



The Burden of Injury in Iowa

EXECUTIVE SUMMARY

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



Executive Summary

Injuries are a major public health concern that affects the lives of all Iowans, regardless of age, race, gender, or size of county. Unintentional injuries are the leading cause of death for Iowans between the ages of 1 and 34, while suicides and/or homicides also rank among the top 5 leading causes of death for Iowans between the ages of 1 and 54.

Unintentional injury is the 5th leading cause of death for all Iowans, with over 1,500 injury deaths occurring on average each year (from 2002- 2006) in Iowa. Injuries also lead to more than 17,000 hospitalizations in Iowa each year and more than 250,000 emergency department (ED) visits. Further, untold numbers of Iowans do not seek medical care for many of the injuries they may incur. Because injuries are preventable, they lead to unnecessary medical costs, economic losses, reduced productivity, and immense physical and emotional strain.

Purpose of this report

This report, the first comprehensive examination of injury in Iowa, is intended to:

- present a clear picture of the burden of injuries in Iowa (from the years 2002 to 2006) in terms of mortality, morbidity, and causes;
- provide information to state and local policymakers, county health departments, health practitioners, hospitals, and civic groups to improve injury care and stimulate and strengthen injury prevention efforts;
- document Iowa's success in meeting the Healthy Iowans 2010 goals related to injury; and
- provide information on the injury indicators specified by the Centers for Disease Control and Prevention's National Center for Injury Prevention and Control (CDC/NCIPC).

To further these ends, a detailed report of injuries in each county of Iowa has also been developed and is referenced in this report.

Sources of information

The data presented in this report are based on death certificates from the Iowa Department of Public Health, the Iowa Hospital Association hospital inpatient (referred to as hospitalizations) and outpatient (referred to as ED visits) discharge data, and the Iowa trauma registry, including agricultural injuries.

Key findings (2002-2006)

- Over 1,500 injury-related deaths occurred on average each year (from 2002- 2006) in Iowa – 6% of all deaths in Iowa. In addition, injuries led to more than 17,000 hospitalizations and more than 250,000 ED visits each year in Iowa.
- Unintentional injuries were the leading cause of death for Iowans between the ages of 1 and 34 and the 5th leading cause of death for all Iowans.

- While motor vehicle traffic deaths were the leading cause of injury death for Iowans aged 1-34 and 55-64, suicide was the leading cause of injury death among Iowans aged 35-54, and falls were the leading cause of injury death for people over 64 years of age.
- Suicides are the third leading cause of injury death after motor vehicle traffic and falls in Iowa; the rate of suicide (11.1/100,000) in Iowa is higher than the national average of 10.9/100,000.
- 73 percent of injury deaths in Iowa (2002-2006) are classified as unintentional, with 21 percent as suicide and four percent as homicide.
- Firearms (50%), suffocation (27%) and poisonings (20%) are the leading causes of suicide death in Iowa; however, the exact percentage of these different causes varies greatly by county size and age of victim.
- Firearms (52%), cut/pierce (15%) and suffocation (7%) are the leading causes of homicide death in Iowa. Firearms (average of 28 cases per year) are three times as likely to be the cause of homicide in Iowa as cut/pierce (average of 8 cases per year).
- Homicide rates in Iowa (1.9/100,000) are lower than the national average (5.9/100,000), but are still the second leading cause of injury death for children under age 5 and in the top four causes of injury death in teens and young adults aged 15-44.
- Injury death rates increase with age, with rates by far the highest in seniors (85+).
- For every female who dies due to injuries in Iowa, two males will die due to injuries, regardless of age group.
- Injuries have the greatest impact in the smallest counties in Iowa (<10,000 population), which had the highest injury death rate (67/100,000 people) vs. the injury death rate (45/100,000) in counties with over 50,000 population.
- On average from 2002 to 2006, Iowans whose deaths were related to injuries lost 22 years of potential life.
- On average, injury hospitalizations represent five percent of all hospitalizations. Injury hospitalization rates increase with age and rates are by far the highest in seniors (85+), particularly women.
- Blacks in Iowa are three times more likely to be hospitalized for injury than whites and two times more likely to go to the ED for an injury than whites.
- Overall injury charges from hospitals, for inpatient and outpatient services, amounted to a 5-year average of \$300 million per year, which still underestimates the real cost of injury to the State of Iowa.
- Firearm-related injuries have the highest medical charges of any monitored indicator followed by motor vehicle traffic injuries. Charges for firearm injuries were \$16,000 per hospitalization and \$1,850 per ED visit, and charges for motor vehicle traffic injury were \$13,000 per hospitalization and \$775 per ED visit.
- Rates for ED visits due to injuries are greatest among the youth and the elderly. Overall, one in five ED visits in Iowa is due to injury.
- Injuries from falls have the highest rate of hospitalizations and ED visits of the monitored indicators.

Key conclusions

- Continued and strengthened collection of data is vital to monitor trends in injuries in Iowa and to assess the effectiveness and impact of injury prevention strategies.
 - o Health care providers must be encouraged to completely and accurately code and report all injuries so that a clearer picture of the burden of injury in Iowa is available, which in turn enables improved prevention efforts.
 - o The IDPH needs to create and support both an internal work group and an external advisory committee to support the establishment of an injury and violence prevention program and raise the visibility and importance of injury and violence prevention within state government. The creation of a subcommittee connected to TSAC is a good step in that direction.
 - o In the summer of 2004, the IDPH director recognized the fragmentation and the silos *modus operandi* of the public health system. He commissioned a work group to make recommendations for redesigning public health in the state to limit inconsistent service delivery. As a first step, the workgroup developed standards for local and state officials, including injury prevention as a separate focus area.
- Injury prevention efforts can be targeted to those groups with the greatest risk by using the data presented in this report. Evidence-based injury prevention activities are very likely to reduce the burden of injury and be cost-effective.
- Iowa has exceeded many of the goals established for injuries by the Healthy Iowans 2010 initiative; however, much work is still needed to continue to reduce the burden of injury in Iowa. These efforts include:
 - o The use of public education, legislative/policy, and technological strategies to reduce the number of injuries and injury deaths in Iowa.
 - o Promoting prevention programs that use a combination of strategies, such as an ecological model targeting individual, relationship, organizational, and community levels of intervention. These are proven to be more effective.

Injury is a major cause of death in Iowa

Injuries are a major public health concern in Iowa due to the large number of Iowans affected by them. Like the entire U.S., unintentional injuries are the fifth leading cause of all death for Iowans of all ages and are also the leading cause of death for Iowans from 1 to 34 years of age.

Table 1: Five leading causes of ALL deaths in Iowa by age groups and total # of deaths, 2002-2005

Source: CDC Web-based Injury Statistics Query and Reporting System (WISQARS- www.cdc.gov/ncipc/wisqars/)

Rank	<1	1 to 4	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 +	All Ages
1	Congenital Anomalies- 210	Unintentional Injury- 55	Unintentional Injury- 133	Unintentional Injury- 545	Unintentional Injury- 353	Malignant Neoplasms- 518	Malignant Neoplasms- 1,913	Malignant Neoplasms- 3,837	Malignant Neoplasms- 6,297	Heart Disease- 8,931	Heart Disease- 13,474	Heart Disease- 30,757
2	Short Gestation- 100	Congenital Anomalies- 15	Malignant Neoplasms- 47	Suicide- 219	Suicide- 214	Heart Disease- 475	Heart Disease- 1,348	Heart Disease- 2,331	Heart Disease- 4,044	Malignant Neoplasms- 8,168	Malignant Neoplasms- 4,728	Malignant Neoplasms- 25,735
3	SIDS- 99	Homicide- 13	Congenital Anomalies- 16	Malignant Neoplasms- 66	Malignant Neoplasms- 143	Unintentional Injury- 439	Unintentional Injury- 532	Chronic Low. Respiratory Disease- 529	Chronic Low. Respiratory Disease- 1,418	Chronic Low. Respiratory Disease- 2,584	Cerebrovascular- 4,191	Cerebrovascular- 8,169
4	Maternal Pregnancy Comp.- 65	Malignant Neoplasms- 12	Heart Disease- 15	Homicide- 46	Heart Disease- 89	Suicide- 269	Suicide- 295	Unintentional Injury- 353	Cerebrovascular- 836	Cerebrovascular- 2,562	Alzheimer's Disease- 2,511	Chronic Low. Respiratory Disease- 6,504
5	Placenta Cord Membranes- 41	Heart Disease- 5	Suicide- 9	Heart Disease- 36	Homicide- 39	Liver Disease- 70	Liver Disease- 195	Diabetes Mellitus- 320	Diabetes Mellitus- 519	Alzheimer's Disease- 1,122	Influenza & Pneumonia- 2,291	Unintentional Injury- 4,567

- Unintentional injuries are the 3rd leading cause of death for 35- to 54-year olds in Iowa, after cancer and heart disease.
- Suicide is the 10th leading cause of all deaths in Iowa (2005), while it ranked 11th in all the US (2005).
- Suicide is the 2nd leading cause of all deaths for 15- to 34-year olds in Iowa, the 4th leading cause for Iowans aged 35 to 54, and the 5th leading cause for Iowans aged 5 to 14. Suicide deaths rank slightly higher in Iowa than in the rest of the U.S. in most age categories.
- Homicide ranks lower among causes of death in Iowans, particularly among 5- to 34-year olds, than the US average¹.
- Despite the large number of deaths due to injuries, most injuries are not fatal. However, they are still devastating as described later in this report.

¹ All comparisons to national data on this page are from CDC WISQARS (2002-2005)

Motor vehicle crashes are the leading cause of injury death in Iowa

Motor vehicle traffic deaths are the leading cause of injury-related deaths for all ages of Iowans, followed by falls. These and other leading causes of injury death vary by age group.

Table 2: Five leading causes of INJURY deaths in Iowa by age groups and total # of deaths, 2002-2005

Rank	<1	1 to 4	5 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	>85	All Ages
1	Suffocation - 12	MV Traffic - 20	MV Traffic - 73	MV Traffic - 422	MV Traffic - 203	Suicide - 244	Suicide - 271	MV Traffic - 153	Falls - 122	Falls - 342	Falls - 618	MV Traffic - 1,688
2	Homicide - 7	Homicide - 12	Fire/burn - 10	Suicide - 212	Suicide - 202	MV Traffic - 209	MV Traffic - 246	Suicide - 132	MV Traffic - 169	MV Traffic - 169	Unspecified - 183	Falls - 1,255
3	Drowning - 5	Drowning - 10	Drowning - 9	Homicide - 41	Unintentional Poisoning - 53	Unintentional Poisoning - 53	Unintentional Poisoning - 83	Falls - 63	Suicide - 64	Unspecified - 69	MV Traffic - 85	Suicide - 1,252
4	MV Traffic - 4	Fire/burn - 8	Suicide - 9	Unintentional Poisoning - 36	Homicide - 24	Homicide - 25	Falls - 54	Unintentional Poisoning - 21	Suffocation - 30	Suffocation - 66	Suffocation - 67	Unintentional Poisoning - 322
5	Unspecified - 2	Pedestrian, Non-MVT - 4	Pedestrian, Non-MVT - 7	Drowning - 31	Falls - 14	Falls - 25	Suffocation - 25	Suffocation - 18	Adverse Effects - 26	Suicide - 61	Adverse Effects - 32	Suffocation - 249

Source: CDC Web-based Injury Statistics Query and Reporting System (WISQARS- www.cdc.gov/ncipc/wisqars/)

- Motor vehicle traffic trauma is the leading cause of injury death for Iowans from the age of 1-34 and 55-64, while falls are the leading cause for injury death for Iowans ages 65 and over, the same as in the entire U.S.².
- Suicide is the leading cause of injury death among 35- to 54-year olds, which accounts for 41% of the total suicides in Iowa.
- Homicides are in the top five causes of injury death in Iowa only in children under 5 and in young adults (15-44 years), while homicides are in the top five causes of injury deaths in the entire U.S. for all age groups under the age of 45.

Note that the numbers listed in this table were calculated slightly differently than those in the previous table, so some small differences may exist.

² All comparisons to national data on this page are from CDC WISQARS (2002-2005).