SNAPSHOT OF TRAUMATIC BRAIN INJURY, NEVADA RESIDENTS, 2004-2007

Snapshot of Traumatic Brain Injury,

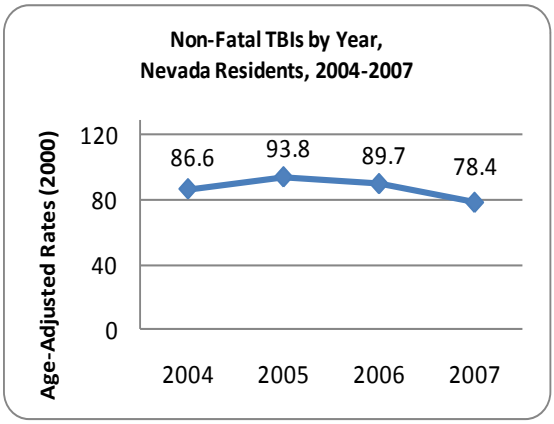
Traumatic Brain Injury (TBI) is an important public health problem in the United States. TBI is frequently referred to as a "silent epidemic" because the complications from TBI, such as changes affecting thinking, sensation, language, or emotions, may not be readily apparent and can cause temporary, long-term, or permanent disability. In addition, awareness about TBI among the general public is limited. An estimated 1.7 million people sustain a TBI annually in the United States. Of them 52,000 die, 275,000 are hospitalized, and 1.365 million, nearly 80%, are treated and released from an emergency department. A TBI is caused by a bump, blow, or jolt to the head, or a penetrating head injury that disrupts the normal function of the brain. Not all blows or jolts to the head result in a TBI. The severity of a TBI may range from "mild", i.e., a brief change in mental status or consciousness to "severe", i.e., an extended period of unconsciousness or amnesia after the injury. The signs and symptoms of a TBI can be subtle. Symptoms of a TBI may not appear until days or weeks following the injury or may even be missed as people may look fine, even though they may act or feel differently.[1]

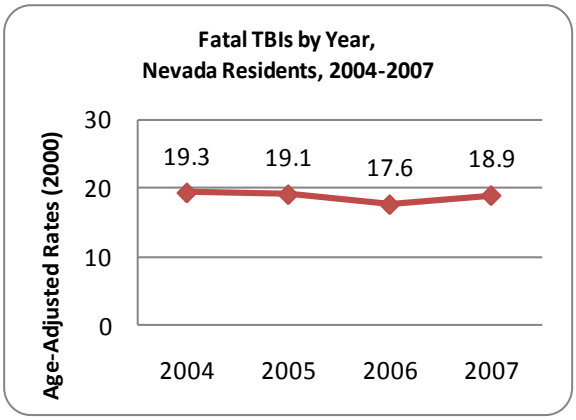
Nevada Facts

This report presents data about TBI-related non-fatal hospitalizations and deaths in Nevada for the years 2004-2007.

How many people are affected by a TBI?

- From 2004-2007, 8,559 Nevada residents were hospitalized due to a TBI and 1,841 Nevada residents died from a TBI.



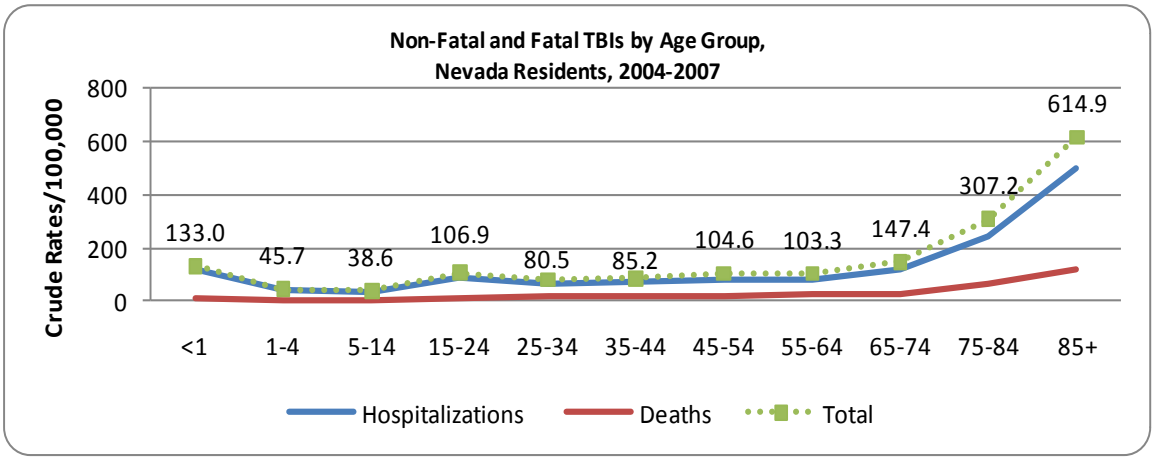


How is TBI related to all injuries?

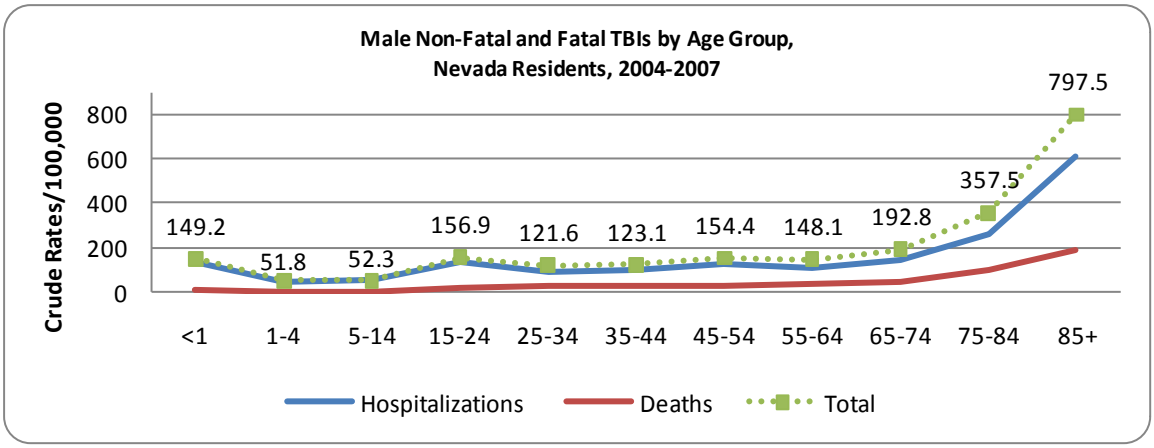
- TBIs comprise 0.8% of all hospitalizations. All injury related hospitalizations account for 4.6% of hospital discharges.
- Of all deaths in Nevada, TBI was a contributing factor 2.5% of the time and 9.5% of the time for all injury deaths.

Who is affected by TBI?

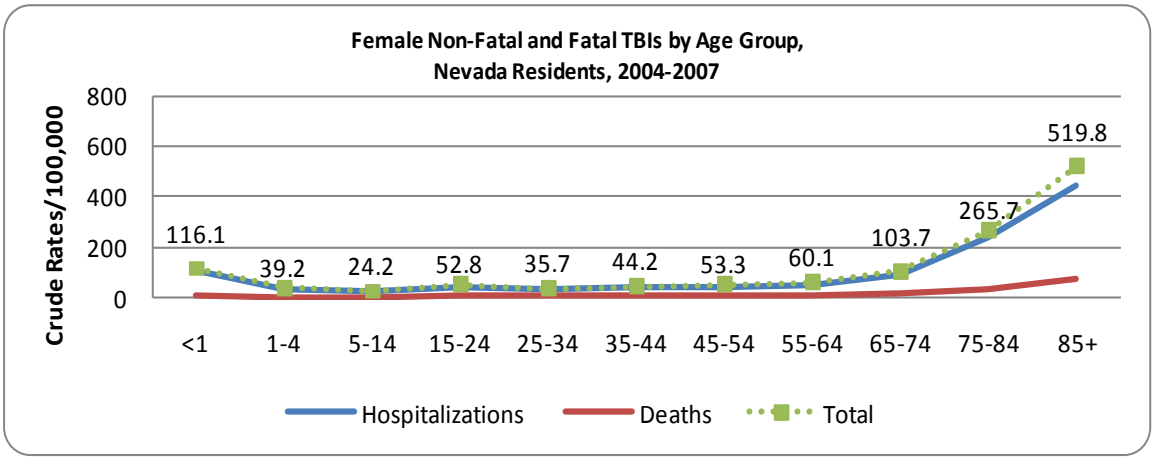
- Residents 65 years and older had the highest rates of non-fatal and fatal TBIs. Falls were the leading cause for non-fatal TBIs and firearms were the leading cause for fatal TBIs in this age group.



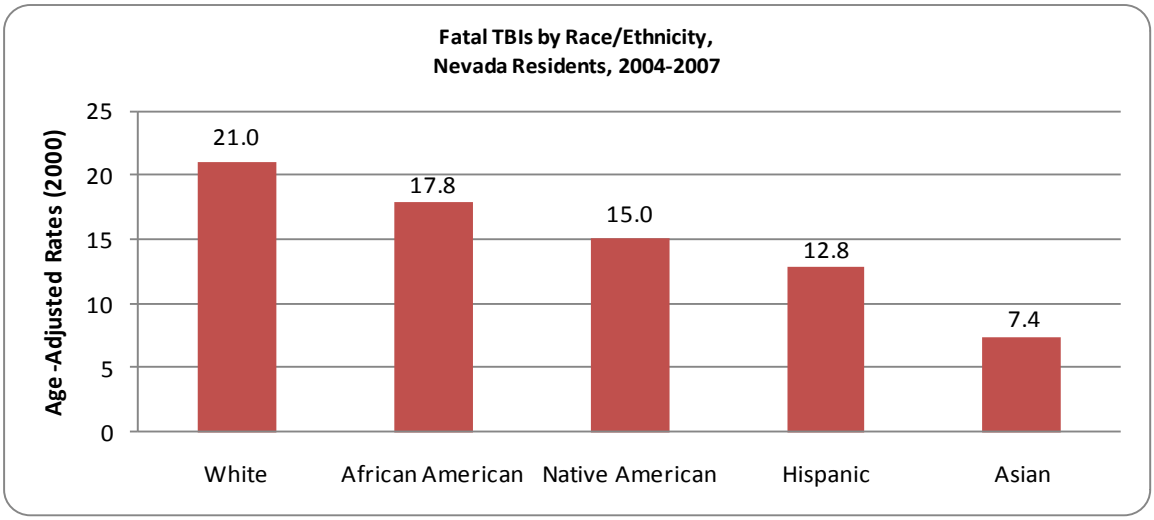
- Males in every age group had higher rates of non-fatal and fatal TBIs than their female counterparts .
- The highest rates of TBIs for males occurred in the 65 and older age group, followed by 15-24 year olds for non-fatal and fatal TBIs.



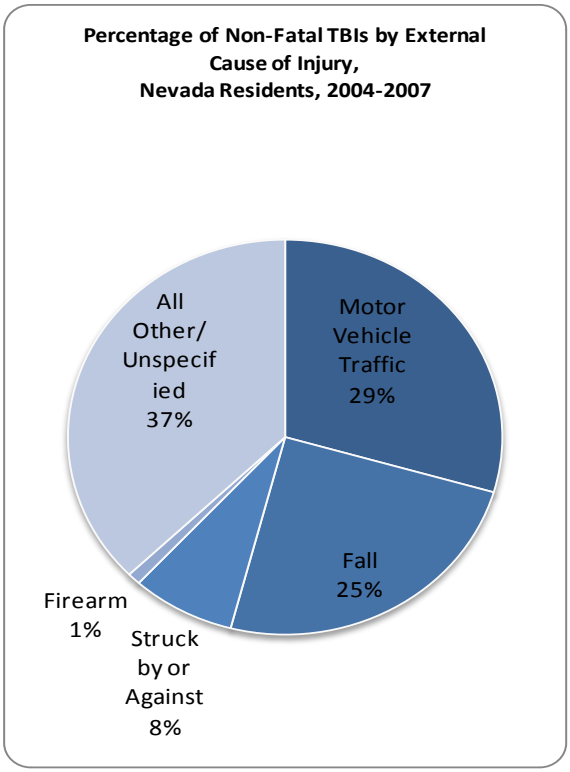
- Female TBI rates were highest in the age groups 75 years and older, followed by under one year olds for non-fatal and fatal TBIs.

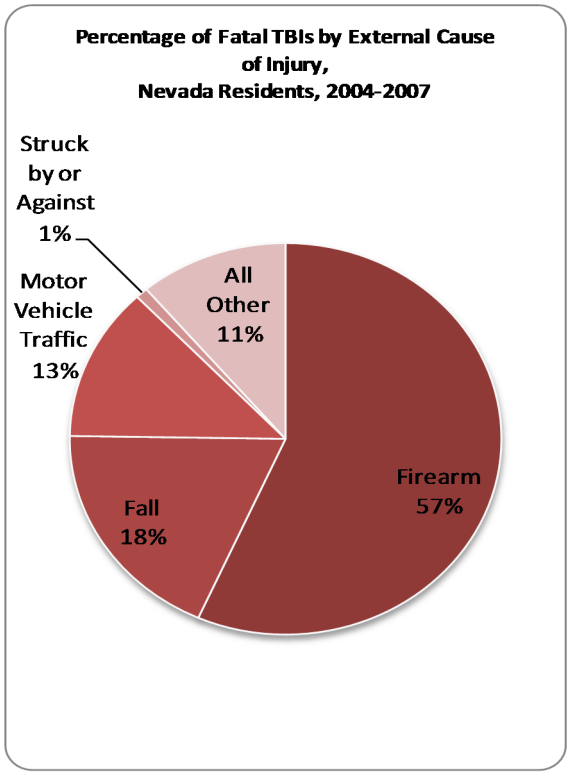


- Between 2004-2007, inpatient hospital discharge data does not identify the race/ethnicity of the patient, therefore data could not be compiled.
- White residents had the highest rates of fatal TBIs, followed by African American residents.



- Motor vehicle traffic accidents (29%) were the leading external cause, followed by falls (25%) for non-fatal TBIs. Unintentional injury accounted for 65% of all non-fatal cases.
- Firearms (57%) were the leading external cause, followed by falls (18%) for fatal TBIs. Suicide intent accounted for 48% of all fatal cases.

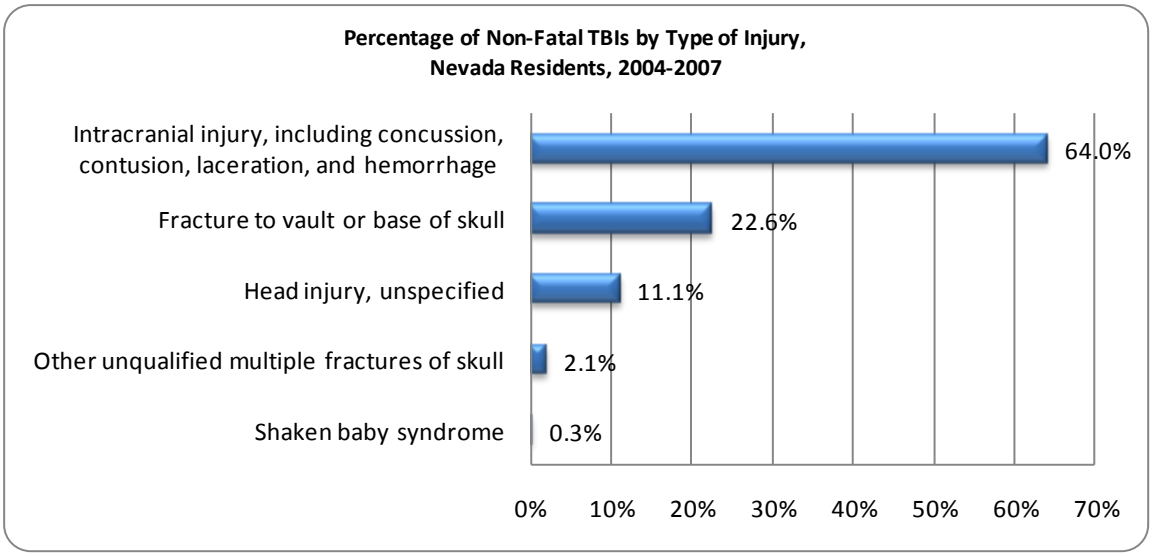


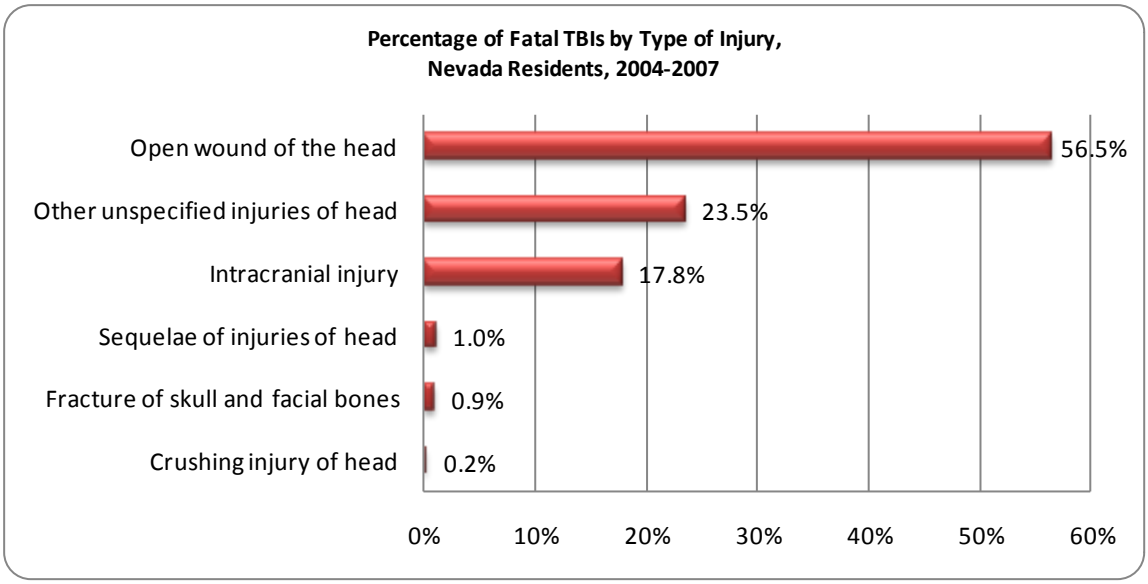


Note: External Cause of Injury Codes are used to define the mechanism of death or injury, along with place of occurrence of the event. Due to missing E-Codes in the hospital discharge data sets, many non-fatal cases had an unspecified external cause.

What is the type of injury?

- Intracranial (internal) brain injuries were involved for 64% of non-fatal TBIs and 23% involved a fracture to the vault of the base of the skull.
- Open head wounds accounted for 57% of fatal TBIs and 23% involved other unspecified head injuries.





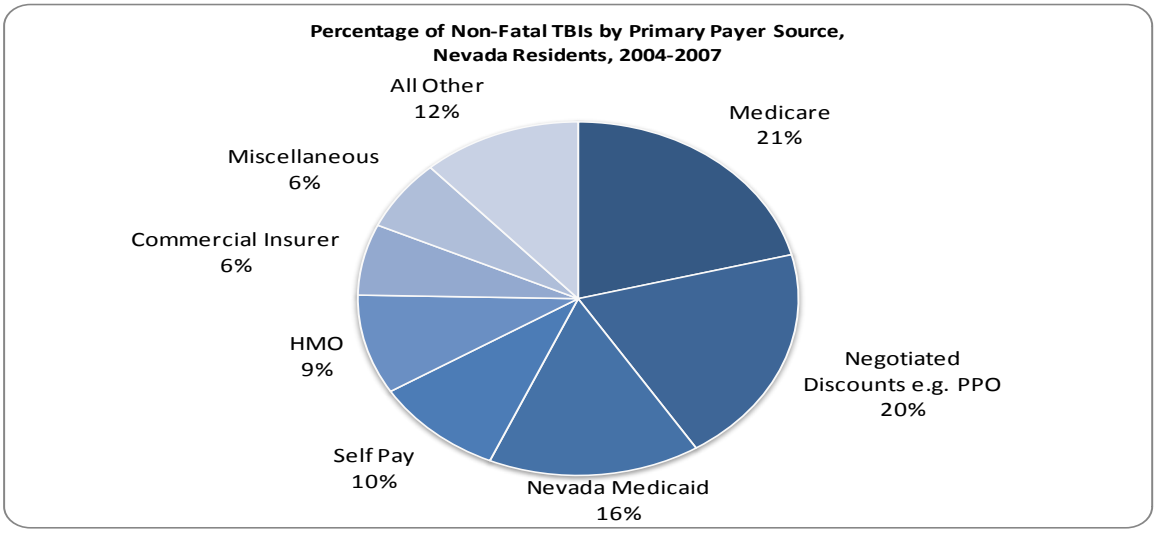
What are the long-term outcomes of TBI?

TBI can cause a wide range of functional changes affecting thinking, sensation, language, and/or emotions. It can also cause epilepsy and increase the risk of conditions such as Alzheimer's Disease, Parkinson's Disease, and other brain disorders that become more prevalent with age.[1]

- People who were hospitalized due to a TBI are primarily discharged home (66%), or secondarily discharged/transferred to a facility to receive additional care (27%).

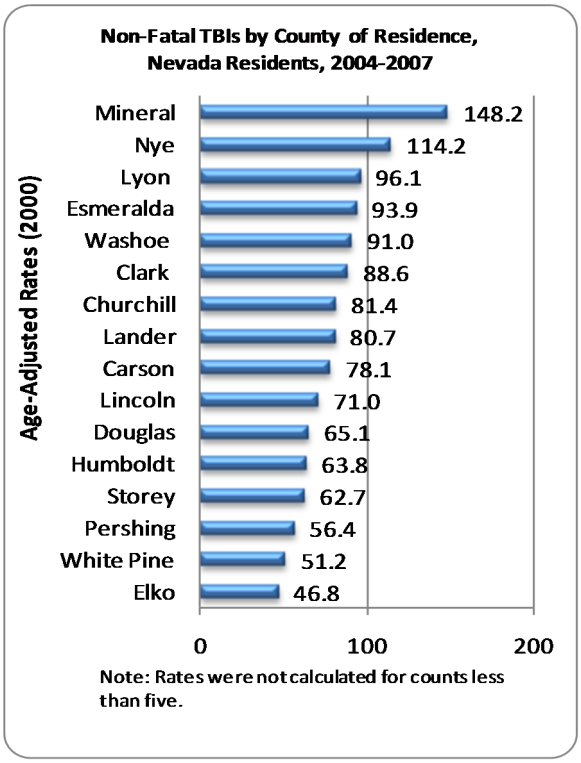
What is the economic impact of a TBI?

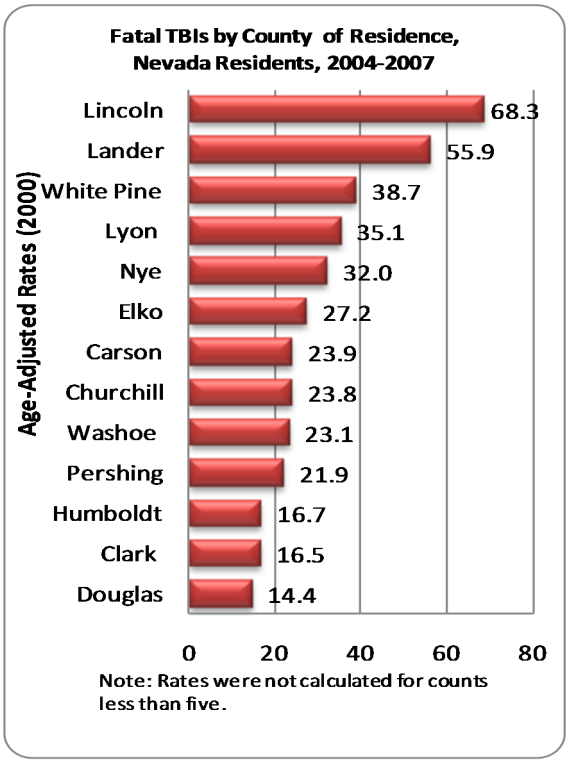
- Residents who were hospitalized due to a TBI from 2004-2007 had a median charge of $27,175-$36,820. The median length of stay was four (4) days.
- Medicare was the primary payer source for 21% of hospitalizations followed by Negotiated Discounts at 20%.



What Counties are affected by TBIs?

- Mineral County had the highest rate of non-fatal TBIs. This was due to motor vehicle accidents and falls .
- Lincoln County had the highest rate of fatal TBIs. This was due to firearms and motor vehicle accidents.





References

[1] http://www.cdc.gov/traumaticbraininjury/tbi_ed.html (April 2011)

Technical Notes

A death was considered to be TBI-related if any of the following ICD-10 codes were listed in one of the contributing causes of death fields: S01.0-S01.9, S02.0, S02.1, S02.3, S02.7-S02.9, S04.0, S06.0-S06.9, S07.0, S07.1, S07.8, S07.9, S09.7-S09.9, T01.0, T02.0, T04.0, T06.0, T90.1, T90.2, T90.4, T90.5, T90.8 or T90.9. External causes were based on the external injury code listed on the death certificate.

A hospitalization was considered to be TBI-related if any of the following ICD-9 codes were listed in one of the diagnosis fields: 800.0-801.9, 803.0-804.9,850.0-854.1, 950.1-950.3, 959.01 or 955.55. External causes were based on the primary e-code that appeared within all diagnosis codes. Hospital Discharge data is provisional as of June 2010.

Office of Health Statistics and Surveillance

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