

Fact Sheet:

Traumatic Brain Injury Selected Statistics

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). Of those:

- 50,000 die (674 Oregonians);
- 235,000 are hospitalized (2886 Oregonians);
- 1.1 million are treated and released from an emergency department (13,512 Oregonians).
- and approximately 80,000 of these survivors live with significant disabilities as a result of the injury (nearly 1000 Oregonians).¹

Magnitude

- CDC estimates that at least 5.3 million Americans currently have long-term or lifelong need for help to perform activities of daily living as a result of a TBI.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 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

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
- Motor vehicle accidents account for an estimated 28% of traumatic brain injuries; sports/physical activity account for 20%; assaults are responsible for 9%; 43% are due to "other" reasons. However, when considering those **brain injuries severe enough to require hospitalization, virtually half (49%) are caused by motor vehicle accidents.**
- 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.

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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, 2006). Survivor costs account for \$31.7 billion and fatal brain injuries cost another \$16.6 billion (1991 dollars).
- The lifetime costs for one person surviving a severe TBI can reach \$4 million.

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

Veteran Statistics:

- There are approximately 25 million veterans of the U.S. Armed Forces alive today (7.5 % are women).
- Some 7.2 million of those veterans are enrolled in the Department of Veterans Affairs (VA) system; approximately 5.5 million receive healthcare and 3.4 million receive benefits.
- Since October 2001, approximately 1.6 million members of the Armed Forces have served in Iraq or Afghanistan. As of December 31, 2007, more than 800,000 veterans of these conflicts were eligible for VA healthcare.

- There are about 37 million dependents (spouses and dependent children) of living veterans and survivors of deceased veterans. Together they represent 20% of the U.S. population.
- Most veterans living today served during times of war. The Vietnam Era veteran, about 7.9 million, is the largest segment of the veteran population.
- There are approximately (as of October 2007) 2,911,900 WWII veterans alive, but they are passing away at a rate of 1,000 per day (approx. total today 2,583,400)
- In 2007, the median age of all living veterans was 60 years old, 61 for men and 47 for women.
- Median ages by period of service: Gulf War, 37 years old; Vietnam War, 60; Korean War, 76; and WW II 84.
- The percentage of the veteran population over 65 is 39.1%.
- Sixty percent (60%) of the nation's veterans live in urban areas and six states account for about 36% of the total vet population. They are California, Florida, Texas, Pennsylvania, New York and Ohio, respectively.
- Approximately 150,000 of our nation's veterans are homeless.

Suicide Rates:

- The VA's own data indicate that an average of four to five veterans commit suicide each day.
- A document from the VA Inspector General's Office, dated May 10, 2007, indicates that the suicide rate among individuals in the VA's care may be as high as *7.5 times the national average*.

PTSD:

- Approximately 300,000 veterans of the Iraq and Afghanistan wars – nearly 20% of the returning forces – are likely to suffer from either PTSD or major depression, and these numbers continue to climb.
- An *additional* 320,000 of the returning veterans from Iraq and Afghanistan may have experienced traumatic brain injuries during deployment.
- By fiscal year 2005, the VA's own statistics indicated that PTSD was the fourth most common service-related disability for service members receiving benefits.

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