

Executive Summary

The prevention of injuries is a major public health priority in Nebraska and the U.S., as injury is the leading cause of death for individuals 1-34 years of age (*Injury in Nebraska, 2005*). Community-based injury prevention programs have proven to be an effective and acceptable way to reduce the burden of injury experienced by individuals, families and communities.

As a supplement to the report, *Injury in Nebraska, 2005*, the Nebraska Department of Health and Human Services Injury Surveillance and Prevention Program Work Team has produced this report to assist local/district health departments (see map1 in page iv for locations) in assessing community health, establishing baselines, monitoring changes and evaluating the effectiveness of injury-related programs in their communities. This report provides available local injury information to public health officials, policy makers, and other interested individuals. It indicates the gap between the current status and the Nebraska 2010 Health Goals and Objectives, for each of the local health department coverage areas in Nebraska. This report can be used to identify regional differences across the state. In addition, it can be used to answer a multitude of questions regarding the prevention of injuries, as well as contributing to the generation of follow-up questions.

This is the first report of its kind. In order to remain consistent with DHHS priorities, this report will be updated on a regular basis as the Work Team continues to provide local health departments with reliable and accurate information to support their prevention efforts.

This report utilized five years' worth of death certificate and hospital discharge data in order to provide a better assessment and to more accurately reflect the status and impact of injury within a given community. The leading external causes of injury death and hospital discharges were selected to support the aforementioned purpose. These causes include all injuries, unintentional injuries, motor vehicle crashes, falls, suicides, and homicides. Struck by/against and cut/pierce injuries were included in hospital discharges only.

As this report demonstrates, the patterns of non-fatal injury (hospital discharge) and fatal injury (death) are different. While motor vehicle crashes are the leading cause of injury death, falls are the leading cause of injury hospital discharges. It is therefore important to consider both injury and injury death when conducting health status and impact assessments.

In general, there were only slight differences in patterns between the individual health department coverage areas and the state as a whole for the leading cause of injury and injury death by age and gender.

- Injury deaths accounted for approximately 6% of total deaths, while more than half of the deaths among children and young adults were due to injury. Injury was the leading cause of potential years of life lost, largely due to the substantial number of premature deaths among children and young adults.
- The injury death rate varied with age. It was highest for individuals 85 years and older. Children ages 5-14 had the lowest injury death rate. The next age group, 15-24 year-olds, had a relatively high injury death rate. Motor vehicle crashes were the leading cause of injury death for individuals in this age group. Suicide was the leading cause of injury death for the 35-64 year age range, and falls were the leading cause of injury death for individuals 75 years and older.
- In contrast, children and young adults had higher injury hospital discharge rates. Older adults had the highest rates. Falls were the leading cause of injury hospital discharges for nearly all age ranges except ages 10-24, for which the leading cause was "struck by/against".
- The injury death rate also varied by gender. Males were more likely than females to die from unintentional injuries, suicide, and homicide. In contrast, females had higher discharge rates than males for falls and motor vehicle crash injuries.

The data showed great variations among the local health department coverage areas. In general, counties with large populations such as Douglas, Sarpy/Cass, and Lancaster tended to have lower death rates due to injuries, unintentional injuries, and motor vehicle crash injuries. However, they did have higher suicide rates. Douglas County had the highest homicide rate. Lancaster County had the second highest fall injury death rate.

Southwest Nebraska Public Health Department topped the group in overall injury death rate, motor vehicle crash death rate, and suicide rate. Dakota County had the lowest injury death rate, unintentional injury death rate, and motor vehicle crash death rate.

- Injury death rates ranged from 71.1 (Southwest Nebraska Public Health Department) to 32.4 (Dakota County) per 100,000 population.
- Unintentional injury death rates ranged from 52.3 (Public Health Solutions Health Department) to 10.6 (Dakota County).
- Motor vehicle crash death rates ranged from 25.2 (Southwest Nebraska Public Health Department) to 4.8 (Dakota County).
- Fall injury death rates ranged from 9.6 (Southeast District Health Department) to 2.0 (Northeast Nebraska Public Health Department).
- Suicide rates ranged from 17.3 (Southwest Nebraska Public Health Department) to 6.4 (Northeast Nebraska Public Health Department).
- Homicide rates ranged from 6.5 (Douglas County) to 1.2 (Sarpy/Cass County).

In contrast to injury deaths, injury hospital discharge rates demonstrated different patterns among the twenty local/district health department coverage areas.

- Three Rivers Public Health Department led in the overall injury hospital discharge rate, largely because it had the highest unintentional injury and fall injury discharge rates and the second highest “struck by/against” and “cut/pierce” injury discharge rates.
- Elkhorn Logan Valley Public Health Department had the highest motor vehicle crash injury discharge rate.
- Southwest Nebraska Public Health Department had the highest injury discharge rate due to suicide attempts.
- West Central District Health Department had the highest assault injury discharge rate.
- Dakota County consistently had the lowest injury discharge rates in all categories.
- South Heartland District Health Department had the second lowest overall injury, unintentional injury, suicide attempt, and assault injury discharge rates.

Recommendations for data quality improvement

Although great effort has been made to ensure the accuracy of the data and the interpretation of the data, errors may exist. In general, errors are due to the under-reporting of events, misclassification of data, and processing problems. For example, residents from Nebraska counties which neighbor other states including Colorado, South Dakota, Iowa, and Kansas, may seek out-of-state medical treatment. Because of this, their medical records would not be included in the Nebraska Hospital Discharge data, resulting in under-reporting.

Complete and accurate data is essential for any surveillance system. Injury data is critical in order to conduct injury status and impact assessments, and to design effective prevention programs in communities. The following recommendations are provided specifically to improve the quality of Nebraska injury data: Nebraska has a law requiring hospitals to report external causes of injury information (the E-code law) (Nebraska Rev. Stat. Section 71-2082). It is important that hospitals throughout Nebraska submit all injury records to Nebraska Hospital Association in order to ensure that the injury hospital discharge database is complete.

This report can be used to:

- Educate hospital personnel on how injury data is being used. Local health departments can use this data to educate physicians and medical record personnel within their communities on how the data is being utilized to develop, implement, and evaluate injury prevention programs.
- Perform data quality assessments within each hospital on a regular basis (Hospital Injury Data Reporting Card), and compare these results with the Nebraska Hospital Survey. The reporting card would then be sent to local health departments and health care providers.
- DHHS should establish cooperative agreements with surrounding states whose hospitals treat Nebraskans for injuries. These agreements would ensure that all Nebraskans, injured and then treated in hospitals outside the state of Nebraska, would be represented in the injury database.

Map1 Locations of Local/District Health Departments in Nebraska

