



Iowa

Special Emphasis Report: Traumatic Brain Injury 2014

Understanding TBI

Traumatic brain injury (TBI) is a serious public health problem in Iowa. 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

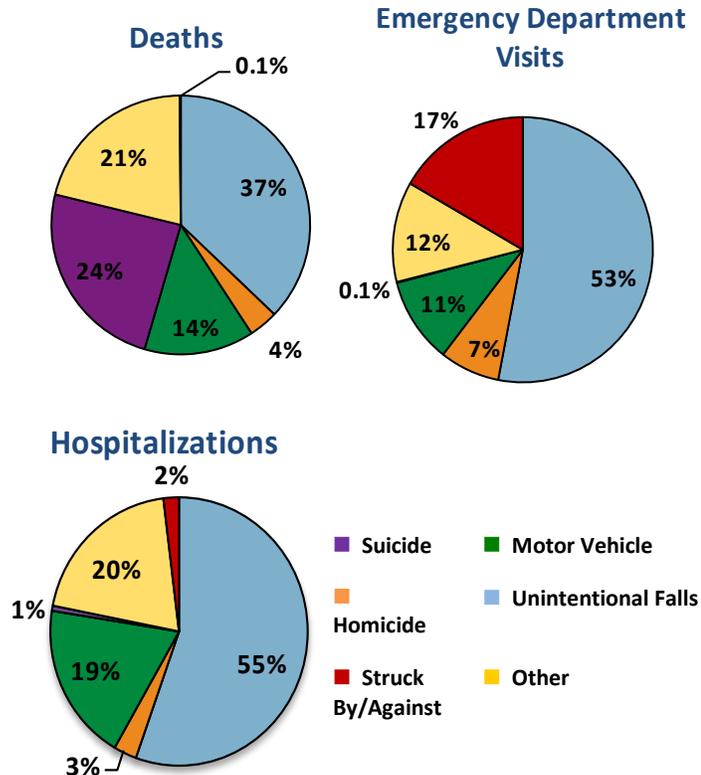
During 2014, a TBI was sustained by 33,430 people in Iowa. Among those injured, 603 (17 per 100,000 population) died where TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions; another 3,387 (94 per 100,000 population) were hospitalized with a TBI alone or in combination with other injuries or conditions, and an additional 30,043 (950 per 100,000 population) 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. In 2014, unintentional falls were the leading cause of TBI-related death in Iowa, as well as the leading cause of injury among those who were hospitalized and those who were treated and released with a TBI alone or in combination with other injuries or conditions. The second leading cause of hospitalization is motor vehicle traffic (MVT) accidents (146.7 per 100,000), followed by assault (20.7 per 100,000). People 75-84 years of age had the highest rate of TBI (103.1 per 100,000) than all the other age groups.

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 21% of deaths, 0.5% of hospitalizations, and 0.05% 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.

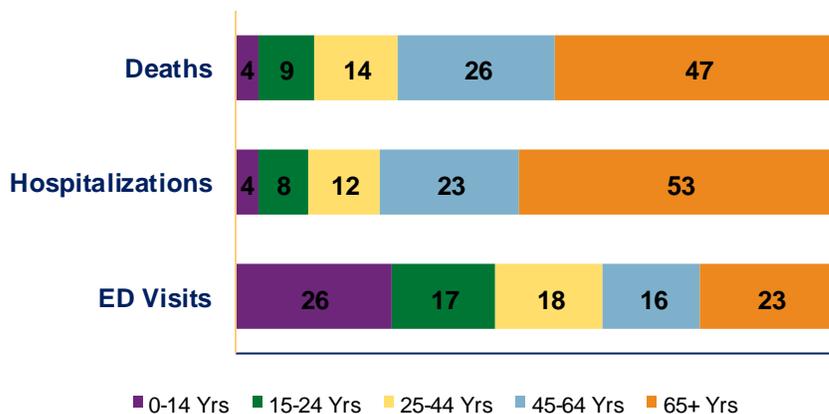
Figure 1: Percentage of Annual TBI-Related Deaths, Hospitalizations, and Emergency Department Visits, by External Cause, in Iowa, 2014



TBI by Age

In 2014, the highest number of TBI-related deaths* and TBI-related hospitalizations were among persons ages 65 or older. Persons ages 0-14 years of age made the most TBI-related emergency department visits.**

Figure 2: Percentage of Annual TBI-Related Deaths,* Hospitalizations, and Emergency Department Visits,** by Age, in Iowa, 2014**



*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 71% (26.8 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, 55% (115.1 per 100,000) of hospitalizations for TBI alone or in combination with other injuries or conditions and 51% (995.3 per 100,000) of emergency department visits for TBI alone or in combination with other injuries or conditions.



National 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

Iowa TBI Activities

Prevention

- Iowa promotes strong concussion policies in school athletic programs that provide guidance on return to learn or play.
- The state promotes the availability of evidence-based falls prevention programs to reduce risk of falls among older Iowans and is working to improve third party reimbursement of classes, increases in referral by health care providers and other efforts to reduce hospitalization for falls.

Surveillance

TBI-related deaths, hospitalizations, and emergency department visits are tracked annually as part of the CDC injury indicator report. County data is also available on falls-related deaths. The Iowa Trauma Registry system is used to identify new cases of TBI for outreach and service referral. Some of the variables that are included in the surveillance activities include age group, gender, and injury date.

Partnerships

IDPH partners include the Advisory Council on Brain Injuries, Brain Injury Alliance of Iowa, Iowa Association of Community Providers, Iowa Department on Aging, Iowa Falls Prevention Coalition, Iowa Healthcare Collaborative and the University of Iowa's Center for Disabilities and Development and Injury Prevention Research Center.

Accomplishments/Successes

Iowa has made Neuro-Resource Facilitation available to all Iowans with brain injury to identify, select, and keep necessary services and supports in their community. Over the last two years, Iowa has expanded the available type of evidence-based falls prevention classes from one to three.

Note: TBI-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 TBI diagnostic codes. Reference to any commercial entity or product or service on this page should not be construed as an endorsement by the Government of the company or its products or services.

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<http://idph.iowa.gov/brain-injuries>

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