



New York State Special Emphasis Report: Traumatic Brain Injury 2014

Understanding TBI

Traumatic brain injuries (TBI) are a serious public health problem in New York State. 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

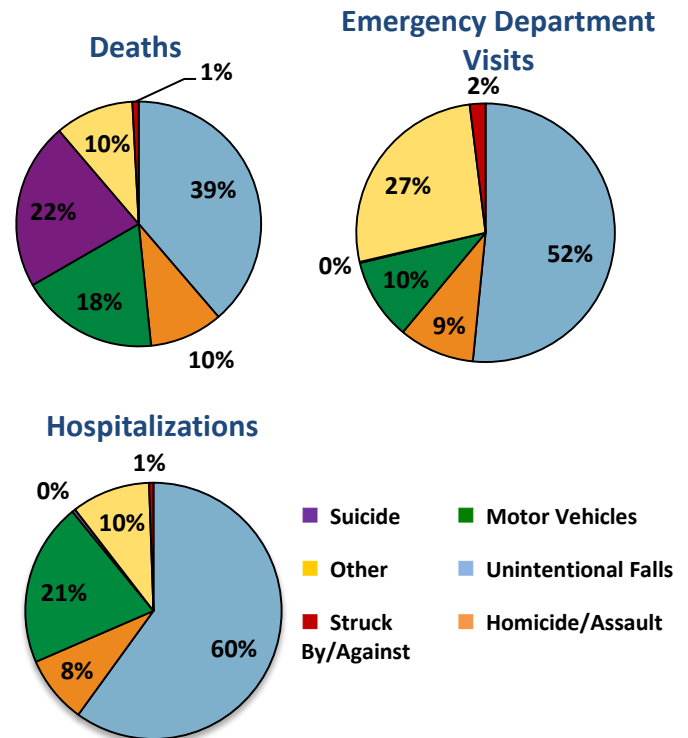
During 2014, a TBI was sustained by 162,056 people in New York. Among those injured, 2,170 (10.0 per 100,000) died where a TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions; another 16,385 (76.4 per 100,000) were hospitalized with a TBI alone or in combination with other injuries or conditions, and an additional 145,671 (742.2 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

Unintentional falls were the leading cause of injury among those who died where a TBI was reported as a cause of death on the death certificate alone or in combination with other injuries or conditions. They were also the leading cause of injury among those who were treated at a hospital 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 23.8% of deaths, 0.6% of hospitalizations, and 0% 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 New York, 2014



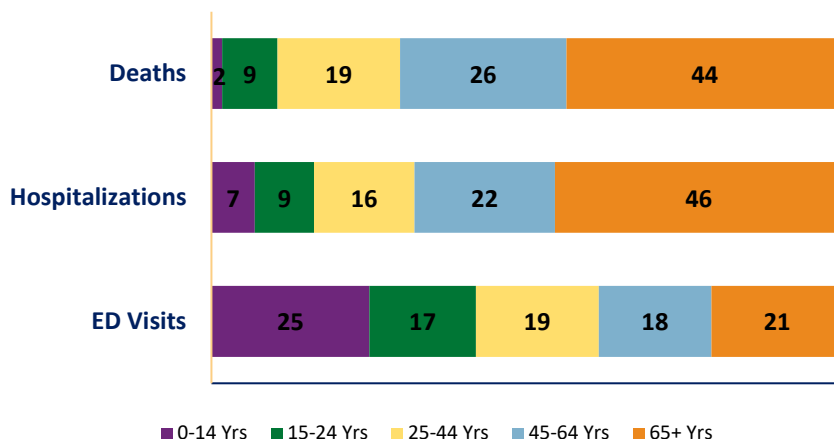
TBI by Age

The highest number of TBI-related deaths* and hospitalizations** were among persons ages 65 and older. Persons under the age of 14 made the most TBI-related emergency department visits.**

*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

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



**New York State Department of Health
Bureau of Occupational Health and
Injury Prevention**



New York State

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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 71.8% (16.3 *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, 60.5% (103.4 *per 100,000*), of hospitalizations for TBI alone or in combination with other injuries or conditions and 50.6% (768.6 *per 100,000*) of emergency department visits for TBI alone or in combination with other injuries or conditions.

Men were also more likely to die with a firearm-related traumatic brain injury than women. Men accounted for 86.5% (4.7 *per 100,000*) of deaths where a firearm-related traumatic brain injury was reported as a cause of death on the death certificate 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

New York State TBI Activities

Prevention of TBIs is essential, because unlike other injuries, such as broken legs or cut fingers that can heal, brain injuries are often permanent and disabling. Prevention activities in NYS focus on fall prevention among children and older adults; motor vehicle safety; pedestrian safety; bicyclist and other wheeled recreation safety; prevention of shaken baby syndrome/abusive head trauma; and the prevention of sports-related concussions. For more information, please visit www.health.ny.gov/prevention/injury_prevention/tbi.htm.

Surveillance of TBI is an ongoing focus of the Bureau of Occupational Health and Injury Prevention (BOHIP), including presentations, fact sheets, and data tables detailing the who, when and where of TBIs in NYS. The major sources of data utilized in the NYS injury surveillance system are the hospital and emergency department data, vital statistics death files, and the multiple cause-of-death (MCD) files. For more information or statistics on TBI, please visit www.health.ny.gov/statistics/prevention/injury_prevention/index.htm.

Partnerships are essential in preventing TBIs in NYS. The Injury Community Planning Group consists of members representing organizations with unique perspectives that work in injury and violence prevention, thus allowing BOHIP to educate partners, the public, and decision makers about the TBI problem in NYS.

Accomplishments/Successes NYS enacted the "Concussion Management and Awareness Act" which went into effect on July 1, 2012. The Act mandated that a student with a suspect or actual concussion must be removed from play until he or she has been symptom-free for at least 24 hours and evaluated and cleared by a licensed physician. The NYS Education Department formed an advisory group, including the NYSDOH, to develop guidelines for concussion management in the school setting. The guidelines were finalized and made public in June 2012.

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.

New York State Department of Health

www.health.ny.gov/prevention/injury_prevention/