

Traumatic Brain Injuries in Indiana



Understanding TBI

Traumatic brain injury (TBI) is a serious public health problem in the United States, contributing to more than 67,900 deaths nationally in 2024.¹ A TBI is caused by a bump, blow, jolt or penetration to the head that disrupts the normal function of the brain. Each year, traumatic brain injuries contribute to a substantial number of deaths and cases of permanent disability.

Impact and Magnitude of TBI

In 2024, more than 24,000 TBIs occurred in Indiana, including 1,553 deaths (22.4 per 100,000), 4,599 non-fatal hospitalizations (66.4 per 100,000), and 18,087 non-fatal ED visits (261.2 per 100,000).² Data are not available to calculate how many people with TBI were treated in other settings or went untreated.



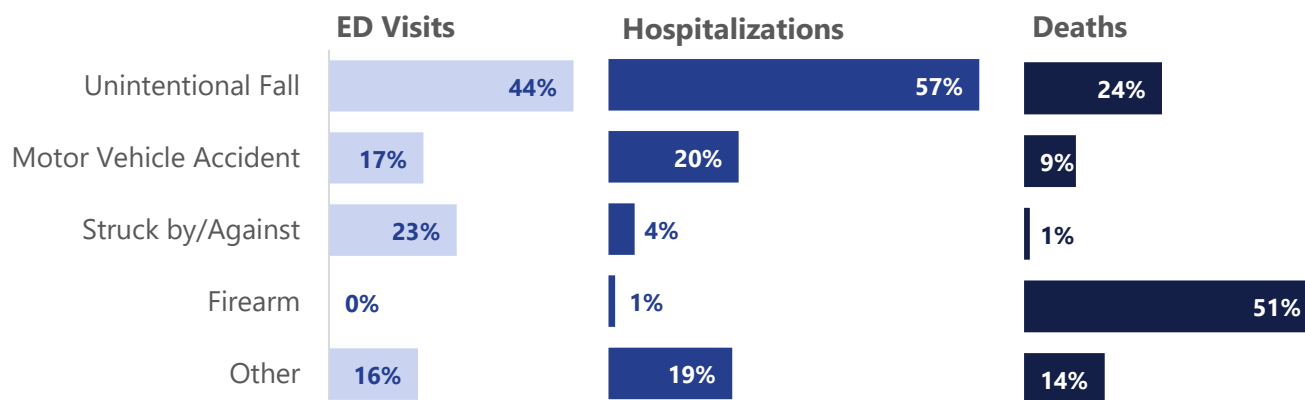
TBIs in Indiana, 2024:

1,553 deaths
4,599 hospitalizations
18,087 ED visits

Causes of TBI

Causes of TBI varied among ED visits, hospitalizations, and deaths. Unintentional falls were the leading cause of injury in TBI-related ED visits and hospitalizations. In contrast, firearm injury was the leading cause of injury in TBI-related deaths (51%). Among firearm-related TBI deaths, 84% were due to suicide, 14% due to homicide, and the remaining 2% were unintentional or other intent.

Figure 1. Mechanism of injury for TBI ED visits, hospitalizations, and deaths, Indiana, 2024



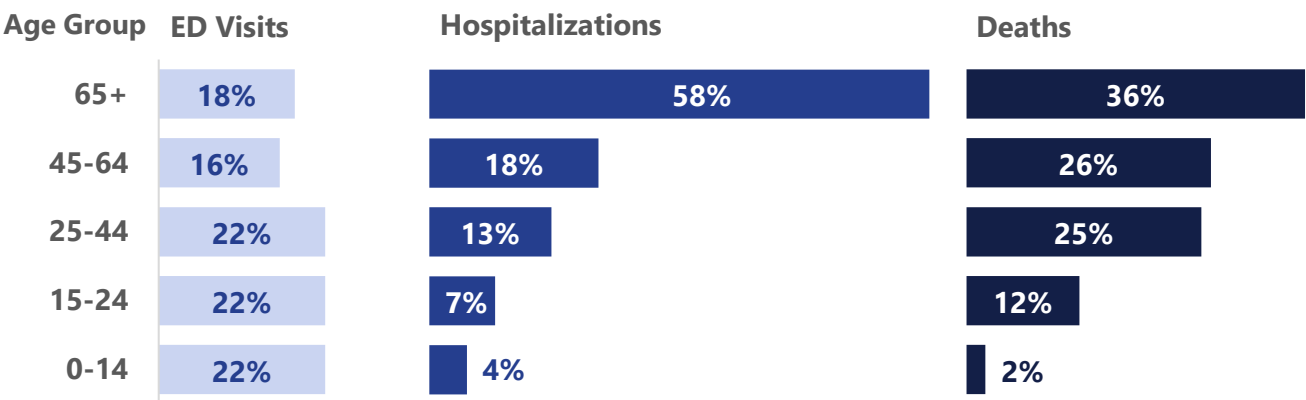
¹ Centers for Disease Control and Prevention. TBI Data. Accessed Jan. 9, 2025, from <https://www.cdc.gov/traumatic-brain-injury/data-research/index.html>.

² TBI-related deaths are from Indiana vital records. Hospitalization and ED visit data are from Indiana hospital discharge data. TBI deaths, hospitalizations, and ED visits were calculated based on definitions from the Centers for Disease Control and Prevention available at: <https://www.cdc.gov/injury-core-sipp/media/pdfs/2024/06/2022-Injury-Indicator-Instructions.pdf>.

TBI by Age Group

The age distribution of patients who were treated in the ED for TBI was relatively uniform across age groups. However, a higher proportion of TBI hospitalizations and deaths were among older age groups. The majority of TBI hospitalizations (58%) and a plurality of TBI deaths (36%) were among people aged 65 and older.

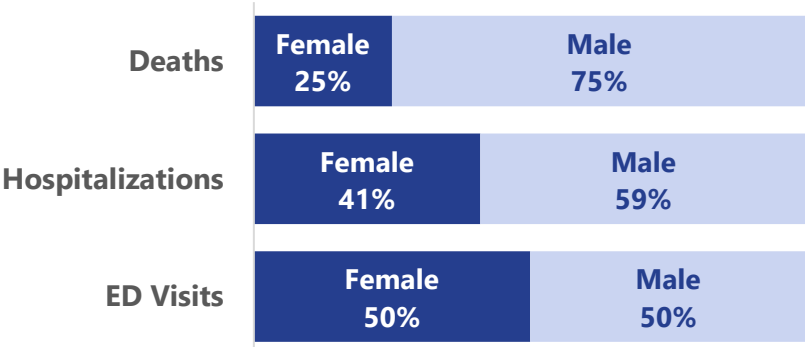
Figure 2. Age distribution of TBI ED visits, hospitalizations, and deaths, Indiana, 2024



TBI by Sex

In 2024, males were more likely to sustain a TBI resulting in hospitalization or death than females. Males accounted for more than seven in ten TBI deaths, and the rate of TBI death among males (33.7 per 100,000) was nearly three times the rate among females (11.3 per 100,000). Additionally, males accounted for the majority (59%) of TBI hospitalizations. TBI ED visits were evenly split among males (50%) and females (50%).

Figure 3. TBI deaths, hospitalizations, and ED visits by sex, Indiana, 2024



TBI Resources

Additional information about TBI and TBI prevention is available at the links below:

- IDOH injury prevention resources: <https://www.in.gov/health/trauma-system/injury-prevention/>
- Indiana Spinal Cord and Brain Injury Research Fund: <https://www.in.gov/health/trauma-system/spinal-cord-and-brain-injury-fund-research-grant-program/>
- Centers for Disease Control and Prevention (CDC) TBI and concussion resources: <https://www.cdc.gov/traumatic-brain-injury/index.html>

