

Traumatic Brain Injury

Winter 2005

What is Traumatic Brain Injury (TBI)?

TBI is damage to the brain caused by an external physical force that may produce a diminished or altered state of consciousness. Such trauma results in impairment of cognitive, physical, behavioral, and/or emotional functioning.¹

TBI-related disabilities tend to be permanent but can improve over time with rehabilitation, accepting/coping with the disability, and learning compensatory strategies to deal with deficits.

TBI is an important U.S. public health problem. Because the problems due to TBI are often not visible and public awareness is limited, it is frequently referred to as the "silent epidemic."¹

How Common is TBI?

- Every 21 seconds, one person in the U.S. sustains a TBI.
- 5.3 million Americans (2 percent) have a TBI-related disability.
- Approximately 13,000 North Dakotans are living with a TBI-related disability.²

Each year in the United States:

- 1.4 million people sustain a TBI. Of them, 50,000 die, 235,000 are hospitalized, and 1.1 million are treated and released from an emergency department.
- 475,000 TBIs occur among children ages 0-14 years.
- Elders (ages 75+ years) have the highest rates of TBI-related hospitalization and death.
- Males are more likely than females to sustain a TBI.³

What are the Causes of TBI?

- Falls are the leading cause of TBI; rates are highest for young children (ages 0-4 years) and elders (ages 75+ years).
- Motor vehicle crashes result in the greatest number of TBI-related hospitalizations.
- Assaults are the third leading cause of TBI.³

Figure 1. Causes of TBI³

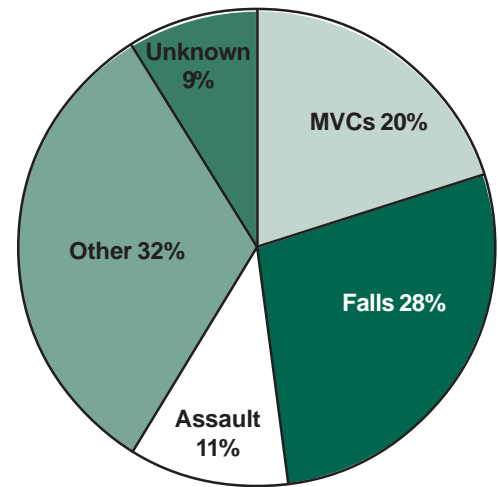
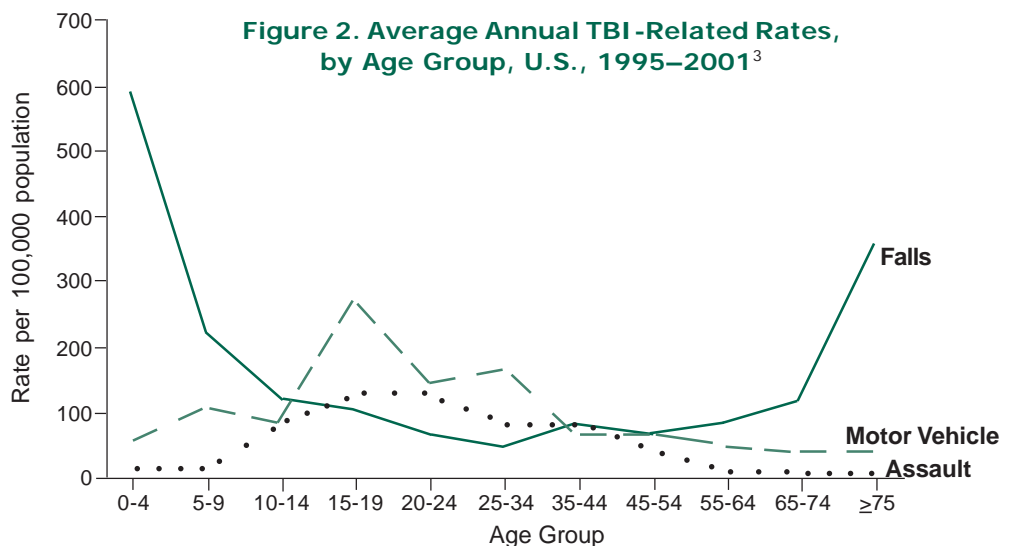


Figure 2. Average Annual TBI-Related Rates, by Age Group, U.S., 1995-2001³



What Services are Needed for TBI?

As the nature and severity of injury varies from person to person, so does the need for services. Services are needed from the

moment of injury (e.g., emergency medical services) through (potentially) the remainder of one's life. The types and intensity of services vary widely, and include acute medical care, rehabilitation care, education services, employment services, and long-term care.

What is the TBI Grant Program?

It's a program designed to ensure the 5.3 million Americans with TBI and their families have access to a comprehensive, coordinated system of care that is person-centered and attends to their changing needs from the moment of injury throughout the rest of their lives. The program is based in the Maternal and Child Health Bureau, U.S. Department of Health and Human Services, and states can submit proposals to receive federal funding.

What is North Dakota Doing with the TBI Planning Grant?

In 2003, the North Dakota Department of Health (NDDoH) was awarded a federal grant to conduct the following TBI planning activities:

- Develop an advisory committee.
- Conduct a needs and resources assessment for individuals having TBI and their caregivers.
- Develop an action plan to address the needs of North Dakotans with TBI and their families.

The Center for Rural Health was subcontracted by the NDDoH to coordinate and conduct the planning activities.

A 25-member advisory committee was established with statewide representation from persons with TBI, family caregivers, service providers and agency representatives, including the Indigenous People's Brain Injury Association. The group advises project staff on TBI issues and assists in developing an action plan to address the needs of persons with TBI and their families.

The statewide TBI needs assessment, currently being conducted, focuses on the most significant barriers to accessing and utilizing needed services among persons with TBI and their families. The needs assessment targets persons with TBI, family caregivers, service agency directors and service providers.

How can the Life Circumstances of North Dakotans with TBI and Their Families be Improved?

Findings of the statewide assessment indicate the following:

- **Increased Access to Information and Resources.** Individuals with TBI and their families need a centralized information source in North Dakota to answer their questions (e.g., TBI service availability, eligibility and accessibility). Currently, there is not a centralized source in North Dakota.

- **Increased Awareness.** Public awareness activities should describe TBI, how it affects the lives of those afflicted by it, and which services are available to meet their needs. Persons targeted for increased education on TBI include community members and health/social service providers.
- **Improved Comprehensiveness and Coordination of Services.** The current configuration and quality of North Dakota TBI-related services falls short of meeting the needs of many North Dakotans with TBI and their families. A particular problem was noted with poor, uncoordinated follow-up care (i.e., care immediately following discharge from the inpatient hospital setting), rehabilitation, and long-term care.
- **Increased Support from Family, Friends and Community Members.** The implementation of comprehensive support systems will assist persons with TBI to lead independent, fulfilling lives. Increased accessibility and coordination of statewide support mechanisms (e.g., mentor programs, support groups or 'talking circles') should target persons with TBI and their family caregivers.
- **Greater Acceptance of TBI.** Increased education/understanding of TBI issues can lead to increased acceptance of the realities and challenges of: (a) living with TBI-related disabilities; (b) providing care to a family member or loved one who has incurred a TBI.

Footnotes:

- ¹ Brain Injury Association of America. (2004). Causes of Brain Injury. http://www.biausa.org/Pages/causes_of_brain_injury.html
- ² Brain Injury Association of America. (2004). What is Brain Injury? http://www.biausa.org/Pages/what_is_brain_injury.html
- ³ Langlois, J.A., Rutland-Brown, W., Thomas, K.E. (2004). Traumatic Brain Injury in the US: Emergency Department Visits, Hospitalizations and Deaths. Atlanta, GA: Centers for Disease Control.

For more information, contact:
Sue Offutt, PhD, (701) 777-6084
soffutt@medicine.nodak.edu

Center for Rural Health

University of North Dakota
School of Medicine & Health Sciences
PO Box 9037

Grand Forks, ND 58202-9037

Tel: (701) 777-3848

Fax: (701) 777-6779

<http://medicine.nodak.edu/crh>

<http://www.raconline.org>

