Oregon Statistics

Number of Oregonians affected by TBI annually:

- 17,100 sustain a TBI
- 674 die
- 2886 are hospitalized
- 13,512 are treated and released from an emergency department.
- approximately 1,000 of these survivors live with significant disabilities as a result of the injury EACH year.[1]

Among children ages 0 to 14 years, TBI results in an estimated:

- 33 deaths
- 455 hospitalizations

Magnitude

CDC estimates:

- Approximately 2.2% of the population currently have long-term or lifelong need for help to perform activities of daily living as a result of a TBI (at least 5.3 million Americans).[2] In Oregon the estimate is over 81,000.

- Traumatic brain injuries account for an estimated 34% of all injury deaths in the United States.[3]

- In Oregon, an estimated 2200 adults age 15 and over are living in the community with enduring functional impairments due to TBI (excludes most survivors of mild TBI).[4]

It is estimated that up to 6% of the population has an Acquired Brain Injury (stroke, aneurysms, brain tumors, and TBI) affecting about 220,000 Oregonians

In Oregon, over 1 million family members lives are impacted by brain injury

Fact Sheet: SB348 SB381 HB2413

Traumatic Brain Injury Selected Statistics

"If a disease were killing our children in the proportions that [brain] injuries are, people would be outraged and demand that this killer be stopped." Former Surgeon General Everett Koop, MD

Introduction

Traumatic brain injury (TBI) is an insult to the brain caused by an impact (e.g., fall or car accident), internal damage (e.g., gunshot or surgical intervention) or loss of oxygen injury that disrupts the function of the brain. The severity of a TBI may range from "mild" to "severe," i.e., an extended period of unconsciousness or amnesia after the injury.

Although not always visible, TBI may cause enduring physical, emotional, intellectual and social changes for the survivor. Long-term effects place an enormous emotional and financial burden on the individual's family and strain medical and other service systems due to high costs and often life-long needs.

TBI is the number one cause of both death and disability in children and young adults. There are twenty times more disabilities from brain injuries than AIDS, breast cancer, spinal cord injuries, and multiple sclerosis combined. Since 1977, brain injuries have claimed more lives than all U.S, wars combined.

To date, there is no national registry on TBI. Oregon does not have a TBI Registry. Statistics vary due to different data sources and nomenclatures. TBI definitions may include or exclude such categories as minor head injuries, skull fractures, non-hospitalized TBI survivors, hypoxic-anoxic injuries, or fatalities.

Recent data shows that, on average, approximately 1.4 million people sustain a TBI each year in the United States (17,100 Oregonians). 435,000 emergency department visits (5343 Oregonians).[1]

The number of people with TBI who are not seen in an emergency department or who receive no care is unknown.

Who Is Injured?

TBI affects males at twice the rate of females. Higher mortality rates among males indicate that males are more likely than females to suffer severe injuries.[1]

Individuals age 15 to 24 have the highest risk of TBI. The risk also increases after age 60.[1]

Research suggests that residents in rural areas have nearly twice the rates of both fatal traumatic brain injuries and those requiring hospitalization[5]

Causes of TBI

- Blasts are a leading cause of TBI for active duty military personnel in war zones.[6] As many as two thirds of all injured have a TBI.
- If the VA sees 30 percent of the 1.5 million U.S. service members who have deployed to the wars in Iraq and Afghanistan, the total is 450,000 veteran patients from these two wars. [7] Paul Sullivan, director of programs, Vietnam Veterans of America Foundation
- Falls cause 28% of TBIs; motor vehicle crashes—20; sports/physical activity - 20%; assaults - 9%; 28% are due to "other" reasons. Nearly half (49%) of all brain injuries severe enough to require hospitalization are caused by MVAs.[2]
- Alcohol was involved in 41% of all *fatal* crashes and 7% of *all* crashes in 1996. More than 321,000 persons were injured in accidents where alcohol was present—an average of one person injured every 2 minutes.[2]
- Child abuse accounts for 64% of infant/child brain injuries. 140,000 children a year sustain bicycle-related head injuries.
- About 5% to 10% of skiing accidents result in head injuries.[5]

Cost of Care

The direct and indirect costs of traumatic brain injury in the U. S. have been estimated to be $60 billion annually (CDC, 20006). Survivor costs account for $31.7 billion and fatal brain injuries cost another $16.6 billion (1991 dollars). [5]

The lifetime costs for one person surviving a severe TBI can reach $4 million. [5]

Effects of Traumatic Brain Injury

Although the largest group of TBI survivors are young adults in their prime working years, many survivors, particularly those with a severe TBI, do not return to work. Estimates vary widely, ranging from a low of 12.5% to as high as 80% who do not return to work. The ability to return to work is highly correlated to the post-acute functional limitations of the survivor. [5]

Survivors of a severe brain injury are likely to experience prolonged anxiety and depression, and are at a high risk for loss of friendships and social support. [5]

Approximately 20% of survivors of *severe* TBI remain unresponsive for at least one month. [5]

The majority of individuals who survive a period of coma eventually regain consciousness. Data from the Traumatic Coma Data Bank indicate that of 650 patients who experienced a vegetative state after a brain injury, only 14% were released from the hospital in a coma. And of those, about half had regained consciousness after one year's time.

Researchers have found that persons who suffer a severe TBI continue to make gradual improvements in functioning for at least 10 years post-injury. [5]

Prevention

Unlike most neurological disorders, head injuries can be prevented. The Centers for Disease Control and Prevention (CDC) have suggested taking the following safety precautions for reducing the risk of suffering a TBI.

- Wearing a seatbelts, having airbags in cars
- Buckling children into a child safety seat, booster seat, or seatbelt (depending on the child's age) every time the child rides in a car.
- Wearing a helmet riding a bike or during sports activities including skateboarding, skiing, baseball, football
- Locking up firearms and bullets
- Annual training and awareness of sports concussion, do not return players to the game if they show any signs of concussion.

Notes

1 Kraus, J. F, and MacArthur, D. L. (1996) Epidemiologic Aspects of Brain Injury. Neurologic Clinics, 14(2): 435-450.

2 Sosin, D.M., Sniezek, J.E., & Thurman, D.J. (1996) Incidence of Mild and Moderate Brain Injury in the United States, 1991. Brain Injury, 10(1): 47-54.

3 Centers for Disease Control and Prevention (1997) Traumatic Brain Injury—Colorado, Missouri, Oklahoma, and Utah, 1990-1993. MMWR Morbidity and Mortality Weekly Report, Jan. 10; 46(1): 8-11.

4 Moscato, B.S., Trevisian, M. & Willer, B. (1994) The Prevalence of Traumatic Brain Injury and Co-Occurring Disabilities in a National Household Survey of Adults. Journal of Neuropsychiatry, 6(2): 134-142. [Note: based on U.S. Census data for 1994 using 192,322,000 adults age 18 +]

5 Center for Disease Control.

6 Defense and Veterans Brain Injury Center (DVBIC). [unpublished]. Washington (DC): US Department of Defense; 2005.

7 More War Veterans Suffering From Stress
By Lolita C. Baldour, The Associated Press, 9/23/06

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