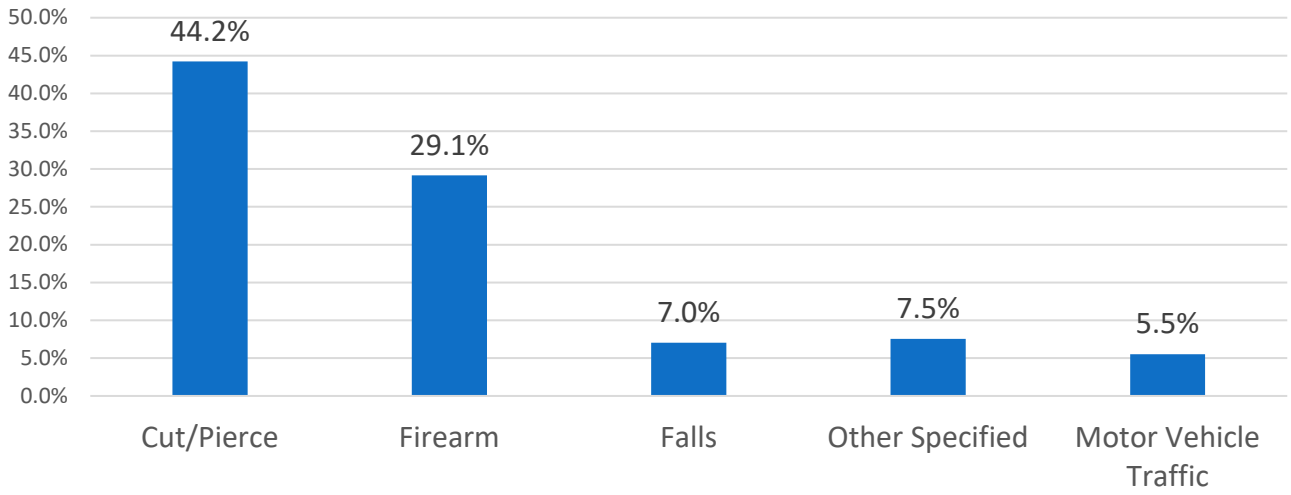


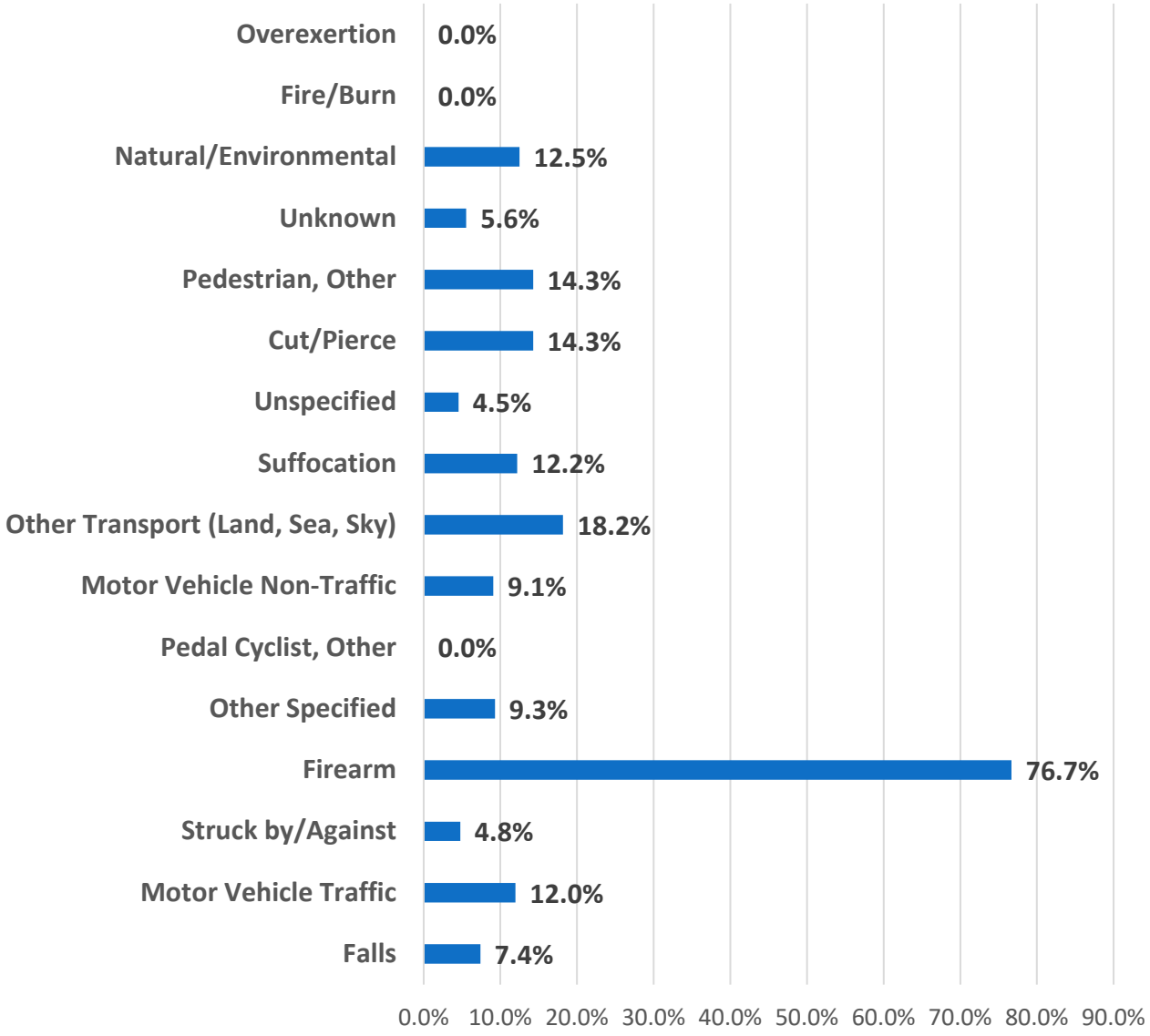
Table 13: Traumatic Brain Injury Incidence and Mortality Proportion by Mechanism of Injury

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	1,232	58.5%	91	7.4%
Motor Vehicle Traffic	434	20.6%	52	12.0%
Struck by/Against	188	8.9%	9	4.8%
Firearm	60	2.8%	46	76.7%
Other Specified	43	2.0%	4	9.3%
Pedal Cyclist, Other	24	1.1%	0	0.0%
Motor Vehicle Non-Traffic	11	0.5%	1	9.1%
Other Transport (Land, Sea, Sky)	11	0.5%	2	18.2%
Suffocation	41	1.9%	5	12.2%
Unspecified	22	1.0%	1	4.5%
Cut/Pierce	7	0.3%	1	14.3%
Pedestrian, Other	7	0.3%	1	14.3%
Unknown	18	0.9%	1	5.6%
Natural/Environmental	8	0.4%	1	12.5%
Fire/Burn	0	0.0%	0	0.0%
Overexertion	1	0.0%	0	0.0%
Total	2,107	100.0%	215	10.2%

Top Mortalities from Traumatic Brain Injury by Mechanism of Injury

#1 Firearm **#2** Other Transport **#3** Pedestrian/Other and Cut/Pierce

Figure 10: *Mortality Proportion of Traumatic Brain Injury Incidence by Mechanism of Injury (Unique Traumas)*



INJURY CHARACTERISTICS: INJURY SEVERITY SCORE (ISS)

Injury Severity Score (ISS) is an anatomical scoring system that provides an overall score for patients with multiple injuries. The ISS has values from 1 to 75:

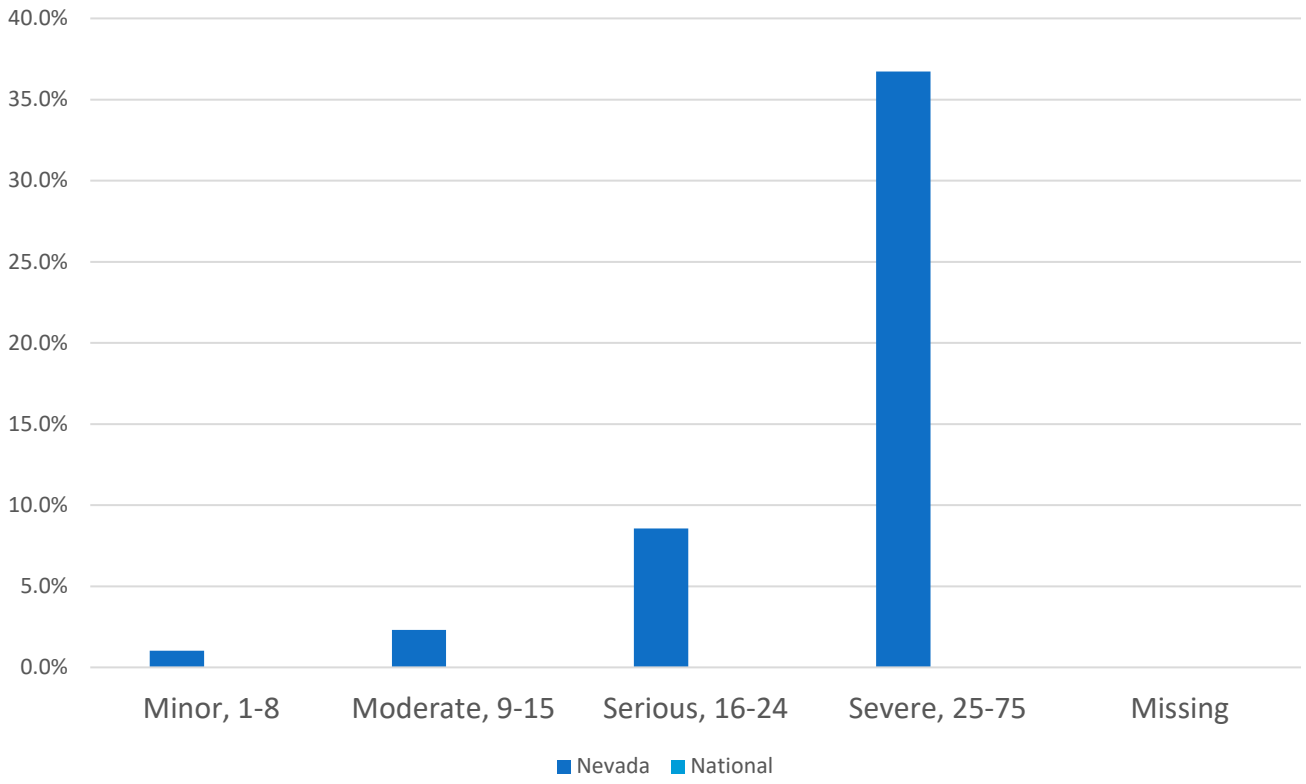
ISS score of 1-8 = Minor
ISS score of 9-15 = Moderate
ISS score of 16-24 = Serious
ISS score 25-75 = Severe

Table 14: Trauma Incidence and Mortality Proportion by Injury Severity Score (ISS) (Unique Traumas)

Injury Severity Score	Count	Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	5,489	48.8%	56	1.0%
Moderate, 9-15	4,203	37.4%	97	2.3%
Serious, 16-24	875	7.8%	75	8.6%
Severe, 25-75	667	5.9%	245	36.7%
Missing/NA/ND	19	0.2%	0	0.0%

In 2019, most patients had a Minor ISS between a 1 and 8 and ultimately had the lowest mortality proportion rate. Correspondently, patients with a Severe ISS between a 25 and 75 had the highest mortality proportion rate. Therefore, the lower the ISS the less likely a patient was to die from their trauma. The higher the score, the more likely for a patient to die.

Figure 11: *Trauma Mortality Proportion* by Injury Severity Score, National vs Nevada*



*By last transfer facility.

Data sources: Nevada Trauma Registry, 2019

Table 15: Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas) by Injury Severity

Injury Severity Score	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	506	24.0%	7	1.4%
Moderate, 9-15	829	39.3%	27	3.3%
Serious, 16-24	399	18.9%	31	7.8%
Severe, 25-75	373	17.7%	150	40.2%
Unknown	1	0.0%	0	0.0%
Total	2,107	100.0%	215	10.2%

Table 16: Injury to ED arrival time for patient with an injury severity score >15 by Injury Location; Rural, Urban, Statewide

County	<1 hour	1-3 hours	3-6 hours	6-9 hours	9-12 hours	>12 hours
Carson City	6	1	1	0	0	0
Churchill	7	2	0	0	0	0
Clark	915	70	15	8	7	31
Douglas	7	4	0	1	0	1
Elko	3	2	0	0	0	0
Esmeralda	0	0	0	0	0	0
Eureka	1	0	1	0	0	0
Humboldt	0	1	0	2	0	0
Lander	1	1	0	0	0	0
Lincoln	0	0	0	0	0	0
Lyon	4	7	1	0	0	0
Mineral	2	0	1	0	0	0
Nye	35	0	0	0	0	0
Pershing	2	0	0	0	0	0
Storey	0	0	0	0	0	0
Unknown	28	4	4	5	1	3
Washoe	80	13	2	0	2	3
White Pine	14	2	0	0	0	0
Out of State	152	21	27	14	6	13
Total	1,257	128	52	30	16	51

PATIENT TRANSPORTATION

Patients have many ways of getting to a hospital. In 2019, most trauma patients in Nevada were transported to the hospital by ground ambulance followed by private vehicle or walk-ins. (Table 17)

Multi-Level ISS Most Utilized Transport= Ground Ambulance
Then 2nd - Private Vehicle or Walk-In

Table 17: Trauma Incidence by Mode of Arrival (Unique Traumas)

Mode of Arrival	Trauma Count	Percent
Ground Ambulance	7,628	68%
Private Vehicle or Walk-in	2,837	25%
Helicopter Ambulance	699	6%
Fixed-Wing Ambulance	48	0%
Unknown	3	0%
Police	32	0%
Other	7	0%
Public Safety	1	0%
Water Ambulance	1	0%
Total	11,256	100%

In addition to reviewing the data regarding mode of patient arrival, it may also be valuable for community stakeholders to review patient mode of arrival according to Injury Severity Score (ISS) ranges (Table 14). In Table 14, people with the highest ISS were transported to the hospital via ground ambulance.

Table 18: Mode of Transport by Injury Severity Score (Unique Traumas)

Mode of Arrival	Injury Severity Score Range				
	Minor 1-8	Moderate 9-15	Serious 16-24	Severe 25-75	Missing/NA ISS Scores
Ground Ambulance	3,470	3,077	587	481	13
Private Vehicle or Walk-in	1,835	836	120	40	6
Helicopter Ambulance	188	241	145	125	0
Fixed-Wing Ambulance	14	19	12	3	0
Unknown	2	1	0	0	0
Police	28	4	0	0	0
Other	2	4	1	0	0
Public Safety	1	0	0	0	0
Water Ambulance	0	0	1	0	0
Total	5,540	4,182	866	649	19

PATIENT DISCHARGE AND TRANSFER

Of the 11,256 total trauma cases in Nevada during 2019; 1,687 were transferred to a designated trauma center. University Medical Center received the highest number of transferred patients from other facilities, but St. Rose Dominican Hospital Siena Campus had the lowest average ISS out of the trauma centers. See Table 14.

Table 19: Patient Transfer to Nevada Trauma Centers by Injury Severity Score

Facility Patient Transferred To	Injury Severity Score Range			
	Trauma Cases	Mean ISS	Standard Deviation	ISS Range
Renown Regional Medical Center	450	7.4	7.4	1 - 99
St. Rose Dominican Hospital Siena Campus	52	5.4	3.9	1 - 25
Sunrise Hospital Medical Center	370	7.0	8.6	1 - 99
University Medical Center	815	8.0	8.9	1 - 99

"Patient Transfer to" is determined by the question, "Was Patient Transferred to Facility?" and not through the matching process that creates the Unique Traumas.

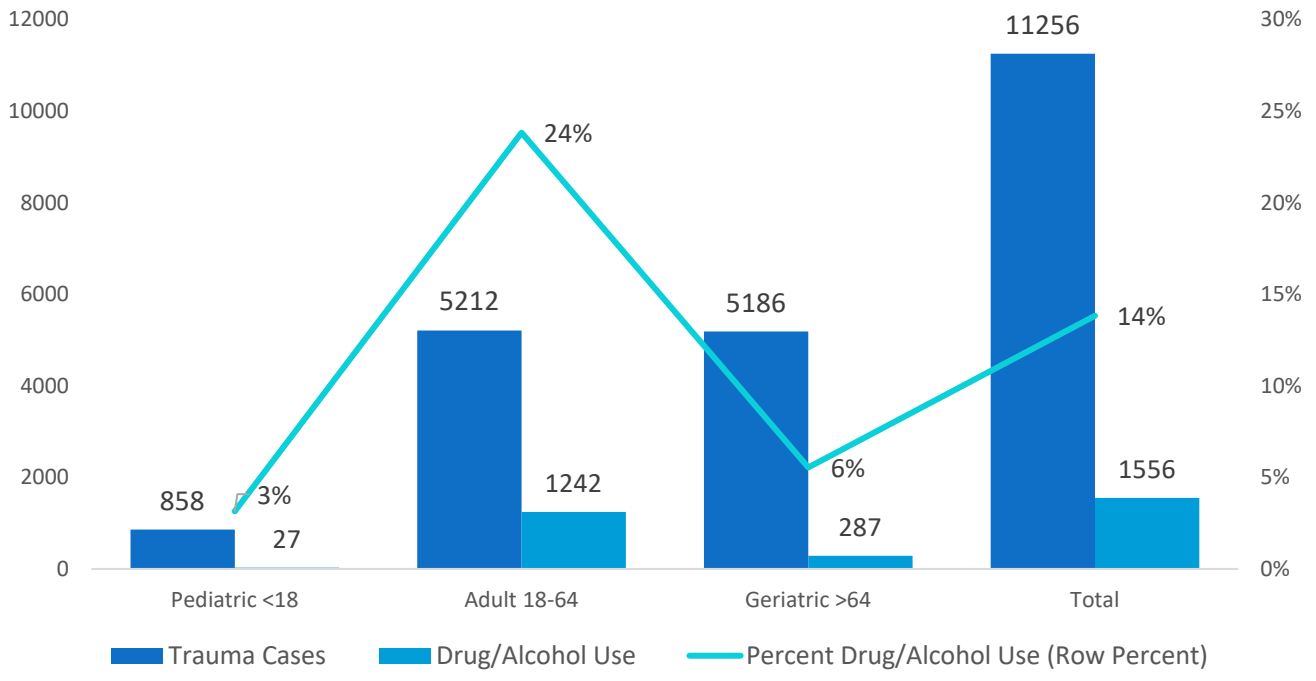
RISK FACTORS: DRUG/ALCOHOL USE

Of the 11,256 unique traumas recorded in the NTR in 2019, Drug/Alcohol Use was determined to be involved in 1,556 (14%) of the cases. 12% of Unintentional trauma injury involved drug or alcohol use, and 32% of Homicide/Assault involved drug or alcohol use.

Table 20: Injury Intent and Drug/Alcohol Use (Unique Traumas)

Injury Intent	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Unintentional	9,883	1,139	12%
Suicide	199	77	39%
Homicide/Assault	926	298	32%
Legal Intervention	22	12	55%
Undetermined (accidental/intentional)	71	13	18%
Missing	155	17	11%
Unknown	0	0	0%
Total	11,256	1,556	14%

Figure 12: *Age-Specific Trauma and Drug/Alcohol Use (Unique Traumas)*



1,242 (24%) of adults between the ages of 18 to 64 had the highest associated reported drug/alcohol use of the 5,212 unique traumas.

Table 21: Age-Specific Proportion of Restraint Use Among Motor Vehicle Traffic Occupants (Positive Blood Alcohol Count [BAC])

Protective Device Restraint	Pediatric <18	Adult 18-64	Geriatric >64	Total
None	5	611	126	742
Seatbelt – Lap & Shoulder	0	60	9	69
Seatbelt – Lap Only	0	6	0	6
Seatbelt – NFS	0	3	0	3
Truck Bed Restraint	5	144	55	204
Total	10	824	190	1024

Of the 11,256 unique trauma cases 1,024 (9%) had a positive Blood Alcohol Count (BAC), with adults between the ages of 18 to 64 accounting for 824 cases.

Table 22: Age-Specific Proportion of Restraint Use Among Motor Vehicle Traffic Occupants (Drug/Alcohol Use)

Protective Device Restraint	Pediatric <18	Adult 18-64	Geriatric >64	Total
None	20	959	206	1185
Seatbelt – Lap & Shoulder	1	89	12	102
Seatbelt – Lap Only	0	16	2	18
Seatbelt – NFS	0	5	0	5
Truck Bed Restraint	6	173	67	246
Total	27	1242	287	1556

The majority (1,185 cases or 76%) of unique traumas with reported drug/alcohol use (1,556 cases or 14%) reported that no type of protective device/restraint was used.

Table 23: Trauma Incidence by Mechanism of Injury (Unique Traumas) and Drug/Alcohol Use

Mechanism	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Falls	6,378	583	9%
Motor Vehicle Traffic	1,869	441	24%
Struck by/Against	715	141	20%
Cut/Pierce	427	120	28%
Firearm	360	108	30%
Other Specified	258	33	13%
Natural/Environmental	186	9	5%
Motor Vehicle Non-Traffic	182	24	13%
Unknown	151	17	11%
Pedal Cyclist, Other	146	10	7%
Suffocation	140	23	16%
Other Transport (Land, Sea, Sky)	116	13	11%
Unspecified	76	21	28%
Fire/Burn	74	3	4%
Overexertion	60	1	2%
Pedestrian, Other	59	7	12%
Machinery	53	1	2%
Drowning	6	1	17%
Total	11,256	1556	14%

The highest prevalence of unique traumas with reported drug/alcohol use included Firearms (30%), Cut/Pierce (28%), Motor Vehicle Traffic (24%). Unspecified mechanism of injury accounted for 28% of the 1,556 cases.

Table 24: Trauma Incidence by Mechanism of Injury (Unique Traumas) and BAC (Interval)

Mechanism	<0.08	0.08 to 1.00	2.00 to 20	21 to 50	51 to 100	101 to 200	more than 200	Un-known	Total
Falls	7	10	53	31	43	89	169	5976	6378
Motor Vehicle Traffic	1	3	50	21	39	81	101	1573	1869
Struck by/ Against	1	1	11	6	10	24	40	622	715
Cut/Pierce	0	1	7	6	8	23	26	356	427
Firearm	0	0	12	8	10	19	9	302	360
Other Specified	1	0	4	2	0	5	8	238	258
Natural/ Environmental	0	0	0	0	1	0	2	183	186
Motor Vehicle Non-Traffic	2	3	3	2	2	0	5	165	182
Unknown	2	2	0	0	0	2	2	143	151
Pedal Cyclist, Other	1	0	1	0	2	3	1	138	146
Suffocation	0	0	3	0	6	2	4	125	140
Other Transport (Land, Sea, Sky)	0	0	2	1	2	4	2	105	116
Unspecified	0	0	3	0	2	3	5	63	76
Fire/Burn	0	0	0	0	0	0	1	73	74
Overexertion	0	0	0	0	0	0	1	59	60
Pedestrian, Other	0	0	1	1	0	2	1	54	59
Machinery	0	0	0	0	1	0	0	52	53
Drowning	0	0	0	0	0	1	0	5	6
Total	15	20	150	78	126	258	377	10232	11256

A BAC of 0.0 is sober, while in the United States 0.08 is legally intoxicated, and above that is very impaired.[1] BAC levels above 0.40 are potentially fatal.[1]

Table 25: Trauma Incidence by County and BAC (Unique Traumas)

County	<0.08	0.08 to 1.00	2.00 to 20	21 to 50	51 to 100	101 to 200	more than 200	Un-known	Total
Out of State	0	0	23	7	19	32	21	974	1076
Carson City	0	1	6	1	0	2	0	146	156
Churchill	0	0	0	0	0	2	6	121	129
Clark	1	6	71	59	84	170	283	6897	7571
Douglas	6	3	4	0	2	2	2	143	162
Elko	0	0	1	1	4	6	7	152	171
Esmeralda	0	0	0	0	0	0	0	3	3
Eureka	0	0	0	0	0	0	1	6	7
Humboldt	0	0	0	0	1	0	2	50	53
Lander	0	0	4	0	0	2	2	29	37
Lincoln	0	0	2	0	0	0	0	23	25
Lyon	0	1	5	1	1	2	2	116	128
Mineral	0	0	0	0	0	0	1	17	18
Nye	0	0	1	0	3	5	6	396	411
Pershing	0	0	0	1	0	0	1	32	34
Storey	0	0	0	0	0	1	1	3	5
Washoe	5	1	20	5	6	23	37	617	714
White Pine	0	0	2	0	0	1	0	57	60
Unknown	3	8	11	3	6	10	5	450	496
Total	15	20	150	78	126	258	377	10232	11256

Table 26: Trauma Incidence by County and Drug/Alcohol Use (Unique Trauma)

County	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Out of State	1,076	140	13%
Carson City	156	11	7%
Churchill	129	8	6%
Clark	7,571	1,119	15%
Douglas	162	19	12%
Elko	171	21	12%
Esmeralda	3	1	33%
Eureka	7	1	14%
Humboldt	53	3	6%
Lander	37	8	22%
Lincoln	25	2	8%
Lyon	128	12	9%
Mineral	18	2	11%
Nye	411	45	11%
Pershing	34	3	9%
Storey	5	2	40%
Washoe	714	100	14%
White Pine	60	5	8%
Unknown	496	54	11%
Total	11,256	1,556	14%

SAFETY EQUIPMENT

Among people with traumas, **SENIORS** are more likely to have worn a helmet on a bicycle, but adults between the ages of 18-64 were more consistent in Helmet use amongst all 3 activities.

Helmet use is an important safety measure especially when riding a bicycle, motorcycle, or an off-road vehicle. Unfortunately, even with helmet laws, not everyone wears one when participating in these activities. Overall, only 30% of the trauma cases wore helmets when on a bicycle, 21% while on a motorcycle, and 14% while on an off-road vehicle. Figure 13

Figure 13: Proportion of Helmet Use Among Pedal Cyclists, Motor Cyclists, and Off-Road Users (Unique Traumas)

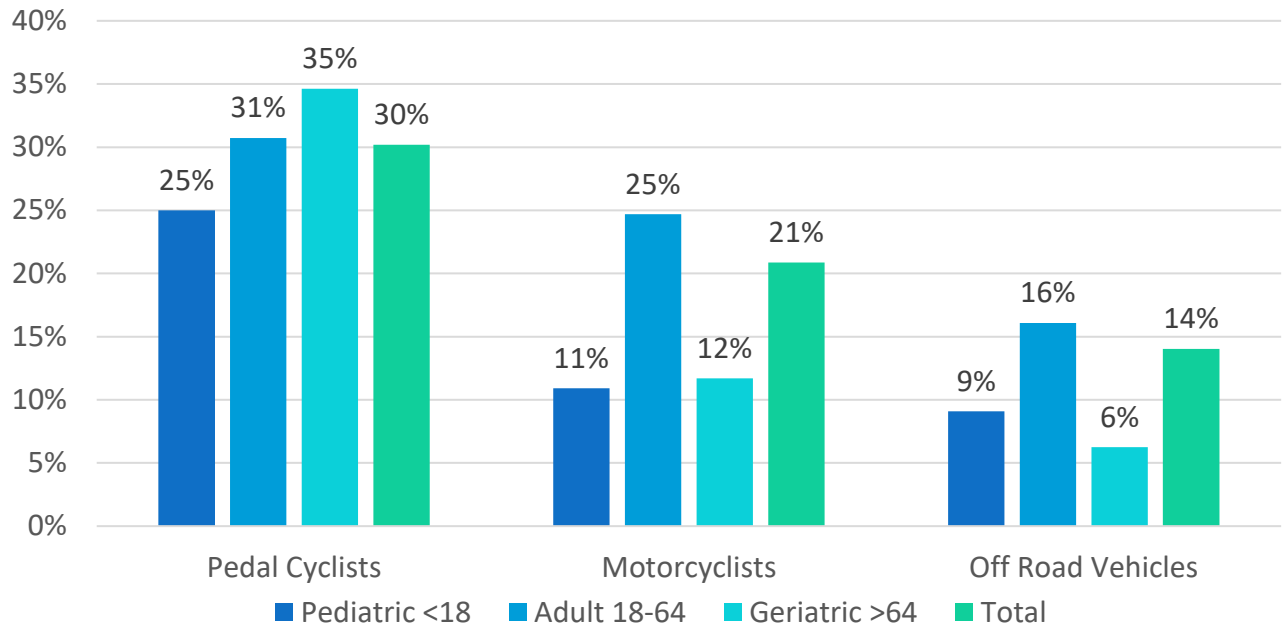


Table 27: Age-Specific Restraint Use Among Motor-Vehicle Traffic Occupants

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total
Seatbelt	45	512	254	811
Child booster/car seat	7	0	0	7
None	22	232	52	306
Unknown	7	58	17	82
Total	81	802	323	1206

Among those who were involved in a motor vehicle incident resulting in a Trauma within the state of Nevada; a total of 1,206 reported that they had been wearing appropriate age-specific restraints when the incident occurred. Per the (National Highway Traffic Safety Administration (NHTSA), n.d.) wearing the proper restraints saved an estimated 14,955 lives in 2017. An additional 2,549 people could have been potentially saved if they had been wearing seatbelts. The importance of using the appropriate type of restraint are highlighted by the NHTSA; as the risk of injury among child passengers is significantly higher when their seat belts are loose or improperly positioned. The NHTSA reported that 54% of unrestrained 13-15-year-old passenger vehicle occupants were killed in crashes in 2017, 51% of Male Passenger Vehicle Occupants killed in 2017 were unrestrained, with a total of 47% of passenger vehicle occupants killed being unrestrained.

Table 28: Age-Specific Proportion of Restraint Use Among Motor-Vehicle Traffic Occupants

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total (column percent)
Seatbelt	3.7%	42.5%	21.1%	67.2%
Child booster/car seat	0.6%	0.0%	0.0%	0.6%
None	1.8%	19.2%	4.3%	25.4%
Unknown	0.6%	4.8%	1.4%	6.8%
Total	6.7%	66.5%	26.8%	100.0%

1. Among Motor vehicle occupants: 6.7% are <18, 66.5% are 18-64 and 26.8% are >64years.
2. Among Motor vehicle occupants 67.2% use seatbelt, 0.6% used Child booster/car seat,25.4% used no restraint. 6.8% of motor vehicle occupants have unknown restraint information.
3. Among all motor vehicle traffic occupants 3.7% used seatbelt and are < 18 years etc.

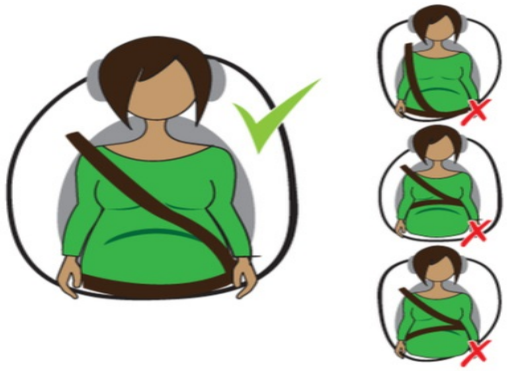
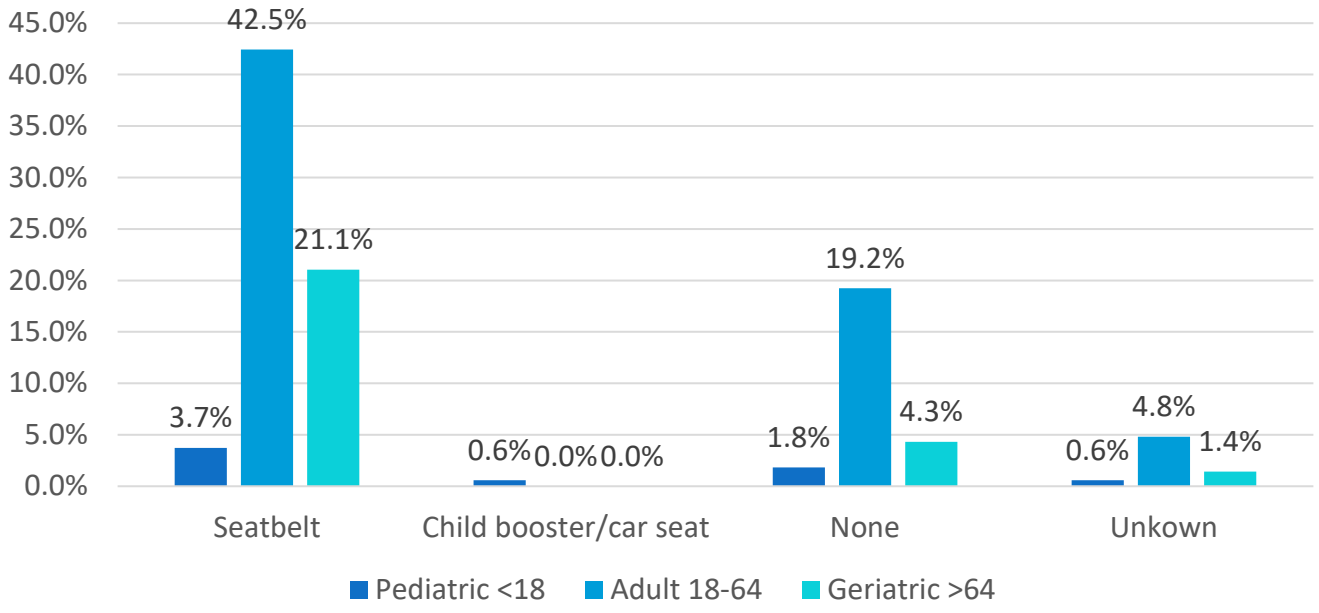


Figure 14: *Age-Specific Proportion of Restraint Use Among Motor-Vehicle Traffic Occupants*



We see from Table 27 and Figure 14 that only 3.7% of pediatric occupants are reported to have been properly wearing a seatbelt restraint while in the vehicle. The Geriatric Population over the age of 64 reported that 21.1% were wearing a Seatbelt, with 42.5% of Adults reporting wearing a Seatbelt while in a motor vehicle. It should be noted that not all who were involved in a Motor Vehicle Accident resulting in a Trauma were willing to provide information regarding restraint use at the time of the incident. It is also imperative to be aware that the above Figure 14 is referencing the populations that were reported to be properly restrained in the correct type of safety restraint for their age group.

FALLS – BY LAST TRANSFER FACILITY

Falls were the leading mechanism of trauma in Nevada during 2019. Correspondingly, most traumas occur at home (Table 29). When breaking down the falls by gender, the trauma rate was higher for females than males, by 675 cases. (Table 28).

More fall traumas occur to females than males.

Table 29 is broken down further by the type of falls. This table outlines that the number one type of fall that caused a trauma injury was from Same Level, Slipping/Tripping/Stumbling at 63.2%. However, the number one type of fall that caused death was from Suicide Related (such as sustained injury as a result of a fall from height).

Table 29: Trauma Rate for Falls by Gender (Unique Traumas)

Gender	n	Rate per 100,000 (95% CI)
Female	3,616	239.0 (231.3-246.8)
Male	2,941	193.6 (186.6-200.6)
Unknown	3	-
Total	6,560	216.4 (211.1-221.6)

Table 30: Incidence and Mortality Proportion by Type of Fall (Unique Traumas*)

Type of Falls	Count	Percent of Falls (Column Percent)	Deaths	Mortality Proportion (Row Percent)
Same Level (Slipping, Tripping, Stumbling)	4,148	63.2%	99	2.4%
Unspecified	641	9.8%	34	5.3%
From Furniture	459	7.0%	16	3.5%
Steps	365	5.6%	13	3.6%
Multi-Level: Cliff, Tree, Water, Etc.	286	4.4%	3	1.0%
On or From Ladder/Scaffolding	182	2.8%	2	1.1%
Pedestrian Conveyance Accident	176	2.7%	5	2.8%
Out of Building or Structure	80	1.2%	3	3.8%
Fall Due to Environmental Factors	81	1.2%	0	0.0%
Collision, Push or Shove By, or Another Person	51	0.8%	0	0.0%
Playground Equipment	53	0.8%	0	0.0%
Suicide Related	21	0.3%	8	38.1%
Undetermined Fall from High Place	13	0.2%	0	0.0%
Assault Related	4	0.1%	0	0.0%
Total	6,560	100.0%	183	2.8%
*Unique Traumas are analyzed by where the patient first originated, but mortality data analysis is based off of their final facility.**1 unspecified type of fall with unknown discharge status(dead / alive) .**				

Table 31: Trauma Rate by Age and Type of Fall (Unique Traumas)

Age Group	Type of Fall					
	Unspecified		From Same Level (tripping, slipping, stumbling)		From Furniture (bed, chair, etc.)	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	16	2.2 (1.1-3.3)	103	14.4 (11.6-17.1)	68	9.5 (7.2-11.7)
Adult 18-64	172	9.2 (7.8-10.5)	938	50.0 (46.8-53.2)	78	4.2 (3.2-5.1)
Geriatric >64	453	103.2 (93.7-112.8)	3,107	708.2 (683.3-733.1)	313	71.3 (63.4-79.2)
Unknown						
Total	641	21.1 (19.5-22.8)	4,148	136.8 (132.6-141.0)	459	15.1 (13.8-16.5)

FINAL NOTE

With vast improvements in data entry compliance and accuracy, the quality of the data available in the Nevada Trauma Registry (NTR) has been enhanced. The NTR Manager and Coordinator thank all NTR users, at the various trauma and non-trauma centers in Nevada, for their patience and diligence in learning to accurately enter data into the NTR. Your dedication and efforts are recognized and valued.

As collaboration amongst the facilities and the Nevada Trauma Registry continues to grow, we are working toward compiling and maintaining a complete historical data record for the four trauma centers. Through ongoing partnerships to improve the amount and quality of information in the NTR, these data and subsequent reports become more valuable to the various NTR community stakeholders.

CITATIONS

American College of Surgeons. National Trauma Data Bank 2016 Annual Report. Available at: https://www.facs.org/~/media/files/quality%20programs/trauma/ntdb/ntdb%20annual%20report%202016.ashx

Nevada State Demographer's Office. 2003-2019 ASRHO Estimates and Projections. Division of Public and Behavioral Health edition. Vintage 2019. https://tax.nv.gov/Publications/Population_Statistics_and_Reports/

Nevada Revised Statutes. Treatment of Trauma. NRS 450B.105, 450B.236 – 450B.239. Available at: http://www.leg.state.nv.us/NRS/NRS-450B.html#NRS450BSec236

Nevada Administrative Code. Treatment of Trauma. Initial Procedures and Collection of Information. NRS 450B.760 – 450B.774. Available at: http://www.leg.state.nv.us/nac/NAC-450B.html#NAC450BSec760

Appendix A: DOUGLAS COUNTY RESULTS

Note: this appendix was created at the special request of Douglas County and represents the county's specific trauma analyses and includes any residents or incidences within.

DOUGLAS COUNTY: TRAUMA CASES BY FACILITY

Table 32: Trauma Cases by Facility (includes Nevada Residents and Non-Residents)

County	Facility	Unique Traumas Trauma Patients^		Total Trauma Cases*	
Clark County	Boulder City Hospital		0.0%		0.0%
	Centennial Hills Hospital		0.0%		0.0%
	Desert Springs Hospital Center		0.0%		0.0%
	Henderson Hospital	1	0.5%	1	0.4%
	Mesa View Regional Hospital		0.0%		0.0%
	Mountain View ER at Aliante		0.0%		0.0%
	Mountain View Hospital		0.0%		0.0%
	North Vista Hospital		0.0%		0.0%
	Southern Hills ER at the Lakes		0.0%		0.0%
	Southern Hills Hospital Medical Center		0.0%		0.0%
	Spring Valley Hospital Medical Center		0.0%		0.0%
	St. Rose Dominican Hospital Blue Diamond		0.0%		0.0%
	St. Rose Dominican Hospital De Lima Campus		0.0%		0.0%
	St. Rose Dominican Hospital North Las Vegas		0.0%		0.0%
	St. Rose Dominican Hospital San Martin Campus		0.0%		0.0%
	St. Rose Dominican Hospital Siena Campus		0.0%		0.0%
	St. Rose Dominican Hospital West Flamingo		0.0%		0.0%
	St. Rose Dominican Hospital West Sahara		0.0%		0.0%
	Summerlin Hospital Medical Center		0.0%		0.0%
	Sunrise Hospital Medical Center	1	0.5%	1	0.4%
	University Medical Center		0.0%		0.0%
	Valley Hospital Medical Center		0.0%		0.0%
Washoe County	Incline Village Community Hospital		0.0%		0.0%
	Northern Nevada Medical Center	3	1.5%	3	1.3%
	Renown Regional Medical Center	30	15.3%	67	28.6%
	Renown South Meadows Medical Center	2	1.0%	3	1.3%
	St. Mary's Regional Medical Center		0.0%		0.0%
All Other Counties	Banner Churchill Community Hospital		0.0%		0.0%
	Battle Mountain General Hospital		0.0%		0.0%
	Carson Tahoe Regional Medical Center	50	25.5%	50	21.4%
	Carson Valley Medical Center	109	55.6%	109	46.6%
	Desert View Hospital		0.0%		0.0%
	Grover C. Dils Medical Center		0.0%		0.0%
	Humboldt General Hospital		0.0%		0.0%
	Mt. Grant General Hospital		0.0%		0.0%
	Northeastern Nevada Regional Hospital		0.0%		0.0%
	Pershing General Hospital		0.0%		0.0%
	South Lyon Medical Center		0.0%		0.0%
	Williams Bee Ririe Hospital		0.0%		0.0%
Nevada (Total)		**196**	**100.0%**	**234**	**100.0%**

*^Unique Trauma Patients are calculated by matching transferred patient based on birth date, injury date, patient zip code, and discharge/arrival date and only counted once by the facility where they first presented with the trauma (excepted when mortality data is analyzed), which is represented as Unique Trauma throughout the report. *Total Trauma cases are all the cases reported to the Nevada Trauma Registry, for 2019.*

Table 33: Trauma Incidence and Mortality Proportion by Trauma Center Designation for Trauma Center Levels 1-4

Trauma Center designation	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Trauma Center level 1	0	0.0%	0	0.0%
Trauma Center level 2	68	100.0%	11	16.2%
Trauma Center Level 3	0	0.0%	0	0.0%
Trauma Center Level 4				
Total	68	100.0%	11	16.2%

DOUGLAS COUNTY: DEMOGRAPHICS

Table 34: Nevada Trauma Cases by Gender (Unique Traumas)

Gender	Count	Column Percent	Rate per 100,000 (95% CI)
Male	90	45.9%	5.9 (4.7-7.1)
Female	106	54.1%	7.0 (5.7-8.3)
Gender Not Reported	0	0.0%	-
Total	196	100%	6.5 (5.6-7.4)

Table 35: Nevada Trauma Cases by Race/Ethnicity (Unique Traumas)

Race/Ethnicity	Count	Column Percent	Rate per 100,000 (95% CI)
Caucasian	189	96.4%	12.2 (10.5-14.0)
Black	0	0.0%	. (.-.)
Alaskan Native	1	0.5%	2.8 (-2.7-8.4)
Asian	1	0.5%	0.3 (-0.3-1.0)
Hispanic	2	1.0%	0.2 (-0.1-0.5)
Other	1	0.5%	. (.-.)
Unknown	2	1.0%	. (.-.)
Total	196	100.0%	6.5 (5.6-7.4)

Figure 15: *Number and Percentage of Unique Trauma Cases by Race/Ethnicity (Unique Traumas)*

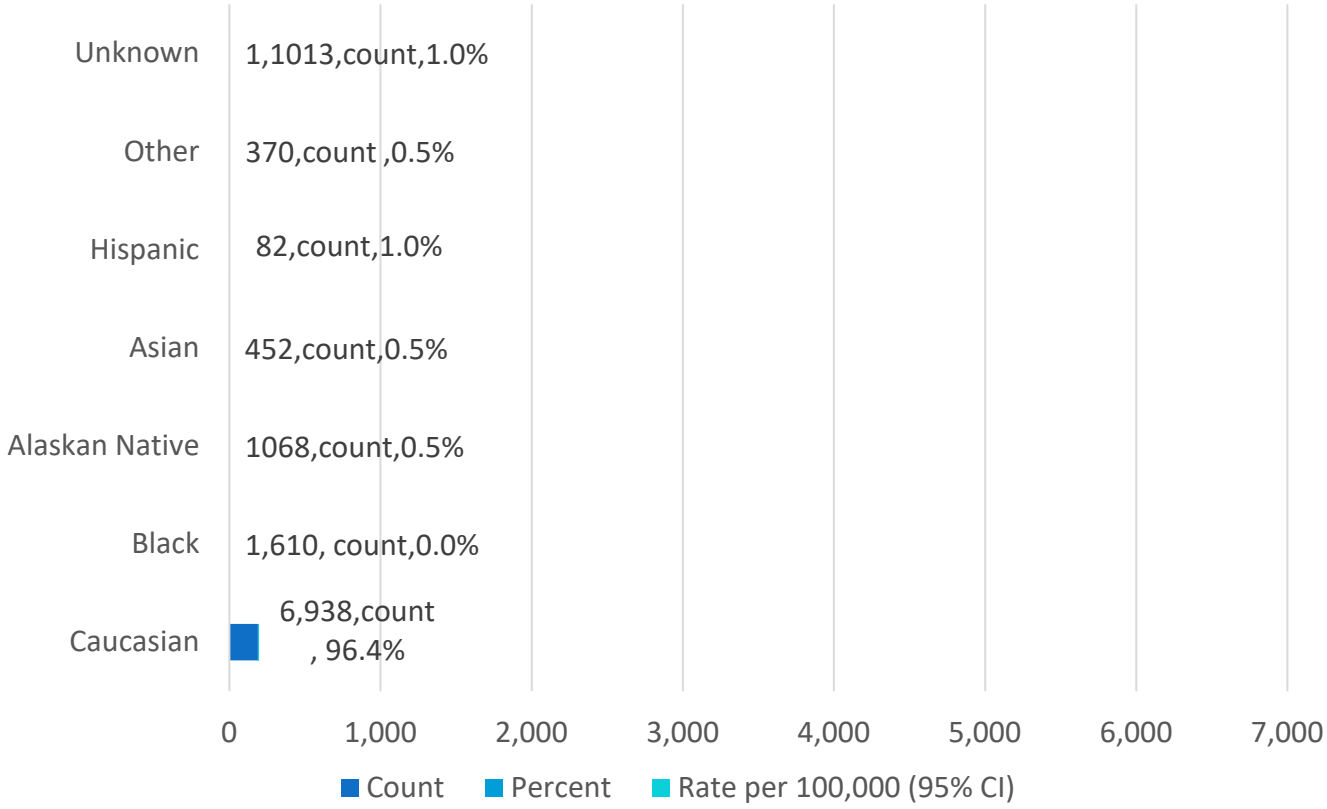


Table 36: Age-Specific Trauma Cases and Mortality Proportion (Unique Traumas)

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Total	195	100.0%	17	8.7%
<1	1	0.5%	0	0.0%
1-5	1	0.5%	0	0.0%
6-17	3	1.5%	0	0.0%
18-24	5	2.6%	0	0.0%
25-34	9	4.6%	0	0.0%
35-44	4	2.1%	1	25.0%
45-54	9	4.6%	0	0.0%
55-64	19	9.7%	1	5.3%
65-74	31	15.9%	1	3.2%
75-84	61	31.3%	9	14.8%
85+	52	26.7%	5	9.6%
Unknown	0	0.0%	0	0.0%

Table 37: Age and Gender-Specific Trauma Rate per 100,000 Nevada Residents (Unique Traumas)

Age Group	Male		Female		Total	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	4	1.1 (0.0-2.2)	1	0.3 (-0.3-0.8)	5	0.7 (0.1-1.3)
Adult 18-64	26	2.7 (1.7-3.8)	21	2.3 (1.3-3.2)	47	2.5 (1.8-3.2)
Geriatric >64	60	29.9 (22.3-37.5)	84	35.3 (27.7-42.8)	144	32.8 (27.5-38.2)
Total	90	5.9 (4.7-7.1)	106	7.0 (5.7-8.3)	196	6.5 (5.6-7.4)

Figure 16: *Age and Gender-Specific Trauma Rates per 100,000 Nevada Residents*

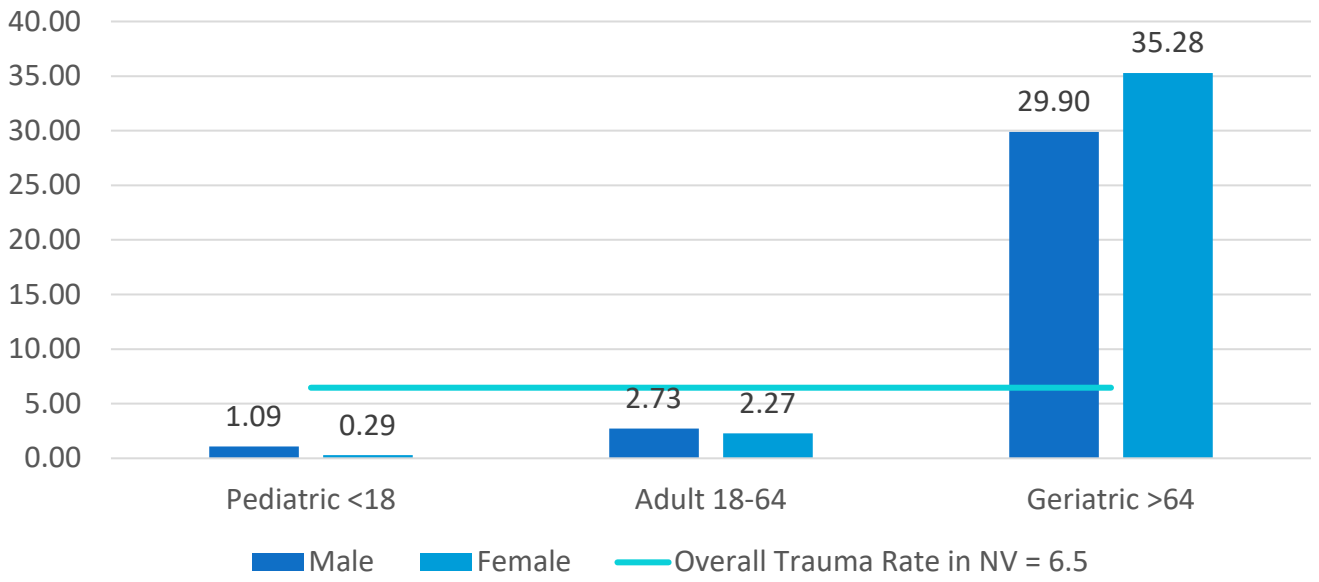


Table 38: Nevada Trauma Cases by County of Injury (Non-Duplicated)

County	Count	Rate per 100,000 (95% CI)
Carson City	5	8.9 (1.1-16.8)
Churchill	.	. (.-.)
Clark	1	0.0 (0.0-0.1)
Douglas	147	300.5 (251.9-349.1)
Elko	.	. (.-.)
Esmeralda	.	. (.-.)
Eureka	.	. (.-.)
Humboldt	.	. (.-.)
Lander	.	. (.-.)
Lincoln	.	. (.-.)
Lyon	1	1.8 (-1.7-5.3)
Mineral	.	. (.-.)
Nye	.	. (.-.)
Pershing	.	. (.-.)
Storey	.	. (.-.)
Washoe	3	0.7 (-0.1-1.4)
White Pine	.	. (.-.)
Out of State	5	-
Unknown	34	-

Figure 17: *County-Specific Trauma Rates per 100,000 County Residents*

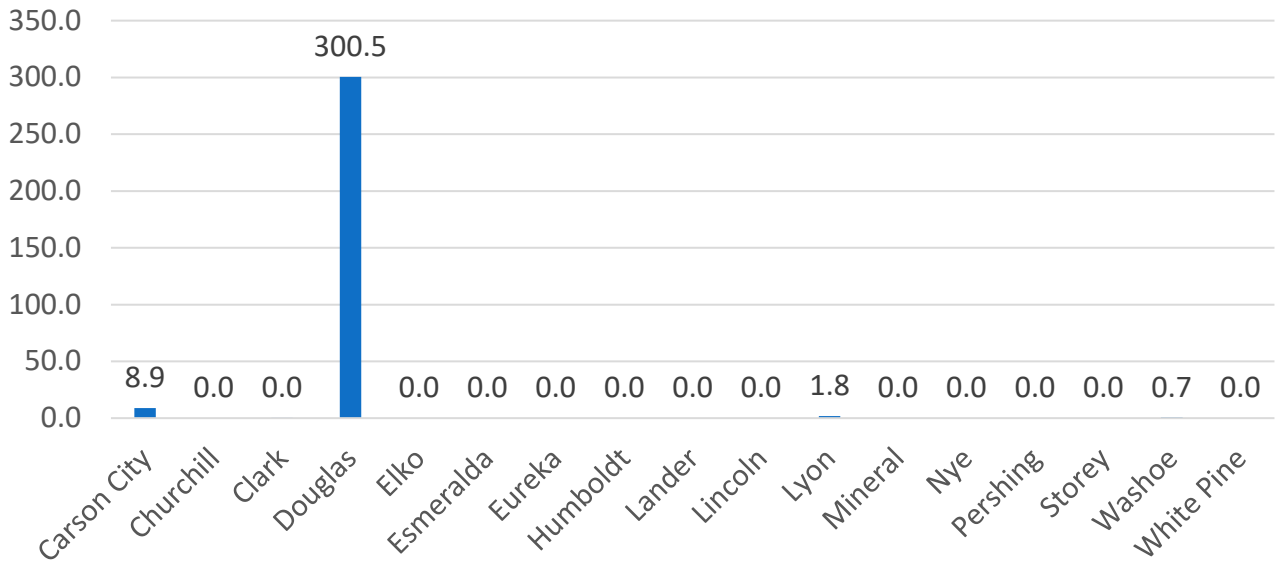


Table 39: Age-Specific Traumatic Brain Injury and Mortality Proportion (Unique Traumas)

Age Group	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Pediatric <18	2	5.3%	0	0.0%
Adult 18-64	9	23.7%	1	11.1%
Geriatric >64	27	71.1%	6	22.2%
Unknown	0	0.0%	0	0.0%
Total	38	100.0%	7	18.4%

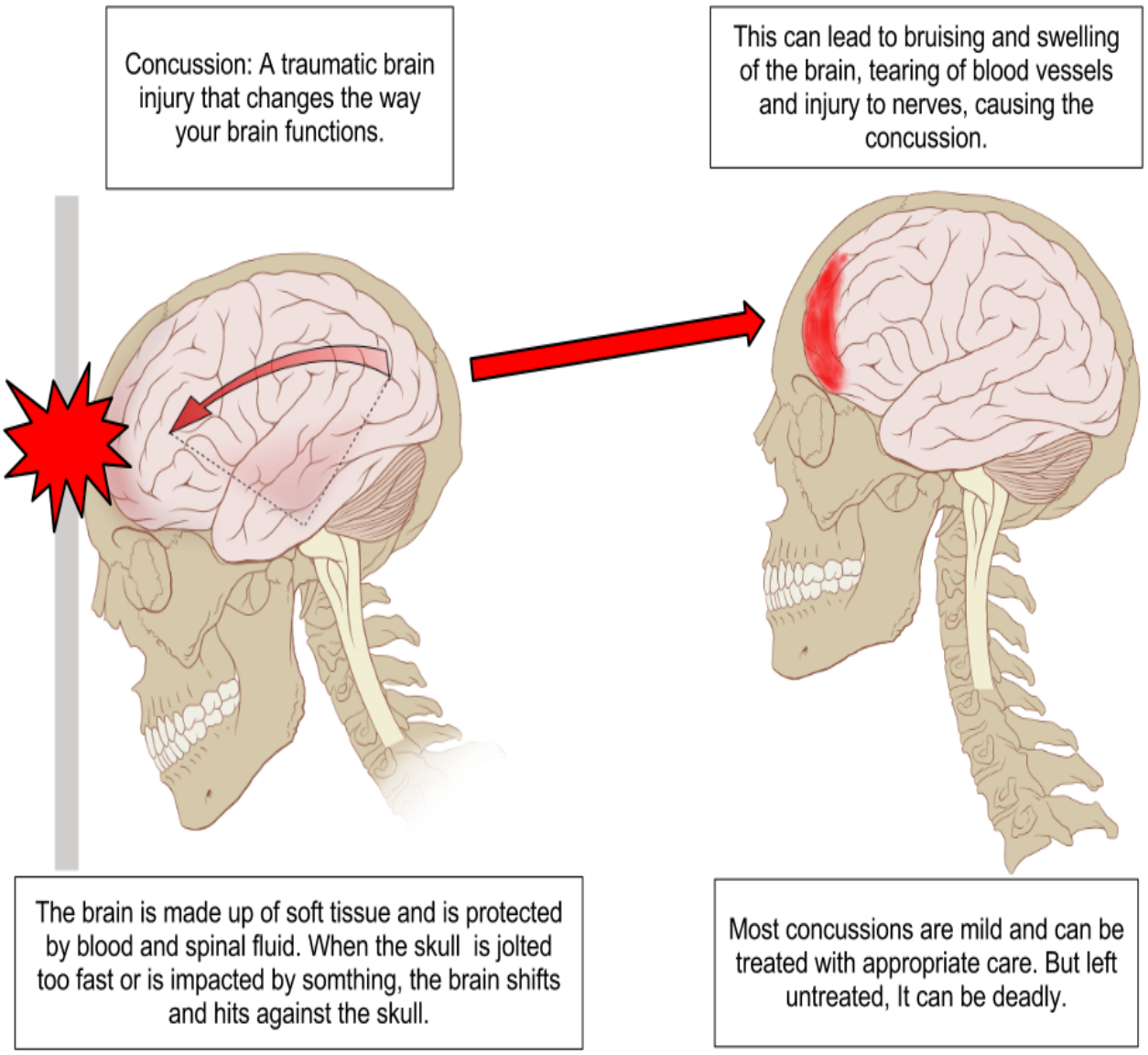


Table 40: Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)

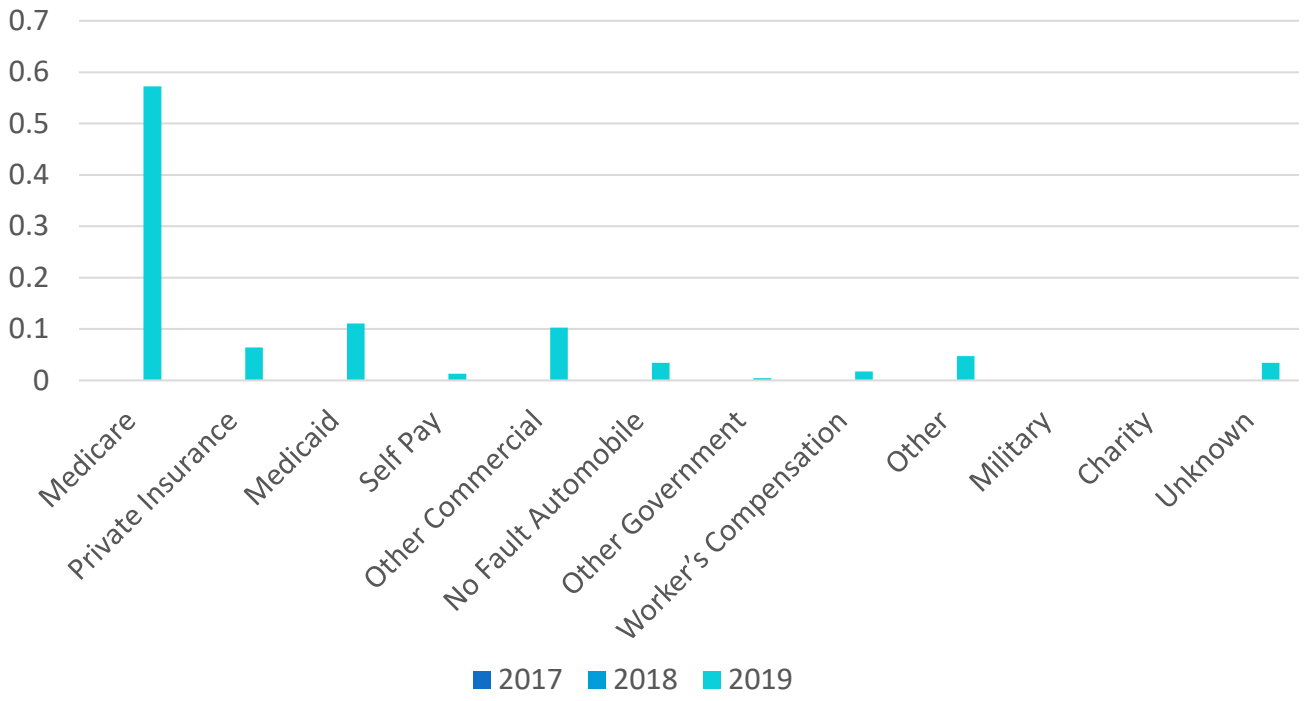
Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Total	38	100.0%	7	18.4%
<1	0	0.0%	0	0.0%
1-5	0	0.0%	0	0.0%
6-17	2	5.3%	0	0.0%
18-24	2	5.3%	0	0.0%
25-34	1	2.6%	0	0.0%
35-44	0	0.0%	0	0.0%
45-54	2	5.3%	0	0.0%
55-64	4	10.5%	1	25.0%
65-74	4	10.5%	0	0.0%
75-84	13	34.2%	4	30.8%
85+	10	26.3%	2	20.0%
Unknown	0	0.0%	0	0.0%

Table 41: Primary Payment Source Proportion for 2017, 2018, 2019*

Primary Source of Payment	2019
Medicare	57.3%
Private Insurance	6.4%
Medicaid	11.1%
Self-Pay	1.3%
Other Commercial	10.3%
No Fault Automobile	3.4%
Other Government	0.4%
Worker's Compensation	1.7%
Other	4.7%
Military	0.0%
Charity	0.0%
Unknown	3.4%

Note: 2019 was first year compared

Figure 18: *Primary Payment Source Proportion for 2019, All Trauma Cases*



DOUGLAS COUNTY: PLACE AND MECHANISM OF INJURY

Table 42: Trauma Incidence by Place of Injury (Unique Traumas)

Place of Injury	Trauma Count	Column Percent
Residential	121	62%
Street	24	12%
Trade and Service Area	6	3%
Recreation area	7	4%
Sports Area	1	1%
Wilderness	2	1%
Other Specified	1	1%
School or Public Area	0	0%
Industrial and Construction	0	0%
Farm	2	1%
Transport Vehicle as Place	1	1%
Military Training Ground	0	0%
Railroad Track	0	0%
Slaughterhouse	0	0%
Unknown/Unspecified	31	16%
Total	196	100%

Table 43: Trauma Incidence and Mortality Proportion by Mechanism of Injury (Unique Traumas)

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	148	75.9%	11	7.4%
Motor Vehicle Traffic	14	7.2%	4	28.6%
Struck by/Against	7	3.6%	0	0.0%
Firearm	2	1.0%	1	50.0%
Cut/Pierce	1	0.5%	0	0.0%
Motor Vehicle Non-Traffic	3	1.5%	1	33.3%
Other Transport (Land, Sea, Sky)	2	1.0%	0	0.0%
Other Specified	3	1.5%	0	0.0%
Pedal Cyclist, Other	6	3.1%	0	0.0%
Natural/Environmental	3	1.5%	0	0.0%
Pedestrian, Other	0	0.0%	0	0.0%
Unspecified	0	0.0%	0	0.0%
Fire/Burn	0	0.0%	0	0.0%
Unknown	3	1.5%	0	0.0%
Machinery	1	0.5%	0	0.0%
Overexertion	0	0.0%	0	0.0%
Drowning	0	0.0%	0	0.0%
Suffocation	2	1.0%	0	0.0%
Total	195	100.0%	17	8.7%

Note: when a table lists Mortality Proportion and 195 in Unique Traumas, the table is based upon last facility that the patient received treatment from.

Table 44: Trauma Rates for Top Three Mechanisms of Injury by Age (Unique Traumas)

Age Group	Falls		Struck by/Against		Motor Vehicle Traffic	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	2	0.3 (-0.1-0.7)	0	0.0 (0.0-0.0)	0	0.0 (0.0-0.0)
Adult 18-64	17	0.9 (0.5-1.3)	2	0.1 (0.0-0.3)	8	0.4 (0.1-0.7)
Geriatric >64	128	29.2 (24.1-34.2)	2	0.5 (-0.2-1.1)	6	1.4 (0.3-2.5)
Total	147	4.8 (4.1-5.6)	4	0.1 (0.0-0.3)	14	0.5 (0.2-0.7)

Figure 19: *Top Five Mechanisms of Unintentional Trauma (n=184)*

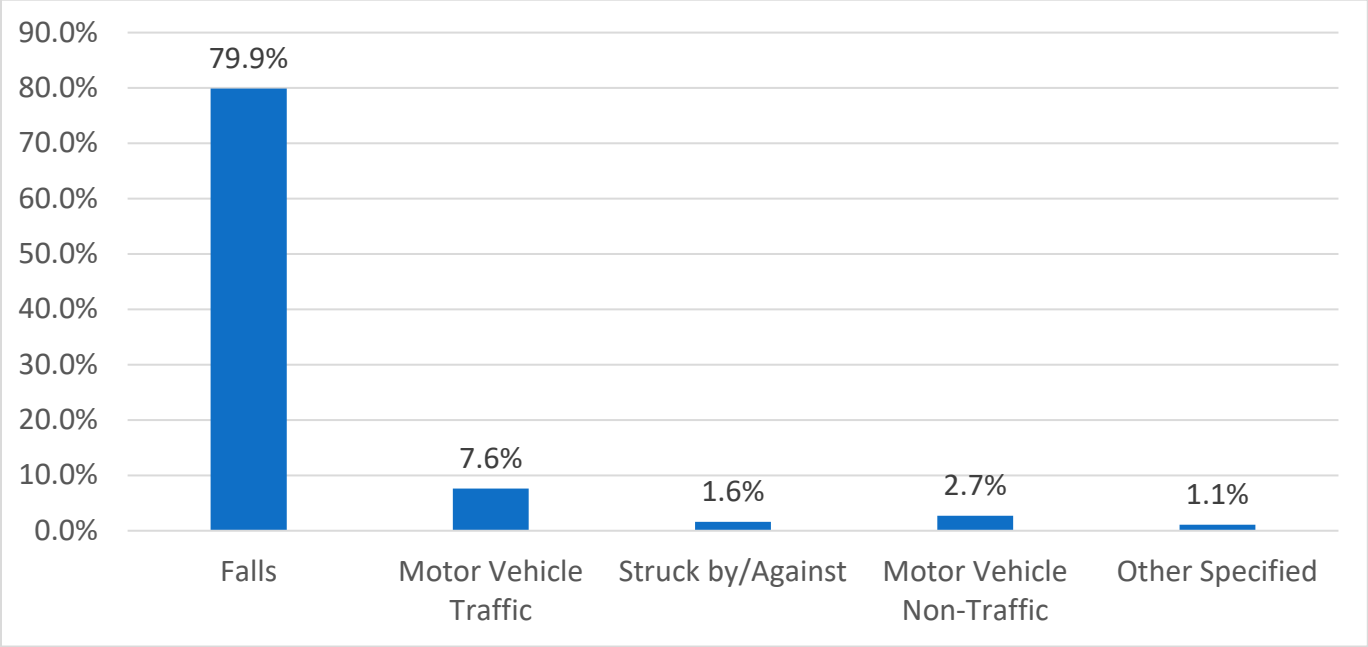


Figure 20: *Top Five Mechanisms of Homicide/Assault Related Trauma (n=3)*

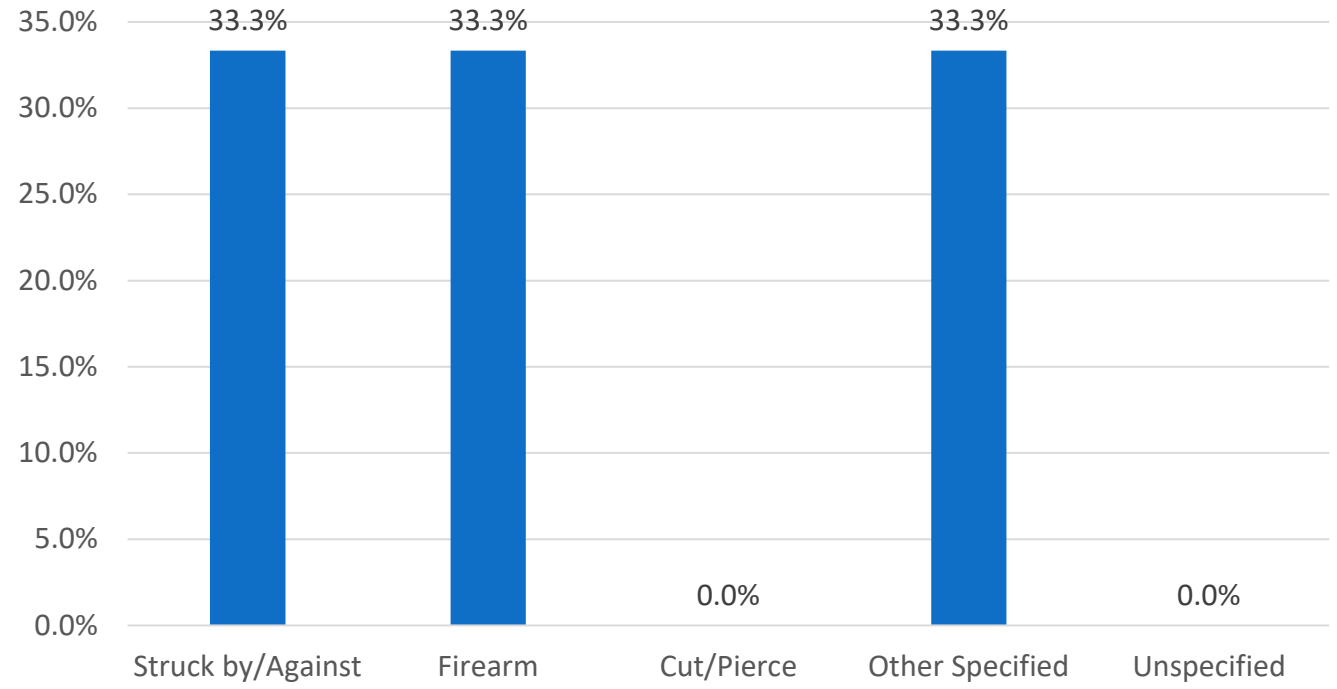


Figure 21: *Top Five Mechanisms of Suicide/Self-Inflicted Trauma (n=2)*

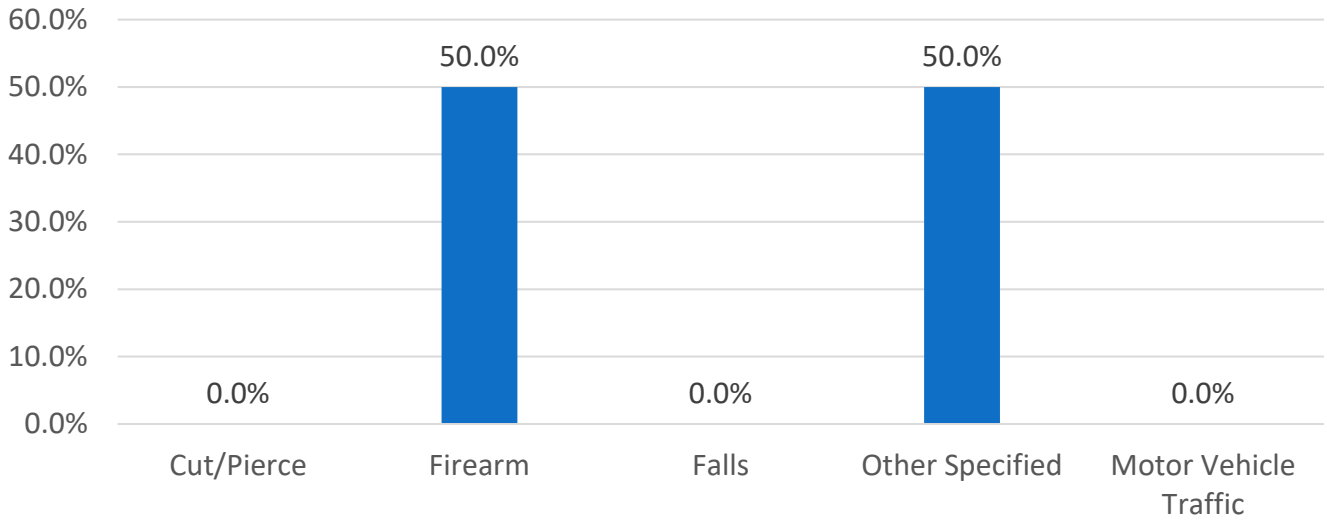
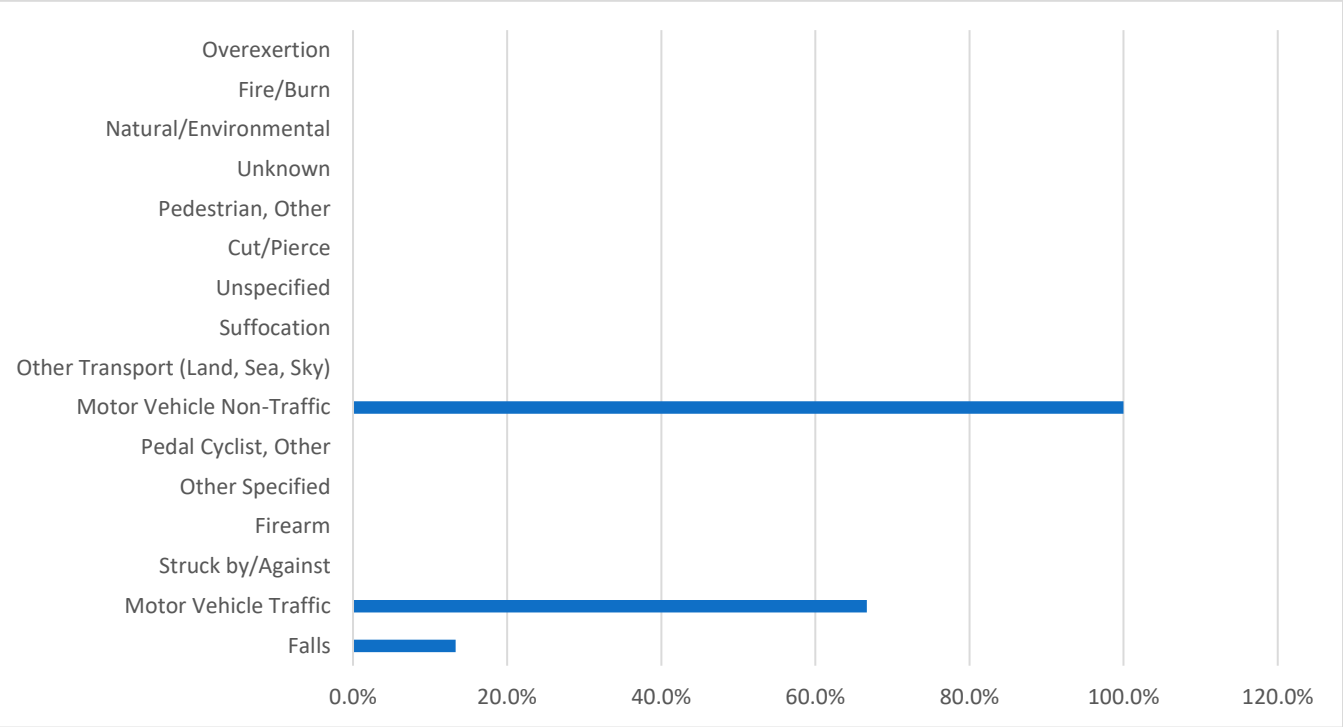


Table 45: Traumatic Brain Injury Incidence and Mortality Proportion by Mechanism of Injury

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	30	78.9%	4	13.3%
Motor Vehicle Traffic	3	7.9%	2	66.7%
Struck by/Against	0	0.0%	0	0.0%
Firearm	0	0.0%	0	0.0%
Other Specified	1	2.6%	0	0.0%
Pedal Cyclist, Other	2	5.3%	0	0.0%
Motor Vehicle Non-Traffic	1	2.6%	1	100.0%
Other Transport (Land, Sea, Sky)	0	0.0%	0	0.0%
Suffocation	0	0.0%	0	0.0%
Unspecified	0	0.0%	0	0.0%
Cut/Pierce	0	0.0%	0	0.0%
Pedestrian, Other	0	0.0%	0	0.0%
Unknown	0	0.0%	0	0.0%
Natural/Environmental	1	2.6%	0	0.0%
Fire/Burn	0	0.0%	0	0.0%
Overexertion	0	0.0%	0	0.0%
Total	38	100.0%	7	18.4%

Figure 22: *Mortality Proportion of Traumatic Brain Injury Incidence by Mechanism of Injury (Unique Traumas)*



DOUGLAS COUNTY: INJURY CHARACTERISTICS: INJURY SEVERITY SCORE (ISS)

Table 46: Trauma Incidence and Mortality Proportion by Injury Severity Score (ISS) (Unique Traumas)

Injury Severity Score	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	82	0.7%	4	4.9%
Moderate, 9-15	93	0.8%	5	5.4%
Serious, 16-24	7	0.1%	2	28.6%
Severe, 25-75	13	0.1%	6	46.2%
Missing/NA/ND	0	0.0%	0	N/A

Figure 23: *Trauma Mortality Proportion by Injury Severity Score*

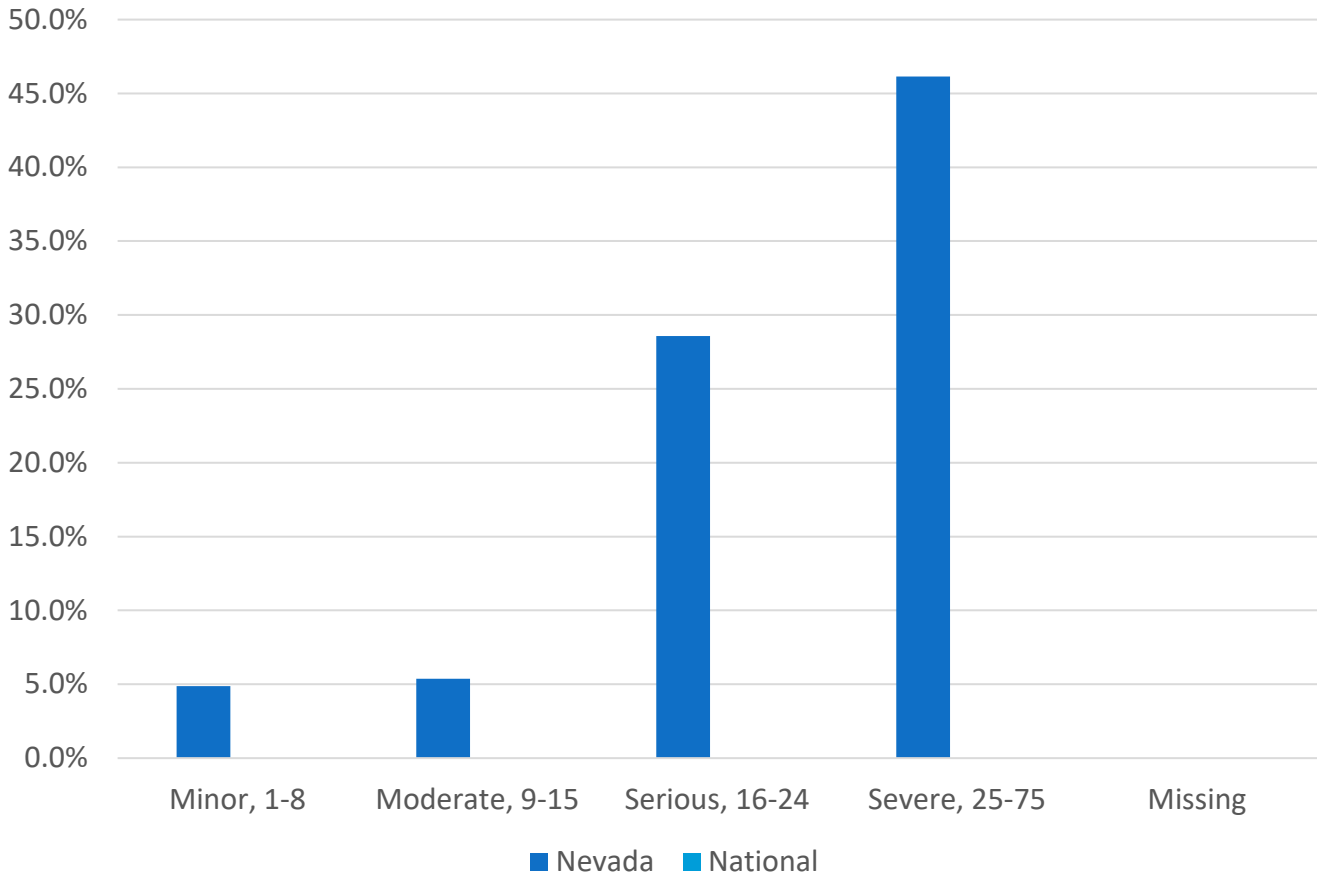


Table 47: Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas) by Injury Severity

Injury Severity Score	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	13	34.2%	0	0.0%
Moderate, 9-15	14	36.8%	2	14.3%
Serious, 16-24	2	5.3%	0	0.0%
Severe, 25-75	9	23.7%	5	55.6%
Unknown	0	0.0%	0	0.0%
Total	38	100.0%	7	18.4%

Table 48: Injury to ED Arrival Time for Patient with an ISS Score >15 by Injury Location: Rural, Urban, Statewide

County	<1 hour	1-3 hours	3-6 hours	6-9 hours	9-12 hours	>12 hours
Carson City	0	0	0	0	0	0
Churchill	0	0	0	0	0	0
Clark	0	0	0	0	0	0
Douglas	5	4	0	1	0	0
Elko	0	0	0	0	0	0
Esmeralda	0	0	0	0	0	0
Eureka	0	0	0	0	0	0
Humboldt	0	0	0	0	0	0
Lander	0	0	0	0	0	0
Lincoln	0	0	0	0	0	0
Lyon	0	0	0	0	0	0
Mineral	0	0	0	0	0	0
Nye	0	0	0	0	0	0
Pershing	0	0	0	0	0	0
Storey	0	0	0	0	0	0
Unknown	1	0	0	0	0	0
Washoe	1	0	1	0	0	0
White Pine	0	0	0	0	0	0
Out of State	0	0	1	0	0	0
Total	7	4	2	1	0	0

DOUGLAS COUNTY: PATIENT TRANSPORTATION

Mode of Arrival	Injury Severity Score Range				
	Minor 1-8	Moderate 9-15	Serious 16-24	Severe 25-75	Missing/NA ISS Scores
Ground Ambulance	3,470	3,077	587	481	13
Private Vehicle or Walk-in	1,835	836	120	40	6
Helicopter Ambulance	188	241	145	125	0
Fixed-Wing Ambulance	14	19	12	3	0
Unknown	2	1	0	0	0
Police	28	4	0	0	0
Other	2	4	1	0	0
Public Safety	1	0	0	0	0
	0	0	1	0	0
Total	5,540	4,182	866	649	19

Table 49: Trauma Incidence by Mode of Arrival (Unique Traumas)

Mode of Arrival	Trauma Count	Column Percent
Ground Ambulance	129	66%
Private Vehicle or Walk-in	54	28%
Helicopter Ambulance	13	7%
Fixed-Wing Ambulance	0	0%
Unknown	0	0%
Police	0	0%
Other	0	0%
Public Safety	0	0%
Total	196	100%

Table 50: Mode of Transport by ISS (Unique Traumas)

Mode of Arrival	Injury Severity Score Range				
	Minor 1-8	Moderate 9-15	Serious 16-24	Severe 25-75	Missing/NA ISS Scores
Ground Ambulance	51	72	3	3	0
Private Vehicle or Walk-in	36	18	0	0	0
Helicopter Ambulance	2	3	1	7	0
Fixed-Wing Ambulance	0	0	0	0	0
Unknown	0	0	0	0	0
Police	0	0	0	0	0
Other	0	0	0	0	0
Public Safety	0	0	0	0	0
Total	89	93	4	10	0

DOUGLAS COUNTY: PATIENT DISCHARGE AND TRANSFER

Table 51: Patient Transfer to Nevada Trauma Centers by ISS

Facility Patient Transferred To	Injury Severity Score Range			
	Trauma Cases	Mean ISS	Standard Deviation	ISS Range
Renown Regional Medical Center	53	7.3	4.5	1 - 26
St. Rose Dominican Hospital Siena Campus	0	0.0	0.0	0 - 0
Sunrise Hospital Medical Center	0	0.0	0.0	0 - 0
University Medical Center	0	0.0	0.0	0 - 0

"Patient transfer Transferred To" is determined by the question, "Was Patient Transferred to Facility" and not through the matching process with Unique Traumas.

DOUGLAS COUNTY: RISK FACTORS: DRUG/ALCOHOL USE

Table 52: Injury Intent and Drug/Alcohol Use (Unique Traumas)

Injury Intent	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Unintentional	184	17	9%
Suicide	2	1	50%
Homicide/Assault	3	0	0%
Legal Intervention	0	0	N/A
Undetermined (accidental/intentional)	2	0	0%
Missing	5	3	60%
Unknown	0	0	N/A
Total	196	21	11%

DOUGLAS COUNTY: SAFETY EQUIPMENT

Figure 24: *Proportion of Helmet Use Among Pedal Cyclists, Motor Cyclists, and Off-Road Users (Unique Traumas)*

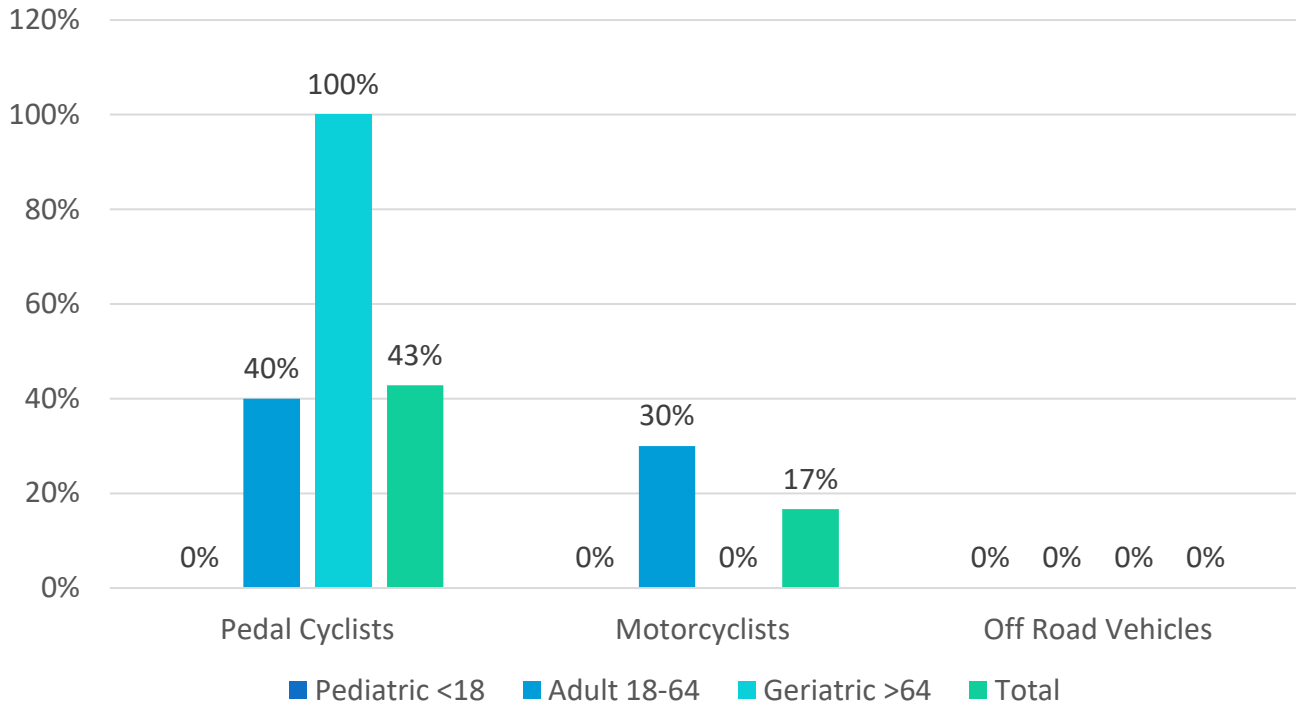


Table 53: Age-Specific Proportion of Restraint Use Among Motor-Vehicle Traffic

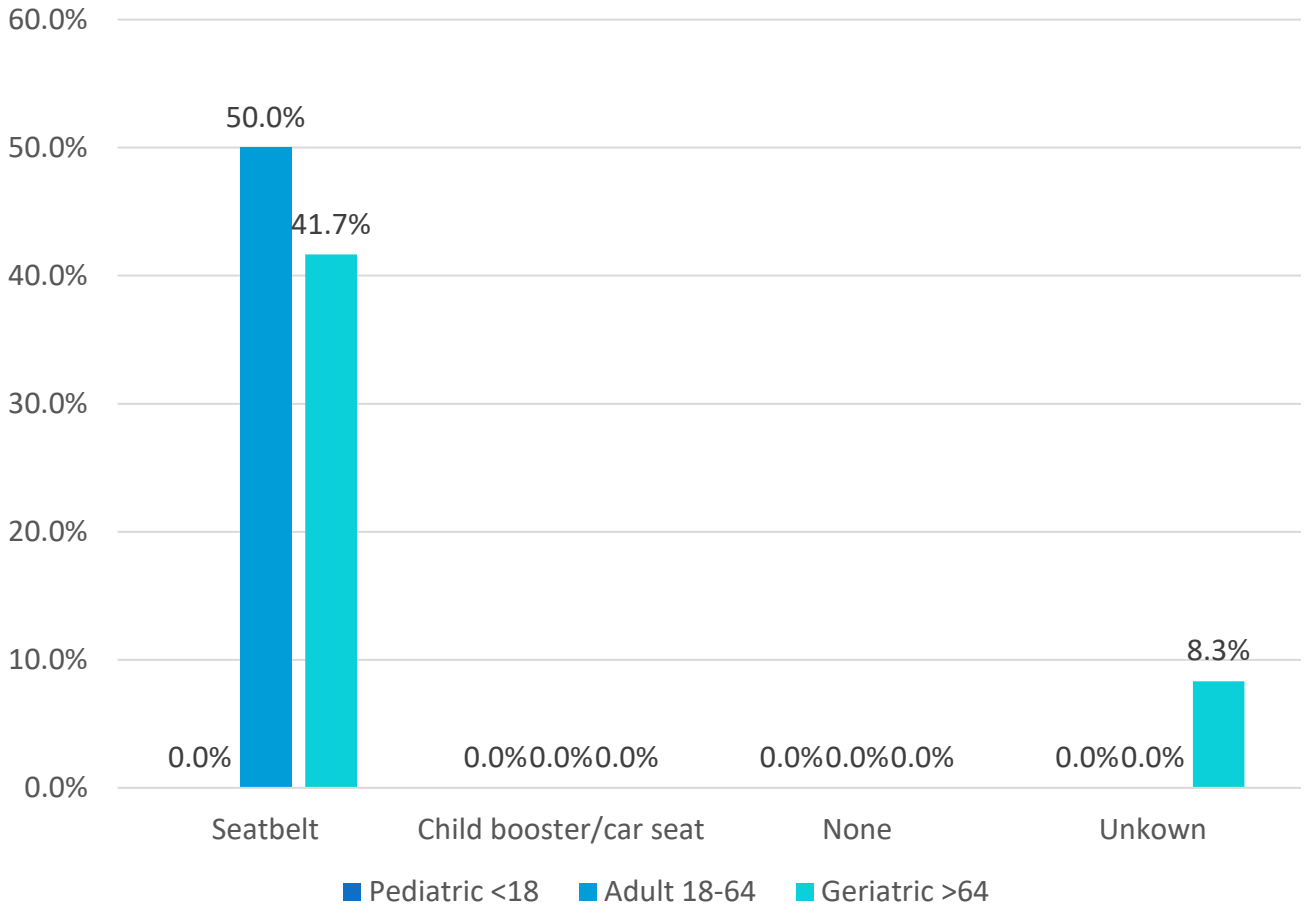
Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total (column percent)
Seatbelt	0.0%	50.0%	41.7%	91.7%
Child booster/car seat	0.0%	0.0%	0.0%	0.0%
None	0.0%	0.0%	0.0%	0.0%
Unknown	0.0%	0.0%	8.3%	8.3%
Total	0.0%	50.0%	50.0%	100.0%

1. Among Motor vehicle occupants: 0% are <18, 50% are 18-64 and 50% are >64years.

2. Among Motor vehicle occupants 91.7% used seatbelt, 8.3% of motor vehicle occupants have unknown restraint information.

3. Among all motor vehicle traffic occupants 50% used seatbelt and are between 18 - 24 years and 41.7% are >64years etc.

Figure 25: *Age-Specific Proportion of Restraint Use Among Motor Vehicle Traffic Occupants*



DOUGLAS COUNTY: FALLS – BY LAST TRANSFER FACILITY

Table 54: Trauma Rate for Falls by Gender (Unique Traumas)

Gender	n	Rate per 100,000 (95% CI)
Female	89	5.9 (4.7-7.1)
Male	62	4.1 (3.1-5.1)
Unknown	0	-
Total	151	5.0 (4.2-5.8)

Table 55: Incidence and Mortality Proportion by Type of Fall (Unique Traumas)

Type of Falls	Count	Percent of Falls (Column Percent)	Deaths	Mortality Proportion (Row Percent)
Same Level (Slipping, Tripping, Stumbling)	111	73.5%	8	7.2%
Unspecified	10	6.6%	1	10.0%
From Furniture	7	4.6%	0	0.0%
Steps	5	3.3%	2	40.0%
Multi-Level: Cliff, Tree, Water, Etc.	5	3.3%	0	0.0%
On or From Ladder/Scaffolding	2	1.3%	0	0.0%
Pedestrian Conveyance Accident	5	3.3%	0	0.0%
Out of Building or Structure	1	0.7%	0	0.0%
Fall Due to Environmental Factors	5	3.3%	0	0.0%
Collision, Push or Shove By, or Another Person	0	0.0%	0	0.0%
Playground Equipment	0	0.0%	0	0.0%
Suicide Related	0	0.0%	0	0.0%
Undetermined Fall from High Place	0	0.0%	0	0.0%
Assault Related	0	0.0%	0	0.0%
Total	151	100.0%	11	7.3%

Table 56: Trauma Rate by Age and Type of Fall (Unique Traumas)

Age Group	Type of Fall					
	Unspecified		From Same Level (tripping, slipping, stumbling)		From Furniture (bed, chair, etc.)	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	1	1.0 (0.2-1.0)	0	0.0 (0.0-0.0)	0	0.0 (0.0-0.0)
Adult 18-64	1	0.1 (0.0-0.2)	10	0.5 (0.2-0.9)	0	0.0 (0.0-0.0)
Geriatric >64	8	1.8 (0.6-3.1)	101	23.0 (18.5-27.5)	7	1.6 (0.4-2.8)
Unknown			.			
Total	10	0.3 (0.1-0.5)	111	3.7 (3.0-4.3)	7	0.2 (0.1-0.4)

APPENDIX B: WASHOE COUNTY RESULTS

Note: this appendix was created at the special request of Washoe County and represents the county's specific trauma analyses and includes any residents or incidences within.

WASHOE COUNTY: TRAUMA CASES BY FACILITY

Table 57: Trauma Cases by Facility (includes Nevada Residents and Non-Residents)

County	Facility	Unique Traumas Trauma Patients^		Total Trauma Cases*	
Clark County	Boulder City Hospital		0.0%		0.0%
	Centennial Hills Hospital		0.0%		0.0%
	Desert Springs Hospital Center		0.0%		0.0%
	Henderson ER at Green Valley Ranch		0.0%		0.0%
	Henderson Hospital		0.0%		0.0%
	Mesa View Regional Hospital		0.0%		0.0%
	Mountain View ER at Aliante		0.0%		0.0%
	Mountain View Hospital		0.0%		0.0%
	North Vista Hospital	1	0.1%	1	0.1%
	Southern Hills ER at the Lakes		0.0%		0.0%
	Southern Hills Hospital Medical Center		0.0%		0.0%
	Spring Valley ER at Blue Diamond		0.0%		0.0%
	Spring Valley Hospital Medical Center	2	0.3%	2	0.2%
	St. Rose Dominican Hospital Blue Diamond		0.0%		0.0%
	St. Rose Dominican Hospital De Lima Campus		0.0%		0.0%
	St. Rose Dominican Hospital North Las Vegas		0.0%		0.0%
	St. Rose Dominican Hospital San Martin Campus		0.0%		0.0%
	St. Rose Dominican Hospital Siena Campus	1	0.1%	1	0.1%
	St. Rose Dominican Hospital West Flamingo		0.0%		0.0%
	St. Rose Dominican Hospital West Sahara		0.0%		0.0%
	Summerlin Hospital Medical Center		0.0%		0.0%
	Sunrise Hospital Medical Center	1	0.1%	1	0.1%
	University Medical Center	5	0.7%	7	0.8%
	Valley Hospital Medical Center		0.0%		0.0%
Washoe County	Incline Village Community Hospital		0.0%		0.0%
	Northern Nevada Medical Center	119	15.5%	120	14.4%
	Renown Regional Medical Center	248	32.2%	308	37.0%
	Renown South Meadows Medical Center	178	23.1%	178	21.4%
	St. Mary's Regional Medical Center	195	25.4%	195	23.4%
All Other Counties	Banner Churchill Community Hospital	1	0.1%	1	0.1%
	Battle Mountain General Hospital		0.0%		0.0%
	Carson Tahoe Regional Medical Center	10	1.3%	10	1.2%
	Carson Valley Medical Center	2	0.3%	2	0.2%
	Desert View Hospital		0.0%		0.0%
	Grover C. Dils Medical Center		0.0%		0.0%
	Humboldt General Hospital	2	0.3%	2	0.2%
	Mt. Grant General Hospital		0.0%		0.0%
	Northeastern Nevada Regional Hospital	1	0.1%	1	0.1%
	Pershing General Hospital	1	0.1%	1	0.1%
	South Lyon Medical Center	1	0.1%	1	0.1%
	Williams Bee Ririe Hospital	1	0.1%	1	0.1%
Nevada (Total)		**769**	**100.0%**	**832**	**100.0%**

Table 58: Trauma Incidence and Mortality Proportion by Trauma Center Designation for Trauma Center Levels 1-4

Trauma Center designation	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Trauma Center level 1	309	97.5%	45	14.6%
Trauma Center level 2	7	2.2%	1	14.3%
Trauma Center Level 3	1	0.3%	0	0.0%
Trauma Center Level 4				
Total	317	100.0%	46	14.5%

WASHOE COUNTY: DEMOGRAPHICS

Table 59: Nevada Trauma Cases by Gender (Unique Traumas)

Gender	Count	Column Percent	Rate per 100,000 (95% CI)
Male	393	51.1%	25.9 (23.3-28.4)
Female	375	48.8%	24.8 (22.3-27.3)
Gender Not Reported	1	0.1%	-
Total	769	100%	25.4 (23.6-27.2)

Table 60: Trauma Cases by Race/Ethnicity (Unique Traumas)

Race/Ethnicity	Count	Column Percent	Rate per 100,000 (95% CI)
Caucasian	630	81.9%	40.7 (37.5-43.9)
Black	18	2.3%	6.8 (3.6-9.9)
American Indian, Alaskan Native	12	1.6%	34.2 (14.8-53.5)
Asian	18	2.3%	6.2 (3.3-9.0)
Hispanic	70	9.1%	7.8 (6.0-9.7)
Other	14	1.8%	. (.-.)
Unknown	7	0.9%	. (.-.)
Total	769	100.0%	25.4 (23.6-27.2)

Figure 26: *Number and percentage of Unique Trauma Cases by Race/Ethnicity*

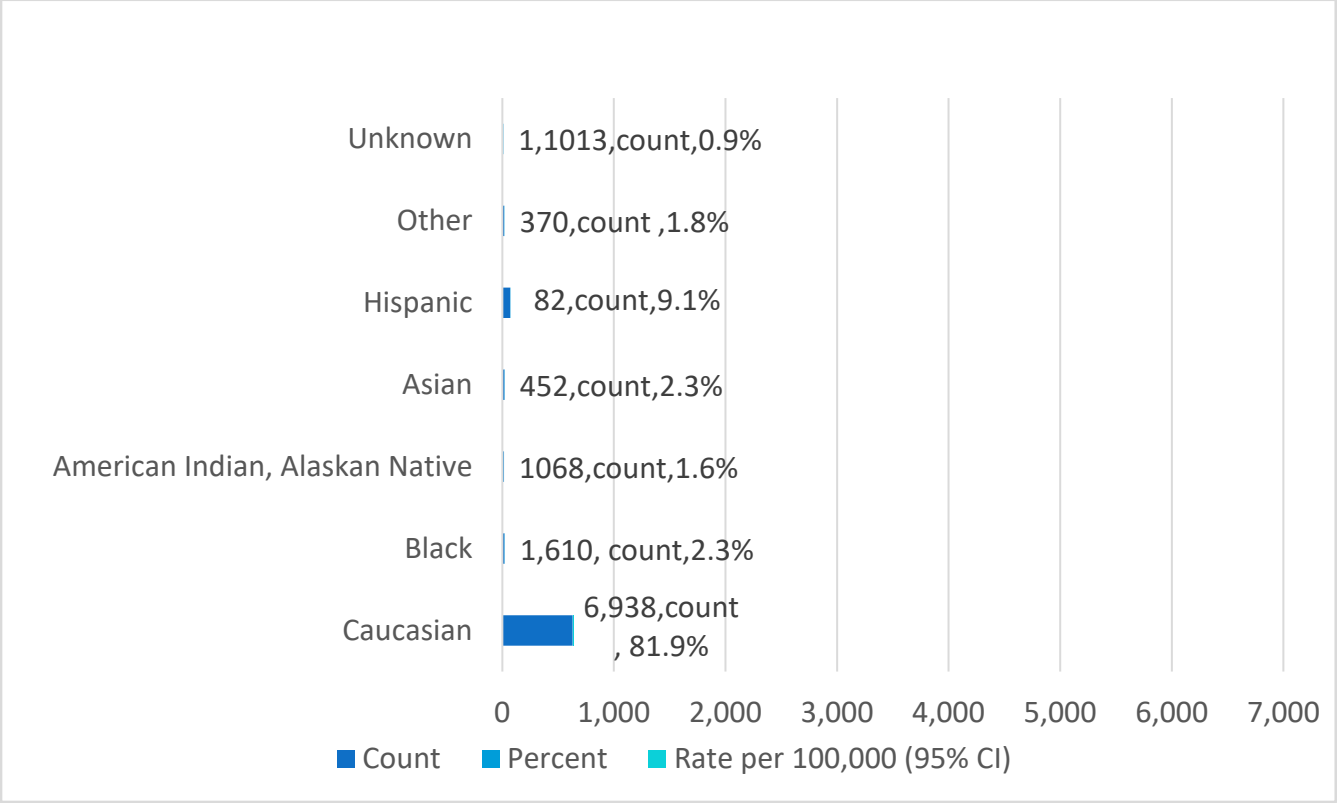


Table 61: Age-Specific Trauma Cases and Mortality Proportion (Unique Traumas)

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Total	770	100.0%	56	7.3%
<1	1	0.1%	0	0.0%
1-5	7	0.9%	1	14.3%
6-17	34	4.4%	4	11.8%
18-24	44	5.7%	5	11.4%
25-34	57	7.4%	4	7.0%
35-44	51	6.6%	8	15.7%
45-54	55	7.1%	6	10.9%
55-64	86	11.2%	5	5.8%
65-74	127	16.5%	4	3.1%
75-84	161	20.9%	7	4.3%
85+	147	19.1%	12	8.2%
Unknown	0	0.0%	0	0.0%

Table 62: Age and Gender-Specific Trauma Rates per 100,000 Nevada Residents (Unique Traumas)

Age Group	Male		Female		Total	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	31	8.4 (5.5-11.4)	11	3.1 (1.3-5.0)	42	5.9 (4.1-7.6)
Adult 18-64	191	20.1 (17.2-22.9)	100	10.8 (8.7-12.9)	291	15.5 (13.7-17.3)
Geriatric >64	171	85.2 (72.4-98.0)	264	110.9 (97.5-124.3)	436	99.4 (90.0-108.7)
Total	393	25.9 (23.3-28.4)	375	24.8 (22.3-27.3)	769	25.4 (23.6-27.2)

Figure 27: *Age and Gender-Specific Trauma Rates per 100,000 Nevada Residents*

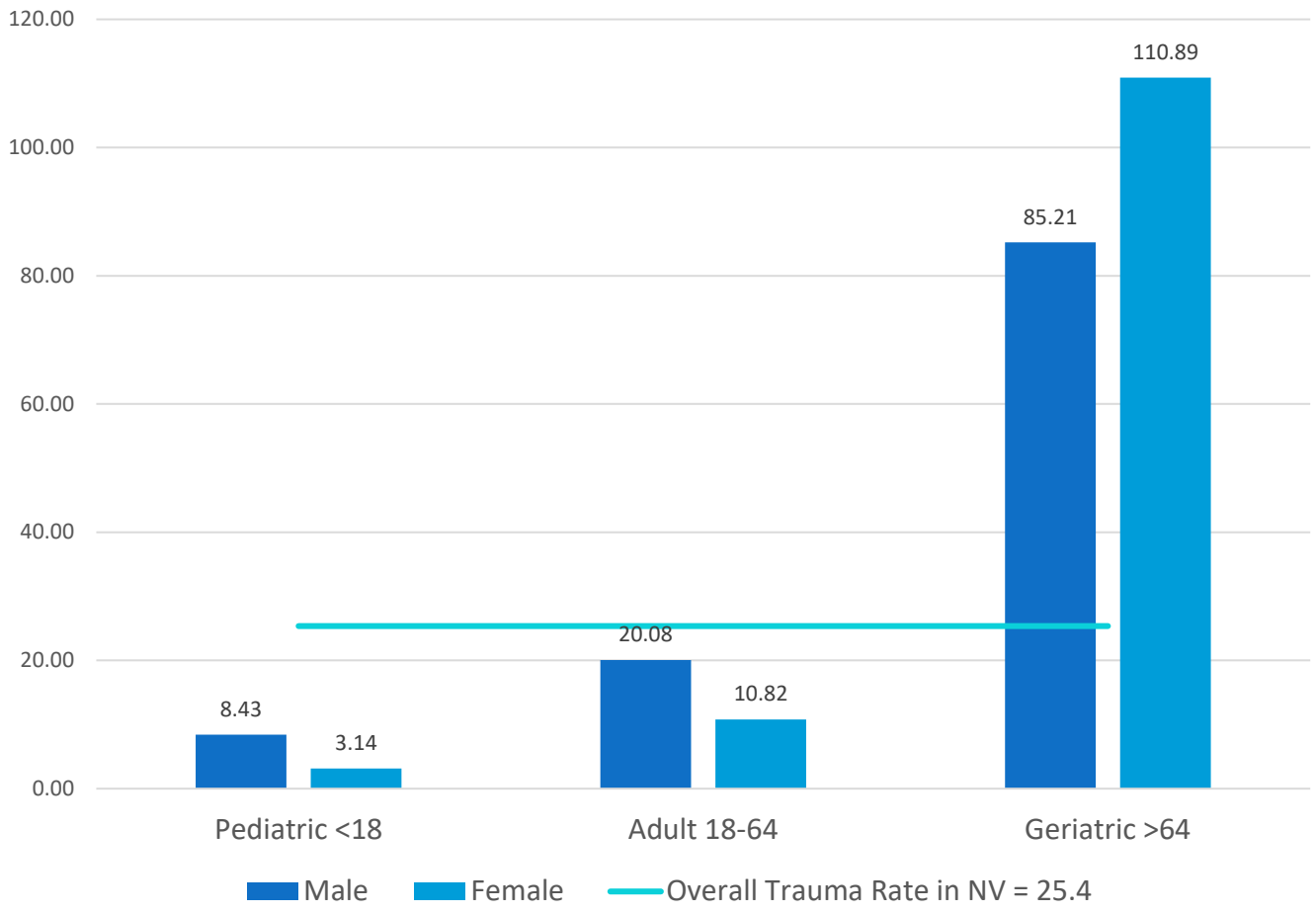


Table 63: County-Specific Trauma Rates per 100,00 County Residents (Unique Traumas)

County	Count	Rate per 100,000 (95% CI)
Carson City	5	8.9 (1.1-16.8)
Churchill	1	3.9 (-3.7-11.5)
Clark	6	0.3 (0.1-0.5)
Douglas	.	. (.-.)
Elko	1	1.9 (-1.8-5.5)
Esmeralda	.	. (.-.)
Eureka	.	. (.-.)
Humboldt	2	11.8 (-4.6-28.2)
Lander	.	. (.-.)
Lincoln	.	. (.-.)
Lyon	5	9.0 (1.1-16.9)
Mineral	.	. (.-.)
Nye	3	006.4 (-000.8-0,013.6)
Pershing	2	30.1 (-11.6-71.7)
Storey	1	24.2 (0.0-71.7)
Washoe	659	144.5 (133.5-155.5)
White Pine	1	9.3 (-8.9-27.5)
Out of State	15	25.4 (23.6-27.2)
Unknown	68	0.0 (0.0-0.0)

Figure 28: *County-Specific Trauma Rates per 100,000 County Residents*

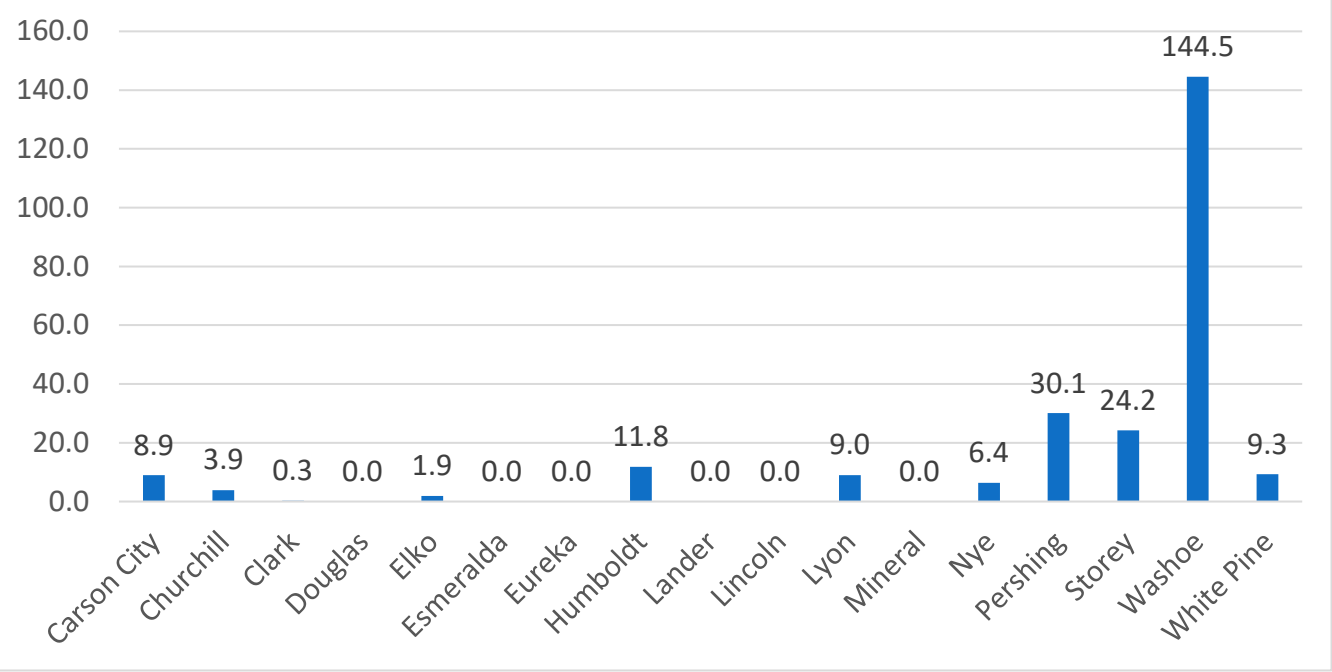


Table 64: Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)

Age Group	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Pediatric <18	15	11.3%	4	26.7%
Adult 18-64	55	41.4%	18	32.7%
Geriatric >64	63	47.4%	13	20.6%
Unknown	0	0.0%	0	0.0%
Total	133	100.0%	35	26.3%

Table 65: Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)

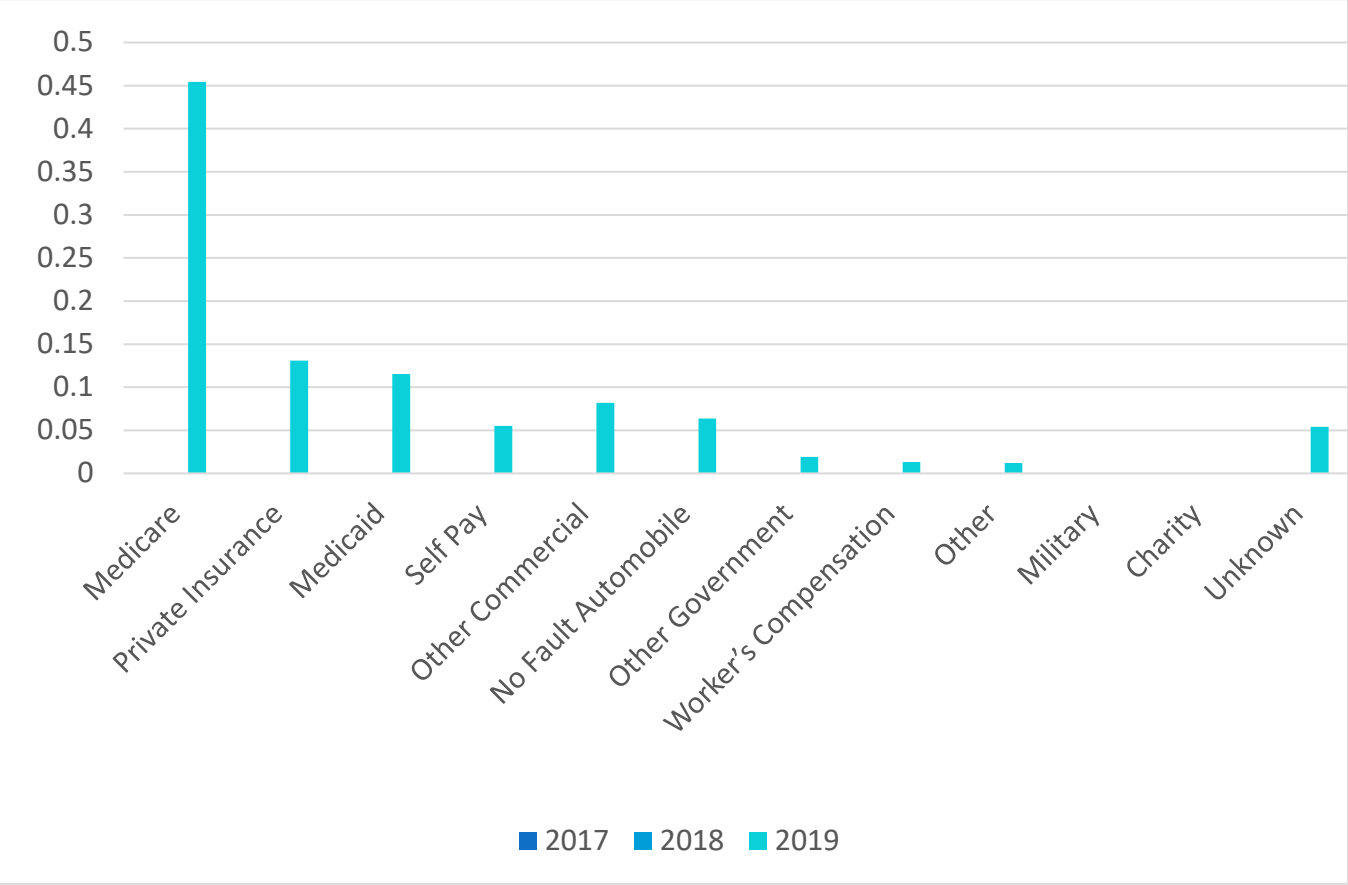
Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Total	133	100.0%	35	26.3%
<1	0	0.0%	0	0.0%
1-5	1	0.8%	1	100.0%
6-17	14	10.5%	3	21.4%
18-24	9	6.8%	3	33.3%
25-34	14	10.5%	3	21.4%
35-44	11	8.3%	4	36.4%
45-54	9	6.8%	4	44.4%
55-64	12	9.0%	4	33.3%
65-74	19	14.3%	1	5.3%
75-84	20	15.0%	5	25.0%
85+	24	18.0%	7	29.2%
Unknown	0	0.0%	0	0.0%

Table 66: Primary Payment Source Proportion for 2019, All Trauma Cases

Primary Source of Payment	2019
Medicare	45.4%
Private Insurance	13.1%
Medicaid	11.5%
Self-Pay	5.5%
Other Commercial	8.2%
No Fault Automobile	6.4%
Other Government	1.9%
Worker's Compensation	1.3%
Other	1.2%
Military	0.0%
Charity	0.0%
Unknown	5.4%

Note: 2019 was first year compared

Figure 29: *Primary Payment Source Proportion for 2019, All Trauma Cases*



WASHOE COUNTY: PLACE AND MECHANISM OF INJURY

Table 67: Trauma Incidence by Place of Injury (Unique Traumas)

Place of Injury	Trauma Count	Percent
Residential	410	53%
Street	196	25%
Trade and Service Area	32	4%
Recreation area	27	4%
Sports Area	7	1%
Wilderness	17	2%
Other Specified	7	1%
School or Public Area	6	1%
Industrial and Construction	6	1%
Farm	3	0%
Transport Vehicle as Place	2	0%
Military Training Ground	0	0%
Railroad Track	0	0%
Slaughterhouse	0	0%
Unknown/Unspecified	56	7%
Total	769	100%

Table 68: Trauma Incidence and Mortality Proportion by Mechanism of Injury (Unique Traumas)

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	506	65.7%	20	4.0%
Motor Vehicle Traffic	102	13.2%	16	15.7%
Struck by/Against	44	5.7%	3	6.8%
Firearm	27	3.5%	10	37.0%
Cut/Pierce	16	2.1%	1	6.3%
Motor Vehicle Non-Traffic	9	1.2%	0	0.0%
Other Transport (Land, Sea, Sky)	6	0.8%	0	0.0%
Other Specified	8	1.0%	1	12.5%
Pedal Cyclist, Other	14	1.8%	0	0.0%
Natural/Environmental	6	0.8%	0	0.0%
Pedestrian, Other	4	0.5%	0	0.0%
Unspecified	4	0.5%	0	0.0%
Fire/Burn	2	0.3%	0	0.0%
Unknown	1	0.1%	0	0.0%
Machinery	0	0.0%	0	0.0%
Overexertion	2	0.3%	0	0.0%
Drowning	1	0.1%	1	100.0%
Suffocation	18	2.3%	4	22.2%
Total	770	100.0%	56	7.3%

Table 69: Trauma Rates for Top Three Mechanisms of Injury by Age (Unique Traumas)

Age Group	Falls		Struck by/Against		Motor Vehicle Traffic	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	13	1.8 (0.8-2.8)	5	0.7 (0.1-1.3)	11	1.5 (0.6-2.4)
Adult 18-64	111	5.9 (4.8-7.0)	28	1.5 (0.9-2.0)	59	3.1 (2.3-3.9)
Geriatric >64	379	86.4 (77.7-95.1)	13	3.0 (1.4-4.6)	29	6.6 (4.2-9.0)
Total	503	16.6 (15.1-18.0)	46	1.5 (1.1-2.0)	99	3.3 (2.6-3.9)

Figure 30: *Top Five Mechanisms of Unintentional Trauma (n=697)*

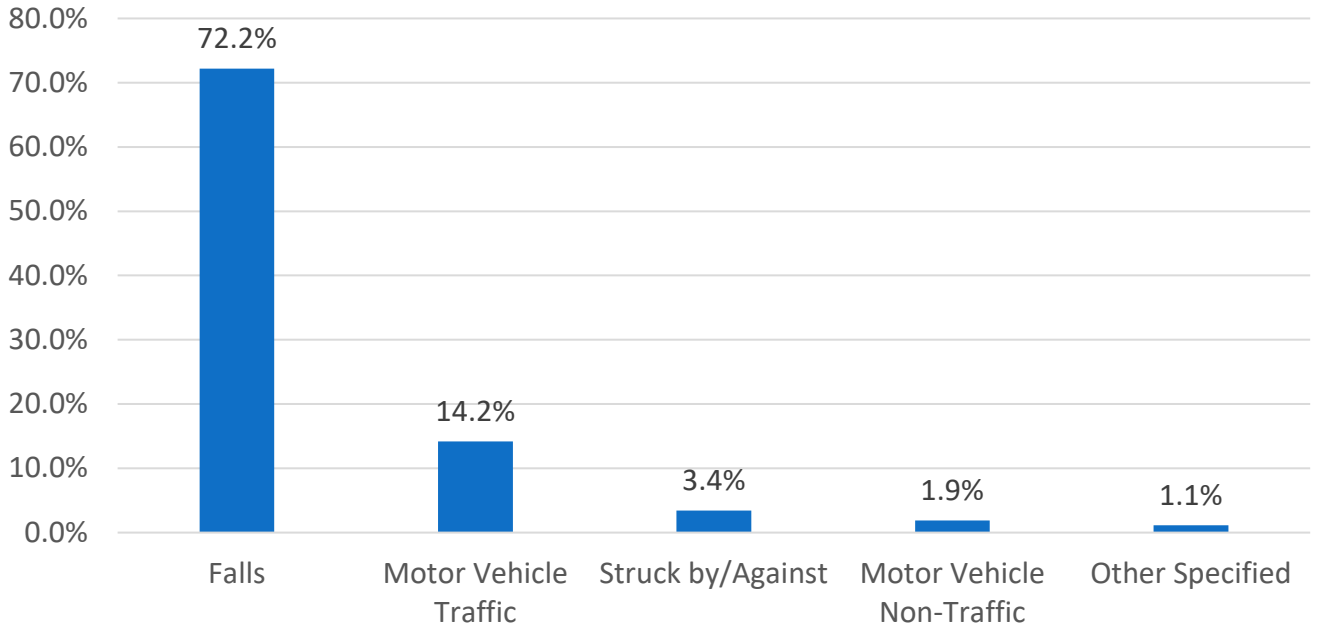


Figure 31: *Top Five Mechanisms of Homicide/Assault-Related Trauma (n=53)*

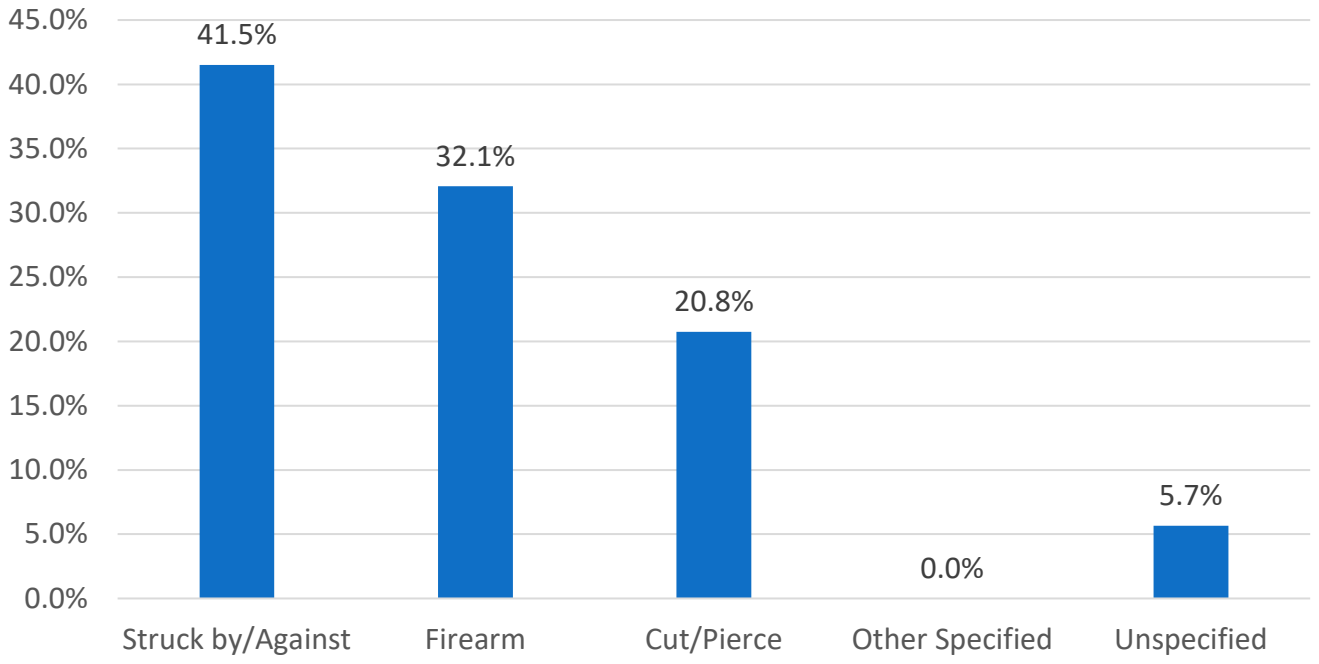


Figure 32: Top Five Mechanisms of Suicide/Self-Inflicted Trauma (n=15)

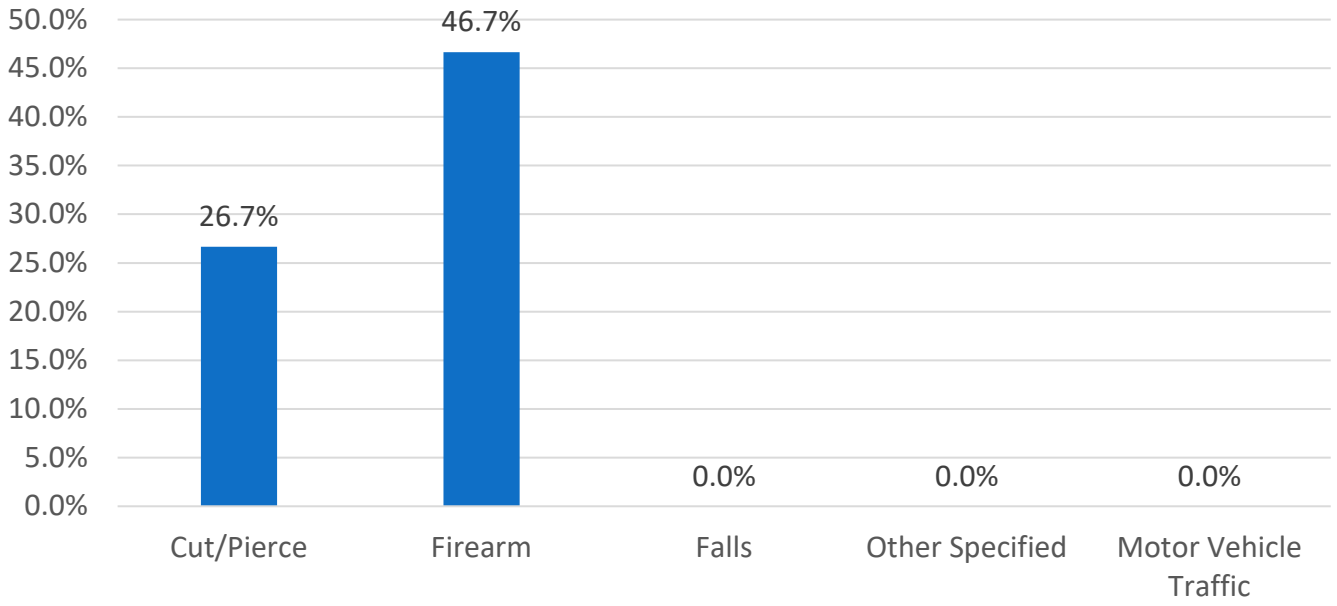
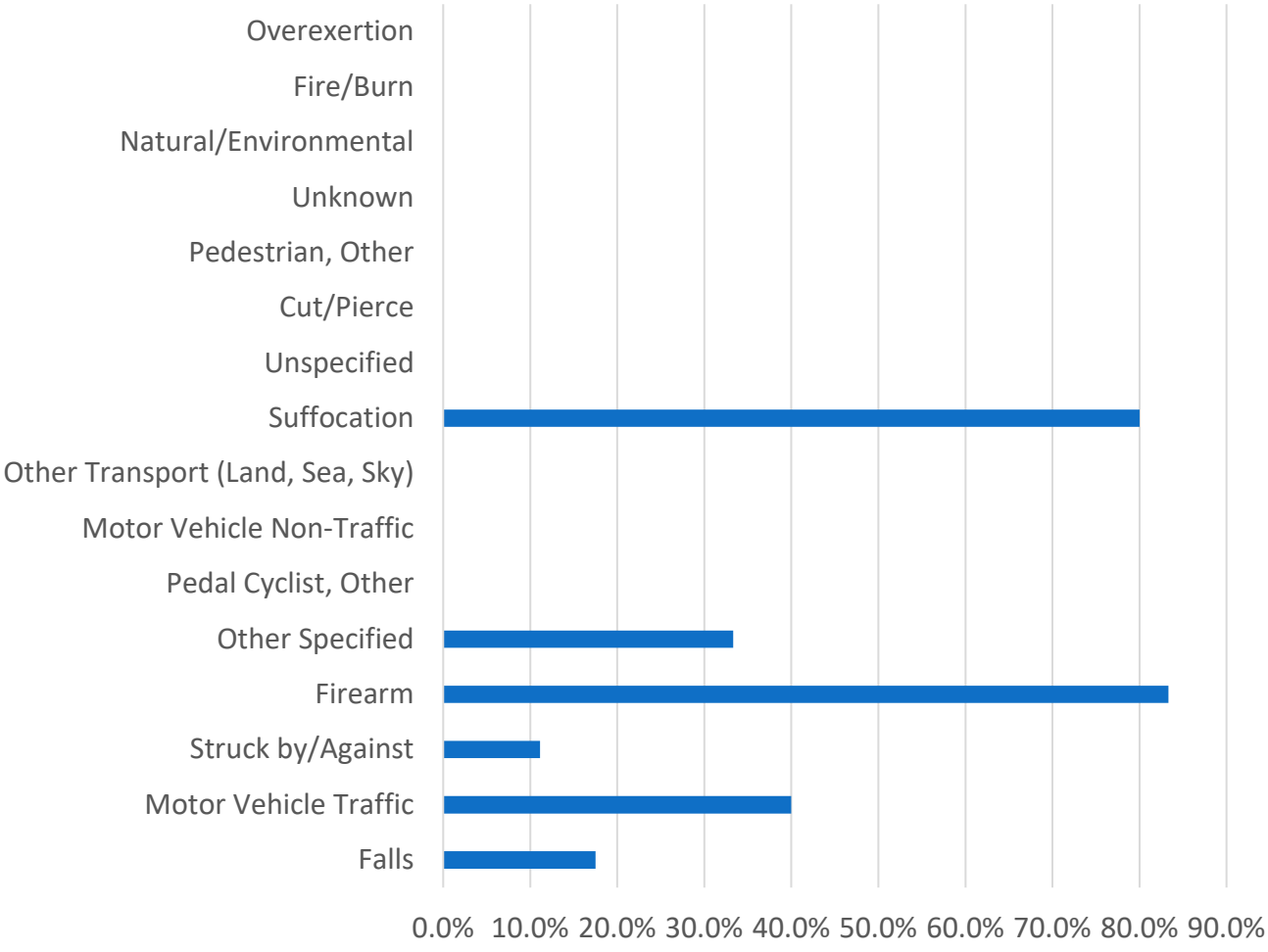


Table 70: Traumatic Brain Injury Incidence and Mortality Proportion by Mechanism of Injury

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	80	60.2%	14	17.5%
Motor Vehicle Traffic	25	18.8%	10	40.0%
Struck by/Against	9	6.8%	1	11.1%
Firearm	6	4.5%	5	83.3%
Other Specified	3	2.3%	1	33.3%
Pedal Cyclist, Other	2	1.5%	0	0.0%
Motor Vehicle Non-Traffic	1	0.8%	0	0.0%
Other Transport (Land, Sea, Sky)	0	0.0%	0	0.0%
Suffocation	5	3.8%	4	80.0%
Unspecified	1	0.8%	0	0.0%
Cut/Pierce	0	0.0%	0	0.0%
Pedestrian, Other	1	0.8%	0	0.0%
Unknown	0	0.0%	0	0.0%
Natural/Environmental	0	0.0%	0	0.0%
Fire/Burn	0	0.0%	0	0.0%
Overexertion	0	0.0%	0	0.0%
Total	133	100.0%	35	26.3%

Figure 33: *Mortality Proportion of Traumatic Brain Injury Incidence by Mechanism of Injury (Unique Traumas)*



WASHOE COUNTY: INJURY CHARACTERISTICS: INJURY SEVERITY SCORE (ISS)

Table 71: Trauma Incidence and Mortality Proportion by ISS (Unique Traumas)

Injury Severity Score	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	420	54.5%	5	1.2%
Moderate, 9-15	251	32.6%	11	4.4%
Serious, 16-24	45	5.8%	8	17.8%
Severe, 25-75	53	6.9%	32	60.4%
Missing/NA/ND	1	0.1%	0	0.0%

Figure 34: *Trauma Mortality Proportion by ISS, National vs Nevada*

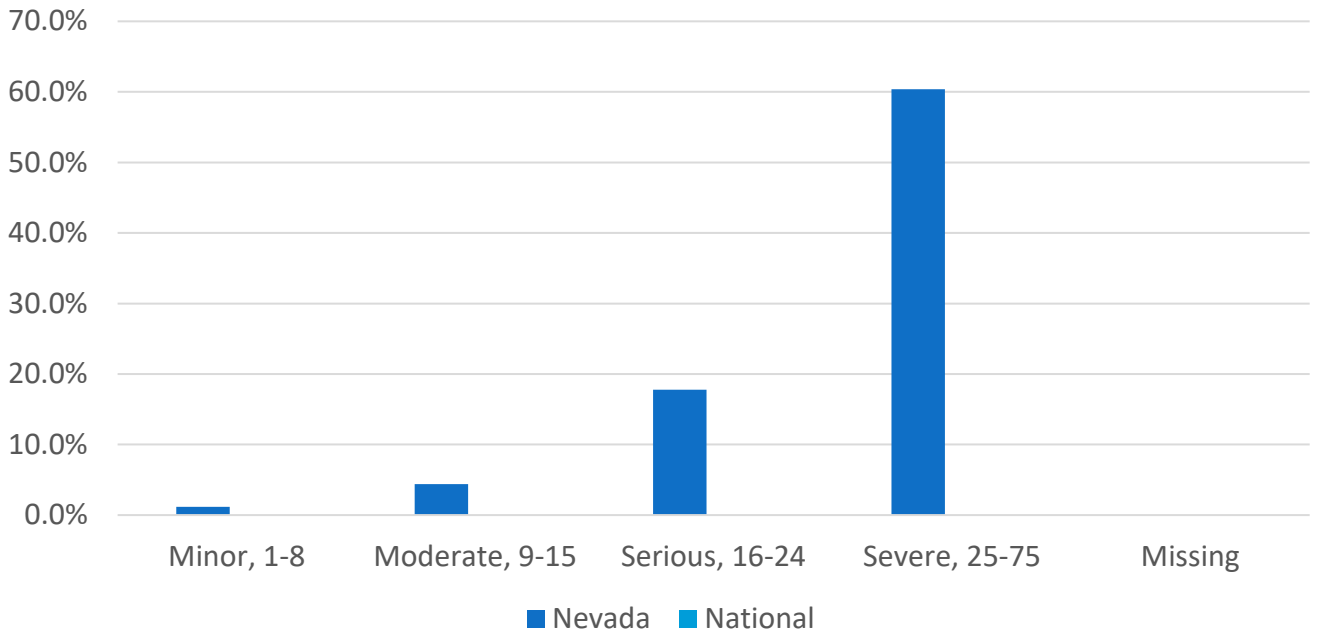


Table 72: Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas) by Injury Severity

Injury Severity Score	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	34	25.6%	3	8.8%
Moderate, 9-15	46	34.6%	5	10.9%
Serious, 16-24	19	14.3%	5	26.3%
Severe, 25-75	34	25.6%	22	64.7%
Unknown	0	0.0%	0	
Total	133	100.0%	35	26.3%

Table 73: Injury to ED Arrival Time for Patient with an ISS >15 by Injury Location; Rural, Urban, Statewide

County	<1 hour	1-3 hours	3-6 hours	6-9 hours	9-12 hours	>12 hours
Carson City	0	0	0	0	0	0
Churchill	0	0	0	0	0	0
Clark	1	0	0	0	0	1
Douglas	0	0	0	0	0	0
Elko	0	0	0	0	0	0
Esmeralda	0	0	0	0	0	0
Eureka	0	0	0	0	0	0
Humboldt	0	0	0	0	0	0
Lander	0	0	0	0	0	0
Lincoln	0	0	0	0	0	0
Lyon	0	0	0	0	0	0
Mineral	0	0	0	0	0	0
Nye	2	0	0	0	0	0
Pershing	0	0	0	0	0	0
Storey	0	0	0	0	0	0
Unknown	3	0	0	0	0	0
Washoe	67	10	0	0	2	3
White Pine	1	0	0	0	0	0
Out of State	1	0	0	1	0	0
Total	75	10	0	1	2	4

WASHOE COUNTY: PATIENT TRANSPORTATION

Table 74: Trauma Incidence by Mode of Arrival (Unique Traumas)

Mode of Arrival	Trauma Count	Percent
Ground Ambulance	555	72%
Private Vehicle or Walk-in	194	25%
Helicopter Ambulance	14	2%
Fixed-Wing Ambulance	1	0%
Unknown	0	0%
Police	5	1%
Other	0	0%
Public Safety	0	0%
Water Ambulance	0	0%
Total	769	100%

Table 75: Mode of Transport by ISS (Unique Traumas)

Mode of Arrival	Injury Severity Score Range				
	Minor 1-8	Moderate 9-15	Serious 16-24	Severe 25-75	Missing/NA ISS Scores
Ground Ambulance	286	188	33	48	0
Private Vehicle or Walk-in	140	49	3	1	1
Helicopter Ambulance	4	5	2	3	0
Fixed-Wing Ambulance	0	0	1	0	0
Unknown	0	0	0	0	0
Police	5	0	0	0	0
Other	0	0	0	0	0
Public Safety	0	0	0	0	0
Water Ambulance	0	0	0	0	0
Total	435	242	39	52	1

WASHOE COUNTY: PATIENT DISCHARGE AND TRANSFER

Table 76: Patient Transfer to Nevada Trauma Centers by ISS

Facility Patient Transferred To	Injury Severity Score Range			
	Trauma Cases	Mean ISS	Standard Deviation	ISS Range
Renown Regional Medical Center	97	6.4	10.1	1 - 99
St. Rose Dominican Hospital Siena Campus	0	0.0	0.0	0 - 0
Sunrise Hospital Medical Center	0	0.0	0.0	0 - 0
University Medical Center	2	16.0	0.0	16 - 16

"Patient transfer Transferred To" is determined by the question, "Was Patient Transferred to Facility" and not through the matching process with Unique Traumas.

WASHOE COUNTY: RISK FACTORS: DRUG/ALCOHOL USE

Table 77: Injury Intent and Drug/Alcohol Use (Unique Traumas)

Injury Intent	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Unintentional	697	82	12%
Suicide	15	4	27%
Homicide/Assault	53	17	32%
Legal Intervention	0	0	0%
Undetermined (accidental/intentional)	1	0	0%
Missing	3	1	33%
Unknown	0	0	0%
Total	769	104	14%

WASHOE COUNTY: SAFETY EQUIPMENT

Figure 35: *Proportion of Helmet Use Among Pedal Cyclists, Motorcyclists, and Off-Road Users (Unique Traumas)*

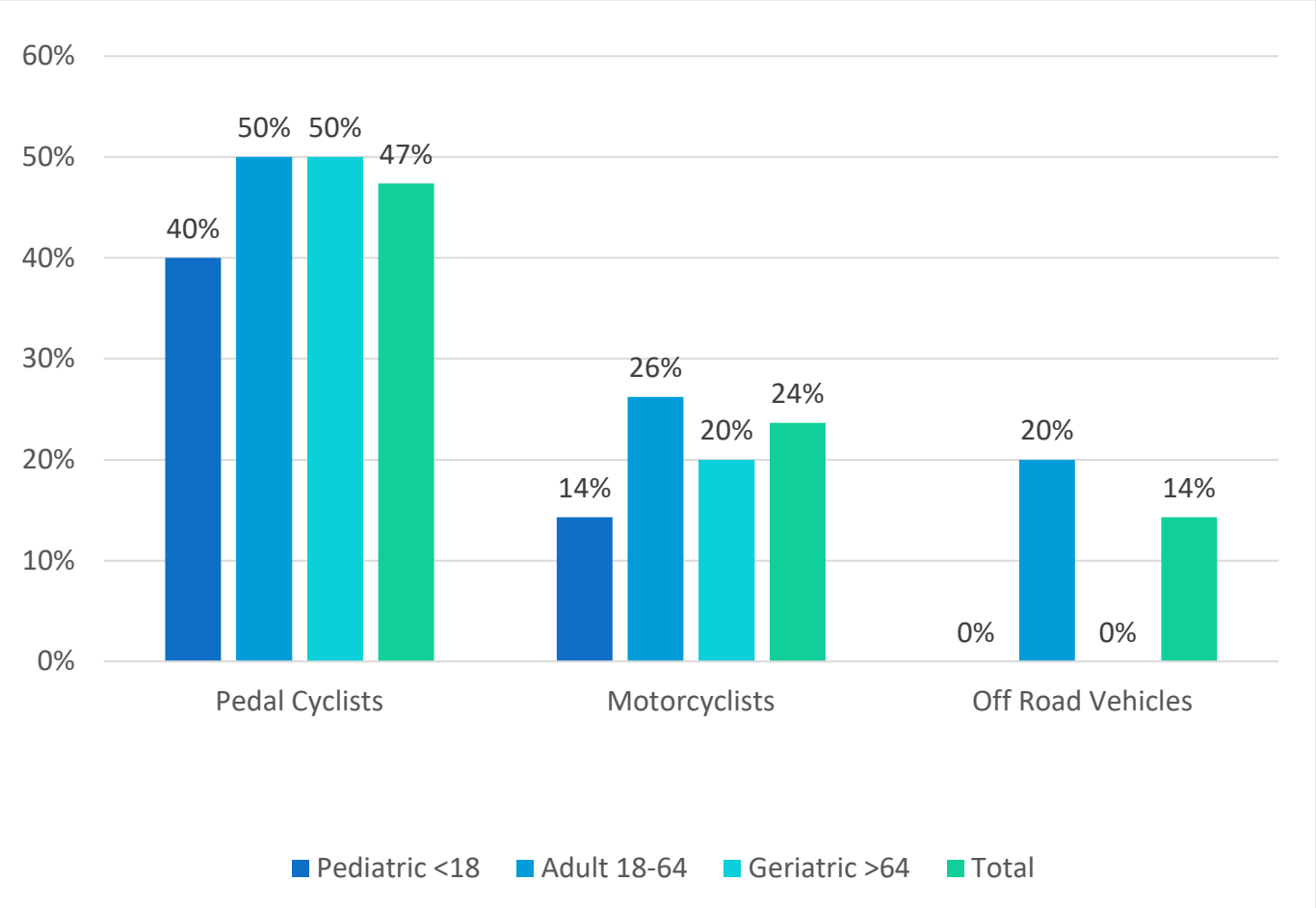


Table 78: Age-Specific Restraint Use Among Motor Vehicle Traffic Occupants

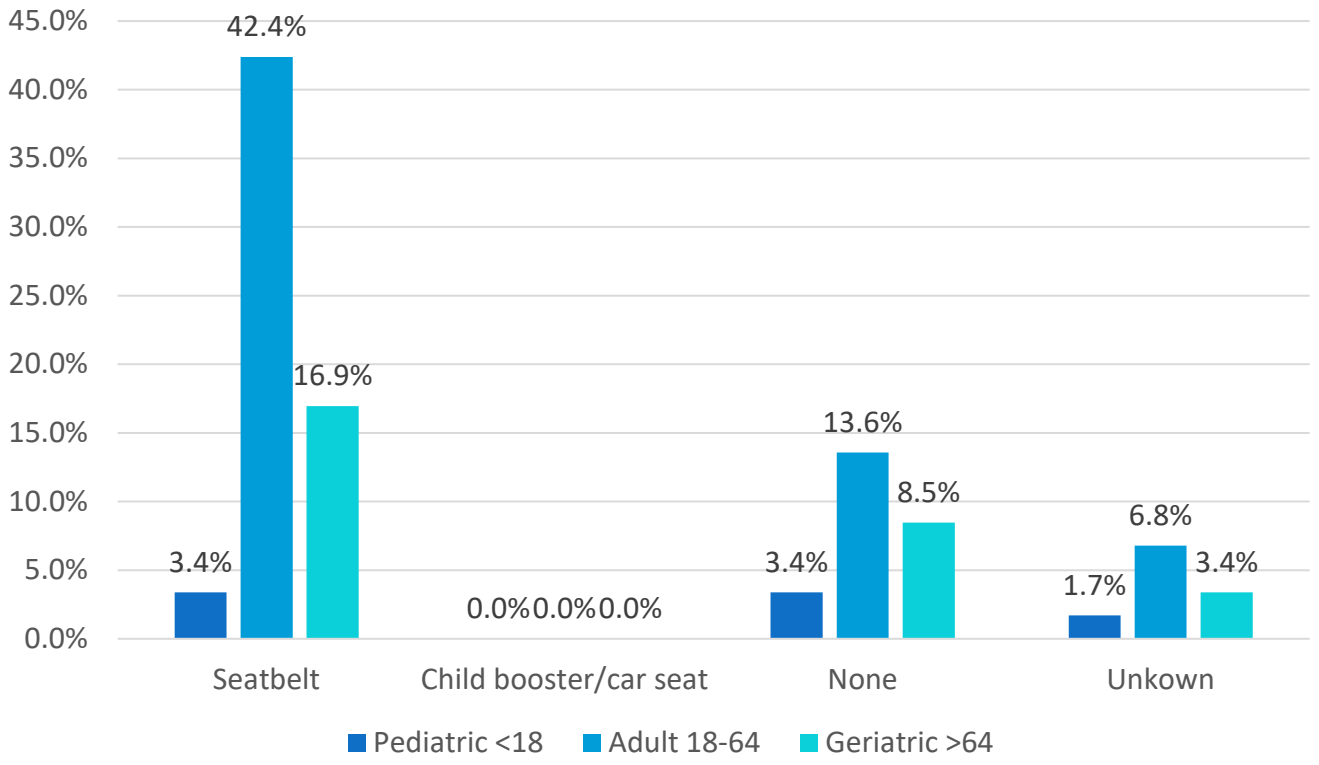
Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total
Seatbelt	2	25	10	37
Child booster/car seat	0	0	0	0
None	2	8	5	15
Unknown	1	4	2	7
Total	5	37	17	59

Table 79: Age-Specific Proportion of Restraint Use Among Motor Vehicle Traffic Occupants

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total (column percent)
Seatbelt	3.4%	42.4%	16.9%	62.7%
Child booster/car seat	0.0%	0.0%	0.0%	0.0%
None	3.4%	13.6%	8.5%	25.4%
Unknown	1.7%	6.8%	3.4%	11.9%
Total	8.5%	62.7%	28.8%	100.0%

1. Among Motor vehicle occupants: 8.5% are <18, 62.7% are 18-64 and 28.8% are >64years.
2. Among Motor vehicle occupants 62.7% use seatbelt, 0.0% used Child booster/car seat,25.4% used no restraint.,11.9% of motor vehicle occupants have unknown restraint information.
3. Among all motor vehicle traffic occupants 3.4% used seatbelt and are < 18 years etc.

Figure 36: *Age-Specific Proportion of Restraint Use Among Motor Vehicle Traffic Occupants*



WASHOE COUNTY: FALLS – BY LAST TRANSFER FACILITY

Table 80: Trauma Rate for Falls by Gender (Unique Traumas)

Gender	n	Rate per 100,000 (95% CI)
Female	294	19.4 (17.2-21.7)
Male	226	14.9 (12.9-16.8)
Unknown	1	-
Total	521	17.2 (15.7-18.7)

Table 81: Incidence and Mortality Proportion by Type of Fall (Unique Traumas)

Type of Falls	Count	Percent of Falls (Column Percent)	Deaths	Mortality Proportion (Row Percent)
Same Level (Slipping, Tripping, Stumbling)	347	66.6%	16	4.6%
Unspecified	17	3.3%	0	0.0%
From Furniture	50	9.6%	4	8.0%
Steps	18	3.5%	1	5.6%
Multi-Level: Cliff, Tree, Water, Etc.	13	2.5%	0	0.0%
On or From Ladder/Scaffolding	18	3.5%	0	0.0%
Pedestrian Conveyance Accident	17	3.3%	1	5.9%
Out of Building or Structure	6	1.2%	0	0.0%
Fall Due to Environmental Factors	30	5.8%	0	0.0%
Collision, Push or Shove By, or Another Person	2	0.4%	0	0.0%
Playground Equipment	3	0.6%	0	0.0%
Suicide Related	0	0.0%	0	0.0%
Undetermined Fall from High Place	0	0.0%	0	0.0%
Assault Related	0	0.0%	0	0.0%
Total	521	100.0%	22	4.2%

Table 82: Trauma Rate by Age and Type of Fall (Unique Traumas)

Age Group	Type of Fall					
	Unspecified		From Same Level (tripping, slipping, stumbling)		From Furniture (bed, chair, etc.)	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	1	0.1 (0.0-0.4)	2	0.3 (0.0-0.7)	1	0.1 (0.0-0.4)
Adult 18-64	3	0.2 (0.0-0.3)	62	3.3 (2.5-4.1)	7	0.4 (0.1-0.6)
Geriatric >64	13	3.0 (1.4-4.6)	283	64.5 (57.0-72.0)	42	9.6 (6.7-12.5)
Unknown			.			
Total	17	0.6 (0.3-0.8)	347	11.4 (10.2-12.6)	50	1.6 (1.2-2.1)

ADDITIONAL INFORMATION

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