Methods

Data source:
Nebraska hospital discharge data (1999-2003) and death certificate data (1999-2003) was used for this report.

The death certificates classify injuries by external cause of death. The data included information on a variety of attributes of the deceased, including age, gender, race, ethnicity, place of residence, and primary and secondary causes of deaths. The death certificate data was coded based on ICD-10 (International Classification of Diseases-10th Revision). Case selection was based on residents in a given region who died or were treated due to injuries in acute care hospitals in Nebraska.

The 1999-2003 hospital discharge data (HDD) was provided by Nebraska acute care hospitals to Nebraska Hospital Association (NHA) using the 1992 Uniform Billing form (UB-92). The records for each discharge contain information on the date of admission, date of discharge, patient's age and gender, county of residence, and primary and secondary diagnosis codes, as well as a dedicated field for an E-code. An E-Code specifies the external cause of injury *(*Appendix A*)*. The E-code data, a subset of HDD - containing injury-related records, was provided to the Nebraska Department of Health and Human Services (DHHS) by NHA. For this report, an injury record is defined as the record of a Nebraska resident who was treated for an injury in a Nebraska acute care hospital. Diagnosis codes are used to describe the type of injury, such as a broken arm. Both injuries and their external cause are classified according to the 9th Revision of the International Classification of Diseases, Clinical Modification (ICD-9-CM). Discharge records in the E-code database are identified as inpatient, outpatient-ER (emergency room), and outpatient non-ER. Outpatient-ER accounted for an average of 69.3% of all injury-related visits made to the hospital for each year from 1999 – 2003.

A limitation of the hospital discharge data is that it is record-based; therefore, one patient may be counted more than once if discharged for the same injury more than once. The rates displayed in this report reflect the number of discharge records, rather than the number of patients discharged.

Analysis:
Data was prepared and analyzed based on the Instructions for Calculating National Public Health Surveillance System Indicators Using 1999 Data. Data analysis steps, as described in the State and Territorial Injury Prevention Director's Association (STIPDA) Consensus Recommendations[2] document, were used to analyze the hospital discharge data.

Injuries were grouped according to the Centers for Disease Prevention and Control Injury Grouping Matrix *(Appendix Table 1)*. The leading causes of injury death and injury hospital discharge are addressed in this report. These include falls, motor vehicle crashes, suffocation, struck by/against, cutting/piercing, overexertion, poisoning, drowning, suicide, and homicide.

All of the analyses presented in this report are based on the deaths and hospital discharges of Nebraska residents. Nebraska residents who died outside the state of Nebraska or were treated at out-of-state hospitals are not included. Thus, rates may be underestimated if Nebraskans died or were treated in other states.

In the analyses, multiple-year averages are frequently used. Due to the fact that numbers and rates for any given year might be small for a particular age or race, annual averages provide better estimates of the "typical" value by reducing the effects of fluctuations from year to year for groups with small numbers of events.

If the number of deaths due to a specific injury cause was less than five, percentages and numbers were used instead of age-adjusted rates.

The frequency and percentage of deaths and discharges are provided in the tables. Low rates were not calculated in many cases, due to the fact that low counts, when stratified by county, did not warrant rate computations.

The five leading causes of deaths and hospital discharges were selected to be analyzed for each local health department coverage area.