

# Special Emphasis Report: Traumatic Brain Injury 2014

# **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, 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.

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

# **Impact and Magnitude of TBI**

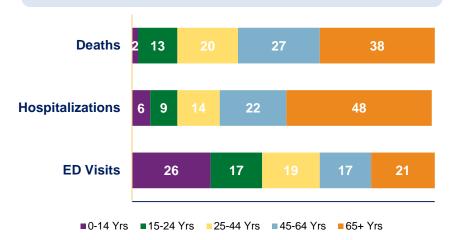
During 2014, a TBI was sustained by 286,963 of people in Illinois. Among those injured, 1,644 (12.1 per 100,000) died, another 13,345 (75.6 per 100,000) were hospitalized, and an additional 271,974 (2,123.9 per 100,000) were treated and released from emergency departments. An unknown number of individuals 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. *Unintentional falls* was the leading cause of injury among those who were hospitalized or treated and released with a TBI.

**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 37.6 percent of deaths, 1.5 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.

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



#### **Emergency Department Deaths Visits** 1% 2% 32% 34% 29% 46% 18% 0% Hospitalizations 1% Suicide Motor Vehicle 31% 45% Homicide Unintentional Falls

Source: Illinois Department of Public Health, Division of Patient Safety and Quality, Hospital Discharge Dataset, 2014; Illinois Department of Public Health, Center for Health Statistics, Vital Records, 2014.

Struck

By/Against

Other

# **TBI by Age**

The highest number of TBI-related deaths\* were among persons ages 65+ years. Among those with TBI-related hospitalizations,\*\* persons ages 65+ years were most affected. Persons ages 0-14 years made the most TBI-related emergency department visits.\*\*

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

<sup>\*\*</sup> TBI alone or in combination with other injuries or conditions

# **TBI by Gender**

Men were more likely to sustain a TBI than women. The magnitude of this difference was greatest among those who *died*. Men accounted for 73.2 percent (19.2 *per 100,000*) of deaths, 58.9 percent (98.3 *per 100,000*) of hospitalizations, and 50.5 percent (2230.2 *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
- **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. <a href="https://www.cdc.gov/traumaticbraininjury">www.cdc.gov/traumaticbraininjury</a>
- 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

### **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, as well as providing injury prevention programs to prevent additional injuries from occurring. BIA of IL has support groups around the state and a toll-free number 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 <a href="http://www.dph.illinois.gov/topics-services/prevention-wellness/injury-violence-prevention">http://www.dph.illinois.gov/topics-services/prevention-wellness/injury-violence-prevention</a>

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.