



# OHIO

## Special Emphasis Report: Traumatic Brain Injury 2011

### Understanding TBI

Traumatic brain injury (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 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.

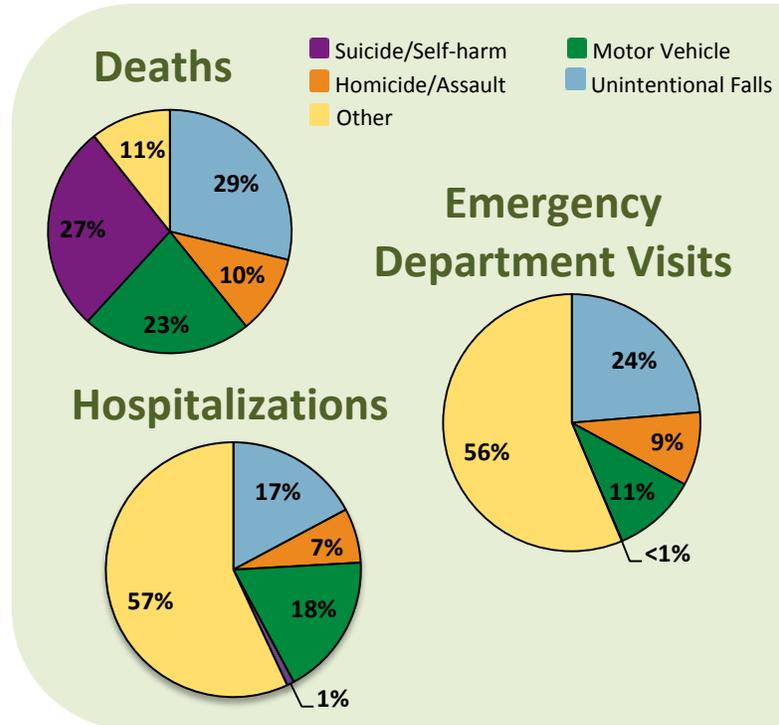
### Impact and Magnitude of TBI

During 2011, TBIs were sustained by 108,397 people in Ohio. Among those injured, 2,259 (18.4 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 7,003 (58.7 per 100,000), were hospitalized with a TBI alone or in combination with other injuries or conditions, and an additional 99,135 (875 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

Cause of injury varies across the three levels of severity. Firearm 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. Motor vehicle crashes were the leading cause of injury among those who were hospitalized with a TBI alone or in combination with other injuries or conditions. Unintentional falls were the leading cause of injury among those who were treated and released from emergency departments 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 36 percent of deaths, 1 percent of hospitalizations, and <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.



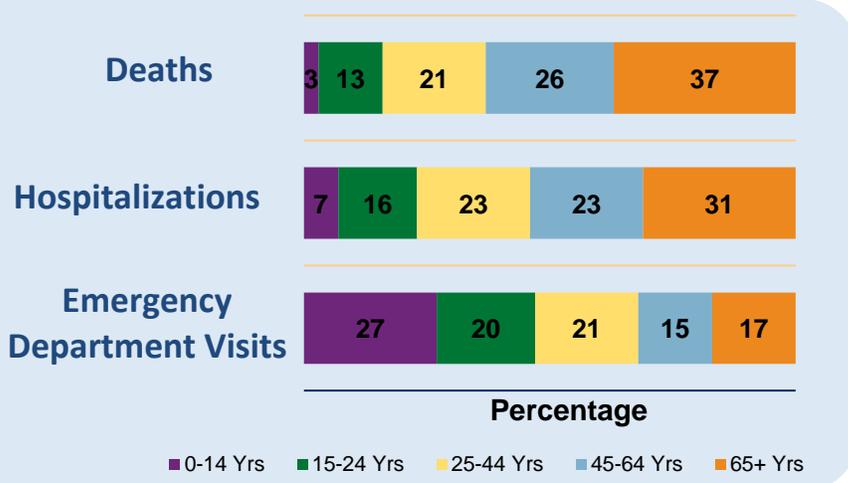
**Figure 1: Percentage of Annual TBI-Related Deaths, Hospitalizations and Emergency Department Visits by External Cause, in Ohio, 2011**

### TBI by Age

The highest number of TBI-related deaths\* were among persons age 65 and older. Among those with TBI-related hospitalizations,\*\* persons age 65 and older were most affected. Persons ages 0-14 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 Ohio, 2011**





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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 treated and released from emergency departments*. Men accounted for 73 percent (28.9 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 percent (77 per 100,000) of hospitalizations for TBI alone or in combination with other injuries or conditions and 52 percent (935 per 100,000) of emergency department visits for TBI alone or in combination with other injuries or conditions.



### TBI Prevention Strategies

The Center for Disease Control and Prevention's (CDC) National Center for Injury Prevention and Control (Injury Center) is committed to protecting people against preventable TBIs 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** – Injury Center campaigns with free tools for healthcare 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. Learn more at: [www.thecommunityguide.org/mvoi](http://www.thecommunityguide.org/mvoi) or [www.cdc.gov/motorvehiclesafety](http://www.cdc.gov/motorvehiclesafety).

## OHIO TBI Activities

### Prevention

- The Violence and Injury Prevention Program (VIPP) funds [local projects](#) focused on TBI prevention among youth.
- The VIPP coordinates a statewide low income child safety seat distribution program ([Ohio Buckles Buckeyes](#)) in all 88 Ohio counties and funds a network of regional youth occupant protection coordinators who provide technical assistance and training to the counties.
- The Ohio Injury Prevention Partnership developed the [Ohio Youth Bicycle Helmet Ordinance Toolkit](#).
- For Ohio's Return-to-Play law, ODH created a [website](#) with information and resources about the law, including a required concussion information sheet for participants in interscholastic activities and youth sports.

### Surveillance

The VIPP conducts [statewide TBI surveillance](#) through death certificate, inpatient hospitalization and ED data.

### Partnerships

The VIPP coordinates the Ohio Injury Prevention Partnership's (OIPP) Child Injury Action Group (CIAG). The OIPP/CIAG is a multi-disciplinary statewide coalition of organizations concerned with the prevention of injury to Ohio children and youth. For more information or to join, visit <http://www.healthy.ohio.gov/vipp/ciag/ciag.aspx>

## OHIO DEPARTMENT OF HEALTH

<http://www.odh.ohio.gov/sitecore/content/HealthyOhio/default/vipp/injury.aspx>

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