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Prevalence of Traumatic Brain Injury (TBI) in Nebraska

Brain injury – also called Acquired Brain Injury (ABI) – is damage to the brain after birth that is not hereditary (inherited from a parent), congenital (condition or trait that exists at birth), or degenerative (gradual deterioration). This includes non-traumatic (result of an illness, oxygen deprivation, aneurysm, etc.) and traumatic brain injury.

Traumatic Brain Injury (TBI) is an injury to the brain caused by an external physical force, such as a bump, blow, or jolt to the head, which results in total or partial functional disability and/or psychosocial impairment. Causes of TBI may include sports injury, vehicle accident, or fall.

TBI Facts from 2017-2022

The number of TBIs in Nebraska rose from 11,396 in 2017 to 14,819 in 2022, marking a 30% increase (Figure 1).

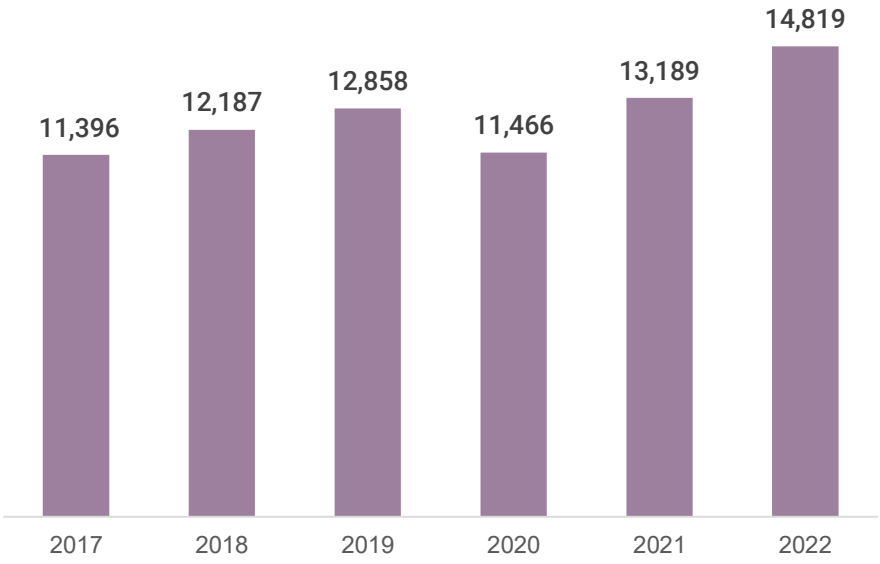
Top Causes of TBI

1. Falls (55%)
2. Motor Vehicle traffic (15%)
3. Violence related (7%)

Key Findings

- TBIs vary by age, gender, and location of occurrence (Figure 3 & 4).
- Elderly individuals (75+) had the highest rates of hospitalization and emergency department (ED) visits, while children (<5 years) and teens (15-19 years) had the next highest rates of ED visits.
- More TBIs tend to happen between August and October.

Figure 1. Total Number of TBI cases by year 2017-2022 (n=75,915)

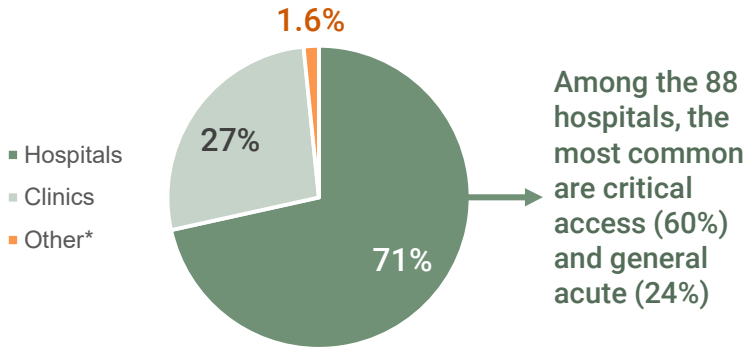


Data Source: *Nebraska Hospital Discharge Data 2017-2022*

A Note about the Data

Nebraska's TBI Registry is maintained by the Nebraska Department of Health and Human Services, Division of Public Health. Hospitals, rehabilitation centers, physicians, and psychologists are required by state law (§81-653 to 81-662) to submit information about individuals sustaining a TBI. As a result, most of the data reflects information from those who were discharged from the hospital with a TBI diagnosis (Figure 2). It does not include other acquired brain injuries.

Figure 2. Percentage of the entities submitting data to the TBI Registry in 2022 (n=123)



Data Source: *TBI Registry*

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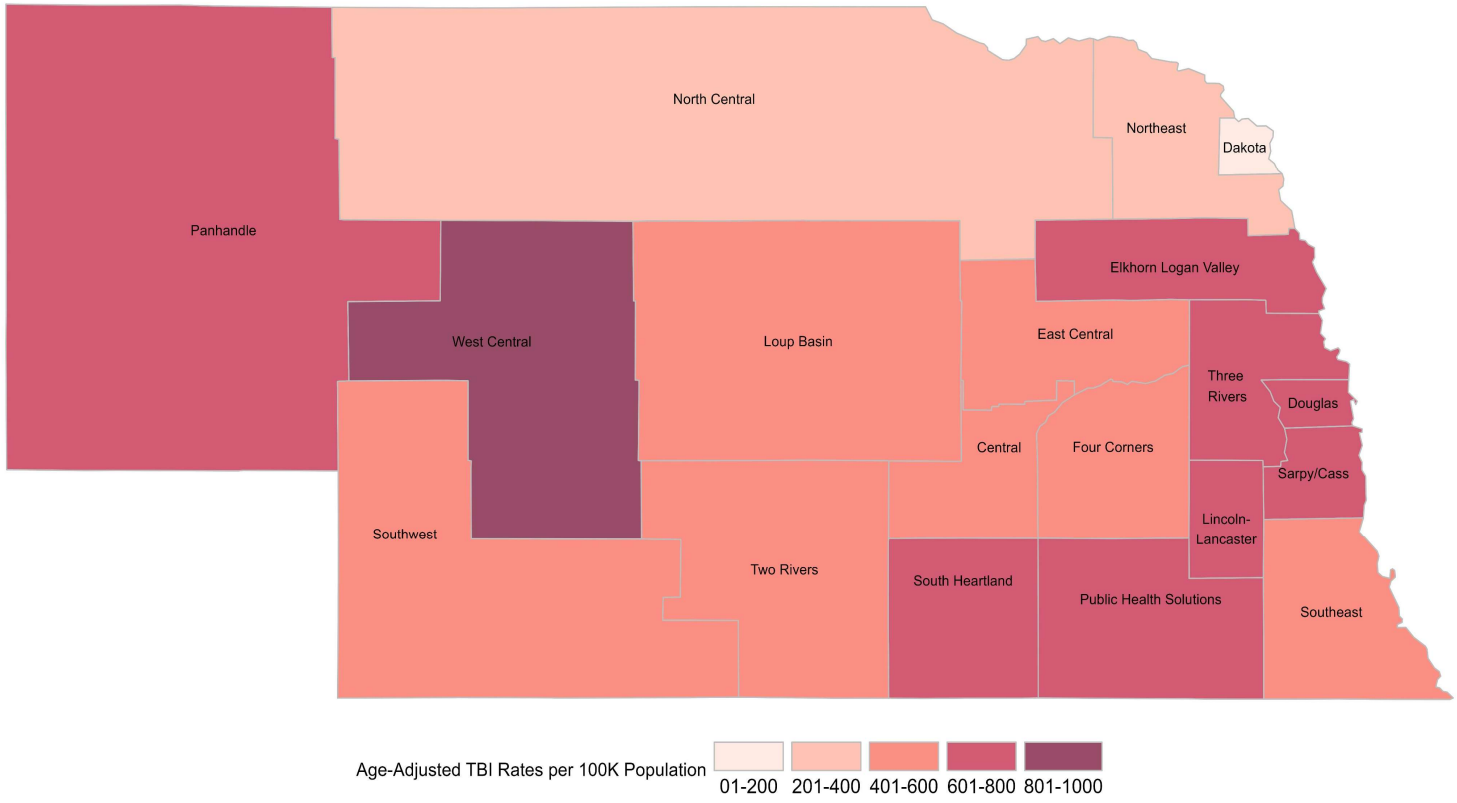
TBI Rates by Local Health Department

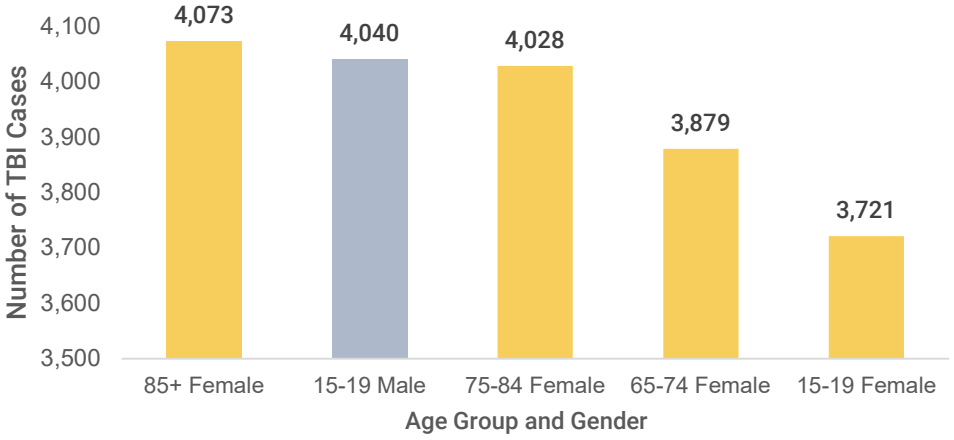
Based on Nebraska TBI Registry data from 2017-2022, West Central District Health Department had the highest rates of TBI (Figure 3). They cover six counties, including Arthur, Hooker, Lincoln, Logan, McPherson, and Thomas. Lincoln-Lancaster County Health Department has the next highest, followed by Three Rivers Public Health Department (Dodge, Saunders, and Washington counties) and Sarpy Cass Public Health Department.

Figure 3. Traumatic Brain Injury (TBI) Rates by Health Districts, Nebraska, 2017-2022 (n=75,915)

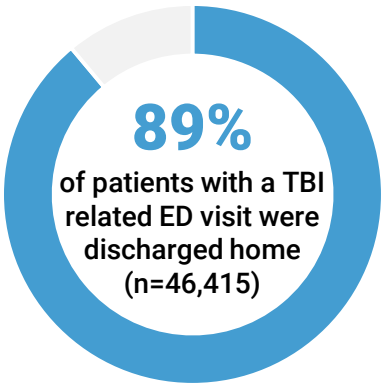


Data Source: *Nebraska Hospital Discharge Data 2017-2022*

Figure 4: Top 5 Highest TBI Cases Group by Age and Gender in Nebraska, 2017-2022



Data Source: *Nebraska Hospital Discharge Data 2017-2022*



Data Source: *TBI Registry*

This publication was prepared by Ming Qu[1], Yongjun Zhang[1], Qianqian Li[1,2], Andrew Ngochoch[1] , Zijian Qin[1], and Liz Gebhart Morgan[3]

1. Nebraska Department of Health and Human Services, USA
2. Department of Epidemiology, College of Public Health, University of Nebraska Medical Center, USA
3. Partners for Insightful Evaluation, USA