

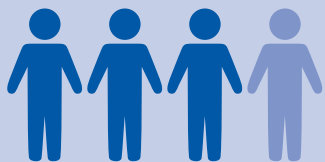


# RHODE ISLAND DATA BRIEF

NOVEMBER  
2023

## Traumatic Brain Injury Service Use in Rhode Island

### Mild vs. Severe Traumatic Brain Injury (TBI)



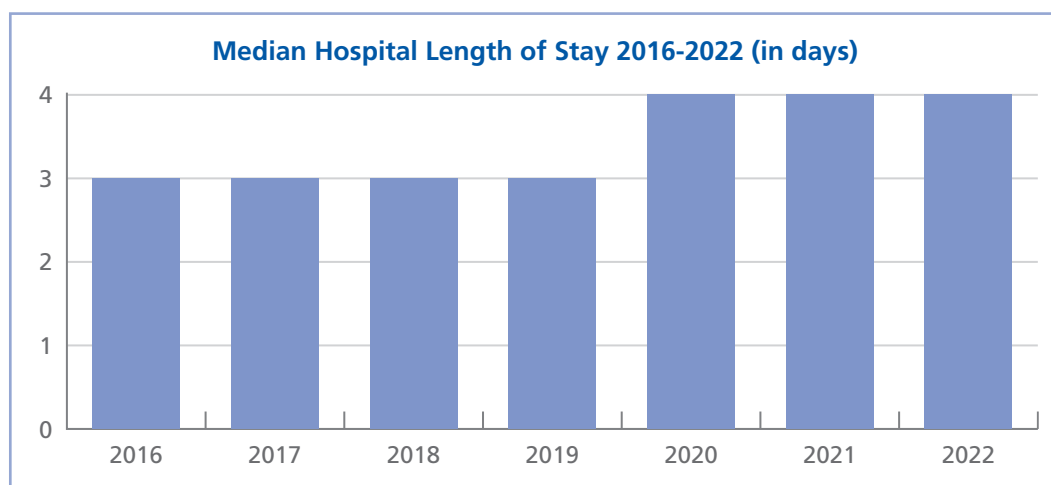
Three out of four TBI cases in the United States every year are from concussions, the most common type of mild TBI (mTBI). mTBIs can cause headaches, nausea, light sensitivity, and confusion, but these symptoms are short-lived and do not typically lead to permanent damage.<sup>1</sup>



Severe TBIs are less common than mTBIs but have worse health outcomes and lead to longer hospital stays. People who suffer from a severe TBI can experience lasting headaches, seizures, loss of consciousness (fainting), numbness of the fingers and toes, and comas. Symptoms of a severe TBI may last for months to years after the event.<sup>2</sup>

### Hospital Length of Stay

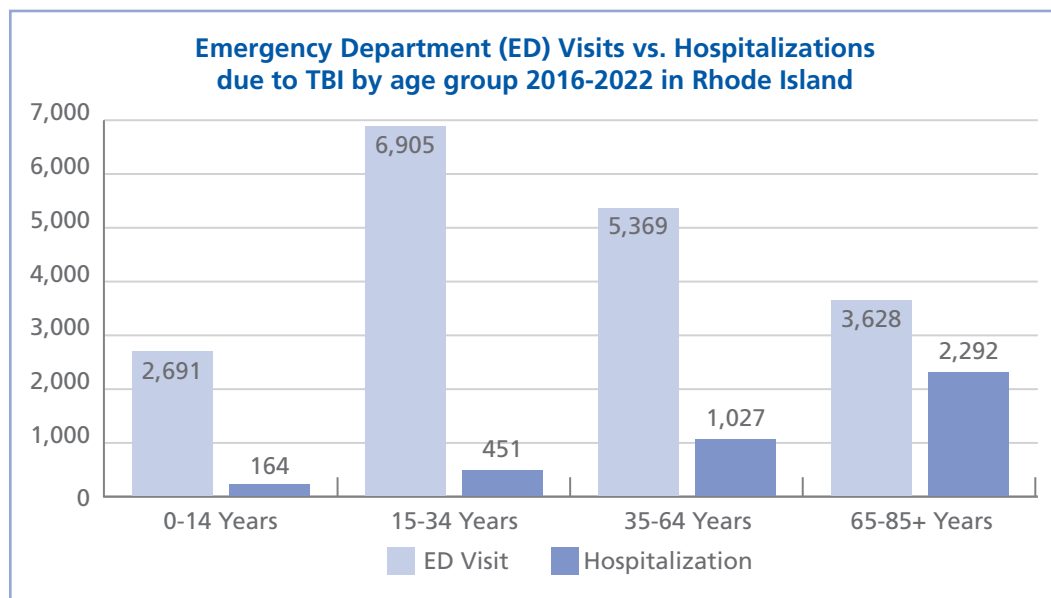
For people with severe TBI, hospital stays are likely. On average, individuals stay between five and eight days, but individuals with the most severe TBI symptoms can stay much longer, with a maximum of 370 days during this time period. Those who are hospitalized for a severe TBI may need rehabilitative services, surgery, medication therapies, and additional outpatient services after leaving the hospital.<sup>1</sup>



### Who Visits the ED vs. Who Gets Hospitalized

Younger people are more likely than older people to suffer from mild TBIs that are treated in the ED. Injuries commonly seen in this age group include mild TBI due to falls, sports and recreational activities, and motor vehicle accidents.<sup>2</sup>

Individuals ages 65 and older are more likely to be admitted to the hospital after being seen due to severe TBI. Falls are the most common cause of mild and severe TBI in older adults.<sup>2</sup>





# RHODE ISLAND DATA BRIEF *continued*

## When to Seek Services

**Mild TBI and concussion symptoms** might happen immediately, hours later, or days after the injury. Symptoms vary by person and may change over time. A person may not recognize their symptoms and may be overlooked by family members or healthcare professionals.

Seek immediate emergency medical care if you have danger signs.

## Danger Signs in Adults

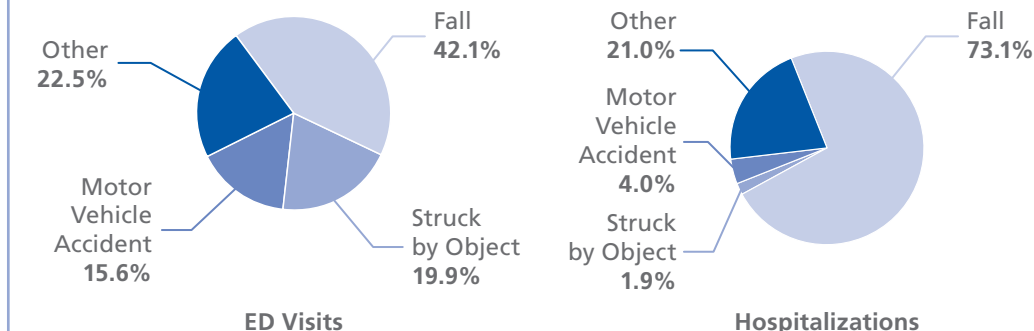
- Headache that gets worse and will not go away;
- Weakness, numbness, decreased coordination, convulsions (shaking);
- Repeated vomiting;
- Slurred speech or unusual behavior;
- One pupil larger than the other;
- Difficulty recognizing people or places, confusion, and agitation; and
- Loss of consciousness (fainting)

## Danger Signs in Children

- Any of the adult danger signs listed above;
- Non-stop crying; and
- Not nursing or eating<sup>5</sup>

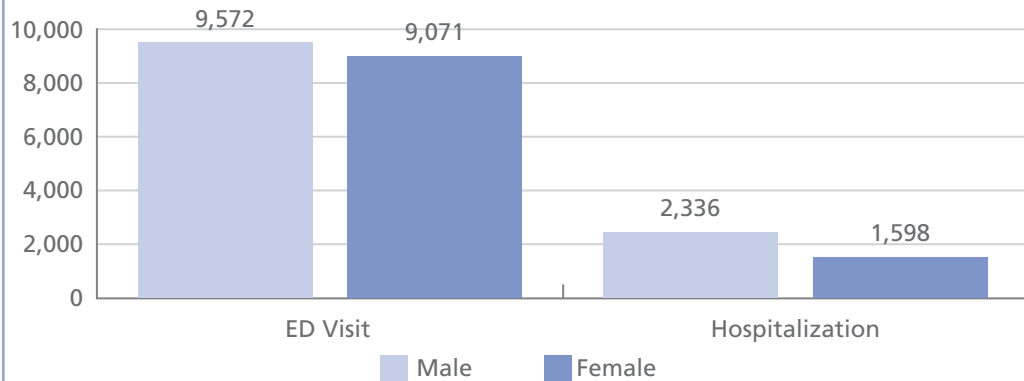


**Reasons for TBI-Related ED Visits vs. Hospitalizations 2016-2022 in Rhode Island**



Falls are responsible for most cases of TBI for people of all ages. As people age, their risk for falling increases, and they are more likely to suffer a mild or severe TBI as a result. In the United States, approximately 80% of all TBI-related ED visits, hospitalizations, and deaths are due to falls in adults ages 65 and older.<sup>3</sup>

**ED Visits vs. Hospitalizations Due to TBI by Sex 2016-2022 in Rhode Island**



Men are more likely than women to present to the ED, be hospitalized, and die from TBIs. In the United States, men in every age group are more likely to suffer both mild and severe TBIs and are nearly three times as likely to die from a TBI.<sup>4</sup> Young men are more likely to suffer mild TBI due to falls or sports/recreational activities, while middle-aged and older men are more likely to suffer mild or severe TBI due to falls or motor vehicle accidents.

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<sup>1</sup> Cleveland Clinic. (2021, January 11). *Traumatic brain injury (TBI): What is it, causes, types*. clevelandclinic.org. <https://my.clevelandclinic.org/health/diseases/8874-traumatic-brain-injury>

<sup>2</sup> Mayo Foundation for Medical Education and Research. (2021, February 4). *Traumatic brain injury*. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/traumatic-brain-injury/symptoms-causes/syc-20378557>

<sup>3</sup> UCLA Health. (2021, March 22). *Preventing falls and traumatic brain injuries in older adults*. UCLAhealth.org. <https://www.uclahealth.org/news/preventing-falls-and-traumatic-brain-injuries-in-older-adults>

<sup>4</sup> U.S. Department of Health and Human Services. (n.d.). *Traumatic brain injury (TBI)*. National Institute of Neurological Disorders and Stroke. <https://www.ninds.nih.gov/health-information/disorders/traumatic-brain-injury-tbi>

<sup>5</sup> <https://www.cdc.gov/traumaticbraininjury/concussion/symptoms.html>