



ARIZONA

Special Emphasis Report: Traumatic Brain Injury 2013

Understanding TBI

Traumatic brain injury (TBI) is a serious public health problem and in the United States. 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

During 2013, a TBI was sustained by 58,821 people in Arizona. Among those injured, 1326 (19.5 per 100,000) died where TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions, another 6,595 (97.0 per 100,000), were hospitalized with a TBI alone or in combination with other injuries or conditions, and an additional 50,899 (772.5 per 100,000) were treated and released from emergency departments with a TBI alone or in combination with other injuries or conditions. An unknown number of individuals sustained injuries that were treated in other settings or went untreated.

Causes of TBI

Cause of injury varies across the three levels of severity. Firearms were the leading cause of injury among those who died where TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions. Unintentional fall was the leading cause of injury among those who were hospitalized with a TBI alone or in combination with other injuries or conditions. And, unintentional fall was the leading cause of injury among those who were treated and released from emergency departments with a TBI alone or in combination with other injuries or conditions.

Notes: Firearm-related injuries were reported but excluded from the etiology graphic due to overlap with multiple categories (e.g., homicide/assault, suicide). Firearms were related with 49% of deaths, 1.5% of hospitalizations, and <.1% of emergency department visits. Completeness of external-cause coding for TBI-related cases can impact the accuracy of the cause classifications for hospitalizations and emergency department visits.

Figure 1: Percentage of Annual TBI-Related Deaths, Hospitalizations, and Emergency Department Visits, by External Cause, in Arizona, 2013

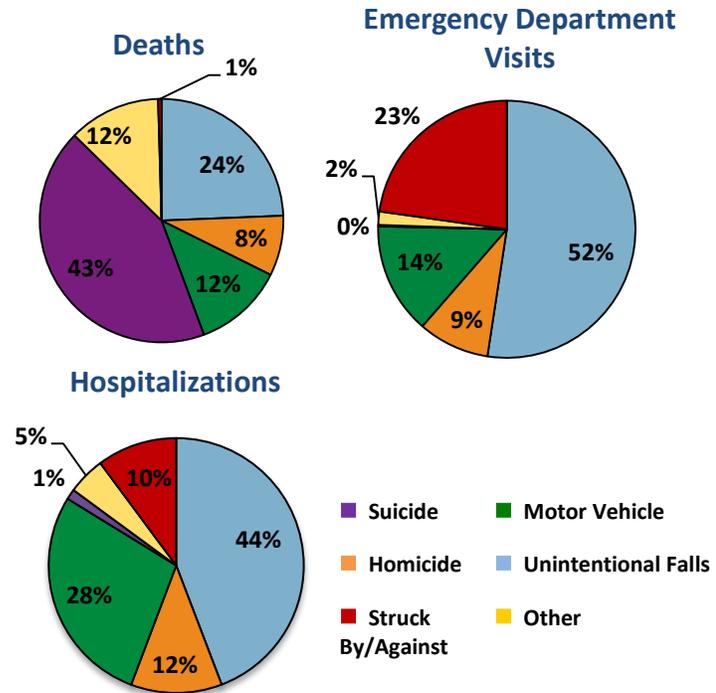
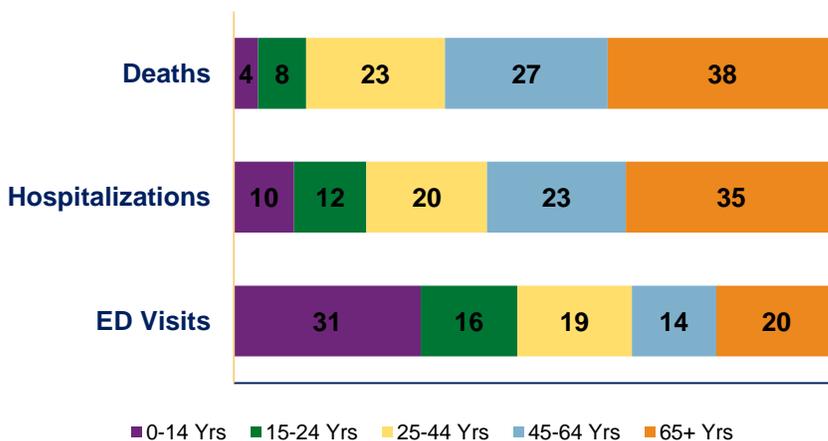


Figure 2: Percentage of Annual TBI-Related Deaths,* Hospitalizations, and Emergency Department Visits,** by Age, in Arizona, 2013**



TBI by Age

The highest number of TBI-related deaths* were among persons ages 85 and older. Among those with TBI-related hospitalizations,** persons ages 75-84 were most affected. Persons ages 15-24 had the most TBI-related emergency department visits and the highest rates.**

*TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions

** TBI alone or in combination with other injuries or conditions





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TBI by Gender

Men were more likely to sustain a traumatic brain injury than women. The magnitude of this difference was greatest among those who died. Men accounted for 74% (30.3 per 100,000) of deaths where TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions, 62% (124.2 per 100,000), of hospitalizations for TBI alone or in combination with other injuries or conditions and 51% (802.7 per 100,000) of emergency department visits for TBI alone or in combination with other injuries or conditions.



TBI Prevention Strategies

CDC’s National Center for Injury Prevention and Control (Injury Center) is committed to protecting people against preventable TBI by putting science into action.

- **State Injury Prevention Programs** - The Injury Center’s Core Violence and Injury Prevention Program (Core VIPP) funds state health departments to estimate the impact of TBIs and define the groups most affected. www.cdc.gov/injury
- **Heads Up** – Injury Center campaigns with free tools for health care providers, school administrators, nurses, teachers, coaches, and parents to help them recognize and respond to a TBI. www.cdc.gov/traumaticbraininjury
- **Motor Vehicle Safety** – Motor vehicle crashes are a leading cause of death, injury and TBI in the US. CDC’s primary prevention focuses on child passenger safety, seat belt use and reducing impaired driving. www.thecommunityguide.org/mvoi www.cdc.gov/motorvehiclesafety

Arizona TBI Activities

Surveillance:

- Since 2005, the Office of Injury Prevention has compiled data for an annual TBI report to monitor trends in head, neck and spinal cord injuries throughout the state.

Partnerships:

- Governor’s Council on Spinal and Head Injuries
- Brain Injury Alliance of Arizona
- Falls Prevention Coalition

Accomplishments/Successes:

- 2012 Booster Seat Law requiring children younger than 8 years old or less than 4 feet 9 inches tall to sit in a child safety seat when riding in a vehicle.
- 2011 Amendment to Sports Head Injuries Law, requiring school boards to develop and enforce concussion and head injury policies for all pupils participating in school district sponsored activities.