

The Burden of Injury in Iowa

County Level
Data from 2009-2013



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Iowa Department of Public Health
Promoting and Protecting the Health of Iowans



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Burden of Injuries in the Counties of Iowa

Injuries are a major public health concern that affects all Iowans, regardless of age, race, gender, or size of county. However, the distribution of the cause, intent, and type of these injuries varies greatly throughout the 99 counties of Iowa, depending on their population demographics and other factors.

Injuries are preventable. Efforts can be made to reduce the burden of injuries, and those efforts will be most effective when they are tailored to the specific injury burden and the needs of the target population.

Accordingly, the Iowa Department of Public Health (IDPH) and the University of Iowa Injury Prevention Research Center (IPRC) have prepared this summary of the burden of injury in each county as a supplement to Iowa's first Statewide Burden of Injury Report (<http://idph.iowa.gov/disability-injury-violence-prevention/injury-prevention>).

How to use this county-level report:

This report provides information on the specific burden of injury in each county of Iowa in order to help communities, health practitioners and local policymakers develop strategies and policies to reduce injuries. The report could be useful in the following ways:

- Provide this report to the media to raise injury awareness both among journalists and the general public. Media outlets may be particularly receptive to such information after an injury has attracted media attention.
- Promote the need for injury prevention among policy makers (legislators, city counselors, Boards of health), community groups, and others.
- Encourage health care practitioners (e.g., nurse educators, pediatricians) to strengthen their injury prevention efforts
- Guide the planning and allocation of resources toward injury prevention efforts.
- As background information for injury prevention activities and grant applications

Sources and presentation of information:

Information on injury deaths and hospitalizations are presented in this report. Death data are based on death certificates from the Iowa Department of Public Health and the hospitalization data are from the Iowa Hospital Association hospital inpatient discharge data. In the county reports, death rates for the leading causes of injury are presented for each county with the state average and by gender. Hospitalization rates are presented by age group for the leading causes of injury.

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Technical notes on injury categories and methods:

The following injury categories were used for this report (all categories other than the last three are unintentional in nature):

- Road Traffic (Motor vehicle traffic)* – any vehicle incident occurring on a public highway, street, or road (i.e., originating on, terminating on, or involving a vehicle partially on the highway).
- Firearm *—a penetrating force injury resulting from a bullet or other projectile shot from a powder-charged gun. This category includes gunshot wounds from powder-charged handguns, shotguns, and rifles.
- Poisoning* – ingestion, inhalation, absorption through the skin, or injection of so much of a drug, toxin (biologic or non-biologic), or other chemical that a harmful effect results, such as drug overdoses.
- Fall* – an injury received when a person descends abruptly due to the force of gravity and strikes a surface at the same or lower level.
- Suffocation* – inhalation, aspiration, or ingestion of food or other object that blocks the airway or causes suffocation; accidental mechanical suffocation due to hanging, strangulation, or lack of air in a closed place, plastic bag or falling earth.
- Drowning* – suffocation (asphyxia) resulting from submersion in water or another liquid.
- Fire/Burn* – severe exposure to flames, heat, or chemicals that leads to tissue damage in the skin or deeper in the body.
- Cut/Pierce* – an injury resulting from an incision, slash, perforation, or puncture by a pointed or sharp instrument, weapon, or object.
- Struck by/Against* – an injury resulting from being struck by (hit) or crushed by a human, an animal, or an inanimate object or force other than a vehicle or machinery; injury caused by striking (hitting) against a human, animal, or inanimate object or force other than a vehicle or machinery.
- Machinery* – an injury that involves operating machinery, such as drill presses, forklifts, large power-saws, jack hammers, and commercial meat slicers.
- Other Pedal Cycle – an injury that involves riders of unicycles, bicycles, tricycles, mountain bikes, and other non-motorized pedal cycles (non-traffic).

- Other Pedestrian – an injury to a pedestrian from a collision, loss of control, crash, or some other event not involving road traffic.
- Other Transportation* – an injury to a person boarding, alighting, or riding in or on all other transport vehicles involved in a collision or other event with another vehicle, pedestrian, or animal not described in MVT. This category includes railway, water, air, space, animal and animal-drawn conveyances (e.g., horseback riding), ATVs, battery-powered carts, ski lifts, and other cable cars not on rails.
- Natural/Environmental *– an injury resulting from exposure to adverse natural and environmental conditions (such as severe heat, severe cold, lightning, sunstroke, large storms, and natural disasters) as well as lack of food or water.
- Overexertion* – working the body or a body part too hard, causing damage to muscle, tendon, ligament, cartilage, joint, or peripheral nerve (e.g., common cause of strains, sprains, and twisted ankles). This category includes overexertion from lifting, pushing, or pulling or from excessive force.
- Other Specified* – an injury that does not fit another category. Some examples include causes such as electric current, electrocution, explosive blast, fireworks, overexposure to radiation, welding flash burn, or animal scratch.
- Not Elsewhere Classified* – includes other environmental and accidental causes or late effects of other accidents.
- Not Specified – injuries with insufficient information to code.
- Suicide* – an injury or poisoning resulting from a deliberate violent act inflicted on oneself with the intent to take one's own life or harm oneself. This category also includes suicide attempts and other intentional self-harm.
- Homicide* – an injury from an act of violence where physical force by one or more persons is used with the intent of causing harm, injury, or death to another person; or an intentional poisoning by another person.
- Unknown Intent – injuries of all causes for which intent could not be determined.

*Definitions from Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control (NCIPC) **WISQARS**TM (Web-based Injury Statistics Query and Reporting System).

More information about the injury categorizations can be found by:

- Viewing the ICD-10 external cause coding that was used for the death data at:
http://www.cdc.gov/nchs/injury/injury_tools.htm/icd10_external.xls.
- Viewing the ICD-9 external cause coding that was used for the hospitalization data at: http://www.cdc.gov/nchs/injury/injury_tools.htm/icd9_external.xls
- The N values presented in these county-level reports are the total number of injuries over the 5 year reporting period (2009-2013).
- Rates are reported as the annual average per 100,000 population for 2009-2013 unless noted otherwise. Data for hospitalizations include only the first hospitalization for each injury.
- Only injury-related hospitalizations and deaths occurring inside the state of Iowa are included in this report. The fact that those events occurring to Iowans outside of Iowa are NOT included may particularly affect the data for counties near state borders.
- For confidentiality purposes, counts of injury events between 1 and 5 are indicated with <6, rather than the actual number, and only an estimated rate is given.
- The listed *causes* of injury in the county data (e.g., falls, firearms, suffocation, poisoning, etc) refer only to *unintentional* injuries, while all causes of suicides and homicides (i.e., *intentional* injuries) are included in the suicide or homicide category.
 - For example, in the county data, a suicide by poisoning is reported under the suicide category, while unintentional poisoning is reported under the poisoning category. In contrast, the state-level report lists causes that include all intents, so a suicide by poisoning will be reported under the poisoning indicator, as well as the suicide indicator. However, the state average death rates include only unintentional injuries for the various causes and are therefore comparable to the county-level data.