

Every day, thousands of Americans are involved in motor vehicle crashes on public roadways that result in injury or death. Unintentional Motor Vehicle Traffic (MVT) injuries include those to motor vehicle occupants (drivers and passengers), motorcyclists, pedestrians, pedal cyclists, and other persons.

Burden and Overview

MVT injuries are a leading cause of hospitalization and death in the United States and Montana. For every MVT injury death in Montana in 2020, there were 2.4 non-fatal hospitalizations and 21.2 non-fatal emergency department (ED) visits. Figure 1 reflects total counts for 2020. From 2009-2020, the rate of MVT injury deaths has not changed significantly (see Figure 2), with a death rate of 18.1 per 100,000 residents in 2020 (95% Confidence Interval: 15.4-20.7).

FIGURE 1: Motor Vehicle Traffic Injury Pyramid in 2020

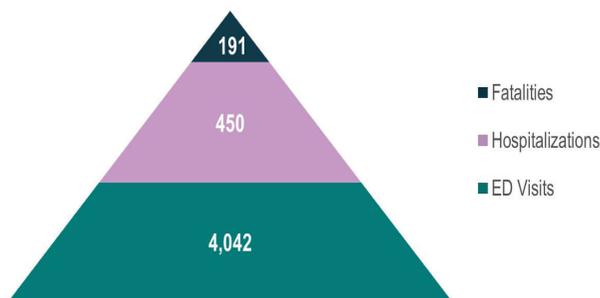
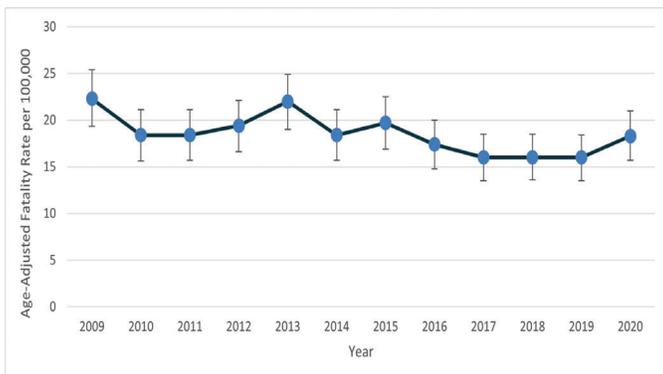


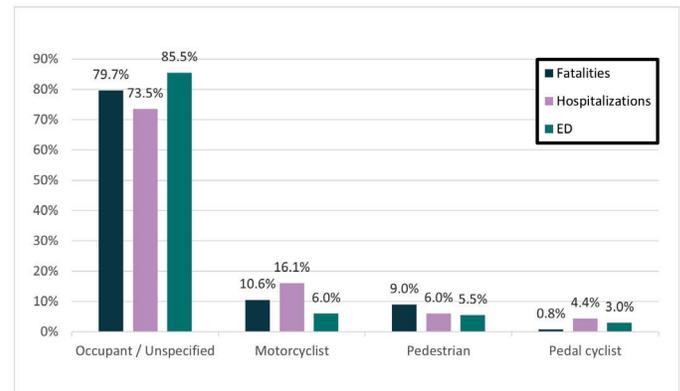
FIGURE 2: Rate of Motor Vehicle Traffic Deaths Among Residents



Injuries by Type of Person

Figure 3 illustrates that most persons injured or killed by MVT injuries are motor vehicle occupants (see Footnotes for definition). From 2016-2020, occupants accounted for 80% of MVT deaths, 74% of hospitalizations, and 86% of ED visits. Table 1, and Figures 4 through 6 will focus on MVT occupant-related injuries.

FIGURE 3: Percent of Unintentional MVT Injuries by Type of Person in 2016-2020



MVT Occupant Injuries by Geography

From 2016-2020, there were 17,921 non-fatal MVT occupant-related ED visits among Montana residents (49% drivers, 21% passengers, 30% other or unspecified). Yellowstone County (N=2,470) had most ED visits, while Lake County (N=867) had the highest ED visit rate, adjusting for population size and age distribution. Table 1 presents the five counties with the highest age-adjusted ED visit rates.

Special Emphasis Report: Unintentional Motor Vehicle Traffic Injuries

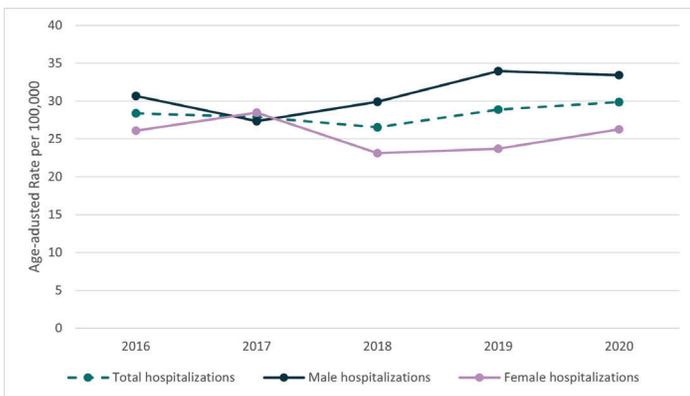
TABLE 1: Table 1. MV Occupant ED Visits by Geography, 2016-2020

County	Count (N)	Rate per 100,000
Lake County	867	658
Silver Bow County	973	597
Sanders County	258	556
Richland County	284	548
Deer Lodge County	220	521

MVT Occupant Injuries by Sex and Age

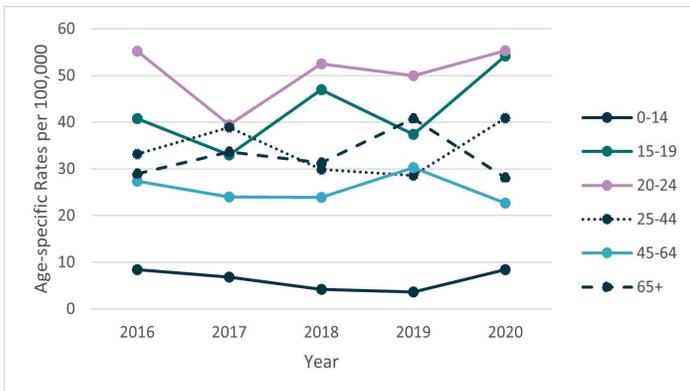
Males had a higher non-fatal MVT occupant hospitalization rate than females did in 2020 (33.4 per 100,000 and 26.3 per 100,000 respectively). Figure 4 shows 2016-2020 rates by sex.

FIGURE 4: MVT Occupant Hospitalization Rates by Sex, 2016-2020



The age groups with the highest non-fatal MVT occupant hospitalization injury rates were ages 20-24 followed by ages 15-19 (55.3 and 54.2 per 100,000 respectively, in 2020).

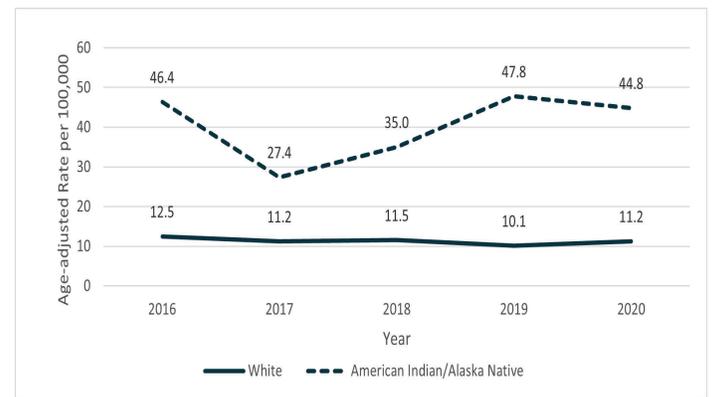
FIGURE 5: MVT Occupant-related Hospitalization Injury Rates by Age Group, 2016-2020



MVT Occupant Injuries by Race

Figure 6 presents MVT occupant fatalities rates by race and ethnicity for Montana residents. The highest rates were noted for American Indian and Alaska Native residents (44.8 per 100,000 in 2020).

FIGURE 6: Montana MVT Occupant Fatality Rates by Race, 2016-2020



Quick Facts

Seat Belt Use: Montana currently has a secondary seatbelt law. According to the Montana Department of Transportation (MDT) Observational Seat Belt Use Survey*, seat belt use in 2020 was 89.9%. This is an increase since 2016, when 76.0% seat belt use was reported (*front seat occupants only). The 2020 Billings Area Indian Health Service Observational Seat Belt Survey reported 41.2% seat belt use among drivers.

MDT reports stated that in 2020, 67% of vehicle occupants killed in a motor vehicle crash in Montana were not wearing a seat belt.

YRBS: According to the 2021 YRBS, 54.0% of high school students report always wearing seat belts when riding in a car and 57.1% report texting or emailing while driving in the past 30 days.

Cost Data: WISQARS cost of injury module states that the total cost of MVT deaths in 2020 in Montana was \$2.16 billion. This includes medical costs and value of statistical life.

Alcohol Level: In 2020, 45.1% of MVT fatalities in Montana involved a driver with blood alcohol concentration of more than the legal limit (.08).

Special Emphasis Report: Unintentional Motor Vehicle Traffic Injuries

MVT Injury Prevention Activities

National Activities

PREVENTION	Safe States State Designated Representatives Special Interest Group
SURVEILLANCE	Core SIPP grant, CSTE Injury Surveillance Workgroup
PARTNERSHIPS	CDC, CSTE, Safe States Alliance
ACCOMPLISHMENTS/ SUCSESSES	None at this time

State Activities

PREVENTION	HIT406 messaging; Transportation forums; Injury prevention mini-grants
SURVEILLANCE	Annual Reports for Montana Trauma EMS, and Injury Prevention Programs; EMS agency quarterly QI reports
PARTNERSHIPS	Montana Department of Transportation; Rocky Mountain Tribal Epidemiology Center
ACCOMPLISHMENTS/ SUCSESSES	MVC included in State Health Improvement Plan; MVC risk mapping project; Formation of Statewide Injury Prevention Coalition; EMS QI metrics on MVC introduced

Footnotes

The definition of MVT Occupant used in this report does not include motorcycle occupants. There were It includes occupants (drivers, passengers, persons boarding or alighting, or unspecified occupants) of the following vehicle types: Car, Pick-up truck or van, Heavy transport vehicle, Bus, Three-wheeled motor vehicle, Special industrial vehicle, Special agricultural vehicle, Special construction vehicle, Ambulance or fire engine, Military vehicle, Snowmobile, Dune buggy, 3- or 4-wheeled ATV, Dirt bike or motocross bike, Other special all-terrain or other off-road motor vehicle, Unspecified vehicle