NEBRASKA

Special Emphasis Report: Traumatic Brain Injury 2013

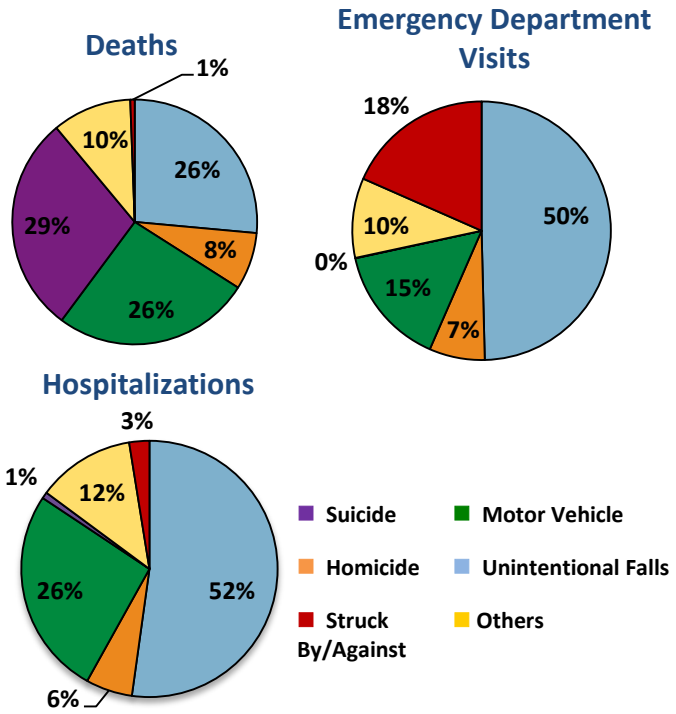
Understanding TBI

Traumatic brain injury (TBI) is a serious public health problem in the United States and Nebraska. 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 12,359 people in Nebraska. Among those injured, 344 *(17.5 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 1,615 *(81.0 per 100,000)*, were hospitalized with a TBI alone or in combination with other injuries or conditions, and an additional 10,400 (549.2 *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.

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

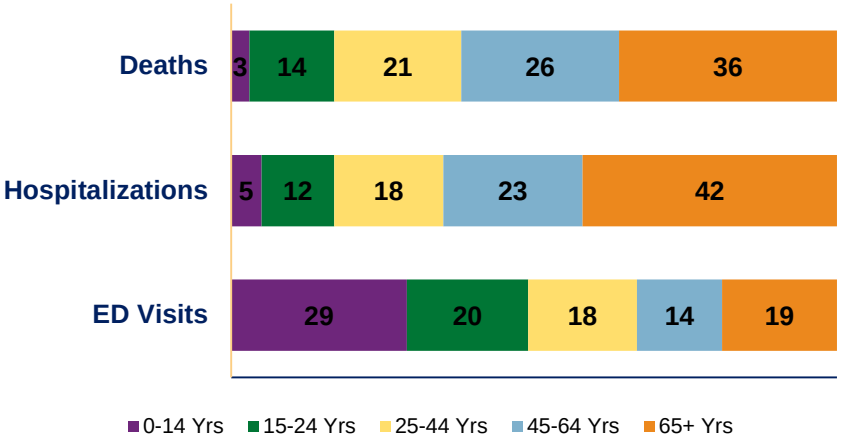


Causes of TBI

Cause of injury varies across the three levels of severity. Suicide was 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 falls was the leading cause of injury among those who were hospitalized and who were treated and released from the emergency department 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 33% of deaths, <1% 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 2: Percentage of Annual TBI-Related Deaths,* Hospitalizations, and Emergency Department Visits,**by Age, in Nebraska, 2013**



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 experienced 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*

Department of Health & Human Services
DHHS
NEBRASKA

This document was produced in conjunction with CDC's Core Violence and Injury Prevention Program under Cooperative Agreement 11-1101.

NEBRASKA

Special Emphasis Report: Traumatic Brain Injury 2013

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 75% (*27.8 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, 62% (*107.2 per 100,000),* of hospitalizations for TBI alone or in combination with other injuries or conditions and 52% (*580.7 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

Nebraska TBI Activities

Prevention

- **Make concussion training available to coaches, athletic trainers, nurses, athletes, parents and other relevant parties. Trainings, fact sheets and resources are posted on the Nebraska Injury Prevention and Control website.**
- **Partner with local public health departments to implement Tai Chi to prevent falls in older adults.**

Surveillance

- **Monitor the rates of TBI in Nebraska and the rates of sports-related concussions among youth.**
- **Conduct surveys of coaches, athletic directors, and youth who sustained sports-related concussions to evaluate the implementation of the concussion law.**

Partnerships

- **The Injury Prevention and Control Program partners with the Brain Injury Association, the Nebraska State Athletic Trainers Association, Nebraska School Activities Association, Department of Education, Safe Kids, the University of Nebraska Center for Brain Biology and Behavior and other community organizations to raise awareness about the Concussion Awareness Act and the symptoms, management and consequences of concussions.**
- **Local public health, Area Agency on Aging, and other community partners implemented Tai Chi.**

Accomplishments/Successes

- **On July 1, 2012, the Concussion Awareness Act became law in Nebraska. Effective July 1, 2014, the law was amended to include a Return to Learn Provision.**
- **As a result of the law, the Nebraska School Activities Association has made coaches' training mandatory for all schools in Nebraska. The percent of schools that have developed Return to Learn protocols for students returning to the classroom following a concussion increased from 6% to 71%.**

NEBRASKA DEPARTMENT OF HEALTH & HUMAN SERVICES

Injury Prevention Program dhhs.ne.gov/injuryprevention

Released October, 2015