Understanding Traumatic Brain Injury (TBI)

TBI is a serious public health problem in the United States. A TBI is caused by a bump, blow, jolt, or penetration to the head, disrupting normal function of the brain. Each year, TBIs contribute to a substantial number of deaths and cases of permanent disability. TBI may be reported as a cause of injury/death alone or in combination with other injuries or conditions.

Impact and Magnitude of TBI

During 2015, a TBI was sustained by 108,101 people in Illinois. Among those injured, 1,699 (12.5 per 100,000) died, another 9,746 (70.5 per 100,000) were hospitalized, and an additional 96,656 (754.8 per 100,000) were treated and released from emergency departments (ED). An unknown number of individuals sustaining injuries were treated in other settings or went untreated.

Unintentional Falls

Unintentional Falls were the leading cause of injury among those who died in Illinois, where TBI was reported as a cause of death on the death certificate. Following “other,” unintentional falls were the leading cause of injury among those who were hospitalized or treated and released in the ED with a TBI (Figure 1).

TBI by Age

TBI-related deaths and TBI-related hospitalizations, were highest among people ages 65+ years. People ages 0-14 years had the most TBI-related emergency department visits (Figure 2).

Source for Figure 1 and Figure 2: Illinois Department of Public Health, Division of Patient Safety and Quality, Hospital Discharge Dataset, 2015; Illinois Department of Public Health, Center for Health Statistics, Vital Records, 2015.

* 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.  
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 34.9 percent of deaths, 1.8 percent of hospitalizations, and 0.1 percent 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.
Illinois

TBI by Gender
Men were more likely to sustain a TBI than women. The greatest difference in TBI by gender is related to TBI-related deaths. Men accounted for 74.1 percent (20.1 per 100,000) of deaths, 57.6 percent (90.2 per 100,000) of hospitalizations, and 50.5 percent (794.0 per 100,000) of emergency department visits for TBI.

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](http://www.cdc.gov/injury)
- **Heads Up** – The Injury Center provides 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](http://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](http://www.thecommunityguide.org/mvoi) [www.cdc.gov/motorvehiclesafety](http://www.cdc.gov/motorvehiclesafety)

Illinois TBI Activities
- The Illinois Department of Human Services - Division of Rehabilitation Services provides various services to persons who have experienced a brain injury. The Home Services Program (HSP) offers services designed to assist persons with brain injuries to remain in their homes instead of placement in nursing facilities. HSP administers the following Medicaid waiver programs: Persons with Disabilities, Brain Injury, and HIV/AIDS. HSP also administers the Community Reintegration and Money Follows the Person programs. The Vocational Rehabilitation Program provides a variety of services to assist persons with disabilities in obtaining and keeping jobs.
- The Brain Injury Association of Illinois (BIA of IL) provides programs and services to individuals who have sustained a brain injury (includes the traumatic injury, acquired injury, and concussion), as well as providing injury prevention programs to prevent additional injuries from occurring. BIA of IL has support groups around the state. The BIA of Illinois Information & Resource Call Center has a nationwide toll-free number and educational websites available to provide information, resources, education and support. Its programs and services address: Information & Resources, Education, Injury Prevention, Advocacy & Support, and Therapeutic Summer Camp. The BIA of IL also offers a National Academy of Certified Brain Injury Specialists certification training for professionals. The Illinois High School Association, the Illinois Principals Association and BIA of IL provide required concussion training for Illinois coaches, coaching staff and officials. Concussion Awareness and Injury Prevention programs are provided within schools, sports, and community settings.
- Illinois Joining Forces responds to referrals and inquiries from service members, Veterans, and their families and their service providers. The BIA of IL also trains community service providers working with veterans who have sustained a brain injury, either diagnosed or undiagnosed, regarding strategies to implement in the clinical/service setting.
- Equip for Equality is Illinois’ protection and advocacy agency for people with disabilities. It promotes the rights of people with traumatic brain injury (TBI) by offering legal advocacy and educational services through their TBI Project.

Illinois Department of Public Health - Injury and Violence Prevention Program

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.