

2022



# Annual Trauma Registry Report

## NEVADA

BUREAU OF HEALTH PROTECTION AND PREPAREDNESS

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## PURPOSE OF REPORT

This report aims to provide a picture of trauma occurrences within the state of Nevada based on data submitted by hospitals to the Nevada Trauma Registry (NTR). This report presents data in a usable format for local health authorities, healthcare providers, the media, and the public. Nevada regulations require the Nevada Division of Public and Behavioral Health (DPBH) to prepare an Annual Trauma Report in accordance with [Nevada Administrative Code \(NAC\) 450B.768](#). This annual report's data is based on the calendar year and summarizes data submitted by Nevada hospitals regarding reported traumas handled by each facility.

It should be noted that the data depicted in this report reflects only data entered and reported to the NTR. Therefore, if a facility fails to report trauma data to the registry, it is not reflected in this report. In addition, ongoing staffing challenges during the pandemic contributed to challenges in reporting.

The information included in this report is accurate to the best knowledge of all reporting facilities and the State of Nevada Trauma Registry.

## 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 violence. The NTR data is collected from all licensed acute care hospitals and trauma centers in Nevada.

For the 2022 Annual Trauma Report, ICD-10 codes were utilized. Per *National Trauma Data Bank* criteria, for an injury to be reported as trauma, it must have at least one ICD-10 code from the following ranges: S00 - S99 (7<sup>th</sup> Character Modifier A, B, or C), T07, T14, T20-T28 (7<sup>th</sup> Character modifier A), T30-32, and T79.A1-T79.A9 (7<sup>th</sup> 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.

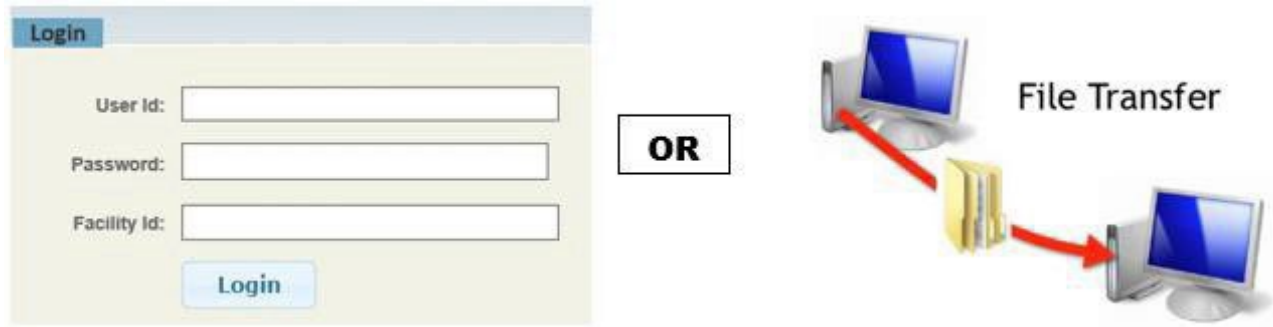
The NTR currently collects required data points from the National Trauma Data Bank (NTDB) established by the *American College of Surgeons* and data points identified in [NAC 450B.766](#) and [NAC 450B.768](#). Included (but not limited to) are data on the event causing the injury, severity of the injury,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

Information on the frequency, occurrence, morbidity, and mortality of injuries reported in Nevada is available from the NTR. Data can be filtered by county, hospital, race, or age range. To measure the effects of trauma in Nevada and launch health education initiatives, grant applicants can use this data, which is available to state, private, or federal entities. Additionally, the Local Health Authorities are given access to data for data analysis, surveillance, and improving outcomes for public health.

The 2022 Annual Trauma Report is based upon data submitted to the NTR by Nevada's five designated trauma centers and 41 non-trauma center hospitals, for a total of 46 facilities that operated during calendar 2022. To comply with [NAC 450B.768](#), a hospital must enter all trauma records into the NTR or notify the State NTR Manager that no records meet the criteria to be submitted by the quarterly due date.

Non-trauma centers can 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 data from their software to the state NTR.



Per NAC 450B.768 – all trauma data from (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)

The percentage of facilities that comply with submitting data to the NTR each year is summarized in the table below.

<b>YEAR</b>	<b>% of Non-Trauma Centers Compliant</b>	<b>% of Trauma Centers Compliant</b>
<b>2017</b>	<b>100%</b>	<b>100%</b>
<b>2018</b>	<b>98%</b>	<b>100%</b>
<b>2019</b>	<b>89%</b>	<b>75%</b>
<b>2020</b>	<b>88%</b>	<b>94%</b>
<b>2021</b>	<b>88%</b>	<b>100%</b>
<b>2022</b>	<b>94%</b>	<b>100%</b>

All trauma centers provided the necessary information to the NTR in 2022. Even though there were nine non-compliance incidents over the course of a year, including one instance of repeated non-compliance (which is not shown in the table), they were all from non-trauma facilities.

State NTR staff continue to train personnel at non-trauma center hospitals to improve data accuracy.

**Preparation → Analysis (Mapping) → Development (Conversion) → Testing → Deployment**

Due to multiple changes in reporting throughout the years, it is advised not to compare the year-over-year data. Examples of these changes include transitions of modified ICD codes, additions of and removal of facilities, submissions of trauma data amidst a global pandemic which affected the overall prevalence of trauma incidents.

As the quality and accuracy of data entered in the NTR is critical to the Annual Trauma Registry Report, ongoing trainings of hospital personnel on the use of NTR software are completed along with open access to the NTR help desk for questions or concerns that may arise.

Collaborative relationships have continued with trauma personnel from various disciplines throughout the state. Among the techniques being used in these efforts are:

- Participating in local healthcare coalitions.
- Quarterly NTR user group meetings.

- Hosting quarterly conference calls with trauma center staff.
- Meeting hospital staff who enter NTR data in person, if possible.

Through regular communication, offering NTR user training, delivering reminders about quarterly trauma data due dates, and revitalizing and developing relationships across the state, hospital data entry compliance continues to improve. The data from hospitals is both of higher quality and reliability improving the overall perspective of traumas in the state.

## NEVADA TRAUMA REGISTRY BACKGROUND

The definition of a traumatic incident and the requirements for trauma reporting are outlined in the Nevada Revised Statutes and Nevada Administrative Code.

### 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 a 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 trauma treatment 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 Division should develop a standardized system for collecting information concerning trauma treatment and carry out a system for managing 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 quarterly, 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 needed for 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

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. Each year the data within the NTR will be statistically analyzed to evaluate incident traumas in Nevada. It should be noted that the data presented in this report is a reflection based solely on data points recorded within the NTR. It does not include patient history or examination. This evaluation is presented in the Annual Trauma Report, prepared by the state, per [NAC 450B.768](#).

A series of criteria identified by the American College of Surgeons must be met to be classified as a trauma. 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 either:

- At least one of the following criteria:
  - The patient was hospitalized for at least 24 hours due to injuries.
  - The injury resulted in death; **or**
  - The patient was transferred between hospitals using a ground or air ambulance.

In 2022, the NTR captured **14,905** trauma cases. This report includes cases for patients with an Emergency Department/Hospital Arrival Date between January 1, 2022, and December 31, 2022. All data were analyzed using Statistical Analysis System (SAS) Version 9.4 (SAS Institute, Cary, NC).

All trauma rates were calculated per 100,000 Nevada residents using the *Nevada State Demographer*, Age, Sex, Race, and Hispanic Origin (ASRHO) estimates and projections, and vintage 2022 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 an estimate's uncertainty and may be used to assess statistical significance. When comparing trauma rates within a table, if the range of the CIs for the two rates does not overlap, the rates can be considered significantly different. If the CI ranges overlap, then the difference is not significant.

## 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, 2022, to December 31, 2022, a total of 14,905 traumas were recorded in the NTR from the 46 facilities in Nevada. The following pages include data analysis on trauma cases, risk factors, demographics, injury characteristics, injury location and mechanism, patient discharge and transfer, patient transport, safety equipment, and fall data breakdown.

### TRAUMA CENTER LEVELS

Outlined below are standard criteria for Trauma Centers verified by the ACS and designated by states and municipalities. Facilities are set/confirmed 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

A Level I Trauma Center is a comprehensive regional resource, 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 to 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 resources for communities in nearby regions.

- Provides leadership in the prevention and public education to surrounding communities.
- Provides continuing education to the trauma team members.
- Incorporates a comprehensive quality assessment program.
- Operates an organized teaching and research effort to help direct 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 and 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 as 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 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 backup 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 the ability to provide advanced trauma life support (ATLS) before transferring patients to a higher-level trauma center. In addition, 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 are 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 are available upon patient arrival.
- After-hours activation protocols if the 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 Level I through III Trauma Centers.

## Technical Notes

There are 3 ways in which the Nevada Trauma Registry presents traumas. Each category found in the report is explained below.

- **Total Trauma Cases** include all cases reported to the Nevada Trauma Registry, including transfers between facilities. Therefore, if a trauma patient is presented initially to 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 3, 8, 10, 15, 16, 17,** and **Figure 11**, where traumas are assigned to the last transfer facility. This logic to include the previous transfer facility 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 the time of death. Therefore, throughout this report, when a table lists Mortality Proportion and 14,905 in Unique Traumas, the table is based upon the last facility.
  - There were some instances where the mechanism of injury differed between the facility of the first presentation and the facility at the time of death. In this case, the mechanism was assigned based on the facility at the time of death.
    - Please note that the state of Nevada does not attempt to 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, to which facility?” This question is self-reported by hospital staff and does not always align with the results of the Division’s match to calculate unique trauma cases.

## TRAUMA CASES BY FACILITY

Out of all the facilities listed in **Table 1**, the designated trauma centers had the highest number of trauma cases treated. There were five designated trauma centers in the State of Nevada during 2022. One trauma center is in Northern NV, with four located in Southern NV. The 5 Nevada trauma centers are Renown Regional Medical Center, Sunrise Hospital Medical Center, University Medical Center, Mike O’Callaghan Federal Medical Center, and St Rose Dominican Hospital: Siena Campus. With 3,348 cases (22.5%), University Medical Center saw the most trauma cases, followed by Sunrise Hospital Medical Center with 3,137 cases (21.0%) and Renown Medical Center with 1,385 cases (9.3%). Mountain View Medical Center had the most trauma cases of any non-trauma center, with 716 cases (4.8%), followed by Spring Valley Hospital Medical Center with 618 cases (4.1%), and Summerlin Hospital Medical Center with 505 cases (3.4%).

14,905 Traumas in  
2022  
2,321 more than  
2021

**Table 1: Trauma Cases by Facility, 2022 (includes Nevada Residents and Non-Residents)**

County	Facility	Unique Traumas Trauma Patients^		Total Trauma Cases*	
Clark County	Boulder City Hospital	59	0.4%	59	0.4%
	Centennial Hills Hospital	306	2.1%	318	1.9%
	Desert Springs Hospital Center	86	0.6%	90	0.5%
	Henderson ER at Green Valley Ranch	30	0.2%	30	0.2%
	Henderson Hospital	285	1.9%	287	1.7%
	Mesa View Regional Hospital	59	0.4%	59	0.4%
	<b>Mike O'Callaghan Federal Medical Center</b>	93	0.6%	93	0.6%
	Mountain View ER at Aliante	33	0.2%	33	0.2%
	Mountain View - ER at Skye Canyon	13	0.1%	13	0.1%
	Mountain View Hospital	716	4.8%	746	4.5%
	North Vista Hospital	160	1.1%	160	1.0%
	Southern Hills ER at South Las Vegas Blvd	17	0.1%	17	0.1%
	Southern Hills ER at the Lakes	15	0.1%	15	0.1%
	Southern Hills Hospital Medical Center	300	2.0%	302	1.8%
	Spring Valley ER at Blue Diamond	35	0.2%	35	0.2%
	Spring Valley Hospital Medical Center	618	4.1%	665	4.0%
	St. Rose Dominican Hospital Blue Diamond	36	0.2%	36	0.2%
	St. Rose Dominican Hospital De Lima Campus	104	0.7%	104	0.6%
	St. Rose Dominican Hospital North Las Vegas	78	0.5%	78	0.5%
	St. Rose Dominican Hospital San Martin Campus	143	1.0%	152	0.9%
	<b>St. Rose Dominican Hospital Siena Campus</b>	1,201	8.1%	1,232	7.4%
	St. Rose Dominican Hospital West Flamingo	28	0.2%	28	0.2%
	St. Rose Dominican Hospital West Sahara	37	0.2%	37	0.2%
	Summerlin Hospital Medical Center	505	3.4%	531	3.2%
	<b>Sunrise Hospital Medical Center</b>	3,137	21.0%	3,817	23.0%
	<b>University Medical Center</b>	3,348	22.5%	3,923	23.7%
Valley Hospital Medical Center	44	0.3%	44	0.3%	
Washoe County	Northern Nevada Medical Center	122	0.8%	124	0.7%
	Northern Nevada Medical Center - ER at McCarran	21	0.1%	21	0.1%
	Northern Nevada Sierra Medical Center	41	0.3%	41	0.2%
	<b>Renown Regional Medical Center</b>	1,385	9.3%	1640	9.9%
	Renown South Meadows Medical Center	160	1.1%	160	1.0%
	St. Mary's Regional Medical Center	221	1.5%	224	1.4%
All Other Counties	Banner Churchill Community Hospital	107	0.7%	107	0.6%
	Battle Mountain General Hospital	19	0.1%	19	0.1%
	Carson Tahoe Regional Medical Center	504	3.4%	504	3.0%
	Carson Valley Medical Center	172	1.2%	172	1.0%
	Desert View Hospital	268	1.8%	268	1.6%
	Grover C. Dils Medical Center	20	0.1%	20	0.1%
	Humboldt General Hospital	63	0.4%	63	0.4%
	Mt. Grant General Hospital	24	0.2%	24	0.1%
	Northeastern Nevada Regional Hospital	162	1.1%	163	1.0%
	Pershing General Hospital	28	0.2%	28	0.2%
	South Lyon Medical Center	23	0.2%	23	0.1%
William Bee Ririe Hospital	79	0.5%	79	0.5%	
<b>Nevada (Total)</b>		<b>14,905</b>	<b>100.0%</b>	<b>16,584</b>	<b>100.0%</b>



**Table 2: Trauma Incidence and Mortality Ratio for Levels 1-3 by Trauma Center Designation**

Trauma Center designation	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Trauma Center level 1	3923	38.1%	266	6.8%
Trauma Center level 2	5450	52.9%	215	3.9%
Trauma Center Level 3	920	8.9%	15	1.6%
<b>Total</b>	<b>10293</b>	<b>100.0%</b>	<b>496</b>	<b>4.8%</b>

\*There were 8 unknown discharge status (dead/alive) cases.

## DEMOGRAPHICS

Of 14,905 unique traumas recorded in the NTR between January 1, 2022, and December 31, 2022, 56.4% were in male patients, and 43.6% were in female patients. (Table 3)

**Table 3: Nevada Trauma Cases by Sex (Unique Traumas)**

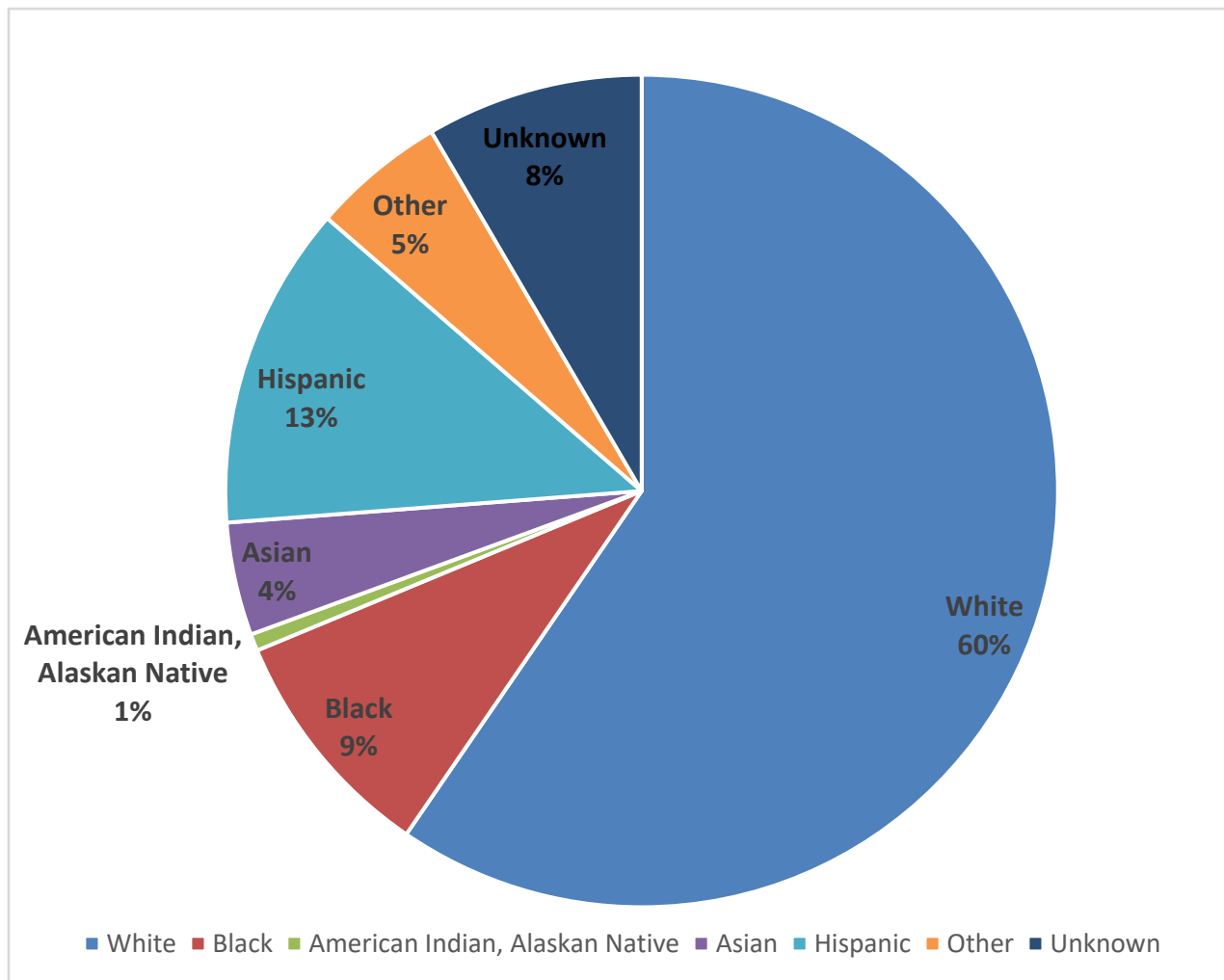
Sex	Count	Percent	Rate per 100,000 (95% CI)
Male	8,403	56.4%	522.6 (511.4-533.7)
Female	6,498	43.6%	403.2 (393.4-413.0)
Sex Not Reported	4	0.0%	-
<b>Total</b>	<b>14,905</b>	<b>100%</b>	<b>462.9 (455.5-470.4)</b>

**Table 4: Nevada Trauma Cases by Race/Ethnicity (Unique Traumas)**

Race/Ethnicity	Count	Percent	Rate per 100,000 (95% CI)
White	8,878	59.6%	564.7 (553.0-576.5)
Black	1,368	9.2%	461.6 (437.1-486.0)
American Indian, Alaskan Native	98	0.7%	275.2 (220.7-329.7)
Asian	654	4.4%	200.6 (185.2-216.0)
Hispanic	1,876	12.6%	189.6 (181.0-198.1)
Other	775	5.2%	0.0 (0.0-0.0)
Unknown	1,256	8.4%	0.0 (0.0-0.0)
<b>Total</b>	<b>14,905</b>	<b>100.0%</b>	<b>462.9 (455.5-470.4)</b>

Nevada statistics show that individuals of white backgrounds statistically make up significantly more traumas than any other in the state due to the high concentration of white residents. Figure 1 shows the ethnic groupings according to their applicability to trauma injuries in the state in 2022.

**Figure 1: Unique Trauma Cases by Race/Ethnicity**



**Table 5: Age-Specific Trauma Cases by Race/Ethnicity (Unique Traumas)**

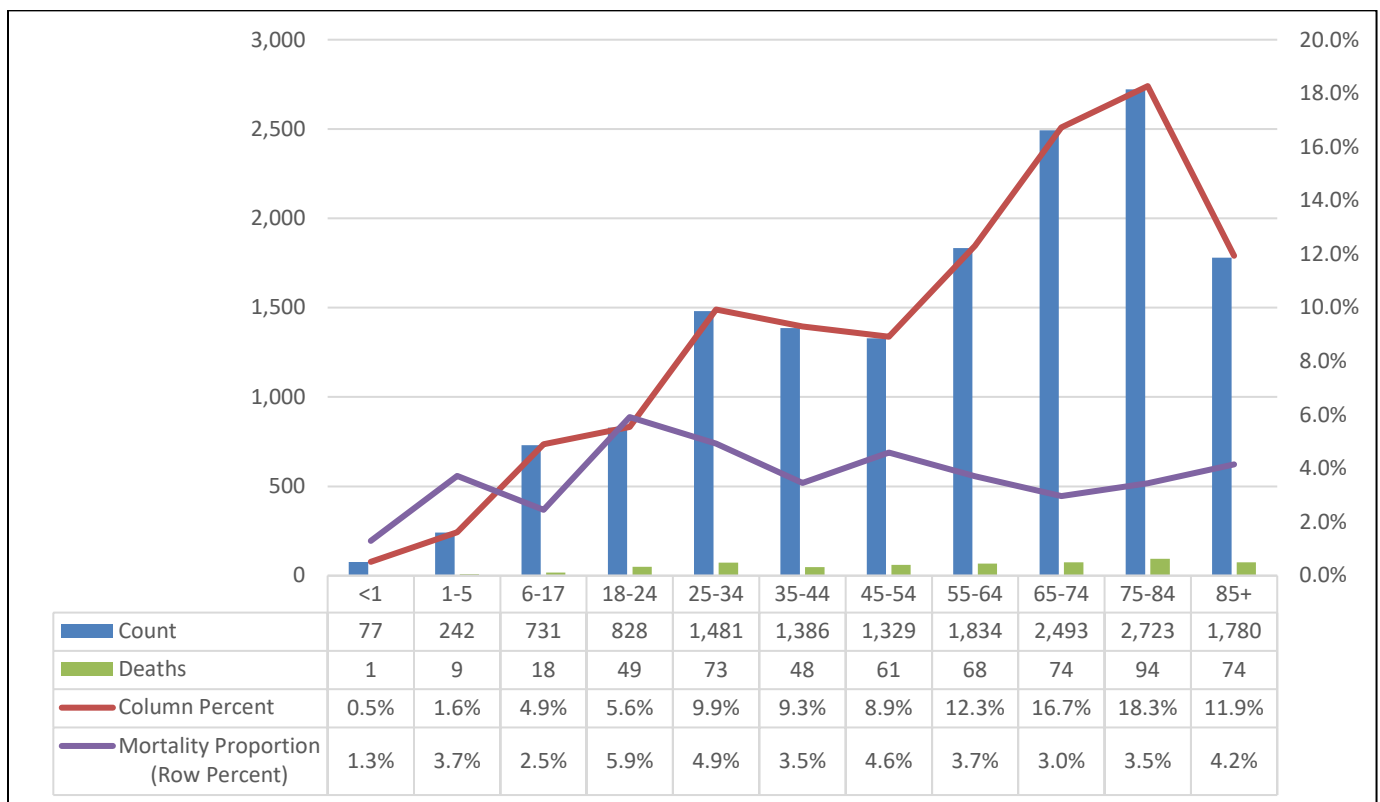
Age Groups	White	Black	American Indian, Alaskan Native	Asian	Hispanic	Other	Unknown	Total
<1	25	11	0	6	14	10	11	77
1-5	90	43	2	7	50	21	29	242
6-17	298	102	4	37	158	48	84	731
18-24	289	145	3	23	220	58	90	828
25-34	564	293	19	39	328	99	139	1,481
35-44	647	224	12	45	252	98	108	1,386
45-54	714	140	17	45	233	71	109	1,329
55-64	1,195	157	12	68	201	92	110	1,835
65-74	1,754	132	16	109	165	97	219	2,492
75-84	2,002	77	6	150	154	112	222	2,723
85+	1,299	44	7	125	101	69	135	1,780
Unknown	1	0	0	0	0	0	0	1
<b>Total</b>	<b>8,878</b>	<b>1,368</b>	<b>98</b>	<b>654</b>	<b>1,876</b>	<b>775</b>	<b>1,256</b>	<b>14,905</b>

**Table 6: Age-Specific Trauma Cases and Mortality Proportion (Unique Traumas)**

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
<1	77	0.5%	1	1.3%
1-5	242	1.6%	9	3.7%
6-17	731	4.9%	18	2.5%
18-24	828	5.6%	49	5.9%
25-34	1,481	9.9%	73	4.9%
35-44	1,386	9.3%	48	3.5%
45-54	1,329	8.9%	61	4.6%
55-64	1,834	12.3%	68	3.7%
65-74	2,493	16.7%	74	3.0%
75-84	2,723	18.3%	94	3.5%
85+	1,780	11.9%	74	4.2%
Unknown	1	0.0%	0	0.0%
<b>Total</b>	<b>14,905</b>	<b>100.0%</b>	<b>569</b>	<b>3.8%</b>

Tables 5 and 6 present the number of trauma cases according to age, death rate, and ethnic background. Among the 14,905 unique trauma cases in Nevada for 2022, 1,754 were in the 65-74 age group, 2,002 in the 75-84 age group, and 1,195 in the 55-64 age group. Figure 2 illustrates that the age group of 18 to 24 has the highest percentage of deaths from trauma, with 5.9%, followed by 25 to 34 at 4.9%, 45 to 54 at 4.6%, and 85+ at 4.2%.

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



**Table 7: Age and Sex-Specific Trauma Rate per 100,000 Nevada Residents (Unique Traumas)**

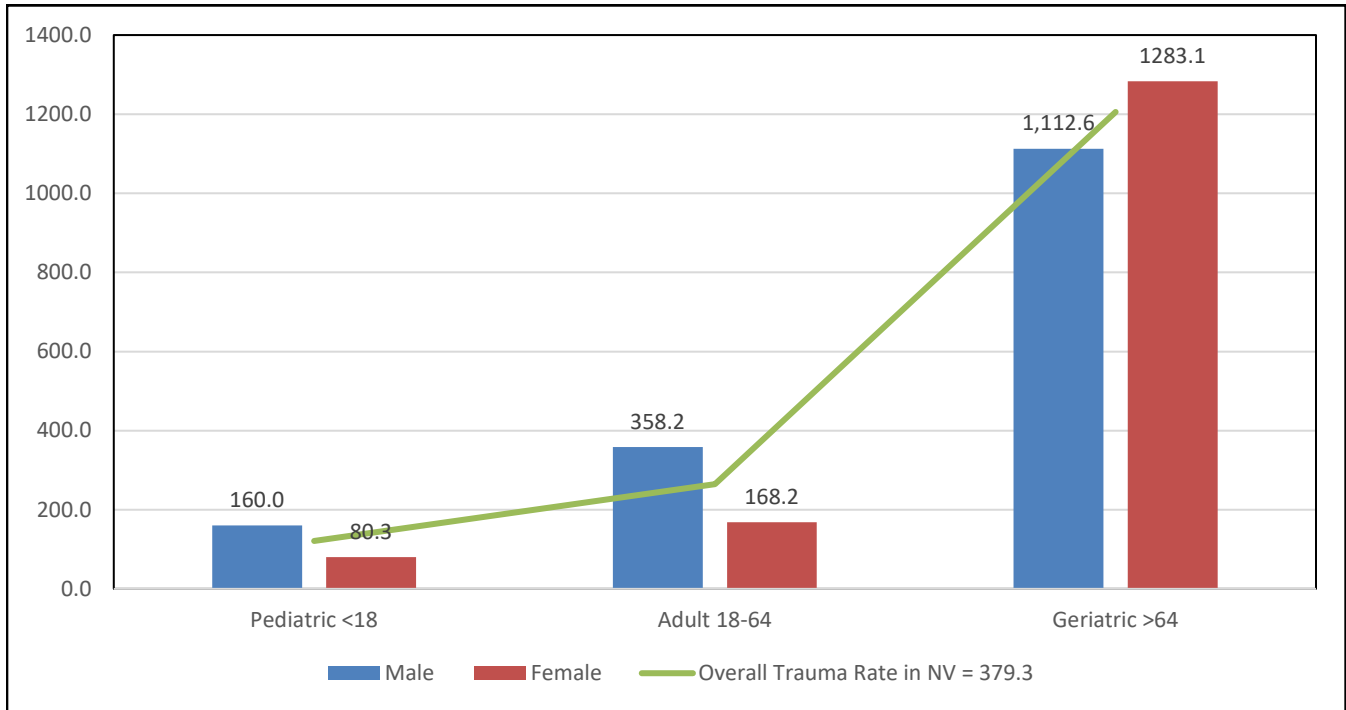
Age Group	Male		Female		Total	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	589	160.0 (147.1-172.9)	282	80.3 (70.9-89.7)	871	121.1 (113.1-129.1)
Adult 18-64	3,621	358.2 (346.5-369.8)	1,660	168.2 (160.1-176.3)	5,282	264.4 (257.2-271.5)
Geriatric >64	2,548	1112.6 (1069.4-1155.8)	3,510	1283.1 (1240.6-1325.5)	6,059	1205.6 (1175.2-1235.9)
<b>Total</b>	<b>6,758</b>	<b>420.3 (410.2-430.3)</b>	<b>5,452</b>	<b>338.3 (329.3-347.2)</b>	<b>12,212</b>	<b>379.3 (372.6-386.0)</b>

Demographic breakdowns show that in Nevada 56.4% were in male patients, and 43.6% were in female patients. Most trauma cases, 49%, were in individuals over 64 years of age, excluding those treated for out-of-state residents.

**Traumas per age and sex per 100,000 NV Residents**

**#1** - Senior citizens, particularly senior males, are more prone to experiencing traumas compared to senior females.

**Figure 3: Age and Sex-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 Esmeralda County**

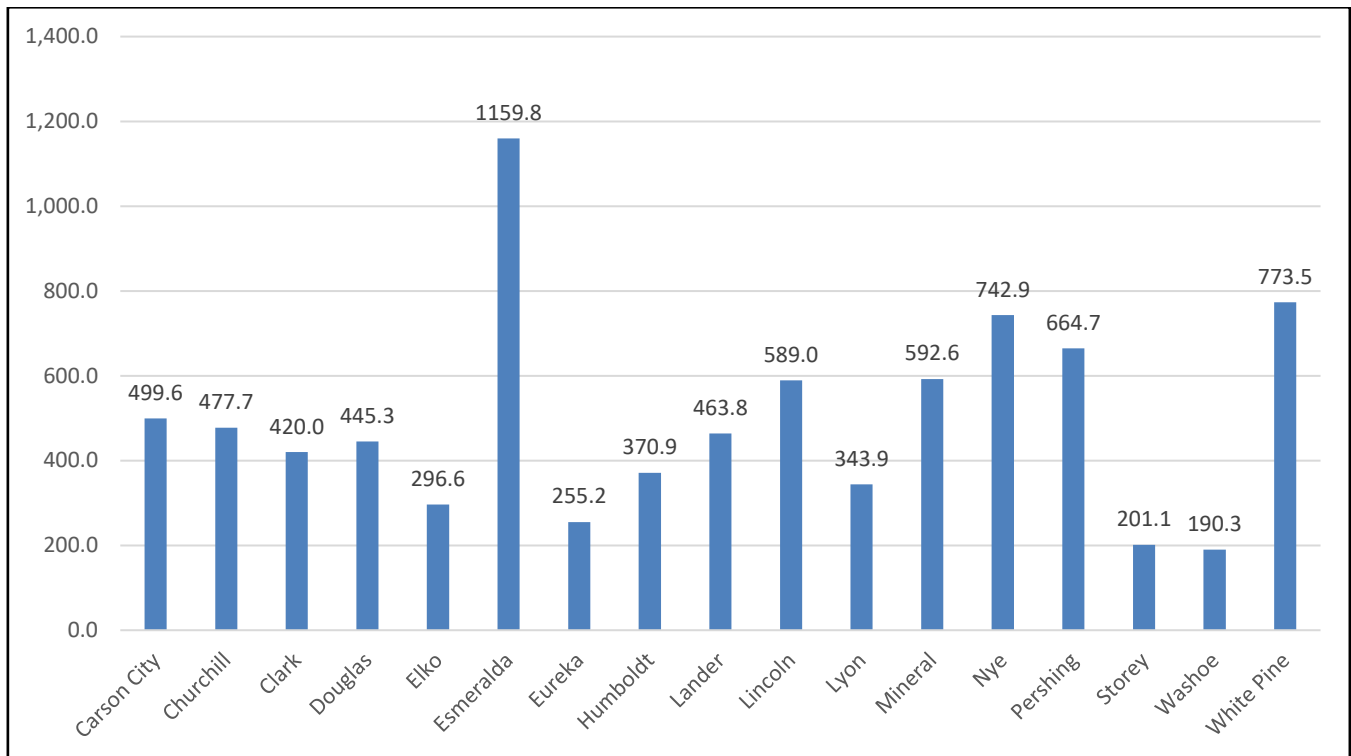
**#2 White Pine County**

**#3 Nye County**

**Table 8: Nevada Trauma Cases by County of Injury (non-duplicated)**

County	Count	Rate per 100,000 (95% CI)
Carson City	287	499.6 (441.8-557.4)
Churchill	128	477.7 (395.0-560.5)
Clark	9,940	420.0 (411.7-428.2)
Douglas	223	445.3 (386.9-503.8)
Elko	163	296.6 (251.1-342.1)
Esmeralda	12	1159.8 (503.6-1815.9)
Eureka	5	255.2 (31.5-478.9)
Humboldt	65	370.9 (280.7-461.1)
Lander	29	463.8 (295.0-632.6)
Lincoln	30	589.0 (378.3-799.8)
Lyon	203	343.9 (296.6-391.2)
Mineral	29	592.6 (376.9-808.3)
Nye	370	742.9 (667.2-818.6)
Pershing	47	664.7 (474.7-854.8)
Storey	9	201.1 (69.7-332.5)
Washoe	944	190.3 (178.1-202.4)
White Pine	81	773.5 (605.1-942.0)
Out of State	1,106	-
Unknown	1,234	-

**Figure 4: County-Specific Trauma Rates per 100,000 County Residents**



This analysis found that Esmeralda County, with 1159.8, had the highest rate of trauma cases per 100,000 residents. White Pine came in second with 773.5, followed by Nye with 742.9.

According to the Federal Information Processing Standard (FIPS) code for trauma cases, Trauma Rates per county are calculated exclusively based on ICD-10 diagnosis coding recorded by treating facilities, without regard for backgrounds, patient histories, or examinations.

## Highest Trauma Cases (Figure 5)

Utilizing FIPS codes of where an injury occurred:

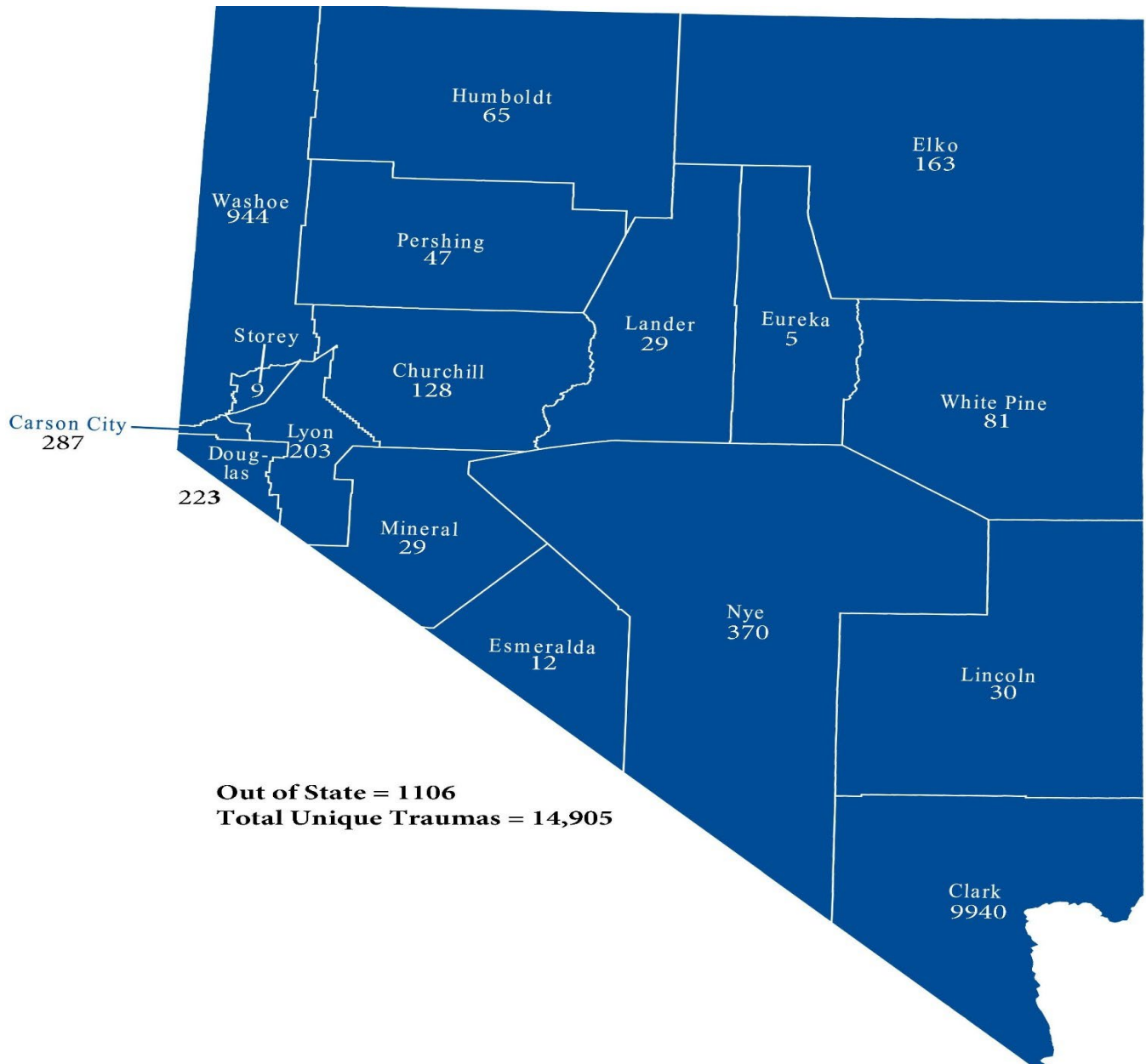
**#1) Clark County recorded the highest number of Trauma Cases at 9,940 Cases.**

**#2) Washoe with 944 Trauma Cases.**

**#3) Nye County with 370 Trauma Cases.**

However, there were 1,106 Trauma Cases that occurred out-of-state.

Figure 5: NV Trauma Cases by County of Injury (Unique Traumas)



**Table 9: Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)**

Age Group	Count	Percent	Deaths	Mortality Proportion (Row Percent)
Pediatric <18	242	9.1%	17	7.0%
Adult 18-64	1193	45.0%	121	10.1%
Geriatric >64	1215	45.8%	100	8.2%
<b>Total</b>	<b>2650</b>	<b>100.0%</b>	<b>238</b>	<b>9.0%</b>

The patient's initial facility is used to analyze Unique Traumas throughout the report, but the final facility is used to analyze mortality data. 1 unknown status (dead or alive).

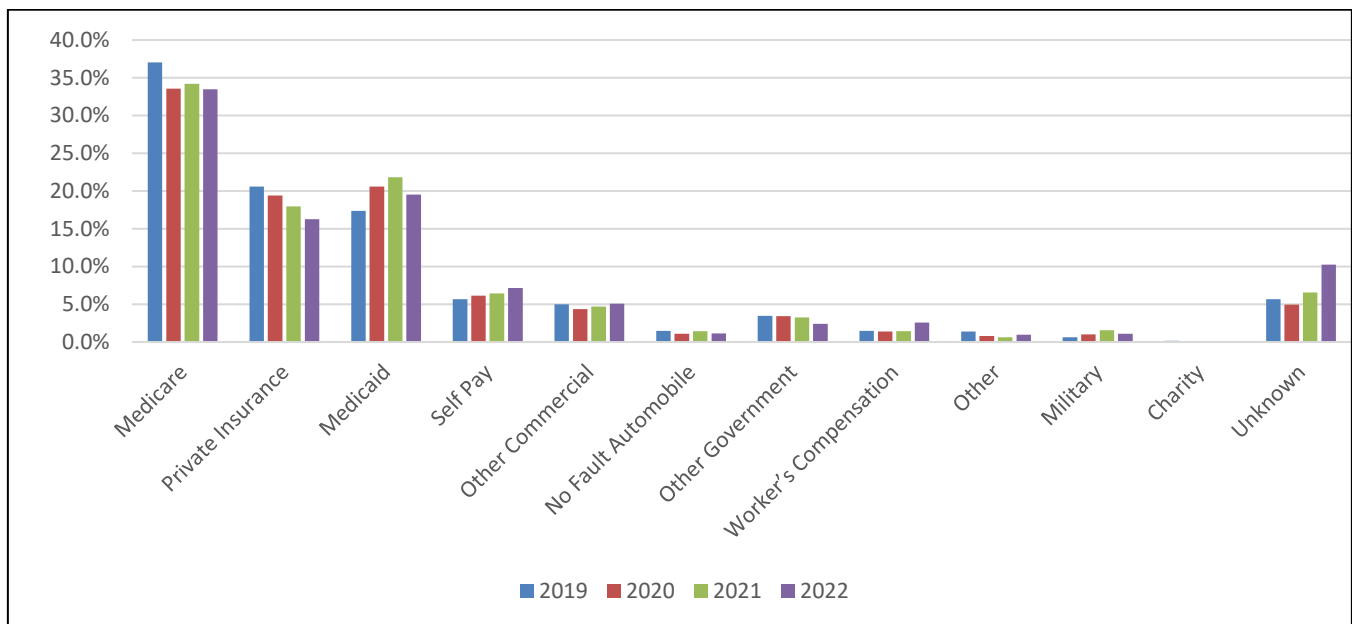
**Table 10: Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)**

Age Groups	Count	Percent	Deaths	Mortality Proportion (Row Percent)
<1	34	1.3%	1	2.9%
1-5	59	2.2%	7	11.9%
6-17	150	5.7%	9	6.0%
18-24	141	5.3%	20	14.2%
25-34	246	9.3%	23	9.3%
35-44	238	9.0%	22	9.2%
45-54	231	8.7%	25	10.8%
55-64	336	12.7%	31	9.2%
65-74	472	17.8%	33	7.0%
75-84	485	18.3%	40	8.2%
85+	257	9.7%	27	10.5%
Unknown	1	0.0%	0	0.0%
<b>Total</b>	<b>2,650</b>	<b>100.0%</b>	<b>238</b>	<b>9.0%</b>

The bulk of the 14,905 reported traumas in Nevada in 2022 were covered by Medicare, Medicaid, private health insurance, and then self-pay.

The variations in the Primary Source of Payment between the years 2019 and 2022 are shown in a column chart in **Table 11**.

**Figure 6: Proportion of Trauma Primary Payment Sources in Nevada, 2019-2022\***



\*Year-over-year trauma data comparison is not recommended due to the changes mentioned in the introduction section of this report. However, the data from previous years in Figure 6 was included as it was derived from proportional data.

**Table 11: Proportion of Trauma Primary Payment Sources in Nevada, 2019-2022**

Primary Source of Payment	2019	2020	2021	2022
Medicare	37.0%	33.5%	34.2%	33.5%
Private Insurance	20.6%	19.4%	18.0%	16.3%
Medicaid	17.4%	20.6%	21.8%	19.5%
Self-Pay	5.7%	6.2%	6.4%	7.2%
Other Commercial	5.0%	4.3%	4.7%	5.1%
No Fault Automobile	1.5%	1.1%	1.4%	1.2%
Other Government	3.5%	3.4%	3.2%	2.4%
Worker's Compensation	1.5%	1.4%	1.5%	2.6%
Other	1.4%	0.8%	0.6%	1.0%
Military	0.6%	1.0%	1.6%	1.1%
Charity	0.1%	0.1%	0.0%	0.0%
Unknown	5.7%	5.0%	6.6%	10.2%



## PLACE AND MECHANISM OF INJURY

**Table 12: Trauma Incidence by Place of Injury (Unique Traumas)**

<b>Place of Injury</b>	<b>Trauma Count</b>	<b>Percent</b>
Residential	6,781	45.49%
Street	3,805	25.53%
Trade and Service Area	826	5.54%
Recreation area	366	2.46%
Sports Area	204	1.37%
Wilderness	270	1.81%
Other Specified	202	1.36%
School or Public Area	176	1.18%
Industrial and Construction	155	1.04%
Farm	41	0.28%
Transport Vehicle as Place	68	0.46%
Military Training Ground	2	0.01%
Railroad Track	3	0.02%
Unknown/Unspecified	2,006	13.46%
<b>Total</b>	<b>14,905</b>	<b>100%</b>

**Table 13: Trauma Incidence and Mortality by Mechanism of Injury (Unique Traumas)**

Mechanism	Count	Percent	Deaths	Mortality Proportion (Row Percent)
Falls	8,381	56.2%	210	2.5%
Motor Vehicle Traffic	2,627	17.6%	179	6.8%
Struck by/Against	912	6.1%	12	1.3%
Firearm	592	4.0%	115	19.4%
Cut/Pierce	518	3.5%	18	3.5%
Motor Vehicle Non-Traffic	178	1.2%	1	0.6%
Other Transport (Land, Sea, Sky)	188	1.3%	2	1.1%
Other Specified	308	2.1%	8	2.6%
Pedal Cyclist, Other	229	1.5%	1	0.4%
Natural/Environmental	203	1.4%	2	1.0%
Pedestrian, Other	86	0.6%	10	11.6%
Unspecified	79	0.5%	2	2.5%
Fire/Burn	72	0.5%	0	0.0%
Unknown	161	1.1%	4	2.5%
Machinery	84	0.6%	0	0.0%
Overexertion	78	0.5%	2	2.6%
Suffocation	209	1.4%	3	1.4%
<b>Total</b>	<b>14,905</b>	<b>100.0%</b>	<b>569</b>	<b>3.8%</b>

In 2022, the state of Nevada saw the highest incidence of traumatic injury caused by Falls (56.2%), Traffic-Related Accidents (17.6%), and Being Struck by/Against (6.1%). In total trauma cases, the highest proportion of deaths came from Firearm incidents (19.4%), Pedestrian incidents (11.6%), and Motor Vehicle Traffic (6.8%).

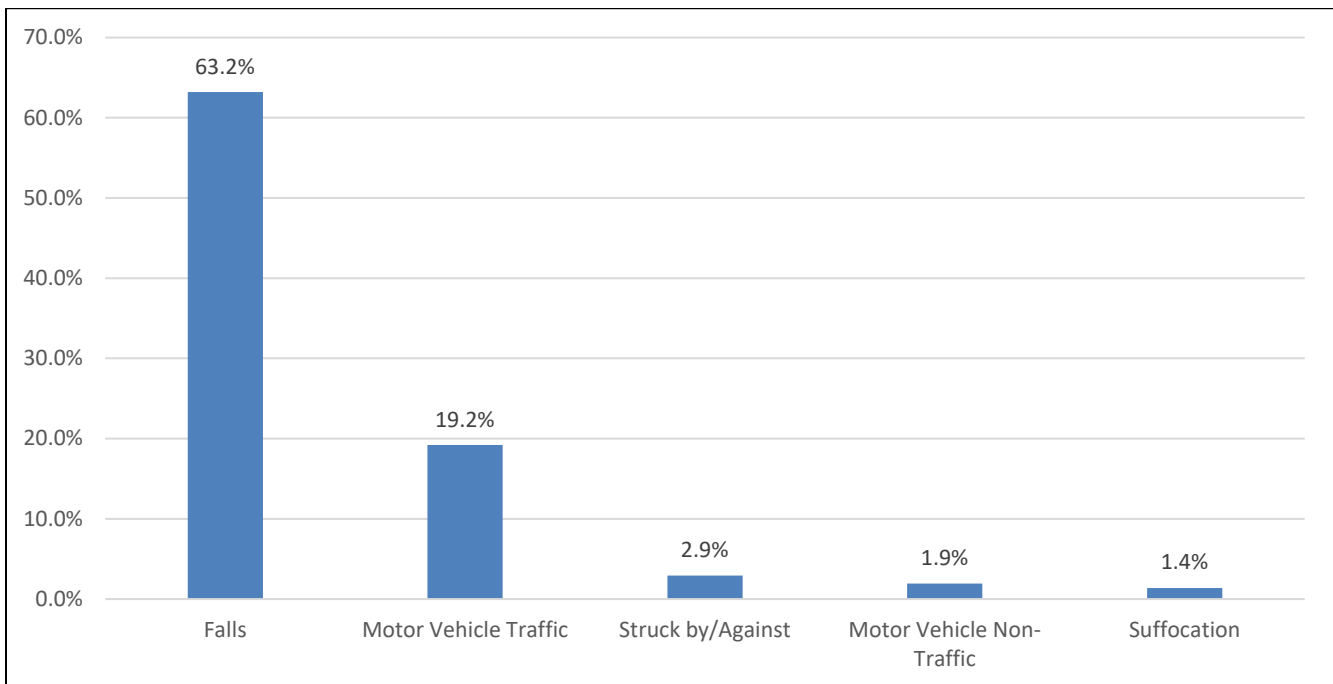
ICD-10 codes are currently used by the NTR to collect trauma data. Some trauma mechanisms are not coded in the ICD-10 system. If the cause of trauma cannot be identified using an ICD-10 code, there are still ICD-10 codes available: Pedestrian, Other, Other Specified, Unspecified, and Unknown.

**Table 14: Trauma Rates for Top Three Mechanisms of Injury by Age (Unique Traumas)**

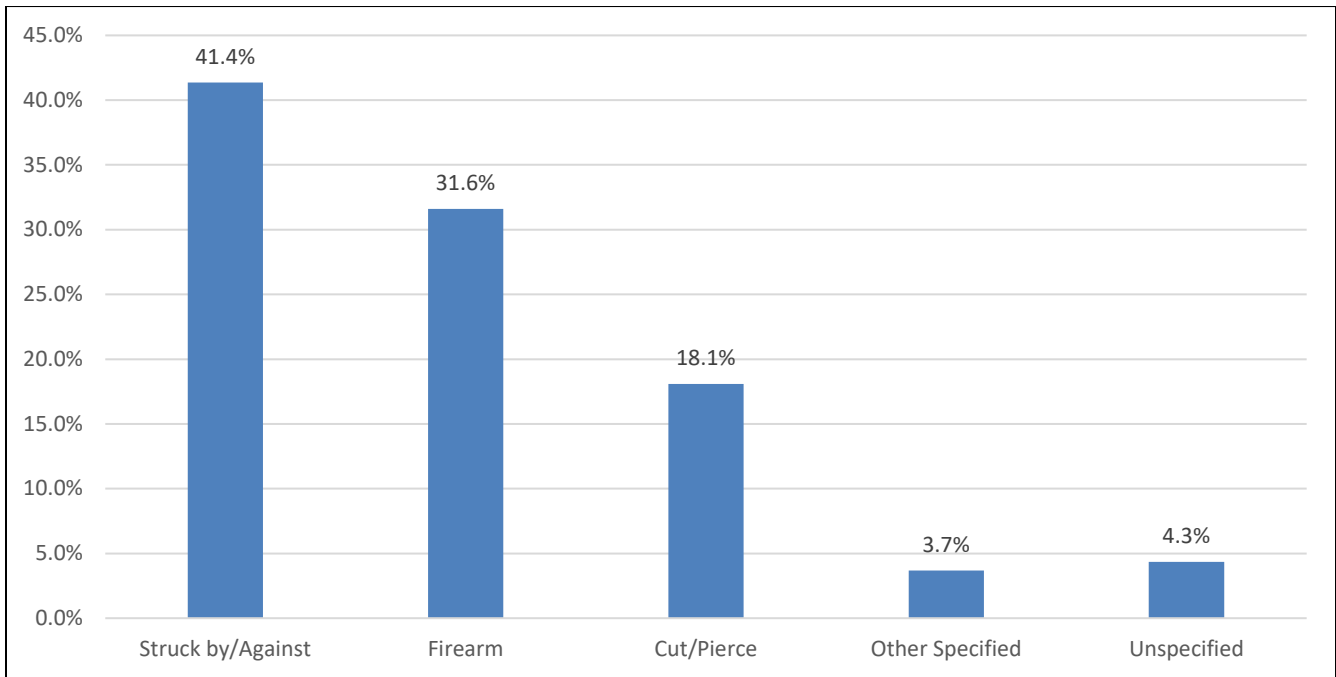
Age Group	Falls		Struck by/Against		Motor Vehicle Traffic	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	391	54.4 (49.0-59.8)	123	17.1 (14.1-20.1)	162	22.5 (19.1-26.0)
Adult 18-64	2,109	105.6 (101.1-110.1)	642	32.1 (29.7-34.6)	1,898	95.0 (90.7-99.3)
Geriatric >64	5,879	1169.8 (1139.9-1199.7)	129	25.7 (21.2-30.1)	500	99.5 (90.8-108.2)
<b>Total</b>	<b>8,379</b>	<b>260.2 (254.7-265.8)</b>	<b>894</b>	<b>27.8 (26.0-29.6)</b>	<b>2,560</b>	<b>79.5 (76.4-82.6)</b>

**Table 14** outlines the top three mechanisms for injury by age. The number one trauma injury per all age groups in 2022 was Falls.

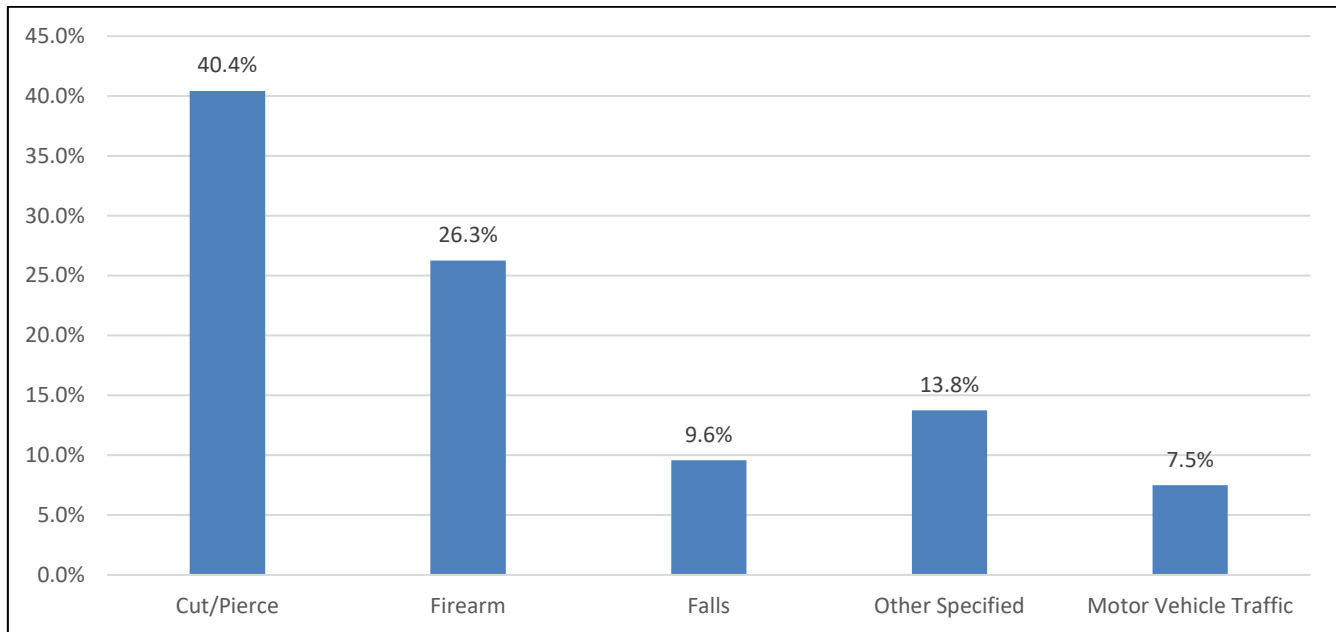
**Figure 7: Top Five Mechanisms of Unintentional Trauma**



**Figure 8: Top Five Mechanisms of Homicide/Assault-Related Trauma**



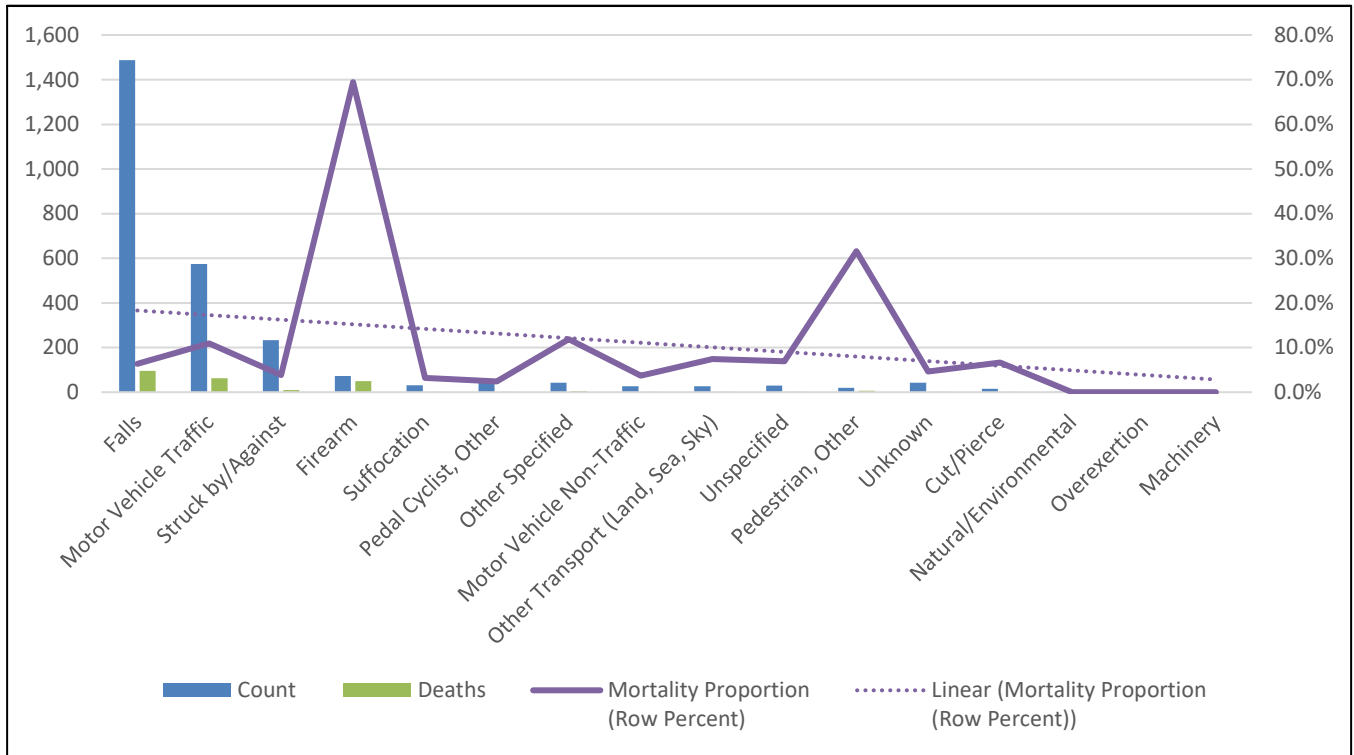
**Figure 9: Top Five Mechanisms of Suicide/Self-Inflicted Trauma**



**Table 15: Traumatic Brain Injury Incidence and Mortality by Mechanism of Injury**

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	1,487	56.1%	95	6.4%
Motor Vehicle Traffic	574	21.7%	63	11.0%
Struck by/Against	233	8.8%	9	3.9%
Firearm	72	2.7%	50	69.4%
Suffocation	31	1.2%	1	3.2%
Pedal Cyclist, Other	42	1.6%	1	2.4%
Other Specified	42	1.6%	5	11.9%
Motor Vehicle Non-Traffic	27	1.0%	1	3.7%
Other Transport (Land, Sea, Sky)	27	1.0%	2	7.4%
Unspecified	29	1.1%	2	6.9%
Pedestrian, Other	19	0.7%	6	31.6%
Unknown	43	1.6%	2	4.7%
Cut/Pierce	15	0.6%	1	6.7%
Natural/Environmental	3	0.1%	0	0.0%
Overexertion	4	0.2%	0	0.0%
Machinery	2	0.1%	0	0.0%
<b>Total</b>	<b>2,650</b>	<b>100.0%</b>	<b>238</b>	<b>9.0%</b>

**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 16: Trauma Incidence and Mortality Proportion by Injury Severity Score (ISS) (Unique Traumas)**

<b>Injury Severity Score</b>	<b>Count</b>	<b>Percent</b>	<b>Deaths</b>	<b>Mortality Proportion (Row Percent)</b>
Minor, 1-8	6,833	45.8%	76	1.1%
Moderate, 9-15	5,927	39.8%	99	1.7%
Serious, 16-24	1,226	8.2%	96	7.8%
Severe, 25-75	888	6.0%	298	33.6%
Missing/NA/ND	31	0.2%	0	0.0%

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility.

In 2022, patients with the lowest mortality rates had a Minor Injury Severity Score (ISS) of 1 to 8. Patients with a Severe ISS of 25 to 75 had the highest mortality rate as a result. Therefore, the chance that a patient will die from their trauma decreases as ISS decreases. On the other hand, a rising score denotes a higher risk of death.

**Table 17: Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas) by Injury Severity**

<b>Injury Severity Score</b>	<b>Count</b>	<b>Column Percent</b>	<b>Deaths</b>	<b>Mortality Proportion (Row Percent)</b>
Minor, 1-8	515	19.4%	6	1.2%
Moderate, 9-15	1,094	41.3%	23	2.1%
Serious, 16-24	532	20.1%	23	4.3%
Severe, 25-75	509	19.2%	186	36.5%
<b>Total</b>	<b>2,650</b>	<b>100.0%</b>	<b>238</b>	<b>9.0%</b>

**Table 18: Injury to ED arrival time for a patient with a score of >15 for their injury, broken down by their location (Rural, Urban, or Statewide).**

County	<1 hour	1-3 hours	3-6 hours	6-9 hours	9-12 hours	>12 hours
Carson City	15	0	0	0	0	0
Churchill	14	3	1	0	0	0
Clark	1,181	145	29	19	11	45
Douglas	13	2	1	0	0	0
Elko	8	3	1	0	0	0
Esmeralda	3	0	2	0	0	0
Eureka	1	0	0	0	0	0
Humboldt	8	1	0	0	0	1
Lander	1	0	2	0	0	0
Lincoln	5	2	0	0	0	0
Lyon	24	0	0	0	1	1
Mineral	19	0	1	0	0	0
Nye	23	3	1	1	0	1
Pershing	17	1	0	0	0	0
Storey	0	0	0	0	0	0
Unknown	123	8	13	1	3	6
Washoe	155	6	0	0	0	1
White Pine	7	14	1	0	0	0
Out of State	180	35	26	12	6	8
<b>Total</b>	<b>1,797</b>	<b>223</b>	<b>78</b>	<b>33</b>	<b>21</b>	<b>63</b>

## PATIENT TRANSPORTATION

A hospital can be reached by patients in a variety of ways. In Nevada, ground ambulances outnumbered private cars and walk-ins when transporting trauma patients in 2022. (Table 19)

**Table 19: Trauma Incidence by Mode of Arrival (Unique Traumas)**

Mode of Arrival	Trauma Count	Percent
Ground Ambulance	10,291	69.04%
Private Vehicle or Walk-in	3,473	23.30%
Helicopter Ambulance	1,007	6.76%
Fixed-Wing Ambulance	79	0.53%
Water Ambulance	1	0.01%
Police	37	0.25%
Other	8	0.05%
Public Safety	1	0.01%
Missing	8	0.05%
<b>Total</b>	<b>14,905</b>	<b>100%</b>

It is useful to look at patient methods of arrival based on their Injury Severity Score (ISS) ranges in addition to reviewing the data by mode of patient arrival (Table 20). As demonstrated in Table 20, the people with the greatest ISS were also the ones who were frequently transported to hospitals by ground ambulance.

**Table 20: Mode of arrival by Injury Severity Score**

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	4,339	4,401	849	682	20
Private Vehicle or Walk-in	2,107	1,039	234	78	15
Helicopter Ambulance	270	387	209	140	1
Fixed-Wing Ambulance	26	35	10	8	0
Water Ambulance	0	1	0	0	0
Police	24	8	3	1	1
Other	2	5	1	0	0
Public Safety	1	0	0	0	0
Missing	5	2	0	0	1
<b>Total</b>	<b>6,774</b>	<b>5,878</b>	<b>1,306</b>	<b>909</b>	<b>38</b>

## **PATIENT DISCHARGE AND TRANSFER**

Of the 14,905 trauma cases that occurred in Nevada in 2022, 2,022 were sent to trauma centers. The most trauma patients were transferred to Sunrise Hospital Medical Center from other facilities. The trauma centers with the lowest average ISS were all located at St. Rose Dominican Hospital Siena Campus. (See **Table 21**)

**Table 21: 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	392	9.2	7.6	1 - 75
St. Rose Dominican Hospital Siena Campus	45	5.9	3.4	1 - 17
Sunrise Hospital Medical Center	853	8.5	6.8	1 - 41
University Medical Center	732	8.7	7.3	1 - 57

“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**

**Table 22: Injury Intent and Drug/Alcohol Use (Unique Traumas)**

Injury Intent	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Unintentional	13,209	1,952	15%
Suicide	240	98	41%
Homicide/Assault	1,199	401	33%
Legal Intervention	21	7	33%
Undetermined (accidental/intentional)	115	30	26%
Unknown	3	0	0%
Missing	118	14	12%
<b>Total</b>	<b>14,905</b>	<b>2,502</b>	<b>17%</b>



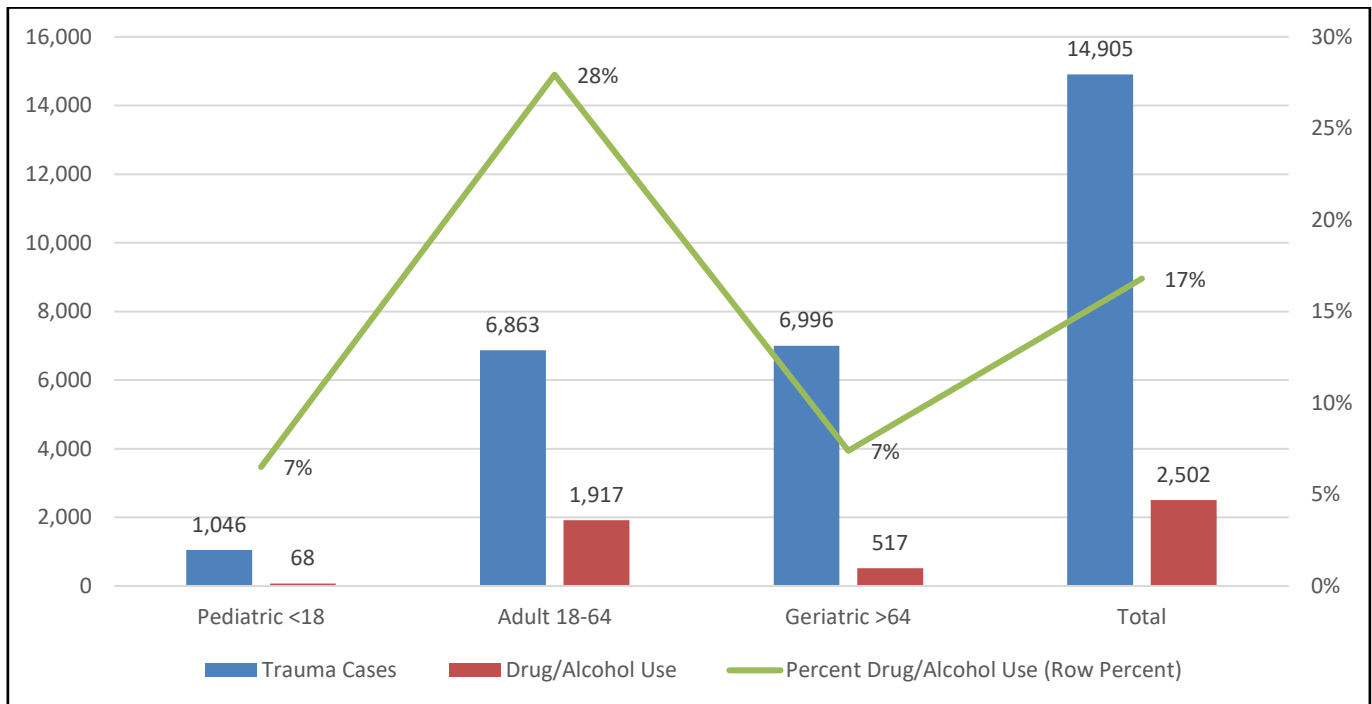
2,502 (17%) of the 14,905 distinct traumas listed in the NTR for 2022 involved drug or alcohol use. Additionally, drug or alcohol use was present in 41% of suicides and 33% of trauma incidents requiring legal assistance.

**Table 23: Age-Specific Prevalence of Restraint Use Among Passengers in Moving Vehicles (Positive Blood Alcohol Content [BAC])**

Protective Device Restraint	Pediatric <18	Adult 18-64	Geriatric >64	Total
None	8	401	98	507
Seatbelt – Lap & Shoulder	1	116	6	123
Seatbelt – Lap Only	0	4	1	5
Seatbelt – Shoulder Only	0	1	0	1
Seatbelt – NFS	0	17	0	17
Unknown	0	0	0	0
<b>Total</b>	<b>9</b>	<b>539</b>	<b>105</b>	<b>653</b>

Adults between the ages of 18 and 64 made up much of the population with positive or high Blood Alcohol Content (BAC) at the time of the reported trauma incident. Of the 6,863 different types of traumas, 1,917 cases (or 28%) had positive BAC results.

**Figure 11: Age-Specific Trauma and Drug/Alcohol Use (Unique Traumas)**



There was **no** restraint or safety measure used in 923 of the 1,203 unique trauma cases with reports of drug or alcohol use. In America, 0.08 is the legal limit for blood alcohol content (BAC), and anything higher is extremely risky. BAC levels over 0.40 have the potential to be fatal.

**Table 24: Age-Specific Ratio of Restraint Use Among Drivers and Passengers in Motor Vehicles (Use of Drugs and Alcohol)**

Protective Device Restraint	Pediatric <18	Adult 18-64	Geriatric >64	Total
None	35	724	164	923
Seatbelt – Lap & Shoulder	4	190	24	218
Seatbelt – Lap Only	1	20	5	26
Seatbelt – NFS	0	32	2	34
Child Booster Seat	1	0	0	1
Unknown	0	0	0	0
<b>Total</b>	<b>41</b>	<b>967</b>	<b>195</b>	<b>1,203</b>

**Table 25: 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	8,379	874	10%
Motor Vehicle Traffic	2,560	824	32%
Struck by/Against	894	202	23%
Firearm	591	172	29%
Cut/Pierce	513	149	29%
Other Specified	306	36	12%
Motor Vehicle Non-Traffic	254	45	18%
Pedal Cyclist, Other	241	27	11%
Natural/Environmental	209	6	3%
Suffocation	183	36	20%
Unknown	181	37	20%
Other Transport (Land, Sea, Sky)	173	27	16%
Unspecified	95	33	35%
Pedestrian, Other	90	27	30%
Overexertion	83	2	2%
Machinery	80	2	3%
Fire/Burn	72	3	4%
Drowning	1	0	0%
<b>Total</b>	<b>14,905</b>	<b>2,502</b>	<b>17%</b>

The following specific traumas were linked to the highest reported rates of drug and alcohol use: 32% of cases involving motor vehicle traffic and 30% of cases classified as pedestrian related. These are followed by injuries caused by a firearm and cuts or piercings, both of which have drug or alcohol use in 29% of cases. No mechanism of injury was found in 35% of incidents.

**Table 26: Trauma Incidence by Mechanism of Injury (Unique Traumas) and BAC Levels (Interval)**

<b>Mechanism</b>	<b>&lt;0.08</b>	<b>0.08 to 1</b>	<b>2 to 20</b>	<b>21 to 50</b>	<b>51 to 100</b>	<b>101 to 200</b>	<b>more than 200</b>	<b>Unknown</b>	<b>Total</b>
Falls	14	12	45	31	61	123	194	7,899	8,379
Motor Vehicle Traffic	0	1	31	32	52	141	212	2,091	2,560
Struck by/Against	3	3	4	6	11	28	54	785	894
Firearm	0	1	7	9	21	26	23	504	591
Cut/Pierce	1	3	8	1	13	24	31	432	513
Other Specified	1	1	1	0	2	3	10	288	306
Motor Vehicle Non-Traffic	2	1	5	3	2	9	9	223	254
Pedal Cyclist, Other	0	0	0	0	4	7	3	227	241
Natural/Environmental	1	0	0	0	0	0	2	206	209
Suffocation	0	0	4	7	4	9	4	155	183
Unknown	0	1	3	1	2	7	12	155	181
Other Transport (Land, Sea, Sky)	0	0	2	2	0	7	5	157	173
Unspecified	0	0	0	2	1	6	9	77	95
Pedestrian, Other	0	1	0	1	4	2	11	71	90
Overexertion	0	0	0	0	0	2	0	81	83
Machinery	0	0	0	0	0	0	0	80	80
Fire/Burn	0	0	0	0	0	0	0	72	72
Drowning	0	0	0	0	0	0	0	1	1
<b>Total</b>	<b>22</b>	<b>24</b>	<b>110</b>	<b>95</b>	<b>177</b>	<b>394</b>	<b>579</b>	<b>13,504</b>	<b>14,905</b>

**Table 27: Trauma Incidence by County and BAC (Unique Traumas)**

County	<0.08	0.08 to 1	2 to 20	21 to 50	51 to 100	101 to 200	more than 200	Unknown	Total
Out of State	0	1	13	11	22	37	26	996	1,106
Carson City	0	5	1	2	3	7	15	254	287
Churchill	0	0	0	3	2	5	4	114	128
Clark	14	10	59	48	105	225	399	9,080	9,940
Douglas	0	1	3	2	1	3	5	208	223
Elko	0	0	1	0	1	3	5	153	163
Esmeralda	0	0	0	0	0	0	0	12	12
Eureka	0	0	0	0	0	0	1	4	5
Humboldt	0	2	0	0	3	2	1	57	65
Lander	0	0	0	1	0	0	1	27	29
Lincoln	0	0	0	0	0	0	0	30	30
Lyon	0	1	1	3	2	4	8	184	203
Mineral	0	0	1	0	0	0	1	27	29
Nye	0	0	0	0	3	5	4	358	370
Pershing	0	0	2	0	1	2	1	41	47
Storey	0	0	0	0	1	0	1	7	9
Washoe	1	2	13	12	17	44	61	794	944
White Pine	0	0	0	1	0	2	7	71	81
Unknown	7	2	16	12	16	55	39	1,087	1,234
<b>Total</b>	<b>22</b>	<b>24</b>	<b>110</b>	<b>95</b>	<b>177</b>	<b>394</b>	<b>579</b>	<b>13,504</b>	<b>14,905</b>

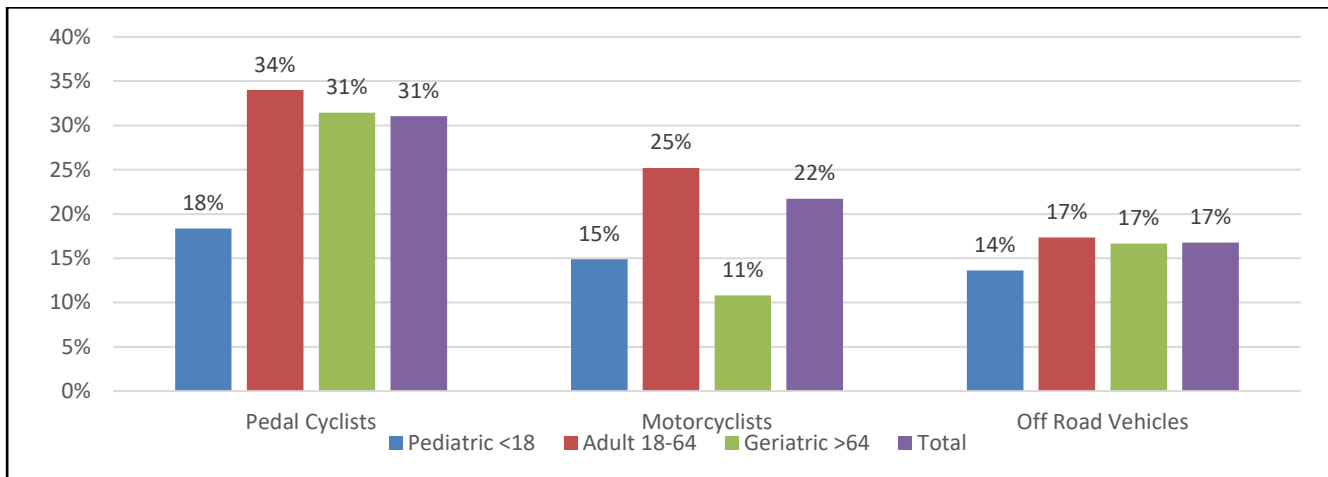
**Table 28: Trauma Incidence by County and Drug/Alcohol Use (Unique Trauma)**

County	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Out of State	1,106	242	22%
Carson City	287	48	17%
Churchill	128	16	13%
Clark	9,940	1,660	17%
Douglas	223	18	8%
Elko	163	13	8%
Esmeralda	12	1	8%
Eureka	5	1	20%
Humboldt	65	9	14%
Lander	29	2	7%
Lincoln	30	0	0%
Lyon	203	22	11%
Mineral	29	3	10%
Nye	370	29	8%
Pershing	47	11	23%
Storey	9	2	22%
Washoe	944	178	19%
White Pine	81	14	17%
Unknown	1,234	233	19%
<b>Total</b>	<b>14,905</b>	<b>2,502</b>	<b>17%</b>

## SAFETY EQUIPMENT

Wearing a helmet is crucial for safety, particularly when operating an off-road vehicle, motorcycle, or bicycle. Sadly, even though it is required by law, not everyone who partakes in these activities does so while wearing a helmet. Overall, helmet use among trauma victims was 31% while riding a bike, 22% while riding a motorcycle, and 17% while operating an off-road vehicle. —**Figure 12.**

**Figure 12: Proportion of Helmet Use Among Pedal Cyclists, Motor Cyclists, and Off-Road Users (UT)**



In Nevada, 1,570 of the 2,627 people injured in motor vehicle accidents reported wearing age-appropriate restraints at the time of the accident. According to the National Highway Traffic Safety Administration (NHTSA), in 2022, 91.6 percent of Americans wore seat belts, showing that they are aware of the importance of doing so for their own safety. The benefits of wearing a seatbelt are covered by the NHTSA in a report on injury prevention. In the United States, there were 26,325 fatalities in passenger cars in 2021, and 50% of the victims were not wearing seat belts. Seat belts are thought to have saved 14,955 lives in a single year and could have saved an additional 2,549 people. Nearly 60% of rear seat passengers who died in collisions in 2021 were not wearing seat belts, according to data on known seat belt use. According to the NHTSA, using a seatbelt can reduce your risk of suffering a fatal injury by 45% and a moderate to critical injury by 50%. The death rate for passengers 13 to 14 years old in unrestrained passenger vehicles was 54% in 2021. When children's seat belts are either improperly worn or unfastened, they are much more likely to suffer injuries.

**Table 29: Age-Specific Restraint Use Among Motor-Vehicle Traffic Occupants**

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total
Seatbelt	38	697	265	1,000
Child or Infant booster/car seat	12	0	0	12
None	46	315	69	430
Unknown	7	93	28	128
Total	103	1,105	362	1,570

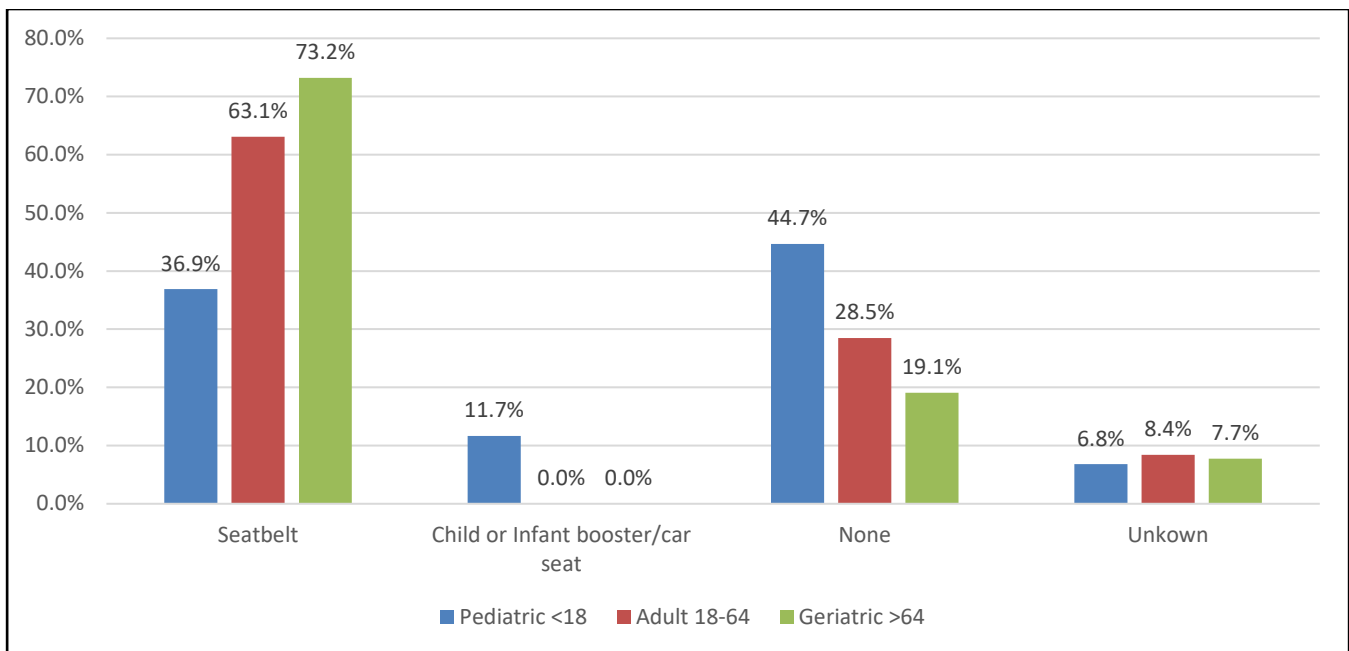
**Table 30: Age-Specific Proportion of Restraint Use Among Motor-Vehicle Traffic Occupants**

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total (Column percent)
Seatbelt	36.9%	63.1%	73.2%	63.7%
Child or Infant booster/car seat	11.7%	0.0%	0.0%	0.8%
None	44.7%	28.5%	19.1%	27.4%
Unknown	6.8%	8.4%	7.7%	8.2%
<b>Total Age-Specific Proportion</b>	<b>6.6%</b>	<b>70.4%</b>	<b>23.1%</b>	<b>100.0%</b>

- 6.6% of passengers in cars are under 18, 70.4% are between the ages of 18 and 64, and 23.1% are over 64.
- In motor vehicle occupants, 63.7% wore a seatbelt, 0.8% sat in a kid car seat or booster, and 27.4% had no restraints at all. 8.2% of automobile passengers also have unknown restraint information.
- 36.9% of passengers under the age of 18 in moving vehicles involved in trauma related incidents were wearing seat belts at the time of injury.

**Table 30** and **Figure 13** demonstrate that 36.9% of pediatric passengers involved in Motor vehicle related traumas were properly restrained by a seat belt. While only 63.1% of adult drivers reported wearing a seatbelt, the elderly population over the age of 64 reported wearing one at a rate of 73.2%. Not every person involved in a traumatizing motor vehicle accident was eager to share information about the use of restraints at the time of the incident. It is also important to keep in mind that **Figure 13** refers to the populations in that age range that were said to be properly restrained using the appropriate kind of safety restraint.

**Figure 13: Age-Specific Proportion of Restraint Use Among Motor-Vehicle Traffic Occupants**



## **FALLS – BY LAST TRANSFER FACILITY**

Slipping, tripping, and stumbling were considered the main contributors to the types of falls that resulted in trauma injuries, accounting for 64.8%. Despite this, falls related to suicide (such as falls from high places) were the most frequent types of falls that resulted in death.

In 2022, falls were Nevada's leading cause of trauma. In line with this, most traumas occur at home (**Table 12**). In analyzing the falls by sex, females experienced more trauma than males by 807 cases. (**Table 31**).

A breakdown of the types of falls is provided in **Table 32**.

**Table 31: Trauma Rate for Falls by Sex (Unique Traumas)**

Sex	n	Rate per 100,000 (95% CI)
Female	4,709	292.2 (283.8-300.5)
Male	3,902	242.7 (235.0-250.3)
Unknown	1	-
<b>Total</b>	<b>8,612</b>	<b>267.5 (261.8-273.1)</b>

**Table 32: 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)	5,579	64.8%	135	2.4%
Unspecified	868	10.1%	37	4.3%
From Furniture	556	6.5%	13	2.3%
Steps	456	5.3%	11	2.4%
Multi-Level: Cliff, Tree, Water, etc.	257	3.0%	2	0.8%
On or From Ladder/Scaffolding	238	2.8%	7	2.9%
Pedestrian Conveyance Accident	303	3.5%	5	1.7%
Out of Building or Structure	106	1.2%	2	1.9%
Collision, Push or Shove By, or Other Person	71	0.8%	0	0.0%
Playground Equipment	66	0.8%	1	1.5%
Suicide-Related	35	0.4%	4	11.4%
Fall Due to Environmental Factors	71	0.8%	0	0.0%
Undetermined Fall from High Place	4	0.0%	0	0.0%
Assault Related	2	0.0%	0	0.0%
<b>Total</b>	<b>8,612</b>	<b>100.0%</b>	<b>217</b>	<b>2.5%</b>

**Table 33: Trauma Rate by Age and Type of Fall (Unique Traumas)**

Age Group	Type of Fall					
	Unspecified		From Same Level		From Furniture	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	14	1.9 (0.9-3.0)	100	13.9 (11.2-16.6)	75	10.4 (8.1-12.8)
Adult 18-64	158	7.9 (6.7-9.1)	1,171	58.6 (55.3-62.0)	94	4.7 (3.8-5.7)
Geriatric >64	284	56.5 (49.9-63.1)	4,308	857.2 (831.6-882.8)	387	77.0 (69.3-84.7)
<b>Total</b>	<b>456</b>	<b>14.2 (12.9-15.5)</b>	<b>5,579</b>	<b>173.3 (168.7-177.8)</b>	<b>556</b>	<b>17.3 (15.8-18.7)</b>

## FINAL NOTE

Trauma Registry (NTR) continues to improve due to increased data entry compliance and accuracy. The NTR Manager and Coordinator thank all NTR users for their perseverance in mastering accurate data entry into the NTR at the various trauma and non-trauma centers throughout Nevada. We appreciate and are aware of your commitment.

We are working to compile and maintain complete historical data for Nevada's trauma centers as collaboration among the facilities and the Nevada Trauma Registry continues to grow. Additionally, these data and subsequent reports become more valuable to the various NTR community stakeholders

through ongoing partnerships to improve the quantity and quality of the information in the NTR.

## **CITATIONS**

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National Highway Traffic Safety Administration (NHTSA). Seat Belts Save Lives.  
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## **ADDITIONAL INFORMATION**

For additional information regarding this publication, contact:

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For counties that requested precise breakdowns of these statistics, the appendices below include detailed trauma findings. If any county or facility seeks to get specific trauma data for their hospital facilities and zip codes, please file an information request with the contact noted above. Please keep in mind that all data is gathered from the Nevada State Trauma Registry and is self-reported by treating facilities throughout the state. Readers and requestors of information should be aware that there may be minor inconsistencies if facilities did not fully capture trauma data in their reports.

## **FUNDING SOURCE**

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## **RECOMMENDED CITATION**

Division of Public and Behavioral Health. *2022 Annual Trauma Registry Report*. Carson City, Nevada. e 1.0, June 2023. (Division of Public and Behavioral Health, 2023)



# **APPENDIX A: DOUGLAS COUNTY RESULTS**

## APPENDIX A: TRAUMA CASES BY FACILITY

Table 1: 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	0.0%
	Centennial Hills Hospital	0	0.0%	0	0.0%
	Desert Springs Hospital Center	0	0.0%	0	0.0%
	Henderson ER at Green Valley Ranch	0	0.0%	0	0.0%
	Henderson Hospital	0	0.0%	0	0.0%
	Mesa View Regional Hospital	0	0.0%	0	0.0%
	Mike O'Callaghan Federal Medical Center	0	0.0%	0	0.0%
	Mountain View ER at Aliante	0	0.0%	0	0.0%
	Mountain View - ER at Skye Canyon	0	0.0%	0	0.0%
	Mountain View Hospital	0	0.0%	0	0.0%
	North Vista Hospital	0	0.0%	0	0.0%
	Southern Hills ER at South Las Vegas Blvd	0	0.0%	0	0.0%
	Southern Hills ER at the Lakes	0	0.0%	0	0.0%
	Southern Hills Hospital Medical Center	0	0.0%	0	0.0%
	Spring Valley ER at Blue Diamond	0	0.0%	0	0.0%
	Spring Valley Hospital Medical Center	0	0.0%	0	0.0%
	St. Rose Dominican Hospital Blue Diamond	0	0.0%	0	0.0%
	St. Rose Dominican Hospital De Lima Campus	0	0.0%	0	0.0%
	St. Rose Dominican Hospital North Las Vegas	0	0.0%	0	0.0%
	St. Rose Dominican Hospital San Martin Campus	0	0.0%	0	0.0%
	St. Rose Dominican Hospital Siena Campus	0	0.0%	0	0.0%
	St. Rose Dominican Hospital West Flamingo	0	0.0%	0	0.0%
	St. Rose Dominican Hospital West Sahara	0	0.0%	0	0.0%
	Summerlin Hospital Medical Center	0	0.0%	0	0.0%
Sunrise Hospital Medical Center	0	0.0%	0	0.0%	
University Medical Center	0	0.0%	1	0.3%	
Valley Hospital Medical Center	0	0.0%	0	0.0%	
Washoe County	Northern Nevada Medical Center	0	0.0%	0	0.0%
	Northern Nevada Medical Center - ER at McCarran	1	0.4%	1	0.3%
	Northern Nevada Sierra Medical Center	0	0.0%	0	0.0%
	Renown Regional Medical Center	37	14.3%	75	25.2%
	Renown South Meadows Medical Center	0	0.0%	0	0.0%
	St. Mary's Regional Medical Center	0	0.0%	0	0.0%
All Other Counties	Banner Churchill Community Hospital	0	0.0%	0	0.0%
	Battle Mountain General Hospital	0	0.0%	0	0.0%
	Carson Tahoe Regional Medical Center	91	35.1%	91	30.5%
	Carson Valley Medical Center	128	49.4%	128	43.0%
	Desert View Hospital	1	0.4%	1	0.3%
	Grover C. Dils Medical Center	0	0.0%	0	0.0%
	Humboldt General Hospital	0	0.0%	0	0.0%
	Mt. Grant General Hospital	1	0.4%	1	0.3%
	Northeastern Nevada Regional Hospital	0	0.0%	0	0.0%
	Pershing General Hospital	0	0.0%	0	0.0%
	South Lyon Medical Center	0	0.0%	0	0.0%
	Williams Bee Ririe Hospital	0	0.0%	0	0.0%
<b>Nevada (Total)</b>		<b>259</b>	<b>100.0%</b>	<b>298</b>	<b>100.0%</b>

**Table 2: Trauma Center Levels 1 and 2 Trauma Incidence and Mortality Proportion by Designation**

Trauma Center designation	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Trauma Center level 1	1	1.3%	0	0.0%
Trauma Center level 2	75	98.7%	1	1.3%
<b>Total</b>	<b>76</b>	<b>100.0%</b>	<b>1</b>	<b>1.3%</b>

**APPENDIX A: DEMOGRAPHICS**

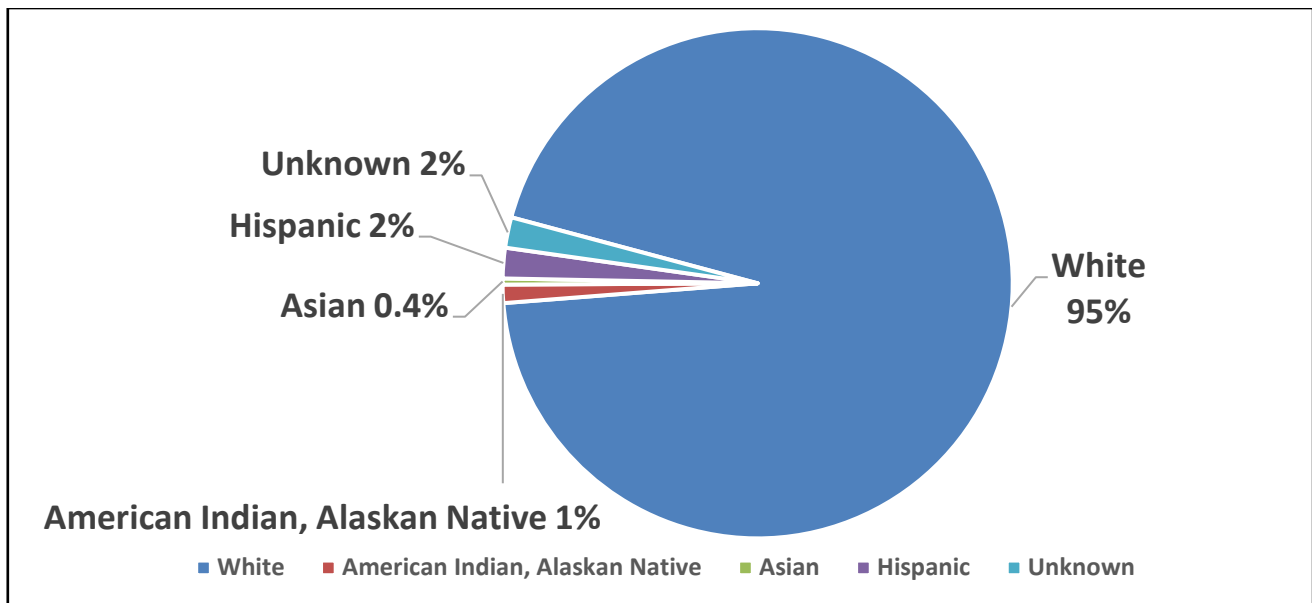
**Table 3: Douglas County Trauma Cases by Sex (Unique Traumas)**

Sex	Count	Column Percent	Rate per 100,000 (95% CI)
Male	140	54.1%	8.7 (7.3-10.1)
Female	119	45.9%	7.4 (6.1-8.7)
<b>Total</b>	<b>259</b>	<b>100%</b>	<b>8.0 (7.1-9.0)</b>

**Table 4: Douglas County Trauma Cases by Race/Ethnicity (Unique Traumas)**

Race/Ethnicity	Count	Column Percent	Rate per 100,000 (95% CI)
White	245	94.6%	15.6 (13.6-17.5)
American Indian, Alaskan Native	3	1.2%	8.4 (0.0-18.0)
Asian	1	0.4%	0.3 (0.0-0.9)
Hispanic	5	1.9%	0.5 (0.1-0.9)
Unknown	5	1.9%	0.0 (0.0-0.0)
<b>Total</b>	<b>259</b>	<b>100.0%</b>	<b>8.0 (7.1-9.0)</b>

**Figure 1: Douglas County Percentage of Unique Trauma Cases by Race/Ethnicity (Unique Traumas)**



**Table 5: Douglas County Age-Specific Trauma Cases by Race/Ethnicity (Unique Traumas)**

Age Groups	White	Black	American Indian, Alaskan Native	Asian	Hispanic	Other	Unknown	Total
6-17	7	0	0	0	0	0	0	7
18-24	6	0	1	0	1	0	1	9
25-34	7	0	1	0	0	0	0	8
35-44	6	0	0	0	0	0	0	6
45-54	15	0	0	0	0	0	0	15
55-64	15	0	0	0	2	0	2	19
65-74	43	0	0	1	0	0	1	45
75-84	85	0	1	0	1	0	1	88
85+	61	0	0	0	1	0	0	62
<b>Total</b>	<b>245</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>259</b>

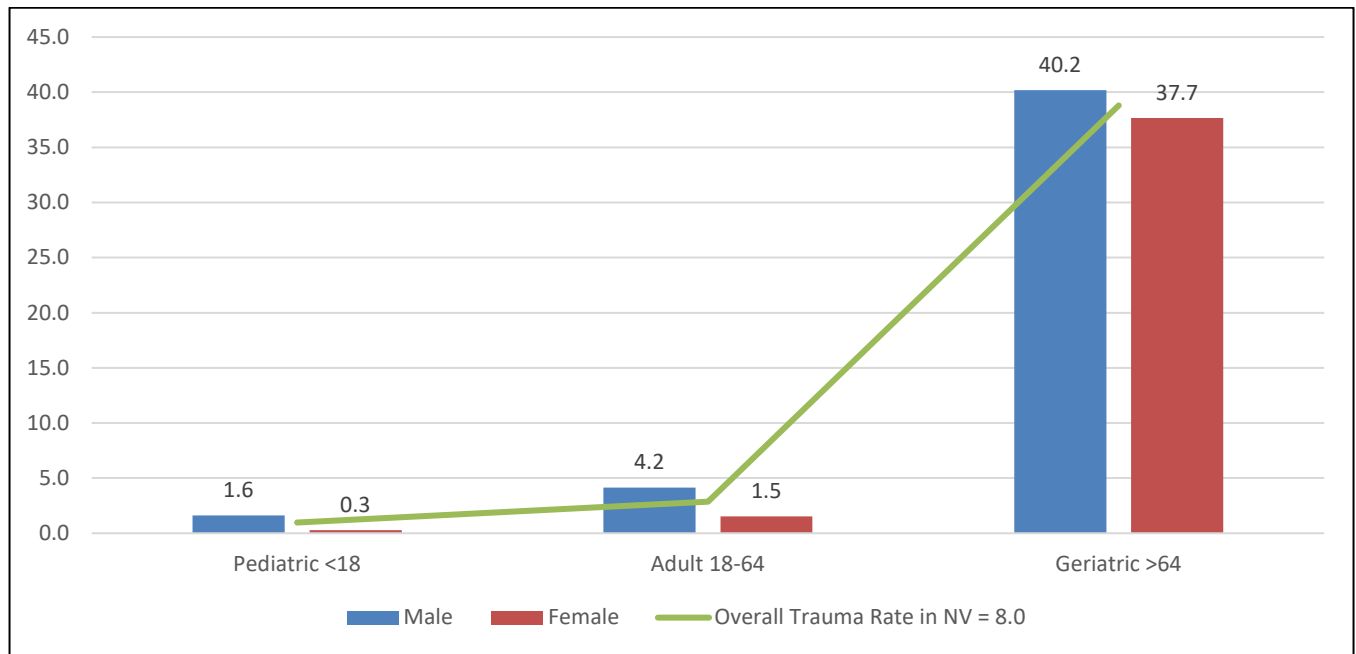
**Table 6: Douglas County Age-Specific Trauma Cases and Mortality Proportion (Unique Traumas)**

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
6-17	7	2.7%	0	0.0%
18-24	9	3.5%	0	0.0%
25-34	8	3.1%	0	0.0%
35-44	6	2.3%	0	0.0%
45-54	15	5.8%	1	6.7%
55-64	20	7.7%	0	0.0%
65-74	45	17.4%	0	0.0%
75-84	88	34.0%	3	3.4%
85+	61	23.6%	2	3.3%
<b>Total</b>	<b>259</b>	<b>100.0%</b>	<b>6</b>	<b>2.3%</b>

**Table 7: Age and Sex-Specific Trauma Rate per 100,000 Douglas County 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	6	1.6 (0.3-2.9)	1	0.3 (0.0-0.8)	7	1.0 (0.3-1.7)
Adult 18-64	42	4.2 (2.9-5.4)	15	1.5 (0.8-2.3)	57	2.9 (2.1-3.6)
Geriatric >64	92	40.2 (32.0-48.4)	103	37.7 (30.4-44.9)	195	38.8 (33.4-44.2)
<b>Total</b>	<b>140</b>	<b>8.7 (7.3-10.1)</b>	<b>119</b>	<b>7.4 (6.1-8.7)</b>	<b>259</b>	<b>8.0 (7.1-9.0)</b>

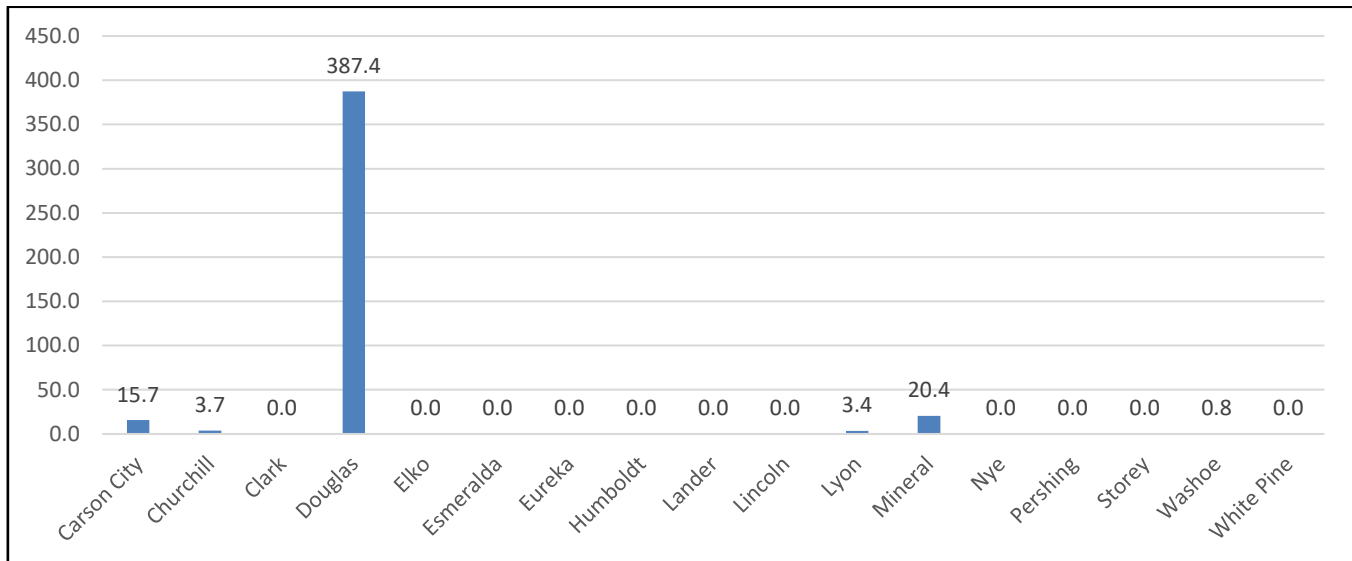
**Figure 2: Age and Sex-Specific Trauma Rates per 100,000 Douglas County Residents**



**Table 8: Douglas County Trauma Cases by County of Injury (Non-Duplicated)**

County	Count	Rate per 100,000 (95% CI)
Carson City	9	15.7 (5.4-25.9)
Churchill	1	3.7 (0.0-11.0)
Clark	0	0.0 (0.0-0.0)
Douglas	194	387.4 (332.9-441.9)
Elko	0	0.0 (0.0-0.0)
Esmeralda	0	0.0 (0.0-0.0)
Eureka	0	0.0 (0.0-0.0)
Humboldt	0	0.0 (0.0-0.0)
Lander	0	0.0 (0.0-0.0)
Lincoln	0	0.0 (0.0-0.0)
Lyon	2	3.4 (0.0-8.1)
Mineral	1	20.4 (0.0-60.5)
Nye	0	0.0 (0.0-0.0)
Pershing	0	0.0 (0.0-0.0)
Storey	0	0.0 (0.0-0.0)
Washoe	4	0.8 (0.0-1.6)
White Pine	0	0.0 (0.0-0.0)
Out of State	4	-
Unknown	44	-

**Figure 3: County-Specific Trauma Rates per 100,000 Douglas County Residents**



**Table 9: Douglas County Age-Specific Traumatic Brain Injury and Mortality Proportion (Unique Traumas)**

Age Group	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Pediatric <18	2	4.4%	0	0.0%
Adult 18-64	16	35.6%	0	0.0%
Geriatric >64	27	60.0%	3	11.1%
<b>Total</b>	<b>45</b>	<b>100.0%</b>	<b>3</b>	<b>6.7%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility.

**Table 10: Douglas County Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)**

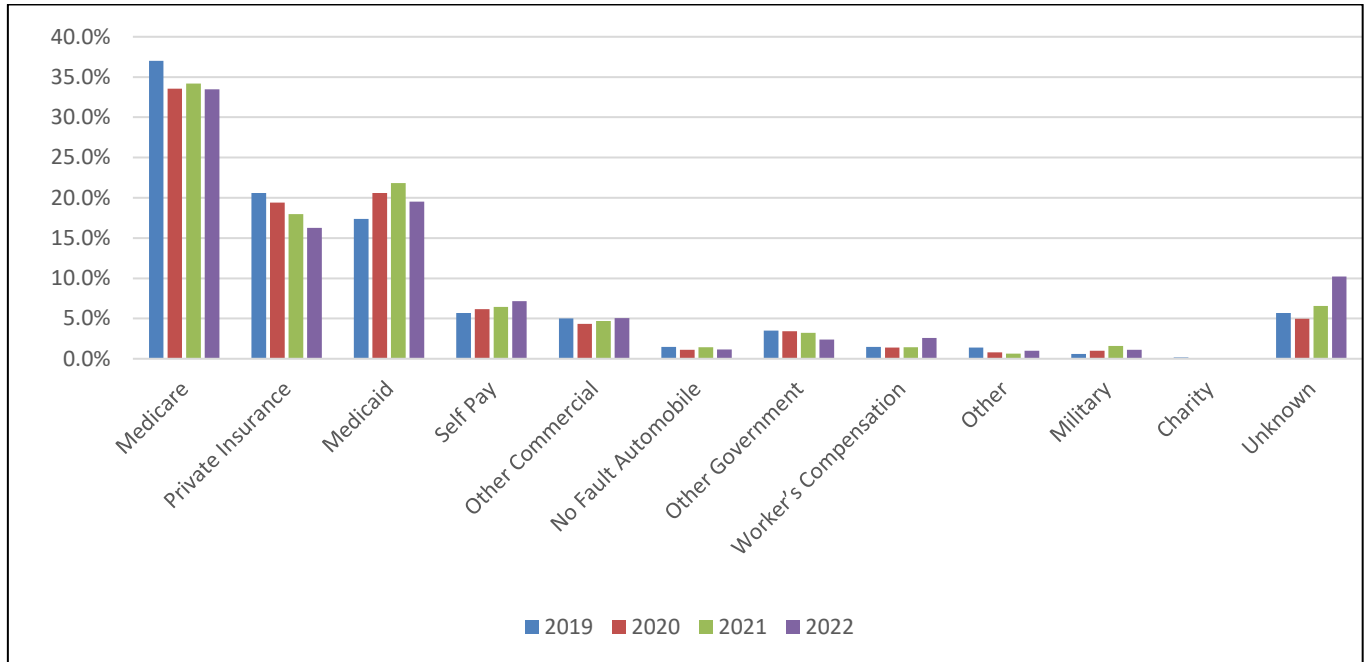
Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
6-17	2	4.4%	0	0.0%
18-24	2	4.4%	0	0.0%
25-34	3	6.7%	0	0.0%
35-44	1	2.2%	0	0.0%
45-54	3	6.7%	0	0.0%
55-64	7	15.6%	0	0.0%
65-74	9	20.0%	0	0.0%
75-84	6	13.3%	1	16.7%
85+	12	26.7%	2	16.7%
<b>Total</b>	<b>45</b>	<b>100.0%</b>	<b>3</b>	<b>6.7%</b>

**Table 11: Proportion of Trauma Primary Payment Sources in Douglas County, 2019-2022\***

Primary Source of Payment	2019	2020	2021	2022
Medicare	37.0%	33.5%	34.2%	33.5%
Private Insurance	20.6%	19.4%	18.0%	16.3%
Medicaid	17.4%	20.6%	21.8%	19.5%
Self-Pay	5.7%	6.2%	6.4%	7.2%
Other Commercial	5.0%	4.3%	4.7%	5.1%
No Fault Automobile	1.5%	1.1%	1.4%	1.2%
Other Government	3.5%	3.4%	3.2%	2.4%
Worker's Compensation	1.5%	1.4%	1.5%	2.6%
Other	1.4%	0.8%	0.6%	1.0%
Military	0.6%	1.0%	1.6%	1.1%
Charity	0.1%	0.1%	0.0%	0.0%
Unknown	5.7%	5.0%	6.6%	10.2%

\*Note: 2019 was the first year compared.

**Figure 4: Proportion of Trauma Primary Payment Sources in Douglas County, 2019-2022**



## APPENDIX A: PLACE AND MECHANISM OF INJURY

**Table 12: Douglas County Trauma Incidence by Place of Injury (Unique Traumas)**

Place of Injury	Trauma Count	Column Percent
Residential	161	62.16%
Street	34	13.13%
Trade and Service Area	8	3.09%
Recreation area	7	2.70%
Sports Area	5	1.93%
Wilderness	3	1.16%
Other Specified	3	1.16%
School or Public Area	4	1.54%
Industrial and Construction	1	0.39%
Farm	1	0.39%
Transport Vehicle as Place	1	0.39%
Unknown/Unspecified	31	11.97%
<b>Total</b>	<b>259</b>	<b>100%</b>

**Table 13: Trauma Mortality and Incidence in Douglas County by Mechanism of Injury (Unique Traumas)**

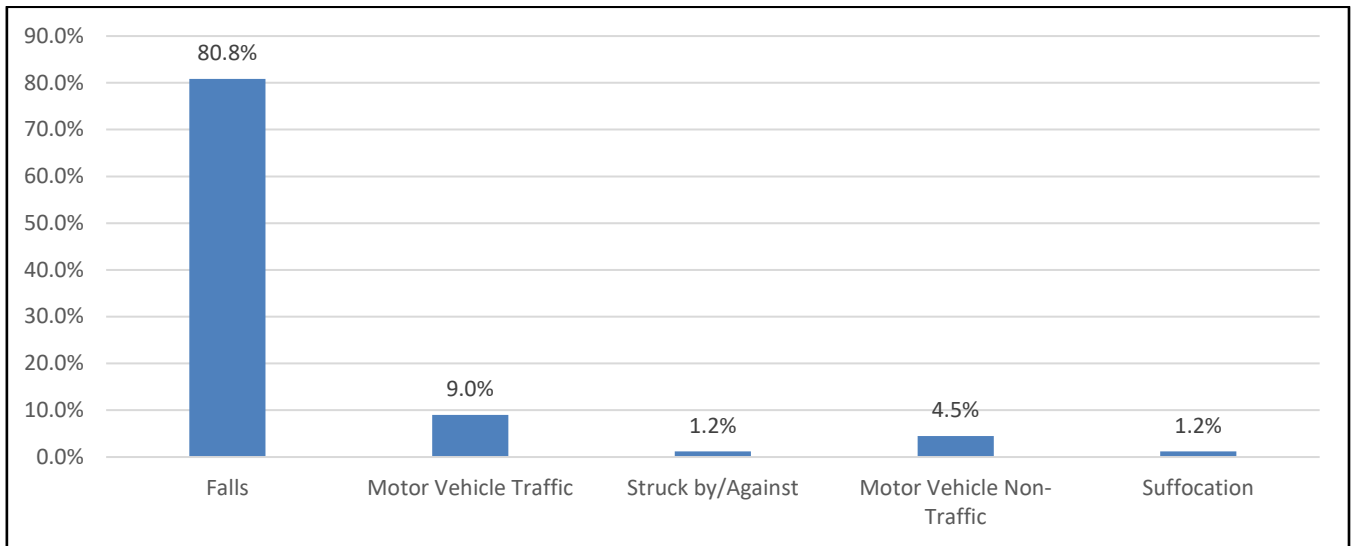
Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	198	76.4%	6	3.0%
Motor Vehicle Traffic	28	10.8%	0	0.0%
Struck by/Against	7	2.7%	0	0.0%
Firearm	1	0.4%	0	0.0%
Cut/Pierce	4	1.5%	0	0.0%
Motor Vehicle Non-Traffic	3	1.2%	0	0.0%
Other Transport (Land, Sea, Sky)	2	0.8%	0	0.0%
Pedal Cyclist, Other	3	1.2%	0	0.0%
Unspecified	1	0.4%	0	0.0%
Fire/Burn	1	0.4%	0	0.0%
Unknown	5	1.9%	0	0.0%
Suffocation	6	2.3%	0	0.0%
<b>Total</b>	<b>259</b>	<b>100.0%</b>	<b>6</b>	<b>2.3%</b>

**Table 14: Douglas County Trauma Rates for Top Three Mechanisms of Injury by Age (Unique Traumas)**

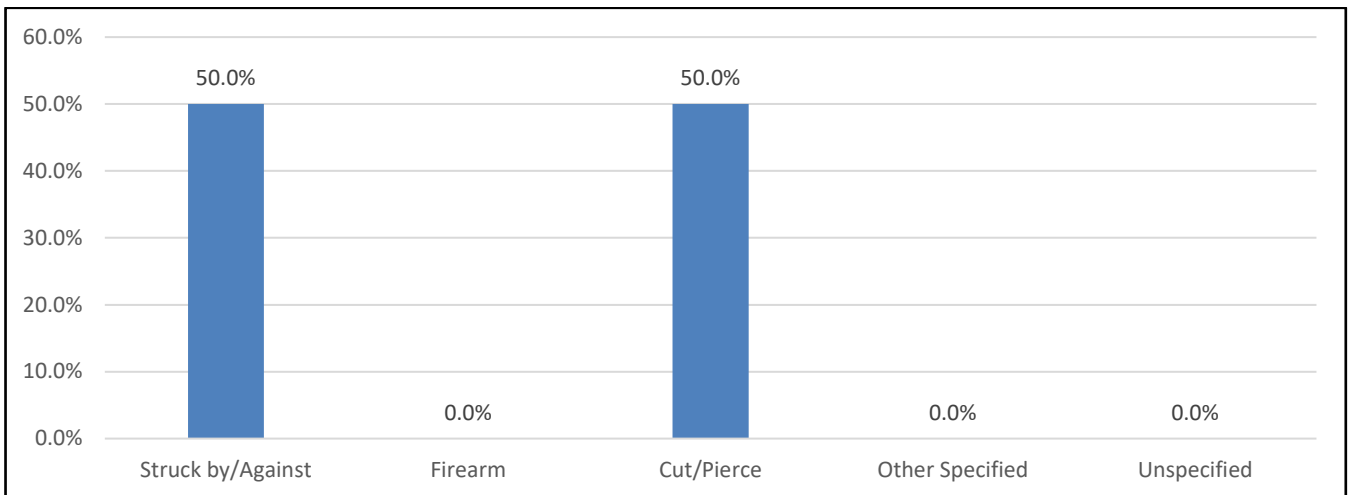
Age Group	Falls		Struck by/Against		Motor Vehicle Traffic	
	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)	n	Rate per 100,000 (95% CI)
Pediatric <18	3	0.4 (0.0-0.9)	2	0.3 (0.0-0.7)	0	0.0 (0.0-0.0)
Adult 18-64	21	1.1 (0.6-1.5)	3	0.2 (0.0-0.3)	17	0.9 (0.4-1.3)
Geriatric >64	174	34.6 (29.5-39.8)	1	0.2 (0.0-0.6)	5	1.0 (0.1-1.9)
<b>Total</b>	<b>198</b>	<b>6.1 (5.3-7.0)</b>	<b>6</b>	<b>0.2 (0.0-0.3)</b>	<b>22</b>	<b>0.7 (0.4-1.0)</b>



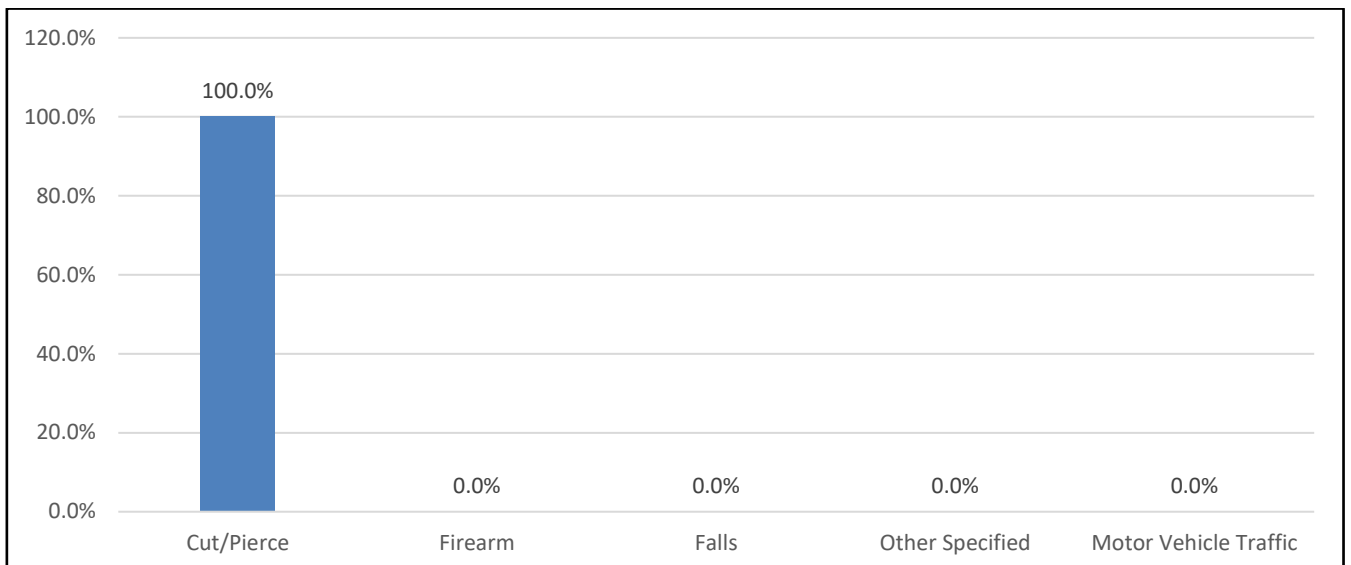
**Figure 5: Douglas County Top Five Mechanisms of Unintentional Trauma**



**Figure 6: Douglas County Top Five Mechanisms of Homicide/Assault Related Trauma**



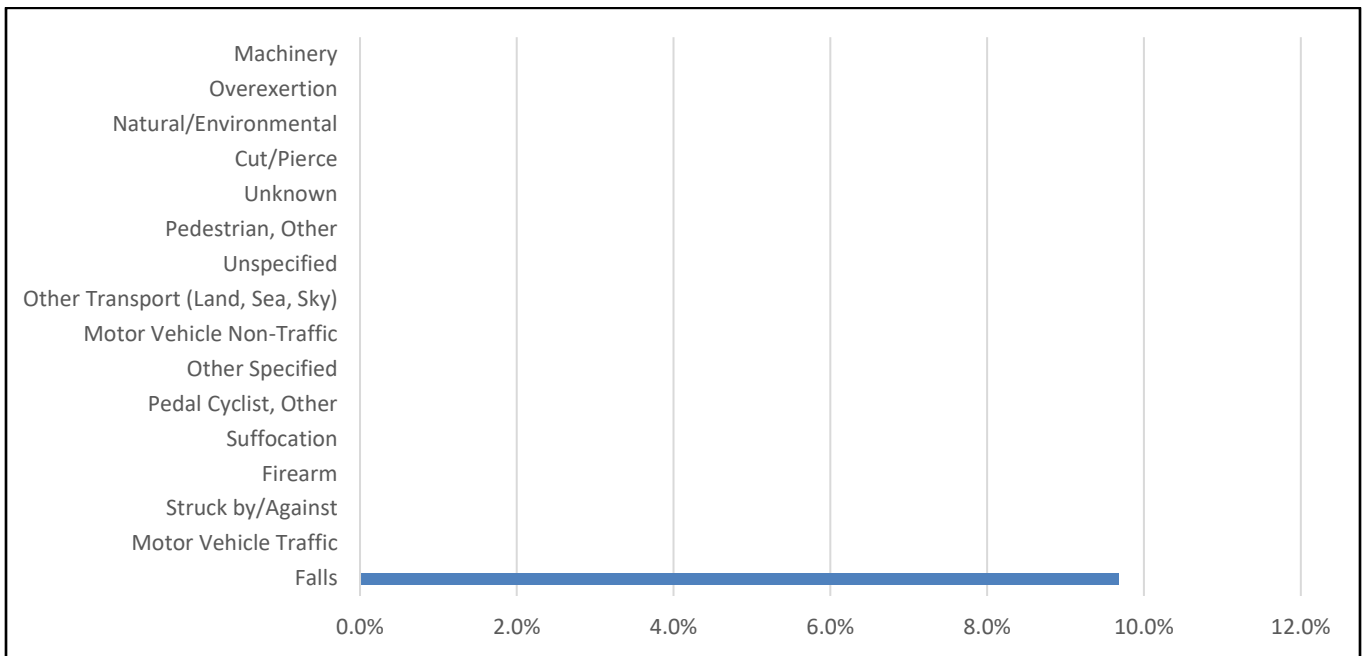
**Figure 7: Douglas County Top Five Mechanisms of Suicide/Self-Inflicted Trauma**



**Table 15: Douglas County Traumatic Brain Injury Incidence and Mortality Ratio by Mechanism of Injury**

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	31	68.9%	3	9.7%
Motor Vehicle Traffic	7	15.6%	0	0.0%
Struck by/Against	4	8.9%	0	0.0%
Pedal Cyclist, Other	2	4.4%	0	0.0%
Cut/Pierce	1	2.2%	0	0.0%
Total	45	100.0%	3	6.7%

**Figure 8: Douglas County Mortality Proportion of Traumatic Brain Injury Incidence by Mechanism of Injury (Unique Traumas)**



**APPENDIX A: INJURY CHARACTERISTICS: INJURY SEVERITY SCORE (ISS)**

**Table 16: Douglas County Trauma Incidence and Mortality by Injury Severity Score (ISS) (Unique Traumas)**

Injury Severity Score	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	117	45.2%	4	3.4%
Moderate, 9-15	121	46.7%	2	1.7%
Serious, 16-24	13	5.0%	0	0.0%
Severe, 25-75	8	3.1%	0	0.0%

**Table 17: Douglas County 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	12	26.7%	1	8.3%
Moderate, 9-15	20	44.4%	2	10.0%
Serious, 16-24	9	20.0%	0	0.0%
Severe, 25-75	4	8.9%	0	0.0%
<b>Total</b>	<b>45</b>	<b>100.0%</b>	<b>3</b>	<b>6.7%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility.

**Table 18: Douglas County 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	1	0	0	0	0	0
Douglas	6	2	1	0	0	0
Mineral	1	0	0	0	0	0
Unknown	3	2	0	0	0	0
Washoe	2	0	0	0	0	0
Out of State	0	1	0	0	0	0
<b>Total</b>	<b>13</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>

## **APPENDIX A: PATIENT TRANSPORTATION**

**Table 19: Douglas County Trauma Incidence by Mode of Arrival (Unique Traumas)**

Mode of Arrival	Trauma Count	Column Percent
Ground Ambulance	183	70.66%
Private Vehicle or Walk-in	59	22.78%
Helicopter Ambulance	16	6.18%
Fixed-Wing Ambulance	1	0.39%
<b>Total</b>	<b>259</b>	<b>100%</b>

**Table 20: Douglas County 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	81	90	5	7	0
Private Vehicle or Walk-in	42	16	0	1	0
Helicopter Ambulance	4	6	5	1	0
Fixed-Wing Ambulance	0	1	0	0	0
<b>Total</b>	<b>127</b>	<b>113</b>	<b>10</b>	<b>9</b>	<b>0</b>

## APPENDIX A: PATIENT DISCHARGE AND TRANSFER

Table 21: Douglas County 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	52	9.2	11.5	1 - 75
University Medical Center	1	9.0	0.0	9 - 9

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

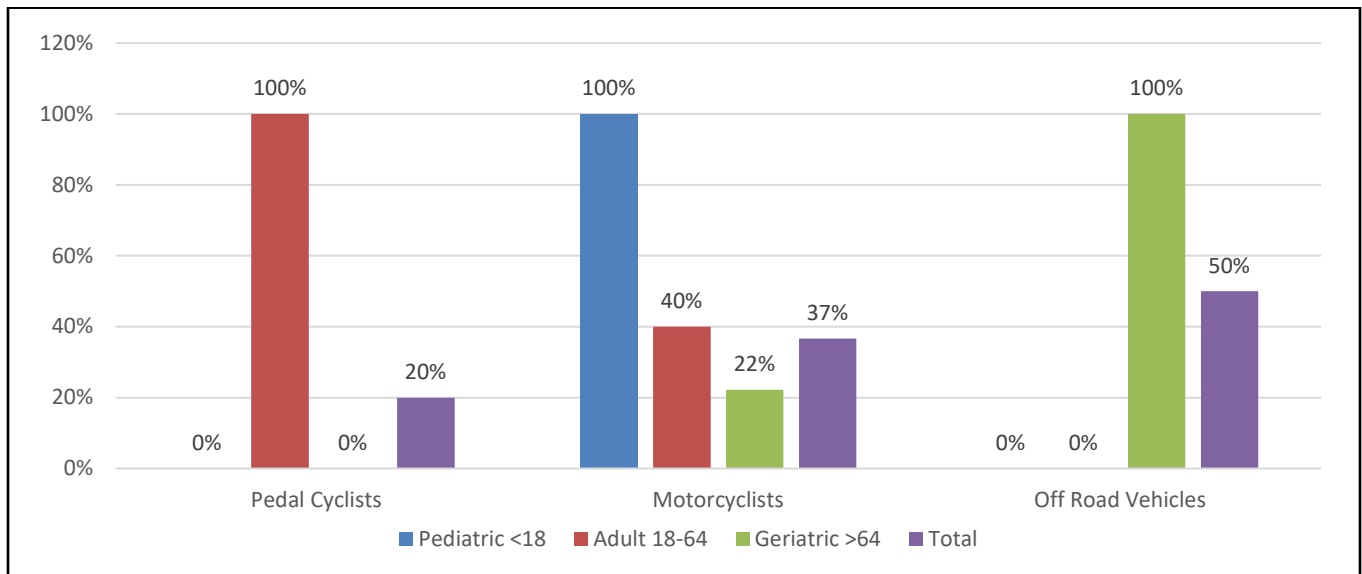
## APPENDIX A: RISK FACTORS: DRUG/ALCOHOL USE

Table 22: Douglas County Injury Intent and Drug/Alcohol Use (Unique Traumas)

Injury Intent	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Unintentional	245	19	8%
Suicide	1	1	100%
Homicide/Assault	6	1	17%
Legal Intervention	0	0	0%
Undetermined (accidental/intentional)	2	0	0%
Missing	5	0	0%
Unknown	0	0	0%
<b>Total</b>	<b>259</b>	<b>21</b>	<b>8%</b>

## APPENDIX A: SAFETY EQUIPMENT

Figure 9: Proportion of Helmet Use Among Pedal Cyclists, Motor Cyclists, and Off-Road Users (Unique Traumas)



**Table 23: Douglas County Age-Specific Restraint Use Among Motor Vehicle Traffic Occupants**

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total
Seatbelt	0	5	4	9
None	0	2	0	2
<b>Total</b>	<b>0</b>	<b>7</b>	<b>4</b>	<b>11</b>

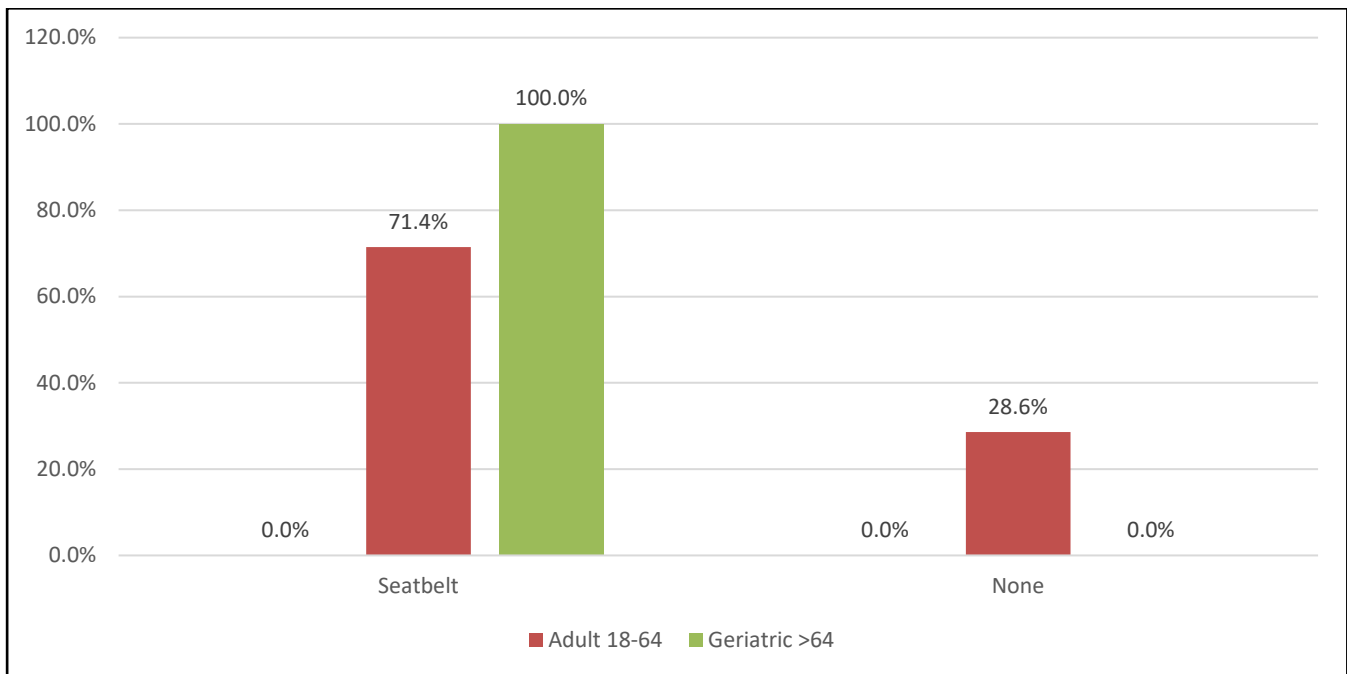
**Table 24: Douglas County Age-Specific Proportion of Restraint Use Among Motor-Vehicle Traffic Occupants**

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total (column percent)
Seatbelt	0.0%	71.4%	100.0%	81.8%
None	0.0%	28.6%	0.0%	18.2%
Total Age-Specific Proportion	0.0%	63.6%	36.4%	100.0%

In 2022, no motor vehicle trauma incidents involved minors under the age of 18 in las County. Of patients involved in motor vehicle related trauma in the county 63.3% were between the ages of 18-64 and 36.4% were >64.

In Douglas County, in 2022, 81.8% of passengers in cars involved in trauma incidents wore seatbelts, while 18.2% did not.

**Figure 10: Douglas County Age-Specific Proportion of Restraint Use Among Motor Vehicle Traffic Occupants**



## **APPENDIX A: FALLS – BY LAST TRANSFER FACILITY**

**Table 25: Douglas County Trauma Rate for Falls by Sex (Unique Traumas)**

Sex	n	Rate per 100,000 (95% CI)
Female	107	6.6 (5.4-7.9)
Male	92	5.7 (4.6-6.9)
<b>Total</b>	<b>199</b>	<b>6.2 (5.3-7.0)</b>

**Table 26: Douglas County 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)	113	56.8%	1	0.9%
Unspecified	53	26.6%	4	7.5%
From Furniture	9	4.5%	0	0.0%
Steps	8	4.0%	1	12.5%
Multi-Level: Cliff, Tree, Water, etc.	2	1.0%	0	0.0%
On or From Ladder/Scaffolding	3	1.5%	0	0.0%
Pedestrian Conveyance Accident	3	1.5%	0	0.0%
Out of Building or Structure	1	0.5%	0	0.0%
Collision, Push or Shove By, or Other Person	2	1.0%	0	0.0%
Playground Equipment	2	1.0%	0	0.0%
Fall Due to Environmental Factors	3	1.5%	0	0.0%
<b>Total</b>	<b>199</b>	<b>100.0%</b>	<b>6</b>	<b>3.0%</b>

**Table 27: Douglas County 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)
Adult 18-64	0	0.0 (0.0-0.0)	13	0.7 (0.3-1.0)	1	0.1 (0.0-0.1)
Geriatric >64	8	1.6 (0.5-2.7)	100	19.9 (16.0-23.8)	8	1.6 (0.5-2.7)
<b>Total</b>	<b>8</b>	<b>0.2 (0.1-0.4)</b>	<b>113</b>	<b>3.5 (2.9-4.2)</b>	<b>9</b>	<b>0.3 (0.1-0.5)</b>

# **APPENDIX B: WASHOE COUNTY RESULTS**

## APPENDIX B: TRAUMA CASES BY FACILITY

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

County	Facility	Unique Traumas Trauma Patients <sup>^</sup>		Total Trauma Cases <sup>*</sup>	
<b>Clark County</b>	Boulder City Hospital	0	0.0%	0	0.0%
	Centennial Hills Hospital	0	0.0%	0	0.0%
	Desert Springs Hospital Center	0	0.0%	0	0.0%
	Henderson ER at Green Valley Ranch	0	0.0%	0	0.0%
	Henderson Hospital	1	0.1%	1	0.1%
	Mesa View Regional Hospital	0	0.0%	0	0.0%
	Mike O'Callaghan Federal Medical Center	0	0.0%	0	0.0%
	Mountain View ER at Aliante	0	0.0%	0	0.0%
	Mountain View - ER at Skye Canyon	0	0.0%	0	0.0%
	Mountain View Hospital	0	0.0%	0	0.0%
	North Vista Hospital	0	0.0%	0	0.0%
	Southern Hills ER at South Las Vegas Blvd	0	0.0%	0	0.0%
	Southern Hills ER at the Lakes	0	0.0%	0	0.0%
	Southern Hills Hospital Medical Center	1	0.1%	1	0.1%
	Spring Valley ER at Blue Diamond	0	0.0%	0	0.0%
	Spring Valley Hospital Medical Center	0	0.0%	0	0.0%
	St. Rose Dominican Hospital Blue Diamond	0	0.0%	0	0.0%
	St. Rose Dominican Hospital De Lima Campus	0	0.0%	0	0.0%
	St. Rose Dominican Hospital North Las Vegas	0	0.0%	0	0.0%
	St. Rose Dominican Hospital San Martin Campus	0	0.0%	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	0.0%	
St. Rose Dominican Hospital West Sahara	0	0.0%	0	0.0%	
Summerlin Hospital Medical Center	1	0.1%	1	0.1%	
Sunrise Hospital Medical Center	2	0.2%	2	0.2%	
University Medical Center	4	0.4%	4	0.3%	
Valley Hospital Medical Center	0	0.0%	0	0.0%	
<b>Washoe County</b>	Northern Nevada Medical Center	101	9.0%	102	8.6%
	Northern Nevada Medical Center - ER at McCarran	17	1.5%	17	1.4%
	Northern Nevada Sierra Medical Center	35	3.1%	35	3.0%
	Renown Regional Medical Center	602	53.8%	666	56.3%
	Renown South Meadows Medical Center	143	12.8%	143	12.1%
	St. Mary's Regional Medical Center	179	16.0%	179	15.1%
<b>All Other Counties</b>	Banner Churchill Community Hospital	3	0.3%	3	0.3%
	Battle Mountain General Hospital	0	0.0%	0	0.0%
	Carson Tahoe Regional Medical Center	17	1.5%	17	1.4%
	Carson Valley Medical Center	2	0.2%	2	0.2%
	Desert View Hospital	0	0.0%	0	0.0%
	Grover C. Dils Medical Center	0	0.0%	0	0.0%
	Humboldt General Hospital	2	0.2%	2	0.2%
	Mt. Grant General Hospital	0	0.0%	0	0.0%
	Northeastern Nevada Regional Hospital	2	0.2%	2	0.2%
	Pershing General Hospital	2	0.2%	2	0.2%
	South Lyon Medical Center	2	0.2%	2	0.2%
William Bee Ririe Hospital	1	0.1%	1	0.1%	
<b>Nevada (Total)</b>		<b>1,118</b>	<b>100.0%</b>	<b>1,183</b>	<b>100.0%</b>

Unique Trauma Patients are calculated by matching transferred patients 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 2022.



**Table 2: Washoe County Trauma Incidence and Mortality Proportion by Trauma Center Designation for Trauma Center Levels 1-3.**

Trauma Center designation	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Trauma Center level 1	4	0.6%	0	0.0%
Trauma Center level 2	668	99.3%	29	4.3%
Trauma Center Level 3	1	0.1%	0	0.0%
<b>Total</b>	<b>673</b>	<b>100.0%</b>	<b>29</b>	<b>4.3%</b>

**APPENDIX B: DEMOGRAPHICS**

**Table 3: Washoe County Trauma Cases by Sex (Unique Traumas)**

Sex	Count	Column Percent	Rate per 100,000 (95% CI)
Male	651	58.2%	40.5 (37.4-43.6)
Female	466	41.7%	28.9 (26.3-31.5)
Sex Not Reported	1	0.1%	-
<b>Total</b>	<b>1,118</b>	<b>100%</b>	<b>34.7 (32.7-36.8)</b>

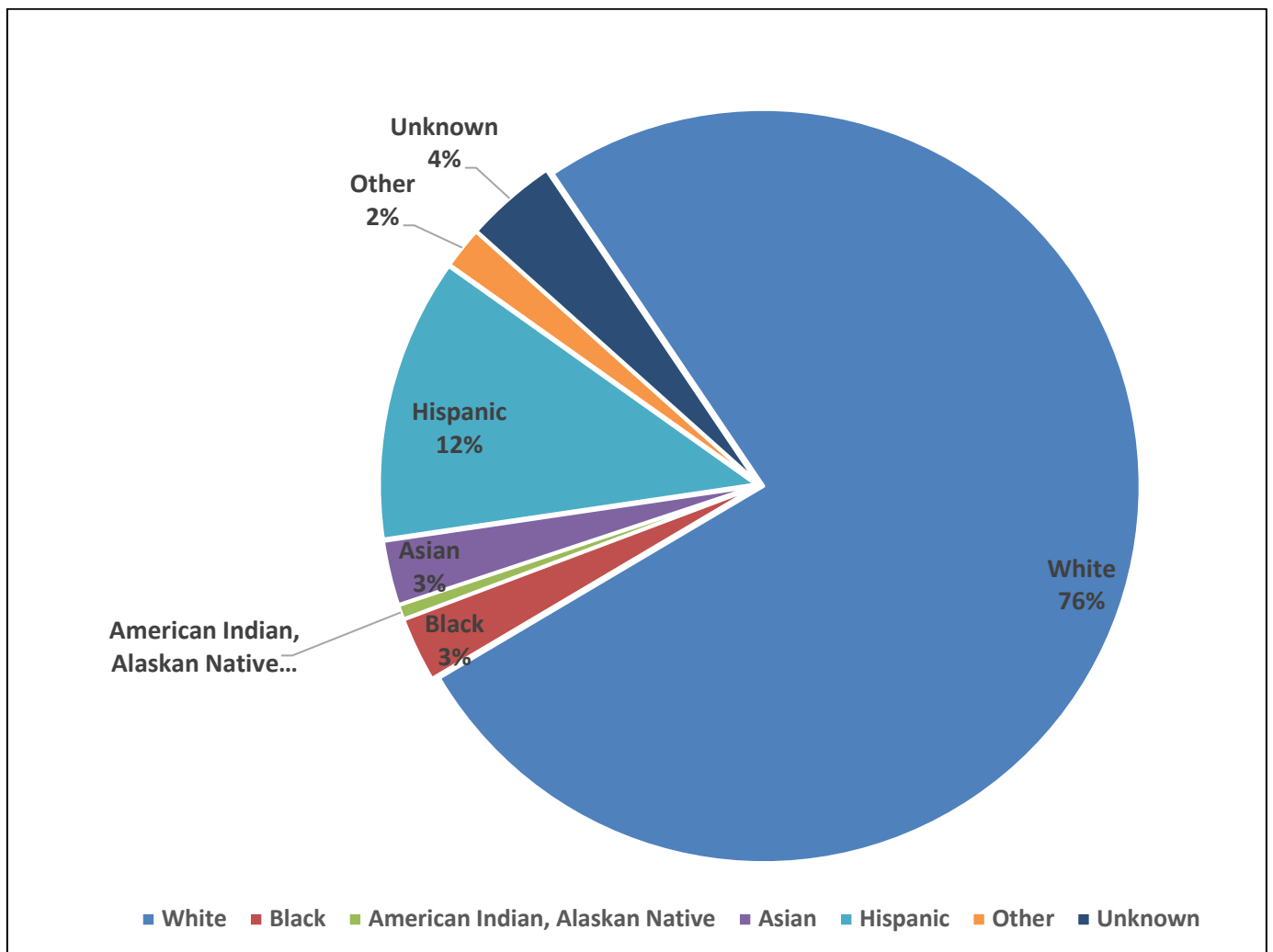
**Table 4: Washoe County Trauma Cases by Race/Ethnicity (Unique Traumas)**

Race/Ethnicity	Count	Column Percent	Rate per 100,000 (95% CI)
White	849	75.9%	54.0 (50.4-57.6)
Black	31	2.8%	10.5 (6.8-14.1)
American Indian, Alaskan Native	7	0.6%	19.7 (5.1-34.2)
Asian	31	2.8%	9.5 (6.2-12.9)
Hispanic	136	12.2%	13.7 (11.4-16.1)
Other	20	1.8%	0.0 (0.0-0.0)
Unknown	44	3.9%	0.0 (0.0-0.0)
<b>Total</b>	<b>1,118</b>	<b>100.0%</b>	<b>34.7 (32.7-36.8)</b>

**Table 5: Washoe County Age-Specific Trauma Cases by Race/Ethnicity (Unique Traumas)**

Age Groups	White	Black	American Indian, Alaskan Native	Asian	Hispanic	Other	Unknown	Total
1-5	6	0	0	0	4	1	0	11
6-17	34	2	0	4	13	1	0	54
18-24	39	3	1	0	24	1	5	73
25-34	75	5	1	3	18	3	9	114
35-44	69	7	1	1	23	3	3	107
45-54	73	5	1	2	23	2	6	112
55-64	116	2	0	8	10	2	5	143
65-74	162	5	2	5	8	3	8	193
75-84	164	2	1	5	9	2	2	185
85+	111	0	0	3	4	2	6	126
<b>Total</b>	<b>849</b>	<b>31</b>	<b>7</b>	<b>31</b>	<b>136</b>	<b>20</b>	<b>44</b>	<b>1,118</b>

**Figure 1: Washoe County Percentage of Unique Trauma Cases by Race/Ethnicity**



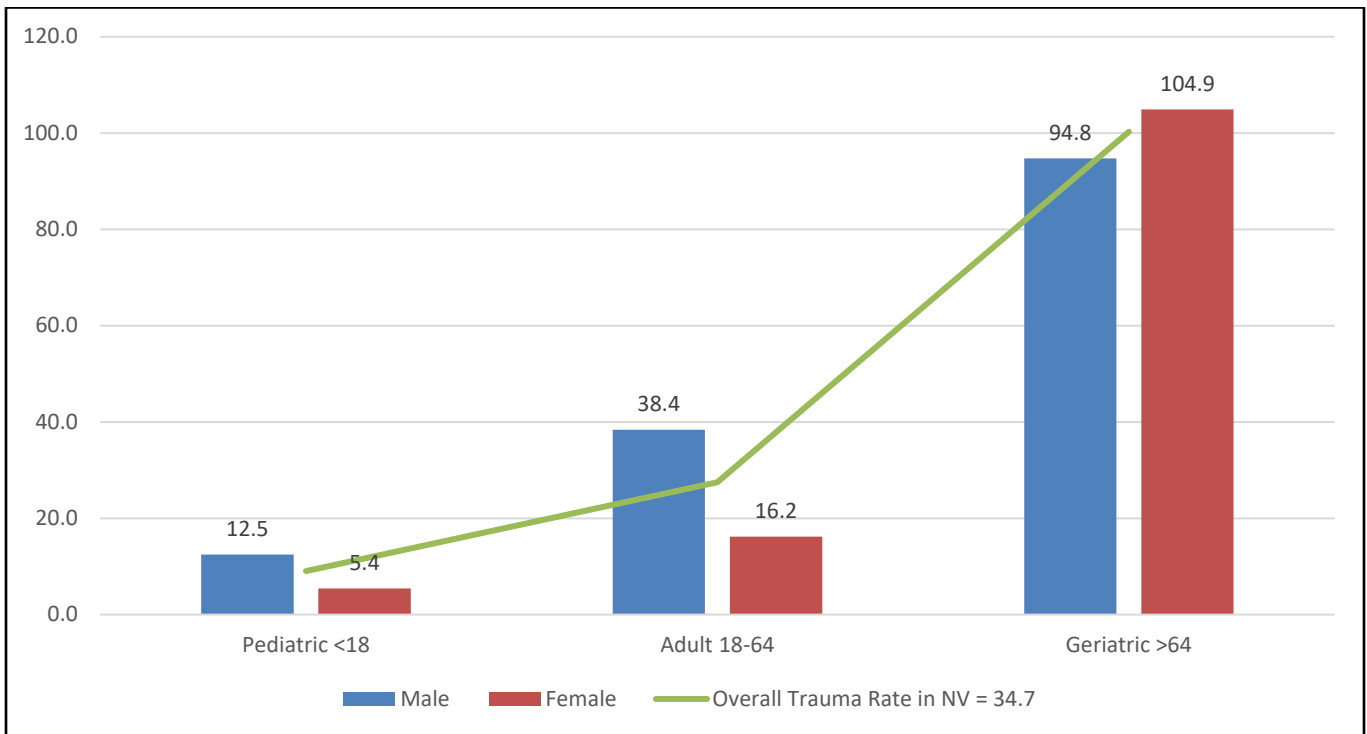
**Table 6: Washoe County Age-Specific Trauma Cases and Mortality Proportion (Unique Traumas)**

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
1-5	11	1.0%	0	0.0%
6-17	54	4.8%	3	5.6%
18-24	73	6.5%	3	4.1%
25-34	116	10.3%	4	3.4%
35-44	107	9.5%	1	0.9%
45-54	114	10.2%	0	0.0%
55-64	144	12.8%	4	2.8%
65-74	193	17.2%	12	6.2%
75-84	185	16.5%	3	1.6%
85+	126	11.2%	7	5.6%
<b>Total</b>	<b>1,123</b>	<b>100.0%</b>	<b>37</b>	<b>3.3%</b>

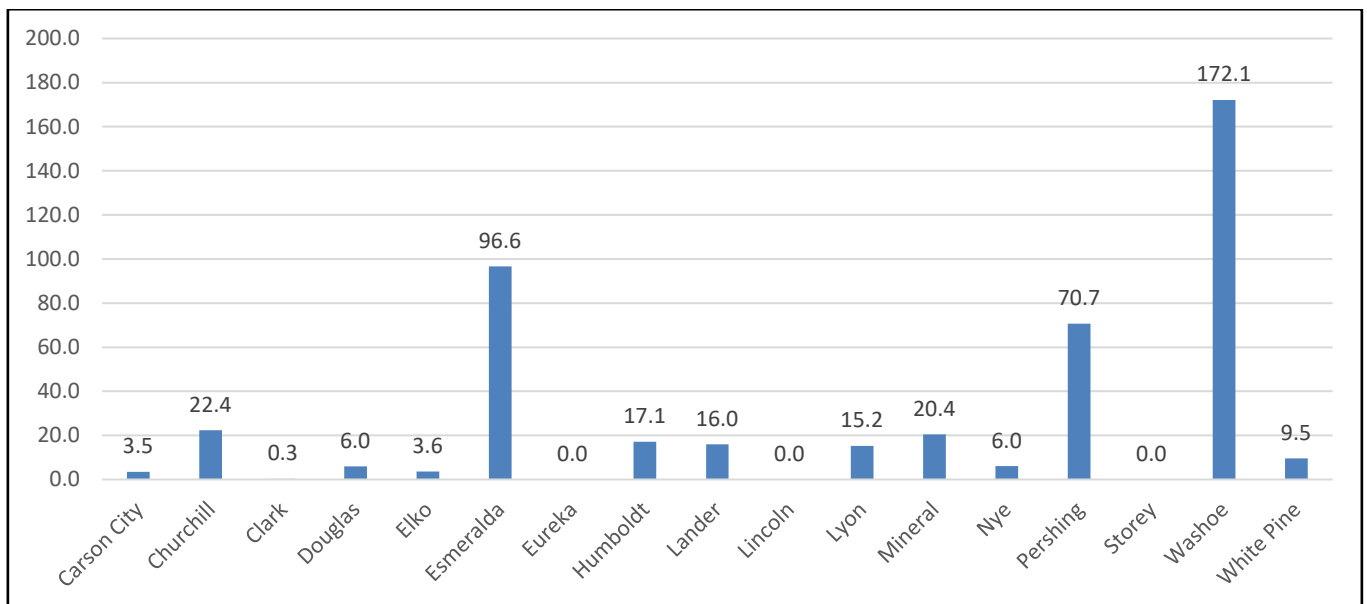
**Table 7: Age and Sex-Specific Trauma Rates per 100,000 Washoe County Residents (Unique Traumas)**

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	46	12.5 (8.9-16.1)	19	5.4 (3.0-7.8)	65	9.0 (6.8-11.2)
Adult 18-64	388	38.4 (34.6-42.2)	160	16.2 (13.7-18.7)	549	27.5 (25.2-29.8)
Geriatric >64	217	94.8 (82.1-107.4)	287	104.9 (92.8-117.1)	504	100.3 (91.5-109.0)
<b>Total</b>	<b>651</b>	<b>40.5 (37.4-43.6)</b>	<b>466</b>	<b>28.9 (26.3-31.5)</b>	<b>1,118</b>	<b>34.7 (32.7-36.8)</b>

**Figure 2: County Age and Sex-Specific Trauma Rates per 100,000 Washoe County Residents**



**Figure 3: County-Specific Trauma Rates per 100,000 Washoe County Residents**



**Table 8: County-Specific Trauma Rates per 100,000 Washoe County Residents (Unique Traumas)**

County	Count	Rate per 100,000 (95% CI)
Carson City	2	3.5 (0.0-8.3)
Churchill	6	22.4 (4.5-40.3)
Clark	6	0.3 (0.1-0.5)
Douglas	3	6.0 (0.0-12.8)
Elko	2	3.6 (0.0-8.7)
Esmeralda	1	96.6 (0.0-286.1)
Eureka	0	0.0 (0.0-0.0)
Humboldt	3	17.1 (0.0-36.5)
Lander	1	16.0 (0.0-47.3)
Lincoln	0	0.0 (0.0-0.0)
Lyon	9	15.2 (5.3-25.2)
Mineral	1	20.4 (0.0-60.5)
Nye	3	6.0 (0.0-12.8)
Pershing	5	70.7 (8.7-132.7)
Storey	0	0.0 (0.0-0.0)
Washoe	854	172.1 (160.6-183.7)
White Pine	1	9.5 (0.0-28.3)
Out of State	26	-
Unknown	195	-

**Table 9: Washoe County Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)**

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
1-5	3	1.3%	0	0.0%
6-17	17	7.5%	2	11.8%
18-24	20	8.8%	2	10.0%
25-34	29	12.8%	2	6.9%
35-44	21	9.3%	1	4.8%
45-54	23	10.2%	0	0.0%
55-64	31	13.7%	1	3.2%
65-74	45	19.9%	6	13.3%
75-84	25	11.1%	1	4.0%
85+	12	5.3%	2	16.7%
<b>Total</b>	<b>226</b>	<b>100.0%</b>	<b>17</b>	<b>7.5%</b>

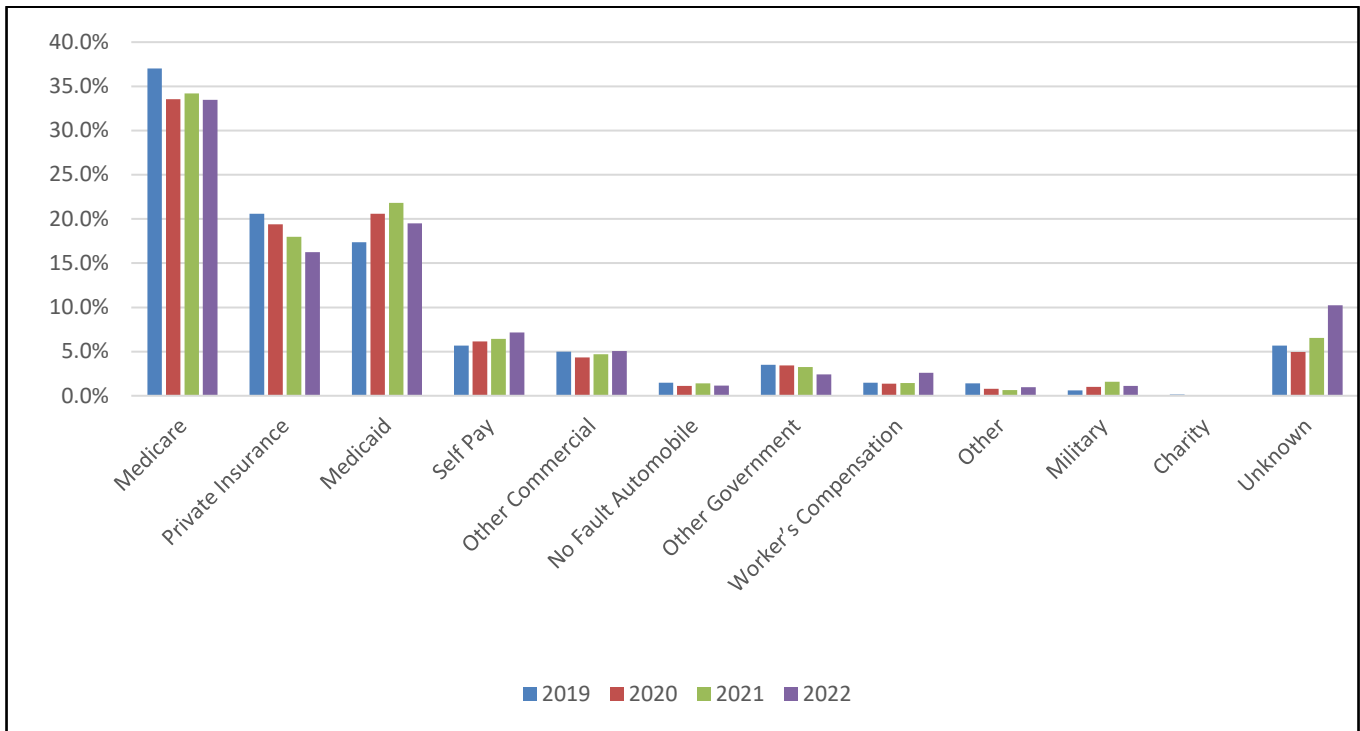
**Table 10: Washoe County Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)**

Age Group	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Pediatric <18	124	54.9%	6	4.8%
Adult 18-64	82	36.3%	9	11.0%
Geriatric >64	20	8.8%	2	10.0%
<b>Total</b>	<b>226</b>	<b>100.0%</b>	<b>17</b>	<b>7.5%</b>

**Table 11: Proportion of Trauma Primary Payment Sources in Washoe County, 2019-2022**

Primary Source of Payment	2019	2020	2021	2022
Medicare	37.0%	33.5%	34.2%	33.5%
Private Insurance	20.6%	19.4%	18.0%	16.3%
Medicaid	17.4%	20.6%	21.8%	19.5%
Self-Pay	5.7%	6.2%	6.4%	7.2%
Other Commercial	5.0%	4.3%	4.7%	5.1%
No Fault Automobile	1.5%	1.1%	1.4%	1.2%
Other Government	3.5%	3.4%	3.2%	2.4%
Worker's Compensation	1.5%	1.4%	1.5%	2.6%
Other	1.4%	0.8%	0.6%	1.0%
Military	0.6%	1.0%	1.6%	1.1%
Charity	0.1%	0.1%	0.0%	0.0%
Unknown	5.7%	5.0%	6.6%	10.2%

**Figure 4: Proportion of Trauma Primary Payment Sources in Washoe, 2019-2022**



**APPENDIX B: PLACE AND MECHANISM OF INJURY**

**Table 12: Washoe County 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	12	1.7 (0.7-2.6)	7	1.0 (0.3-1.7)	22	3.1 (1.8-4.3)
Adult 18-64	147	7.4 (6.2-8.5)	42	2.1 (1.5-2.7)	204	10.2 (8.8-11.6)
Geriatric >64	403	80.2 (72.4-88.0)	8	1.6 (0.5-2.7)	46	9.2 (6.5-11.8)
<b>Total</b>	<b>562</b>	<b>17.5 (16.0-18.9)</b>	<b>57</b>	<b>1.8 (1.3-2.2)</b>	<b>272</b>	<b>8.4 (7.4-9.5)</b>

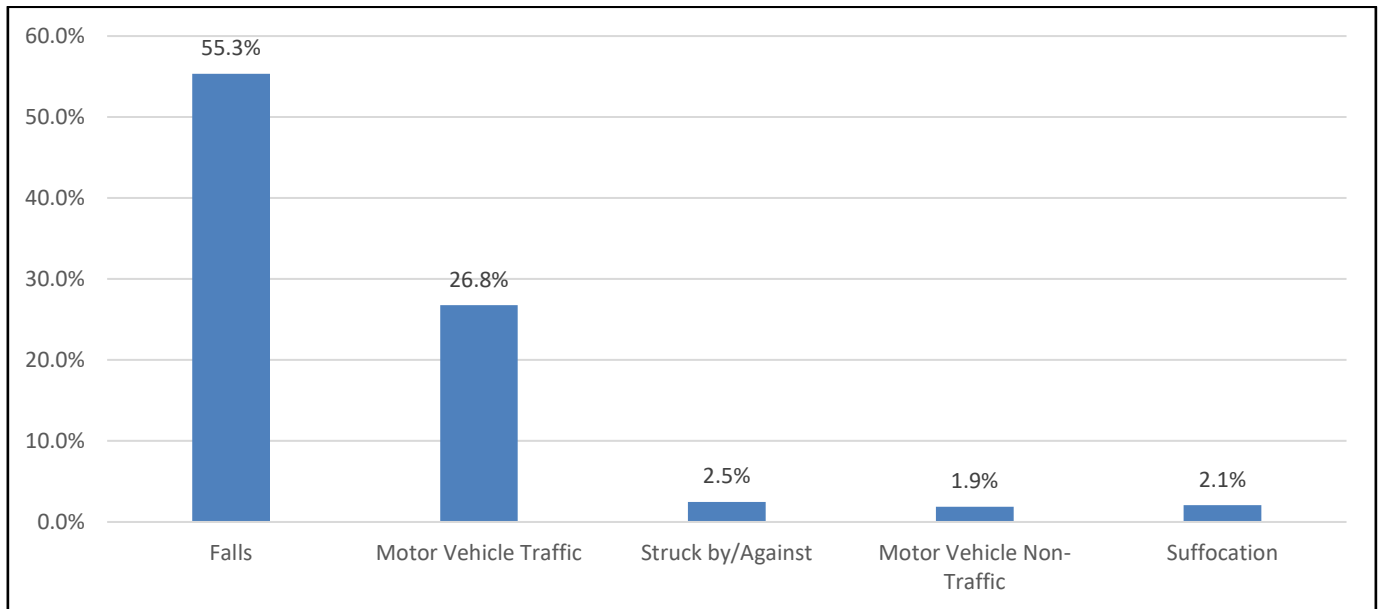
**Table 13: Washoe County Trauma Incidence by Place of Injury (Unique Traumas):**

Place of Injury	Trauma Count	Percent
Residential	464	41.50%
Street	374	33.45%
Trade and Service Area	39	3.49%
Recreation area	39	3.49%
Sports Area	16	1.43%
Wilderness	37	3.31%
Other Specified	10	0.89%
School or Public Area	6	0.54%
Industrial and Construction	21	1.88%
Farm	5	0.45%
Transport Vehicle as Place	2	0.18%
Railroad Track	1	0.09%
Unknown/Unspecified	104	9.30%
<b>Total</b>	<b>1,118</b>	<b>100%</b>

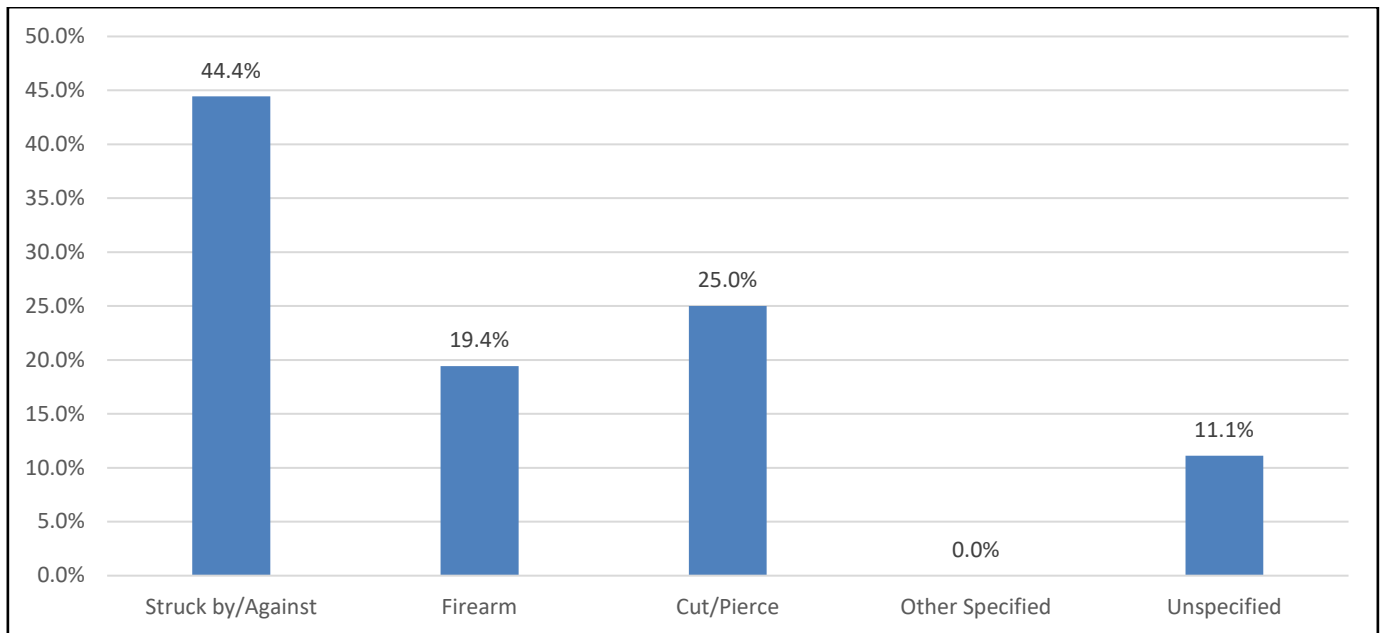
**Table 14: Washoe County Trauma Incidence and Mortality by Mechanism of Injury (Unique Traumas)**

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	564	50.2%	18	3.2%
Motor Vehicle Traffic	277	24.7%	12	4.3%
Struck by/Against	55	4.9%	0	0.0%
Firearm	32	2.8%	3	9.4%
Cut/Pierce	35	3.1%	1	2.9%
Motor Vehicle Non-Traffic	14	1.2%	0	0.0%
Other Transport (Land, Sea, Sky)	10	0.9%	0	0.0%
Other Specified	13	1.2%	0	0.0%
Pedal Cyclist, Other	33	2.9%	0	0.0%
Natural/Environmental	5	0.4%	1	20.0%
Pedestrian, Other	8	0.7%	0	0.0%
Unspecified	8	0.7%	0	0.0%
Fire/Burn	7	0.6%	0	0.0%
Unknown	26	2.3%	1	3.8%
Machinery	3	0.3%	0	0.0%
Overexertion	7	0.6%	0	0.0%
Suffocation	26	2.3%	1	3.8%
<b>Total</b>	<b>1,123</b>	<b>100.0%</b>	<b>37</b>	<b>3.3%</b>

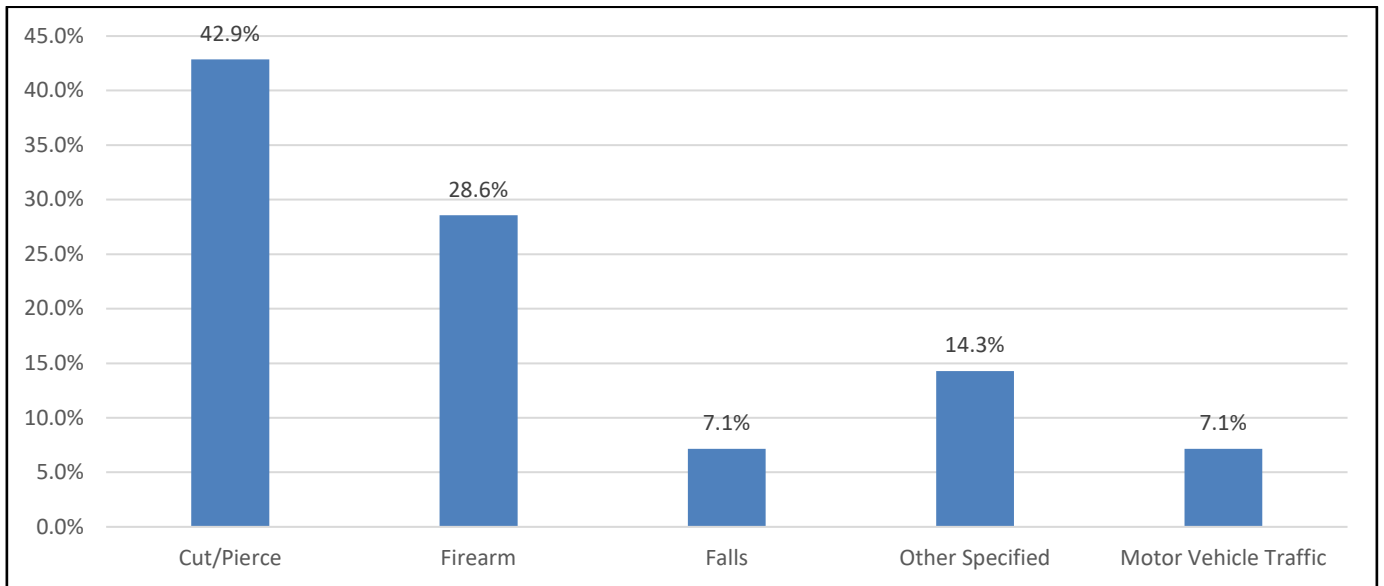
**Figure 5: Washoe County Top Five Mechanisms of Unintentional Trauma**



**Figure 6: Washoe County Top Three Mechanisms of Homicide/Assault-Related Trauma**



**Figure 7: Washoe County Top Four Mechanisms of Suicide/Self-Inflicted Trauma**

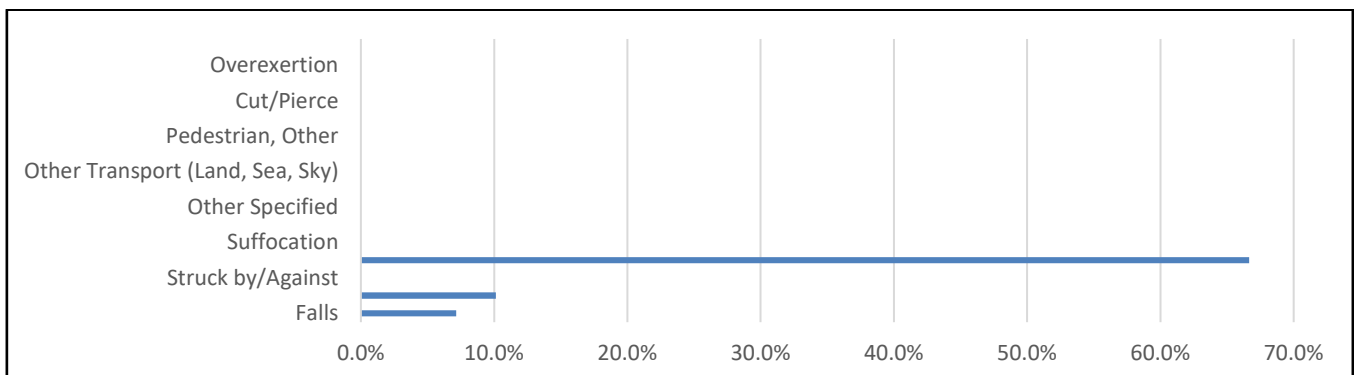


**Table 15: Washoe County Traumatic Brain Injury Incidence and Mortality by Mechanism of Injury:**

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	98	43.4%	7	7.1%
Motor Vehicle Traffic	79	35.0%	8	10.1%
Struck by/Against	20	8.8%	0	0.0%
Firearm	3	1.3%	2	66.7%
Suffocation	3	1.3%	0	0.0%
Pedal Cyclist, Other	7	3.1%	0	0.0%
Other Specified	3	1.3%	0	0.0%
Motor Vehicle Non-Traffic	2	0.9%	0	0.0%
Unspecified	3	1.3%	0	0.0%
Unknown	8	3.5%	0	0.0%
<b>Total</b>	<b>226</b>	<b>100.0%</b>	<b>17</b>	<b>7.5%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility.

**Figure 8: Washoe County Mortality Proportion of Traumatic Brain Injury Incidence by Mechanism of Injury (Unique Traumas)**





## APPENDIX B: INJURY CHARACTERISTICS: INJURY SEVERITY SCORE (ISS)

Table 16: Washoe County Trauma Incidence and Mortality Proportion by ISS (Unique Traumas):

Injury Severity Score	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	495	44.1%	8	1.6%
Moderate, 9-15	437	38.9%	3	0.7%
Serious, 16-24	113	10.1%	6	5.3%
Severe, 25-75	73	6.5%	20	27.4%
Missing/NA/ND	5	0.4%	0	0.0%

Table 17: Washoe County 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	40	17.7%	0	0.0%
Moderate, 9-15	91	40.3%	0	0.0%
Serious, 16-24	50	22.1%	3	6.0%
Severe, 25-75	45	19.9%	14	31.1%
<b>Total</b>	<b>226</b>	<b>100.0%</b>	<b>17</b>	<b>7.5%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility.

Table 18: 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
Churchill	1	0	0	0	0	0
Elko	0	1	0	0	0	0
Esmeralda	1	0	0	0	0	0
Lyon	2	0	0	0	0	0
Mineral	1	0	0	0	0	0
Pershing	1	0	0	0	0	0
Unknown	33	1	0	0	0	0
Washoe	127	4	0	0	0	1
Out of State	6	0	0	0	1	0
<b>Total</b>	<b>172</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>

## APPENDIX B: PATIENT TRANSPORTATION

Table 19: Washoe County Trauma Incidence by Mode of Arrival (Unique Traumas)

Mode of Arrival	Trauma Count	Percent
Ground Ambulance	826	73.88%
Private Vehicle or Walk-in	239	21.38%
Helicopter Ambulance	40	3.58%
Fixed-Wing Ambulance	6	0.54%
Police	4	0.36%
Other	1	0.09%
Missing	2	0.18%
<b>Total</b>	<b>1,118</b>	<b>100%</b>

**Table 20: Washoe County 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	349	322	88	64	3
Private Vehicle or Walk-in	137	89	11	1	1
Helicopter Ambulance	6	21	8	5	0
Fixed-Wing Ambulance	3	2	0	1	0
Police	1	0	2	0	1
Other	1	0	0	0	0
Missing	1	0	0	0	1
<b>Total</b>	<b>498</b>	<b>434</b>	<b>109</b>	<b>71</b>	<b>6</b>

**APPENDIX B: PATIENT DISCHARGE AND TRANSFER**

**Table 21: Washoe County 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	86	7.7	5.4	1 - 27
Sunrise Hospital Medical Center	2	9.5	10.6	2 - 17

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

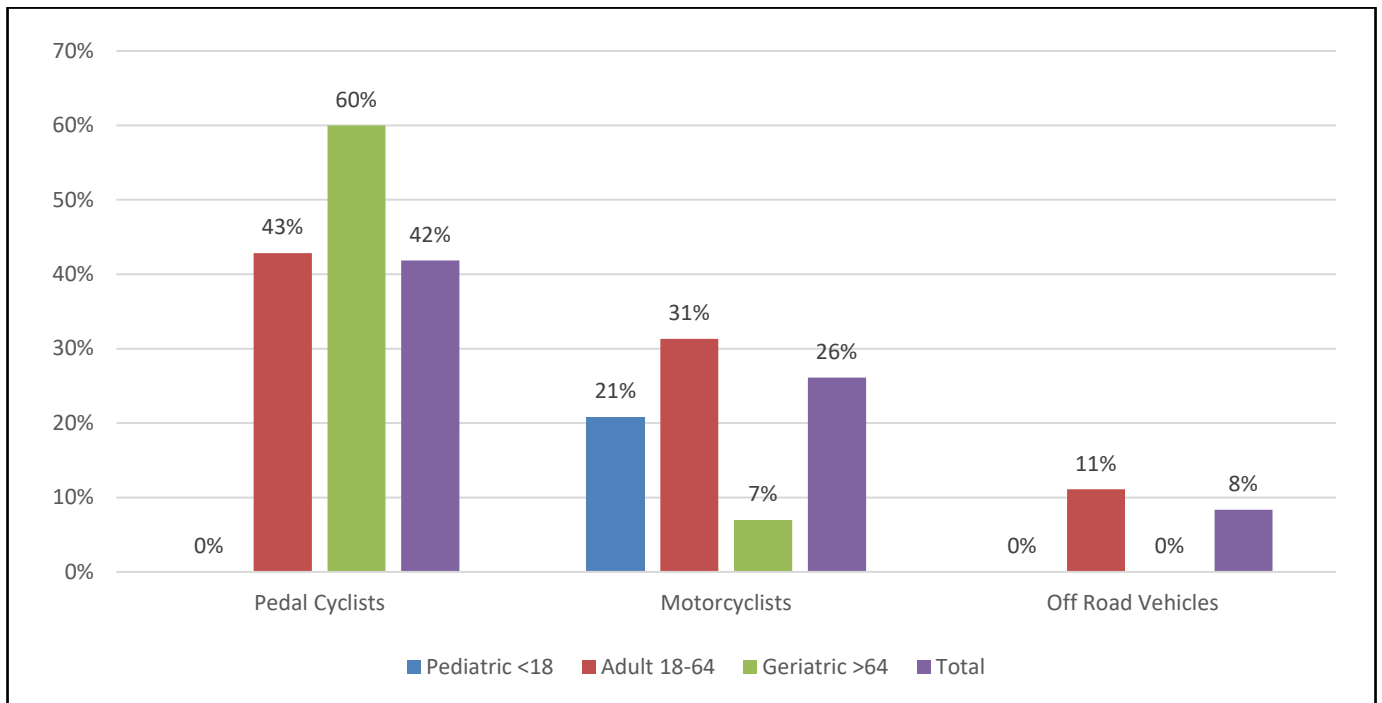
**APPENDIX B: RISK FACTORS: DRUG/ALCOHOL USE**

**Table 22: Washoe County Injury Intent and Drug/Alcohol Use (Unique Traumas)**

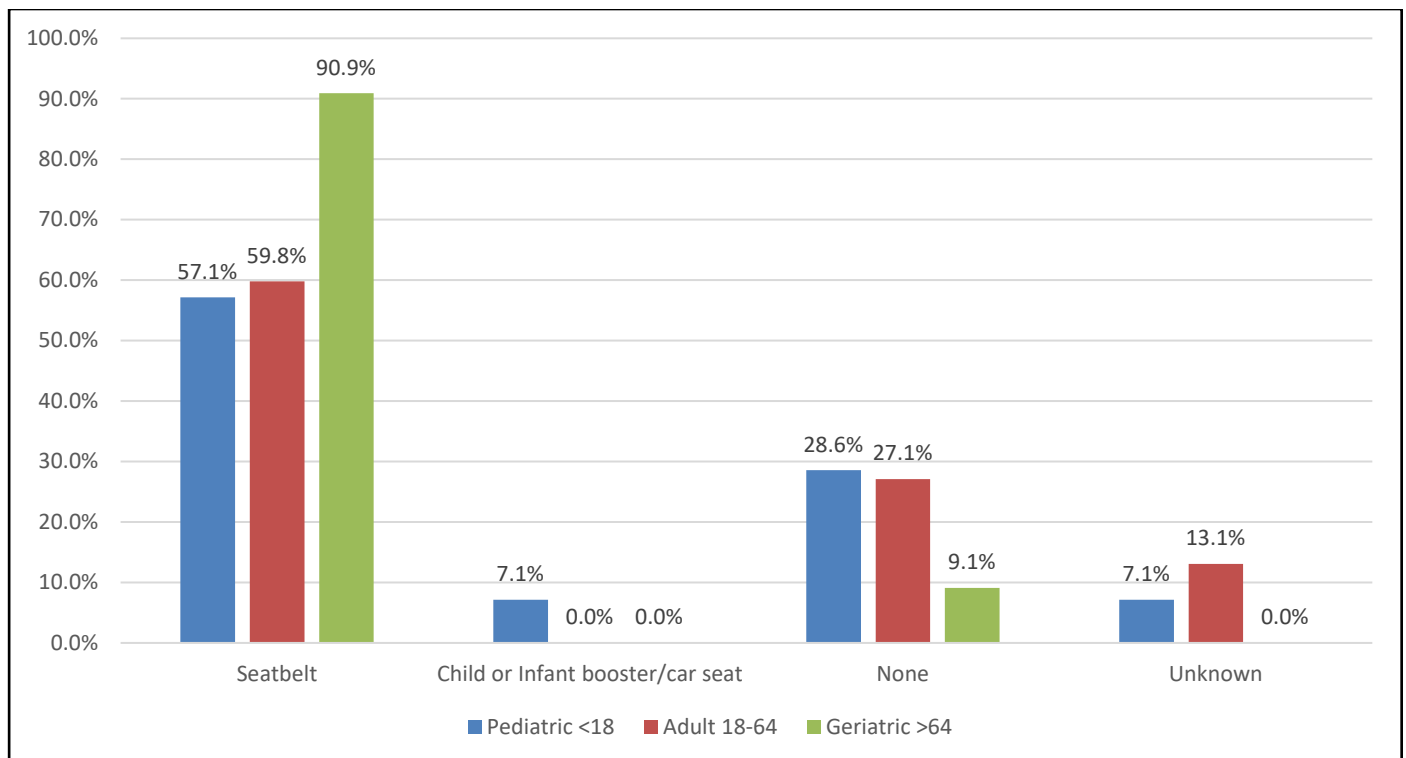
Injury Intent	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Unintentional	1,012	189	19%
Suicide	14	5	36%
Homicide/Assault	72	25	35%
Legal Intervention	2	1	50%
Undetermined (accidental/intentional)	7	2	29%
Missing	11	2	18%
<b>Total</b>	<b>1,118</b>	<b>224</b>	<b>20%</b>

## APPENDIX B: SAFETY EQUIPMENT

**Figure 9: Washoe County Proportion of Helmet Use Among Pedal Cyclists, Motorcyclists, and Off- Road Users (Unique Traumas)**



**Figure 10: Washoe County Age-Specific Proportion of Restraint Use Among Motor Vehicle Traffic Occupants**



**Table 23: Washoe County Age-Specific restraint use among Motor Vehicle Traffic Occupants**

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total
Seatbelt	8	64	30	102
Child or Infant booster/car seat	1	0	0	1
None	4	29	3	36
Unknown	1	14	0	15
<b>Total</b>	<b>14</b>	<b>107</b>	<b>33</b>	<b>154</b>

**Table 24: Washoe County Age-specific proportion of restraint use among Motor Vehicle Traffic Occupants**

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total (column percent)
Seatbelt	57.1%	59.8%	90.9%	66.2%
Child or Infant booster/car seat	7.1%	0.0%	0.0%	0.6%
None	28.6%	27.1%	9.1%	23.4%
Unknown	7.1%	13.1%	0.0%	9.7%
<b>Total Age-Specific Proportion</b>	<b>9.1%</b>	<b>69.5%</b>	<b>21.4%</b>	<b>100.0%</b>
<p>Among Motor vehicle occupants: 9.1% are &lt;18, 69.5% are 18-64 and 21.3% are &gt;64 years.</p> <p>Among Motor vehicle occupants 66.2% use seatbelt, 0.6% used Child booster/car seat, 23.4% used no restraint. 9.7% of motor vehicle occupants have unknown restraint information.</p> <p>Among all motor vehicle traffic occupants &lt; 18 years, 57.1% used seatbelts.</p>				

**APPENDIX B: FALLS – BY LAST TRANSFER FACILITY**

**Table 25: Washoe County Trauma Rate for Falls by Sex (Unique Traumas)**

Sex	n	Rate per 100,000 (95% CI)
Female	326	20.2 (18.0-22.4)
Male	267	16.6 (14.6-18.6)
<b>Total</b>	<b>593</b>	<b>18.4 (16.9-19.9)</b>

**Table 26: Washoe County 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	0	0.0 (0.0-0.0)	1	0.1 (0.0-0.4)	1	0.1 (0.0-0.4)
Adult 18-64	12	0.6 (0.3-0.9)	52	2.6 (1.9-3.3)	2	0.1 (0.0-0.2)
Geriatric >64	19	3.8 (2.1-5.5)	239	47.6 (41.5-53.6)	22	4.4 (2.5-6.2)
<b>Total</b>	<b>32</b>	<b>1.0 (0.6-1.3)</b>	<b>292</b>	<b>9.1 (8.0-10.1)</b>	<b>24</b>	<b>0.7 (0.4-1.0)</b>

**Table 27: Washoe County 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)	292	49.2%	11	3.8%
Unspecified	129	21.8%	5	3.9%
From Furniture	24	4.0%	0	0.0%
Steps	32	5.4%	1	3.1%
Multi-Level: Cliff, Tree, Water, etc.	27	4.6%	0	0.0%
On or From Ladder/Scaffolding	17	2.9%	0	0.0%
Pedestrian Conveyance Accident	39	6.6%	1	2.6%
Out of Building or Structure	14	2.4%	0	0.0%
Collision, Push or Shove By, or Other Person	4	0.7%	0	0.0%
Playground Equipment	2	0.3%	0	0.0%
Suicide Related	1	0.2%	0	0.0%
Fall Due to Environmental Factors	11	1.9%	0	0.0%
Undetermined Fall from High Place	1	0.2%	0	0.0%
<b>Total</b>	<b>593</b>	<b>100.0%</b>	<b>18</b>	<b>3.0%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility.

# **APPENDIX C: CLARK COUNTY RESULTS**

## APPENDIX C: TRAUMA CASES BY FACILITY

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

County	Facility	Unique Traumas Trauma Patients^		Total Trauma Cases*	
<b>Clark County</b>	Boulder City Hospital	52	0.6%	52	0.5%
	Centennial Hills Hospital	288	3.1%	293	2.8%
	Desert Springs Hospital Center	72	0.8%	74	0.7%
	Henderson ER at Green Valley Ranch	28	0.3%	28	0.3%
	Henderson Hospital	260	2.8%	261	2.5%
	Mesa View Regional Hospital	50	0.5%	50	0.5%
	<b>Mike O'Callaghan Federal Medical Center</b>	86	0.9%	86	0.8%
	Mountain View ER at Aliante	32	0.3%	32	0.3%
	Mountain View - ER at Skye Canyon	12	0.1%	12	0.1%
	Mountain View Hospital	678	7.3%	707	6.7%
	North Vista Hospital	146	1.6%	146	1.4%
	Southern Hills ER at South Las Vegas Blvd	14	0.1%	14	0.1%
	Southern Hills ER at the Lakes	14	0.1%	14	0.1%
	Southern Hills Hospital Medical Center	272	2.9%	273	2.6%
	Spring Valley ER at Blue Diamond	33	0.4%	33	0.3%
	Spring Valley Hospital Medical Center	514	5.5%	538	5.1%
	St. Rose Dominican Hospital Blue Diamond	29	0.3%	29	0.3%
	St. Rose Dominican Hospital De Lima Campus	99	1.1%	99	0.9%
	St. Rose Dominican Hospital North Las Vegas	75	0.8%	75	0.7%
	St. Rose Dominican Hospital San Martin Campus	129	1.4%	138	1.3%
	<b>St. Rose Dominican Hospital Siena Campus</b>	1,126	12.0%	1,154	11.0%
	St. Rose Dominican Hospital West Flamingo	25	0.3%	25	0.2%
	St. Rose Dominican Hospital West Sahara	33	0.4%	33	0.3%
	Summerlin Hospital Medical Center	461	4.9%	471	4.5%
<b>Sunrise Hospital Medical Center</b>	1,988	21.3%	2,573	24.5%	
<b>University Medical Center</b>	2,768	29.6%	3,218	30.7%	
Valley Hospital Medical Center	28	0.3%	28	0.3%	
<b>Washoe County</b>	Northern Nevada Medical Center	2	0.0%	2	0.0%
	Northern Nevada Medical Center - ER at McCarran	0	0.0%	0	0.0%
	Northern Nevada Sierra Medical Center	0	0.0%	0	0.0%
	<b>Renown Regional Medical Center</b>	10	0.1%	12	0.1%
	Renown South Meadows Medical Center	0	0.0%	0	0.0%
	St. Mary's Regional Medical Center	0	0.0%	0	0.0%
<b>All Other Counties</b>	Banner Churchill Community Hospital	1	0.0%	1	0.0%
	Battle Mountain General Hospital	0	0.0%	0	0.0%
	Carson Tahoe Regional Medical Center	0	0.0%	0	0.0%
	Carson Valley Medical Center	1	0.0%	1	0.0%
	Desert View Hospital	13	0.1%	13	0.1%
	Grover C. Dils Medical Center	2	0.0%	2	0.0%
	Pershing General Hospital	0	0.0%	0	0.0%
	South Lyon Medical Center	0	0.0%	0	0.0%
William Bee Ririe Hospital	4	0.0%	4	0.0%	
<b>Nevada (Total)</b>		<b>9,345</b>	<b>100.0%</b>	<b>10,491</b>	<b>100.0%</b>

**Table 2: Clark County Trauma Incidence and Mortality Proportion by Trauma Center Designation for Trauma Center Levels 1-3**

Trauma Center designation	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Trauma Center level 1	3218	48.3%	217	6.7%
Trauma Center level 2	2583	38.8%	92	3.6%
Trauma Center Level 3	863	13.0%	14	1.6%
<b>Total</b>	<b>6664</b>	<b>100.0%</b>	<b>323</b>	<b>4.8%</b>

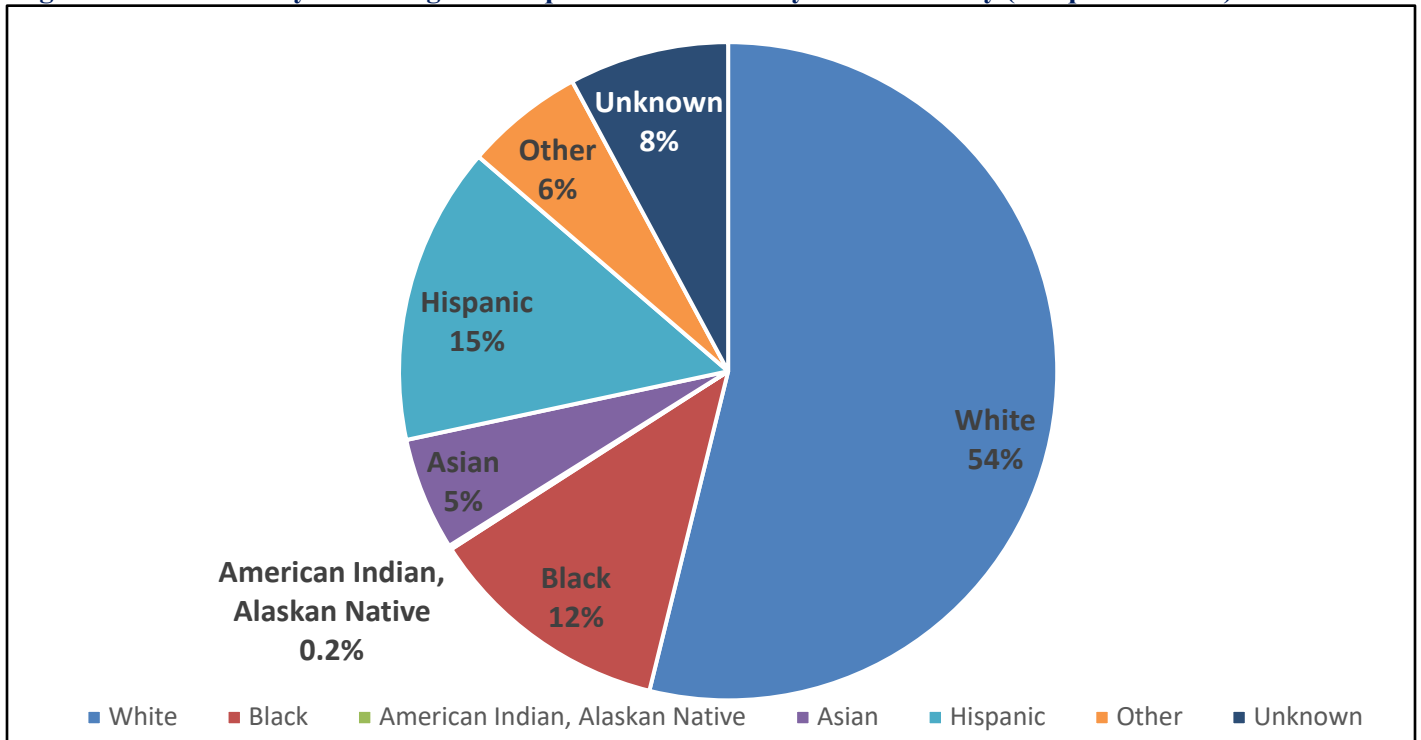
**Table 3: Clark County Trauma Cases by Sex (Unique Traumas)**

Sex	Count	Percent	Rate per 100,000 (95% CI)
Male	5,150	55.1%	320.3 (311.5-329.0)
Female	4,195	44.9%	260.3 (252.4-268.2)
<b>Total</b>	<b>9,345</b>	<b>100%</b>	<b>290.2 (284.4-296.1)</b>

**Table 4: Clark County Trauma Cases by Race/Ethnicity (Unique Traumas)**

Race/Ethnicity	Count	Column Percent	Rate per 100,000 (95% CI)
White	5,032	53.8%	320.1 (311.2-328.9)
Black	1,127	12.1%	380.2 (358.0-402.4)
American Indian, Alaskan Native	18	0.2%	50.6 (27.2-73.9)
Asian	519	5.6%	159.2 (145.5-172.9)
Hispanic	1,369	14.6%	138.3 (131.0-145.7)
Other	546	5.8%	-
Unknown	734	7.9%	-
<b>Total</b>	<b>9,345</b>	<b>100.0%</b>	<b>290.2 (284.4-296.1)</b>

**Figure 1: Clark County Percentage of Unique Trauma Cases by Race/Ethnicity (Unique Traumas)**





**Table 5: Clark County Age-Specific Trauma Cases by Race/Ethnicity (Unique Traumas)**

Age Groups	White	Black	American Indian, Alaskan Native	Asian	Hispanic	Other	Unknown	Total
<1	17	11	0	6	12	10	9	65
1-5	52	42	0	7	39	14	20	174
6-17	129	95	0	24	106	36	53	443
18-24	122	114	0	17	144	36	58	491
25-34	243	235	1	26	250	61	80	896
35-44	282	174	1	31	179	69	74	810
45-54	366	113	6	31	162	46	64	788
55-64	648	130	6	50	155	59	57	1,105
65-74	1,032	108	2	92	124	70	115	1,543
75-84	1,253	66	1	122	121	88	125	1,776
85+	887	39	1	113	77	57	79	1,253
Unknown	1	0	0	0	0	0	0	1
<b>Total</b>	<b>5,032</b>	<b>1,127</b>	<b>18</b>	<b>519</b>	<b>1,369</b>	<b>546</b>	<b>734</b>	<b>9,345</b>

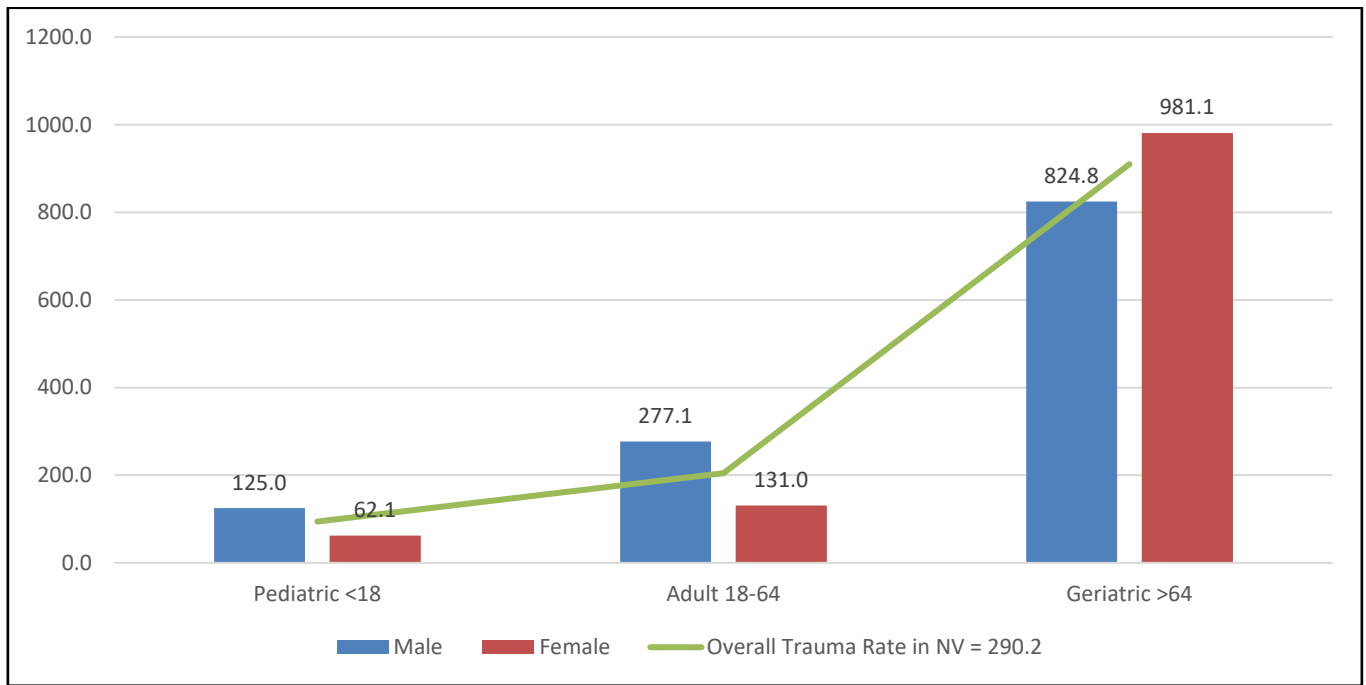
**Table 6: Clark County Age-Specific Trauma Cases and Mortality Proportion (Unique Traumas)**

Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
<1	64	0.7%	1	1.6%
1-5	174	1.9%	6	3.4%
6-17	443	4.7%	8	1.8%
18-24	490	5.2%	31	6.3%
25-34	899	9.6%	52	5.8%
35-44	807	8.6%	28	3.5%
45-54	785	8.4%	39	5.0%
55-64	1,105	11.8%	40	3.6%
65-74	1,542	16.5%	40	2.6%
75-84	1,774	19.0%	59	3.3%
85+	1,252	13.4%	48	3.8%
Unknown	1	0.0%	0	0.0%
<b>Total</b>	<b>9,336</b>	<b>100.0%</b>	<b>352</b>	<b>3.8%</b>

**Table 7: Age and Sex-Specific Trauma Rate per 100,000 Clark County 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	460	125.0 (113.6-136.4)	218	62.1 (53.8-70.3)	678	94.3 (87.2-101.4)
Adult 18-64	2,801	277.1 (266.8-287.3)	1,293	131.0 (123.9-138.1)	4,094	204.9 (198.6-211.2)
Geriatric >64	1,889	824.8 (787.6-862.0)	2,684	981.1 (944.0-1018.3)	4,573	909.9 (883.5-936.3)
<b>Total</b>	<b>5,150</b>	<b>320.3 (311.5-329.0)</b>	<b>4,195</b>	<b>260.3 (252.4-268.2)</b>	<b>9,345</b>	<b>290.2 (284.4-296.1)</b>

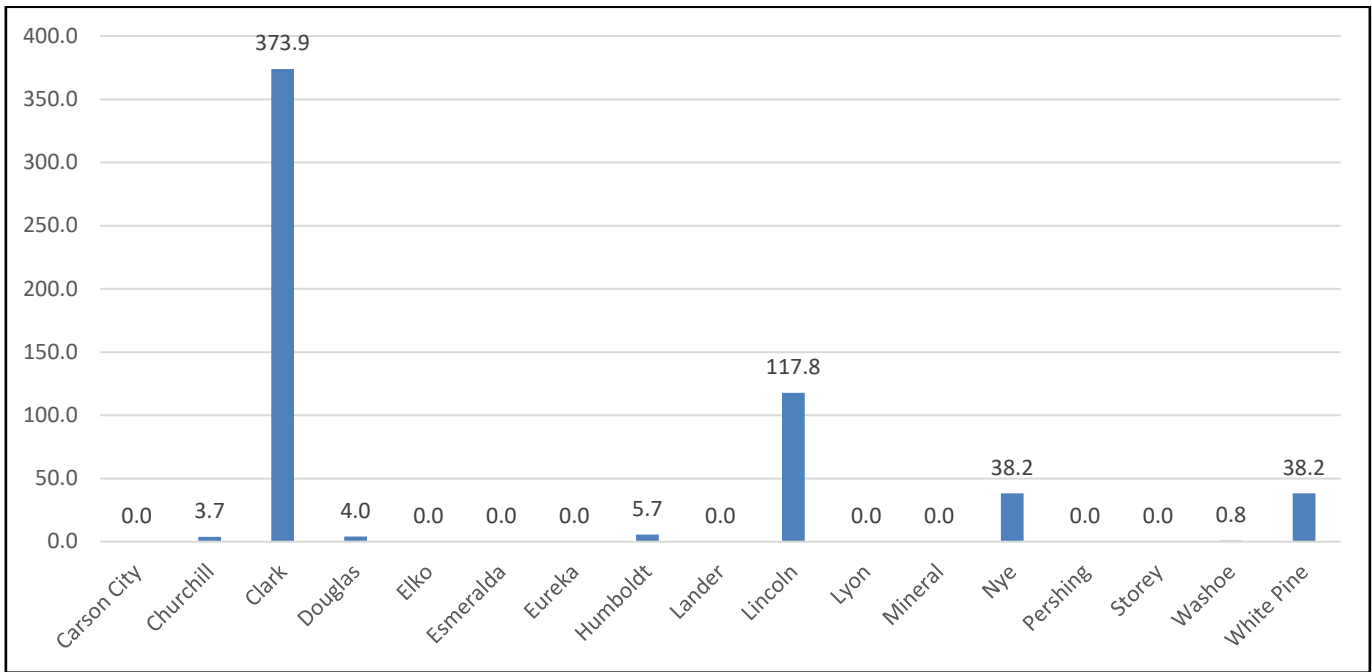
**Figure 2: Age and Sex-Specific Trauma Rates per 100,000 Clark County Residents**



**Table 8: Clark County Trauma Cases by County of Injury (Non-Duplicated)**

County	Count	Rate per 100,000 (95% CI)
Carson City	0	0.0 (0.0-0.0)
Churchill	1	3.7 (0.0-11.0)
Clark	8,850	373.9 (366.1-381.7)
Douglas	2	4.0 (0.0-9.5)
Elko	0	0.0 (0.0-0.0)
Esmeralda	0	0.0 (0.0-0.0)
Eureka	0	0.0 (0.0-0.0)
Humboldt	1	5.7 (0.0-16.9)
Lander	0	0.0 (0.0-0.0)
Lincoln	6	117.8 (23.5-212.1)
Lyon	0	0.0 (0.0-0.0)
Mineral	0	0.0 (0.0-0.0)
Nye	19	38.2 (21.0-55.3)
Pershing	0	0.0 (0.0-0.0)
Storey	0	0.0 (0.0-0.0)
Washoe	4	0.8 (0.0-1.6)
White Pine	4	38.2 (0.8-75.6)
Out of State	49	-
Unknown	409	-

**Figure 3: County-Specific Trauma Rates per 100,000 Clark County Residents**



**Table 9: Clark County Age-Specific Traumatic Brain Injury and Mortality Proportion (Unique Traumas)**

Age Group	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Pediatric <18	151	10.1%	9	6.0%
Adult 18-64	609	40.8%	73	12.0%
Geriatric >64	734	49.1%	63	8.6%
<b>1,494</b>	<b>100.0%</b>	<b>145</b>	<b>9.7%</b>	<b>1,494</b>

**Table 10: Clark County Age-Specific Traumatic Brain Injury Incidence and Mortality Proportion (Unique Traumas)**

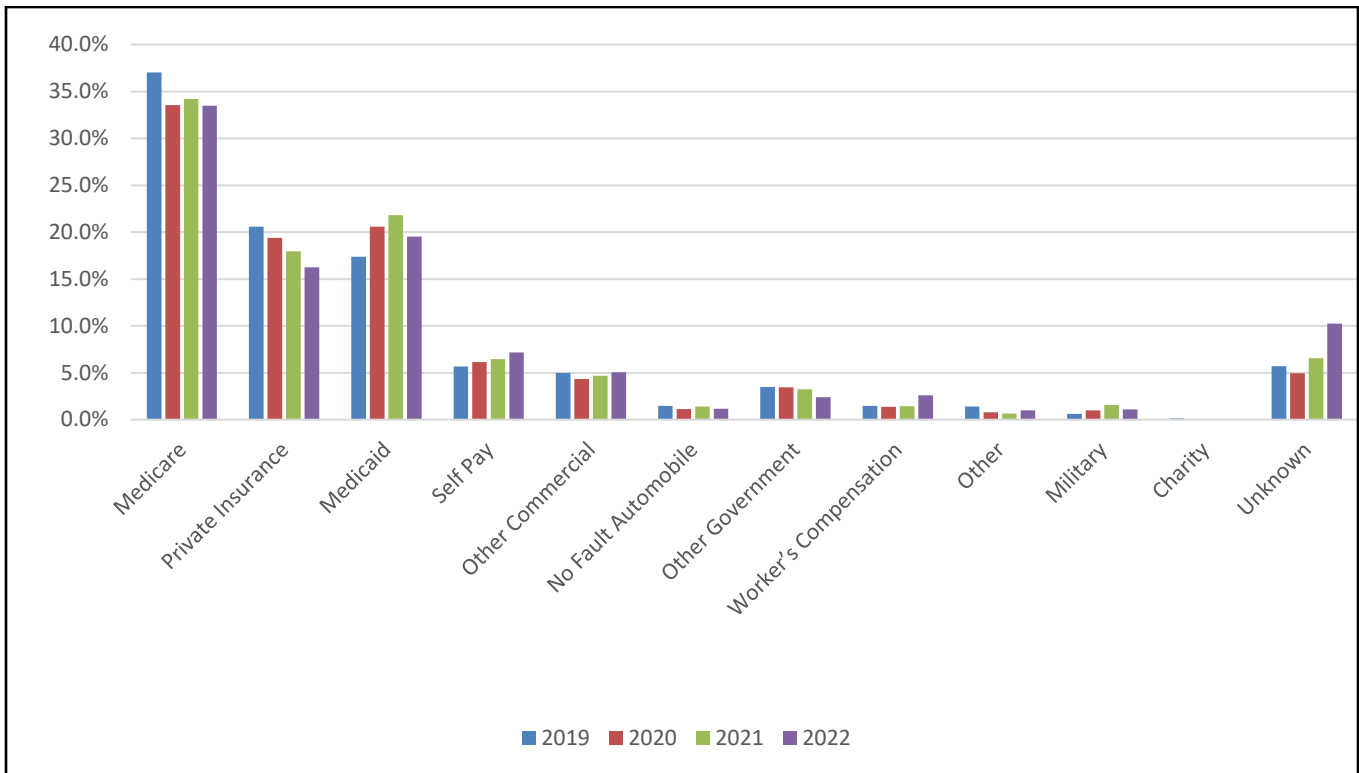
Age Groups	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
<1	31	2.1%	1	3.2%
1-5	42	2.8%	4	9.5%
6-17	79	5.3%	4	5.1%
18-24	75	5.0%	11	14.7%
25-34	131	8.8%	15	11.5%
35-44	107	7.2%	9	8.4%
45-54	128	8.6%	18	14.1%
55-64	167	11.2%	20	12.0%
65-74	258	17.3%	17	6.6%
75-84	304	20.3%	27	8.9%
85+	171	11.4%	19	11.1%
Unknown	1	0.1%	0	0.0%
<b>Total</b>	<b>1,494</b>	<b>100.0%</b>	<b>145</b>	<b>9.7%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility. \*\*1 Unknown dead/alive status\*\*

**Table 11: Proportion of Trauma Primary Payment Sources in Clark County, Nevada, 2019-2022**

Primary Source of Payment	2019	2020	2021	2022
Medicare	37.0%	33.5%	34.2%	33.5%
Private Insurance	20.6%	19.4%	18.0%	16.3%
Medicaid	17.4%	20.6%	21.8%	19.5%
Self-Pay	5.7%	6.2%	6.4%	7.2%
Other Commercial	5.0%	4.3%	4.7%	5.1%
No Fault Automobile	1.5%	1.1%	1.4%	1.2%
Other Government	3.5%	3.4%	3.2%	2.4%
Worker’s Compensation	1.5%	1.4%	1.5%	2.6%
Other	1.4%	0.8%	0.6%	1.0%
Military	0.6%	1.0%	1.6%	1.1%
Charity	0.1%	0.1%	0.0%	0.0%
Unknown	5.7%	5.0%	6.6%	10.2%

**Figure 4: Proportion of Trauma Primary Payment Sources in Clark County, Nevada, 2019-2022**



## APPENDIX C: PLACE AND MECHANISM OF INJURY

**Table 12: Clark County Trauma Incident by Place of Injury (Unique Traumas)**

Place of Injury	Trauma Count	Percent
Residential	4,726	50.57%
Street	2,296	24.57%
Trade and Service Area	456	4.88%
Recreation area	129	1.38%
Sports Area	109	1.17%
Wilderness	72	0.77%
Other Specified	107	1.14%
School or Public Area	130	1.39%
Industrial and Construction	96	1.03%
Farm	8	0.09%
Transport vehicle as Place	41	0.44%
Military Training Ground	1	0.01%
Railroad Track	1	0.01%
Unknown/Unspecified	1,173	12.55%
<b>Total</b>	<b>9,345</b>	<b>100%</b>

**Table 13: Clark County Trauma Incidence and Mortality by Mechanism of Injury (Unique Traumas)**

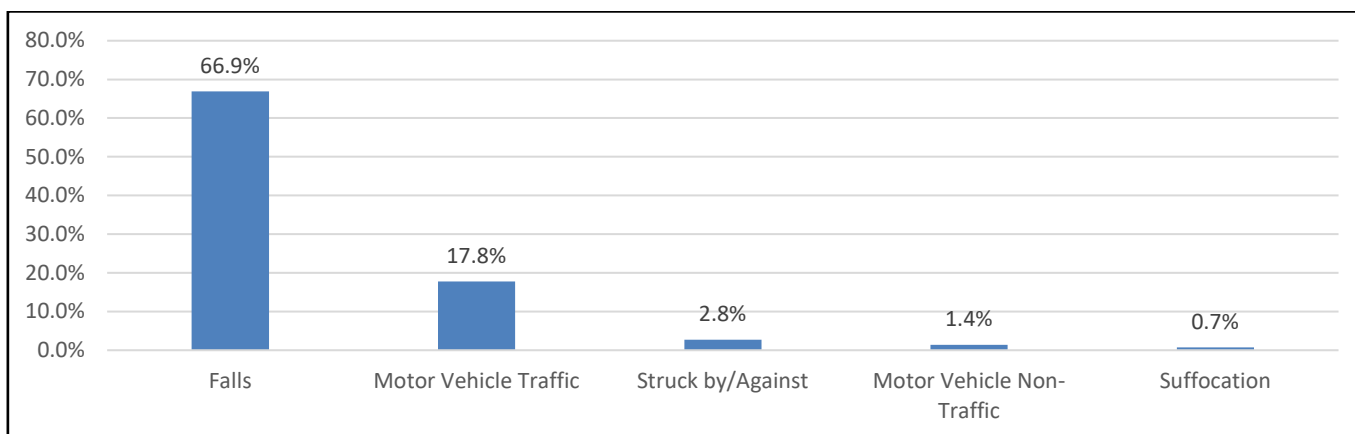
Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	5,519	59.1%	126	2.3%
Motor Vehicle Traffic	1,509	16.2%	109	7.2%
Struck by/Against	575	6.2%	9	1.6%
Firearm	411	4.4%	77	18.7%
Cut/Pierce	325	3.5%	10	3.1%
Motor Vehicle Non-Traffic	82	0.9%	0	0.0%
Other Transport (Land, Sea, Sky)	54	0.6%	1	1.9%
Other Specified	175	1.9%	6	3.4%
Pedal Cyclist, Other	125	1.3%	1	0.8%
Natural/Environmental	145	1.6%	1	0.7%
Pedestrian, Other	52	0.6%	7	13.5%
Unspecified	50	0.5%	1	2.0%
Fire/Burn	45	0.5%	0	0.0%
Unknown	86	0.9%	2	2.3%
Machinery	60	0.6%	0	0.0%
Overexertion	51	0.5%	1	2.0%
Suffocation	72	0.8%	1	1.4%
<b>Total</b>	<b>9,336</b>	<b>100.0%</b>	<b>352</b>	<b>3.8%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility.

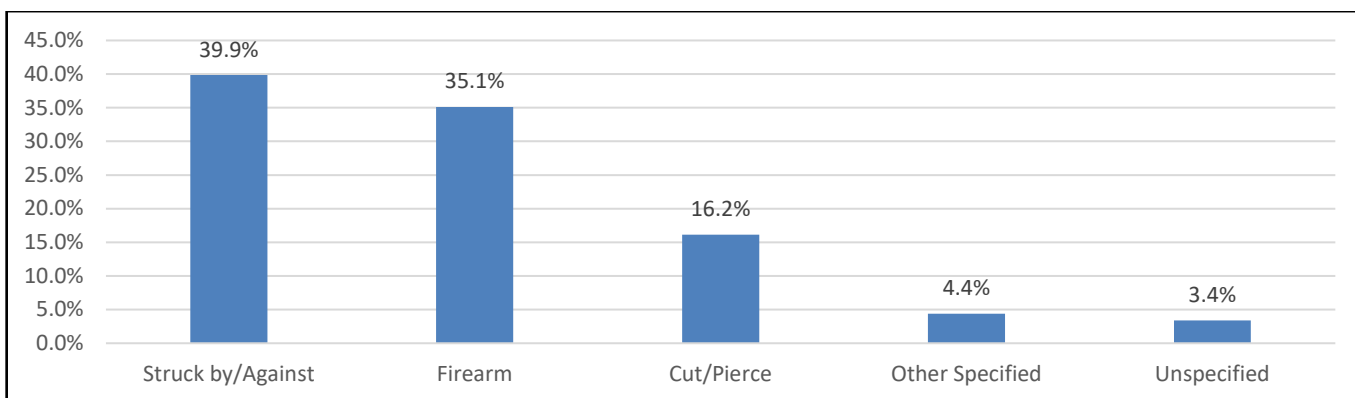
**Table 14: Clark County Trauma Rates for Top Three Mechanisms of Injury by Age (Unique Traumas)**

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	296	41.2 (36.5-45.8)	72	10.0 (7.7-12.3)	88	12.2 (9.7-14.8)
Adult 18-64	1,294	64.8 (61.2-68.3)	405	20.3 (18.3-22.2)	1,097	54.9 (51.7-58.2)
Geriatric >64	3,933	782.6 (758.1-807.0)	85	16.9 (13.3-20.5)	292	58.1 (51.4-64.8)
<b>Total</b>	<b>5,523</b>	<b>171.5 (167.0-176.1)</b>	<b>562</b>	<b>17.5 (16.0-18.9)</b>	<b>1,477</b>	<b>45.9 (43.5-48.2)</b>

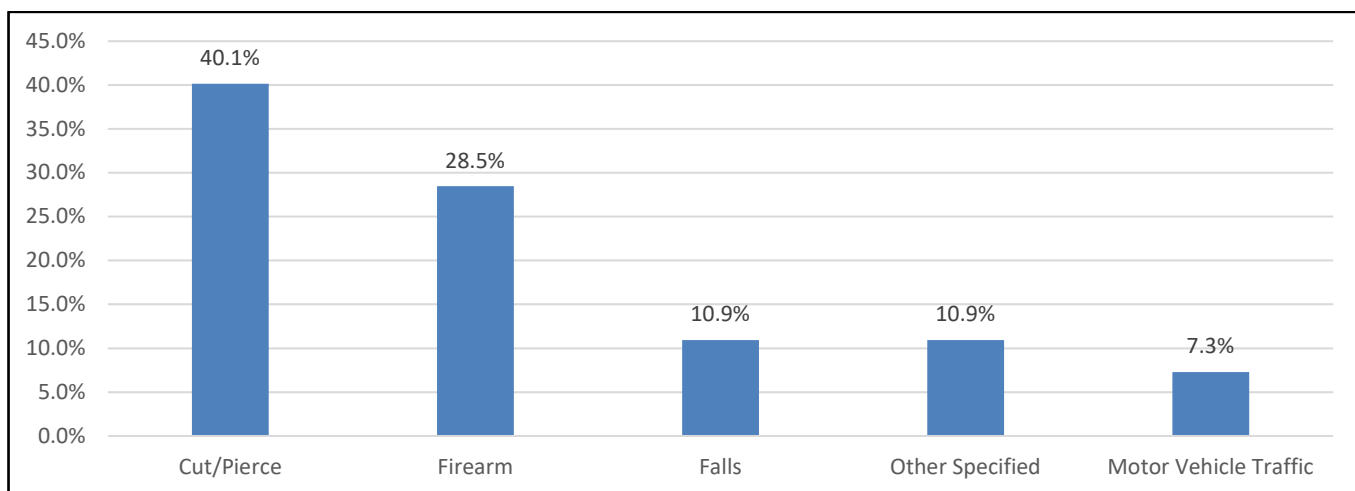
**Figure 5: Clark County Top Five Mechanisms of Unintentional Trauma**



**Figure 6: Clark County Top Five Mechanisms of Homicide/Assault Related Trauma**



**Figure 7: Clark County Top Five Mechanisms of Suicide/Self-Inflicted Trauma**

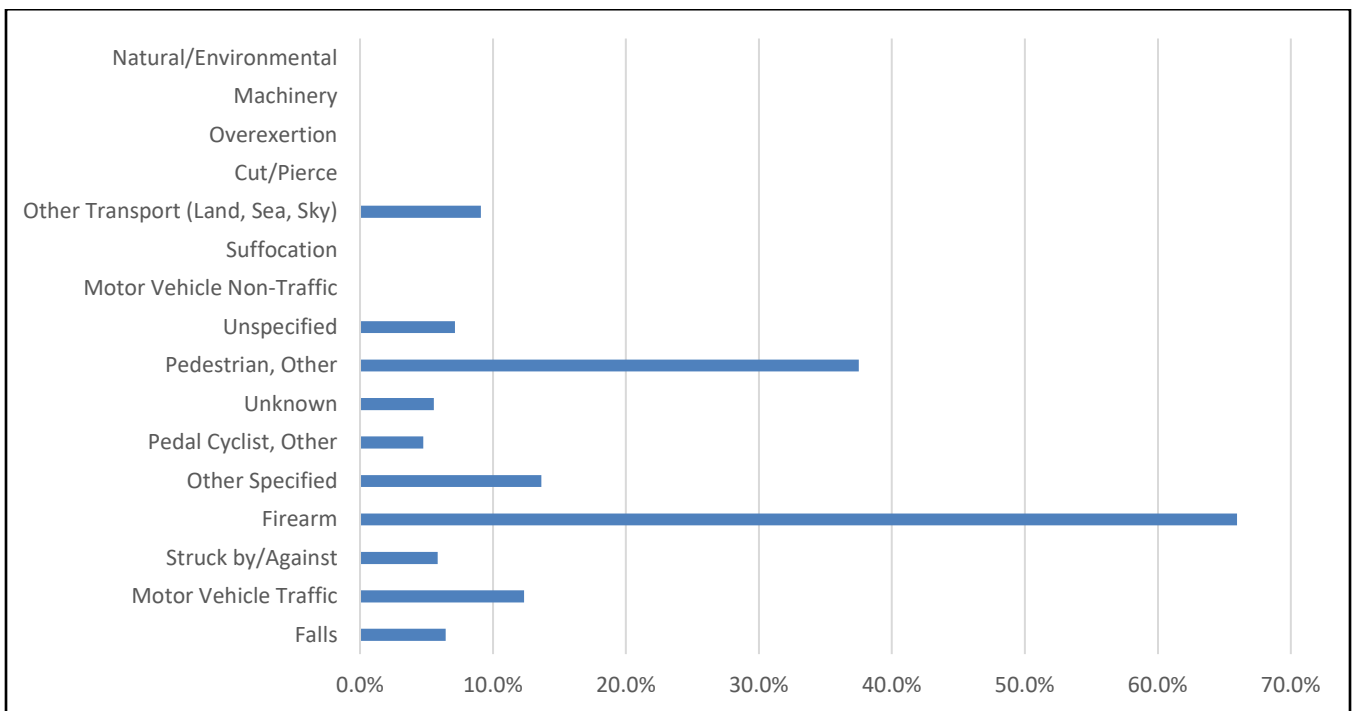


**Table 15: Clark County Traumatic Brain Injury Incidence and Mortality by Mechanism of Injury**

Mechanism	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Falls	870	58.2%	56	6.4%
Motor Vehicle Traffic	300	20.1%	37	12.3%
Struck by/Against	137	9.2%	8	5.8%
Firearm	47	3.1%	31	66.0%
Other Specified	22	1.5%	3	13.6%
Pedal Cyclist, Other	21	1.4%	1	4.8%
Unknown	18	1.2%	1	5.6%
Pedestrian, Other	16	1.1%	6	37.5%
Unspecified	14	0.9%	1	7.1%
Motor Vehicle Non-Traffic	12	0.8%	0	0.0%
Suffocation	12	0.8%	0	0.0%
Other Transport (Land, Sea, Sky)	11	0.7%	1	9.1%
Cut/Pierce	8	0.5%	0	0.0%
Overexertion	4	0.3%	0	0.0%
Machinery	1	0.1%	0	0.0%
Natural/Environmental	1	0.1%	0	0.0%
<b>Total</b>	<b>1,494</b>	<b>100.0%</b>	<b>145</b>	<b>9.7%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility. \*\*1 unknown dead/alive status\*\*

**Figure 8: Mortality Proportion of Traumatic Brain Injury Incidence by Mechanism of Injury (Unique Trauma)**



## APPENDIX C: INJURY CHARACTERISTICS: INJURY SEVERITY SCORE (ISS)

Table 16: Clark County Trauma Incidence and Mortality by Injury Severity Score (ISS) (Unique Traumas)

Injury Severity Score	Count	Column Percent	Deaths	Mortality Proportion (Row Percent)
Minor, 1-8	4,360	46.7%	41	0.9%
Moderate, 9-15	3,796	40.7%	70	1.8%
Serious, 16-24	654	7.0%	51	7.8%
Severe, 25-75	509	5.5%	190	37.3%
Missing/NA/ND	17	0.2%	0	0.0%

Table 17: Clark County 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	262	17.5%	3	1.1%
Moderate, 9-15	648	43.4%	16	2.5%
Serious, 16-24	295	19.7%	9	3.1%
Severe, 25-75	289	19.3%	117	40.5%
<b>Total</b>	<b>1,494</b>	<b>100.0%</b>	<b>145</b>	<b>9.7%</b>

Table 18: Injury to ED arrival time for a patient with an ISS > 15 by injury location; Rural, Urban, Statewide

County	<1hour	1-3hours	3-6hours	6-9hours	9-12-hours	>12 hours
Clark	996	122	26	18	10	40
Douglas	1	0	0	0	0	0
Nye	4	1	0	0	0	0
Unknown	21	1	1	0	0	3
Washoe	3	0	0	0	0	0
White Pine	1	0	0	0	0	0
Out of State	6	6	0	1	1	0
<b>Total</b>	<b>1,032</b>	<b>130</b>	<b>27</b>	<b>19</b>	<b>11</b>	<b>43</b>

## APPENDIX C: PATIENT TRANSPORTATION

Table 19: Clark County Trauma Incidence by Mode of Arrival (Unique Traumas)

Mode of Arrival	Trauma Count	Percent
Ground Ambulance	6,772	72.47%
Private Vehicle or Walk-in	2,439	26.10%
Helicopter Ambulance	103	1.10%
Fixed-Wing Ambulance	7	0.07%
Water Ambulance	1	0.01%
Police	16	0.17%
Other	4	0.04%
Public Safety	1	0.01%
Missing	2	0.02%
<b>Total</b>	<b>9,345</b>	<b>100%</b>



**Table 20: Clark County 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	2,798	2,979	528	456	11
Private Vehicle or Walk-in	1,452	735	180	60	12
Helicopter Ambulance	20	49	23	11	0
Fixed-Wing Ambulance	2	3	2	0	0
Water Ambulance	0	1	0	0	0
Police	10	4	1	1	0
Other	0	4	0	0	0
Public Safety	1	0	0	0	0
Missing	2	0	0	0	0
<b>Total</b>	<b>4,285</b>	<b>3,775</b>	<b>734</b>	<b>528</b>	<b>23</b>

**APPENDIX C: PATIENT DISCHARGE AND TRANSFER**

**Table 21: Clark County 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	2	9.0	0.0	9 - 9
St. Rose Dominican Hospital Siena Campus	41	5.9	3.4	1 - 17
Sunrise Hospital Medical Center	750	8.5	6.9	1 - 41
University Medical Center	582	9.0	7.4	1 - 57

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

**APPENDIX C: RISK FACTORS: DRUG/ALCOHOL USE**

**Table 22: Clark County Injury Intent and Drug/Alcohol Use (Unique Traumas)**

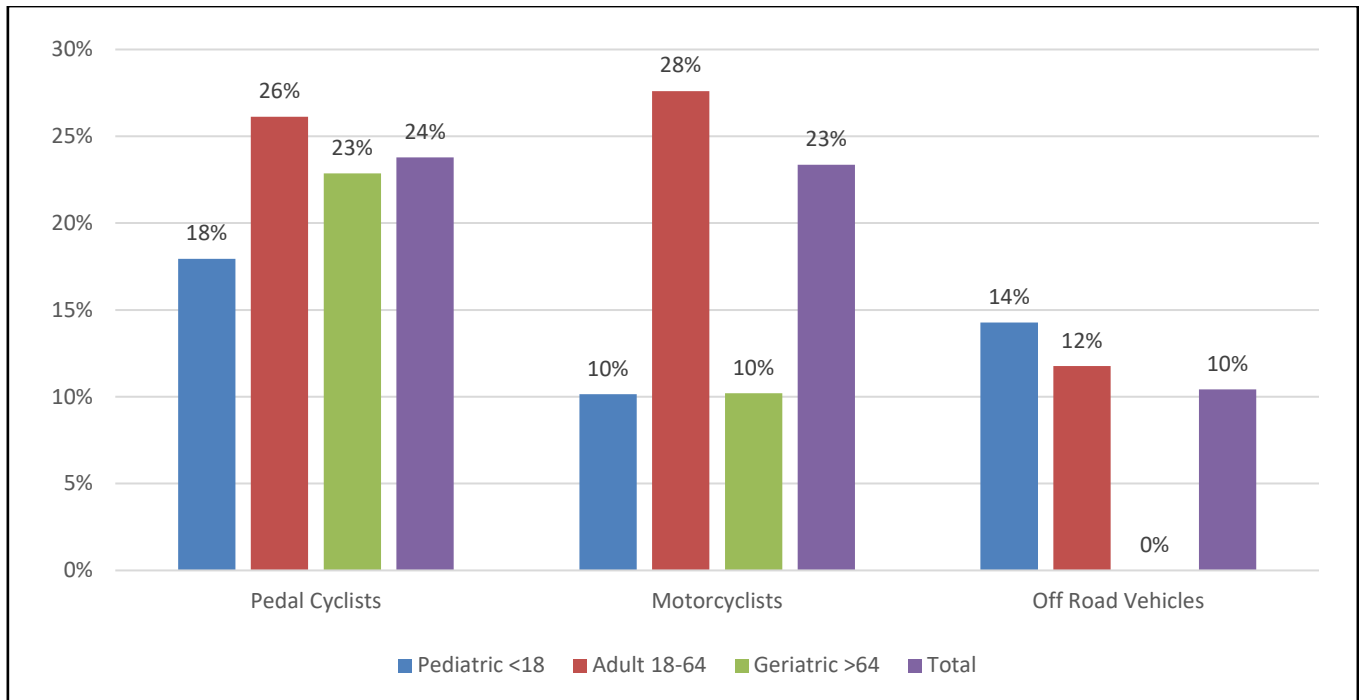
Injury Intent	Trauma Cases	Drug/Alcohol Use	Percent Drug/Alcohol Use (Row Percent)
Unintentional	8,229	1,089	13%
Suicide	137	53	39%
Homicide/Assault	823	263	32%
Legal Intervention	11	3	27%
Undetermined (accidental/intentional)	73	19	26%
Missing	71	6	8%
Unknown	1	0	0%
<b>Total</b>	<b>9,345</b>	<b>1,433</b>	<b>15%</b>

**APPENDIX C: SAFETY EQUIPMENT**

**Table 23: Clark County Age-Specific restraint use among Motor Vehicle Traffic Occupants**

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total
Seatbelt	16	385	149	550
Child or Infant booster/car seat	6	0	0	6
None	20	170	39	229
Unknown	4	46	16	66
<b>Total</b>	<b>46</b>	<b>601</b>	<b>204</b>	<b>851</b>

**Figure 9: Proportion of Helmet Use Among Pedal Cyclists, Motor Cyclists, and Off-Road Users**

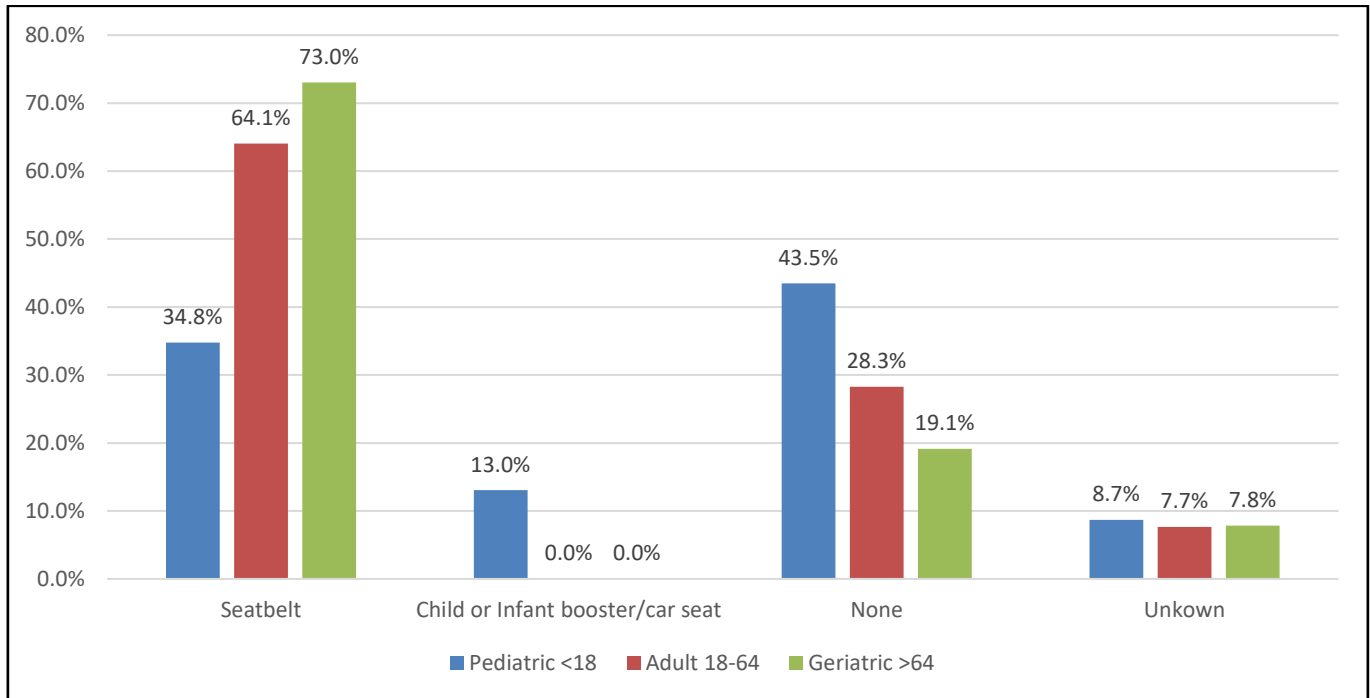


**Table 24: Clark County Age-Specific Proportion of Restraint Use Among Motor-Vehicle Traffic Occupants**

Age Group	Pediatric <18	Adult 18-64	Geriatric >64	Total (column percent)
Seatbelt	34.8%	64.1%	73.0%	64.6%
Child or Infant booster/car seat	13.0%	0.0%	0.0%	0.7%
None	43.5%	28.3%	19.1%	26.9%
Unknown	8.7%	7.7%	7.8%	7.8%
<b>Total Age-Specific Proportion</b>	<b>5.4%</b>	<b>70.6%</b>	<b>24.0%</b>	<b>100.0%</b>

- In motor vehicle-related trauma occurrences in Clark County, 5.4% of victims are under the age of 18, 70.6% are between the ages of 18 and 64, and 24% are above the age of 64.
- In Clark County, seatbelt use was 64.6%, child booster/car seats were 0.7%, and no restraints were used 26.9% of the time by people in motor vehicles engaged in trauma occurrences. 7.8% of automobile occupants have unidentified restraint data.
- In Clark County, Nevada, in 2022, 34.8% of passengers under the age of 18 who were engaged in MVA related trauma occurrences were properly restrained.

**Figure 10: Clark County Age-Specific Proportion of Restraint Use Among Motor Vehicle Traffic Occupants**



## **APPENDIX C: FALLS – BY LAST TRANSFER FACILITY**

**Table 25: Clark County Trauma Rate for Falls by Sex (Unique Traumas)**

Sex	n	Rate per 100,000 (95% CI)
Female	3,141	194.9 (188.1-201.7)
Male	2,481	154.3 (148.2-160.4)
<b>Total</b>	<b>5,622</b>	<b>174.6 (170.0-179.2)</b>

**Table 26: Clark County 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)	3,962	70.5%	86	2.2%
From Furniture	415	7.4%	9	2.2%
Unspecified	353	6.3%	14	4.0%
Steps	287	5.1%	7	2.4%
On or From Ladder/Scaffolding	158	2.8%	7	4.4%
Multi-Level: Cliff, Tree, Water, etc.	131	2.3%	0	0.0%
Pedestrian Conveyance Accident	109	1.9%	2	1.8%
Out of Building or Structure	61	1.1%	2	3.3%
Collision, Push or Shove By, or Other Person	55	1.0%	0	0.0%
Playground Equipment	53	0.9%	0	0.0%
Suicide Related	22	0.4%	2	9.1%
Fall Due to Environmental Factors	11	0.2%	0	0.0%
Undetermined Fall from High Place	3	0.1%	0	0.0%
Assault Related	2	0.0%	0	0.0%
<b>Total</b>	<b>5,622</b>	<b>100.0%</b>	<b>129</b>	<b>2.3%</b>

Throughout the report, Unique Traumas are analyzed by where the patient first originated; however, mortality data is analyzed based on their final facility.

**Table 27: Clark County 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	9	1.3 (0.4-2.1)	80	11.1 (8.7-13.6)	59	8.2 (6.1-10.3)
Adult 18-64	99	5.0 (4.0-5.9)	798	39.9 (37.2-42.7)	69	3.5 (2.6-4.3)
Geriatric >64	179	35.6 (30.4-40.8)	3,084	613.6 (592.0-635.3)	287	57.1 (50.5-63.7)
<b>Total</b>	<b>287</b>	<b>8.9 (7.9-9.9)</b>	<b>3,962</b>	<b>123.1 (119.2-126.9)</b>	<b>415</b>	<b>12.9 (11.6-14.1)</b>