Traumatic Brain Injury-Related Mortality
Arizona, 2004-2008

Magnitude of the problem:
Traumatic brain injuries (TBI) are a public health problem impacting the lives of thousands of Arizona residents each year. Between 2004 and 2008, the age-adjusted death rate for TBI-related injuries among Arizonans decreased from 22.7 deaths per 100,000 residents to 20.0 deaths per 100,000 residents. This represents a 12 percent decrease in the rate of deaths over five years.

Among the 6,968 TBI-related fatalities between 2004 and 2008, 74% were among males (n=5,140) and 26% were among females (n=1,826). 12% of deaths occurred among children 19 years and younger (n=818), and 29% of deaths were among adults 65 years and older (n=2,986).

Who is affected by traumatic brain injuries:
- Adults over 85 years of age had the highest rates of TBI mortality in 2008 (132.5 deaths per 100,000 residents). In this age group, 72% of TBI deaths resulted from unintentional falls.
- In 2008, American Indians had the highest age-adjusted mortality rate due to TBI (30.5 deaths per 100,000 residents). Among all race/ethnicity groups, the age-adjusted mortality rate was 20.0 deaths per 100,000 residents.
- Between 2004 and 2008, 51% of TBI-related deaths were unintentional, 33% were suicides, and 12% of deaths were homicides.
- Firearms were the most common cause of TBI-related fatalities, and accounted for 43% of the deaths between 2004 and 2008, including a large percentage of deaths by suicide.
- Motor-vehicle traffic crashes and falls were the 2nd and 3rd most common causes of TBI-related fatalities between 2004 and 2008. Though the age-adjusted fall-related mortality rates increased by 20% over five years, the age-adjusted TBI mortality rate for motor-vehicle traffic crashes decreased by 32%.

What can be done to reduce the risk of traumatic brain injuries?
Traumatic brain injuries are preventable:
- Wear a seatbelt every time you drive or ride in a motor vehicle.
- Wear a helmet when riding a bike, ATV, motorcycle, horse, or skates.
- Store firearms unloaded in a secure location.
  - If someone may be suicidal, remove firearms from the home.
- Prevent fall-related injuries in the home:
  - Use non-slip rugs and mats throughout the home.
  - Install handrails and grab bars in bathrooms.
  - Improve lighting throughout the home.
- Prevent fall-related injuries among children:
  - Use safety gates to prevent children from falling on stairs.
  - Make sure playground surfaces have shock-absorbing materials.
- Prevent fall-related injuries among older adults:
  - Have vision checked annually.
  - Maintain a regular physical activity program to improve strength and balance.
  - Have a healthcare provider review medications for potential interactions.

For more information, visit the Arizona Governor’s Council on Spinal and Head Injuries
http://www.azheadspine.org

Leadership for a Healthy Arizona
Arizona Department of Health Services