At A Glance

- A traumatic brain injury (TBI) is caused by a blow or jolt to the head or a penetrating head injury that disrupts the normal function of the brain. The severity of traumatic brain injuries can range from mild to severe.¹

- In 2012, traumatic brain injuries were related to 3,798 deaths. In addition, there were another 18,922 hospitalizations for non-fatal traumatic brain injuries.

Economic Impact

In 2012:

- The median admission charge for non-fatal traumatic brain injury hospitalizations was $40,982; total charges exceeded $1.5 billion. The median length of stay was three days.

- Medicare was the payer source for 44% of the admissions. Commercial insurance was the responsible for 29%.
Who Is Injured?

- Residents ages 55 years and older had the highest rates of fatal traumatic brain injuries followed by 45–54 year olds.
- Residents under the age of 1, ages 15–24, and 65 years and older had the highest hospitalization rates for non-fatal traumatic brain injuries.
- Males of nearly every age group had the higher rates of fatal traumatic brain injuries and non-fatal hospitalizations than their female counterparts.

- Males accounted for 73% of traumatic brain injury deaths and 60% of non-fatal hospitalizations. Females accounted for only 27% of deaths and 40% of hospitalizations.
- White residents accounted for 81% of traumatic brain injury deaths and non-fatal hospitalizations combined. Black residents accounted for 11% and Other Non-White residents accounted for 8%.

### Fatal Traumatic Brain Injuries and Non-Fatal Hospitalizations, by Sex and Race, Florida Residents, 2012

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
<th>White</th>
<th>Black</th>
<th>Other Non-White</th>
<th>Both Sexes, All Races</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths</td>
<td>1,019</td>
<td>2,779</td>
<td>3,289</td>
<td>409</td>
<td>100</td>
<td>3,798</td>
</tr>
<tr>
<td>Non-Fatal Hospitalizations</td>
<td>7,609</td>
<td>11,313</td>
<td>15,073</td>
<td>1,982</td>
<td>1,627</td>
<td>18,922</td>
</tr>
</tbody>
</table>

*Some records have unknown sex or race; categories may not add up to total.*
In 2012:
- Non-Hispanic residents had higher rates of fatal traumatic brain injuries and non-fatal hospitalizations than Hispanic residents.
- White residents had the highest rate of fatal traumatic brain injuries while Other Non-White residents had the highest rate of hospitalizations.
- Other Non-White residents had the highest rate of non-fatal traumatic brain injury-related hospitalizations followed by White residents and Black residents.

Traumatic Brain Injury Causes
In 2012:
- Firearm were the leading mechanism, or cause, of fatal traumatic brain injuries.
- Falls were the leading cause of non-fatal traumatic brain injury hospitalizations and the second leading cause of fatal traumatic brain injuries.
Traumatic Brain Injury Types

In 2012:

- 41% of traumatic brain injury deaths involved an open head wound and 19% involved an intracranial injury.
- 43% of hospitalizations for non-fatal traumatic brain injuries involved an intracranial injury other than a concussion and 17% involved a concussion.

### Fatal Traumatic Brain Injuries, by Type*, Florida Residents, 2012

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Percent of TBI Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Head Wound</td>
<td>41%</td>
</tr>
<tr>
<td>Intracranial Injury (Incl. Concussion)</td>
<td>19%</td>
</tr>
<tr>
<td>Fracture: Skull and Facial Bones</td>
<td>5%</td>
</tr>
<tr>
<td>Secondary Consequence (Sequelae) of Head Injury</td>
<td>2%</td>
</tr>
<tr>
<td>Crushing Head Injury</td>
<td>0%</td>
</tr>
<tr>
<td>Other/Unspecified Head Injury</td>
<td>33%</td>
</tr>
</tbody>
</table>

*A single death may involve more than one TBI type.

### Non-Fatal Traumatic Brain Injury Hospitalizations, by Type*, Florida Residents, 2012

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Percent of TBI Hospitalizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intracranial Injury</td>
<td>43%</td>
</tr>
<tr>
<td>Skull Fracture: Vault or Base</td>
<td>20%</td>
</tr>
<tr>
<td>Concussion</td>
<td>17%</td>
</tr>
<tr>
<td>Cerebral Laceration and Contusion</td>
<td>9%</td>
</tr>
<tr>
<td>Fracture: Other/Unqualified/Multiple</td>
<td>3%</td>
</tr>
<tr>
<td>Unspecified Head Injury</td>
<td>8%</td>
</tr>
</tbody>
</table>

*A single hospitalization may involve more than one TBI type.

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**Information And Prevention Resources**

- Brain Injury Association of America & Florida: [www.biausa.org](http://www.biausa.org) and [www.biaf.org](http://www.biaf.org)

**References**


**Data Sources and Case Definitions**

TBI Deaths: Florida Department of Health, Office of Vital Statistics, Death Certificates; Immediate and/or Contributing Cause of Deaths ICD-10 S01, S02.0, S02.1, S02.3, S02.7–S02.9, S04.0, S06, S07, S09.7–S09.9, T01.0, T02.0, T04.0, T06.0, T90.1, T90.2, T90.4, T90.5, T90.8, T90.9

Non-Fatal TBI Hospitalizations: Agency for Health Care Administration, Hospital Discharge Data; Records with Injury Principal Diagnosis and TBI Diagnosis ICD-9 CM 800–801, 803–804, 850, 851–854.19, 950.1–950.3, 959.01, 995.55
County By County Comparison: Non-Rural Counties

Traumatic Brain Injury Deaths and Non-Fatal Hospitalizations, Florida Residents of Non-Rural Counties, 2012

Age-Adjusted Rate/100,000 Population
- 0 - 75
- 76 - 82
- 83 - 92
- 93 - 102
- 103 or Greater

Frequency
- 0 - 215
- 216 - 418
- 419 - 729
- 730 - 1,262
- 1,263 or Greater
County By County Comparison: Rural* Counties

Traumatic Brain Injury Deaths and Non-Fatal Hospitalizations, Florida Residents of Rural Counties, 2012

* Rural — An area with a population density of less than 100 individuals per square mile, or an area defined by the most recent United States Census as rural.