

Unintentional Motor Vehicle Traffic Injuries

UNDERSTANDING MVT INJURIES

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 people in crashes that occur on roads and streets.

Burden and Overview

MVT injuries are a leading cause of hospitalization and death in the United States and North Carolina. For every MVT injury death in North Carolina, there were four non-fatal hospitalizations and 59 emergency department visits. Figure 1 reflects total counts for 2022. During a 10-year period, the rate of MVT injury deaths increased (see Figure 2), with the largest increase occurring among those aged 65 and older.

Figure 1: Motor Vehicle Traffic Injury Pyramid in 2022

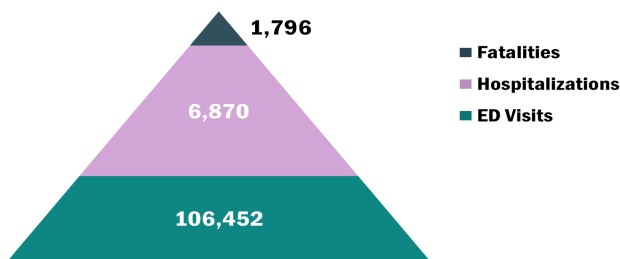
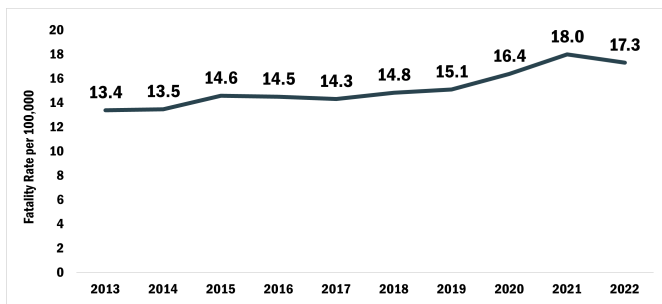


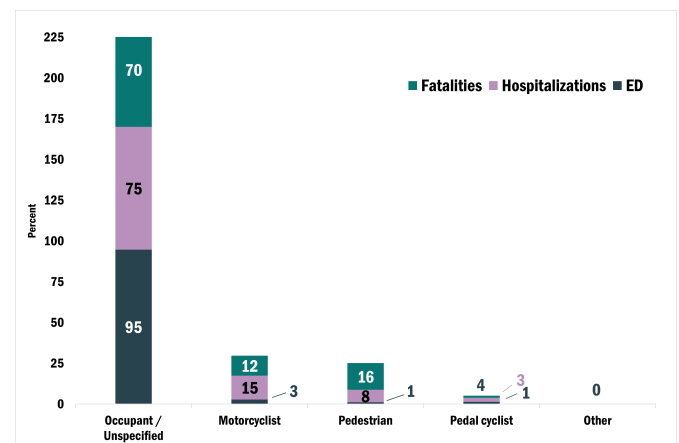
Figure 2: Rate of Motor Vehicle Traffic Deaths Among NC Residents, 2013-2022



Injuries by Type of Person

Figure 3 illustrates that most people injured or killed by MVT injuries are occupants (drivers and passengers). In 2022, occupants accounted for 70% of MVT deaths, 75% among hospitalizations, and 95% among ED visits. Table 1, and Figures 4 through Figure 6 will focus on occupant-related injuries.

Figure 3: Percent of Unintentional MVT Injuries by Type of Victim in 2022



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MVT Injuries by Geography

In 2022, the majority of motor vehicle traffic occupant injuries in North Carolina occurred in Mecklenberg County, and the highest rates per 100,000 residents were in Bertie County. Table 1 presents the top six counties with the highest rates.

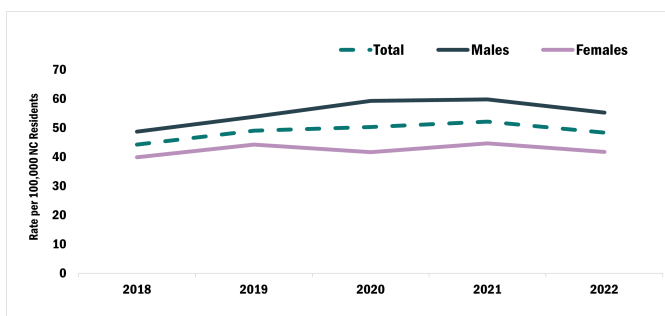
Table 1: MVT-Occupant Injuries by Geography in 2022

Sub-Area	Count	Rate
Bertie County	375	2,175.2
Anson County	458	2,062.9
Edgecombe County	976	2,020.7
Vance County	821	1,948.4
Wilson County	1,465	1,867.5
Robeson County	2,079	1,782.1

MVT Injuries by Sex and Age Group

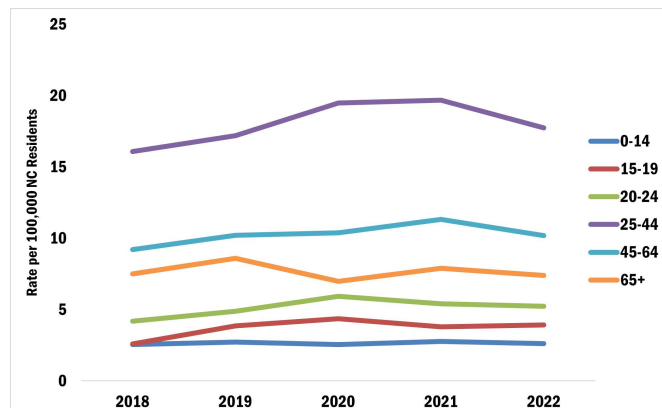
Males had higher non-fatal MVT-occupant hospitalization injury rates than did females (55 per 100,000 and 42 per 100,000 respectively). Rates for both males and females remained relatively stable over the five-year period.

Figure 4: MVT Occupant-related Hospitalization Rates by Sex, 2018-2022



The age groups with the highest non-fatal MVT-occupant hospitalization injury rates in North Carolina were ages 25 to 44 and ages 45 to 64. Rates remained relatively stable over the five-year period.

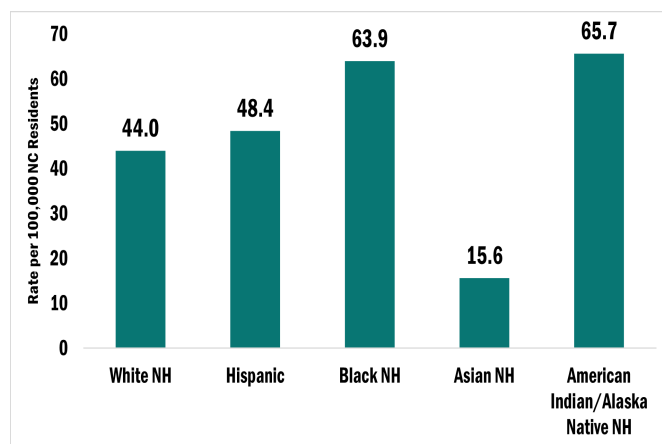
Figure 5: MVT Occupant-related Hospitalization Injury Rates by Age Group, 2018-2022



MVT Injuries by Race and Ethnicity

Figure 6 presents non-fatal MVT-occupant hospitalization injury rates by race and ethnicity for North Carolina residents. The highest rates were noted for Non-Hispanic American Indian (66 per 100,000) and Non-Hispanic Black (64 per 100,000) residents.

Figure 6: MVT Hospitalization Rates by Race and Ethnicity, 2022



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Quick Facts

Seat Belt Use: According to the National Occupant Protection Use Survey, seat belt use in North Carolina was 91% in 2022. This is an increase of 3% from 2013 to 2022.

2% of those killed in a motor vehicle crash in North Carolina were not wearing a seat belt.

In 2023, 39.3% of North Carolina high school students reported that they texted or e-mailed while driving a car or other vehicle.

Cost Data: MVT deaths alone in North Carolina resulted in a combined cost of over \$18 billion in 2022.

Alcohol Level: In 2022, 28% of drivers with fatal MVT injuries in North Carolina had a blood alcohol concentration of more than the legal limit (.08).

MVT Injury Prevention Activities

In 2015, the North Carolina Executive Committee for Highway Safety passed a Vision Zero resolution. Out of that resolution, the NC Vision Zero Task Force formed and meets quarterly to eliminate traffic fatalities and serious injuries through collaborative, data-driven prevention and interventions. <https://ncvisionzero.org/get-involved/nc-vision-zero-task-force/>.

Eighteen NC communities have adopted the Vision Zero approach and receive support from a multi-agency state leadership team and through peer networking opportunities. The NC Vision Zero Leadership Institute is an annual, team-based training for NC communities that want to start or grow their Vision Zero initiative. <https://ncvisionzero.org/leadership-institute/>. The Institute is a collaborative effort co-hosted by the University of North Carolina Highway Safety Research Center and Injury Prevention Research Center and funded by the Governor's Highway Safety Program.

The NC Department of Transportation's Governor's Highway Safety Program promotes efforts to reduce traffic crashes in North Carolina and promotes highway safety awareness through a variety of grants and safe-driving initiatives to address issues such as impaired driving, seat belt use, speeding, distracted driving, motorcycle safety, bicycle safety, pedestrian safety and other aspects of highway safety. <https://www.ncdot.gov/initiatives-policies/safety/ghsp/>.

Note: Unintentional MVT-related cases were identified by first limiting the datasets to injury cases based on external cause of injury (deaths), primary diagnosis (hospitalizations), or both (emergency department visits). All fields were then searched for MVT diagnostic codes. For confidentiality and data stability purposes, small counts are suppressed. Suppression rules vary by state and territory, and across datasets.