



NCHS Data on Injuries

About NCHS

The CDC's National Center for Health Statistics (NCHS) is the nation's principal health statistics agency, providing data to identify and address health issues. NCHS compiles statistical information to help guide public health and health policy decisions.

Collaborating with other public and private health partners, NCHS employs a variety of data collection mechanisms to obtain accurate information from multiple sources. This process provides a broad perspective to help us understand the population's health, influences on health, and health outcomes.

NCHS Injury Data

Injury – a serious public health problem – takes a toll on the health of the population and imposes social and economic costs on society. NCHS data are used to identify and track changes in injury-related health problems. NCHS data document injury's impact on the health of Americans including premature death and hospitalizations, and emergency department and other ambulatory visits associated with injuries. Policy makers use these data to design and direct health intervention efforts at the national and local levels.

NCHS datasets classify injuries in two ways- by the external cause and by the injury diagnosis:

- The external cause includes both intent (e.g. unintentional, suicide, homicide) and mechanism (e.g., motor vehicle, firearms, poisoning, suffocation and falls).
- Injury diagnoses include both the nature of the injury (e.g. fracture, internal injury, open wound) and the body region of the injury (e.g. head, chest, extremity).

Data are provided on:

- External cause of injury
- Nature of injury
- Procedures performed during injury-related inpatient care and outpatient care
- Medications prescribed for injury-related visits in outpatient settings
- Place of injury and activity being performed that resulted in the injury

INJURY, 2004	
	# in (000's)
Deaths ('04 prelim)	162,000
Hospital discharges ('04)	1,903,000
ED visits ('04)	29,529,000
Doctor visits ('04)	31,128,000
Outpatient visits ('04)	3,852,000

To approximate incidence in hospital discharge data, we include the number of hospital discharges with a 1st listed injury diagnosis resulting in a live discharge. For ED visits, doctor's office visits and other outpatient visits only initial visits with a first-listed injury diagnosis or with an external cause of injury listed are included. In addition, ED visits that resulted in a hospital admission are excluded.

Fatal Injuries

Unintentional injuries (accidents) were the leading cause of death for those under 35 years of age. For all U.S. resident deaths in 2003, unintentional injuries ranked as the 5th most common cause of death; suicide and homicide ranked 11th and 15th, respectively.

Across all ages, age-specific unintentional injury death rates are higher than suicide or homicide rates. Ranking of homicide and suicide rates, on the other hand, fluctuates for ages under 28 years.

- For young teens, suicide rates exceed homicide rates.
- Homicide rates for older teens and for those through their late 20's are higher than suicide rates.
- From age 28 years onward, suicide rates exceed homicide rates and the magnitude of the difference increases with age.

The leading causes of injury deaths in 2003, as classified by mechanism, were:

Motor vehicle traffic	43,340 deaths
Firearm	30,136 deaths
Poisoning	28,700 deaths
Fall	18,044 deaths
Suffocation	12,992 deaths

Together these five causes accounted for 81 percent of all injury deaths.

Injury deaths can also be tabulated by the injuries mentioned. For example:

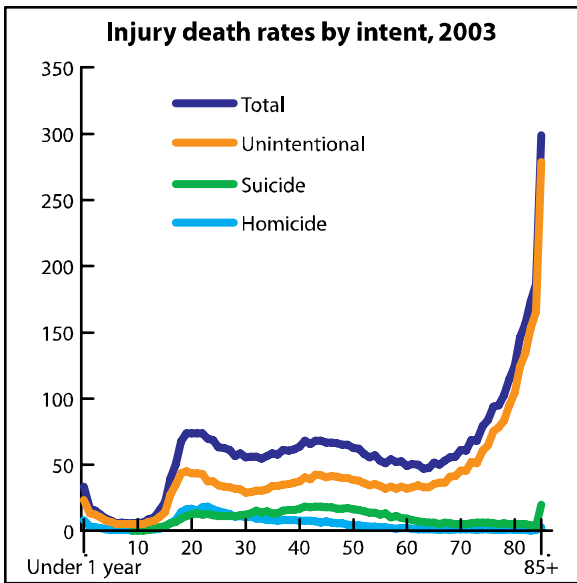
Traumatic brain injury	51,322 deaths
Fractures	17,706 deaths
Thorax	17,879 deaths

Nonfatal Injuries

Injuries leading to hospitalization are often described by the nature of the injury and the external cause, for example a fracture that resulted from a fall. NCHS obtains data on nonfatal injuries leading to inpatient and outpatient care in emergency departments, outpatient clinics and doctors' offices. Medically-attended injuries are also reported from NCHS' national household survey. Nearly 40 percent of self-reported episodes of injury occurred during sports or leisure activities and 44 percent occurred in or around the home.

	2002-2004 Average Annual	
	Hospitalizations for 1 st listed injury	ED initial visits
Fractures	1,028,600	3,443,000
Open wounds	94,000	5,756,000
Internal organ injuries	224,000	359,000
Superficial injuries and contusions	63,000	6,095,000
Sprains and strains	51,000	5,510,000

Data on the external cause of the injury are available for more than two-thirds of hospitalized injuries and for nearly all other nonfatal injuries. Where the external cause of injury is specified, falls are the leading cause of medically attended nonfatal injuries. Injuries due to motor vehicle traffic accidents, overexertion and strenuous movements, and striking against or being struck accidentally by objects also make up a large portion of injuries where a specific cause is listed.



Source: National Vital Statistics System.

International Collaborative Effort on Injury Statistics

The International Collaborative Effort (ICE) on Injury Statistics is one of several international activities sponsored by NCHS. The goal is to:

- provide a forum for international exchange and collaboration among injury researchers;
- develop and promote international standards in injury data collection and analysis; and
- produce the highest quality products to facilitate the comparability and improved quality of injury data.

Participants, projects and ICE-related publications can be found at: <http://www.cdc.gov/nchs/advice.htm>

Injury Data Sources

NCHS data systems are integral to collecting accurate and timely data on injuries and other health issues. Injury data highlight NCHS' ability and capacity to collect comprehensive data from its multiple survey systems. Data sets, documentation, presentations and publications related to injury can be downloaded from www.cdc.gov/nchs/injury.htm. Sources for injury data include:

- **National Health Care Survey** - a family of health care provider surveys, obtaining information about the facilities that supply health care, the services rendered, and the characteristics of the patients served. NHCS surveys hospitals, office-based physician practices, emergency and outpatient departments, ambulatory surgery centers, nursing homes, and home health and hospice agencies to learn about the characteristics of patients, their diagnoses, and the surgical and medical treatments provided. These surveys provide a picture of how the delivery system works, and provide an opportunity to learn about patients, their illnesses, and treatments. (<http://www.cdc.gov/nchs/nhcs.htm>)
- **National Health Interview Survey** - collects data on all medically attended injuries and poisonings occurring to any family member during the 3-month period prior to the interview. Information is available about the external cause and nature of the injury or poisoning episode, activity the person was doing at the time of the injury or poisoning episode, and the place of occurrence. Information is also obtained from the respondent describing how the person was injured or poisoned. Most of this information is available on injuries for data years beginning with 1997. <http://www.cdc.gov/nchs/nhis.htm>
- **National Vital Statistics System** - collects mortality information from death certificates in all 50 states and the District of Columbia, including characteristics of the decedent and underlying and contributing causes of death. (<http://www.cdc.gov/nchs/nvss.htm>)

Challenges and Future Opportunities

- Work with State vital statistics offices and physicians, medical examiners and coroners that certify the cause of death to improve the level of detail reported on death certificates on the circumstances of the injury. Encourage certifiers to utilize the space that has been provided in the new standard death certificate for the circumstances of injury death which includes a checkbox for transportation-related deaths.
- Through the International Collaborative Effort on Injury Statistics and the Mortality Reference Group, develop criteria for selecting a main injury among multiple injuries contributing to death. Selecting a main injury will allow for the calculation of the risk of dying as a result of a particular injury.
- Encourage states to mandate external cause of injury codes in all statewide hospital and emergency department data systems. Improved data will assist in development and implementation of prevention efforts.

For further information about NCHS and its programs, visit us at <http://www.cdc.gov/nchs>, or call the Office of Planning, Budget and Legislation at 301-458-4100.

For information on Injury resources, visit their website at <http://www.cdc.gov/nchs/injury.htm> or send email inquiries to NCHSINJURY@CDC.GOV.