

# Injury Reports for Nebraska Local/District Public Health Departments



February 2008

Injury is a major public health concern in the United States and Nebraska is not an exception. Injury is the fourth leading cause of death for Nebraskans. Each year, nearly 900 Nebraskans die and more than 145,000 seek treatment at a hospital because of injuries.

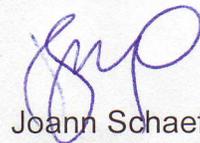
Reducing the burden of injury is a priority for the Nebraska Department of Health and Human Services. For this to happen, it is essential to develop and implement community based prevention and intervention strategies driven by local injury data.

The Nebraska Department of Health and Human Services Injury Prevention and Surveillance Work Team has produced the report, "Local/District Health Department Injury Report". This report is a supplement to "Injury in Nebraska", a statewide report, which was published in 2005. The purpose of this report is to provide data to the local/district health departments to assist them in setting priorities, planning their prevention programs, monitoring changes, and evaluating impact.

The Nebraska Department of Health and Human Services is committed to continuing to provide reliable and accurate data on a regular basis.

Injuries are preventable—they do not occur at random. The NDHHS Injury Prevention Program will continue to identify strategies and partners, including the local/district health departments, in order to work together to prevent injuries and keep Nebraskans healthy and safe.

Sincerely,



Joann Schaefer, M.D.  
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Director, Division of Public Health  
Department of Health and Human Services

# Injury Reports for Nebraska Local/District Public Health Departments

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The photos used on the cover page are from the following sources: Buffalo photo, Rick Hamilton; Memorial Stadium, Wikipedia; Omaha Skyline, Wikipedia; Chimney Rock, State Historical Society webpage photo; and the Omaha and Lincoln downtown scenes, city website pages.

## 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**

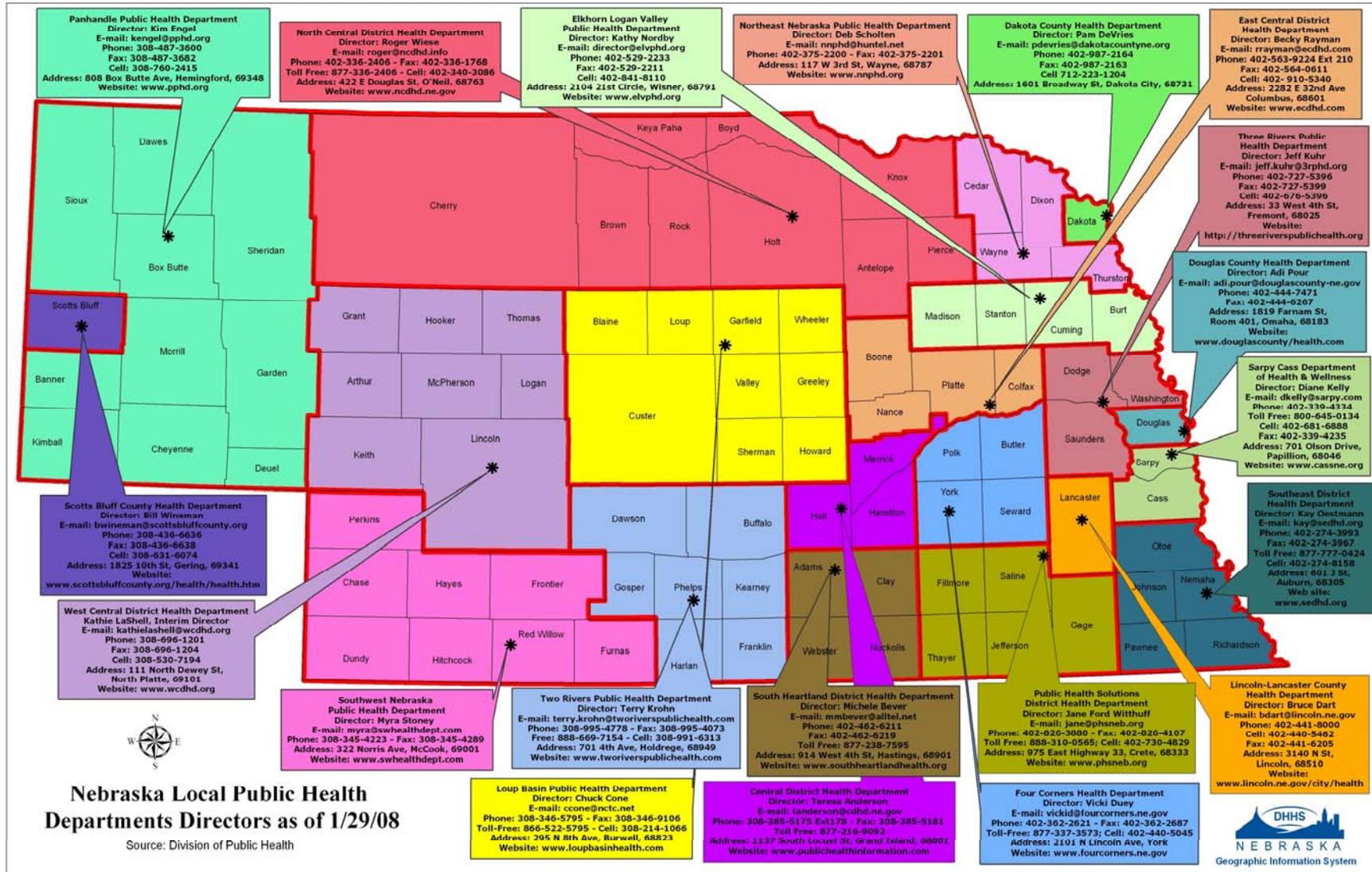
Although great effort has been made to ensure the accuracy of the data and the interpretation of the data, errors may exist. In general, errors are due to the under-reporting of events, misclassification of data, and processing problems. For example, residents from Nebraska counties which neighbor other 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



## Introduction

Injury is a major public health concern in the state of Nebraska and in the United States. It is the fourth leading cause of death for Nebraskans, resulting in nearly 900 deaths and more than 145,000 hospital discharges each year.

Injury can happen to anyone. In order to achieve the Nebraska 2010 Health Goals and Objectives, community-based programs are essential. They play a critical role in the reduction and prevention of injuries, and assist in keeping Nebraskans safe.

Local health departments throughout the state have been developing their regional health strategies and plans with financial and technical assistance from the Nebraska Department of Health and Human Services. This report serves as a supplement to the *Injury in Nebraska* report, which the Nebraska Injury Surveillance and Prevention Work Group prepared in December 2005. This report provides available local injury information based on multiple years of hospital discharge and death certificate data. The purpose of this report is to assist the local health departments in establishing baseline information, setting up health priorities, designing and implementing countermeasures, monitoring changes, and evaluating the effectiveness of injury prevention efforts within their communities. In addition, this report is useful for policymakers, students and individuals with an interest in injury-specific information.

The use of both death certificate and hospital discharge data most accurately reflects the status and impact of injury within a given community, due to the fact that death is a small proportion of all severe injuries and the patterns of death and non-fatal injury are often different. Using multiple years' data provides relatively stabilized statistics and minimizes the fluctuations commonly found in single-year reporting.

Within this report, the first component is the comparison of injury death rates and injury hospital discharge rates by leading cause, age and gender across department coverage areas. This is followed by individual injury reports for each of the 20 health departments, including detailed information on injury death and injury hospital discharge rates by leading cause and by age and gender.

## 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-10<sup>th</sup> 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 9<sup>th</sup> 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<sup>2</sup> 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.

## Results

### Injury Deaths

#### **Overall**

Injuries overall, including unintentional, intentional, and undetermined intent injuries, were the fourth leading cause of death for all ages combined in Nebraska from 1999-2003. The age-adjusted all injury death rate in Nebraska was 48.9 per 100,000 population (n=4,336). However, the rate for the local health department coverage areas showed great variation, ranging from 32.4 per 100,000 population in Dakota County to 71.1 per 100,000 population in the Southwest Public Health Department coverage area. The Southwest Nebraska Public Health Department coverage area had the highest rate (71.1 per 100,000, n=137), followed by the Public Health Solutions coverage area (68.9 per 100,000, n=231), the West Central District Health Department coverage area (64.7 per 100,000, n=159), the Panhandle Public Health Department coverage area (63.9 per 100,000, n=180), the Southeast District Health Department coverage area (60.4 per 100,000, n=145), and the Loup Basin Public Health Department coverage area (60.1 per 100,000, n=119). Dakota County had the lowest injury death rate (32.4 per 100,000, n=29) (*Table D1, and Figure D1*).

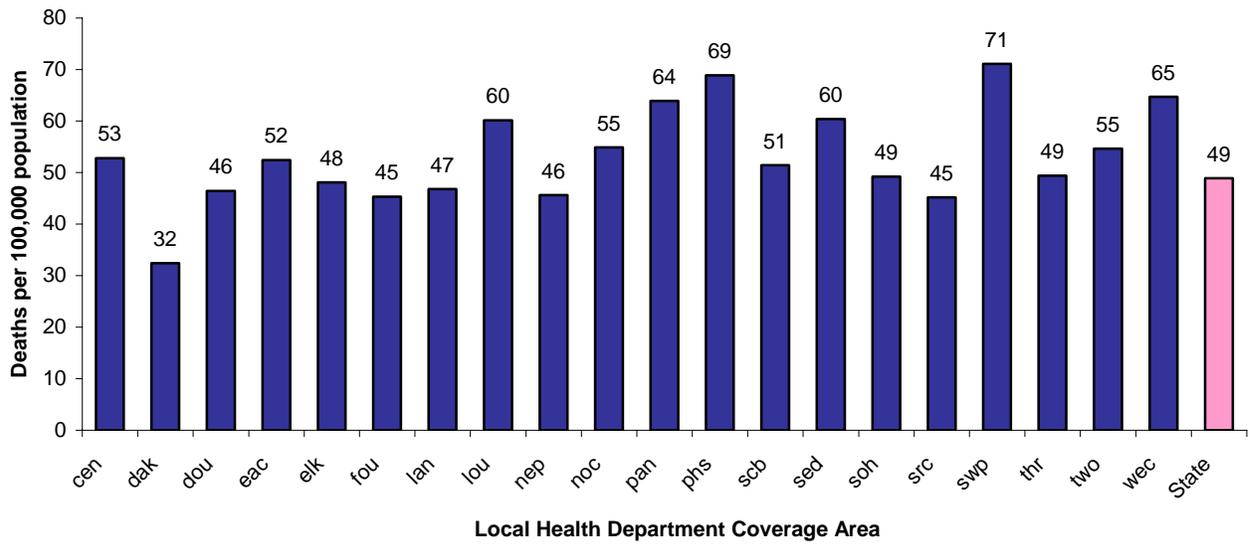
**Table D1: Age-adjusted injury death rates by local health department coverage area, Nebraska, 1999-2003**

<b>Rank</b>	<b>Local Health Department Coverage Area</b>	<b>Abbreviation</b>	<b>Number of Deaths</b>	<b>Age-adjusted Rate</b>
1	Southwest Nebraska Public HD	Swp	137	71.1
2	Public Health Solutions	Phs	231	68.9
3	West Central District HD	Wec	159	64.7
4	Panhandle Public HD	Pan	180	63.9
5	Southeast District HD	Sed	145	60.4
6	Loup Basin Public HD	Lou	119	60.1
7	North Central District HD	Noc	158	54.9
8	Two Rivers Public HD	Two	272	54.6
9	Central District HD	Cen	195	52.8
10	East Central District HD	Eac	139	52.4
11	Scottsbluff County HD	Scb	101	51.4
12	Three Rivers Public HD	Thr	199	49.4
13	South Heartland District HD	Soh	131	49.2
14	Elkhorn Logan Valley Public HD	Elk	158	48.1
15	Lincoln/Lancaster HD	Lan	568	46.8
16	Douglas County HD	Dou	1041	46.4
17	Northeast Nebraska Public HD	Nep	76	45.6
18	Four Corners HD	Fou	122	45.3
19	Sarpy/Cass DHW	Src	269	45.2
20	Dakota County HD	Dak	29	32.4
	<b>State</b>	<b>State</b>	<b>4,336</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure D1: Age-adjusted injury death rates by local health department coverage area, Nebraska, 1999-2003**



Source: DHHS Death Certificate Data

### Unintentional Injury

Unintentional injury was the fifth leading cause of death for all ages combined in both the U.S. (1999-2002) and Nebraska (1999-2003). The age-adjusted unintentional injury death rate for Nebraska was 33.3 per 100,000 (n=3,020) from 1999-2003. The age-adjusted death rate for unintentional injury varied by local health department coverage area, and ranged from 10.6 to 52.3 per 100,000 population. Among all of the health department coverage areas, Public Health Solutions had the highest rate (52.3 per 100,000, n=130), followed by the Loup Basin Public Health Department (48.5 per 100,000, n=98), the Southwest Nebraska Public Health Department (48.1 per 100,000 n=101), the Southeast District Health Department (45.4 per 100,000, n=115) and Panhandle Public Health Department (44.8 per 100,000, n=130). Dakota County had the lowest unintentional injury death rate (10.6 per 100,000, n=10) (Table D2 & Figure D2).

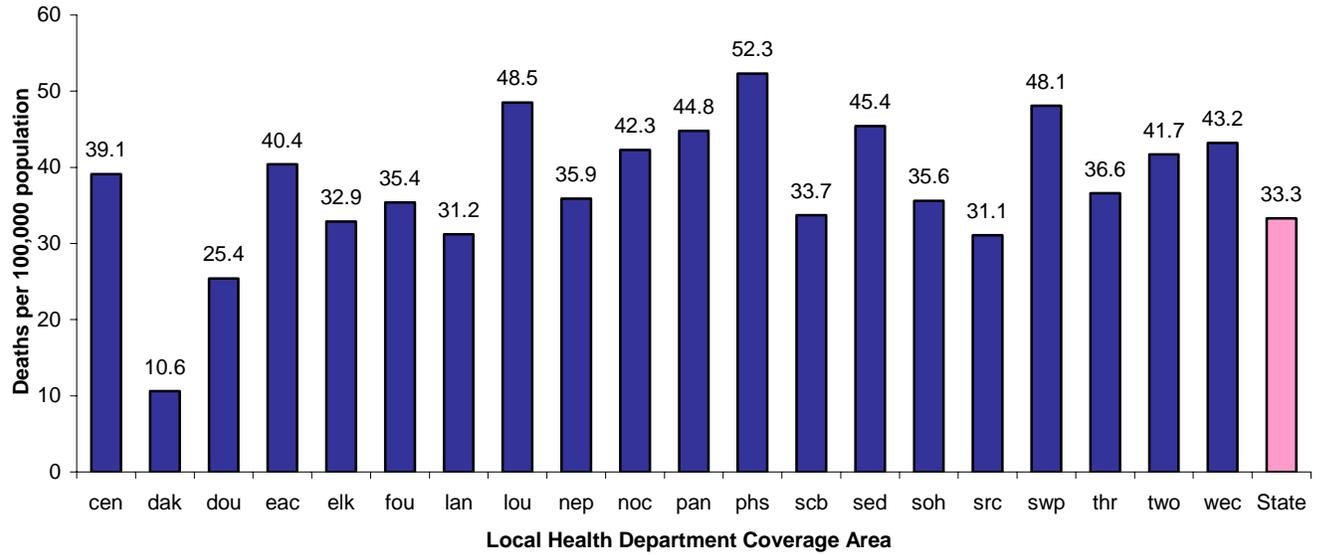
**Table D2: Age-adjusted unintentional injury death rates by local health department coverage area, Nebraska, 1999-2003**

Rank	Local Health Department Coverage Area	Abbreviation	Number of Deaths	Age-adjusted Rate
1	Public Health Solutions	phs	181	52.3
2	Loup Basin Public HD	lou	98	48.5
3	Southwest Nebraska Public HD	swp	101	48.1
4	Southeast District HD	sed	115	45.4
5	Panhandle Public HD	pan	130	44.8
6	West Central District HD	wec	107	43.2
7	North Central District HD	noc	125	42.3
8	Two Rivers Public HD	two	211	41.7
9	East Central District HD	eac	108	40.4
10	Central District HD	cen	146	39.1
11	Three Rivers Public HD	thr	149	36.6
12	Northeast Nebraska Public HD	nep	61	35.9
13	South Heartland District HD	soh	97	35.6
14	Four Corners HD	fou	97	35.4
15	Scottsbluff County HD	scb	69	33.7
16	Elkhorn Logan Valley Public HD	elk	113	32.9
17	Lincoln/Lancaster HD	lan	374	31.2
18	Sarpy/Cass DHW	src	177	31.1
19	Douglas County HD	dou	551	25.4
20	Dakota County HD	dak	10	10.6
	State	State	3,020	33.3

Source: DHHS Death Certificate Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure D2: Age-adjusted unintentional injury death rates by local health department coverage area, Nebraska, 1999-2003**



Source: DHHS Death Certificate Data

### Motor Vehicle Crashes

Motor vehicle crashes were the leading cause of unintentional injury death in Nebraska from 1999-2003, with an age-adjusted death rate of 13.6 per 100,000 (n=1,191). The age-adjusted death rate varied by health department coverage area, ranging from 4.8 to 25.3 per 100,000 population. Among all health department coverage areas, the Southwest Nebraska Public Health Department had the highest death rate (25.2 per 100,000 n=44), which was nearly twice as high as the state rate. Public Health Solutions ranked second with a death rate of 24.5 per 100,000 population (n=39), followed by the Panhandle Public Health Department (24.3 per 100,000, n=64), the Loup Basin Public Health Department (24.3 per 100,000, n=41), the North Central District Health Department (22.8 per 100,000, n=59), the Southeast District Health Department (20.9 per 100,000, n=41), and the East Central District Health Department (20.5 per 100,000, n=51). Dakota County had the lowest death rate (4.8 per 100,000, n=5) (Table D3 & Figure D3).

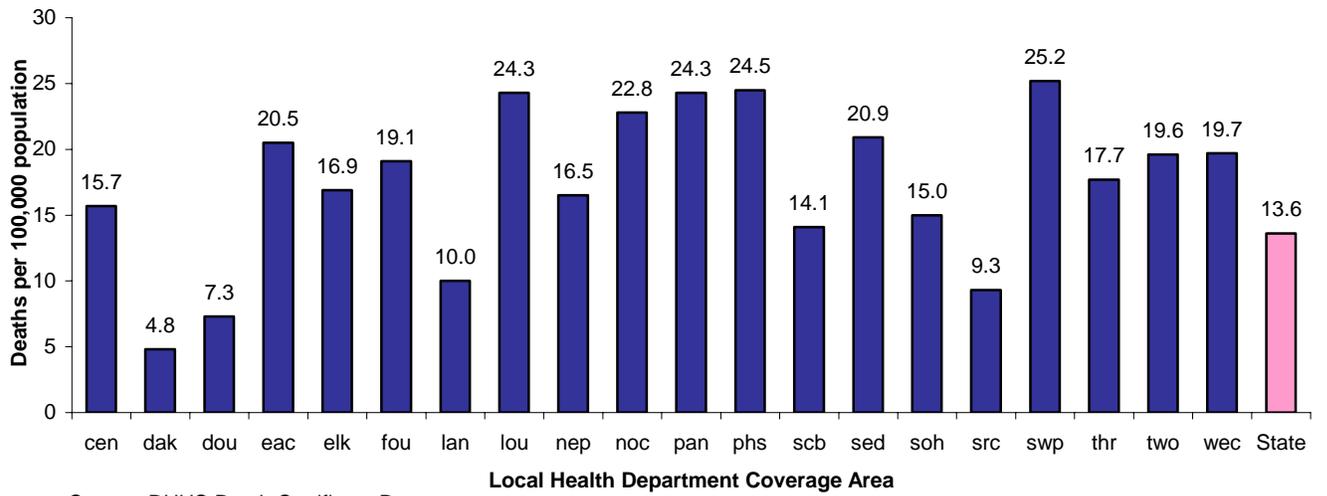
**Table D3: Age-adjusted death rates due to motor vehicle crash by local health department coverage area, Nebraska, 1999-2003**

Rank	Local Health Department Coverage area	Abbreviation	Number of Deaths	Age-adjusted Rate
1	Southwest Nebraska Public HD	swp	44	25.2
2	Public Health Solutions	phs	74	24.5
3	Loup Basin Public HD	lou	41	24.3
4	Panhandle Public HD	pan	64	24.3
5	North Central District HD	noc	59	22.8
6	Southeast District HD	sed	41	20.9
7	East Central District HD	eac	51	20.5
8	West Central District HD	wec	45	19.7
9	Two Rivers Public HD	two	93	19.6
10	Four Corners HD	fou	43	19.1
11	Three Rivers Public HD	thr	66	17.7
12	Elkhorn Logan Valley Public HD	elk	52	16.9
13	Northeast Nebraska Public HD	nep	28	16.5
14	Central District HD	cen	55	15.7
15	South Heartland District HD	soh	36	15.0
16	Scottsbluff County HD	scb	25	14.1
17	Lincoln/Lancaster HD	lan	133	10.0
18	Sarpy/Cass DHW	src	69	9.3
19	Douglas County HD	dou	167	7.3
20	Dakota County HD	dak	5	4.8
	State	State	1,191	13.6

Source: DHHS Death Certificate Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure D3: Age-adjusted death rates due to motor vehicle crashes by local health department coverage area, Nebraska, 1999-2003**



Source: DHHS Death Certificate Data

## Falls

Falls were the second leading cause of unintentional injury death in Nebraska from 1999-2003, with an age-adjusted death rate of 7.0 per 100,000 (n=680). The age-adjusted death rate varied by health department coverage area, ranging from 2.0 to 9.6 per 100,000 population. Among all health department coverage areas, the Southeast District Health Department had the highest rate (9.6 per 100,000, n=35), followed by the Lincoln/Lancaster Health Department (8.8 per 100,000, n=93), the Sarpy/Cass Department of Health and Wellness (8.8 per 100,000, n=37), the Southwest Nebraska Public Health Department (8.8 per 100,000, n=28), and Public Health Solutions (8.6 per 100,000, n=38). The Northeast Nebraska Public Health Department had the lowest rate (2.0 per 100,000, n=5) (Table D4 & Figure D4).

**Table D4: Age-adjusted death rates due to falls by local health department coverage area, Nebraska, 1999-2003**

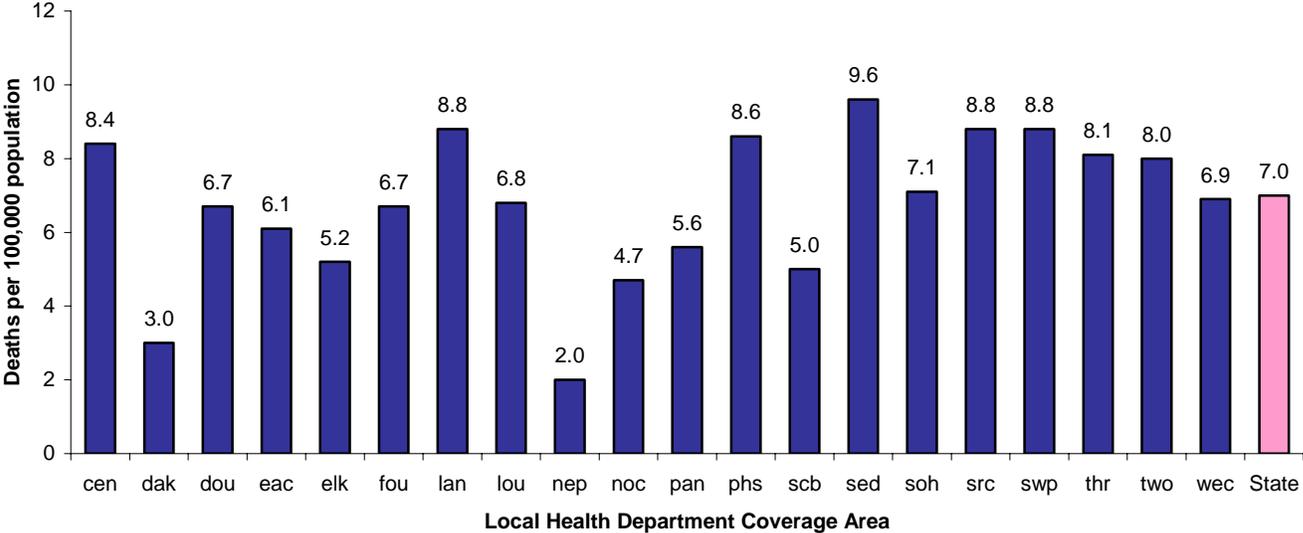
Rank	Local Health Department Coverage Area	Abbreviation	Number of Death	Age-adjusted Rate
1	Southeast District HD	sed	35	9.6
2	Lincoln/Lancaster HD	lan	93	8.8
3	Sarpy/Cass DHW	src	37	8.8
4	Southwest Nebraska Public HD	swp	28	8.8
5	Public Health Solutions	phs	38	8.6
6	Central District HD	cen	32	8.4
7	Three Rivers Public HD	thr	40	8.1
8	Two Rivers Public HD	two	49	8.0
9	South Heartland District HD	soh	24	7.1
10	West Central District HD	wec	19	6.9
11	Loup Basin Public HD	lou	18	6.8
12	Douglas County HD	dou	135	6.7
13	Four Corners HD	fou	27	6.7
14	East Central District HD	eac	18	6.1
15	Panhandle Public HD	pan	23	5.6
16	Elkhorn Logan Valley Public HD	elk	24	5.2
17	Scottsbluff County HD	scb	12	5.0
18	North Central District HD	noc	21	4.7
19	Dakota County HD	dak	2	*
20	Northeast Nebraska Public HD	nep	5	2.0
	State	State	680	7.0

Source: DHHS Death Certificate Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

\*number of death is fewer than five

**Figure D4: Age-adjusted death rates due to falls  
by local health department coverage area, Nebraska, 1999-2003**



Source: DHHS Death Certificate Data

## Intentional Injury

### Suicide

Suicide was the second leading cause of injury death in Nebraska from 1999-2003, with an age-adjusted death rate of 10.6 per 100,000 (n=894). The age-adjusted suicide rate varied by health department coverage areas, ranging from 6.4 to 17.3 per 100,000 population. Among all health department coverage areas, the Southwest Nebraska Public Health Department had the highest rate (17.3 per 100,000 n=27), followed by Dakota County (16.4 per 100,000, n=13), the Panhandle Public Health Department (15.3 per 100,000, n=39), the West Central District Health Department (15.1 per 100,000, n=36), and the Scottsbluff County Health Department (14.0 per 100,000, n=24). The Northeast Nebraska Public Health Department had the lowest suicide rate (6.4 per 100,000, n=10) (Table D5 & Figure D5).

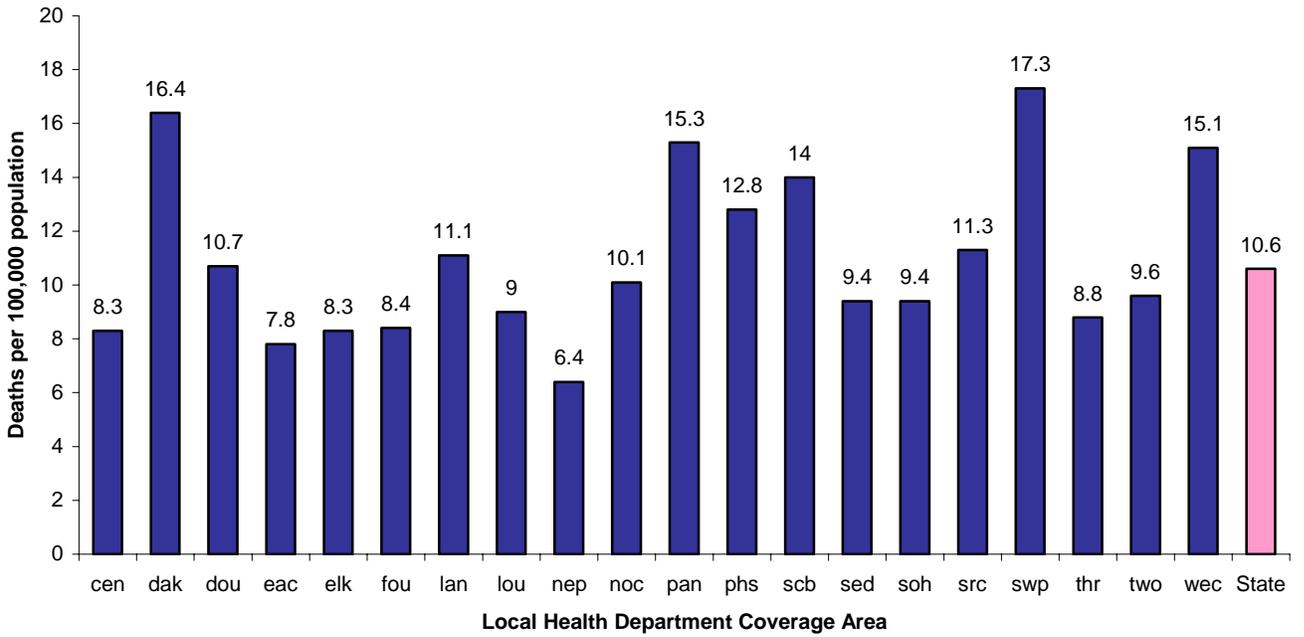
**Table D5: Age-adjusted death rates due to suicide by local health department coverage area, Nebraska, 1999-2003**

Rank	Local Health Department Coverage Area	Abbreviation	Number of Deaths	Age-adjusted Rate
1	Southwest Nebraska Public HD	swp	27	17.3
2	Dakota County HD	dak	13	16.4
3	Panhandle Public HD	pan	39	15.3
4	West Central District HD	wec	36	15.1
5	Scottsbluff County HD	scb	24	14
6	Public Health Solutions	phs	37	12.8
7	Sarpy/Cass DHW	src	74	11.3
8	Lincoln/Lancaster HD	lan	137	11.1
9	Douglas County HD	dou	245	10.7
10	North Central District HD	noc	25	10.1
11	Two Rivers Public HD	two	44	9.6
12	Southeast District HD	sed	18	9.4
13	South Heartland District HD	soh	23	9.4
14	Loup Basin Public HD	lou	15	9
15	Three Rivers Public HD	thr	34	8.8
16	Four Corners HD	fou	20	8.4
17	Central District HD	cen	29	8.3
18	Elkhorn Logan Valley Public HD	elk	24	8.3
19	East Central District HD	eac	20	7.8
20	Northeast Nebraska Public HD	nep	10	6.4
	State	State	894	10.6

Source: DHHS Death Certificate Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure D5: Age-adjusted death rates due to suicide  
by local health department coverage area, Nebraska, 1999-2003**



Source: DHHS Death Certificate Data

## Homicide

From 1999-2003, homicide was the fourth leading cause of injury death in Nebraska, with an age-adjusted death rate of 3.2 per 100,000 population (n=273). The rates showed great variation across local health department coverage areas, ranging from 0.4 to 6.5 per 100,000. Douglas County had the highest homicide rate (6.5 per 100,000, n=157), which was twice as high as the state rate. The Elkhorn Logan Valley Public Health Department ranked second with an age-adjusted rate of 4.4 per 100,000 (n=12), followed by the West Central District Health Department (3.9 per 100,000, n=9). The Four Corners Health Department had the lowest homicide rate (n=1) (Table D6 & Figure D6).

**Table D6: Age-adjusted death rates due to homicide by local health department coverage area, Nebraska, 1999-2003**

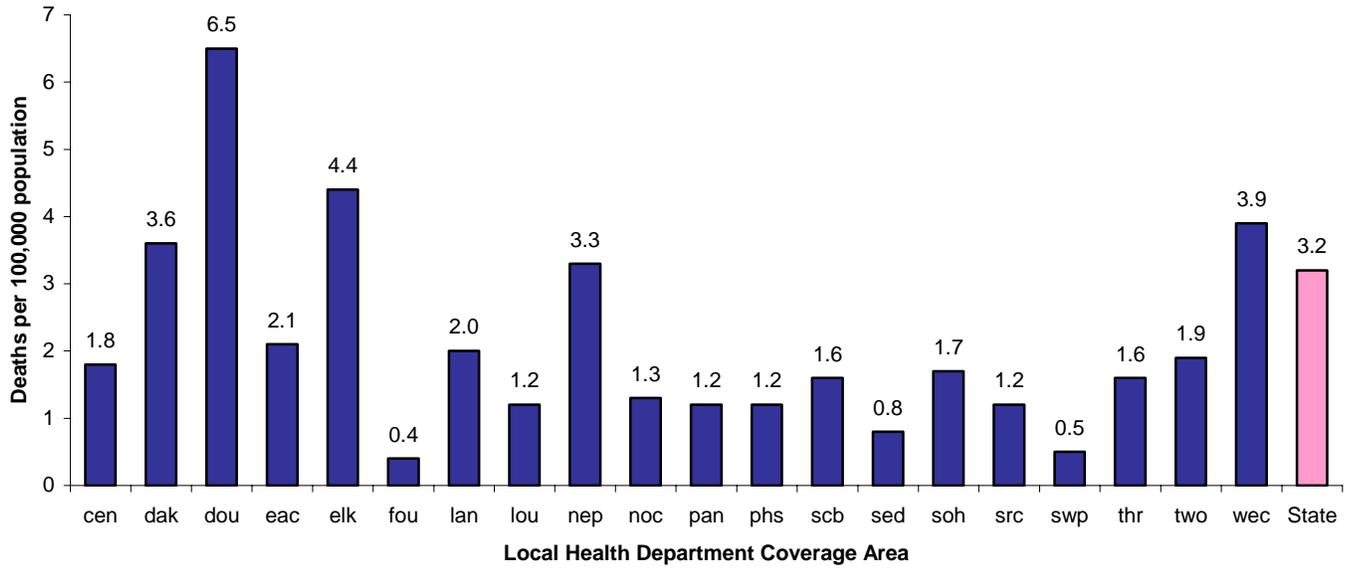
Rank	Local Health Department Coverage Area	abbreviation	Number of Deaths	Age-adjusted Rate
1	Douglas County HD	dou	157	6.5
2	Elkhorn Logan Valley Public HD	elk	12	4.4
3	West Central District HD	wec	9	3.9
4	Dakota County HD	dak	4	*
5	Northeast Nebraska Public HD	nep	5	3.3
6	East Central District HD	eac	5	2.1
7	Lincoln/Lancaster HD	lan	27	2
8	Two Rivers Public HD	two	9	1.9
9	Central District HD	cen	6	1.8
10	South Heartland District HD	soh	4	*
11	Scottsbluff County HD	scb	3	*
12	Three Rivers Public HD	thr	6	1.6
13	North Central District HD	noc	3	*
14	Loup Basin Public HD	lou	2	*
15	Panhandle Public HD	pan	3	*
16	Public Health Solutions	phs	4	*
17	Sarpy/Cass DHW	src	10	1.2
18	Southeast District HD	sed	2	*
19	Southwest Nebraska Public HD	swp	1	*
20	Four Corners HD	fou	1	*
	State	State	273	3.2

Source: DHHS Death Certificate Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

\* the number of death is fewer than five

**Figure D6: Age-adjusted death rates due to homicide  
by local health department coverage area, Nebraska, 1999-2003**



Source: DHHS Death Certificate Data

## Hospital Discharges Due to Injury

### Overall

From 1999-2003, the age-adjusted hospital discharge rates for all injury (including unintentional, intentional, and undetermined intent injuries) showed significant variation across the twenty health department coverage areas in Nebraska, ranging from 712 to 7,942 per 100,000 population. The age-adjusted all injury hospital discharge rate in Nebraska was 7,942 per 100,000 (n=658,754). Among health department coverage areas, the Three Rivers Public Health Department had the highest injury hospital discharge rate (10,461 per 100,000, n=39,448), followed by the West Central District Health Department (10,376 per 100,000, n=24,205), the Southeast District Health Department (9,901 per 100,000, n=20,032), Public Health Solutions (9,841 per 100,000, n=29,223), and the Southwest Nebraska Public Health Department district (9,211 per 100,000, n=15,797). Dakota County had the lowest all injury hospital discharge rate (712 per 100,000, n=721) (Table H1 & Figure H1).

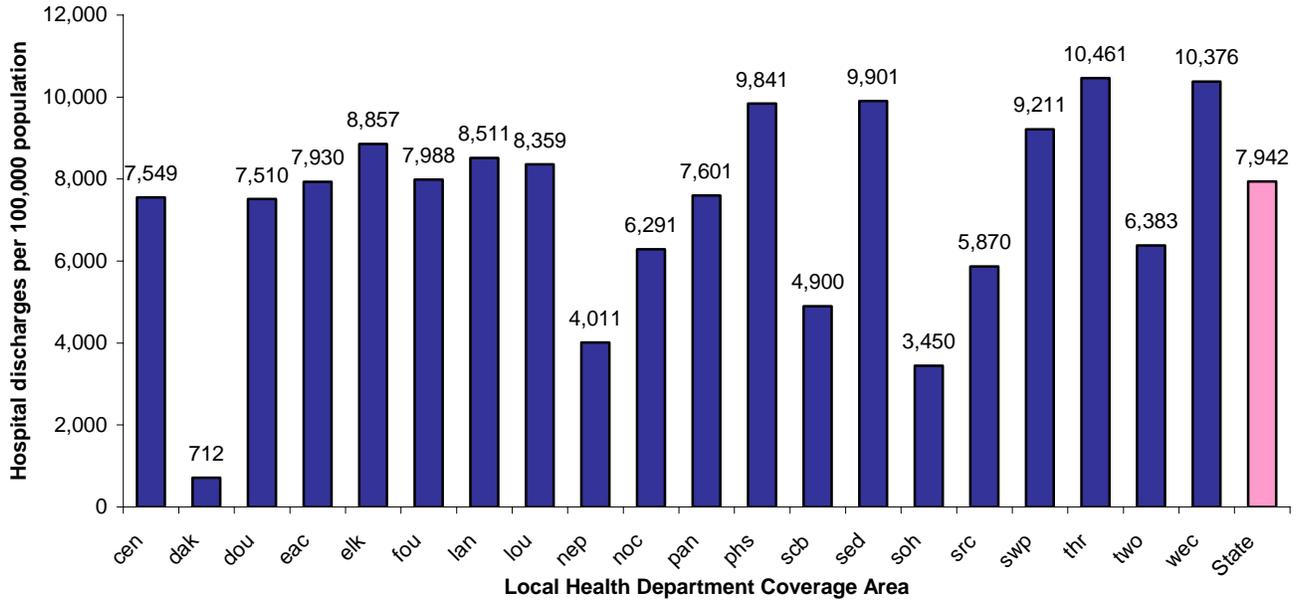
**Table H1: Age-adjusted hospital discharge rates due to all injury by local health department coverage area, NE, 1999-2003**

Rank	Local Health Department Coverage Area	Abbreviation	Number of Discharges	Age-adjusted Rate
1	Three Rivers Public HD	thr	39,448	10,461.0
2	West Central District HD	wec	24,205	10,376.0
3	Southeast District HD	sed	20,032	9,901.3
4	Public Health Solutions	phs	29,223	9,841.2
5	Southwest Nebraska Public HD	swp	15,797	9,210.5
6	Elkhorn Logan Valley Public HD	elk	26,949	8,856.8
7	Lincoln/Lancaster HD	lan	108,566	8,511.0
8	Loup Basin Public HD	lou	13,840	8,358.7
9	Four Corners HD	fou	18,930	7,988.4
10	East Central District HD	eac	20,880	7,929.9
11	Panhandle Public HD	pan	20,447	7,600.8
12	Central District HD	cen	27,080	7,549.1
13	Douglas County HD	dou	176,844	7,510.4
14	Two Rivers Public HD	two	30,873	6,382.5
15	North Central District HD	noc	15,988	6,290.8
16	Sarpy/Cass DHW	src	44,481	5,869.6
17	Scottsbluff County HD	scb	9,250	4,900.0
18	Northeast Nebraska Public HD	nep	6,844	4,011.3
19	South Heartland District HD	soh	8,356	3,449.7
20	Dakota County HD	dak	721	712.3
	State	State	694,091	7,941.5

Source: Nebraska Hospital Discharge Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure H1: Age-adjusted hospital discharge rates due to all injuries by local health department coverage area, Nebraska, 1999-2003**



Source: Nebraska Hospital Discharge Data

### **Unintentional Injury**

From 1999-2003, the age-adjusted hospital discharge rate due to unintentional injury was 7,610 per 100,000 (n= 665,407) in Nebraska. However, the rates of each of the 20 local health departments showed significant variation, ranging from 696 to 10,110 per 100,000 population. Three Rivers Public Health Department had the highest hospital discharge rate due to unintentional injuries (10,110 per 100,000, n=38,204). West Central District Health Department ranked second with an age-adjusted rate 9,954 per 100,000 (n=23,286), followed by Public Health Solutions (9,590 per 100,000, n=28,579), and the Southeast District Health Department (9,524 per 100,000, n=19,375). Dakota County had the lowest unintentional injury hospital discharge rate (696 per 100,000, n=704) (Table H2 & Figure H2).

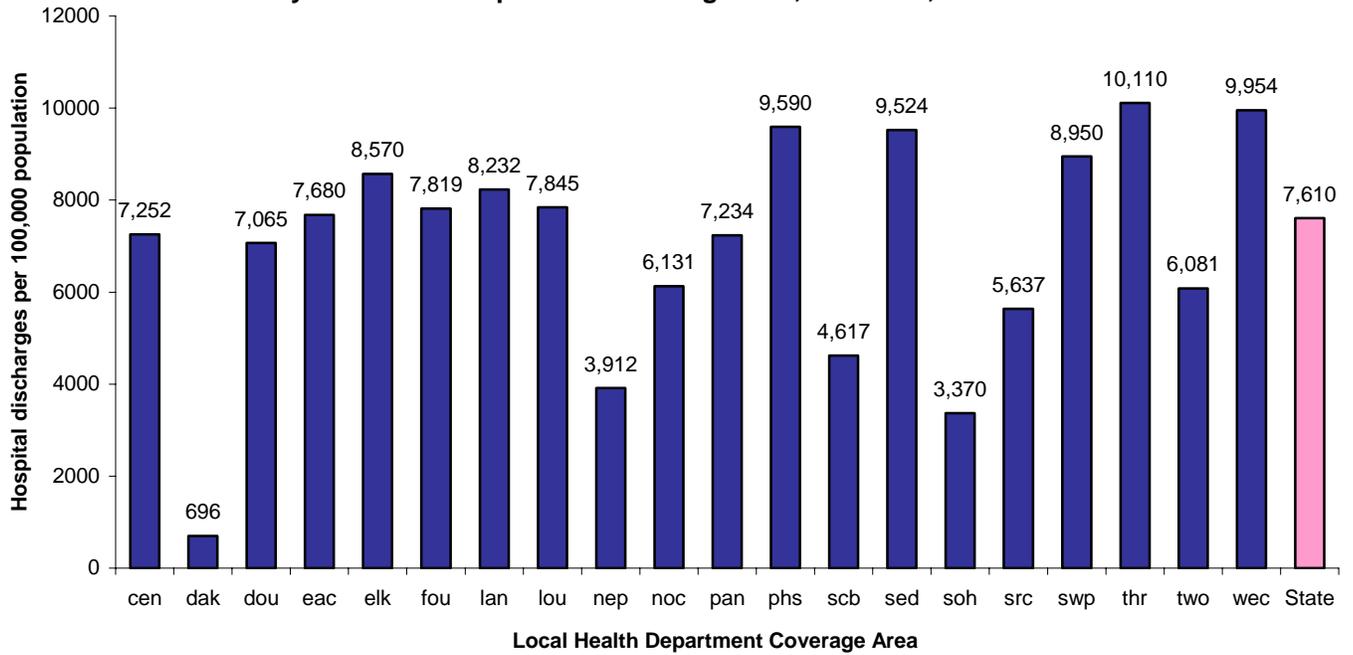
**Table H2: Age-adjusted hospital discharge rates due to unintentional injuries by local health department coverage area, NE, 1999-2003**

<b>Rank</b>	<b>Local Health Department Coverage Area</b>	<b>Abbreviation</b>	<b>Number of Discharges</b>	<b>Age-adjusted Rate</b>
1	Three Rivers Public HD	thr	38,204	10,110.0
2	West Central District HD	wec	23,286	9,954.2
3	Public Health Solutions	phs	28,579	9,589.7
4	Southeast District HD	sed	19,375	9,523.8
5	Southwest Nebraska Public HD	swp	15,413	8,949.7
6	Elkhorn Logan Valley Public HD	elk	26,119	8,569.7
7	Lincoln/Lancaster HD	lan	104,647	8,232.4
8	Loup Basin Public HD	lou	13,025	7,844.9
9	Four Corners HD	fou	18,561	7,818.9
10	East Central District HD	eac	20,273	7,680.1
11	Central District HD	cen	26,081	7,252.2
12	Panhandle Public HD	pan	19,548	7,233.9
13	Douglas County HD	dou	166,121	7,065.3
14	North Central District HD	noc	15,649	6,130.8
15	Two Rivers Public HD	two	29,463	6,081.4
16	Sarpy/Cass DHW	src	42,633	5,637.1
17	Scottsbluff County HD	scb	8,762	4,616.8
18	Northeast Nebraska Public HD	nep	6,684	3,912.0
19	South Heartland District HD	soh	8,179	3,369.7
20	Dakota County HD	dak	704	696.4
	<b>State</b>	<b>State</b>	<b>665,407</b>	<b>7,609.6</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure H2: Age-adjusted hospital discharge rates due to unintentional injuries by local health department coverage area, Nebraska, 1999-2003**



Source: Nebraska Hospital Discharge Data

## Falls

Falls were the leading cause of hospital discharges related to unintentional injury in Nebraska from 1999-2003, with an age-adjusted rate of 2,186 per 100,000 (n=196,432). The age-adjusted hospital discharge rates for falls varied by local health departments, ranging from 185 to 3,093 per 100,000 population. Among all health department coverage areas, the Three Rivers Public Health Department had the highest hospital discharge rate due to unintentional injuries (3,093 per 100,000, n=12,358). The Southeast District Health Department ranked second with an age-adjusted rate of 2,904 per 100,000 (n=6,825), followed by Public Health Solutions (2,726 per 100,000, n=9,207), the Southwest Nebraska Public Health Department (2,532 per 100,000, n=5,055), and the Elkhorn Logan Valley Public Health Department (2,423 per 100,000, n=7,906). Dakota County had the lowest fall injury hospital discharge rate (185 per 100,000, n=183) (Table H3 & Figure H3).

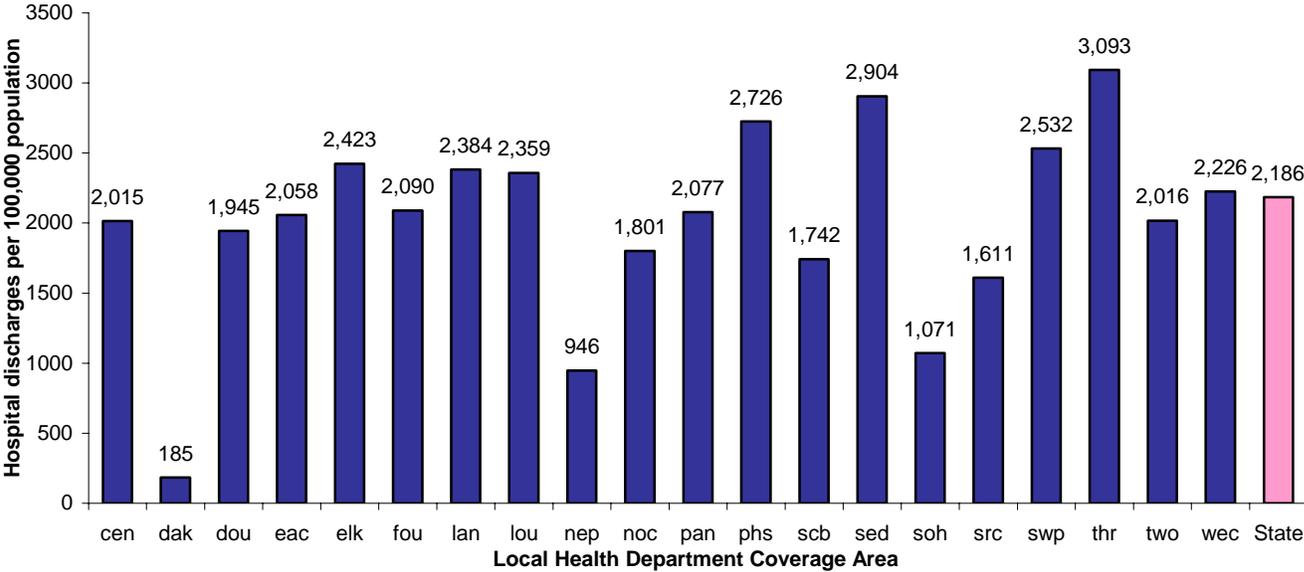
**Table H3: Age-adjusted hospital discharge rates due to falls by local health department coverage area, NE, 1999-2003**

Rank	Local Health Department Coverage Area	Abbreviation	Number of Discharges	Age-adjusted Rate
1	Three Rivers Public HD	thr	12,358	3,093.1
2	Southeast District HD	sed	6,825	2,903.9
3	Public Health Solutions	phs	9,207	2,725.5
4	Southwest Nebraska Public HD	swp	5,055	2,532.1
5	Elkhorn Logan Valley Public HD	elk	7,906	2,422.5
6	Lincoln/Lancaster HD	lan	28,923	2,383.5
7	Loup Basin Public HD	lou	4,625	2,358.6
8	West Central District HD	wec	5,618	2,225.8
9	Four Corners HD	fou	5,401	2,090.0
10	Panhandle Public HD	pan	6,101	2,077.1
11	East Central District HD	eac	5,785	2,058.0
12	Two Rivers Public HD	two	10,335	2,016.0
13	Central District HD	cen	7,653	2,015.1
14	Douglas County HD	dou	44,947	1,944.6
15	North Central District HD	noc	5,315	1,801.0
16	Scottsbluff County HD	scb	3,546	1,741.6
17	Sarpy/Cass DHW	src	11,174	1,611.4
18	South Heartland District HD	soh	2,878	1,071.1
19	Northeast Nebraska Public HD	nep	1,732	946.1
20	Dakota County HD	dak	183	185.0
	State	State	196,432	2,185.5

Source: Nebraska Hospital Discharge Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure H3: Age-adjusted hospital discharge rates due to falls by local health department coverage area, Nebraska, 1999-2003**



Source: Nebraska Hospital Discharge Data

**Struck by/against**

Struck by/against was the second leading cause of hospital discharges related to unintentional injury, with an age-adjusted rate of 1,257 per 100,000 Nebraskans from 1999-2003. The age-adjusted hospital discharge rates of struck by/against varied by local health department coverage areas, ranging from 89 to 1,842 per 100,000 population. Among all health department coverage areas, the West Central District Health Department had the highest hospital discharge rate due to struck by/against (1,842 per 100,000, n=4,183), followed by the Three Rivers Public Health Department (1,585 per 100,000, n=8,510), the East Central District Health Department (1,456 per 100,000, n=3,807), Public Health Solutions (1,453 per 100,000, n=4,036), and the Southwest Nebraska Public Health Department (1,446 per 100,000, n=2,325). Dakota County had the lowest struck by/against injury hospital discharge rate (89 per 100,000, n=98) (Table H4, & Figure H4).

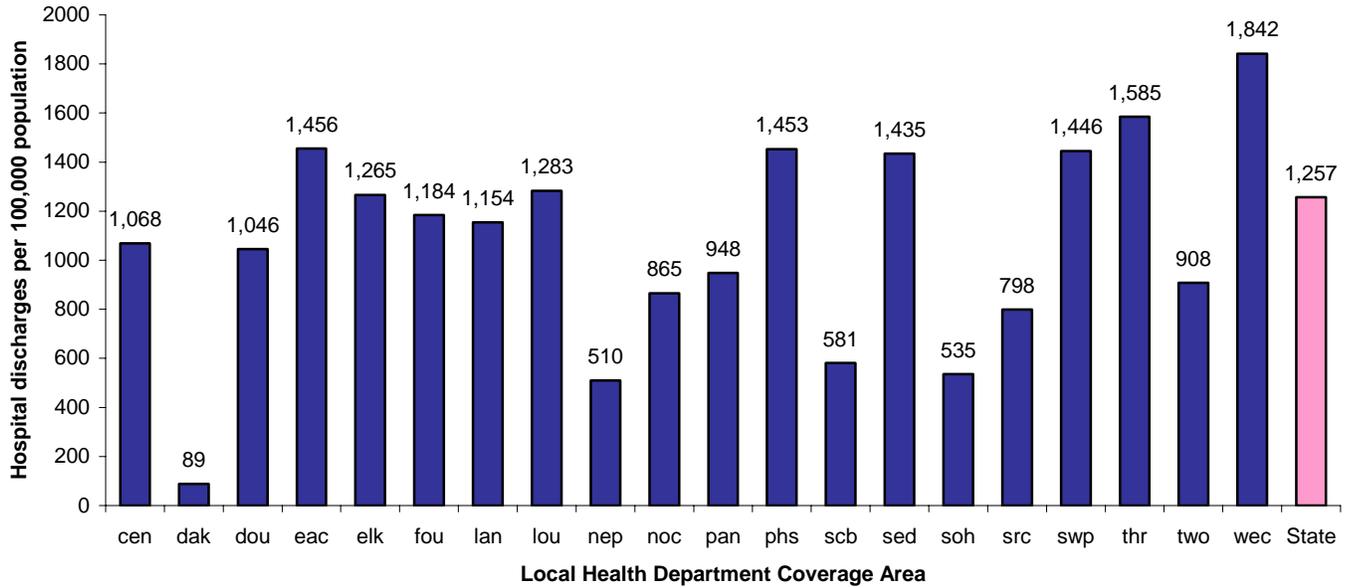
**Table H4: Age-adjusted hospital discharge rates due to struck by/against by local health department coverage area, NE, 1999-2003**

Rank	Local Health Department Coverage Area	Abbreviation	Number of Discharges	Age-adjusted Rate
1	West Central District HD	wec	4,183	1,842.0
2	Three Rivers Public HD	thr	5,810	1,584.9
3	East Central District HD	eac	3,807	1,455.6
4	Public Health Solutions	phs	4,036	1,452.9
5	Southwest Nebraska Public HD	swp	2,325	1,445.5
6	Southeast District HD	sed	2,686	1,434.9
7	Loup Basin Public HD	lou	1,933	1,283.1
8	Elkhorn Logan Valley Public HD	elk	3,808	1,265.3
9	Four Corners HD	fou	2,723	1,183.6
10	Lincoln/Lancaster HD	lan	14,963	1,153.8
11	Central District HD	cen	3,790	1,068.4
12	Douglas County HD	dou	25,165	1,045.6
13	Panhandle Public HD	pan	2,484	947.5
14	Two Rivers Public HD	two	4,341	907.7
15	North Central District HD	noc	2,075	865.0
16	Sarpy/Cass DHW	src	6,522	798.4
17	Scottsbluff County HD	scb	1,050	581.0
18	South Heartland District HD	soh	1,223	535.2
19	Northeast Nebraska Public HD	nep	887	509.9
20	Dakota County HD	dak	98	88.8
	State	State	109,818	1,257.3

Source: Nebraska Hospital Discharge Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure H4: Age-adjusted hospital discharge rates due to struck by/against by local health department coverage area, Nebraska, 1999-2003**



Source: Nebraska Hospital Discharge Data

### **Cutting/piercing**

From 1999-2003, cutting/piercing was the third leading cause of unintentional injury hospital discharges in Nebraska, with an age-adjusted rate of 712 per 100,000 population (n=61,171). The rates differed across the 20 local health departments, ranging from 70 to 990 per 100,000 population. Among all health department coverage areas, the West Central District Health Department had the highest rate at 990 per 100,000 (n=2,231), followed by the Three Rivers Public Health Department (989 per 100,000, n=3,594), the Southwest Nebraska Public Health Department (906 per 100,000, n=1,440), the Southeast District Health Department (883 per 100,000, n=1,644), and the Elkhorn Logan Valley Public Health Department (861 per 100,000, n=2,506). Dakota County had the lowest rate (70 per 100,000, n= 73) (Table H5 & Figure H5).

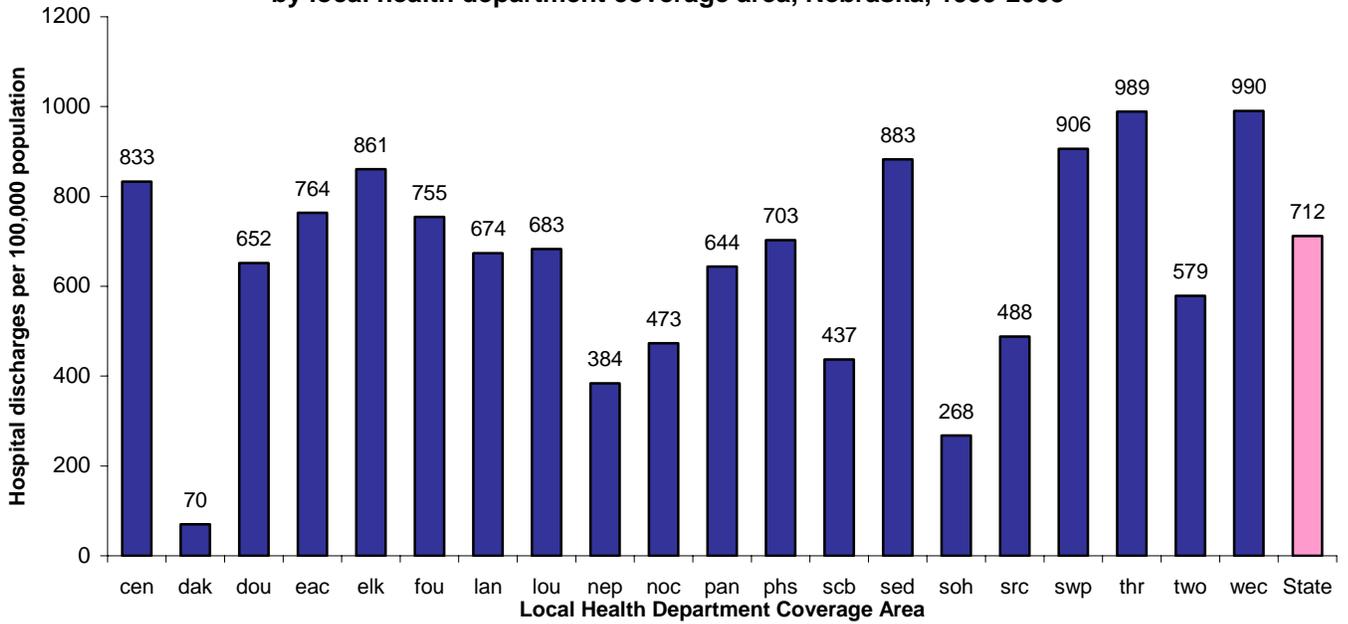
**Table H5: Age-adjusted hospital discharge rates due to cutting/piercing by local health department coverage area, NE, 1999-2003**

Local Health Department Coverage			Number of Discharges	Age-adjusted Rate
Rank	Area	Abbreviation		
1	West Central District HD	wec	2,231	990.4
2	Three Rivers Public HD	thr	3,594	988.6
3	Southwest Nebraska Public HD	swp	1,440	906.1
4	Southeast District HD	sed	1,644	882.8
5	Elkhorn Logan Valley Public HD	elk	2,506	860.9
6	Central District HD	cen	2,914	833.4
7	East Central District HD	eac	1,920	763.7
8	Four Corners HD	fou	1,663	754.7
9	Public Health Solutions	phs	1,941	703.0
10	Loup Basin Public HD	lou	1,020	683.1
11	Lincoln/Lancaster HD	lan	8,811	673.7
12	Douglas County HD	dou	15,462	652.0
13	Panhandle Public HD	pan	1,644	643.6
14	Two Rivers Public HD	two	2,684	579.1
15	Sarpy/Cass DHW	src	3,795	488.0
16	North Central District HD	noc	1,100	473.3
17	Scottsbluff County HD	scb	783	437.4
18	Northeast Nebraska Public HD	nep	617	384.1
19	South Heartland District HD	soh	606	268.0
20	Dakota County HD	dak	73	70.1
State			61,171	711.8

Source: Nebraska Hospital Discharge Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure H5: Age-adjusted hospital discharge rates due to cutting/piercing by local health department coverage area, Nebraska, 1999-2003**



Source: Nebraska Hospital Discharge Data

### Motor vehicle crashes

Motor vehicle crashes were the fourth leading cause of hospital discharges related to unintentional injury in Nebraska from 1999-2003, with an age-adjusted rate of 685 per 100,000 (n=59,221). The age-adjusted unintentional injury rate of motor vehicle crashes varied by health department coverage area, ranging from 61 to 923 per 100,000 population. Among all health department coverage areas, the Elkhorn Logan Valley Public Health Department had the highest rate at 923 per 100,000 population (n=2,719), followed by the Three River Public Health Department (918 per 100,000, n=3,361), the Lincoln/Lancaster Health Department (869 per 100,000, n=11,795), and the West Central District Health Department (799 per 100,000, n=1,789). Dakota County had the lowest rate (61 per 100,000, n=60) (Table H6 & Figure H6).

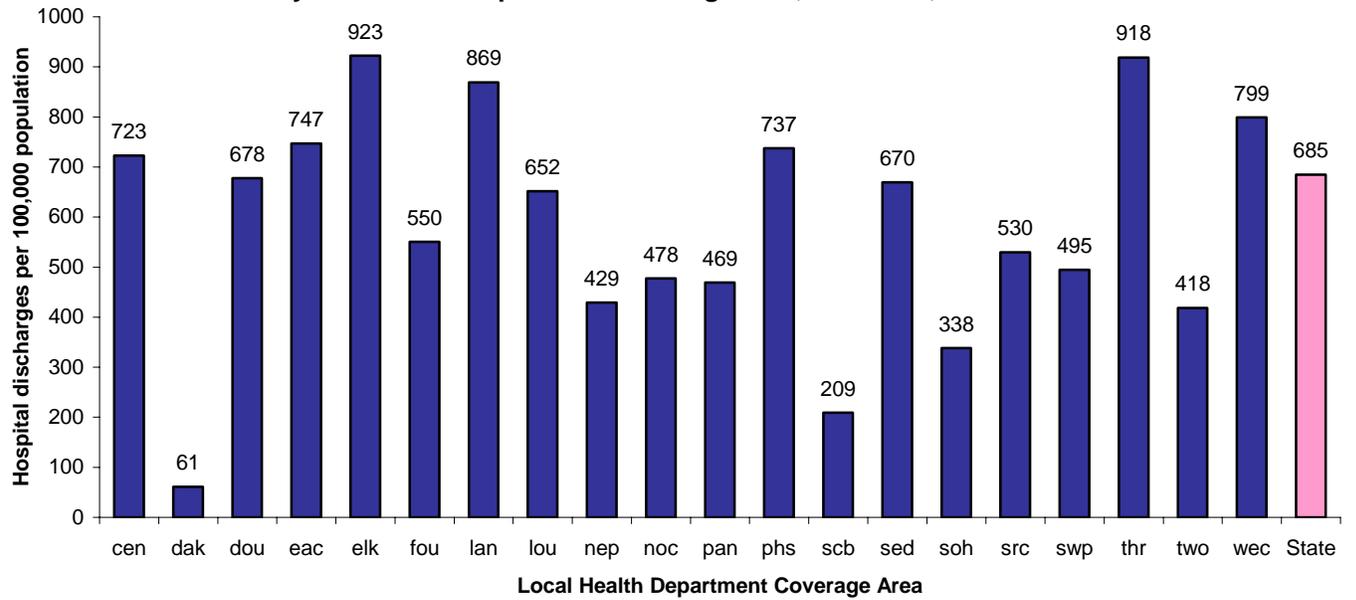
**Table H6: Age-adjusted hospital discharge rates due to motor vehicle crashes by local health department coverage area, NE, 1999-2003**

Rank	Local Health Department Coverage Area	Abbreviation	Number of Discharges	Age-adjusted Rate
1	Elkhorn Logan Valley Public HD	elk	2,719	922.5
2	Three Rivers Public HD	thr	3,361	918.4
3	Lincoln/Lancaster HD	lan	11,795	868.8
4	West Central District HD	wec	1,789	798.8
5	East Central District HD	eac	1,887	746.8
6	Public Health Solutions	phs	2,022	737.2
7	Central District HD	cen	2,492	723.0
8	Douglas County HD	dou	16,079	677.8
9	Southeast District HD	sed	1,247	669.7
10	Loup Basin Public HD	lou	975	651.5
11	Four Corners HD	fou	1,249	550.4
12	Sarpy/Cass DHW	src	4,121	529.8
13	Southwest Nebraska Public HD	swp	778	494.6
14	North Central District HD	noc	1,112	477.7
15	Panhandle Public HD	pan	1,228	469.1
16	Northeast Nebraska Public HD	nep	720	429.3
17	Two Rivers Public HD	two	1,987	418.0
18	South Heartland District HD	soh	769	338.1
19	Scottsbluff County HD	scb	372	209.2
20	Dakota County HD	dak	60	61.3
	State	State	59,221	684.8

Source: Nebraska Hospital Discharge Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure H6: Age-adjusted hospital discharge rates due to motor vehicle crashes by local health department coverage area, Nebraska, 1999-2003**



Source: Nebraska Hospital Discharge Data

## Intentional Injury

### Suicide attempts

The age-adjusted hospital discharge rate of suicide attempts was 75 per 100,000 population (n=6,379) in Nebraska from 1999-2003. The rate of suicide attempts varied by local health department coverage areas, ranging from 4.8 to 94.7 per 100,000. Among all health department coverage areas, the Southwest Nebraska Public Health Department had the highest rate at 94.7 per 100,000 population (n=135), followed by the Central District Health Department (93 per 100,000, n=310), the Southeast District Health Department (92.4 per 100,000, n=163), the West Central District Health Department (89.8 per 100,000, n=194), and the Three River Public Health Department (86.9 per 100,000, n=305). Dakota County had the lowest rate (4.8 per 100,000, n=5) (Table H7 & Figure H7).

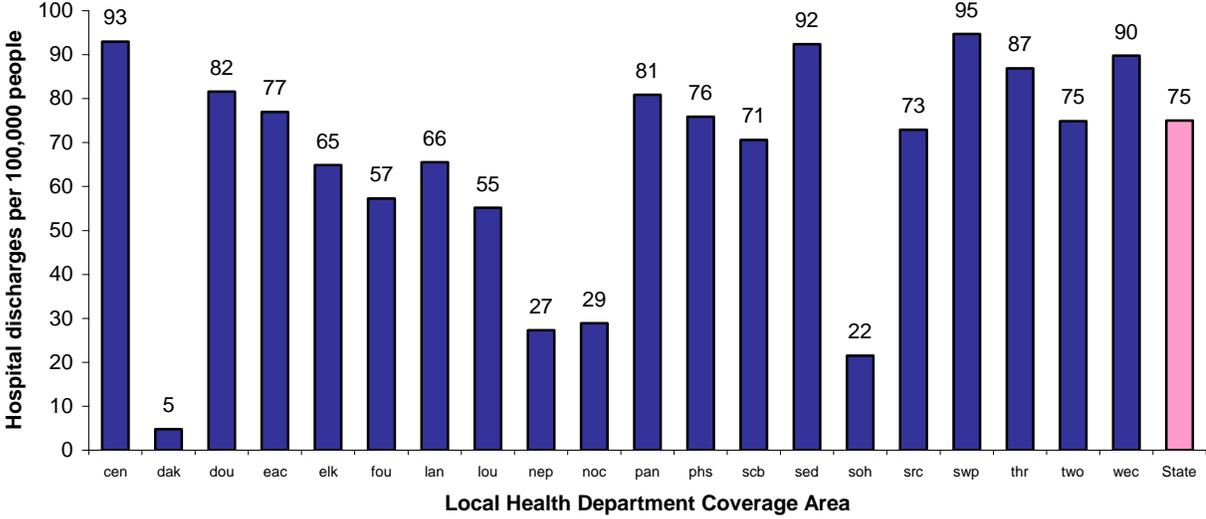
**Table H7: Age-adjusted hospital discharge rates due to suicide attempt by local health department coverage area, NE, 1999-2003**

Rank	Local Health Department Coverage Area	Abbreviation	Number of Discharges	Age-adjusted Rate
1	Southwest Nebraska Public HD	swp	135	94.7
2	Central District HD	cen	310	93.0
3	Southeast District HD	sed	163	92.4
4	West Central District HD	wec	194	89.8
5	Three Rivers Public HD	thr	305	86.9
6	Douglas County HD	dou	1,941	81.6
7	Panhandle Public HD	pan	192	80.9
8	East Central District HD	eac	187	77.0
9	Public Health Solutions	phs	195	75.9
10	Two Rivers Public HD	two	345	74.9
11	Sarpy/Cass DHW	src	575	72.9
12	Scottsbluff County HD	scb	119	70.6
13	Lincoln/Lancaster HD	lan	896	65.5
14	Elkhorn Logan Valley Public HD	elk	188	64.9
15	Four Corners HD	fou	129	57.3
16	Loup Basin Public HD	lou	78	55.2
17	North Central District HD	noc	60	28.9
18	Northeast Nebraska Public HD	nep	44	27.3
19	South Heartland District HD	soh	46	21.5
20	Dakota County HD	dak	5	4.8
	State	State	6,379	75.0

Source: Nebraska Hospital Discharge Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure H7: Age-adjusted hospital discharge rates due to suicide attempts by local health department coverage area, Nebraska, 1999-2003**



Source: Nebraska Hospital Discharge Data

### Assault

From 1999-2003, assault was the seventh leading cause of injury-related hospital discharges in Nebraska, with an age-adjusted rate of 203.9 per 100,000 (n=17,720). The rates showed significant variation across local health department coverage areas, ranging from 10.1 to 297.4 per 100,000. The West Central District Health Department had the highest assault rate at 297.4 per 100,000 (n=645), followed by the Douglas County Health Department (288.1 per 100,000, n=6,996), the Southeast District Health Department (250.2 per 100,000, n=429), the Three Rivers Public Health Department (231 per 100,000, n=821), and the Elkhorn Logan Valley Public Health Department (204.4 per 100,000, n=589). Dakota County Health Department had the lowest assault rate (10.1 per 100,000, n=11) (Table H8 & Figure H8).

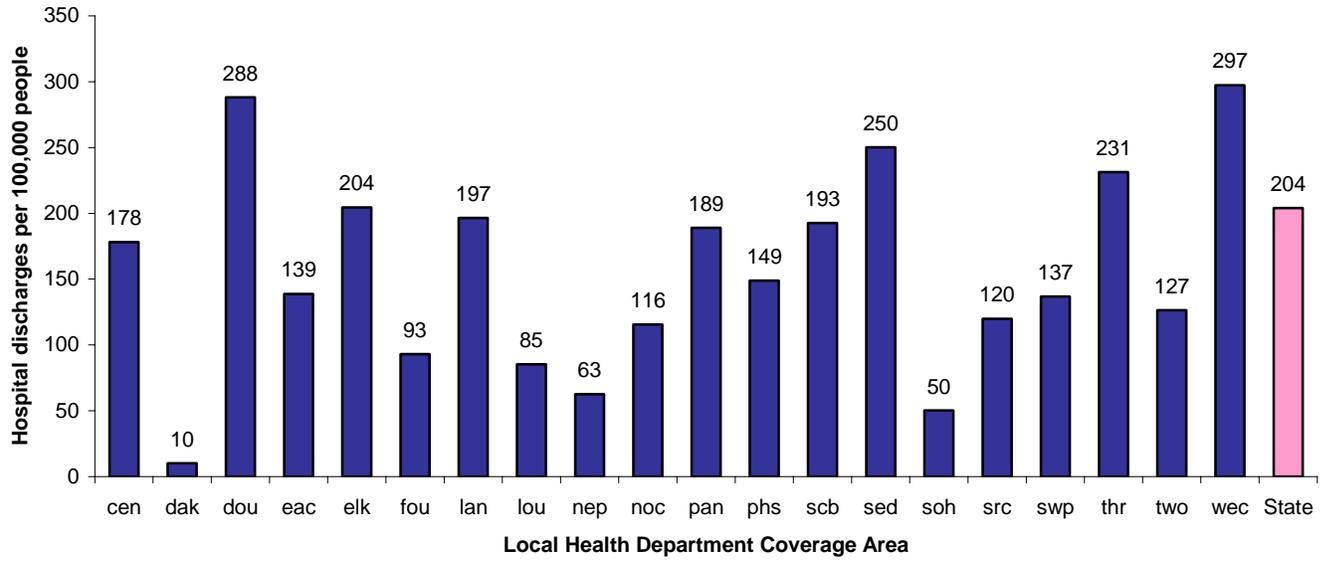
**TableH8: Age-adjusted hospital discharge rates due to assault by local health department coverage area, NE, 1999-2003**

Rank	Local Health Department Coverage Area	Abbreviation	Number of Discharges	Age-adjusted Rate
1	West Central District HD	wec	645	297.4
2	Douglas County HD	dou	6,996	288.1
3	Southeast District HD	sed	429	250.2
4	Three Rivers Public HD	thr	821	231.4
5	Elkhorn Logan Valley Public HD	elk	589	204.4
6	Lincoln/Lancaster HD	lan	2,799	196.5
7	Scottsbluff County HD	scb	335	192.7
8	Panhandle Public HD	pan	459	188.9
9	Central District HD	cen	600	178.2
10	Public Health Solutions	phs	379	149.0
11	East Central District HD	eac	337	138.8
12	Southwest Nebraska Public HD	swp	200	136.8
13	Two Rivers Public HD	two	604	126.5
14	Sarpy/Cass DHW	src	971	119.8
15	North Central District HD	noc	244	115.5
16	Four Corners HD	fou	198	93.0
17	Loup Basin Public HD	lou	119	85.3
18	Northeast Nebraska Public HD	nep	101	62.5
19	South Heartland District HD	soh	114	50.3
20	Dakota County HD	dak	11	10.1
	State	State	17,720	203.9

Source: Nebraska Hospital Discharge Data 1999-2003

Age-adjusted rate per 100,000 population based on the 2000 U.S. standard population

**Figure H8: Age-adjusted hospital discharge rates due to assault by local health department coverage area, Nebraska, 1999-2003**



Source: Nebraska Hospital Discharge Data

Table H9: Injury hospital discharge rates by cause of injury and local health dept coverage area, Nebraska, 1999 - 2003

Rank	All injury	Unintentional Injury	MVC	Fall	Suicide Attempt	Assault
1	THR N=39,448 AAR=10.461	THR N=38,204 AAR=10.110	ELK N=2719 AAR=922.5	THR N=12358 AAR=3093.1	SWP N=135 AAR=94.7	WEC N=645 AAR=297.4
2	WEC N=24,205 AAR=10.376	WEC N=23,286 AAR=9.954	THR N=3361 AAR=918.4	SED N=6825 AAR=2903.9	CEN N=310 AAR=93	DOU N=6996 AAR=288.1
3	SED N=20,032 AAR=9.901	PHS N=28,579 AAR=9.590	LAN N=11795 AAR=868.8	PHS N=9207 AAR=2725.5	SED N=163 AAR=92.4	SED N=429 AAR=250.2
4	PHS N=29,223 AAR=9.841	SED N=19,375 AAR=9.524	WEC N=1789 AAR=798.8	SWP N=5055 AAR=2532.1	WEC N=194 AAR=89.8	THR N=821 AAR=231.4
5	SWP N=15,797 AAR=9.211	SWP N=15,413 AAR=8.950	EAC N=1887 AAR=746.8	ELK N=7906 AAR=2422.5	THR N=305 AAR=86.9	ELK N=589 AAR=204.4
6	ELK N=26,949 AAR=8.857	ELK N=26,119 AAR=8.570	PHS N=2022 AAR=737.2	LAN N=28923 AAR=2383.5	DOU N=1941 AAR=81.6	LAN N=2799 AAR=196.5
7	LAN N=108,566 AAR=8.511	LAN N=104,647 AAR=8.232	CEN N=2492 AAR=723	LOU N=4625 AAR=2358.6	PAN N=192 AAR=80.9	SCB N=335 AAR=192.7
8	LOU N=13,840 AAR=8.359	LOU N=13,025 AAR=7.845	DOU N=16079 AAR=677.8	WEC N=5618 AAR=2225.8	EAC N=187 AAR=77	PAN N=459 AAR=188.9
9	FOU N=18,930 AAR=7.988	FOU N=18,561 AAR=7.819	SED N=1247 AAR=669.7	FOU N=5401 AAR=2090	PHS N=195 AAR=75.9	CEN N=600 AAR=178.2
10	EAC N=20,880 AAR=7.930	EAC N=20,273 AAR=7.680	LOU N=975 AAR=651.5	PAN N=6101 AAR=2077.1	TWO N=345 AAR=74.9	PHS N=379 AAR=149
11	PAN N=20,447 AAR=7.601	CEN N=26,081 AAR=7.252	FOU N=1249 AAR=550.4	EAC N=5785 AAR=2058	SRC N=575 AAR=72.9	EAC N=337 AAR=138.8
12	CEN N=27,080 AAR=7.549	PAN N=19,548 AAR=7.234	SRC N=4121 AAR=529.8	TWO N=10335 AAR=2016	SCB N=119 AAR=70.6	SWP N=200 AAR=136.8
13	DOU N=176,844 AAR=7.510	DOU N=166,121 AAR=7.065	SWP N=778 AAR=494.6	CEN N=7653 AAR=2015.1	LAN N=896 AAR=65.5	TWO N=604 AAR=126.5
14	TWO N=30,873 AAR=6.383	NOC N=15,649 AAR=6.131	NOC N=1112 AAR=477.7	DOU N=44947 AAR=1944.6	ELK N=188 AAR=64.9	SRC N=971 AAR=119.8
15	NOC N=15,988 AAR=6.291	TWO N=29,463 AAR=6.081	PAN N=1228 AAR=469.1	NOC N=5315 AAR=1801	FOU N=129 AAR=57.3	NOC N=244 AAR=115.5
16	SRC N=44,481 AAR=5.870	SRC N=42,633 AAR=5.637	NEP N=720 AAR=429.3	SCB N=3546 AAR=1741.6	LOU N=78 AAR=55.2	FOU N=198 AAR=93
17	SCB N=9,250 AAR=4.900	SCB N=8,762 AAR=4.617	TWO N=1987 AAR=418	SRC N=11174 AAR=1611.4	NOC N=60 AAR=28.9	LOU N=119 AAR=85.3
18	NEP N=6,844 AAR=4.011	NEP N=6,684 AAR=3.912	SOH N=769 AAR=338.1	SOH N=2878 AAR=1071.1	NEP N=44 AAR=27.3	NEP N=101 AAR=62.5
19	SOH N=8,356 AAR=3.450	SOH N=8,179 AAR=3.370	SCB N=372 AAR=209.2	NEP N=1732 AAR=946.1	SOH N=46 AAR=21.5	SOH N=114 AAR=50.3
20	DAK N=721 AAR=712	DAK N=704 AAR=696	DAK N=60 AAR=61.3	DAK N=183 AAR=185	DAK N=5 AAR=4.8	DAK N=11 AAR=10.1

N: number; AAR: age-adjusted rate

**Table H10: Rank of age-adjusted injury hospital discharge rates by cause and local health department, NE, 1999-2003**

Health Department Coverage Area	All Injury		Unintentional Injury		Motor Vehicle Crashes		Falls		Suicide Attempt		Assault	
	AAR	Rank	AAR	Rank	AAR	Rank	AAR	Rank	AAR	Rank	AAR	Rank
Central District HD	7,549.1	12	7252.2	11	723	7	2015.1	13	93	20	178.2	9
Dakota County HD	712.3	20	696.4	20	61.3	20	185	20	4.8	19	10.1	20
Douglas County HD	7,510.4	13	7065.3	13	677.8	8	1944.6	14	81.6	18	288.1	2
East Central District HD	7,929.9	10	7680.1	10	746.8	5	2058	11	77	17	138.8	11
Elkhorn Logan Valley Public HD	8,856.8	6	8569.7	6	922.5	1	2422.5	5	64.9	16	204.4	5
Four Corners HD	7,988.4	9	7818.9	9	550.4	11	2090	9	57.3	15	93	16
Lincoln/Lancaster HD	8,511.0	7	8232.4	7	868.8	3	2383.5	6	65.5	14	196.5	6
Loup Basin Public HD	8,358.7	8	7844.9	8	651.5	10	2358.6	7	55.2	13	85.3	17
Northeast Nebraska Public HD	4,011.3	18	3912	18	429.3	16	946.1	19	27.3	12	62.5	18
North Central District HD	6,290.8	15	6130.8	14	477.7	14	1801	15	28.9	11	115.5	15
Panhandle Public HD	7,600.8	11	7233.9	12	469.1	15	2077.1	10	80.9	10	188.9	8
Public Health Solutions	9,841.2	4	9589.7	3	737.2	6	2725.5	3	75.9	9	149	10
Scottsbluff County HD	4,900.0	17	4616.8	17	209.2	19	1741.6	16	70.6	8	192.7	7
Southeast District HD	9,901.3	3	9523.8	4	669.7	9	2903.9	2	92.4	7	250.2	3
South Heartland District HD	3,449.7	19	3369.7	19	338.1	18	1071.1	18	21.5	6	50.3	19
Sarpy/Cass DHW	5,869.6	16	5637.1	16	529.8	12	1611.4	17	72.9	5	119.8	14
Southwest Nebraska Public HD	9,210.5	5	8949.7	5	494.6	13	2532.1	4	94.7	4	136.8	12
Three Rivers Public HD	10,461.0	1	10110	1	918.4	2	3093.1	1	86.9	3	231.4	4
Two Rivers Public HD	6,382.5	14	6081.4	15	418	17	2016	12	74.9	2	126.5	13
West Central District HD	10,376.0	2	9954.2	2	798.8	4	2225.8	8	89.8	1	297.4	1

Source: NE Hospital Discharge Data 1999-2003

AAR: Age-adjusted rate per 100,000 population which is adjusted to the 2000 U.S. standard population

**Local Health Department Coverage Area**

INJURY REPORT, 1999-2003

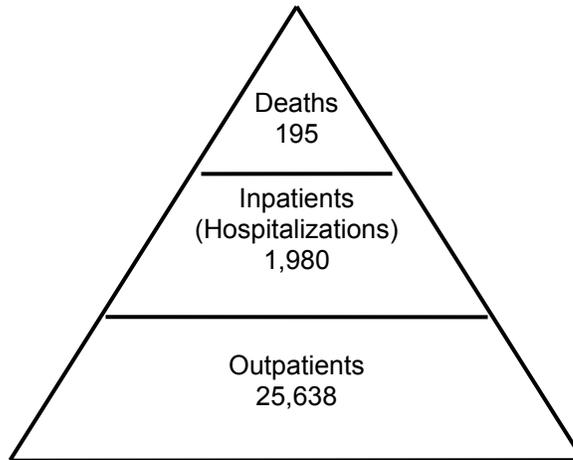
**Central District Health Department Coverage Area**

(Hall, Hamilton and Merrick Counties)

**Summary**

Injury is a public health problem in the Central District Health Department (CDHD) coverage area. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999-2003, in addition to nearly 200 injury deaths, nearly 2,000 residents in Hall, Hamilton, and Merrick Counties were hospitalized and more than 25,600 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury death. Falls were second, followed by suicide. In contrast to deaths, falls were the leading cause of injury hospital discharges, struck by or against were second, followed by cut/pierce, motor vehicle crashes, and overexertion.

**Figure A: Injury Pyramid, Residents of Central District Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were more than twice as likely as females to die from an injury. Additionally, teens and young adults were more likely to die from motor vehicle crashes while older adults were more likely to die from fall injuries.

The following table highlights the CDHD coverage area’s progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, and suicide (*Table A*).

**Table A: Injury Death Rates, Central District Health Department Coverage Area, NE, 2003**

Cause of Death	Age-adjusted Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	33.3	19.4
Fall	6.4	3.5
Motor vehicle crash	9.7	12.0
Suicide	6.7	8.2

Source: DHHS Death Certificate Data

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the counties served by the CDHD (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Central District Health Department Coverage Area, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	875
2	Cancer	708
3	Stroke	243
4	Injury	181
5	Chronic Lung Disease	165

Source: DHHS Death Certificate Data, 1999-2003

- An average of 36 residents died from injury each year from 1999 to 2003 (*Table D2*).
- Deaths due to injury made up 5.3% of total deaths in the CDHD area compared to 6% of deaths in Nebraska. In the CDHD counties, 84% of all deaths among 15-19 year olds and 80% of deaths among 20-24 year olds were due to injuries (*Table D2*).

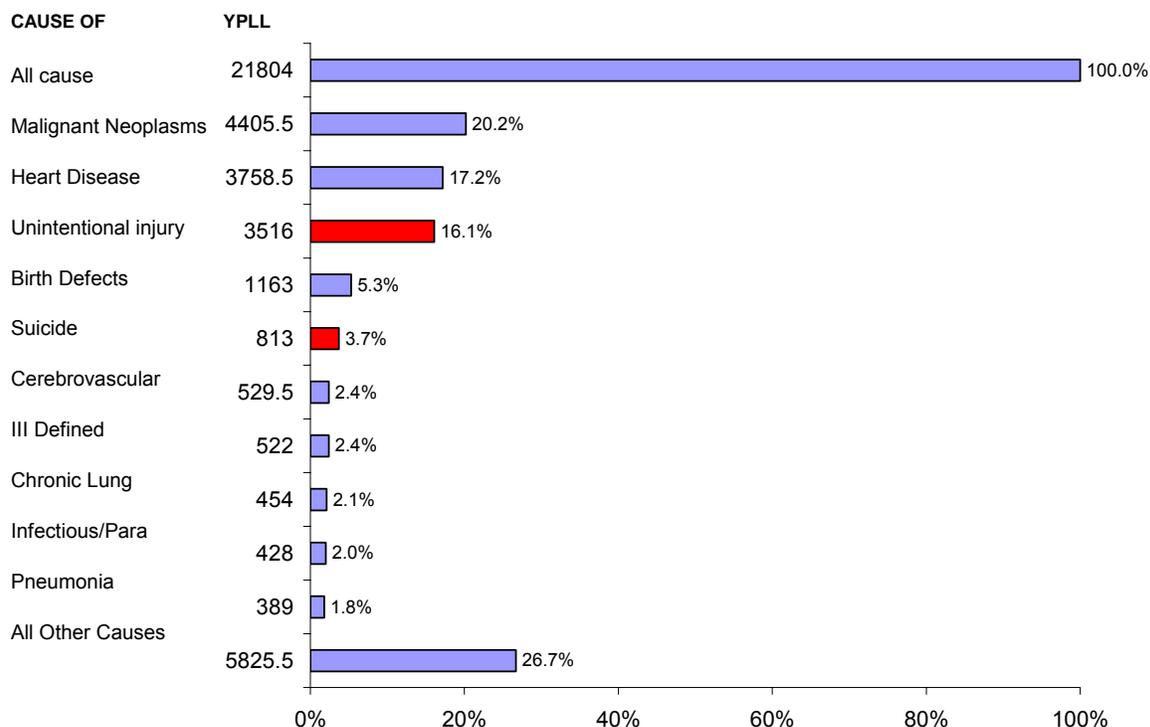
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Central District Health Department Coverage Area, NE, 1999-2003**

Age Group	Annual Average		Percent of Death	
	Injury Deaths	Injury Deaths	All Deaths	due to Injury
<1	0	0	41	0.0
1-4	4	1	9	44.4
5-9	1	0	3	33.3
10-14	3	1	6	50.0
15-19	16	3	19	84.2
20-24	12	2	15	80.0
25-29	12	2	18	66.7
30-34	11	2	24	45.8
35-39	8	2	27	29.6
40-44	11	2	48	22.9
45-49	9	2	64	14.1
50-54	12	2	106	11.3
55-59	5	1	111	4.5
60-64	7	1	129	5.4
65-74	11	2	544	2.0
75-84	35	7	1,011	3.5
85+	24	5	1,210	2.0
<b>Total</b>	<b>181</b>	<b>36</b>	<b>3,385</b>	<b>5.3</b>

Source: DHHS Death Certificate Data, 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked third (16.1%), following those from cancer (20.2%) and heart disease (17.2%). Suicide ranked 5<sup>th</sup> at 3.7% (Figure D1).

**Figure D1: Years of Potential Life Lost ( YPLL) before 75 by Cause of Death, Central District Health Department Coverage Area, NE, 1999-2003**



- The counties served by CDHD had a higher unintentional injury rate (39.1 per 100,000), but lower suicide rate (8.3 per 100,000), and homicide rate (1.8 per 100,000) than Nebraska rates (33.3, 10.6, and 3.2 per 100,000 respectively) (Table D3). The CDHD has not met the 2010 Nebraska Objective of 19.4 or fewer unintentional injury deaths per 100,000 population.

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Central District Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State	
	N	%	Rate	N	%	Rate	N	%	Rate	N	% Rate
Unintentional	92	73.6	54.1	54	77.1	24.4	146	74.9	39.1	3,020	33.3
Suicide	25	20.0	14.4	4	5.7	*	29	14.9	8.3	894	10.6
Homicide	3	2.4	*	3	4.3	*	6	3.1	1.8	273	3.2
Undetermined	2	1.6	*	3	4.3	*	5	2.6	1.2	139	1.6
Legal/War	1	0.8	*	1	1.4	*	2	1.0	*	10	0.1
Adverse Effects	2	1.6	*	5	7.1	2.3	7	3.6	1.8	93	1.0
<b>Total</b>	<b>125</b>	<b>100.0</b>	<b>73.3</b>	<b>70</b>	<b>100.0</b>	<b>32.7</b>	<b>195</b>	<b>100.0</b>	<b>52.8</b>	<b>4,429</b>	<b>100.2 48.9</b>

Source: DHHS Death Certificate Data, 1999-2003

\* Fewer than five deaths

- More males (64%) died from all injury-related causes than females (36%) (*Table D4*).

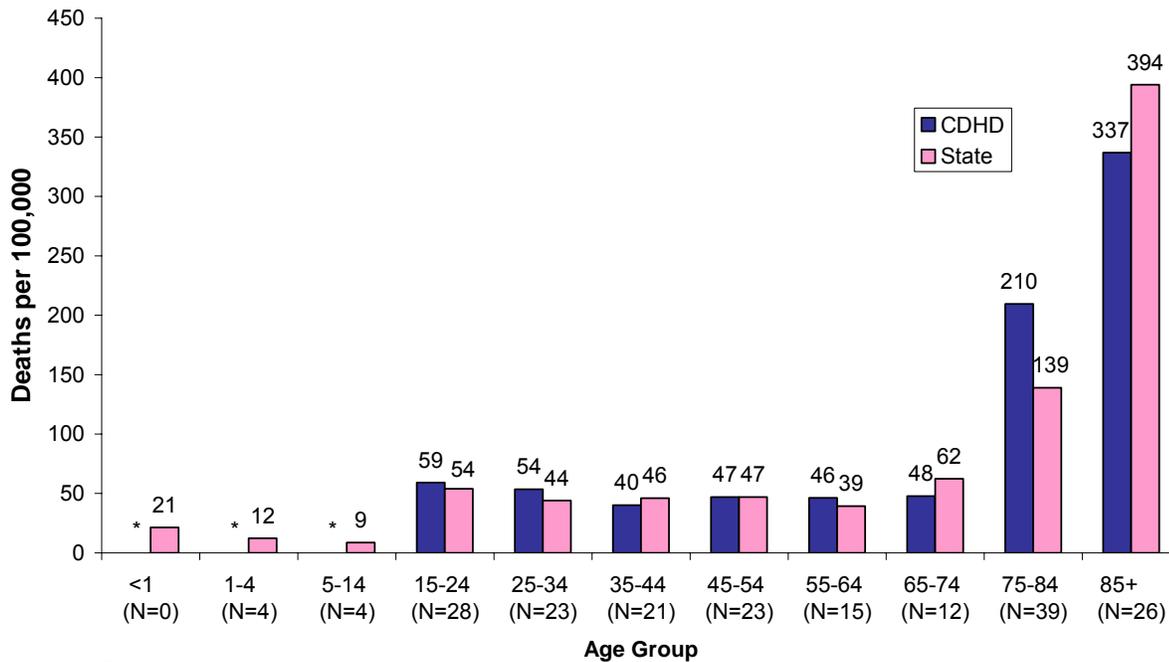
**Table D4: Injury-related Deaths and Hospital Discharges by Gender, Age, and Race**  
**Central District Health Department Coverage Area, NE, 1999-2003**

	Central HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	125	64.1	15,023	54.4	2,848	64.3	386,563	53.1
Female	70	35.9	12,595	45.6	1,581	35.7	341,506	46.9
Total	195	100.0	27,618	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	0	0.0	318	1.2	26	0.6	7,142	1.0
1-4	4	2.1	2,859	10.4	58	1.3	59,764	8.2
5-14	4	2.1	4,815	17.4	107	2.4	122,382	16.8
15-24	28	14.4	5,472	19.8	699	15.8	144,001	19.8
25-34	23	11.8	3,370	12.2	486	11.0	84,574	11.6
35-44	21	10.8	3,029	11.0	593	13.4	84,445	11.6
45-54	23	11.8	2,233	8.1	547	12.4	66,321	9.1
55-64	15	7.7	1,474	5.3	292	6.6	39,540	5.4
65-74	12	6.2	1,338	4.8	355	8.0	40,555	5.6
75-84	39	20.0	1,486	5.4	575	13.0	45,135	6.2
85+	26	13.3	1,224	4.4	691	15.6	34,222	4.7
Total	195	100.0	27,618	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	1	0.5			194	4.4		
Native American	1	0.5			72	1.6		
White	192	98.5			4,123	93.1		
Other	1	0.5			11	0.3		
Total	195	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Injury death rates were low for children, remained constant among residents age 15 to 64, then sharply increased for older adults 75 or older. (*Figure D2*).

**Figure D2: Injury Death Rates by Age,  
Central District Health Department Coverage Area, NE, 1999-2003**



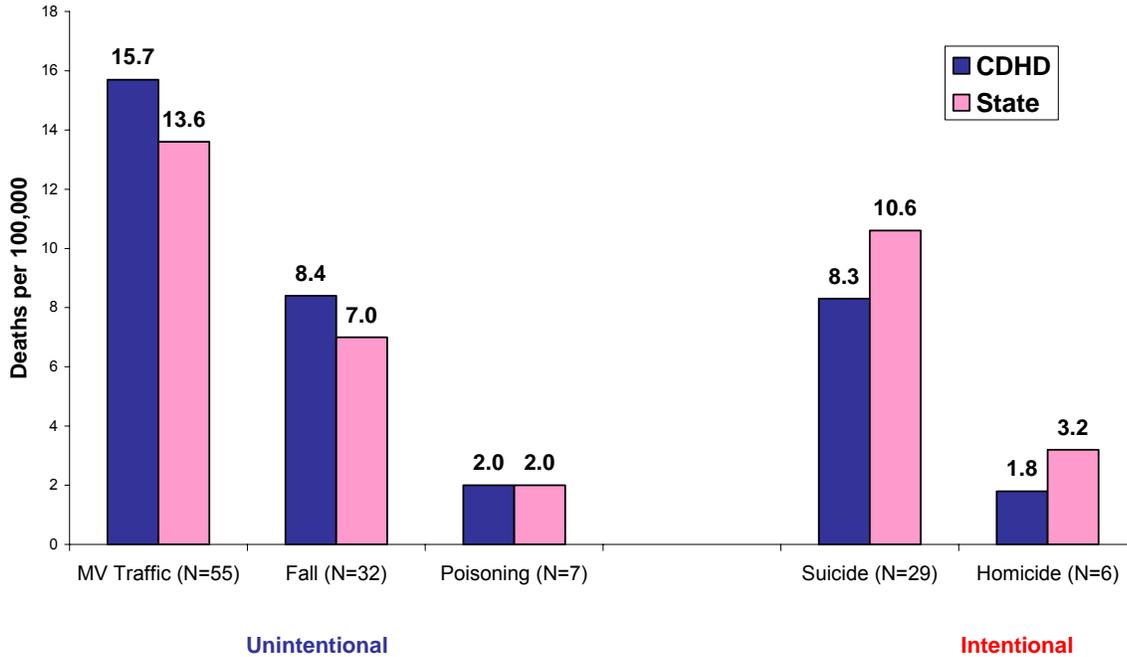
\* Fewer than five deaths

Source: DHHS Death Certificate Data 1999-2003

### Leading causes

- Motor vehicle crashes were the leading cause of injury death, with an age-adjusted rate of 15.7 per 100,000. The rate was slightly higher than the Nebraska rate (13.6 per 100,000) (Figure D3). The CDHD has not met the 2010 Nebraska Objective of 12.0 or fewer motor vehicle crash injury deaths per 100,000 population.
- Falls were the second leading cause of injury death. The age-adjusted death rate due to falls was slightly higher than the Nebraska rate (8.4 vs. 7.0 per 100,000) (Figure D3). The CDHD has not met the 2010 Nebraska Objective of 3.5 or fewer fall injury deaths per 100,000 population.
- Suicide was the third leading cause of injury death. The age-adjusted death rate for suicide was lower than the Nebraska rate (8.3 vs. 10.6 per 100,000) (Figure D3).

**Figure D3: Age-adjusted Injury Rates by Cause  
Central District Health Department, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- Motor vehicle crash deaths happened in nearly all age groups. However, persons age 15-24 years (N=19) were most likely to die because of a motor vehicle crash (*Table D5*).
- More than 81% of the deaths (N=26) due to fall injuries were among persons 75 years and older (*Table D6*).
- Those in the 45-54 year age group had the most deaths (N=7) due to suicide (*Table D7*).

**Gender**

- More males (N=39) died from motor vehicle crashes than females (N=16) (*Table D5*).
- More males (N=22) died from fall injuries than females (N=10) (*Table D6*).
- The number of males (N=24) who died from suicide was six times higher than the number of females (N=4) (*Table D7*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender,  
Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	1	2.6	0	0.0	1	1.8
5-14	1	2.6	0	0.0	1	1.8
15-24	15	38.5	4	25.0	19	34.5
25-34	6	15.4	3	18.8	9	16.4
35-44	6	15.4	2	12.5	8	14.5
45-54	4	10.3	1	6.3	5	9.1
55-64	1	2.6	2	12.5	3	5.5
65-74	1	2.6	1	6.3	2	3.6
75-84	3	7.7	2	12.5	5	9.1
85+	1	2.6	1	6.3	2	3.6
<b>Total</b>	<b>39</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>	<b>55</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D6: Deaths Due to Fall by Age and Gender,  
Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
35-44	1	4.5	0	0.0	1	3.1
55-64	2	9.1	0	0.0	2	6.3
65-74	1	4.5	2	20.0	3	9.4
75-84	11	50.0	3	30.0	14	43.8
85+	7	31.8	5	50.0	12	37.5
<b>Total</b>	<b>22</b>	<b>100.0</b>	<b>10</b>	<b>100.0</b>	<b>32</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D7: Deaths Due to Suicide by Age and Gender,  
Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	1	4.2	0	0.0	1	3.6
15-24	3	12.5	0	0.0	3	10.7
25-34	2	8.3	1	25.0	3	10.7
35-44	5	20.8	0	0.0	5	17.9
45-54	5	20.8	2	50.0	7	25.0
55-64	4	16.7	1	25.0	5	17.9
65-74	2	8.3	0	0.0	2	7.1
75-84	2	8.3	0	0.0	2	7.1
85+	1	4.2	0	0.0	1	3.6
<b>Total</b>	<b>24</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

## Hospital discharges

### Overall

- The Central District Health Department coverage area had a lower unintentional injury hospital discharge rate (7,252 per 100,000), higher suicide attempt rate (93 per 100,000), and lower assault rate (178 per 100,000) when compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).
- More males (14,770) than females (12,310) were treated at a hospital for all injury-related causes (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Central District Health Department, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	14,260	96.5	8,094.6	11,821	96.0	6,426.6	26,081	96.3	7,252.2	665,407	95.9	7,609.6
Suicide	107	0.7	63.0	203	1.6	122.5	310	1.1	93.0	6,379	0.9	75.0
Homicide	349	2.4	203.8	251	2.0	153.1	600	2.2	178.2	17,720	2.6	203.9
Undetermine	48	0.3	27.2	34	0.3	20.2	82	0.3	23.7	4,181	0.6	48.3
Other	6	0.0	3.5	1	0.0	0.6	7	0.0	2.1	404	0.1	4.7
<b>Total</b>	<b>14,770</b>	<b>100.0</b>	<b>8,392.1</b>	<b>12,310</b>	<b>100.0</b>	<b>6,723.0</b>	<b>27,080</b>	<b>100.0</b>	<b>7,549.1</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined with an age-adjusted rate of 2,015 per 100,000. The rate was relatively lower than the Nebraska rate (2,184 per 100,000). Falls were the leading cause of hospital discharges for all age groups except the 10-14 and 15-24 year olds. (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges for all ages combined, and the leading cause for the age groups 10-14 and 15-24. The age-adjusted hospital discharge rate for struck by/against was lower than the Nebraska rate (1,068 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharges. The age-adjusted rate was higher than the Nebraska rate (833 and 690 per 100,000) (*Figure H1*).
- Motor vehicle crashes (723 per 100,000) and overexertion (641 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking causes of injury hospital discharges in the CDHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Central District Health Department Region, Nebraska, 1999-2003**

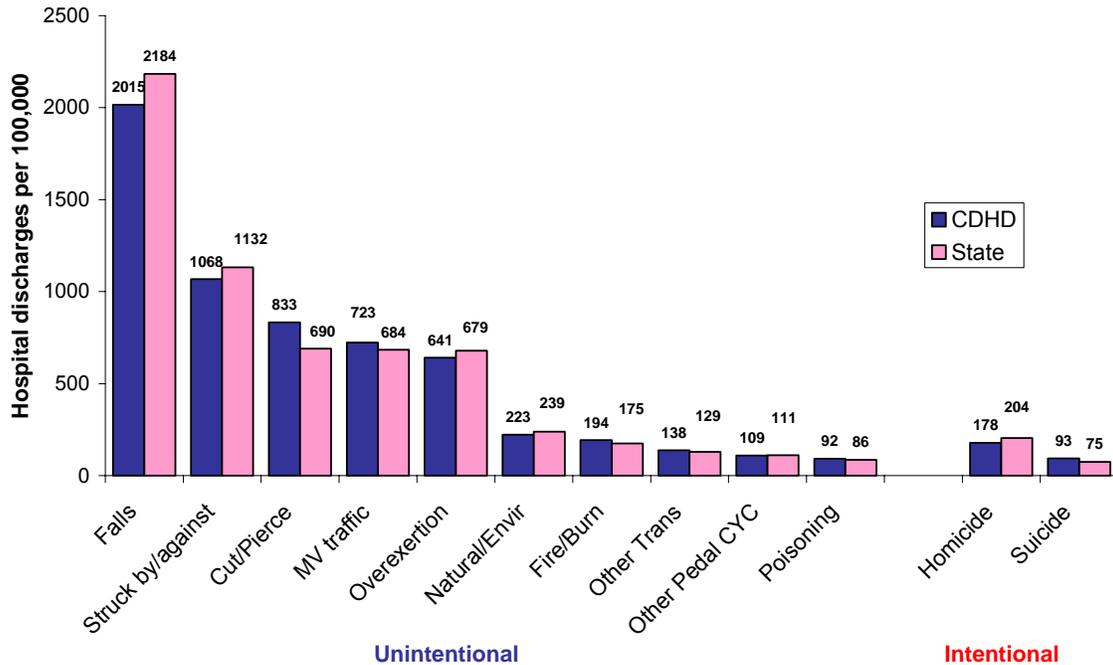
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=142	Falls N=999	Falls N=742	Struck by/against N=621	Struck by/against N=1032	Falls N=477	Falls N=550	Falls N=517	Falls N=506	Falls N=604	Falls N=908	Falls N=902	Falls N=7,653
2	Struck by/against N=30	Struck by/against N=475	Struck by/against N=442	Falls N=609	MV traffic N=863	Cut/Pierce N=453	Cut/Pierce N=428	Cut/Pierce N=289	Cut/Pierce N=171	MV traffic N=89	MV traffic N=87	MV traffic N=32	Struck by/against N=3,790
3	Fire/Burn N=25	Cut/Pierce N=267	Cut/Pierce N=264	Cut/Pierce N=267	Falls N=697	Struck by/against N=435	MV traffic N=336	MV traffic N=245	MV traffic N=120	Cut/Pierce N=76	Struck by/against N=52	Struck by/against N=24	Cut/Pierce N=2,914
4	Cut/Pierce N=17	Poisoning N=130	Other Pedal CYC N=167	Overexertion N=261	Cut/Pierce N=619	Overexertion N=408	Overexertion N=326	Overexertion N=221	Struck by/against N=109	Overexertion N=69	Cut/Pierce N=48	Overexertion N=24	MV traffic N=2,492
5	Poisoning N=13	Natural/Envir N=127	Natural/Envir N=112	MV traffic N=144	Overexertion N=572	MV traffic N=402	Struck by/against N=313	Struck by/against N=200	Overexertion N=102	Struck by/against N=57	Overexertion N=46	Cut/Pierce N=15	Overexertion N=2,220

Hospital visits includes visits as Inpatient, ER and Non-ER patient

Note: Causes coded as "Other Specified" and "Unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
Central District Health Department Coverage Area, NE, 1999-2003**



Source: Nebraska Hospital Discharge Data 1999-2003

**Age**

- Persons ages 85 and older had the highest hospital discharge rate for falls. Females in this age group had a higher rate than males (12,759 vs. 9,038 per 100,000) (*Table H3*).
- Among children ages 14 and under, the 1-4 year age group had the second highest fall injury hospital discharge rate after the 85 and older age group. This age group had a fall injury rate higher than the Nebraska rate (4,908 vs. 4,310). (*Table H3*).
- The 1-4 year age group had the highest hospital discharge rate (2,334 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,284 per 100,000). The rate was second highest for ages 15-24 at 2,179 per 100,000 (*Table H3*).
- The hospital discharge rates for cutting/piercing injuries was highest for the 1-4 year age group (1,312 per 100,000) (*Table H3*).
- Hospital discharge rates for motor vehicle crash injuries (1,822 per 100,000) and overexertion (1,208 per 100,000) were the highest for persons in the 15-24 year age group (*Table H3*).

**Gender:**

- Females had higher injury hospital discharge rates for falls than males (2,154 vs. 1,873 per 100,000) (*Table H3*).
- Hospital discharge rates for males were almost twice as that of females for struck by/against and cutting/piercing injuries (1,418 and 1,089 vs. 726 and 583 per 100,000) (*Table H3*).
- Female motor vehicle injury hospital discharge rates were higher than male rates (755 vs. 691 per 100,000) (*Table H3*).

Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Central Health Department Coverage area, NE, 1999-2003

Cause	Age	Central HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	73	2.2	2650.7	69	1.6	2678.6	142	1.9	2664.2	2298.5	2139.4	2220.8
Falls	1-4	597	17.9	5783.2	402	9.3	4008	999	13.1	4908.4	4871.2	3721.2	4309.7
Falls	5-14	767	23.1	2790.2	584	13.5	2236.2	1351	17.7	2520.3	2855.0	2404.1	2634.8
Falls	15-24	371	11.2	1524.7	326	7.5	1415.2	697	9.1	1471.5	1570.9	1323.5	1449.9
Falls	25-34	207	6.2	942.8	270	6.2	1287.4	477	6.2	1111.2	1048.4	1303.4	1173.8
Falls	35-44	222	6.7	841.6	328	7.6	1262.8	550	7.2	1050.6	1084.2	1357.6	1220.2
Falls	45-54	201	6	825.1	316	7.3	1285.6	517	6.8	1056.4	1116.0	1610.3	1364.2
Falls	55-64	214	6.4	1327.3	292	6.7	1798.8	506	6.6	1563.9	1337.7	1976.8	1664.3
Falls	65-74	195	5.9	1673	409	9.5	3037.5	604	7.9	2404.4	2151.5	3581.0	2926.8
Falls	75-84	278	8.4	3491.6	630	14.6	5916	908	11.9	4878.8	4355.2	7355.0	6138.2
Falls	85+	201	6	9037.8	701	16.2	12759	902	11.8	11687	10070.0	14640.0	13320.0
<b>Total</b>		<b>3326</b>	<b>100.0</b>	<b>1873.0</b>	<b>4327</b>	<b>100.0</b>	<b>2154.4</b>	<b>7653</b>	<b>100.0</b>	<b>2015.0</b>	<b>2013.8</b>	<b>2349.3</b>	<b>2184.0</b>
Struck by/against	<1	22	0.9	798.8	8	0.6	310.6	30	0.8	562.9	836	692.9	766.1
Struck by/against	1-4	297	11.8	2877.1	178	14.1	1774.7	475	12.5	2333.8	2812.4	1729.5	2283.7
Struck by/against	5-14	733	29	2666.5	330	26.1	1263.6	1063	28	1983	2919.3	1521.6	2236.7
Struck by/against	15-24	751	29.7	3086.5	281	22.2	1219.8	1032	27.2	2178.7	3069.3	1161.5	2135.8
Struck by/against	25-34	282	11.2	1284.4	153	12.1	729.5	435	11.5	1013.3	1212	676.9	948.9
Struck by/against	35-44	192	7.6	727.9	121	9.6	465.9	313	8.3	597.9	854.1	527.3	691.6
Struck by/against	45-54	119	4.7	488.5	81	6.4	329.5	200	5.3	408.6	574.9	385.7	479.9
Struck by/against	55-64	67	2.7	415.6	42	3.3	258.7	109	2.9	336.9	414.7	291.2	351.6
Struck by/against	65-74	33	1.3	283.1	24	1.9	178.2	57	1.5	226.9	415.7	292.7	349
Struck by/against	75-84	22	0.9	276.3	30	2.4	281.7	52	1.4	279.4	415.6	363.7	384.7
Struck by/against	85+	8	0.3	359.7	16	1.3	291.2	24	0.6	311	507.4	519.4	516
<b>Total</b>		<b>2526</b>	<b>100.0</b>	<b>1417.5</b>	<b>1264</b>	<b>100.0</b>	<b>726.1</b>	<b>3790</b>	<b>100.0</b>	<b>1068.0</b>	<b>1488.5</b>	<b>786.4</b>	<b>1132.3</b>
Cut/Pierce	<1	6	0.3	217.9	11	1.1	427	17	0.6	318.9	228.7	185.5	207.6
Cut/Pierce	1-4	164	8.6	1588.7	103	10.2	1026.9	267	9.2	1311.8	925.2	609.5	771.1
Cut/Pierce	5-14	325	17.1	1182.3	206	20.4	788.8	531	18.2	990.6	1033.2	615.8	829.4
Cut/Pierce	15-24	438	23	1800.1	181	18	785.7	619	21.2	1306.8	1399.6	650.1	1032.9
Cut/Pierce	25-34	321	16.8	1462.1	132	13.1	629.4	453	15.5	1055.3	1138.4	596.8	872.2
Cut/Pierce	35-44	270	14.2	1023.6	158	15.7	608.3	428	14.7	817.6	861.0	517.5	690.1
Cut/Pierce	45-54	187	9.8	767.6	102	10.1	415	289	9.9	590.5	650.7	401.2	525.4
Cut/Pierce	55-64	113	5.9	700.9	58	5.8	357.3	171	5.9	528.5	555.0	309.7	429.6
Cut/Pierce	65-74	46	2.4	394.6	30	3	222.8	76	2.6	302.5	582.4	266.5	411.1
Cut/Pierce	75-84	29	1.5	364.2	19	1.9	178.4	48	1.6	257.9	448.3	214.8	309.5
Cut/Pierce	85+	7	0.4	314.7	8	0.8	145.6	15	0.5	194.4	333.7	194.8	234.9
<b>Total</b>		<b>1906</b>	<b>100.0</b>	<b>1089.2</b>	<b>1008</b>	<b>100.0</b>	<b>582.8</b>	<b>2914</b>	<b>100.0</b>	<b>833.0</b>	<b>893.0</b>	<b>492.5</b>	<b>689.8</b>
MV traffic	<1	1	0.1	*	2	0.2	*	3	0.1	*	128.9	121.4	125.2
MV traffic	1-4	35	2.9	339	27	2.1	269.2	62	2.5	304.6	251	229.3	240.4
MV traffic	5-14	130	10.9	472.9	123	9.5	471	253	10.2	472	400	436	417.6
MV traffic	15-24	414	34.6	1701.5	449	34.7	1949.1	863	34.6	1821.9	1444.2	1831.5	1633.7
MV traffic	25-34	198	16.5	901.8	204	15.8	972.7	402	16.1	936.5	855.6	993	923.2
MV traffic	35-44	163	13.6	617.9	173	13.4	666.1	336	13.5	641.8	607.3	708.3	657.6
MV traffic	45-54	112	9.4	459.7	133	10.3	541.1	245	9.8	500.6	476.5	523.1	499.9
MV traffic	55-64	51	4.3	316.3	69	5.3	425.1	120	4.8	370.9	346.5	441.2	394.9
MV traffic	65-74	40	3.3	343.2	49	3.8	363.9	89	3.6	354.3	327.3	382.2	357.1
MV traffic	75-84	38	3.2	477.3	49	3.8	460.1	87	3.5	467.5	402.4	393.8	397.3
MV traffic	85+	15	1.3	674.5	17	1.3	309.4	32	1.3	414.6	404.8	248.5	293.6
<b>Total</b>		<b>1197</b>	<b>100.0</b>	<b>690.9</b>	<b>1295</b>	<b>100.0</b>	<b>754.5</b>	<b>2492</b>	<b>100.0</b>	<b>723.0</b>	<b>629.3</b>	<b>737.3</b>	<b>684.0</b>
Overexertion	<1	2	0.2	*	4	0.4	*	6	0.3	112.6	111.1	156.8	133.4
Overexertion	1-4	40	3.6	387.5	78	7	777.7	118	5.3	579.8	352.6	519.6	434.1
Overexertion	5-14	175	15.8	636.6	153	13.7	585.8	328	14.8	611.9	537.1	610.3	572.9
Overexertion	15-24	313	28.3	1286.4	259	23.2	1124.3	572	25.8	1207.6	1317.5	1024.1	1173.9
Overexertion	25-34	194	17.5	883.6	214	19.2	1020.4	408	18.4	950.5	952.4	828.7	891.6
Overexertion	35-44	172	15.6	652.1	154	13.8	592.9	326	14.7	622.7	817.7	677.3	747.9
Overexertion	45-54	114	10.3	467.9	107	9.6	435.3	221	10	451.6	616.4	572.9	594.5
Overexertion	55-64	47	4.2	291.5	55	4.9	338.8	102	4.6	315.2	426.6	433.8	430.3
Overexertion	65-74	32	2.9	274.5	37	3.3	274.8	69	3.1	274.7	356.1	445.4	404.6
Overexertion	75-84	15	1.4	188.4	31	2.8	291.1	46	2.1	247.2	311.8	419.9	376.0
Overexertion	85+	2	0.2	*	22	2	400.4	24	1.1	311	236.9	387.2	343.8
<b>Total</b>		<b>1106</b>	<b>100.0</b>	<b>635.8</b>	<b>1114</b>	<b>100.0</b>	<b>646.7</b>	<b>2220</b>	<b>100.0</b>	<b>641.0</b>	<b>705.5</b>	<b>635.6</b>	<b>679.2</b>

Source: Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* The number of hospital discharges is less than five, no rate calculated

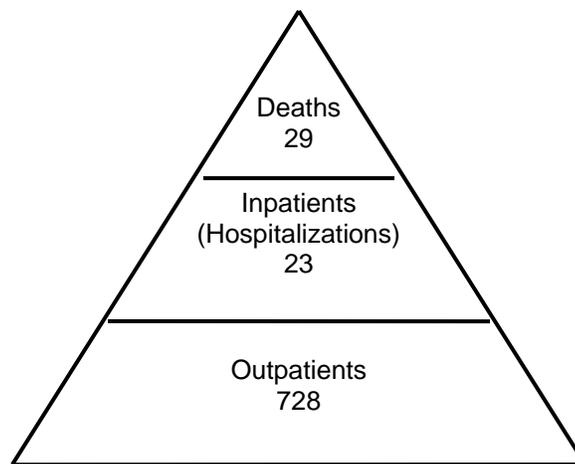
INJURY REPORT, 1999-2003

**Dakota County Health Department Coverage Area**  
Dakota County

**Summary**

Injury is a public health problem in Dakota County. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999-2003, in addition to 29 injury deaths, over 23 residents in Dakota County were hospitalized and more than 700 residents were treated at hospitals for injuries (*Figure A\**). Overall, suicide was the leading cause of injury death. Motor vehicle crashes were second, followed by homicide. In contrast to deaths, falls were the leading cause of injury hospital discharges and struck by/against injuries were second, followed by overexertion, cut/pierce, and motor vehicle crashes.

**Figure A: Injury Pyramid, Residents of Dakota County, NE, 1999-2003**



The pattern of injury varies by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 10-39, most were due to injuries. Therefore more years of potential life were lost due to injuries. Males were more than four times as likely as females to die from injuries. Older adults had a greater risk of fall injuries while teens and young adults were more likely to be injured due to stuck by/against, overexertion, motor vehicle crash, and cut/pierce.

The following table highlights Dakota County's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, motor vehicle crash death, and suicide (*Table A*).

**Table A: Injury Death Rates, Dakota County, NE, 1999-2003**

Death	Average Rate 1999-2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	10.6	19.4
Motor vehicle crash	4.8	12
Suicide	16.4	8.2

Source: DHHS Death Certificate Data

\*Note: According to the Nebraska Hospital Association, many residents of Dakota County may seek medical care in Sioux Fall, S. D.. Therefore, the number and rates of the hospital discharges may be undercounted and need to be used with caution.

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in Dakota County (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Dakota County, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	133
2	Cancer	115
3	Stroke	36
4	Injury	27
5	Alzheimer's	26

Source: DHHS Death Certificate Data, 1999-2003

- An average of 5 residents died from injury each year in Dakota County from 1999 to 2003 (*Table D2*).
- Deaths due to injuries made up 5.8% of total deaths in Dakota County, compared to 6% in Nebraska. In Dakota County, four out of six deaths among 10-24-year-olds and three out of four deaths among 35-39-year-olds were due to injuries (*Table D2*).

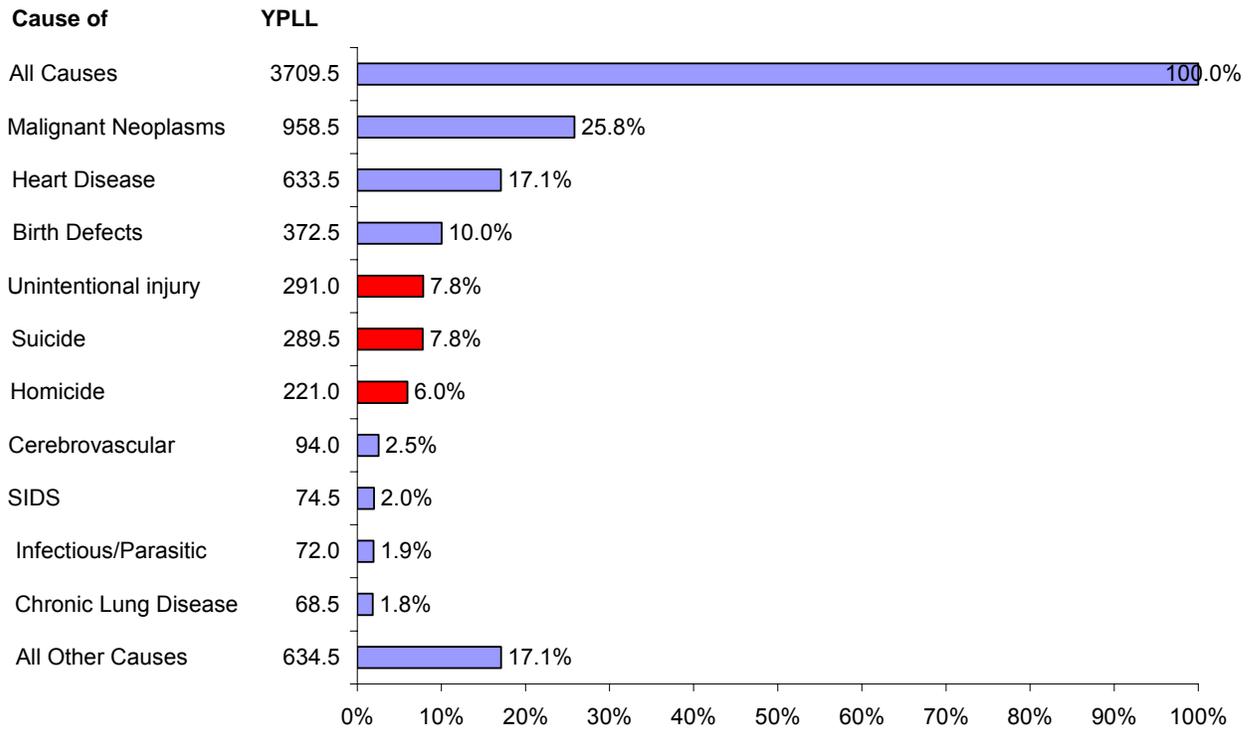
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Dakota County, NE, 1999-2003**

Age Group	Annual Average			Percent of Death due to Injury
	Injury Deaths	Injury Deaths	All Deaths	
<1	1	0	8	12.5
1-4	1	0	2	50.0
5-9	0	0	2	0.0
10-14	1	0	1	100.0
15-19	1	0	1	100.0
20-24	2	0	4	50.0
25-29	0	0	1	0.0
30-34	0	0	3	0.0
35-39	3	1	4	75.0
40-44	2	0	8	25.0
45-49	5	1	17	29.4
50-54	4	1	20	20.0
55-59	0	0	14	0.0
60-64	1	0	22	4.5
65-74	0	0	70	0.0
75-84	3	1	114	2.6
85+	3	1	171	1.8
<b>Total</b>	<b>27</b>	<b>5</b>	<b>462</b>	<b>5.8</b>

Source: DHHS Death Certificate Data, 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked fourth (7.8%), following those from cancer (25.8%), heart disease (17.1%), and birth defects (10.0%). Suicide ranked 5<sup>th</sup> at 7.8% and homicide ranked 6<sup>th</sup> at 6.0% (*Figure D1*).

**Figure D1: Years of Potential Life Lost ( YPLL) before 75 by Cause of Death  
Dakota County, NE, 1999-2003**



- Dakota County had a lower unintentional injury rate (10.6 per 100,000) but a higher suicide rate (16.4 per 100,000) than Nebraska rates (33.3 and 10.6 per 100,000 respectively) (*Table D3*).
- Overall, males (55.5 per 100,000) were nearly six times as likely as females (9.5 per 100,000) to die from injuries (*Table D3*).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Dakota County, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	9	37.5	19.8	1	20.0	*	10	34.5	10.6	3,020	70.4	33.3
Suicide	11	45.8	28.9	2	40.0	*	13	44.8	16.4	894	20.8	10.6
Homicide	2	8.3	*	2	40.0	*	4	13.8	*	273	6.4	3.2
Legal/War	1	4.2	*	0	0.0	0.0	1	3.4	*	10	0.2	1.6
Adverse Effects	1	4.2	*	0	0.0	0.0	1	3.4	*	93	2.2	0.0
<b>Total</b>	<b>24</b>	<b>100.0</b>	<b>55.5</b>	<b>5</b>	<b>100.0</b>	<b>9.5</b>	<b>29</b>	<b>100.0</b>	<b>32.4</b>	<b>4,290</b>	<b>100.0</b>	<b>48.7</b>

Source: DHHS Death Certificate Data, 1999-2003

\* the number of deaths is less than five, no rate calculated

- More males (82.8%) died from all injury-related causes than females (17.2%) (*Table D4*).

**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race, Dakota County, NE, 1999-2003**

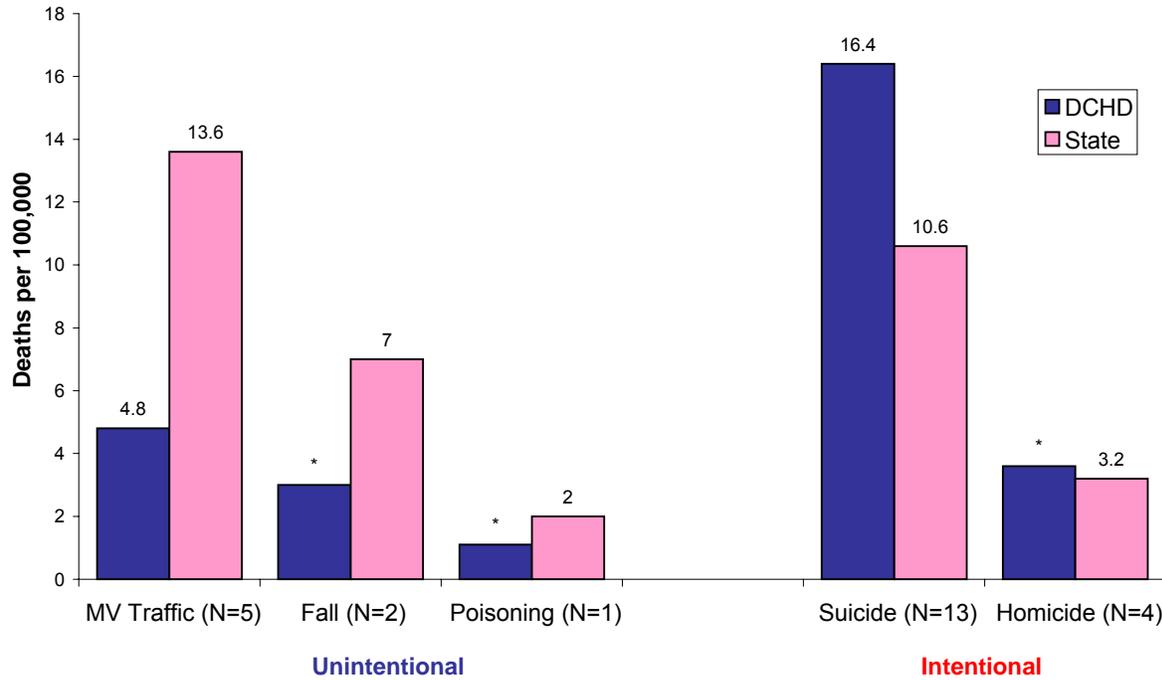
	Dakota County HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	24	82.8	454	60.45	2,848	64.3	386,563	53.1
Female	5	17.2	297	39.55	1,581	35.7	341,506	46.9
Total	29	100.0	751	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	1	3.5	7	0.93	26	0.6	7,142	1.0
1-4	1	3.5	46	6.13	58	1.3	59,764	8.2
5-14	2	6.9	126	16.78	107	2.4	122,382	16.8
15-24	3	10.3	178	23.7	699	15.8	144,001	19.8
25-34	1	3.5	75	9.99	486	11.0	84,574	11.6
35-44	5	17.2	82	10.92	593	13.4	84,445	11.6
45-54	9	31.0	76	10.12	547	12.4	66,321	9.1
55-64	1	3.5	49	6.52	292	6.6	39,540	5.4
65-74	0	0.0	40	5.33	355	8.0	40,555	5.6
75-84	3	10.3	36	4.79	575	13.0	45,135	6.2
85+	3	10.3	36	4.79	691	15.6	34,222	4.7
Total	29	100.0	751	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	1	3.5			29	0.7		
African American	0	0.0			194	4.4		
Native American	0	0.0			72	1.6		
White	28	96.6			4,123	93.1		
Other	0	0.0			11	0.3		
Total	29	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

### Leading causes

- Suicide was the leading cause of injury death at a rate of 16.4 per 100,000 (N=13), which was higher than the Nebraska rate (10.6 per 100,000) (*Figure D3*).
- Motor vehicle crashes were the second leading cause of injury death at a rate of 4.8 per 100,000 (N=5). The rate was lower than the Nebraska rate (13.6 per 100,000) (*Figure D3*).

**Figure D3: Age-adjusted Injury Deaths by Cause  
Dakota County, NE, 1999-2003**



\* Fewer than five deaths  
Source: DHHS Death Certificate Data 1999-2003

**Age**

- Of five motor vehicle crash deaths, three were persons age 45-54 years. (Table D4)
- Of 13 suicide deaths, persons age 35-44 years accounted for 30.8%, followed by ages 45-54 (23.1%) and 75-85 (23.1%) (Table D6).

**Gender**

- All motor vehicle crash related deaths were males (N=5) (Table D4).
- Both fall-related injury deaths were males (Table D5).
- More males (N=11) died from suicide than females (N=2) (Table D6).

**Table D4: Deaths Due to Motor Vehicle Crash by Age and Gender, Dakota County, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	1	20.0	0	0.0	1	20.0
15-24	1	20.0	0	0.0	1	20.0
45-54	3	60.0	0	0.0	3	60.0
<b>Total</b>	<b>5</b>	<b>100.0</b>	<b>0</b>	<b>0.0</b>	<b>5</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D5: Deaths Due to Fall by Age and Gender, Dakota County, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
45-54	1	50.0	0	0.0	1	50.0
85+	1	50.0	0	0.0	1	50.0
Total	2	100.0	0	0.0	2	100.0

Source: DHHS Death Certificate Data, 1999-2003

**Table D6: Deaths Due to Suicide by Age and Gender, Dakota County, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	0	0.0	1	50.0	1	7.7
35-44	4	36.4	0	0.0	4	30.8
45-54	2	18.2	1	50.0	3	23.1
55-64	1	9.1	0	0.0	1	7.7
75-84	3	27.3	0	0.0	3	23.1
85+	1	9.1	0	0.0	1	7.7
Total	11	100.0	2	100.0	13	100.0

Source: DHHS Death Certificate Data, 1999-2003

## Hospital Discharges

### Overall

- Dakota County had a much lower unintentional injury discharge rate (696 per 100,000), suicide attempt rate (5 per 100,000), and assault rate (10 per 100,000) than Nebraska rates (7,610, 75, and 204 per 100,000) respectively (*Table H1*).
- More males (54.2%) than females (45.8%) were treated at a hospital for all injury-related causes (*Table D4*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Dakota County, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	432	98.2	866.1	272	96.8	527.5	704	97.6	696.4	665,407	95.9	7,609.6
Suicide Attempt	1	0.2	*	4	1.4	*	5	0.7	4.8	6,379	0.9	75.0
Assault	7	1.6	12.1	4	1.4	*	11	1.5	10.1	17,720	2.6	203.9
Undetermined	0	0.0	0.0	1	0.4	*	1	0.1	*	4,181	0.6	48.3
Other	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	404	0.1	4.7
<b>Total</b>	<b>440</b>	<b>100.0</b>	<b>879.9</b>	<b>281</b>	<b>100.0</b>	<b>545.3</b>	<b>721</b>	<b>100.0</b>	<b>712.3</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: Nebraska Hospital Discharge Data 1999-2003

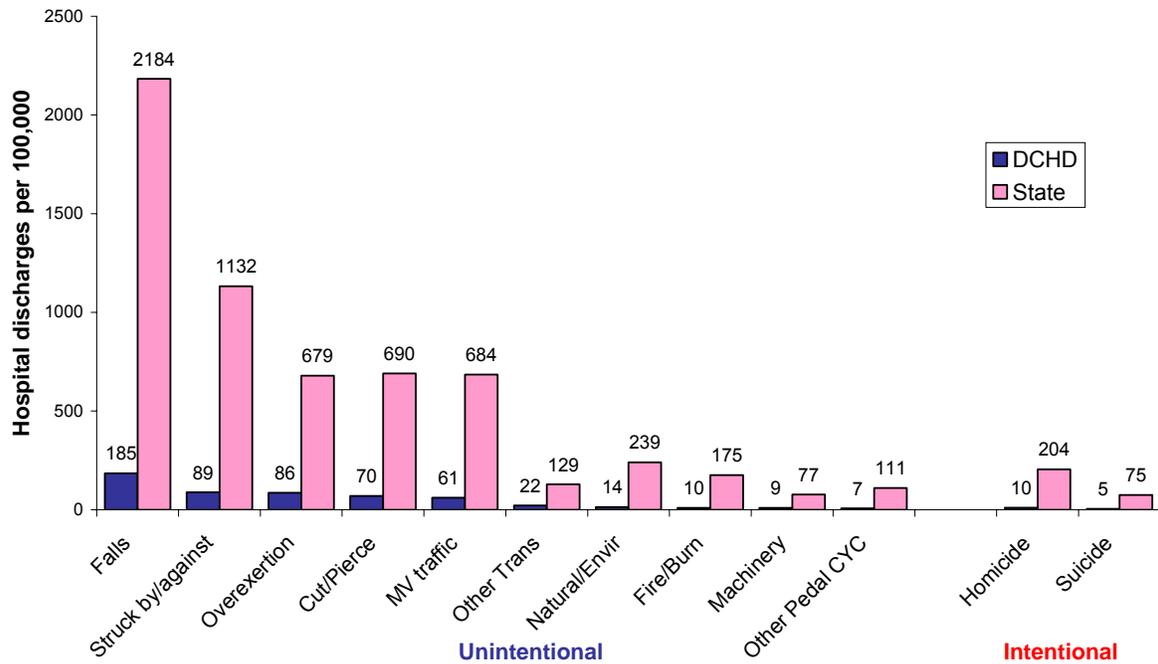
Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

### Leading causes

- Falls were the leading cause of injury related hospital discharges for all age groups combined with an age-adjusted rate of 185 per 100,000. The rate was more than ten times lower than the Nebraska rate (2,184 per 100,000) (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury related hospital discharges for all age groups combined. The age-adjusted hospital discharge rate for struck by/against was much lower than the Nebraska rate (89 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).

- Overexertion was the third leading cause of injury related hospital discharges. The age-adjusted rate was lower than the Nebraska rate (86 and 679 per 100,000) (Table H2 & Figure H1).
- Cutting/piercing (70 per 100,000) and motor vehicle crashes (61 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> leading causes of injury-related hospital discharges (Table H2 & Figure H1).

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
Dakota County, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Dakota County, Nebraska, 1999-2003**

Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=4	Falls N=12	Falls N=13	Struck by/against N=19	Struck by/against N=35	Falls N=12	Overexertion N=15	Falls N=14	Falls N=10	Falls N=19	Falls N=15	Falls N=28	Falls N=183
2	Homicide N=1	Struck by/against N=10	Struck by/against N=11	Falls N=17	Falls N=27	Cut/Pierce N=10	Falls N=12	Overexertion N=12	Cut/Pierce N=7	Cut/Pierce N=3	MV traffic N=2	MV traffic N=2	Struck by/against N=98
3		Overexertion N=6	Cut/Pierce N=7	Overexertion N=14	Overexertion N=24	Overexertion N=9	MV traffic N=9	MV traffic N=9	Overexertion N=6	MV traffic N=2	Firearm N=1	Cut/Pierce N=1	Overexertion N=89
4		Cut/Pierce N=5	MV traffic N=4	Cut/Pierce N=8	MV traffic N=20	MV traffic N=6	Struck by/against N=9	Cut/Pierce N=8	MV traffic N=3	Overexertion N=2	Cut/Pierce N=1		Cut/Pierce N=73
5		Poisoning N=2	Other Pedal CYC N=4	MV traffic N=2	Cut/Pierce N=15	Struck by/against N=6	Cut/Pierce N=8	Struck by/against N=4	Struck by/against N=2	Struck by/against N=1	Struck by/against N=1		MV traffic N=60

Hospital visits includes visits as Inpatient, ER and Non-ER patient

Note: Causes coded as "Other Specified" and "Unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data, 1999-2003

**Age**

- Older adults (85 or older) had the highest fall injury hospital discharge rate at 1,930 per 100,000, which was lower than the Nebraska rate at 13,320 per 100,000 (*Table H3*).
- The 15-24 year age group had the highest injury hospital discharge rates for the following categories: struck by/against (230 per 100,000), overexertion (158 per 100,000), cutting/piercing (99 per 100,000) and motor vehicle crashes (132. (*Table H3*).

**Gender**

- Females had higher fall injury hospital discharge rates than males (190.4 vs. 179.5 per 100,000) (*Table H3*).
- Males (128.2 per 100,000) were more than 2.5 times likely to be injured due to struck by/against than females (49.6 per 100,000).
- Males also had higher injury hospital discharge rates for overexertion (106.9 per 100,000), cutting/piercing (92.8 per 100,000), and motor vehicle crashes (73.4 per 100,000) than females (65.5, 47.4, and 49.1 per 100,000 respectively) (*Table H3*).

Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Dakota County, NE, 1999-2003

Cause	Age	Dakota County									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	0	0	0	4	4	*	4	2.2	*	2298.5	2139.4	2220.8
Falls	1-4	6	7.3	169.9	6	5.9	171.5	12	6.6	170.7	4871.2	3721.2	4309.7
Falls	5-14	21	25.6	244.5	9	8.9	110	30	16.4	178.8	2855.0	2404.1	2634.8
Falls	15-24	10	12.2	126.3	17	16.8	233.1	27	14.8	177.5	1570.9	1323.5	1449.9
Falls	25-34	11	13.4	155.5	1	1	*	12	6.6	86	1048.4	1303.4	1173.8
Falls	35-44	3	3.7	*	9	8.9	123.4	12	6.6	81.2	1084.2	1357.6	1220.2
Falls	45-54	7	8.5	107.9	7	6.9	110	14	7.7	108.9	1116.0	1610.3	1364.2
Falls	55-64	2	2.4	*	8	7.9	199.5	10	5.5	124.2	1337.7	1976.8	1664.3
Falls	65-74	10	12.2	400.3	9	8.9	313.9	19	10.4	354.1	2151.5	3581.0	2926.8
Falls	75-84	5	6.1	369.3	10	9.9	459.3	15	8.2	424.8	4355.2	7355.0	6138.2
Falls	85+	7	8.5	1776.6	21	20.8	1986.8	28	15.3	1929.7	10070.0	14640.0	13320.0
<b>Total</b>		82	100.0	179.5	101	100.0	190.4	183	100.0	185.0	2013.8	2349.3	2184.0
Struck by/against	<1	0	0	0	0	0	0	0	0	0	836	692.9	766.1
Struck by/against	1-4	7	9.7	198.2	3	11.5	*	10	10.2	142.3	2812.4	1729.5	2283.7
Struck by/against	5-14	22	30.6	256.1	8	30.8	97.8	30	30.6	178.8	2919.3	1521.6	2236.7
Struck by/against	15-24	29	40.3	366.2	6	23.1	82.3	35	35.7	230.1	3069.3	1161.5	2135.8
Struck by/against	25-34	4	5.6	*	2	7.7	*	6	6.1	43	1212	676.9	948.9
Struck by/against	35-44	6	8.3	80.2	3	11.5	*	9	9.2	60.9	854.1	527.3	691.6
Struck by/against	45-54	2	2.8	*	2	7.7	*	4	4.1	*	574.9	385.7	479.9
Struck by/against	55-64	2	2.8	*	0	0	0	2	2	*	414.7	291.2	351.6
Struck by/against	65-74	0	0	0	1	3.8	*	1	1	*	415.7	292.7	349
Struck by/against	75-84	0	0	0	1	3.8	*	1	1	*	415.6	363.7	384.7
Struck by/against	85+	0	0	0	0	0	0	0	0	0	507.4	519.4	516
<b>Total</b>		72	100.0	128.2	26	100.0	49.6	98	100.0	88.8	1488.5	786.4	1132.3
Overexertion	<1	0	0	0	0	0	0	0	0	0	111.1	156.8	133.4
Overexertion	1-4	1	1.8	*	5	14.7	142.9	6	6.7	85.4	352.6	519.6	434.1
Overexertion	5-14	8	14.5	93.1	6	17.6	73.3	14	15.7	83.5	537.1	610.3	572.9
Overexertion	15-24	17	30.9	214.7	7	20.6	96	24	27	157.8	1317.5	1024.1	1173.9
Overexertion	25-34	4	7.3	*	5	14.7	72.6	9	10.1	64.5	952.4	828.7	891.6
Overexertion	35-44	12	21.8	160.3	3	8.8	*	15	16.9	101.5	817.7	677.3	747.9
Overexertion	45-54	9	16.4	138.7	3	8.8	*	12	13.5	93.4	616.4	572.9	594.5
Overexertion	55-64	2	3.6	*	4	11.8	*	6	6.7	74.5	426.6	433.8	430.3
Overexertion	65-74	2	3.6	*	0	0	0	2	2.2	*	356.1	445.4	404.6
Overexertion	75-84	0	0	0	1	2.9	*	1	1.1	*	311.8	419.9	376.0
Overexertion	85+	0	0	0	0	0	0	0	0	0	236.9	387.2	343.8
<b>Total</b>		55	100.0	106.9	34	100.0	65.5	89	100.0	86.2	705.5	635.6	679.2
Cut/Pierce	<1	0	0	0	0	0	0	0	0	0	228.7	185.5	207.6
Cut/Pierce	1-4	3	6.1	*	2	8.3	*	5	6.8	71.1	925.2	609.5	771.1
Cut/Pierce	5-14	12	24.5	139.7	3	12.5	*	15	20.5	89.4	1033.2	615.8	829.4
Cut/Pierce	15-24	12	24.5	151.5	3	12.5	*	15	20.5	98.6	1399.6	650.1	1032.9
Cut/Pierce	25-34	6	12.2	84.8	4	16.7	*	10	13.7	71.6	1138.4	596.8	872.2
Cut/Pierce	35-44	5	10.2	66.8	3	12.5	*	8	11	54.1	861	517.5	690.1
Cut/Pierce	45-54	4	8.2	*	4	16.7	*	8	11	62.2	650.7	401.2	525.4
Cut/Pierce	55-64	5	10.2	123.8	2	8.3	*	7	9.6	87	555	309.7	429.6
Cut/Pierce	65-74	2	4.1	*	1	4.2	*	3	4.1	*	582.4	266.5	411.1
Cut/Pierce	75-84	0	0	0	1	4.2	*	1	1.4	*	448.3	214.8	309.5
Cut/Pierce	85+	0	0	0	1	4.2	*	1	1.4	*	333.7	194.8	234.9
<b>Total</b>		49	100.0	92.8	24	100.0	47.4	73	100.0	70.1	893.0	492.5	689.8
MV traffic	<1	0	0	0	0	0	0	0	0	0	128.9	121.4	125.2
MV traffic	1-4	1	2.8	*	0	0	0	1	1.7	*	251.0	229.3	240.4
MV traffic	5-14	3	8.3	*	3	12.5	*	6	10	35.8	400.0	436.0	417.6
MV traffic	15-24	14	38.9	176.8	6	25	82.3	20	33.3	131.5	1444.2	1831.5	1633.7
MV traffic	25-34	4	11.1	*	2	8.3	*	6	10	43	855.6	993.0	923.2
MV traffic	35-44	4	11.1	*	5	20.8	68.6	9	15	60.9	607.3	708.3	657.6
MV traffic	45-54	5	13.9	77.1	4	16.7	*	9	15	70	476.5	523.1	499.9
MV traffic	55-64	2	5.6	*	1	4.2	*	3	5	*	346.5	441.2	394.9
MV traffic	65-74	0	0	0	2	8.3	*	2	3.3	*	327.3	382.2	357.1
MV traffic	75-84	1	2.8	*	1	4.2	*	2	3.3	*	402.4	393.8	397.3
MV traffic	85+	2	5.6	*	0	0	0	2	3.3	*	404.8	248.5	293.6
<b>Total</b>		36	100.0	73.4	24	100.0	49.1	60	100.0	61.3	629.3	737.3	684.0

Source: Hospital Discharge Data 1999-2003  
Rates are per 100,000 per year

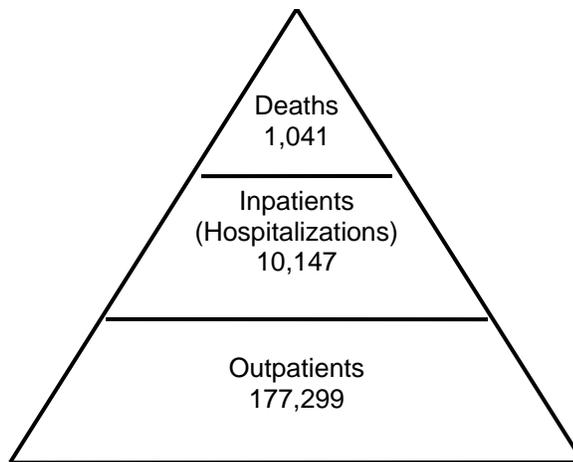
INJURY REPORT, 1999-2003

**Douglas County Health Department Coverage Area**  
Douglas County

**Summary**

Injury is a public health problem in Douglas County. Overall, injury is the fifth leading cause of death (*Table D1*). From 1999 to 2003, in addition to more than 1,000 injury deaths, over 10,000 residents of Douglas County were hospitalized and nearly 177,300 residents were treated at hospitals for injuries (*Figure A*). Overall, suicides were the leading cause of injury death. Motor vehicle crashes were second, followed by falls and homicide. Except homicide, Douglas County had lower injury death rates than Nebraska rates. The homicide rate in Douglas County was twice as high as that of Nebraska. In contrast to deaths, falls were the leading cause of injury related hospital discharges, struck by/against injuries were second, followed by motor vehicle crash, cut/pierce, and overexertion.

**Figure A: Injury Pyramid, Residents of Douglas County, NE, 1999-2003**



The pattern of injury varies by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were almost twice as likely as females to die from injury.

The following table highlights Douglas County's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, suicide, and homicide (*Table A*).

**Table A: Injury Death Rates, Douglas County, NE, 2003**

Cause of Death	Adjusted Rate 2003	2010 Nebraska Objective (rate per 100,000 people)
Unintentional Injury	26.7	19.4
Fall	6.7	3.5
Suicide	9.6	8.2
Homicide	7.6	2.0

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fifth leading cause of death in Douglas County (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Douglas County, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	4,373
2	Cancer	4,241
3	Stroke	1,179
4	Chronic Lung Disease	1,005
5	Injury	953

Source: DHHS Death Certificate Data 1999-2003

- An average of 190 residents died from injury each year in Douglas County (*Table D2*).
- Deaths due to injury made up 5.4% of total deaths, compared to 6% in Nebraska. More than half of the deaths among 15-29-year-olds in Douglas County due to injuries (*Table D2*).

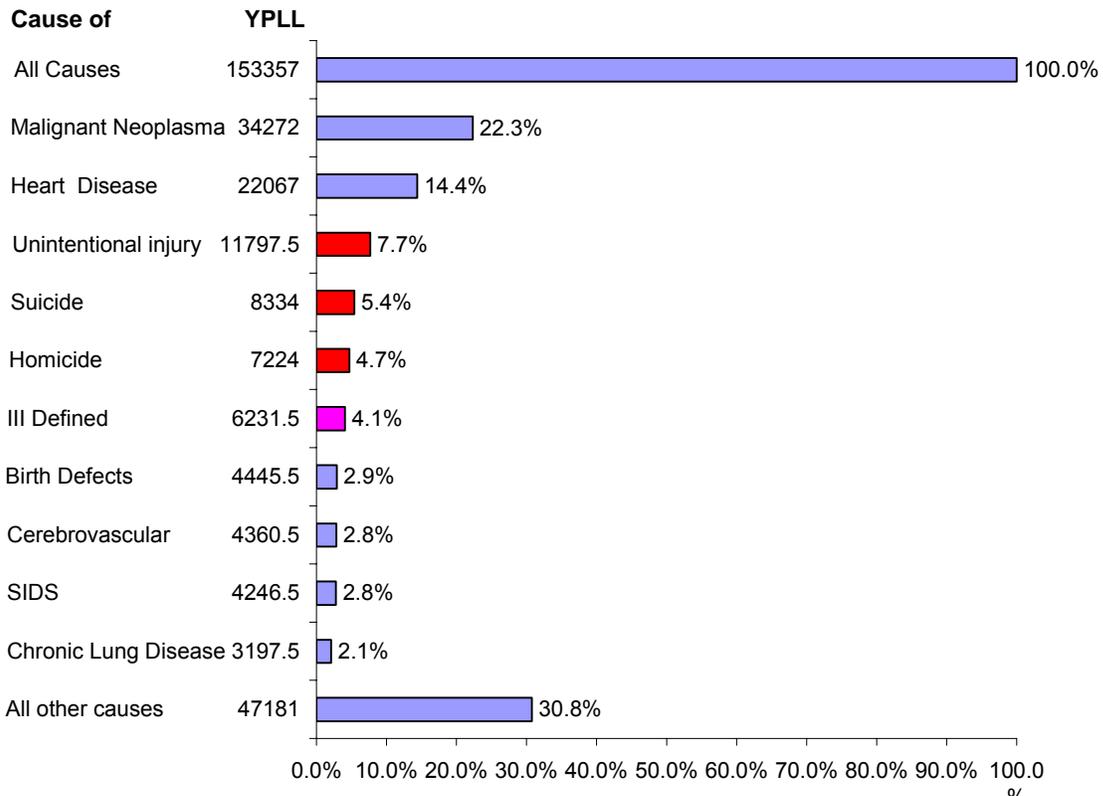
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Douglas County, NE, 1999-2003**

Age Group	Annual Average			Percent of
	Injury Deaths	Injury Deaths	All Deaths	Death due to Injury
<1	6	1	286	2.1
1-4	17	3	46	37.0
5-9	13	3	28	46.4
10-14	9	2	22	40.9
15-19	65	13	100	65.0
20-24	94	19	133	70.7
25-29	70	14	131	53.4
30-34	71	14	158	44.9
35-39	71	14	265	26.8
40-44	69	14	395	17.5
45-49	59	12	499	11.8
50-54	55	11	711	7.7
55-59	32	6	764	4.2
60-64	16	3	967	1.7
65-74	68	14	3,317	2.1
75-84	112	22	5,182	2.2
85+	126	25	4,779	2.6
<b>Total</b>	<b>953</b>	<b>191</b>	<b>17,783</b>	<b>5.4</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked third (7.7%), following cancer (22.3%) and heart disease (14.4%). Suicide ranked 4<sup>th</sup> at 5.4% and homicide ranked 5<sup>th</sup> at 4.7% (*Figure D1*).

**Figure D1: Years of Potential Life Lost ( YPLL) before 75 by Cause of Death, Douglas County, NE, 1999-2003**



- Douglas County had a lower unintentional injury rate, equivalent suicide rate and higher homicide rate (25.4, 10.7, and 6.5 per 100,000 respectively) than Nebraska rates (33.3, 10.6, and 3.2 per 100,000 respectively) (Table D3).

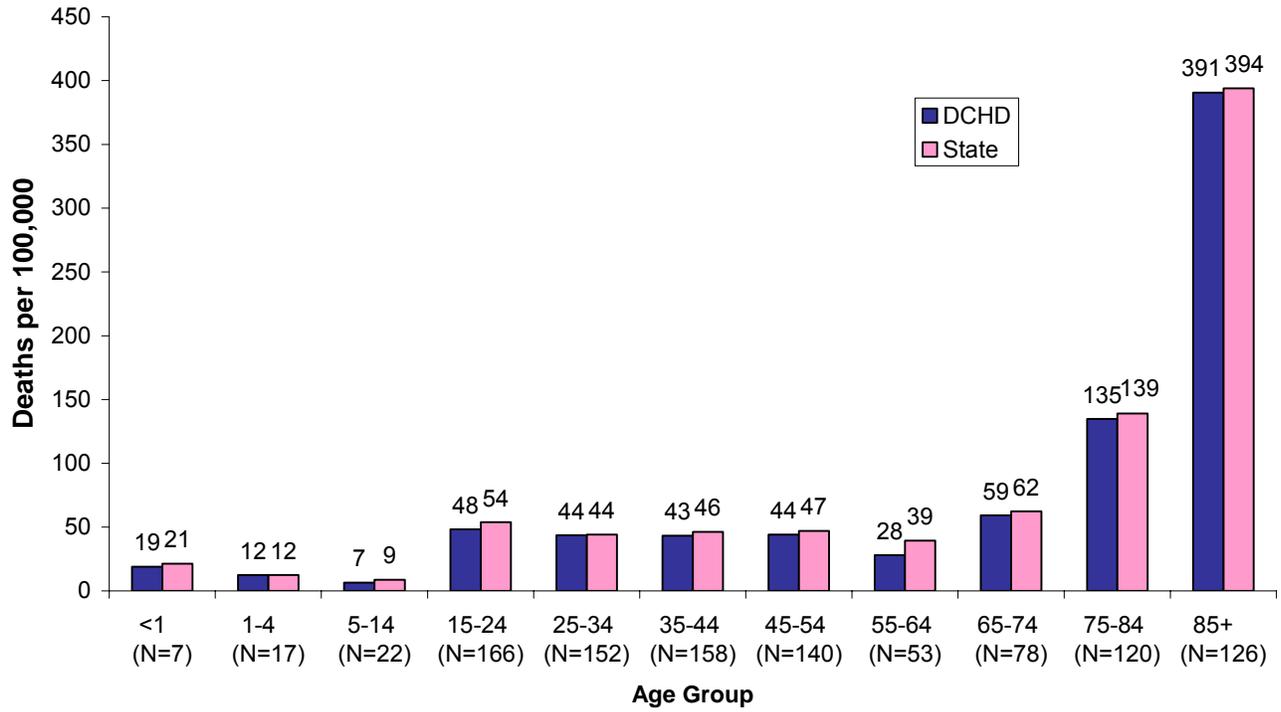
**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Douglas County, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	315	46.3	32.9	236	65.4	18.2	551	52.9	25.4	3,020		33.3
Suicide	198	29.1	17.8	47	13.0	3.9	245	23.5	10.7	894		10.6
Homicide	115	16.9	9.5	42	11.6	3.5	157	15.1	6.5	273		3.2
Undetermined	41	6.0	3.6	25	6.9	2.1	66	6.3	2.8	139		1.6
Legal/War	5	0.7	0.4	0	0.0	0.0	5	0.5	0.2	10		0.0
Adverse Effects	6	0.9	0.8	11	3.0	0.9	17	1.6	0.9	93		1.0
<b>Total</b>	<b>680</b>	<b>100.0</b>	<b>65.0</b>	<b>361</b>	<b>100.0</b>	<b>28.6</b>	<b>1,041</b>	<b>100.0</b>	<b>46.4</b>	<b>4,429</b>	<b>100.2</b>	<b>48.9</b>

Source: DHHS Death Certificate Data, 1999-2003

- More males (65%) died from all injuries than females (35%) (Table D4).
- Douglas County had slightly lower injury death rates than Nebraska rates in all age groups. (Figure D2).

**Figure D2: All Injury Death Rates by Age  
Douglas County, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Table D4: Injury-Related Deaths and Hospital Discharges by Gender, Age, and Race,  
Douglas County, NE, 1999-2003**

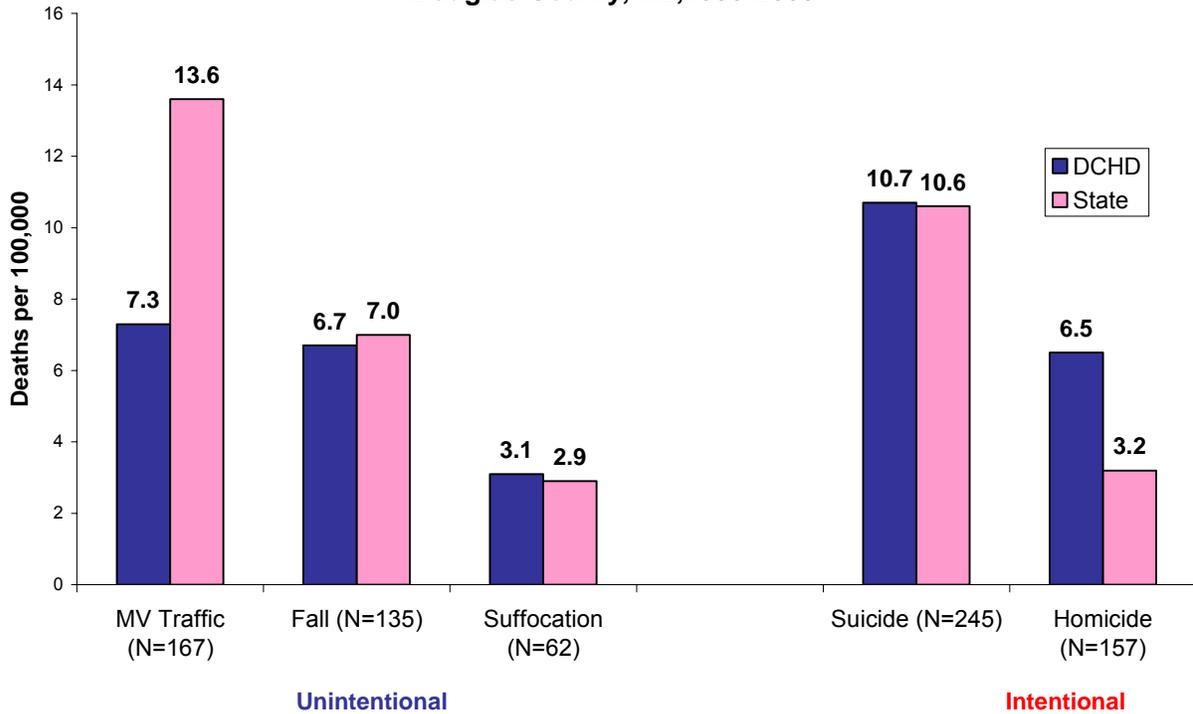
	Douglas HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	680	65.3	96,555	51.5	2,848	64.3	386,563	53.1
Female	361	34.7	90,883	48.5	1,581	35.7	341,506	46.9
Total	1041	100.0	187,438	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	7	0.7	2,266	1.2	26	0.6	7,142	1.0
1-4	17	1.6	17,853	9.5	58	1.3	59,764	8.2
5-14	22	2.1	33,527	17.9	107	2.4	122,382	16.8
15-24	166	16.0	35,070	18.7	699	15.8	144,001	19.8
25-34	152	14.6	24,439	13.0	486	11.0	84,574	11.6
35-44	158	15.2	23,466	12.5	593	13.4	84,445	11.6
45-54	140	13.5	18,078	9.6	547	12.4	66,321	9.1
55-64	53	5.1	10,189	5.4	292	6.6	39,540	5.4
65-74	78	7.5	8,386	4.5	355	8.0	40,555	5.6
75-84	120	11.5	8,669	4.6	575	13.0	45,135	6.2
85+	128	12.3	5,503	2.9	691	15.6	34,222	4.7
Total	1041	100.0	187,446	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	10	1.0			29	0.7		
African American	169	16.2			194	4.4		
Native American	13	1.3			72	1.6		
White	847	81.4			4,123	93.1		
Other	2	0.2			11	0.3		
Total	1041	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

#### Leading causes

- Suicide was the leading cause of injury death with an age-adjusted rate of 10.7 per 100,000. The rate was almost equivalent to the state rate (10.6 per 100,000) (*Table D3 & Figure D3*).
- Motor vehicle crashes were the second leading cause of injury death. The age-adjusted death rate for motor vehicle crashes was lower than the state rate (7.3 and 13.6 per 100,000 respectively) (*Figure D3*).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls was slightly lower than the state rate (6.7 and 7.0 per 100,000 respectively) (*Figure D3*).
- Homicide was the fourth leading cause of injury death. The death rate for homicide (6.5 per 100,000) was twice the state rate (3.2 per 100,000).

**Figure D3: Age-adjusted Injury Death Rates by Cause  
Douglas County, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- Persons age 15-24 years (N=47) had the most motor vehicle crash deaths (28.5%) (Table D5).
- Persons 75 or older accounted for most of deaths (N=106) due to fall injuries (Table D6).
- Suicide affected nearly all age groups ranging from those age 5-14 (N=2) to persons age 85 or older (N=4). The greatest number of suicide deaths were among persons in the 25-34 year age group (N=60) (Table D7).

**Gender**

- Nearly three times as many males (N=123) as females died from motor vehicle crashes (N=42) (Table D5).
- More females (N=71) died from falls than males (N=64) in Douglas County (Table D6).
- More than four times as many males (N=196) as females died from suicide (N=45) (Table D7).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender,  
Douglas County, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
<1	0	0.0	2	4.8	2	1.2
1-4	1	0.8	0	0.0	1	0.6
5-14	6	4.9	2	4.8	8	4.8
15-24	33	26.8	14	33.3	47	28.5
25-34	18	14.6	4	9.5	22	13.3
35-44	22	17.9	4	9.5	26	15.8
45-54	14	11.4	8	19.0	22	13.3
55-64	7	5.7	3	7.1	10	6.1
65-74	13	10.6	5	11.9	18	10.9
75-84	9	7.3	2	4.8	11	6.7
<b>Total</b>	<b>123</b>	<b>100.0</b>	<b>42</b>	<b>100.0</b>	<b>165</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D6: Deaths Due to Fall by Age and Gender,  
Douglas County, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	3	4.7	0	0.0	3	2.2
25-34	2	3.1	0	0.0	2	1.5
35-44	4	6.3	0	0.0	4	3.0
45-54	4	6.3	1	1.4	5	3.7
55-64	5	7.8	1	1.4	6	4.4
65-74	7	10.9	2	2.8	9	6.7
75-84	20	31.3	24	33.8	44	32.6
85+	19	29.7	43	60.6	62	45.9
<b>Total</b>	<b>64</b>	<b>100.0</b>	<b>71</b>	<b>100.0</b>	<b>135</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D7: Deaths Due to Suicide by Age and Gender,  
Douglas County, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	2	1.0	0	0.0	2	0.8
15-24	35	17.9	5	11.1	40	16.6
25-34	50	25.5	10	22.2	60	24.9
35-44	36	18.4	14	31.1	50	20.7
45-54	36	18.4	10	22.2	46	19.1
55-64	11	5.6	3	6.7	14	5.8
65-74	15	7.7	1	2.2	16	6.6
75-84	11	5.6	2	4.4	13	5.4
85+	2	1.0	2	4.4	4	1.7
<b>Total</b>	<b>196</b>	<b>100.0</b>	<b>45</b>	<b>100.0</b>	<b>241</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

## Hospital discharges

### Overall

- Douglas County had a lower unintentional injury hospital discharge rate (7,065) and higher suicide attempt (82) and homicide rates (288) when compared to the Nebraska rates (7,610, 75, and 204 per 100,000, respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Douglas County, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	86,090	94.0	7,472.7	80,031	93.9	6,675.9	166,121	93.9	7,065.3	665,407	95.9	7,609.6
Suicide	709	0.8	59.9	1,232	1.4	102.4	1,941	1.1	81.6	6,379	0.9	75.0
Homicide	3,952	4.3	326.9	3,044	3.6	251.0	6,996	4.0	288.1	17,720	2.6	203.9
Undetermined	748	0.8	64.6	868	1.0	71.9	1,616	0.9	68.3	4,181	0.6	48.3
Other	123	0.1	10.2	47	0.1	3.9	170	0.1	7.0	404	0.1	4.7
<b>Total</b>	<b>91,622</b>	<b>100.0</b>	<b>7,934.3</b>	<b>85,222</b>	<b>100.0</b>	<b>7,105.1</b>	<b>176,844</b>	<b>100.0</b>	<b>7,510.4</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

- More males (52%) than females (48%) were discharged from a hospital for all injury-related causes. Persons ages 15 to 24 had the most injury hospital discharges (18.7 per 100,000 population) (*Table D4*).

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined, with an age-adjusted rate of 1,945 per 100,000. The rate was relatively lower than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the 10-14 and 15-24 year age groups (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges for all ages combined, and the leading cause for persons in the 10-14 and 15-24 year age groups. The age-adjusted hospital discharge rate for struck by/against was slightly lower than the Nebraska rate (1,046 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Motor vehicle crashes were the third leading cause of injury hospital discharge. The age-adjusted rate was slightly lower than the Nebraska rate (678 and 684 per 100,000) (*Table H2 & Figure H1*).
- Cutting/piercing (652 per 100,000) and overexertion (602 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking causes of injury hospital discharge in Douglas County (*Table H2 & Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Douglas County, Nebraska, 1999-2003**

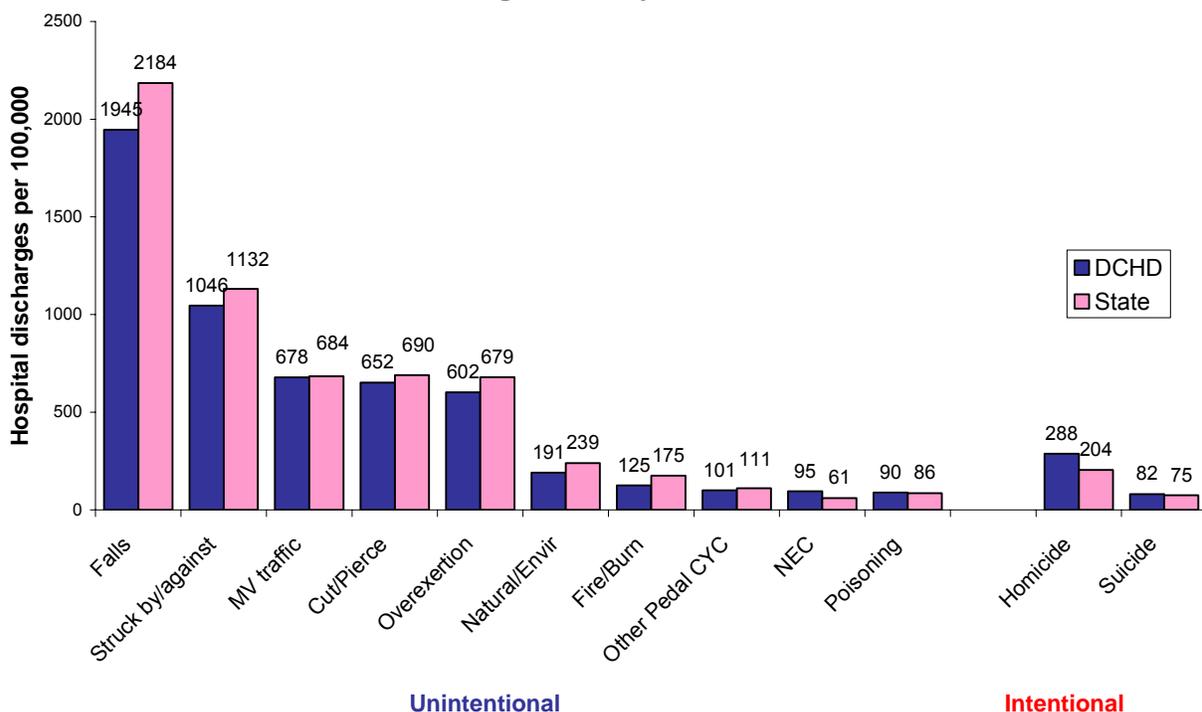
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=772	Falls N=5449	Falls N=4149	Struck by/against N=4092	Struck by/against N=5595	Falls N=3630	Falls N=4165	Falls N=4236	Falls N=2994	Falls N=3275	Falls N=4599	Falls N=3550	Falls N=44,947
2	Struck by/against N=332	Struck by/against N=3897	Struck by/against N=3243	Falls N=3809	MV traffic N=5246	MV traffic N=3193	Overexertion N=2593	Overexertion N=1853	MV traffic N=828	Cut/Pierce N=463	MV traffic N=332	Struck by/against N=156	Struck by/against N=25,165
3	Fire/Burn N=137	Cut/Pierce N=999	Cut/Pierce N=1415	Cut/Pierce N=1488	Falls N=4322	Struck by/against N=2864	MV traffic N=2497	MV traffic N=1648	Overexertion N=745	MV traffic N=455	Struck by/against N=306	Overexertion N=86	MV traffic N=16,079
4	Poisoning N=95	Poisoning N=798	Other Pedal CYC N=793	Overexertion N=1276	Overexertion N=3473	Overexertion N=2746	Cut/Pierce N=2324	Cut/Pierce N=1551	Cut/Pierce N=735	Overexertion N=400	Cut/Pierce N=286	Cut/Pierce N=82	Cut/Pierce N=15,462
5	Cut/Pierce N=76	Natural/Envir N=724	Natural/Envir N=631	MV traffic N=824	Cut/Pierce N=3335	Cut/Pierce N=2708	Struck by/against N=2291	Struck by/against N=1370	Struck by/against N=633	Struck by/against N=386	Overexertion N=246	MV traffic N=80	Overexertion N=14,302

Hospital visits includes visits as Inpatient, ER and Non-ER patient

Note: Causes coded as "Other Specified" and "Unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
Douglas County, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- Hospital discharge rates due to falls were the highest for persons ages 85 and older (*Table H3*).
- Among children age 14 and under, the 1-4 year age group had the highest fall injury rate (3,981 per 100,000), which was relatively lower than the state rate (4,310 per 100,000). This age group had the third highest injury fall rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 1-4 year age group had the highest hospital discharge rate (2,847 per 100,000) for struck by/against, which was higher than the state rate (2,284 per 100,000). The second highest rate was among the 5-14 year age group at 2,180 per 100,000 (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rates for motor vehicle crashes (1,527 per 100,000), cutting/piercing injuries (971 per 100,000), and overexertion (1,011 per 100,000) (*Table H3*).

### Gender

- Females had higher fall injury hospital discharge rates than males (2,122 vs. 1,759 per 100,000) (*Table H3*).
- The injury hospital discharge rate for struck by/against for males was almost twice as high as that for females (1,342 and 763 per 100,000) (*Table H3*).
- The motor vehicle injury hospital discharge rate was higher for females than for males (763 vs. 588 per 100,000) (*Table H3*).
- Males had higher injury hospital discharge rates for both cutting/piercing and overexertion than females (823, 626 vs. 489, 580 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Douglas County, NE, 1999-2003**

Cause	Age	Douglas HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	398	2.1	2098	374	1.5	2069.4	772	1.7	2084.1	2298.5	2139.4	2220.8
Falls	1-4	3121	16.2	4472.8	2328	9	3470.2	5449	12.1	3981.3	4871.2	3721.2	4309.7
Falls	5-14	4473	23.3	2606.7	3485	13.5	2113.6	7958	17.7	2365.1	2855.0	2404.1	2634.8
Falls	15-24	2212	11.5	1279.1	2110	8.2	1237.4	4322	9.6	1258.4	1570.9	1323.5	1449.9
Falls	25-34	1565	8.1	894	2064	8	1188.8	3629	8.1	1040.8	1048.4	1303.4	1173.8
Falls	35-44	1762	9.2	971	2403	9.3	1312.5	4165	9.3	1142.5	1084.2	1357.6	1220.2
Falls	45-54	1666	8.7	1079.9	2570	10	1584.9	4236	9.4	1338.7	1116.0	1610.3	1364.2
Falls	55-64	1078	5.6	1181.8	1915	7.4	1948	2993	6.7	1579.2	1337.7	1976.8	1664.3
Falls	65-74	1044	5.4	1782.1	2231	8.7	3052	3275	7.3	2487.1	2151.5	3581.0	2926.8
Falls	75-84	1213	6.3	3528.8	3385	13.2	6195.7	4598	10.2	5165.8	4355.2	7355.0	6138.2
Falls	85+	690	3.6	7846.3	2860	11.1	11932	3550	7.9	10835	10070.0	14640.0	13320.0
<b>Total</b>		19222	100.0	1758.6	25725	100.0	2122.4	44947	100.0	1945.0	2013.8	2349.3	2184.0
Struck by/against	<1	195	1.2	1027.9	137	1.5	758	332	1.3	896.3	836	692.9	766.1
Struck by/against	1-4	2463	15.3	3529.8	1434	15.8	2137.6	3897	15.5	2847.4	2812.4	1729.5	2283.7
Struck by/against	5-14	5005	31.1	2916.8	2330	25.7	1413.1	7335	29.1	2179.9	2919.3	1521.6	2236.7
Struck by/against	15-24	3849	23.9	2225.7	1746	19.2	1023.9	5595	22.2	1629	3069.3	1161.5	2135.8
Struck by/against	25-34	1808	11.2	1032.8	1056	11.6	608.2	2864	11.4	821.4	1212	676.9	948.9
Struck by/against	35-44	1384	8.6	762.7	907	10	495.4	2291	9.1	628.4	854.1	527.3	691.6
Struck by/against	45-54	737	4.6	477.7	633	7	390.4	1370	5.4	433	574.9	385.7	479.9
Struck by/against	55-64	335	2.1	367.2	298	3.3	303.1	633	2.5	334	414.7	291.2	351.6
Struck by/against	65-74	168	1	286.8	218	2.4	298.2	386	1.5	293.1	415.7	292.7	349
Struck by/against	75-84	107	0.7	311.3	199	2.2	364.2	306	1.2	343.8	415.6	363.7	384.7
Struck by/against	85+	33	0.2	375.3	123	1.4	513.2	156	0.6	476.1	507.4	519.4	516
<b>Total</b>		16084	100.0	1341.8	9081	100.0	762.5	25165	100.0	1046.0	1488.5	786.4	1132.3
MV traffic	<1	29	0.4	152.9	18	0.2	99.6	47	0.3	126.9	128.9	121.4	125.2
MV traffic	1-4	177	2.6	253.7	162	1.8	241.5	339	2.1	247.7	251.0	229.3	240.4
MV traffic	5-14	673	9.7	392.2	742	8.1	450	1415	8.8	420.5	400.0	436.0	417.6
MV traffic	15-24	2177	31.5	1258.8	3069	33.5	1799.7	5246	32.6	1527.4	1444.2	1831.5	1633.7
MV traffic	25-34	1382	20	789.5	1810	19.7	1042.5	3192	19.9	915.4	855.6	993.0	923.2
MV traffic	35-44	1068	15.5	588.5	1429	15.6	780.5	2497	15.5	685	607.3	708.3	657.6
MV traffic	45-54	725	10.5	470	923	10.1	569.2	1648	10.2	520.8	476.5	523.1	499.9
MV traffic	55-64	339	4.9	371.6	489	5.3	497.4	828	5.1	436.9	346.5	441.2	394.9
MV traffic	65-74	178	2.6	303.9	277	3	378.9	455	2.8	345.5	327.3	382.2	357.1
MV traffic	75-84	123	1.8	357.8	209	2.3	382.5	332	2.1	373	402.4	393.8	397.3
MV traffic	85+	34	0.5	386.6	46	0.5	191.9	80	0.5	244.2	404.8	248.5	293.6
<b>Total</b>		6905	100.0	588.4	9174	100.0	763.3	16079	100.0	678.0	629.3	737.3	684.0
Cut/Pierce	<1	43	0.4	226.7	33	0.6	182.6	76	0.5	205.2	228.7	185.5	207.6
Cut/Pierce	1-4	642	6.7	920.1	357	6.1	532.2	999	6.5	729.9	925.2	609.5	771.1
Cut/Pierce	5-14	1846	19.1	1075.8	1057	18.2	641.1	2903	18.8	862.8	1033.2	615.8	829.4
Cut/Pierce	15-24	2192	22.7	1267.5	1143	19.6	670.3	3335	21.6	971	1399.6	650.1	1032.9
Cut/Pierce	25-34	1677	17.4	958	1031	17.7	593.8	2708	17.5	776.6	1138.4	596.8	872.2
Cut/Pierce	35-44	1434	14.9	790.2	890	15.3	486.1	2324	15	637.5	861	517.5	690.1
Cut/Pierce	45-54	901	9.3	584.1	650	11.2	400.8	1551	10	490.2	650.7	401.2	525.4
Cut/Pierce	55-64	420	4.4	460.4	315	5.4	320.4	735	4.8	387.8	555	309.7	429.6
Cut/Pierce	65-74	297	3.1	507	166	2.9	227.1	463	3	351.6	582.4	266.5	411.1
Cut/Pierce	75-84	160	1.7	465.5	126	2.2	230.6	286	1.8	321.3	448.3	214.8	309.5
Cut/Pierce	85+	28	0.3	318.4	54	0.9	225.3	82	0.5	250.3	333.7	194.8	234.9
<b>Total</b>		9640	100.0	822.9	5822	100.0	488.6	15462	100.0	652.0	893.0	492.5	689.8
Overexertion	<1	17	0.2	89.6	27	0.4	149.4	44	0.3	118.8	111.1	156.8	133.4
Overexertion	1-4	192	2.6	275.2	308	4.4	459.1	500	3.5	365.3	352.6	519.6	434.1
Overexertion	5-14	818	11.1	476.7	799	11.5	484.6	1617	11.3	480.6	537.1	610.3	572.9
Overexertion	15-24	1955	26.5	1130.5	1518	21.9	890.2	3473	24.3	1011.2	1317.5	1024.1	1173.9
Overexertion	25-34	1503	20.4	858.6	1243	17.9	715.9	2746	19.2	787.5	952.4	828.7	891.6
Overexertion	35-44	1385	18.8	763.2	1208	17.4	659.8	2593	18.1	711.3	817.7	677.3	747.9
Overexertion	45-54	919	12.5	595.7	933	13.5	575.4	1852	12.9	585.3	616.4	572.9	594.5
Overexertion	55-64	359	4.9	393.6	386	5.6	392.6	745	5.2	393.1	426.6	433.8	430.3
Overexertion	65-74	146	2	249.2	254	3.7	347.5	400	2.8	303.8	356.1	445.4	404.6
Overexertion	75-84	68	0.9	197.8	178	2.6	325.8	246	1.7	276.4	311.8	419.9	376.0
Overexertion	85+	14	0.2	159.2	72	1	300.4	86	0.6	262.5	236.9	387.2	343.8
<b>Total</b>		7376	100.0	625.6	6926	100.0	579.8	14302	100.0	602.0	705.5	635.6	679.2

Source: Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

INJURY REPORT, 1999-2003

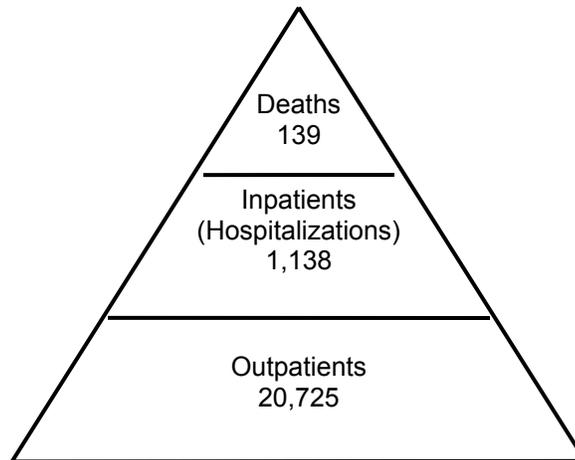
**East Central District Health Department Coverage Area**

Boone, Nance, Platte, and Colfax Counties

**Summary**

Injury is a public health problem in the East Central District Health Department (ECDHD) coverage area. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999-2003, in addition to nearly 140 injury deaths, more than 1,100 residents in Boone, Nance, Platte, and Colfax Counties were hospitalized and more than 20,700 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharge, struck by/against were second, followed by cutting/piercing, motor vehicle crashes and overexertion.

**Figure A: Injury Pyramid, Residents of East Central District Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varies by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-34 years, most were due to injuries. Therefore more years of potential life were lost due to injuries. Males were more than twice as likely as females to die from an injury.

The following table highlights the ECDHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries and motor vehicle crashes (*Table A*).

**Table A: Injury Death Rate, East Central District Health Department Coverage Area, 2003**

Cause of Death	Age Adjusted Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	27.7	19.4
Motor vehicle crash	17.0	12.0

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the counties served by the ECDHD (*Table D1*).

**Table D1: Five Leading Causes of Death,  
East Central District Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	628
2	Cancer	544
3	Stroke	197
4	Injury	133
5	Chronic Lung Disease	92

Source: DHHS Death Certificate Data 1999-2003

- An average of 27 residents died from an injury each year (*Table D2*).
- Deaths due to injury made up 5.6% of total deaths in the ECDHD coverage area compared to 6% of deaths in Nebraska.
- In the ECDHD coverage counties, more than half of deaths among 10–34 year olds and half of deaths among 35-39-year-olds were due to injuries (*Table D2*).

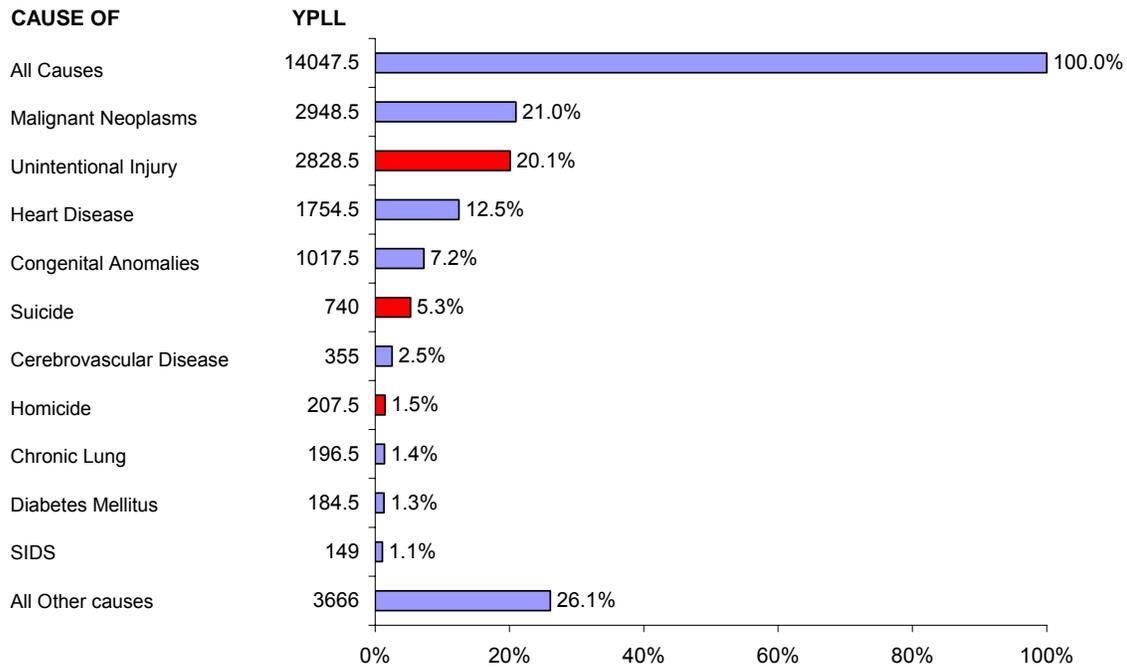
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
East Central District Health Department Coverage Area, NE, 1999-2003**

Age Group	Injury Deaths	Annual Average Injury Deaths	All Deaths	Percent of Death due to Injury
<1	0	0	26	0.0
1-4	4	1	7	57.1
5-9	0	0	3	0.0
10-14	1	0	2	50.0
15-19	18	4	19	94.7
20-24	10	2	14	71.4
25-29	5	1	9	55.6
30-34	11	2	21	52.4
35-39	7	1	14	50.0
40-44	12	2	30	40.0
45-49	4	1	38	10.5
50-54	7	1	44	15.9
55-59	4	1	60	6.7
60-64	5	1	90	5.6
65-74	8	2	382	2.1
75-84	18	4	680	2.6
85+	19	4	933	2.0
<b>Total</b>	<b>133</b>	<b>27</b>	<b>2,372</b>	<b>5.6</b>

Source: DHHS Death Certificate Data, 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked second (20.1%), following that from cancer (21%). Suicide ranked 5<sup>th</sup> at 5.3% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before Age 75 by Cause of Death, East Central District Health Department Coverage Area, NE, 1999-2003**



- The counties served by ECDHD had a higher unintentional injury rate (40.4 per 100,000), but lower suicide rate (7.8 per 100,000) and homicide rate (2.1 per 100,000) than Nebraska rates (33.3, 10.6, and 3.2 per 100,000 respectively) (*Table D3*).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, East Central District Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	76	76.0	60.1	32	82.1	20.6	108	77.7	40.4	3,020	68.3	33.3
Suicide	17	17.0	13.1	3	7.7	*	20	14.4	7.8	894	20.2	10.6
Homicide	2	2.0	*	3	7.7	*	5	3.6	2.1	273	6.2	3.2
Undetermined	4	4.0	*	0	0.0	0.0	4	2.9	*	139	3.1	1.6
Adverse Effects	1	1.0	*	1	2.5	*	2	1.4	*	93	2.1	1.0
<b>Total</b>	<b>100</b>	<b>100.0</b>	<b>73.2</b>	<b>39</b>	<b>100.0</b>	<b>20.6</b>	<b>139</b>	<b>100.0</b>	<b>50.3</b>	<b>4,419</b>	<b>100.0</b>	<b>49.7</b>

Source: DHHS Death Certificate Data, 1999-2003

- More males (72%) died and were discharged from hospitals (57%) due to injuries than females (28% and 43%) (*Table D4*).

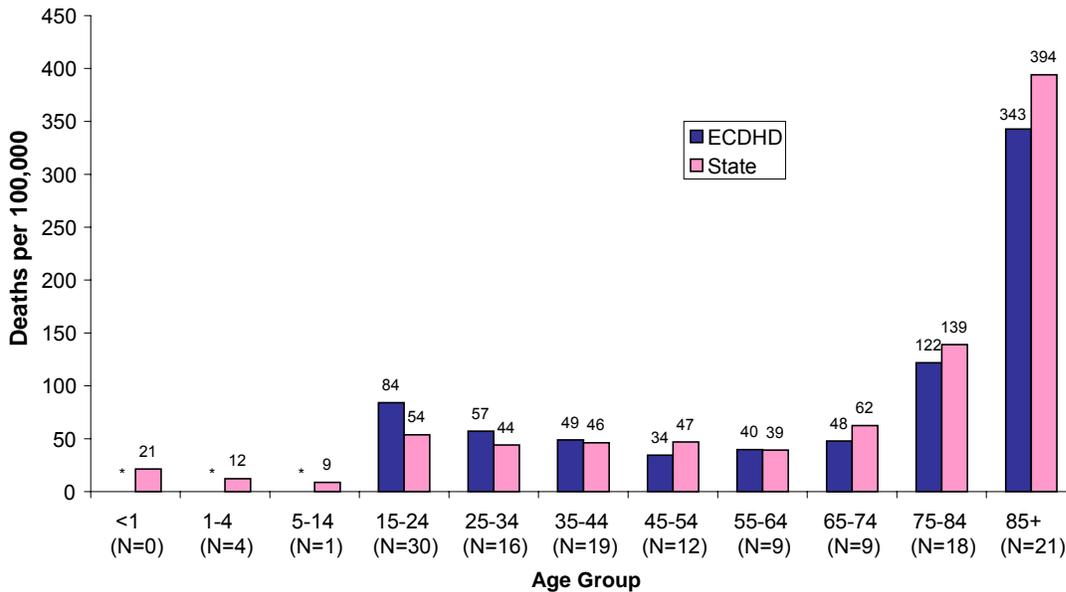
**Table D4: Injury-Related Deaths and Hospital Discharges by Gender, Age, and Race,  
East Central District Health Department Coverage Area, NE, 1999-2003**

	East Central District HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	100	71.9	12,394	56.7	2,848	64.3	386,563	53.1
Female	39	28.1	9,469	43.3	1,581	35.7	341,506	46.9
Total	139	100.0	21,863	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	0	0.0	198	0.9	26	0.6	7,142	1.0
1-4	4	2.9	1,780	8.1	58	1.3	59,764	8.2
5-14	1	0.7	3,682	16.8	107	2.4	122,382	16.8
15-24	30	21.6	4,795	21.9	699	15.8	144,001	19.8
25-34	16	11.5	2,375	10.9	486	11.0	84,574	11.6
35-44	19	13.7	2,403	11.0	593	13.4	84,445	11.6
45-54	12	8.6	1,906	8.7	547	12.4	66,321	9.1
55-64	9	6.5	1,104	5.1	292	6.6	39,540	5.4
65-74	9	6.5	1,200	5.5	355	8.0	40,555	5.6
75-84	18	13.0	1,299	5.9	575	13.0	45,135	6.2
85+	21	15.1	1,121	5.1	691	15.6	34,222	4.7
Total	139	100.0	21,863	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	0	0.0			194	4.4		
Native American	0	0.0			72	1.6		
White	137	98.6			4,123	93.1		
Other	2	1.4			11	0.3		
Total	139	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Generally, the 75-84 and 84 and older age groups (122 and 343 per 100,000 respectively) had the greatest risk of death due to injuries.
- However, teens and young adults (ages 15-34) had the highest injury death rates following the rates of older adults (*Figure D2*). Most notably, the injury death rate for those age 14-24 in the ECDHD coverage area was much higher than the Nebraska rate for that age group (84 and 54 per 100,000 respectively).

**Figure D2: All Injury Death Rates by Age, East Central District Health Department Coverage Area, NE, 1999-2003**

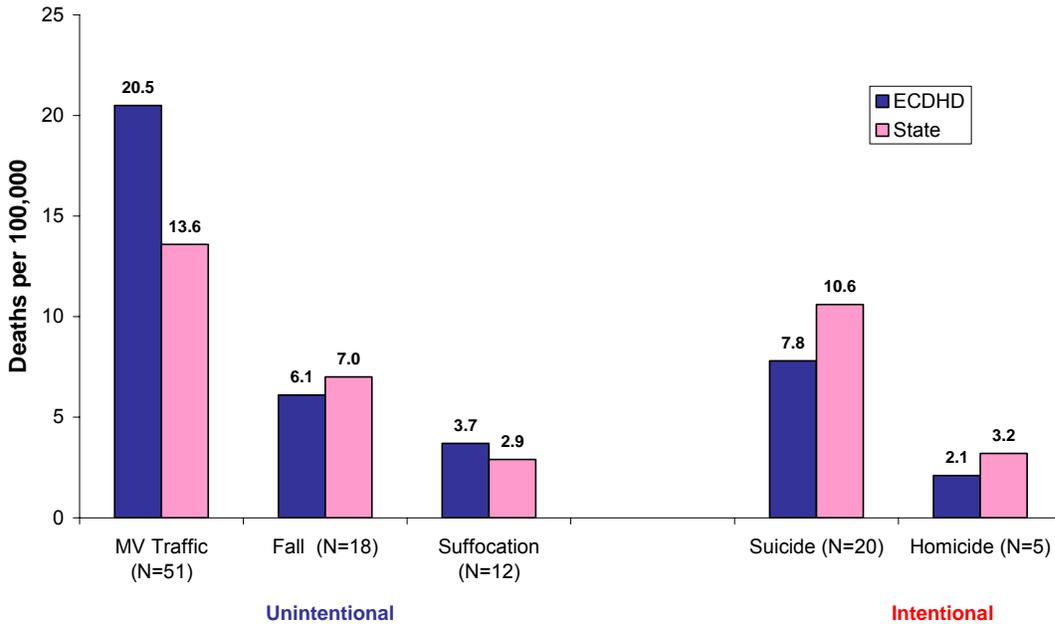


\* No rate calculated for the number of deaths because N is fewer than five  
 Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury death with an age-adjusted rate of 20.5 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (Figure D3).
- Suicide was the second leading cause of injury death. The age-adjusted death rate for suicide was lower than the Nebraska rate (7.8 and 10.6 per 100,000 respectively) (Figure D3).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls was slightly lower than the Nebraska rate (6.1 and 7.0 per 100,000 respectively) (Figure D3).

**Figure D3: Age-adjusted Injury Death Rates by Cause, East Central District Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- Persons age 15–24 (N=19) were most likely to die because of a motor vehicle crash. These deaths accounted for 37.3% of total deaths (N=51) in the ECDHD coverage area (*Table D5*).
- Nearly all fall-related deaths were among persons 75 years and older (*Table D6*).
- Those in the 15-24 year age group (35%) had the most deaths due to suicide (*Table D7*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, East Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	13	34.2	6	46.2	19	37.3
25-34	6	15.8	3	23.1	9	17.6
35-44	7	18.4	2	15.4	9	17.6
45-54	1	2.6	0	0.0	1	2.0
55-64	4	10.5	0	0.0	4	7.8
65-74	3	7.9	1	7.7	4	7.8
75-84	2	5.3	1	7.7	3	5.9
85+	2	5.3	0	0.0	2	3.9
<b>Total</b>	<b>38</b>	<b>100.0</b>	<b>13</b>	<b>100.0</b>	<b>51</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D6: Deaths Due to Fall by Age and Gender,  
East Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
35-44	0	0.0	1	12.5	1	5.6
55-64	1	10.0	0	0.0	1	5.6
65-74	0	0.0	1	12.5	1	5.6
75-84	4	40.0	3	37.5	7	38.9
85+	5	50.0	3	37.5	8	44.4
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D7: Deaths Due to Suicide by Age and Gender,  
East Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	7	41.2	0	0.0	7	35.0
25-34	1	5.9	1	33.3	2	10.0
35-44	4	23.5	0	0.0	4	20.0
45-54	2	11.8	1	33.3	3	15.0
55-64	2	11.8	0	0.0	2	10.0
65-74	1	5.9	1	33.3	2	10.0
<b>Total</b>	<b>17</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>	<b>20</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Gender**

- Nearly three times as many males (N=38) as females (N=13) died from motor vehicle crashes (*Table D5*).
- More males (N=10) died from fall injuries than females (N=8) (*Table D6*).
- More than five times as many males (N=17) as females (N=3) died from suicide (*Table D7*).

## Hospital discharges

### Overall

- The East Central District Health Department coverage area had a similar unintentional injury hospital discharge rate (7,680 per 100,000) and suicide attempt rate (77 per 100,000), but lower homicide rates (139 per 100,000) when compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, East Central District Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	11,630	97.3	8,904.2	8,643	96.8	6,450.8	20,273	97.1	7,680.1	665,407	95.9	7,609.6
Suicide	64	0.5	49.5	123	1.4	104.7	187	0.9	77.0	6,379	0.9	75.0
Homicide	219	1.8	173.4	118	1.3	104.0	337	1.6	138.8	17,720	2.6	203.9
Undetermined	38	0.3	29.7	41	0.5	35.3	79	0.4	32.5	4,181	0.6	48.3
Other	4	0.0	*	0	0.0	*	4	0.0	*	404	0.1	4.7
<b>Total</b>	<b>11,955</b>	<b>100.0</b>	<b>9,160.0</b>	<b>8,925</b>	<b>100.0</b>	<b>6,694.8</b>	<b>20,880</b>	<b>100.0</b>	<b>7,929.9</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five hospital discharges

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined with an age-adjusted rate of 2,058 per 100,000, which was relatively lower than the Nebraska rate (2,184 per 100,000). Falls were the leading cause of hospital discharges for age groups 0-4, 5-9, and 35 to 85 or older. (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharge for all ages combined, and the leading cause for persons ages 10-34. The age-adjusted hospital discharge rate for struck by/against was higher than the Nebraska rate (1,456 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharge. The age-adjusted rate was slightly higher than the Nebraska rate (764 and 690 per 100,000) (*Figure H1*).
- Motor vehicle crashes (747 per 100,000) and overexertion (603 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking causes of injury hospital discharge in the ECDHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, East Central District Health Department Coverage Area, Nebraska, 1999-2003**

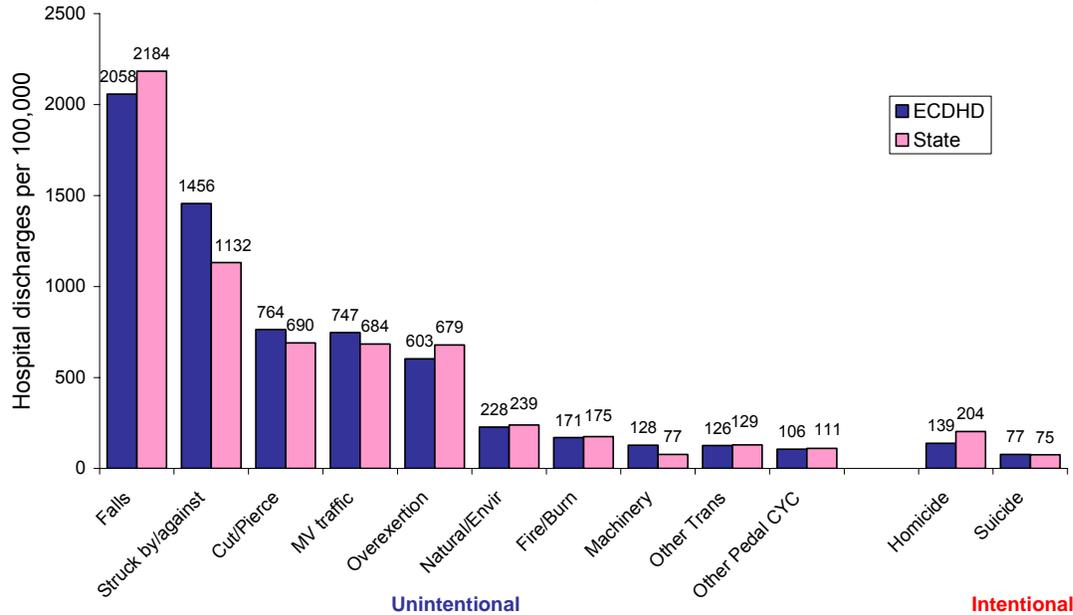
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=80	Falls N=638	Falls N=456	Struck by/against N=624	Struck by/against N=1,211	Struck by/against N=409	Falls N=450	Falls N=438	Falls N=376	Falls N=568	Falls N=735	Falls N=723	Falls N=7,653
2	Struck by/against N=30	Struck by/against N=301	Struck by/against N=383	Falls N=492	MV traffic N=731	Falls N=361	Struck by/against N=341	Struck by/against N=257	Cut/Pierce N=124	MV traffic N=82	MV traffic N=72	Struck by/against N=32	Struck by/against N=3,790
3	Fire/Burn N=21	Poisoning N=97	Cut/Pierce N=126	Cut/Pierce N=157	Falls N=568	Cut/Pierce N=356	Cut/Pierce N=319	Overexertion N=196	Struck by/against N=93	Cut/Pierce N=80	Struck by/against N=47	MV traffic N=23	Cut/Pierce N=2,914
4	Cut/Pierce N=7	Cut/Pierce N=75	Other Pedal CYC N=87	Overexertion N=156	Cut/Pierce N=457	MV traffic N=238	MV traffic N=234	MV traffic N=183	MV traffic N=92	Struck by/against N=79	Overexertion N=41	Overexertion N=16	MV traffic N=2,492
5	Poisoning N=5	Natural/Envir N=75	MV traffic N=78	Other Pedal CYC N=117	Overexertion N=452	Overexertion N=202	Overexertion N=224	Cut/Pierce N=183	Overexertion N=79	Overexertion N=59	Cut/Pierce N=26	Fire/Burn N=13	Overexertion N=2,220

Hospital visits includes visits as Inpatient, ER and Non-ER patient

Note: Causes coded as "Other Specified" and "Unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
East Central District Health Department, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- Hospital discharge rates due to falls were the highest for persons age 85 and older. Females had a slightly higher rate compared to males (12,437 vs. 10,252 per 100,000) (*Table H3*).
- Among children ages 14 and under, the 1-4 year age group had a fall injury rate comparable to the Nebraska rate (4,382 vs. 4,310 per 100,000). This age group had the second highest injury fall rate after the 85-and-older age group (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rate (3,390 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,136 per 100,000). The rate was second highest for ages 5-14 at 2,453 per 100,000 (*Table H3*).
- Hospital discharge rates for overexertion (1,265 per 100,000) and motor vehicle crash injuries (2,046 per 100,000) were the highest for persons in the 15-24 year age group (*Table H3*).
- Hospital discharge rates for cutting/piercing injuries were highest for the 15-24 year age group (1,279 per 100,000) (*Table H3*).

### Gender

- Females had higher fall injury hospital discharge rates than males (2,188 vs. 1,929 per 100,000) (*Table H3*).
- Males were twice as likely to be discharged as females due to struck by/against and cutting/piercing injuries (2,039 and 1,035 vs. 870 and 491 per 100,000) (*Table H3*).
- Female were more likely to be discharged than males because of a motor vehicle crash (815 vs. 679 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, East Central District Health Department Coverage Area, NE, 1999-2003**

Cause	Age	State											
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
MV traffic	<1	1	0.1	*	2	0.2	*	3	0.2	*	128.9	121.4	125.2
MV traffic	1-4	21	2.4	278.4	18	1.8	256.5	39	2.1	267.9	251.0	229.3	240.4
MV traffic	5-14	88	10	419.5	102	10.1	508	190	10.1	462.7	400.0	436.0	417.6
MV traffic	15-24	316	36	1656.1	415	41.1	2493.5	731	38.7	2046.2	1444.2	1831.5	1633.7
MV traffic	25-34	144	16.4	979.1	94	9.3	710.5	238	12.6	851.9	855.6	993.0	923.2
MV traffic	35-44	101	11.5	502.9	133	13.2	709.1	234	12.4	602.5	607.3	708.3	657.6
MV traffic	45-54	87	9.9	488.7	96	9.5	563.2	183	9.7	525.1	476.5	523.1	499.9
MV traffic	55-64	50	5.7	449.6	42	4.2	363.4	92	4.9	405.7	346.5	441.2	394.9
MV traffic	65-74	33	3.8	384.2	49	4.9	480.3	82	4.3	436.3	327.3	382.2	357.1
MV traffic	75-84	28	3.2	450.4	44	4.4	514.4	72	3.8	487.4	402.4	393.8	397.3
MV traffic	85+	8	0.9	448.2	15	1.5	345.5	23	1.2	375.4	404.8	248.5	293.6
<b>Total</b>		<b>877</b>	<b>100.0</b>	<b>679.0</b>	<b>1010</b>	<b>100.0</b>	<b>814.8</b>	<b>1887</b>	<b>100.0</b>	<b>747.0</b>	<b>629.3</b>	<b>737.3</b>	<b>684.0</b>
Falls	<1	50	2	2720.3	30	0.9	1689.2	80	1.4	2213.6	2298.5	2139.4	2220.8
Falls	1-4	358	14.1	4746.8	280	8.6	3990.3	638	11	4382.2	4871.2	3721.2	4309.7
Falls	5-14	516	20.3	2459.6	432	13.3	2151.4	948	16.4	2308.9	2855	2404.1	2634.8
Falls	15-24	323	12.7	1692.8	245	7.5	1472.1	568	9.8	1590	1570.9	1323.5	1449.9
Falls	25-34	183	7.2	1244.3	178	5.5	1345.3	361	6.2	1292.1	1048.4	1303.4	1173.8
Falls	35-44	205	8.1	1020.8	245	7.5	1306.2	450	7.8	1158.6	1084.2	1357.6	1220.2
Falls	45-54	170	6.7	954.9	268	8.2	1572.3	438	7.6	1256.9	1116	1610.3	1364.2
Falls	55-64	167	6.6	1501.8	209	6.4	1808.1	376	6.5	1657.9	1337.7	1976.8	1664.3
Falls	65-74	156	6.2	1816.1	312	9.6	3057.9	468	8.1	2490.3	2151.5	3581	2926.8
Falls	75-84	225	8.9	3619.1	510	15.7	5962.1	735	12.7	4976	4355.2	7355	6138.2
Falls	85+	183	7.2	10252	540	16.6	12437	723	12.5	11800	10070	14640	13320
<b>Total</b>		<b>2536</b>	<b>100.0</b>	<b>1928.6</b>	<b>3249</b>	<b>100.0</b>	<b>2188.0</b>	<b>5785</b>	<b>100.0</b>	<b>2058.0</b>	<b>2013.8</b>	<b>2349.3</b>	<b>2184.0</b>
Cut/Pierce	<1	3	0.2	*	4	0.7	*	7	0.4	193.7	228.7	185.5	207.6
Cut/Pierce	1-4	40	3	530.4	35	5.9	498.8	75	3.9	515.1	925.2	609.5	771.1
Cut/Pierce	5-14	199	15.1	948.6	84	14	418.3	283	14.7	689.3	1033.2	615.8	829.4
Cut/Pierce	15-24	337	25.5	1766.2	120	20.1	721	457	23.8	1279.3	1399.6	650.1	1032.9
Cut/Pierce	25-34	266	20.1	1808.7	90	15.1	680.2	356	18.5	1274.3	1138.4	596.8	872.2
Cut/Pierce	35-44	219	16.6	1090.5	100	16.7	533.1	319	16.6	821.3	861.0	517.5	690.1
Cut/Pierce	45-54	100	7.6	561.7	83	13.9	486.9	183	9.5	525.1	650.7	401.2	525.4
Cut/Pierce	55-64	82	6.2	737.4	42	7	363.4	124	6.5	546.8	555.0	309.7	429.6
Cut/Pierce	65-74	56	4.2	651.9	24	4	*	80	4.2	425.7	582.4	266.5	411.1
Cut/Pierce	75-84	15	1.1	241.3	11	1.8	128.6	26	1.4	176	448.3	214.8	309.5
Cut/Pierce	85+	5	0.4	280.1	5	0.8	115.2	10	0.5	163.2	333.7	194.8	234.9
<b>Total</b>		<b>1322</b>	<b>100.0</b>	<b>1035.4</b>	<b>598</b>	<b>100.0</b>	<b>490.9</b>	<b>1920</b>	<b>100.0</b>	<b>764.0</b>	<b>893.0</b>	<b>492.5</b>	<b>689.8</b>
Struck by/against	0-1	19	0.7	1033.7	11	1	619.4	30	0.8	830.1	836	692.9	766.1
Struck by/against	1-4	193	7.1	2559	108	9.8	1539.1	301	7.9	2067.4	2812.4	1729.5	2283.7
Struck by/against	5-14	661	24.4	3150.8	346	31.4	1723.1	1007	26.5	2452.6	2919.3	1521.6	2236.7
Struck by/against	15-24	958	35.4	5020.7	253	23	1520.2	1211	31.8	3389.9	3069.3	1161.5	2135.8
Struck by/against	25-34	307	11.3	2087.4	102	9.3	770.9	409	10.7	1464	1212	676.9	948.9
Struck by/against	35-44	232	8.6	1155.3	109	9.9	581.1	341	9	878	854.1	527.3	691.6
Struck by/against	45-54	195	7.2	1095.3	62	5.6	363.7	257	6.8	737.5	574.9	385.7	479.9
Struck by/against	55-64	55	2	494.6	38	3.5	328.7	93	2.4	410.1	414.7	291.2	351.6
Struck by/against	65-74	49	1.8	570.4	30	2.7	294	79	2.1	420.4	415.7	292.7	349
Struck by/against	75-84	24	0.9	386	23	2.1	268.9	47	1.2	318.2	415.6	363.7	384.7
Struck by/against	85+	13	0.5	728.3	19	1.7	437.6	32	0.8	522.3	507.4	519.4	516
<b>Total</b>		<b>2706</b>	<b>100.0</b>	<b>2038.6</b>	<b>1101</b>	<b>100.0</b>	<b>870.3</b>	<b>3807</b>	<b>100.0</b>	<b>1456.0</b>	<b>1488.5</b>	<b>786.4</b>	<b>1132.3</b>
Overexertion	<1	1	0.1	*	1	0.1	*	2	0.1	*	111.1	156.8	133.4
Overexertion	1-4	30	3.5	397.8	39	5.7	555.8	69	4.5	473.9	352.6	519.6	434.1
Overexertion	5-14	93	10.9	443.3	101	14.9	503	194	12.6	472.5	537.1	610.3	572.9
Overexertion	15-24	276	32.3	1446.5	176	25.9	1057.5	452	29.5	1265.3	1317.5	1024.1	1173.9
Overexertion	25-34	133	15.6	904.3	69	10.2	521.5	202	13.2	723	952.4	828.7	891.6
Overexertion	35-44	115	13.5	572.7	109	16.1	581.1	224	14.6	576.7	817.7	677.3	747.9
Overexertion	45-54	125	14.6	702.1	71	10.5	416.5	196	12.8	562.4	616.4	572.9	594.5
Overexertion	55-64	42	4.9	377.7	37	5.4	320.1	79	5.1	348.3	426.6	433.8	430.3
Overexertion	65-74	23	2.7	267.8	36	5.3	352.8	59	3.8	313.9	356.1	445.4	404.6
Overexertion	75-84	12	1.4	193	29	4.3	339	41	2.7	277.6	311.8	419.9	376.0
Overexertion	85+	5	0.6	280.1	11	1.6	253.3	16	1	261.1	236.9	387.2	343.8
<b>Total</b>		<b>855</b>	<b>100.0</b>	<b>661.9</b>	<b>2706</b>	<b>100.0</b>	<b>543.1</b>	<b>1534</b>	<b>100.0</b>	<b>603.0</b>	<b>705.5</b>	<b>635.6</b>	<b>679.2</b>

Source: Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

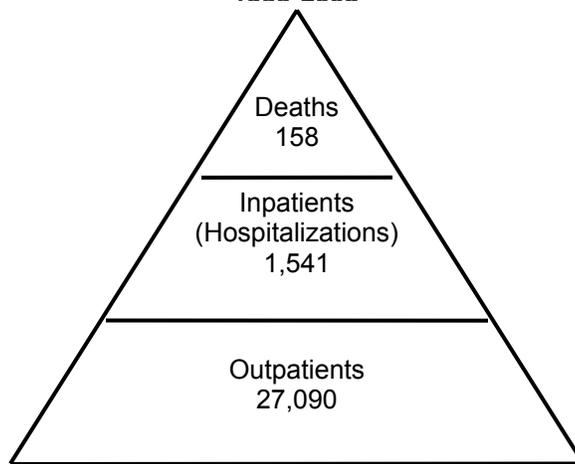
INJURY REPORT, 1999-2003

**Elkhorn Logan Valley Public Health Department Coverage Area**  
Madison, Stanton, Cuming, and Burt Counties

**Summary**

Injury is a public health problem in the Elkhorn Logan Valley Public Health Department (ELVPHD) coverage area. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999 to 2003, in addition to nearly 160 injury deaths, more than 1,500 residents in Madison, Stanton, Cuming, and Burt counties were hospitalized and more than 27,000 residents were treated at hospitals for injuries (*Figure A*). Motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury hospital discharges and struck by/against injuries were second, followed by overexertion, motor vehicle crashes, and cutting/piercing.

**Figure A: Injury Pyramid, Residents of Elkhorn Logan Valley Public Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varies by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 5-34, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Older adults (75 and older) had the greatest risk of injury deaths, particularly due to fall related injuries. But teens and young adults (15-24) had the highest hospital discharge rates for injuries due to struck by/against, motor vehicle crashes, overexertion, and cutting/piercing. Males were almost twice as likely as females to die from injuries and were more likely to be discharged from hospitals because of injuries.

The following table highlights the ELVPHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to unintentional injury death, and deaths related to falls and motor vehicle crashes (*Table A*).

**Table A Injury Death Rates, Elkhorn Logan Valley Public Health Department Coverage Area, NE 2003**

Cause of Death	Death Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	40.0	19.4
Fall	8.9	3.5
Motor vehicle crash	14.4	12.0

Source: DHHS Death Certificate Data

## Injury Deaths

### Overall

- From 1999 to 2003, injuries (including unintentional and intentional) were the fourth leading cause of death in the counties served by the ELVPHD (*Table D1*)

**Table D1: Five Leading Causes of Death,  
Elkhorn Logan Valley Health Department Coverage Area, NE, 2003**

Rank	Cause	Total Number of Death
1	Heart Disease	1,028
2	Cancer	635
3	Stroke	249
4	Injury	149
5	Chronic Lung Disease	113

Source: DHHS Death Certificate Data 2003

- An average of 30 residents died from an injury each year in the ELVPHD coverage area (*Table D2*).
- Deaths due to injury made up 4.9% of total deaths in the ELVPHD coverage area compared to 6% of total deaths in Nebraska.
- In the ELVPHD counties, more than half of all deaths among 5-34 year olds were due to injuries (*Table D2*).

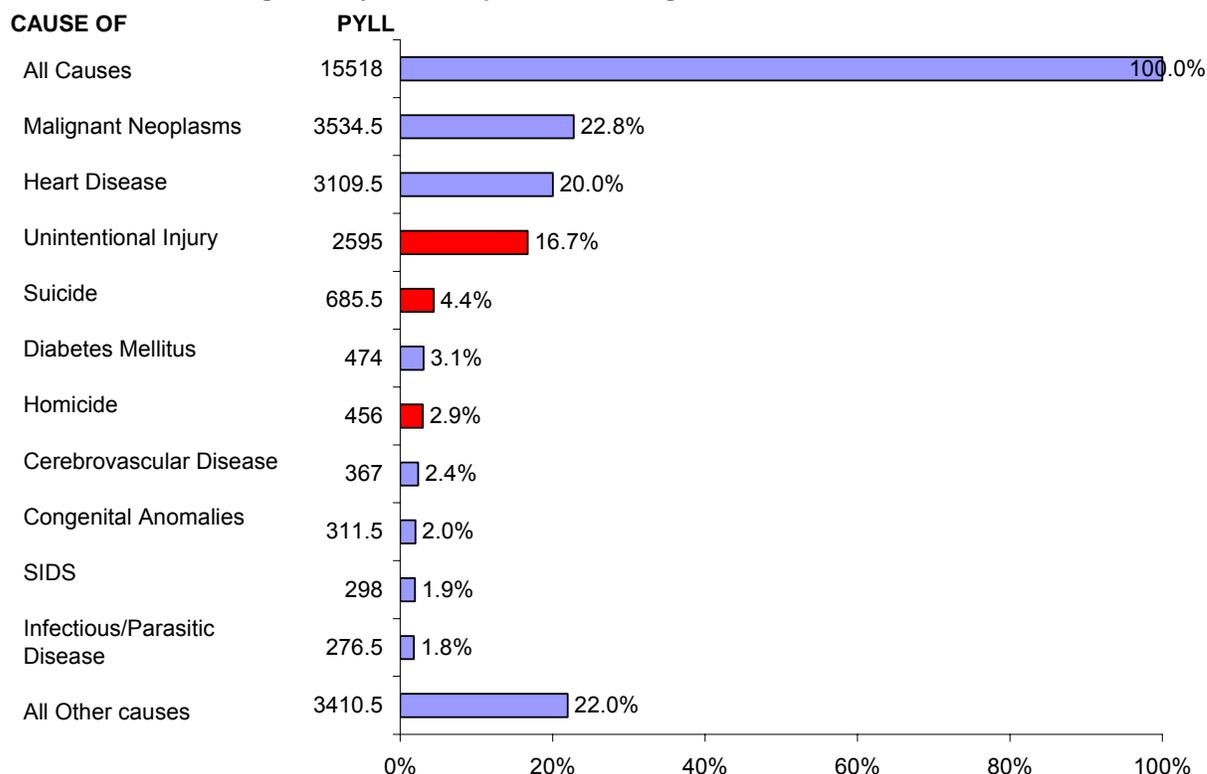
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Elkhorn Logan Valley Health Department Coverage Area, NE, 1999-2003**

Age Group	Annual Average			Percent of
	Injury Deaths	Injury Deaths	All Deaths	Death due to Injury
<1	0	0	20	0.0
1-4	0	0	2	0.0
5-9	7	1	9	77.8
10-14	3	1	3	100.0
15-19	7	1	11	63.6
20-24	13	3	18	72.2
25-29	5	1	9	55.6
30-34	7	1	10	70.0
35-39	7	1	25	28.0
40-44	11	2	33	33.3
45-49	10	2	45	22.2
50-54	12	2	63	19.0
55-59	6	1	91	6.6
60-64	5	1	127	3.9
65-74	10	2	442	2.3
75-84	20	4	863	2.3
85+	26	5	1,257	2.1
<b>Total</b>	<b>149</b>	<b>30</b>	<b>3,028</b>	<b>4.9</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked third (16.7%), following those from cancer (22.8%) and heart disease (20%). Suicide ranked 4<sup>th</sup> at 4.4% (*Figure D1*).

**Figure D1: Years of Potential Life Lost(YPLL) before Age 75 by Cause of Death, Elkhorn Logan Valley Health Department Coverage Area, NE, 1999-2003**



- The unintentional injury rate (32.9 per 100,000) for the ELVPHD coverage area was similar to the Nebraska rate, while the suicide rate (8.3 per 100,000) was lower and the homicide rate (4.4 per 100,000) was higher than Nebraska rates (33.3, 10.6, and 3.2 per 100,000 respectively) (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Elkhorn Logan Valley Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	66	66.7	43.2	47	79.7	22.7	113	71.5	32.9	3,020	68.3	33.3
Suicide	23	23.2	15.9	1	1.7	*	24	15.2	8.3	894	20.2	10.6
Homicide	5	5.1	3.5	7	11.9	5.2	12	7.6	4.4	273	6.2	3.2
Undetermined	2	2.0	*	1	1.7	*	3	1.9	*	139	3.1	1.6
Legal/War	1	1.0	*	0	0.0	0.0	1	0.6	*	0	0.0	0.0
Adverse Effects	2	2.0	*	3	5.1	*	5	3.2	1.2	93	2.1	1.0
<b>Total</b>	<b>99</b>	<b>100.0</b>	<b>65.9</b>	<b>59</b>	<b>100.0</b>	<b>30.5</b>	<b>158</b>	<b>100.0</b>	<b>48.1</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

- More males (63%) died or were discharged from hospitals because of injuries than females (37%) (Table D4).

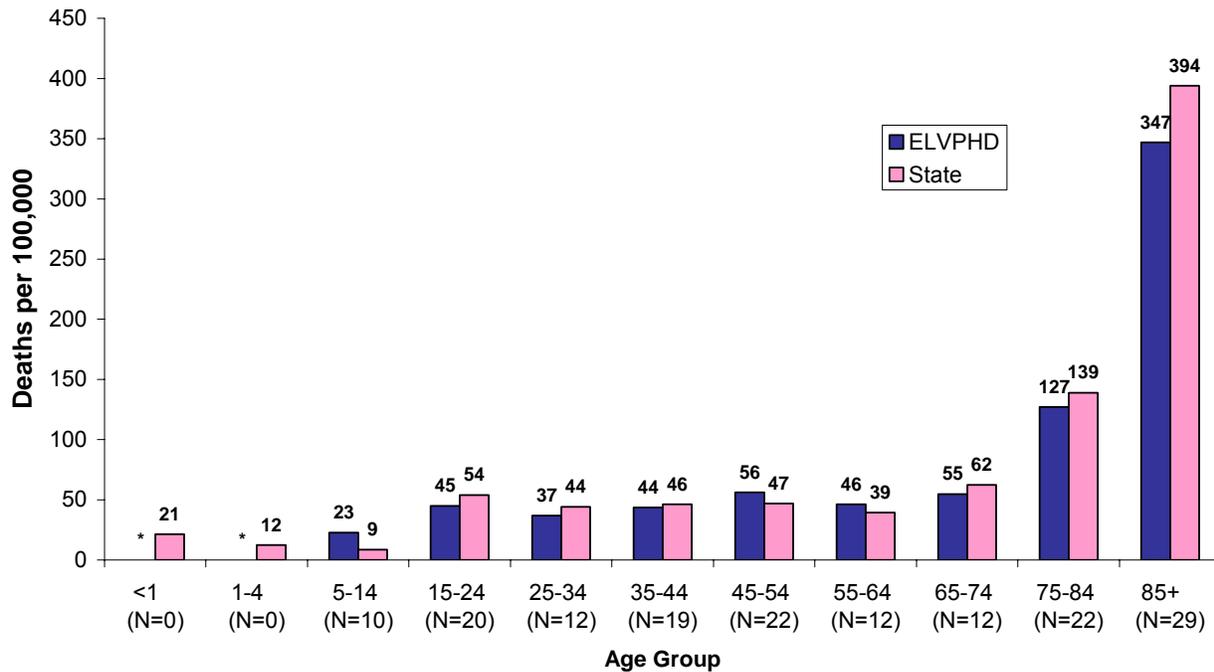
**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race, Elkhorn Logan Valley Health Department Coverage Area, NE, 1999-2003**

	Elkhorn Logan Valley HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	99	62.7	15,485	54.1	2,848	64.3	386,563	53.1
Female	59	37.3	13,146	45.9	1,581	35.7	341,506	46.9
Total	158	100.0	28,631	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	0	0.0	259	0.9	26	0.6	7,142	1.0
1-4	0	0.0	2,040	7.1	58	1.3	59,764	8.2
5-14	10	6.3	4,558	15.9	107	2.4	122,382	16.8
15-24	20	12.7	6,265	21.9	699	15.8	144,001	19.8
25-34	12	7.6	3,047	10.6	486	11.0	84,574	11.6
35-44	19	12.0	3,407	11.9	593	13.4	84,445	11.6
45-54	22	13.9	2,495	8.7	547	12.4	66,321	9.1
55-64	12	7.6	1,555	5.4	292	6.6	39,540	5.4
65-74	12	7.6	1,669	5.8	355	8.0	40,555	5.6
75-84	22	13.9	1,827	6.4	575	13.0	45,135	6.2
85+	29	18.4	1,509	5.3	691	15.6	34,222	4.7
Total	158	100.0	28,631	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	1	0.6			29	0.7		
African American	2	1.3			194	4.4		
Native American	2	1.3			72	1.6		
White	153	96.8			4,123	93.1		
Other	0	0.0			11	0.3		
Total	158	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- The pattern of injury death rates by age group is similar to that for Nebraska; the oldest age groups (85 and older) had the highest injury death rates (*Figure D2*).

**Figure D2: All Injury Death Rates by Age  
Elkhorn Logan Valley Health Department Coverage Area, NE, 1999-2003**



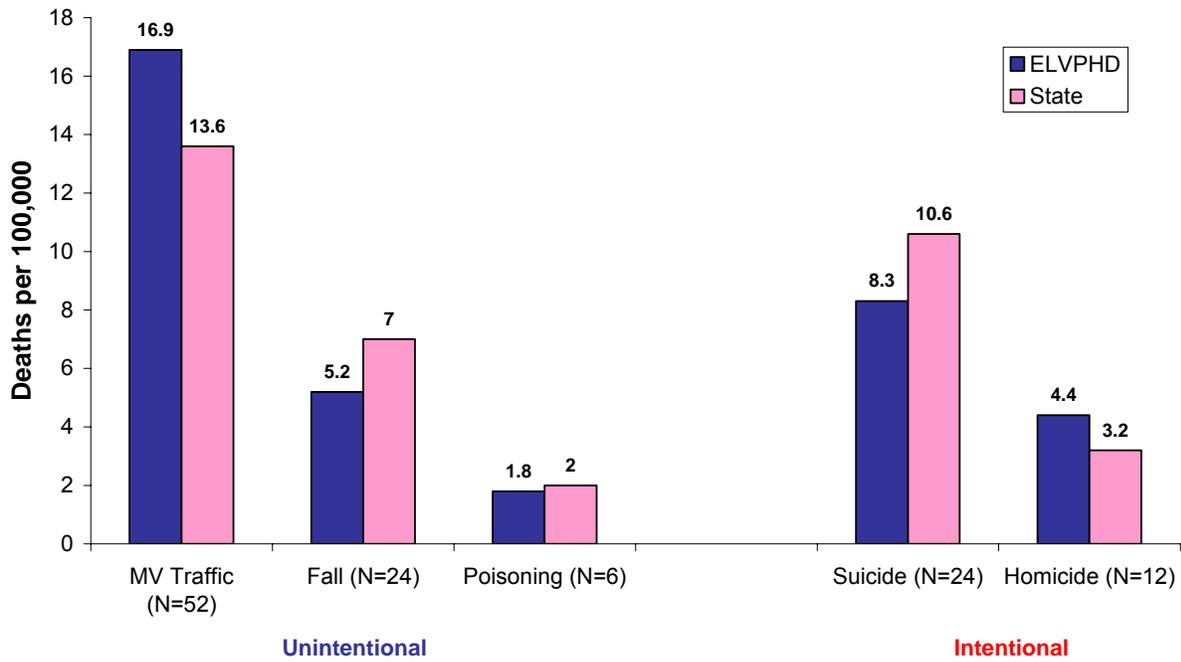
\* Fewer than five deaths

Source: DHHS Death Certificate Data 1999-2003

### Leading causes

- Motor vehicle crashes were the leading cause of injury death with an age-adjusted rate of 16.9 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (Figure D3).
- Suicide was the second leading cause of injury death. The age-adjusted death rate for suicide was lower than the Nebraska rate (8.3 and 10.6 per 100,000 respectively) (Figure D3).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls was slightly lower than the Nebraska rate (5.2 and 7.0 per 100,000 respectively) (Figure D3).

**Figure D3: Age-adjusted Injury Death Rates by Cause  
Elkhorn Logan Valley Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- Teens and young adults age 15-24 (N=11) had the most motor vehicle crash deaths, making up 21% of total deaths (N=52) (Table D5).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender,  
Elkhorn Logan Valley Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	4	12.5	3	15.0	7	13.5
15-24	10	31.3	1	5.0	11	21.2
25-34	2	6.3	3	15.0	5	9.6
35-44	5	15.6	2	10.0	7	13.5
45-54	4	12.5	3	15.0	7	13.5
55-64	1	3.1	3	15.0	4	7.7
65-74	2	6.3	1	5.0	3	5.8
75-84	4	12.5	2	10.0	6	11.5
85+	0	0.0	2	10.0	2	3.8
<b>Total</b>	<b>32</b>	<b>100.0</b>	<b>20</b>	<b>100.0</b>	<b>52</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Most deaths (79%) due to fall injuries were among persons 75 years and older (Table D6).

**Table D6: Deaths Due to Falls by Age and Gender,  
Elkhorn Logan Valley Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
45-54	2	25.0	0	0.0	2	8.3
65-74	2	25.0	1	6.3	3	12.5
75-84	2	25.0	4	25.0	6	25.0
85+	2	25.0	11	68.8	13	54.2
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>	<b>24</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Most deaths due to suicide were among teens and young adults (15-34) and middle-age adults (35-64) (Table D7).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Elkhorn Logan Valley Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	3	13.0	0	0.0	3	12.5
25-34	4	17.4	1	100.0	5	20.8
35-44	3	13.0	0	0.0	3	12.5
45-54	4	17.4	0	0.0	4	16.7
55-64	5	21.7	0	0.0	5	20.8
65-74	1	4.3	0	0.0	1	4.2
75-84	3	13.0	0	0.0	3	12.5
<b>Total</b>	<b>23</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>	<b>24</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

**Gender**

- More males (N=32) died from motor vehicle crashes than females (N=20) (Table D5).
- Twice as many females (N=16) as males (N=8) died from falls (Table D6).
- Nearly all deaths due to suicide were males (23 out of 24 total) (Table D7).

## Hospital discharges

### Overall

- The ELVPHD coverage area had a higher unintentional injury hospital discharge rate (8,570 per 100,000), a lower suicide attempt rate (65 per 100,000), and an equal homicide rate (204 per 100,000) when compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Elkhorn Logan Valley Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	14,266	96.8	9,524.1	11,853	97.1	7,629.2	26,119	96.9	8,569.7	665,407	95.9	7,609.6
Suicide	66	0.4	45.2	122	1.0	84.2	188	0.7	64.9	6,379	0.9	75.0
Homicide	376	2.6	252.4	213	1.7	157.1	589	2.2	204.4	17,720	2.6	203.9
Undetermined	23	0.2	15.6	22	0.2	14.2	45	0.2	14.9	4,181	0.6	48.3
Other	8	0.1	6.0	0	0.0	0.0	8	0.0	3.0	404	0.1	4.7
<b>Total</b>	<b>14,739</b>	<b>100.0</b>	<b>9,843.2</b>	<b>12,210</b>	<b>100.0</b>	<b>7,884.8</b>	<b>26,949</b>	<b>100.0</b>	<b>8,856.8</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined with an age-adjusted rate of 2,423 per 100,000, which was higher than the Nebraska rate (2,184 per 100,000). Falls were the leading cause of hospital discharges for age groups including 0-9, and 25 to 85 years and older (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges for all ages combined, and the leading cause for persons ages 10-24. The age-adjusted hospital discharge rate for struck by/against was higher than the Nebraska rate (1,265 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Overexertion was the third leading cause of injury hospital discharges. The age-adjusted rate was higher than the Nebraska rate (972 vs. 679 per 100,000 respectively) (*Figure H1*).
- Motor vehicle crashes (923 per 100,000) and cutting/piercing (861 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking cause of injury hospital discharges in the ELVPHD area. Both were higher than Nebraska rates (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Elkhorn Logan Valley Health Department Coverage Area, Nebraska, 1999-2003**

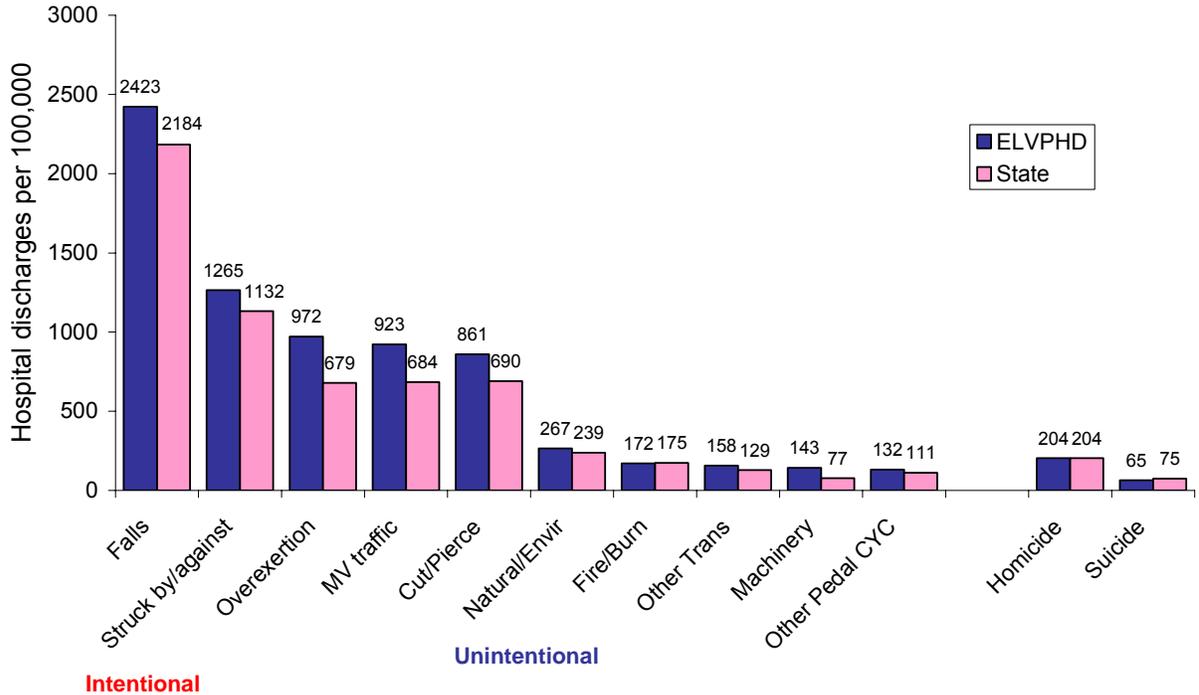
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=104	Falls N=755	Falls N=580	Struck by/against N=664	Struck by/against N=1,171	Falls N=448	Falls N=647	Falls N=608	Falls N=527	Falls N=770	Falls N=1,041	Falls N=1,001	Falls N=7,906
2	Struck by/against N=30	Struck by/against N=311	Struck by/against N=388	Falls N=663	MV traffic N=1,076	Overexertion N=413	Overexertion N=498	Overexertion N=303	Overexertion N=183	Overexertion N=128	MV traffic N=90	Struck by/against N=38	Struck by/against N=3,808
3	Fire/Burn N=15	Cut/Pierce N=126	Cut/Pierce N=199	Overexertion N=286	Falls N=762	Cut/Pierce N=356	Cut/Pierce N=404	Cut/Pierce N=279	MV traffic N=140	MV traffic N=96	Overexertion N=77	Overexertion N=31	Overexertion N=2,838
4	Poisoning N=13	Natural/Envir N=107	Other Pedal CYC N=113	Cut/Pierce N=197	Overexertion N=762	Struck by/against N=391	MV traffic N=381	MV traffic N=225	Cut/Pierce N=125	Cut/Pierce N=91	Struck by/against N=55	MV traffic N=30	MV traffic N=2,719
5	Cut/Pierce N=12	Poisoning N=93	Natural/Envir N=82	MV traffic N=176	Cut/Pierce N=599	MV traffic N=372	Struck by/against N=348	Struck by/against N=217	Struck by/against N=114	Struck by/against N=81	Cut/Pierce N=51	Natural/Envir N=21	Cut/Pierce N=2,506

Hospital visits includes visits as Inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
Elkhorn Logan Valley Health Department, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

**Age**

- Older adults (85 and older) had the highest fall injury hospital discharge rate (11,977 per 100,000). Females had a higher rate compared to males (13,080 vs. 9,289 per 100,000). Among children age 14 and under, the 1-4 year age group had the highest fall injury hospital discharge rate, which was slightly higher than the Nebraska rate (4,732 vs. 4,310 per 100,000) (Table H3).
- Teens and young adult age 15-24 years had the highest hospital discharge rate (2,628 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,136 per 100,000). Children age 5-14 years had the second highest rate at 2,391 per 100,000 (Table H3).
- Teens and young adults age 15-24 years also had the highest hospital discharge rates for motor vehicle crash injuries (2,415 per 100,000), overexertion (1,710 per 100,000), and cutting/piercing injuries (1,344 per 100,000) (Table H3).

**Gender**

- Females had slightly higher fall injury hospital discharge rates than males (2,537 vs. 2,306 per 100,000) in the counties served by the ELVPHD. Females also had a higher motor vehicle crash injury hospital discharge rate than males (1,002 vs. 842 per 100,000) (Table H3).
- Males had higher injury hospital discharge rates for struck by/against and cutting/piercing than females (1,659 and 1,134 vs. 878 and 592 per 100,000) (Table H3).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Elkhorn Logan Valley Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Elkhorn Logan Valley HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
MV traffic	<1	2	0.2	*	6	0.4	296.3	8	0.3	192.1	128.9	121.4	125.2
MV traffic	1-4	25	2	300.3	23	1.6	301.4	48	1.8	300.8	251.0	229.3	240.4
MV traffic	5-14	124	9.8	549.2	129	8.9	602.3	253	9.3	575.1	400.0	436.0	417.6
MV traffic	15-24	482	38.1	2059.3	594	40.8	2808.8	1076	39.6	2415	1444.2	1831.5	1633.7
MV traffic	25-34	182	14.4	1083.5	190	13.1	1201.5	372	13.7	1140.7	855.6	993.0	923.2
MV traffic	35-44	185	14.6	835.7	196	13.5	917.6	381	14	875.9	607.3	708.3	657.6
MV traffic	45-54	104	8.2	525.5	121	8.3	627.3	225	8.3	575.7	476.5	523.1	499.9
MV traffic	55-64	59	4.7	465.3	81	5.6	613	140	5.1	540.6	346.5	441.2	394.9
MV traffic	65-74	49	3.9	481	47	3.2	399.7	96	3.5	437.4	327.3	382.2	357.1
MV traffic	75-84	37	2.9	520.1	53	3.6	520.1	90	3.3	520.1	402.4	393.8	397.3
MV traffic	85+	15	1.2	616.5	15	1	253.2	30	1.1	358.9	404.8	248.5	293.6
<b>Total</b>		1264	100.0	842.2	1455	100.0	1001.7	2719	100.0	923.0	629.3	737.3	684.0
Falls	<1	48	1.4	2244	56	1.3	2765.4	104	1.3	2497.6	2298.5	2139.4	2220.8
Falls	1-4	444	12.8	5333.3	311	7	4074.9	755	9.5	4731.5	4871.2	3721.2	4309.7
Falls	5-14	681	19.6	3016.2	562	12.7	2624	1243	15.7	2825.3	2855	2404.1	2634.8
Falls	15-24	434	12.5	1854.2	328	7.4	1551	762	9.6	1710.3	1570.9	1323.5	1449.9
Falls	25-34	234	6.7	1393.1	214	4.8	1353.2	448	5.7	1373.8	1048.4	1303.4	1173.8
Falls	35-44	294	8.5	1328.1	353	8	1652.6	647	8.2	1487.5	1084.2	1357.6	1220.2
Falls	45-54	271	7.8	1369.3	337	7.6	1747.1	608	7.7	1555.8	1116	1610.3	1364.2
Falls	55-64	212	6.1	1671.8	315	7.1	2383.8	527	6.7	2035.1	1337.7	1976.8	1664.3
Falls	65-74	275	7.9	2699.3	495	11.2	4209.2	770	9.7	3508.3	2151.5	3581	2926.8
Falls	75-84	359	10.3	5046.4	682	15.4	6692.2	1041	13.2	6015.6	4355.2	7355	6138.2
Falls	85+	226	6.5	9288.9	775	17.5	13080	1001	12.7	11977	10070	14640	13320
<b>Total</b>		3478	100.0	2306.1	4428	100.0	2537.3	7906	100.0	2423.0	2013.8	2349.3	2184.0
Cut/Pierce	<1	7	0.4	327.3	5	0.6	246.9	12	0.5	288.2	228.7	185.5	207.6
Cut/Pierce	1-4	76	4.6	912.9	50	6	655.1	126	5	789.6	925.2	609.5	771.1
Cut/Pierce	5-14	256	15.3	1133.8	140	16.7	653.7	396	15.8	900.1	1033.2	615.8	829.4
Cut/Pierce	15-24	431	25.8	1841.4	168	20.1	794.4	599	23.9	1344.4	1399.6	650.1	1032.9
Cut/Pierce	25-34	271	16.2	1613.4	139	16.6	879	410	16.4	1257.2	1138.4	596.8	872.2
Cut/Pierce	35-44	267	16	1206.1	137	16.4	641.4	404	16.1	928.8	861.0	517.5	690.1
Cut/Pierce	45-54	177	10.6	894.3	102	12.2	528.8	279	11.1	713.9	650.7	401.2	525.4
Cut/Pierce	55-64	88	5.3	694	37	4.4	280	125	5	482.7	555.0	309.7	429.6
Cut/Pierce	65-74	59	3.5	579.1	32	3.8	272.1	91	3.6	414.6	582.4	266.5	411.1
Cut/Pierce	75-84	33	2	463.9	18	2.2	176.6	51	2	294.7	448.3	214.8	309.5
Cut/Pierce	85+	5	0.3	205.5	8	1	135	13	0.5	155.5	333.7	194.8	234.9
<b>Total</b>		1670	100.0	1133.6	836	100.0	592.1	2506	100.0	861.0	893.0	492.5	689.8
Struck by/against	<1	19	0.7	888.3	11	0.9	543.2	30	0.8	720.5	836	692.9	766.1
Struck by/against	1-4	196	7.7	2354.4	115	9	1506.8	311	8.2	1949	2812.4	1729.5	2283.7
Struck by/against	5-14	712	28.1	3153.5	340	26.7	1587.4	1052	27.6	2391.1	2919.3	1521.6	2236.7
Struck by/against	15-24	891	35.1	3806.7	280	22	1324	1171	30.8	2628.3	3069.3	1161.5	2135.8
Struck by/against	25-34	262	10.3	1559.8	129	10.1	815.7	391	10.3	1199	1212	676.9	948.9
Struck by/against	35-44	189	7.5	853.8	159	12.5	744.4	348	9.1	800.1	854.1	527.3	691.6
Struck by/against	45-54	117	4.6	591.2	100	7.9	518.4	217	5.7	555.3	574.9	385.7	479.9
Struck by/against	55-64	71	2.8	559.9	43	3.4	325.4	114	3	440.2	414.7	291.2	351.6
Struck by/against	65-74	39	1.5	382.8	42	3.3	357.1	81	2.1	369.1	415.7	292.7	349
Struck by/against	75-84	29	1.1	407.6	26	2	255.1	55	1.4	317.8	415.6	363.7	384.7
Struck by/against	85+	11	0.4	452.1	27	2.1	455.7	38	1	454.7	507.4	519.4	516
<b>Total</b>		2536	100.0	1658.8	1272	100.0	877.5	3808	100.0	1265.0	1488.5	786.4	1132.3
Overexertion	<1	5	0.3	233.8	6	0.4	296.3	11	0.4	264.2	111.1	156.8	133.4
Overexertion	1-4	33	2.3	396.4	42	3	550.3	75	2.6	470	352.6	519.6	434.1
Overexertion	5-14	147	10.3	651.1	210	15	980.5	357	12.6	811.4	537.1	610.3	572.9
Overexertion	15-24	445	31	1901.2	317	22.6	1499	762	26.8	1710.3	1317.5	1024.1	1173.9
Overexertion	25-34	211	14.7	1256.2	202	14.4	1277.3	413	14.6	1266.4	952.4	828.7	891.6
Overexertion	35-44	270	18.8	1219.7	228	16.2	1067.4	498	17.5	1144.9	817.7	677.3	747.9
Overexertion	45-54	147	10.3	742.8	156	11.1	808.8	303	10.7	775.3	616.4	572.9	594.5
Overexertion	55-64	78	5.4	615.1	105	7.5	794.6	183	6.4	706.7	426.6	433.8	430.3
Overexertion	65-74	55	3.8	539.9	73	5.2	620.7	128	4.5	583.2	356.1	445.4	404.6
Overexertion	75-84	38	2.6	534.2	39	2.8	382.7	77	2.7	445	311.8	419.9	376.0
Overexertion	85+	5	0.3	205.5	26	1.9	438.8	31	1.1	370.9	236.9	387.2	343.8
<b>Total</b>		1434	100.0	968.8	1404	100.0	975.2	2838	100.0	972.0	705.5	635.6	679.2

Source: Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

INJURY REPORT, 1999-2003

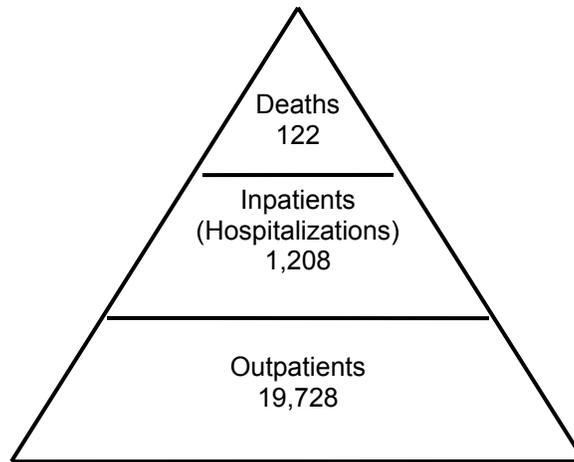
**Four Corners Health Department Coverage Area**

*Polk, Butler, York and Seward Counties*

**Summary**

Injury is a public health problem in the Four Corners Health Department (FCHD) coverage area. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 122 injury deaths, more than 1,200 residents in Polk, Butler, York and Seward Counties were hospitalized and more than 19,700 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury hospital discharges and struck by/against injuries were second, followed by cutting/piercing, overexertion, and motor vehicle crashes.

**Figure A: Injury Pyramid, Residents of Four Corners Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were more than twice as likely as females to die from injuries. Additionally, young adults were more likely to die from motor vehicle crashes while older adults were more likely to die from fall injuries.

The following table highlights the FCHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls and motor vehicle crashes (*Table A*).

**Table A: Injury Death Rates, Four Corners Health Department Coverage Area, NE, 1999-2003**

Cause of Death	Average Rate 1999-2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	35.4	19.4
Fall	6.7	3.5
Motor Vehicle Crash	19.1	12.0

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the FCHD coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Four Corners Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	799
2	Cancer	513
3	Stroke	158
4	Injury	118
5	Alzheimer's	113

Source: DHHS Death Certificate Data 1999-2003

- An average of 23 residents died from injuries each year in the FCHD coverage area (*Table D2*).
- Deaths due to injury made up 4.8% of total deaths in the FCHD coverage area compared to 6% of deaths in Nebraska. More than half of the deaths due to injuries in the FCHD coverage area were among 15-29 year olds (*Table D2*).

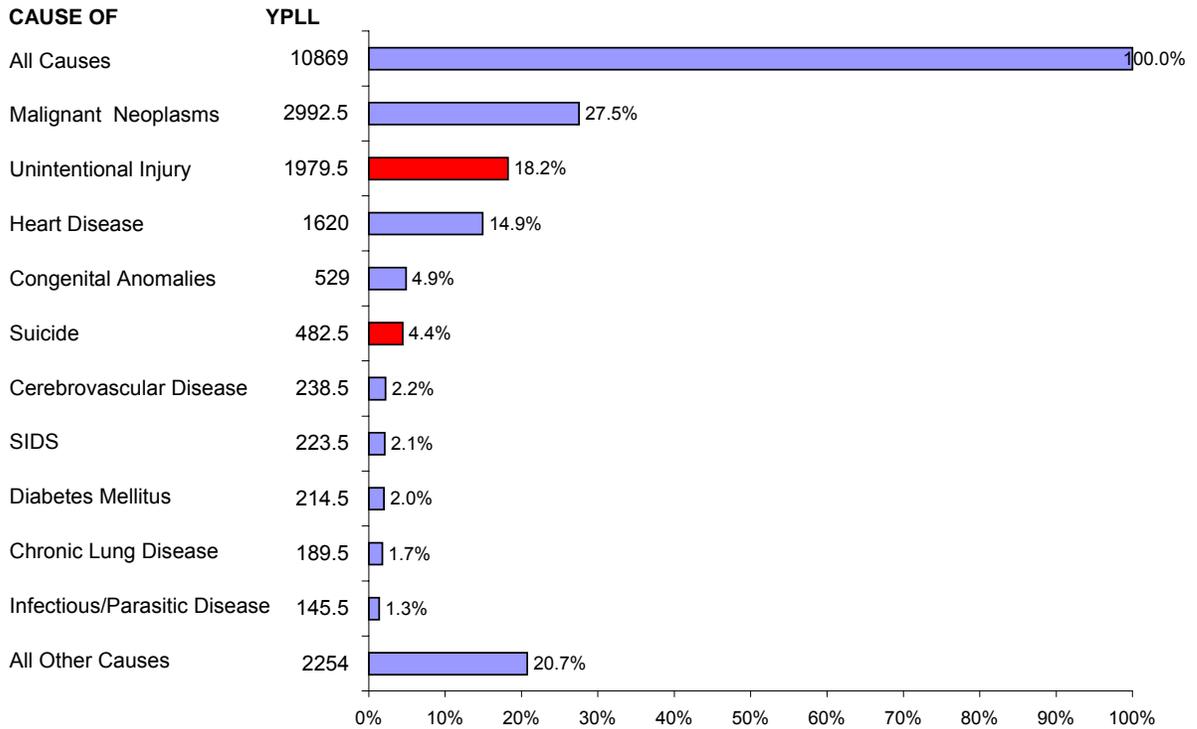
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Four Corners Health Department Coverage Area, NE, 1999-2003**

Age Group	Annual Average			Percent of Death due to Injury
	Injury Deaths	Injury Deaths	All Deaths	
≤14	4	1	18	22.2
15-19	9	2	12	75.0
20-24	6	1	8	75.0
25-29	7	1	10	70.0
30-34	3	1	6	50.0
35-39	4	1	12	33.3
40-44	10	2	26	38.5
45-49	9	2	39	23.1
50-54	2	0	44	4.5
55-59	2	0	65	3.1
60-64	7	1	94	7.4
65-74	8	2	328	2.4
75-84	12	2	720	1.7
85+	35	7	993	3.5
<b>Total</b>	<b>114</b>	<b>23</b>	<b>2,357</b>	<b>4.8</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injuries (18.2%) ranked second, following that from cancer (27.5%). Suicide ranked 5<sup>th</sup> at 4.4% (*Figure D1*).

**Figure D1. Years of Potential Life Lost (YPLL) before Age 75 by Cause of Death, Four Corners Health Department Coverage Area, NE, 1999-2003**



- The counties served by the FCHD had a higher unintentional injury death rate (35.4 per 100,000), but lower suicide rate (8.4 per 100,000) than Nebraska rates (33.3 and 10.6 per 100,000 respectively) (Table D3). The FCHD has not met the 2010 Nebraska Objective of 19.4 or fewer unintentional injury deaths per 100,000 population.

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Four Corners Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	51	71.8	43.9	46	90.2	26.9	97	79.5	35.4	3,020	68.3	33.3
Suicide	17	23.9	14.8	3	5.9	*	20	16.4	8.4	894	20.2	10.6
Homicide	1	1.4	*	0	0.0	*	1	0.8	*	273	6.2	3.2
Undetermined	0	0.0	*	1	2.0	*	1	0.8	*	139	3.1	1.6
Adverse Effects	2	2.8	*	1	2.0	*	3	2.5	*	93	2.1	1.0
<b>Total</b>	<b>71</b>	<b>100.0</b>	<b>60.9</b>	<b>51</b>	<b>100.0</b>	<b>29.9</b>	<b>122</b>	<b>100.0</b>	<b>45.3</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

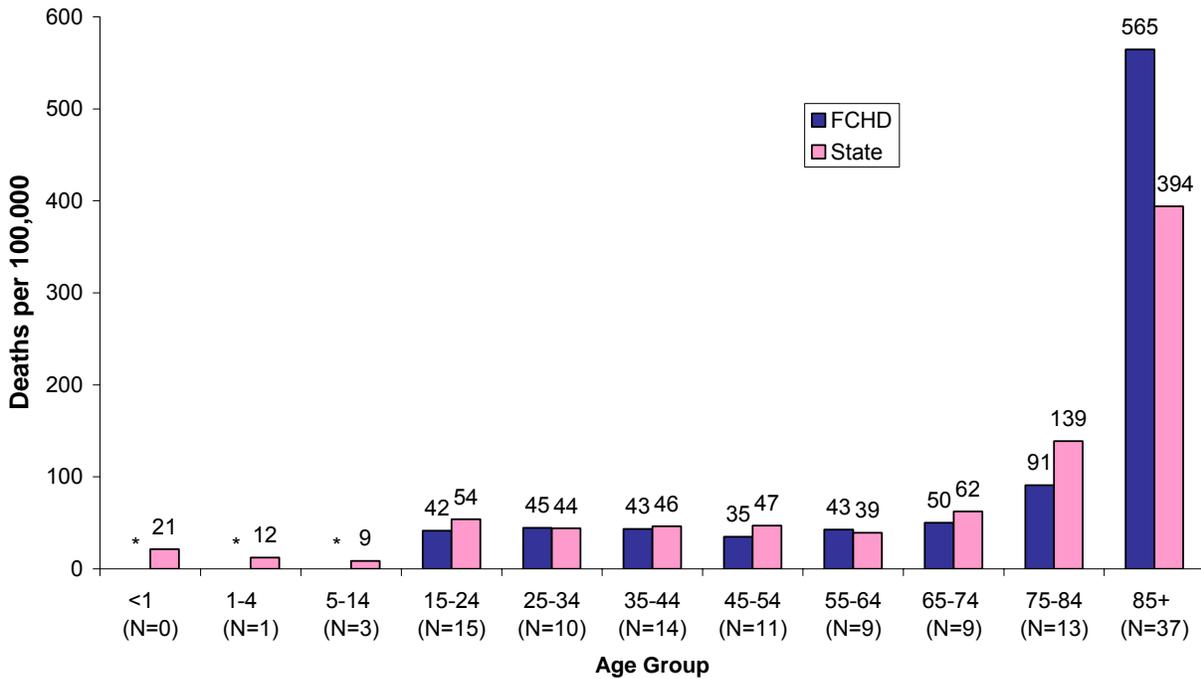
- More males (58.2%) died from all injury-related causes than females (41.8%) (Table D4).
- The injury death rate was the highest for the oldest age groups (75 and older). Persons age 85 and older had an injury death rate of 565 per 100,000, which was 1.4 times higher than the Nebraska rate (394 per 100,000) (Figure D2).

**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race,  
Four Corners Health Department Coverage Area, NE, 1999-2003**

	Four Corners HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	71	58.2	11,034	52.7	2,848	64.3	386,563	53.1
Female	51	41.8	9,902	47.3	1,581	35.7	341,506	46.9
Total	122	100.0	20,936	52.7	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	0	0.0	143	0.7	26	0.6	7,142	1.0
1-4	1	0.8	1,278	6.1	58	1.3	59,764	8.2
5-14	3	2.5	3,195	15.3	107	2.4	122,382	16.8
15-24	15	12.3	4,055	19.4	699	15.8	144,001	19.8
25-34	10	8.2	1,893	9.0	486	11.0	84,574	11.6
35-44	14	11.5	2,041	9.8	593	13.4	84,445	11.6
45-54	11	9.0	1,697	8.1	547	12.4	66,321	9.1
55-64	9	7.4	1,060	5.1	292	6.6	39,540	5.4
65-74	9	7.4	1,753	8.4	355	8.0	40,555	5.6
75-84	13	10.7	2,054	9.8	575	13.0	45,135	6.2
85+	37	30.3	1,767	8.4	691	15.6	34,222	4.7
Total	122	100.0	20,936	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	1	0.8			194	4.4		
Native American	0	0.0			72	1.6		
White	120	98.4			4,123	93.1		
Other	1	0.8			11	0.3		
Total	122	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

**Figure D2: All Injury Death Rates by Age,  
Four Corners Health Department Coverage Area, NE, 1999-2003**

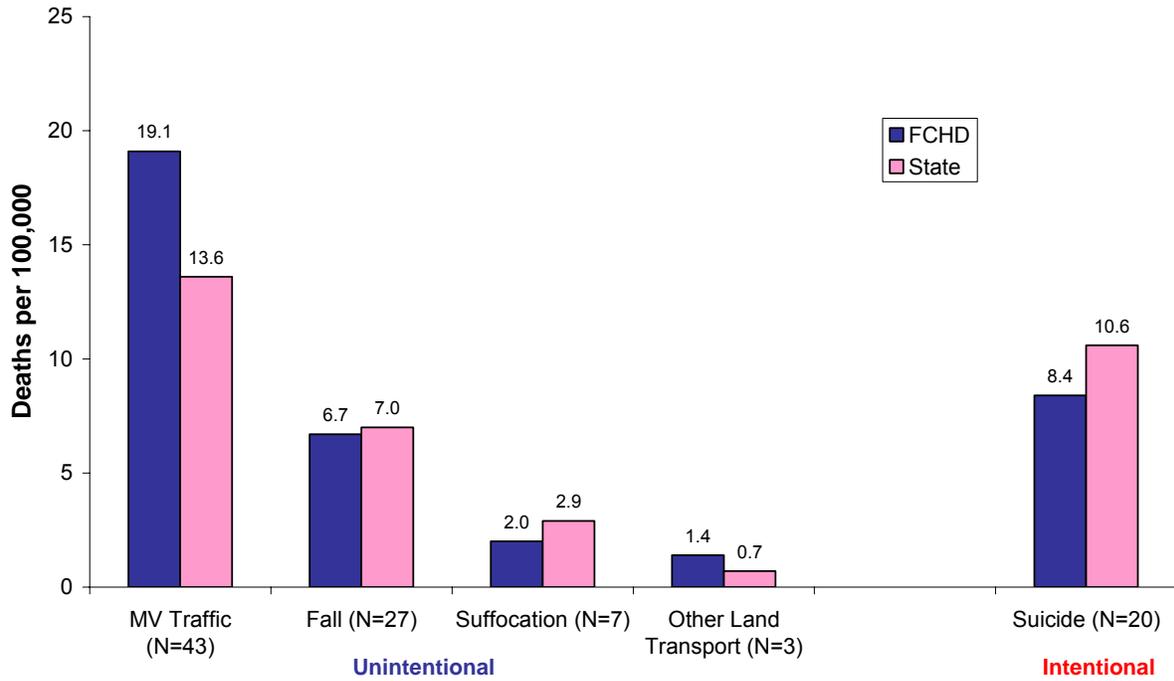


\* Fewer than five deaths  
Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury deaths with an age-adjusted rate of 19.1 per 100,000 as compared to the Nebraska rate of 13.6 per 100,000 (*Figure D3*). The FCHD has not met the 2010 Nebraska Objective of 12.0 or fewer motor vehicle crash injury deaths per 100,000 population.
- Suicide was the second leading cause of injury deaths. The age-adjusted death rate for suicide was lower than the Nebraska rate (8.4 vs. 10.6 per 100,000 respectively) (*Figure D3*).
- Falls were the third leading cause of injury deaths. The age-adjusted death rate due to falls was similar to the Nebraska rate (6.7 vs. 7.0 per 100,000 respectively) (*Figure D3*). The FCHD has not met the 2010 Nebraska objective of 3.5 or fewer fall injury deaths per 100,000 population.

**Figure D3: Age-adjusted Injury Death Rates by Cause, Four Corners Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- The most motor vehicle crash deaths were among persons age 25-34 years (N=11) (Table D5).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, Four Corners Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	2	6.9	0	0.0	2	4.7
25-34	6	20.7	5	35.7	11	25.6
35-44	4	13.8	2	14.3	6	14.0
45-54	7	24.1	1	7.1	8	18.6
55-64	6	20.7	2	14.3	8	18.6
65-74	1	3.4	1	7.1	2	4.7
75-84	2	6.9	2	14.3	4	9.3
85+	1	3.4	1	7.1	2	4.7
<b>Total</b>	<b>29</b>	<b>100.0</b>	<b>14</b>	<b>100.0</b>	<b>43</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Almost 78% of deaths (N=21) due to fall injuries were among persons 85 years and older (Table D6).

**Table D6: Deaths Due to Fall by Age and Gender,  
Four Corners Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
35-44	1	14.3	0	0.0	1	3.7
55-64	0	0.0	0	0.0	0	0.0
65-74	0	0.0	1	5.0	1	3.7
75-84	1	14.3	3	15.0	4	14.8
85+	5	71.4	16	80.0	21	77.8
Total	7	100.0	20	100.0	27	100.0

Source: DHHS Death Certificate Data 1999-2003

- Those in the 55-64 year age group had more deaths (N=5) due to suicide than other age groups (Table D7).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Four Corners Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	3	17.6	0	0.0	3	15.0
25-34	3	17.6	0	0.0	3	15.0
35-44	2	11.8	0	0.0	2	10.0
45-54	1	5.9	0	0.0	1	5.0
55-64	3	17.6	2	66.7	5	25.0
65-74	1	5.9	0	0.0	1	5.0
75-84	1	5.9	0	0.0	1	5.0
85+	3	17.6	1	33.3	4	20.0
Total	17	100.0	3	100.0	20	100.0

Source: DHHS Death Certificate Data 1999-2003

#### Gender

- More males (N=29) died from motor vehicle crashes than females (N=14) (Table D5).
- More females (N=20) died from fall injuries than males (N=7) (Table D6).
- The number of males (N=17) who died from suicide was almost six times as high as females (N=3) (Table D7).

## Hospital discharges

### Overall

- The FCHD coverage area had a higher unintentional injury hospital discharge rate (7,819 per 100,000), but lower suicide attempt rate (57 per 100,000) and homicide rate (93 per 100,000) than Nebraska rates (7610, 75, and 204 per 100,000 respectively) (*Table H1*).
- More males (N=10,188) than females (N=8,472) were treated at a hospital for all injury-related causes (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Four Corners Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	9,984	98.0	8,755.1	8,577	98.1	6,890.2	18,561	98.1	7,818.9	665,407	95.9	7,609.6
Suicide	59	0.6	50.6	70	0.8	64.0	129	0.7	57.3	6,379	0.9	75.0
Homicide	121	1.2	108.5	77	0.9	77.6	198	1.0	93.0	17,720	2.6	203.9
Undetermined	24	0.2	21.3	18	0.2	17.0	42	0.2	19.2	4,181	0.6	48.3
Other	0	0.0	*	0	0.0	*	0	0.0	*	404	0.1	4.7
<b>Total</b>	<b>10,188</b>	<b>100.0</b>	<b>8,935.6</b>	<b>8,742</b>	<b>100.0</b>	<b>7,048.8</b>	<b>18,930</b>	<b>100.0</b>	<b>7,988.4</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five discharges

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups except for the 10-14 and 15-24 year age groups. They were the leading cause for all age groups combined, with an age-adjusted rate of 2,090 per 100,000. The rate was relatively lower than the Nebraska rate (2,184 per 100,000) (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharge for all age groups combined, and the leading cause for the age groups 10-14 and 15-24. The age-adjusted hospital discharge rate for struck by/against was slightly higher than the Nebraska rate (1,184 vs. 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharges. The age-adjusted rate was slightly higher than the Nebraska rate (755 vs. 690 per 100,000 respectively) (*Figure H1*).
- Overexertion (581 per 100,000) and motor vehicle crashes (550 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking causes of injury hospital discharges in the FCHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Four Corners Health Department Coverage Area, NE, 1999-2003**

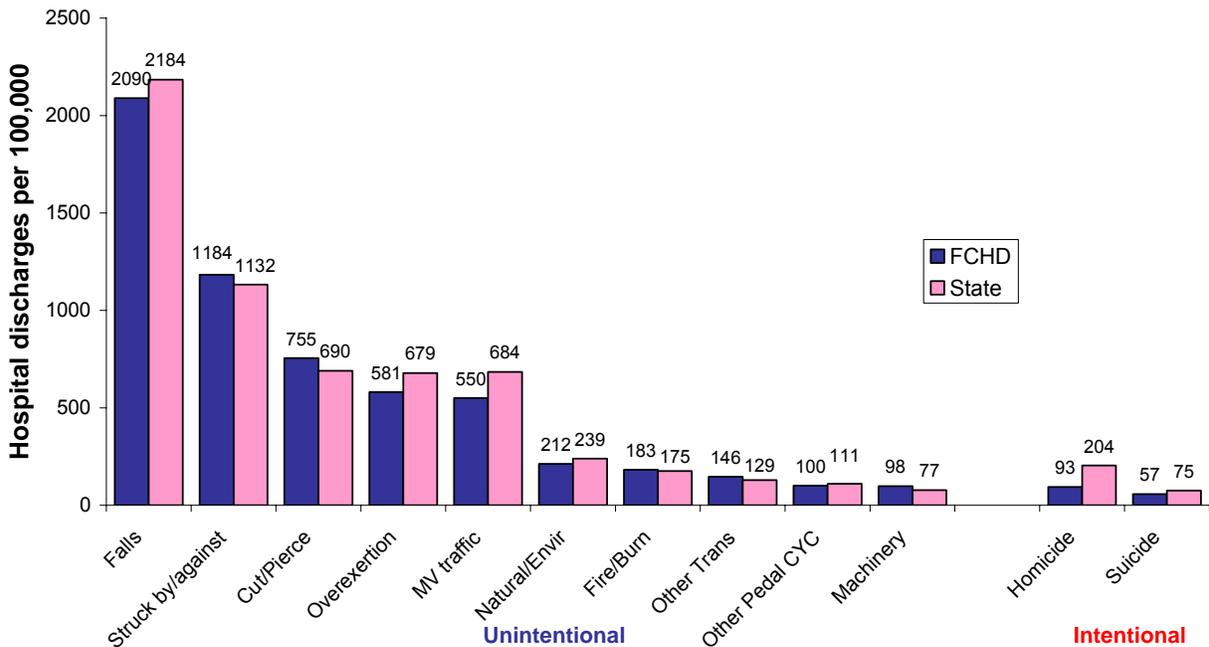
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=42	Falls N=384	Falls N=345	Struck by/against N=496	Struck by/against N=988	Falls N=336	Falls N=372	Falls N=393	Falls N=330	Falls N=576	Falls N=885	Falls N=968	Falls N=5,401
2	Struck by/against N=13	Struck by/against N=164	Struck by/against N=216	Falls N=353	MV traffic N=489	Cut/Pierce N=250	Struck by/against N=243	Cut/Pierce N=173	Cut/Pierce N=84	Cut/Pierce N=88	Struck by/against N=70	Struck by/against N=38	Struck by/against N=2,723
3	Fire/Burn N=8	Cut/Pierce N=104	Cut/Pierce N=144	Cut/Pierce N=165	Falls N=417	Struck by/against N=243	Cut/Pierce N=222	Overexertion N=152	Overexertion N=75	Overexertion N=75	Overexertion N=64	Overexertion N=33	Cut/Pierce N=1,663
4	Overexertion N=5	Natural/Envir N=83	Natural/Envir N=40	Overexertion N=118	Overexertion N=388	Overexertion N=176	MV traffic N=178	Struck by/against N=147	MV traffic N=74	MV traffic N=54	Cut/Pierce N=45	Cut/Pierce N=22	Overexertion N=1,323
5	Assault N=5	Poisoning N=54	MV traffic N=28	MV traffic N=95	Cut/Pierce N=362	MV traffic N=155	Overexertion N=168	MV traffic N=100	Struck by/against N=55	Struck by/against N=50	MV traffic N=40	MV traffic N=14	MV traffic N=1,249

Hospital visits includes visits as Inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
Four Corners Health Department Coverage Area, NE, 1999-2003**



Source: Nebraska Hospital Discharge Data 1999-2003

### Age

- In the FCHD coverage area, hospital discharge rates due to falls were highest for persons age 85 and older (14,770 per 100,000). Among children age 14 and under, the age group 1-4 years had the highest fall injury rate (3,617 per 100,000), which was lower than the Nebraska rate (4,310 per 100,000) (*Table H3*).
- Persons age 15-24 years had the highest hospital discharge rate (2,734 per 100,000) due to struck by/against, which was higher than the Nebraska rate (2,136 per 100,000) (*Table H3*).
- The hospital discharge rate for cutting/piercing injuries was highest for the 25-34 year age group (1,114 per 100,000) (*Table H3*).
- Hospital discharge rates for overexertion (1,074 per 100,000) and motor vehicle crash injuries (1,353 per 100,000) were highest for individuals in the 15-24 year age group (*Table H3*).

### Gender

- In the FCHD coverage area, females had higher injury hospital discharge rates for falls and motor vehicle crashes than males (2,262 and 589 vs. 1,917 and 512 per 100,000) (*Table H3*).
- Hospital discharge rates for males were more than twice those for females for struck by/against and cutting/piercing (1,592 and 1,009 vs. 779 and 502 per 100,000) (*Table H3*).
- Males also had a higher overexertion injury hospital discharge rate than females (599 vs. 562 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Four Corners Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Four Corners HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
MV traffic	<1			0	3	0.5	*	3	0.2	*	128.9	121.4	125.2
MV traffic	1-4	10	1.7	183.5	9	1.4	174.2	19	1.5	179	251.0	229.3	240.4
MV traffic	5-14	57	9.6	353.3	66	10.1	427.8	123	9.8	389.7	400.0	436.0	417.6
MV traffic	15-24	241	40.5	1234.8	248	37.9	1492.4	489	39.2	1353.3	1444.2	1831.5	1633.7
MV traffic	25-34	80	13.4	698.8	75	11.5	682.4	155	12.4	690.8	855.6	993.0	923.2
MV traffic	35-44	84	14.1	519.1	94	14.4	587.4	178	14.3	553.1	607.3	708.3	657.6
MV traffic	45-54	54	9.1	338.5	46	7	298.2	100	8	318.7	476.5	523.1	499.9
MV traffic	55-64	21	3.5	199.8	53	8.1	500.9	74	5.9	350.8	346.5	441.2	394.9
MV traffic	65-74	26	4.4	314.2	28	4.3	290.2	54	4.3	301.3	327.3	382.2	357.1
MV traffic	75-84	18	3	297.8	22	3.4	266.2	40	3.2	279.5	402.4	393.8	397.3
MV traffic	85+	4	0.7	*	10	1.5	225	14	1.1	213.6	404.8	248.5	293.6
<b>Total</b>		595	100.0	512.1	654	100.0	588.5	1249	100.0	550.0	629.3	737.3	684.0
Falls	<1	27	1.2	2022.5	15	0.5	1148.5	42	0.8	1590.3	2298.5	2139.4	2220.8
Falls	1-4	222	10	4073.4	162	5.1	3135.9	384	7.1	3617.2	4871.2	3721.2	4309.7
Falls	5-14	355	16.1	2200.5	343	10.8	2223.1	698	12.9	2211.5	2855	2404.1	2634.8
Falls	15-24	236	10.7	1209.2	181	5.7	1089.2	417	7.7	1154	1570.9	1323.5	1449.9
Falls	25-34	155	7	1353.9	181	5.7	1646.8	336	6.2	1497.4	1048.4	1303.4	1173.8
Falls	35-44	185	8.4	1143.3	187	5.9	1168.5	372	6.9	1155.8	1084.2	1357.6	1220.2
Falls	45-54	187	8.5	1172.3	206	6.5	1335.6	393	7.3	1252.6	1116	1610.3	1364.2
Falls	55-64	142	6.4	1350.7	188	5.9	1776.8	330	6.1	1564.4	1337.7	1976.8	1664.3
Falls	65-74	194	8.8	2344.1	382	12	3959	576	10.7	3213.4	2151.5	3581	2926.8
Falls	75-84	271	12.3	4483	614	19.2	7428	885	16.4	6184.1	4355.2	7355	6138.2
Falls	85+	237	10.7	11238	731	22.9	16445	968	17.9	14770	10070	14640	13320
<b>Total</b>		2211	100.0	1916.7	3190	100.0	2261.9	5401	100.0	2090.0	2013.8	2349.3	2184.0
Cut/Pierce	<1	3	0.3	*	1	0.2	*	4	0.2	*	228.7	185.5	207.6
Cut/Pierce	1-4	62	5.5	1137.6	42	7.7	813	104	6.3	979.7	925.2	609.5	771.1
Cut/Pierce	5-14	195	17.4	1208.7	114	21	738.9	309	18.6	979	1033.2	615.8	829.4
Cut/Pierce	15-24	272	24.3	1393.7	90	16.6	541.6	362	21.8	1001.8	1399.6	650.1	1032.9
Cut/Pierce	25-34	179	16	1563.6	71	13.1	646	250	15	1114.1	1138.4	596.8	872.2
Cut/Pierce	35-44	143	12.8	883.8	79	14.6	493.6	222	13.3	689.8	861.0	517.5	690.1
Cut/Pierce	45-54	118	10.5	739.8	55	10.1	356.6	173	10.4	551.4	650.7	401.2	525.4
Cut/Pierce	55-64	55	4.9	523.2	29	5.4	274.1	84	5.1	398.2	555.0	309.7	429.6
Cut/Pierce	65-74	59	5.3	712.9	29	5.4	300.5	88	5.3	490.9	582.4	266.5	411.1
Cut/Pierce	75-84	31	2.8	512.8	14	2.6	169.4	45	2.7	314.4	448.3	214.8	309.5
Cut/Pierce	85+	4	0.4	*	18	3.3	404.9	22	1.3	335.7	333.7	194.8	234.9
<b>Total</b>		1121	100.0	1009.3	542	100.0	502.2	1663	100.0	755.0	893.0	492.5	689.8
Struck by/against	5-14	477	25.6	2956.7	235	27.3	1523.1	712	26.1	2255.9	2919.3	1521.6	2236.7
Struck by/against	15-24	763	41	3909.4	225	26.1	1354	988	36.3	2734.3	3069.3	1161.5	2135.8
Struck by/against	25-34	160	8.6	1397.6	83	9.6	755.2	243	8.9	1082.9	1212	676.9	948.9
Struck by/against	35-44	167	9	1032.1	76	8.8	474.9	243	8.9	755	854.1	527.3	691.6
Struck by/against	45-54	95	5.1	595.6	52	6	337.1	147	5.4	468.5	574.9	385.7	479.9
Struck by/against	55-64	32	1.7	304.4	23	2.7	217.4	55	2	260.7	414.7	291.2	351.6
Struck by/against	65-74	31	1.7	374.6	19	2.2	196.9	50	1.8	278.9	415.7	292.7	349
Struck by/against	75-84	27	1.5	446.7	43	5	520.2	70	2.6	489.1	415.6	363.7	384.7
Struck by/against	85+	6	0.3	284.5	32	3.7	719.9	38	1.4	579.8	507.4	519.4	516
<b>Total</b>		1758	100	1591.5	788	100	779.1	2546	100	755	1488.5	786.4	1132.3
Overexertion	<1	3	0.4	*	2	0.3	*	5	0.4	189.3	111.1	156.8	133.4
Overexertion	1-4	21	3.1	385.3	22	3.4	425.9	43	3.3	405.0	352.6	519.6	434.1
Overexertion	5-14	69	10.2	427.7	75	11.6	486.1	144	10.9	456.2	537.1	610.3	572.9
Overexertion	15-24	208	30.7	1065.7	180	27.9	1083.2	388	29.3	1073.8	1317.5	1024.1	1173.9
Overexertion	25-34	111	16.4	969.6	65	10.1	591.4	176	13.3	784.3	952.4	828.7	891.6
Overexertion	35-44	87	12.9	537.7	81	12.5	506.1	168	12.7	522	817.7	677.3	747.9
Overexertion	45-54	87	12.9	545.4	65	10.1	421.4	152	11.5	484.5	616.4	572.9	594.5
Overexertion	55-64	42	6.2	399.5	33	5.1	311.9	75	5.7	355.6	426.6	433.8	430.3
Overexertion	65-74	23	3.4	277.9	52	8	538.9	75	5.7	418.4	356.1	445.4	404.6
Overexertion	75-84	19	2.8	314.3	45	7	544.4	64	4.8	447.2	311.8	419.9	376.0
Overexertion	85+	7	1	331.9	26	4	584.9	33	2.5	503.5	236.9	387.2	343.8
<b>Total</b>		677	100	599.3	646	100	562.2	1323	100	679	705.5	635.6	679.2

Source: Nebraska Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

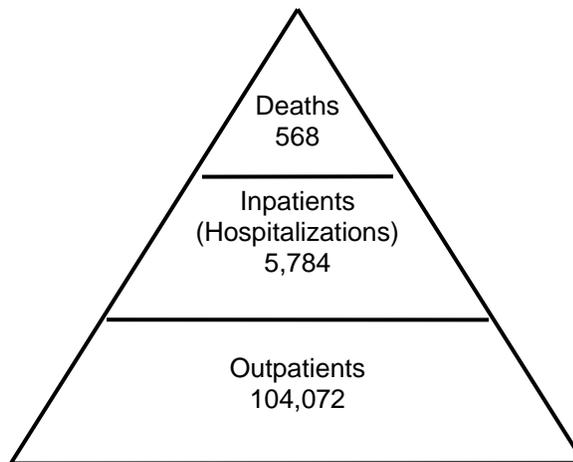
INJURY REPORT, 1999-2003

**Lincoln/Lancaster Health Department Coverage Area**  
Lancaster County

**Summary**

Injury is a public health problem in Lancaster County. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 568 injury deaths, nearly 5,800 residents in Lancaster County were hospitalized and more than 104,000 residents were treated at hospitals for injuries (*Figure A*). Overall, suicide was the leading cause of injury death. Motor vehicle crashes were second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharges and struck by/against injuries were second, followed by motor vehicle crashes, overexertion, and cutting/piercing.

**Figure A: Injury Deaths, Hospital Inpatients and Outpatients  
Lancaster County, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were almost twice as likely as females to die from injuries. Additionally, teens and young adults were more likely to die from motor vehicle crashes, while older adults were more likely to die from fall-related injuries.

The following table highlights Lancaster County's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injury, falls, motor vehicle crashes, suicide, and homicide (*Table A*).

**Table A: Injury Death Rates, Lancaster County, NE 2003**

Cause of Death	Death Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	28.7	19.4
Fall	6.9	3.5
Motor Vehicle Crash	11.2	12.0
Suicide	10.5	8.2
Homicide	1.4	2.0

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in Lancaster County (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Lancaster County, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Cancer	2,020
2	Heart Disease	1,970
3	Stroke	545
4	Injury	538
5	Chronic Lung Disease	427

Source: DHHS Death Certificate Data 1999-2003

- An average of 108 residents died from injury each year from 1999 to 2003 (*Table D2*).
- Deaths due to injury made up 6.5% of total deaths in Lancaster County, compared to 6% of deaths in Nebraska.
- More than half of the deaths among 15-29 year olds were due to injuries in Lancaster County (*Table D2*).

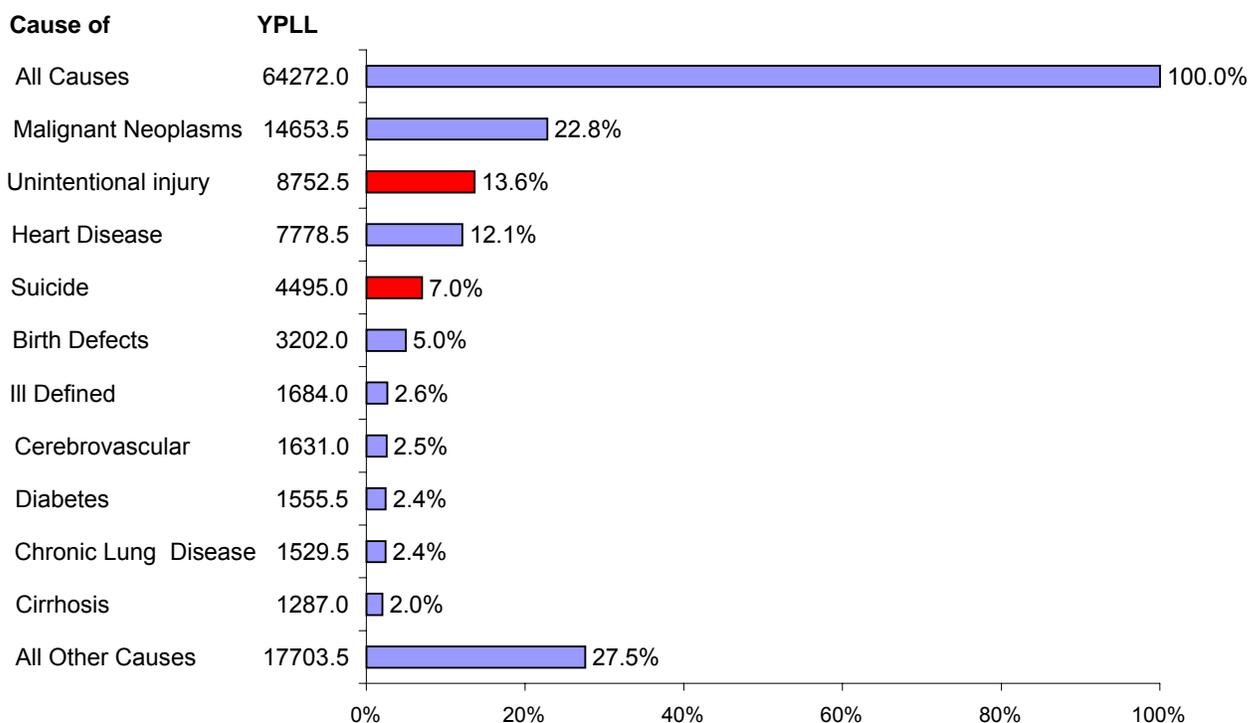
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Lancaster County, NE, 1999-2003**

Age Group	Annual Average		All Deaths	Percent of Death due to Injury
	Injury Deaths	Injury Deaths		
<1	4	1	120	3.3
1-4	7	1	18	38.9
5-9	3	1	9	33.3
10-14	4	1	17	23.5
15-19	30	6	38	78.9
20-24	50	10	62	80.6
25-29	28	6	50	56.0
30-34	38	8	79	48.1
35-39	46	9	116	39.7
40-44	39	8	164	23.8
45-49	52	10	235	22.1
50-54	30	6	276	10.9
55-59	19	4	286	6.6
60-64	12	2	403	3.0
65-74	29	6	1,319	2.2
75-84	55	11	2,378	2.3
85+	92	18	2,757	3.3
<b>Total</b>	<b>538</b>	<b>108</b>	<b>8,327</b>	<b>6.5</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked second (13.6%), following that from cancer (22.8%). Suicide ranked 4<sup>th</sup> at 7.0% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before age 75 by Cause of Death, Lancaster County, NE, 1999-2003**



- Lancaster County had a lower unintentional injury death rate (31.2 per 100,000), a higher suicide rate (11.1 per 100,000) and a lower homicide rate (2.0 per 100,000) than Nebraska rates (33.3, 10.6, and 3.2 per 100,000 respectively) (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Lancaster County, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	213	58.4	39.6	161	79.3	23.0	374	65.8	31.2	3,020	68.3	33.3
Suicide	116	31.8	18.9	21	10.3	3.4	137	24.1	11.1	894	20.2	10.6
Homicide	18	4.9	2.7	9	4.4	1.3	27	4.8	2.0	273	6.2	3.2
Undetermined	13	3.6	2.2	8	3.9	1.2	21	3.7	1.7	139	3.1	1.6
Adverse Effects	5	1.4	0.9	4	2.0	*	9	1.6	0.7	93	2.1	1.0
<b>Total</b>	<b>365</b>	<b>100.0</b>	<b>64.4</b>	<b>203</b>	<b>100.0</b>	<b>29.4</b>	<b>568</b>	<b>100.0</b>	<b>46.8</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

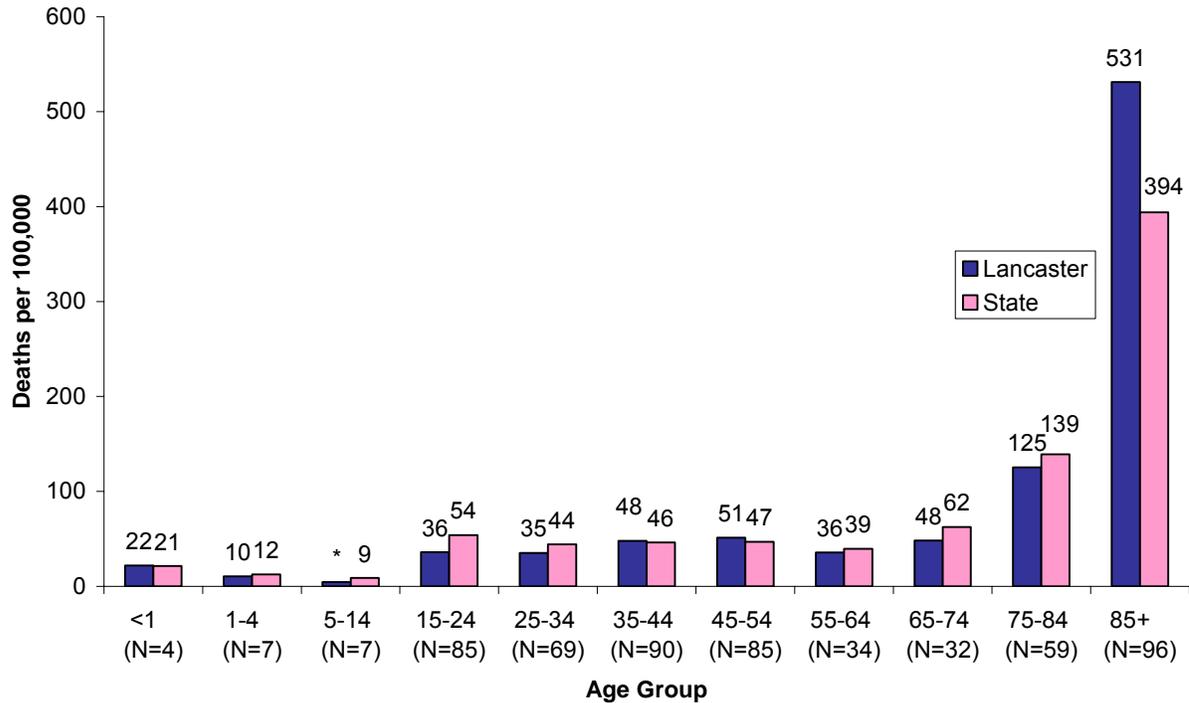
- More males (64%) died from all injury-related causes than females (36%) (Table D4).
- Injury death rates were the highest for the oldest age group, 85 years and older. Persons in this age group had a higher injury death rate than the Nebraska rate (531 vs. 394 per 100,000 respectively) (Figure D2).

**Table D4: Injury-Related Deaths and Hospital Discharges by Gender, Age, and Race,  
Lancaster County, NE, 1999-2003**

	Lancaster County				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	365	64.3	58,734	53.5	2,848	64.3	386,563	53.1
Female	203	35.7	51,119	46.5	1,581	35.7	341,506	46.9
Total	568	100.0	109,853	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	4	0.7	1,101	1.0	26	0.6	7,142	1.0
1-4	7	1.2	9,159	8.3	58	1.3	59,764	8.2
5-14	7	1.2	16,143	14.7	107	2.4	122,382	16.8
15-24	85	15.0	23,039	21.0	699	15.8	144,001	19.8
25-34	69	12.2	16,190	14.7	486	11.0	84,574	11.6
35-44	90	15.9	14,551	13.3	593	13.4	84,445	11.6
45-54	85	15.0	10,981	10.0	547	12.4	66,321	9.1
55-64	34	6.0	5,665	5.2	292	6.6	39,540	5.4
65-74	32	5.6	4,518	4.1	355	8.0	40,555	5.6
75-84	59	10.4	5,040	4.6	575	13.0	45,135	6.2
85+	96	16.9	3,469	3.2	691	15.6	34,222	4.7
Total	568	100.0	109,856	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	8	1.4			29	0.7		
African American	13	2.3			194	4.4		
Native American	14	2.5			72	1.6		
White	532	93.7			4,123	93.1		
Other	1	0.2			11	0.3		
Total	568	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

**Figure D2: All Injury Death Rates by Age, Lancaster County, NE, 1999-2003**

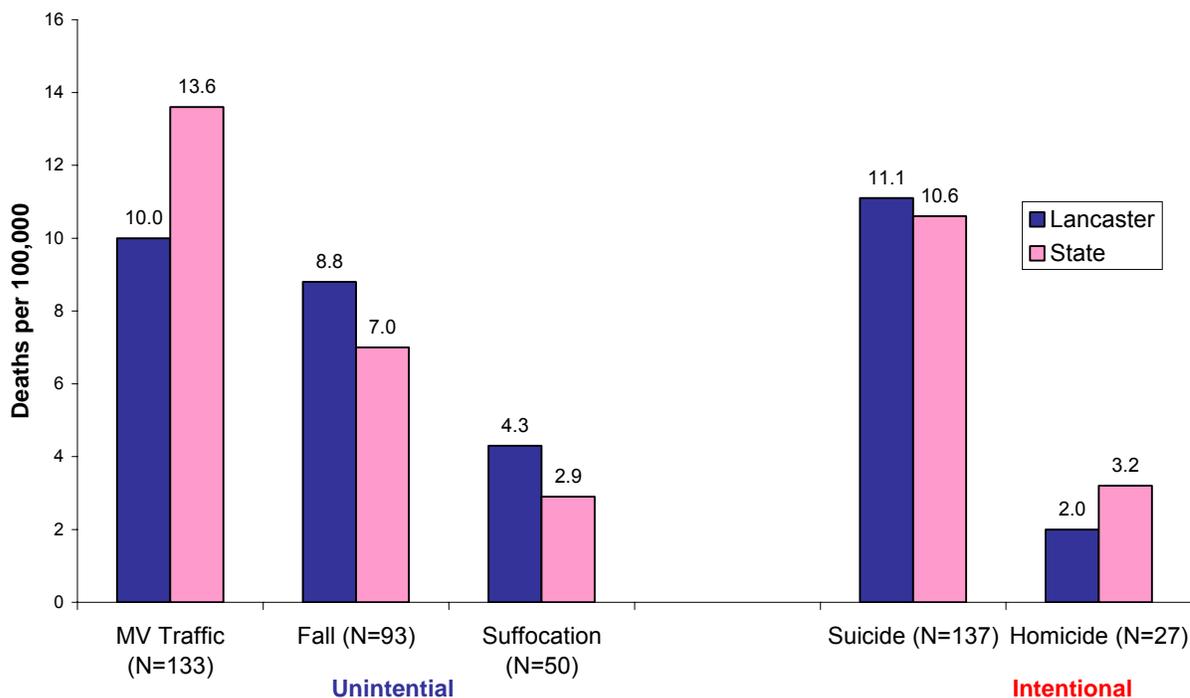


\* Fewer than five deaths  
 Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Suicide was the leading cause of injury deaths with an age-adjusted rate of 11.1 per 100,000. The rate was slightly higher than the Nebraska rate (10.6 per 100,000) (Table D3 & Figure D3).
- Motor vehicle crashes were the second leading cause of injury deaths. The age-adjusted death rate for motor vehicle crashes was lower than the Nebraska rate (10.0 vs. 13.6 per 100,000, respectively) (Figure D3). Lancaster County has not met the 2010 Nebraska Objective of 12.0 or fewer motor vehicle crash injury deaths per 100,000 population.
- Falls were the third leading cause of injury deaths. The age-adjusted death rate due to falls (8.8 per 100,000) was slightly higher than the Nebraska rate (7.0 per 100,000) (Figure D3). Lancaster County has not met the 2010 Nebraska Objective of 3.5 or fewer fall injury deaths per 100,000 population.

**Figure D3: Age-adjusted Injury Death Rates by Cause, Lancaster County, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- The most motor vehicle crash deaths were among persons age 15-24 years (N=51), accounting for 38.3% of total deaths due to motor vehicle crashes (N=133) (Table D5).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, Lancaster County, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	1	1.2	0	0.0	1	0.8
5-14	3	3.5	1	2.1	4	3.0
15-24	33	38.4	18	38.3	51	38.3
25-34	13	15.1	6	12.8	19	14.3
35-44	13	15.1	3	6.4	16	12.0
45-54	11	12.8	5	10.6	16	12.0
55-64	3	3.5	4	8.5	7	5.3
65-74	1	1.2	3	6.4	4	3.0
75-84	5	5.8	4	8.5	9	6.8
85+	3	3.5	3	6.4	6	4.5
<b>Total</b>	<b>86</b>	<b>100.0</b>	<b>47</b>	<b>100.0</b>	<b>133</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Persons 85 years and older (N=53) accounted for over half (57%) of deaths due to fall injuries (Table D6).

**Table D6: Deaths Due to Fall by Age and Gender,  
Lancaster County, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	1	2.4	0	0.0	1	1.1
25-34	1	2.4	0	0.0	1	1.1
45-54	2	4.9	0	0.0	2	2.2
55-64	6	14.6	0	0.0	6	6.5
65-74	3	7.3	3	5.8	6	6.5
75-84	8	19.5	16	30.8	24	25.8
85+	20	48.8	33	63.5	53	57.0
Total	41	100.0	52	100.0	93	100.0

Source: DHHS Death Certificate Data 1999-2003

- Persons in the 35-44 year age group had the most deaths (N=38) due to suicide (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Lancaster County, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	1	0.9	0	0.0	1	0.7
15-24	12	10.4	2	9.5	14	10.3
25-34	26	22.6	4	19.0	30	22.1
35-44	31	27.0	7	33.3	38	27.9
45-54	24	20.9	5	23.8	29	21.3
55-64	8	7.0	2	9.5	10	7.4
65-74	8	7.0	0	0.0	8	5.9
75-84	5	4.3	1	4.8	6	4.4
85+	1	0.9	0	0.0	1	0.7
Total	115	100.0	21	100.0	136	100.0

Source: DHHS Death Certificate Data 1999-2003

#### Gender

- More males (N=86) died from motor vehicle crashes than females (N=47) (*Table D5*).
- More females (N=52) died from falls than males (N=41) (*Table D6*).
- The number of males (N=115) who died from suicide was more than five times higher than females (N=21) (*Table D7*).

## Hospital discharges

### Overall

- Lancaster County had a higher unintentional injury hospital discharge rate (8,232 per 100,000), a lower suicide attempt rate (66 per 100,000) and assault rate (197 per 100,000) than Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).
- More males (N=58,092) than females (N=50,474) were treated at a hospital for all injury-related causes (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Lancaster County, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	55,881	96.2	8,816.9	48,766	96.6	7,652.8	104,647	96.4	8,232.4	665,407	95.9	7,609.6
Suicide	328	0.6	47.1	568	1.1	83.8	896	0.8	65.5	6,379	0.9	75.0
Homicide	1,743	3.0	239.6	1,056	2.1	153.6	2,799	2.6	196.5	17,720	2.6	203.9
Undetermined	61	0.1	9.4	59	0.1	8.8	120	0.1	9.1	4,181	0.6	48.3
Other	79	0.1	11.3	25	0.0	3.6	104	0.1	7.5	404	0.1	4.7
<b>Total</b>	<b>58,092</b>	<b>100.0</b>	<b>9,124.3</b>	<b>50,474</b>	<b>100.0</b>	<b>7,902.7</b>	<b>108,566</b>	<b>100.0</b>	<b>8,511.0</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

### Leading causes

- Falls were the leading cause of injury hospital discharge for all age groups combined, with an age-adjusted rate of 2,384 per 100,000. The rate was relatively higher than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharge for all age groups except for the 10-14 and 15-24 year age groups (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharge for all age groups combined, and the leading cause for persons age 10-14. The age-adjusted hospital discharge rate for struck by/against was slightly higher than the state rate (1,154 vs. 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Motor vehicle crashes were the third leading cause of injury hospital discharge for all age groups combined, and the leading cause for persons age 15-24. The age-adjusted rate was higher than the Nebraska rate (869 vs. 684 per 100,000) (*Table H2 & Figure H1*).
- Overexertion (808 per 100,000) and cutting/piercing (674 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking causes of injury hospital discharges in Lancaster County (*Table H2 & Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Lancaster County, NE, 1999-2003**

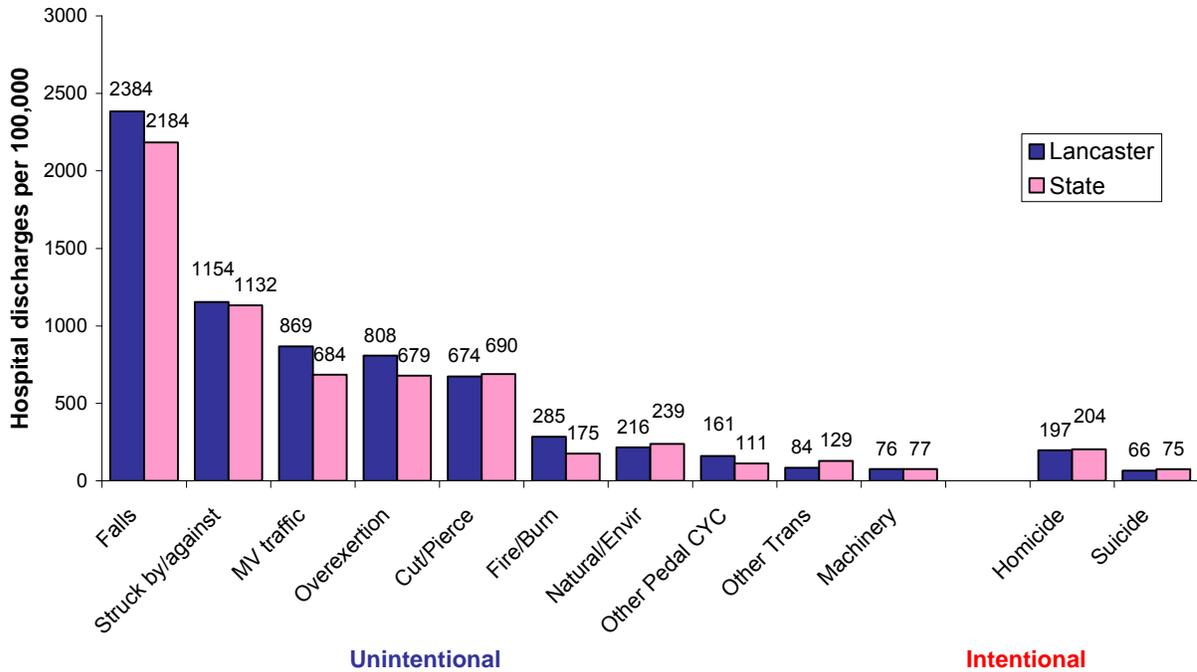
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=411	Falls N=3379	Falls N=2405	Struck by/against N=2357	MV traffic N=4156	Falls N=2457	Falls N=2702	Falls N=2687	Falls N=1814	Falls N=2016	Falls N=3059	Falls N=2576	Falls N=28,923
2	Struck by/against N=152	Struck by/against N=1584	Struck by/against N=1525	Falls N=2327	Struck by/against N=3983	MV traffic N=2452	Overexertion N=1934	MV traffic N=1259	Overexertion N=525	Overexertion N=326	Struck by/against N=238	Struck by/against N=110	Struck by/against N=14,963
3	Fire/Burn N=145	Fire/Burn N=705	Cut/Pierce N=598	Overexertion N=801	Falls N=3090	Overexertion N=2191	MV traffic N=1806	Overexertion N=1213	MV traffic N=513	MV traffic N=303	MV traffic N=235	Overexertion N=84	MV traffic N=11,765
4	Cut/Pierce N=40	Cut/Pierce N=456	Other Pedal CYC N=480	Cut/Pierce N=628	Overexertion N=2635	Struck by/against N=1944	Struck by/against N=1525	Struck by/against N=945	Cut/Pierce N=477	Cut/Pierce N=294	Overexertion N=230	MV traffic N=80	Overexertion N=10,612
5	Natural/Envir N=31	Overexertion N=441	MV traffic N=311	Other Pedal CYC N=575	Cut/Pierce N=2321	Cut/Pierce N=1623	Cut/Pierce N=1269	Cut/Pierce N=916	Struck by/against N=358	Struck by/against N=243	Cut/Pierce N=152	Cut/Pierce N=38	Cut/Pierce N=8811

Hospital visits includes visit as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded in this matrix

Source: Nebraska Hospital Discharge Data 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause, Lancaster County, NE, 1999-2003**



Source: Nebraska Hospital Discharge Data 1999-2003

### Age

- The hospital discharge rate for falls was the highest for persons age 85 and older. Among children age 14 and under, the 1-4 year age group had the highest fall injury hospital discharge rate (5,031 per 100,000), which was relatively higher than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury hospital discharge rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 5-14 year age group had the highest hospital discharge rate (2,434 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,237 per 100,000). The rate was second highest for the 1-4 year age group at 2,359 per 100,000 (*Table H3*).
- The hospital discharge rate for motor vehicle crashes was highest for the 15-24 year age group (1,753 per 100,000) (*Table H3*).
- The hospital discharge rate for overexertion injuries was the highest for individuals in the 25-34 year age group (1,119 per 100,000). The hospital discharge rate for cutting/piercing injuries were the highest for individuals in the 15-24 year age group (979 per 100,000) (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls than males (2,561 vs. 2,204 per 100,000) (*Table H3*).
- The injury hospital discharge rate for struck by/against for males was almost twice that for females (1,474 vs. 836 per 100,000) (*Table H3*).

- Females had higher hospital discharge rate for motor vehicle crashes than males (963 vs. 774 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Lancaster County, NE, 1999-2003**

Cause	Age	Lancaster County									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	216	1.7	2329.6	195	1.2	2181.9	411	1.4	2257.1	2298.5	2139.4	2220.8
Falls	1-4	1998	15.7	5872.3	1381	8.5	4167.9	3379	11.7	5031.4	4871.2	3721.2	4309.7
Falls	5-14	2663	20.9	3258.5	2069	12.8	2662	4732	16.4	2967.7	2855.0	2404.1	2634.8
Falls	15-24	1683	13.2	1400.2	1407	8.7	1203.7	3090	10.7	1303.4	1570.9	1323.5	1449.9
Falls	25-34	1194	9.4	1160.9	1263	7.8	1358.6	2457	8.5	1254.8	1048.4	1303.4	1173.8
Falls	35-44	1235	9.7	1286.8	1467	9.1	1601.8	2702	9.3	1440.6	1084.2	1357.6	1220.2
Falls	45-54	1062	8.3	1285.3	1625	10	1936.7	2687	9.3	1613.5	1116.0	1610.3	1364.2
Falls	55-64	698	5.5	1506.1	1116	6.9	2287.8	1814	6.3	1906.9	1337.7	1976.8	1664.3
Falls	65-74	642	5	2146.2	1374	8.5	3770.3	2016	7	3038.2	2151.5	3581.0	2926.8
Falls	75-84	854	6.7	4541.3	2205	13.6	7782.7	3059	10.6	6489.6	4355.2	7355.0	6138.2
Falls	85+	508	4	10453	2068	12.8	15651	2576	8.9	14253	10070.0	14640.0	13320.0
<b>Total</b>		12753	100.0	2204.3	16170	100.0	2561.2	28923	100.0	2384.0	2013.8	2349.3	2184.0
Struck by/against	<1	75	0.8	808.9	77	1.5	861.6	152	1	834.8	836	692.9	766.1
Struck by/against	1-4	995	10.3	2924.4	589	11.2	1777.6	1584	10.6	2358.6	2812.4	1729.5	2283.7
Struck by/against	5-14	2591	26.7	3170.4	1291	24.5	1661	3882	25.9	2434.6	2919.3	1521.6	2236.7
Struck by/against	15-24	2837	29.2	2360.4	1145	21.8	979.6	3982	26.6	1679.6	3069.3	1161.5	2135.8
Struck by/against	25-34	1268	13.1	1232.9	676	12.8	727.2	1944	13	992.8	1212	676.9	948.9
Struck by/against	35-44	967	10	1007.6	558	10.6	609.3	1525	10.2	813.1	854.1	527.3	691.6
Struck by/against	45-54	542	5.6	655.9	403	7.7	480.3	945	6.3	567.5	574.9	385.7	479.9
Struck by/against	55-64	186	1.9	401.3	172	3.3	352.6	358	2.4	376.3	414.7	291.2	351.6
Struck by/against	65-74	114	1.2	381.1	129	2.5	354	243	1.6	366.2	415.7	292.7	349
Struck by/against	75-84	96	1	510.5	142	2.7	501.2	238	1.6	504.9	415.6	363.7	384.7
Struck by/against	85+	31	0.3	637.9	79	1.5	597.9	110	0.7	608.6	507.4	519.4	516
<b>Total</b>		9702	100.0	1474.1	5261	100.0	836.1	14963	100.0	1154.0	1488.5	786.4	1132.3
MV traffic	<1	14	0.3	151	11	0.2	123.1	25	0.2	137.3	128.9	121.4	125.2
MV traffic	1-4	78	1.5	229.2	81	1.2	244.5	159	1.3	236.8	251.0	229.3	240.4
MV traffic	5-14	389	7.4	476	418	6.4	537.8	807	6.8	506.1	400.0	436.0	417.6
MV traffic	15-24	1761	33.4	1465.1	2395	36.7	2049	4156	35.2	1753	1444.2	1831.5	1633.7
MV traffic	25-34	1172	22.2	1139.5	1280	19.6	1376.9	2452	20.8	1252.2	855.6	993.0	923.2
MV traffic	35-44	824	15.6	858.6	982	15.1	1072.2	1806	15.3	962.9	607.3	708.3	657.6
MV traffic	45-54	579	11	700.7	680	10.4	810.4	1259	10.7	756	476.5	523.1	499.9
MV traffic	55-64	217	4.1	468.2	296	4.5	606.8	513	4.3	539.3	346.5	441.2	394.9
MV traffic	65-74	120	2.3	401.2	183	2.8	502.2	303	2.6	456.6	327.3	382.2	357.1
MV traffic	75-84	92	1.7	489.2	143	2.2	504.7	235	2	498.5	402.4	393.8	397.3
MV traffic	85+	28	0.5	576.1	52	0.8	393.6	80	0.7	442.6	404.8	248.5	293.6
<b>Total</b>		5274	100.0	774.0	6521	100.0	962.7	11795	100.0	869.0	629.3	737.3	684.0
Overexertion	0-1	13	0.2	140.2	16	0.3	179	29	0.3	159.3	111.1	156.8	133.4
Overexertion	1-4	211	3.7	620.2	230	4.7	694.2	441	4.2	656.7	352.6	519.6	434.1
Overexertion	5-14	499	8.8	610.6	506	10.2	651	1005	9.5	630.3	537.1	610.3	572.9
Overexertion	15-24	1529	27	1272.1	1105	22.4	945.4	2634	24.8	1111	1317.5	1024.1	1173.9
Overexertion	25-34	1252	22.1	1217.3	939	19	1010.1	2191	20.6	1118.9	952.4	828.7	891.6
Overexertion	35-44	1084	19.1	1129.5	850	17.2	928.1	1934	18.2	1031.2	817.7	677.3	747.9
Overexertion	45-54	619	10.9	749.1	594	12	707.9	1213	11.4	728.4	616.4	572.9	594.5
Overexertion	55-64	241	4.2	520	284	5.8	582.2	525	4.9	551.9	426.6	433.8	430.3
Overexertion	65-74	132	2.3	441.3	194	3.9	532.3	326	3.1	491.3	356.1	445.4	404.6
Overexertion	75-84	78	1.4	414.8	152	3.1	536.5	230	2.2	487.9	311.8	419.9	376
Overexertion	85+	15	0.3	308.6	69	1.4	522.2	84	0.8	464.8	236.9	387.2	343.8
<b>Total</b>		5673	100.0	849.1	4939	100.0	768.1	10612	100.0	808.0	705.5	635.6	679.2
Cut/Pierce	<1	24	0.4	258.8	16	0.5	179	40	0.5	219.7	228.7	185.5	207.6
Cut/Pierce	1-4	271	4.7	796.5	185	6	558.3	456	5.2	679	925.2	609.5	771.1
Cut/Pierce	5-14	783	13.7	958.1	442	14.3	568.7	1225	13.9	768.3	1033.2	615.8	829.4
Cut/Pierce	15-24	1591	27.8	1323.7	730	23.6	624.5	2321	26.3	979	1399.6	650.1	1032.9
Cut/Pierce	25-34	1107	19.4	1076.3	516	16.7	555.1	1623	18.4	828.9	1138.4	596.8	872.2
Cut/Pierce	35-44	796	13.9	829.4	473	15.3	516.5	1269	14.4	676.6	861.0	517.5	690.1
Cut/Pierce	45-54	567	9.9	686.2	349	11.3	415.9	916	10.4	550	650.7	401.2	525.4
Cut/Pierce	55-64	301	5.3	649.5	176	5.7	360.8	477	5.4	501.4	555.0	309.7	429.6
Cut/Pierce	65-74	172	3	575	122	3.9	334.8	294	3.3	443.1	582.4	266.5	411.1
Cut/Pierce	75-84	86	1.5	457.3	66	2.1	233	152	1.7	322.5	448.3	214.8	309.5
Cut/Pierce	85+	17	0.3	349.8	21	0.7	158.9	38	0.4	210.3	333.7	194.8	234.9
<b>Total</b>		5715	100.0	864.5	3096	100.0	484.5	8811	100.0	674.0	893.0	492.5	689.8

Source: Nebraska Hospital Discharge Data 1999-2003  
Rates are per 100,000 per year

INJURY REPORT, 1999-2003

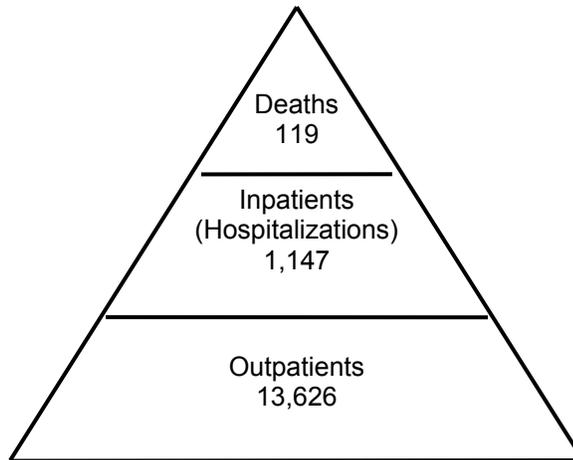
**Loup Basin Public Health Department Coverage Area**

Blaine, Custer, Garfield, Greeley, Howard, Loup, Sherman, Valley, and Wheeler Counties

**Summary**

Injury is a public health problem in the Loup Basin Public Health Department (LBPHD) coverage area. Overall, injury is the fifth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 119 injury deaths, more than 1,100 residents in Blaine, Custer, Garfield, Greeley, Howard, Loup, Sherman, Valley, and Wheeler Counties were hospitalized and more than 13,600 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharges and struck by/against injuries were second, followed by cutting/piercing, motor vehicle crashes, and overexertion.

**Figure A: Injury Pyramid, Residents of Loup Basin Public Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varies by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were much more likely to die from injuries than females.

The following table highlights LBPHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, and suicide (*Table A*).

**Table A: Injury Death Rates, Loup Basin Public Health Department Coverage Area, NE, 2003**

Cause of Death	Death Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	74.1	19.4
Fall	11.3	3.5
Motor Vehicle Crash	32.8	12.0
Suicide	11.2	8.2

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fifth leading cause of death in the LBPHD coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Loup Basin Public Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	676
2	Cancer	409
3	Stroke	169
4	Chronic Lung Disease	123
5	Injury	115

Source: DHHS Death Certificate Data 1999-2003

- An average of 23 residents died from injuries each year from 1999 to 2003 (*Table D2*).
- Deaths due to injuries made up 5.4% of total deaths in the LBPHD coverage area, compared to 6% of total deaths in Nebraska. In the LBPHD coverage area, more than half of deaths among those 15-29 years old were due to injuries (*Table D2*).

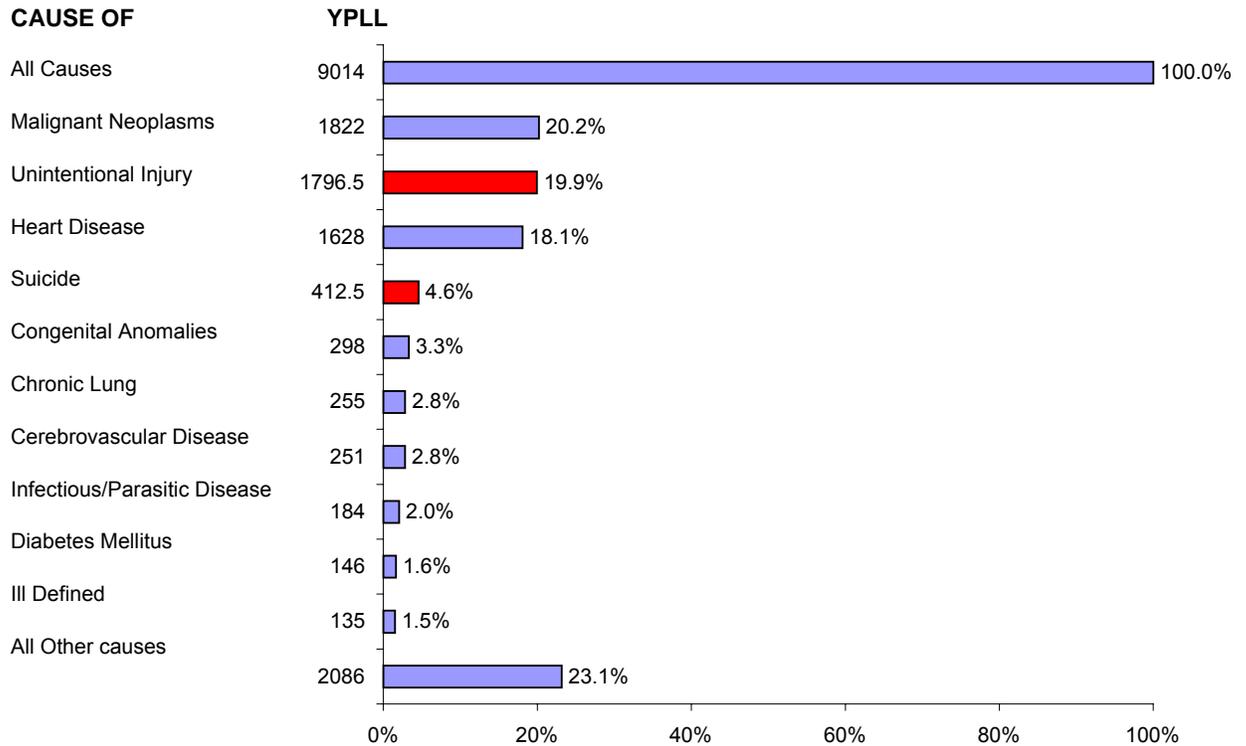
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Loup Basin Public Health Department Coverage Area, NE, 1999-2003**

Age Group	Annual Average		All Deaths	Percent of Death due to Injury
	Injury Deaths	Injury Deaths		
≤14	2	1	18	11.1
15-19	7	1	8	87.5
20-24	6	1	8	75.0
25-29	4	1	4	100.0
30-34	3	1	6	50.0
35-39	5	1	12	41.7
40-44	6	1	17	35.3
45-49	9	2	24	37.5
50-54	7	1	39	17.9
55-59	7	1	56	12.5
60-64	5	1	71	7.0
65-74	19	4	319	6.0
75-84	15	3	612	2.5
85+	20	4	923	2.2
<b>Total</b>	<b>115</b>	<b>23</b>	<b>2,117</b>	<b>5.4</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injuries ranked second (19.9%), following that from cancer (20.2%). Suicide ranked 4<sup>th</sup> at 4.6% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before Age 75 by Cause of Death, Loup Basin Public Health Department Coverage Area, NE, 1999-2003**



- The LBPHD coverage area had a higher unintentional injury rate (48.5 per 100,000), but lower suicide rate (9.0 per 100,000) than Nebraska rates (33.3 and 10.6 per 100,000 respectively) (Table D3). The LBPHD did not meet the 2010 Nebraska Objective of 19.4 or fewer unintentional injury deaths per 100,000 population.

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Loup Basin Public Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	57	78.1	63.9	41	89.1	33.7	98	82.4	48.5	3,020	68.3	33.3
Suicide	12	16.4	14.9	3	6.5	*	15	12.6	9.0	894	20.2	10.6
Homicide	2	2.7	*	0	0.0	*	2	1.7	*	273	6.2	3.2
Undetermined	1	1.4	*	1	2.2	*	2	1.7	*	139	3.1	1.6
Adverse Effects	1	1.4	*	1	2.2	*	2	1.7	*	93	2.1	1.0
<b>Total</b>	<b>73</b>	<b>100.0</b>	<b>78.8</b>	<b>46</b>	<b>100.0</b>	<b>33.7</b>	<b>119</b>	<b>100.1</b>	<b>57.5</b>	<b>4,419</b>	<b>100.0</b>	<b>49.7</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

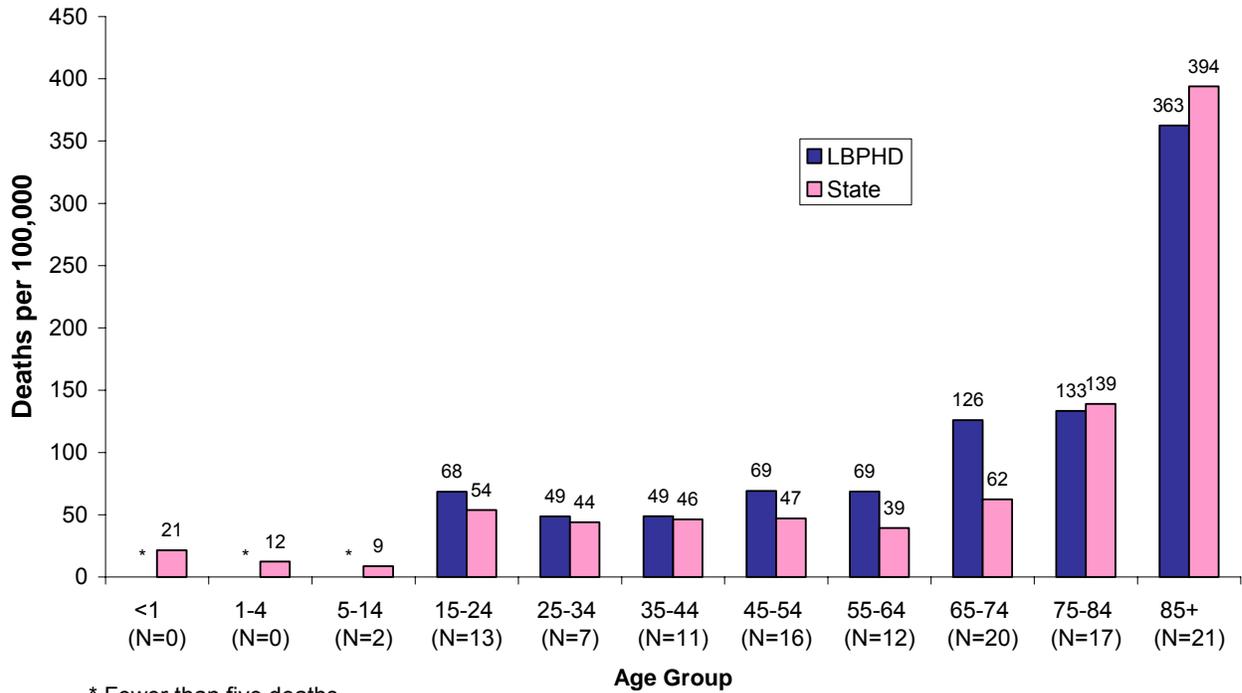
- More males (61%) died from all injury-related causes than females (39%) (Table D4).
- Injury death rates were the highest for the oldest age group, 85 and older. Persons in this age group had a slightly lower injury death rate of 363 per 100,000 compared to the Nebraska rate of 394 per 100,000 (Figure D2).

**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race,  
Loup Basin Public Health Department Coverage Area, NE, 1999-2003**

	Loup Basin HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	73	61.3	8,079	54.7	2,848	64.3	386,563	53.1
Female	46	38.7	6,694	45.3	1,581	35.7	341,506	46.9
Total	119	100.0	14,773	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	0	0.0	92	0.6	26	0.6	7,142	1.0
1-4	0	0.0	904	6.1	58	1.3	59,764	8.2
5-14	2	1.7	2,625	17.8	107	2.4	122,382	16.8
15-24	13	10.9	2,899	19.6	699	15.8	144,001	19.8
25-34	7	5.9	1,119	7.6	486	11.0	84,574	11.6
35-44	11	9.2	1,455	9.9	593	13.4	84,445	11.6
45-54	16	13.5	1,223	8.3	547	12.4	66,321	9.1
55-64	12	10.1	912	6.2	292	6.6	39,540	5.4
65-74	20	16.8	1,177	8.0	355	8.0	40,555	5.6
75-84	17	14.3	1,254	8.5	575	13.0	45,135	6.2
85+	21	17.7	1,113	7.5	691	15.6	34,222	4.7
Total	119	100.0	14,773	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	0	0.0			194	4.4		
Native American	1	0.8			72	1.6		
White	118	99.2			4,123	93.1		
Other	0	0.0			11	0.3		
Total	119	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

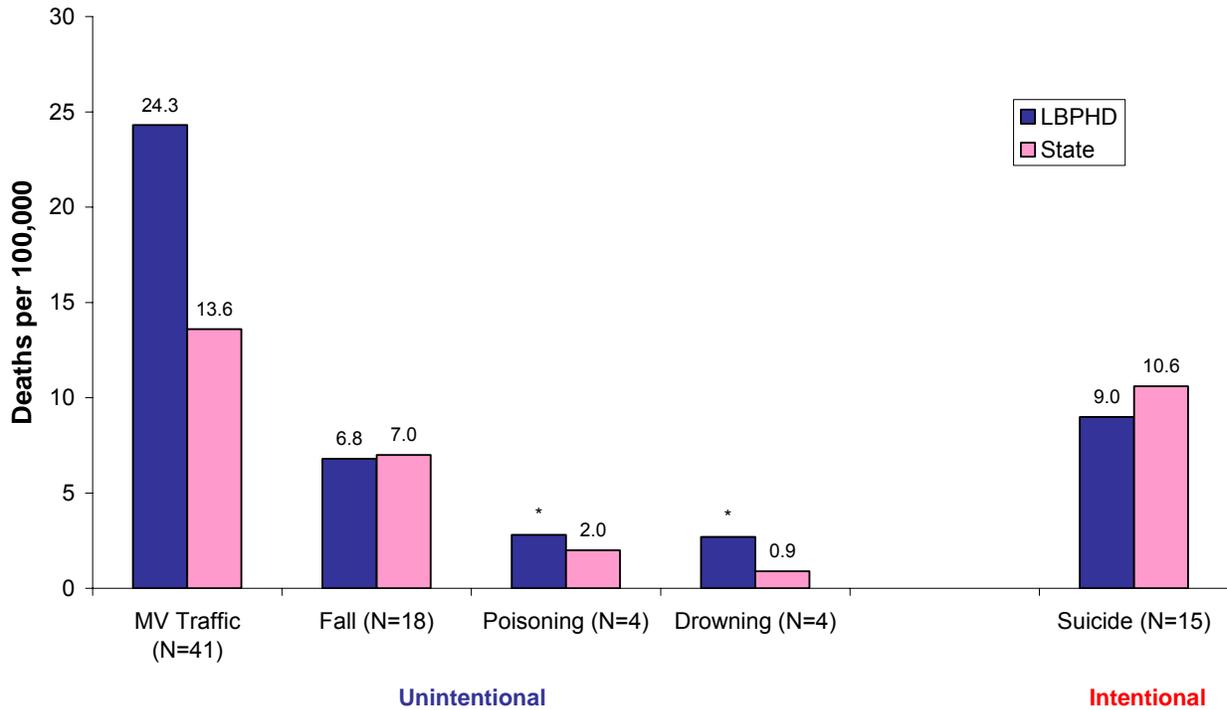
**Figure D2: All Injury Death Rates by Age,  
Loup Basin Public Health Department Coverage Area, NE, 1999-2003**



### Leading causes

- Motor vehicle crashes were the leading cause of injury deaths with an age-adjusted rate of 24.3 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (*Figure D3*). The LBP has not met the 2010 Nebraska Objective of 12.0 or fewer motor vehicle crash injury deaths per 100,000 population.
- Suicide was the second leading cause of injury deaths. The age-adjusted death rate for suicide was slightly lower than the Nebraska rate (9.0 vs. 10.6 per 100,000 respectively) (*Figure D3*).
- Falls were the third leading cause of injury deaths. The age-adjusted death rate due to falls was slightly lower than the Nebraska rate (6.8 and 7.0 per 100,000 respectively) (*Figure D3*). The LBP has not met the 2010 Nebraska Objective of 3.5 or fewer fall injury deaths per 100,000 population.

**Figure D3: Age-adjusted Injury Death Rates by Cause, Loup Basin Public Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- Persons age 45-54 years (N=10) were involved in the most fatal motor vehicle crashes, making up 24.4% of total deaths (N=41) due to motor vehicle crashes in the LBPHD coverage area (Table D5).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, Loup Basin Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	3	13.0	3	16.7	6	14.6
25-34	3	13.0	2	11.1	5	12.2
35-44	2	8.7	1	5.6	3	7.3
45-54	6	26.1	4	22.2	10	24.4
55-64	3	13.0	2	11.1	5	12.2
65-74	4	17.4	4	22.2	8	19.5
75-84	2	8.7	2	11.1	4	9.8
<b>Total</b>	<b>23</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>41</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- More than 55% of deaths (N=10) due to fall injuries were persons 75 years and older (Table D6).

**Table D6: Deaths Due to Fall by Age and Gender,  
Loup Basin Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
35-44	2	22.2	0	0.0	2	11.1
45-54	1	11.1	0	0.0	1	5.6
55-64	1	11.1	0	0.0	1	5.6
65-74	3	33.3	1	11.1	4	22.2
75-84	0	0.0	2	22.2	2	11.1
85+	2	22.2	6	66.7	8	44.4
<b>Total</b>	<b>9</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Those in the 55-64 year age group had more deaths (N=4) due to suicide than those in other age groups (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Loup Basin Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	2	16.7	0	0.0	2	13.3
25-34	1	8.3	0	0.0	1	6.7
35-44	2	16.7	1	33.3	3	20.0
45-54	3	25.0	0	0.0	3	20.0
55-64	3	25.0	1	33.3	4	26.7
65-74	1	8.3	1	33.3	2	13.3
<b>Total</b>	<b>12</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

**Gender**

- More males (N=23) died from motor vehicle crashes than females (N=18) (*Table D5*).
- An equal number of males (N=9) and females (N=9) died from falls in the LBPHD coverage area (*Table D6*).
- More males (N=12) died from suicide than females (N=3) in the LBPHD coverage area (*Table D7*).

## Hospital discharges

### Overall

- The LBPHD coverage area had a higher unintentional injury hospital discharge rate (7,845 per 100,000), but lower suicide attempt rate (55 per 100,000), and assault rate (85 per 100,000) compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).
- More males (N=7,606) than females (N=6,234) were treated at a hospital for all injury-related causes (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates,  
Loup Basin Public Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	7,185	94.5	9,165.7	5,840	93.7	6,569.9	13,025	94.1	7,844.9	665,407	95.9	7,609.6
Suicide	29	0.4	37.6	49	0.8	72.2	78	0.6	55.2	6,379	0.9	75.0
Homicide	74	1.0	102.8	45	0.7	68.4	119	0.9	85.3	17,720	2.6	203.9
Undetermined	315	4.1	400.7	299	4.8	340.4	614	4.4	370.0	4,181	0.6	48.3
Other	3	0.0	*	1	0.0	*	4	0.0	*	404	0.1	4.7
<b>Total</b>	<b>7,606</b>	<b>100.0</b>	<b>9,712.0</b>	<b>6,234</b>	<b>100.0</b>	<b>7,052.3</b>	<b>13,840</b>	<b>100.0</b>	<b>8,358.7</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five discharges

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined with an age-adjusted rate of 2,359 per 100,000. The rate was relatively higher than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the age groups 15-24 and 25-34. (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges for all ages combined, and the leading cause for persons age 15-24 and 25-34. The age-adjusted hospital discharge rate for struck by/against was higher than the Nebraska rate (1,283 vs. 1,132 per 100,000) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharges. The age-adjusted rate was slightly lower than the Nebraska rate (683 vs. 690 per 100,000) (*Figure H1*).
- Motor vehicle crashes (652 per 100,000) and overexertion (584 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking causes of injury hospital discharges in the LBPHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Loup Basin Public Health Department Coverage Area, NE, 1999-2003**

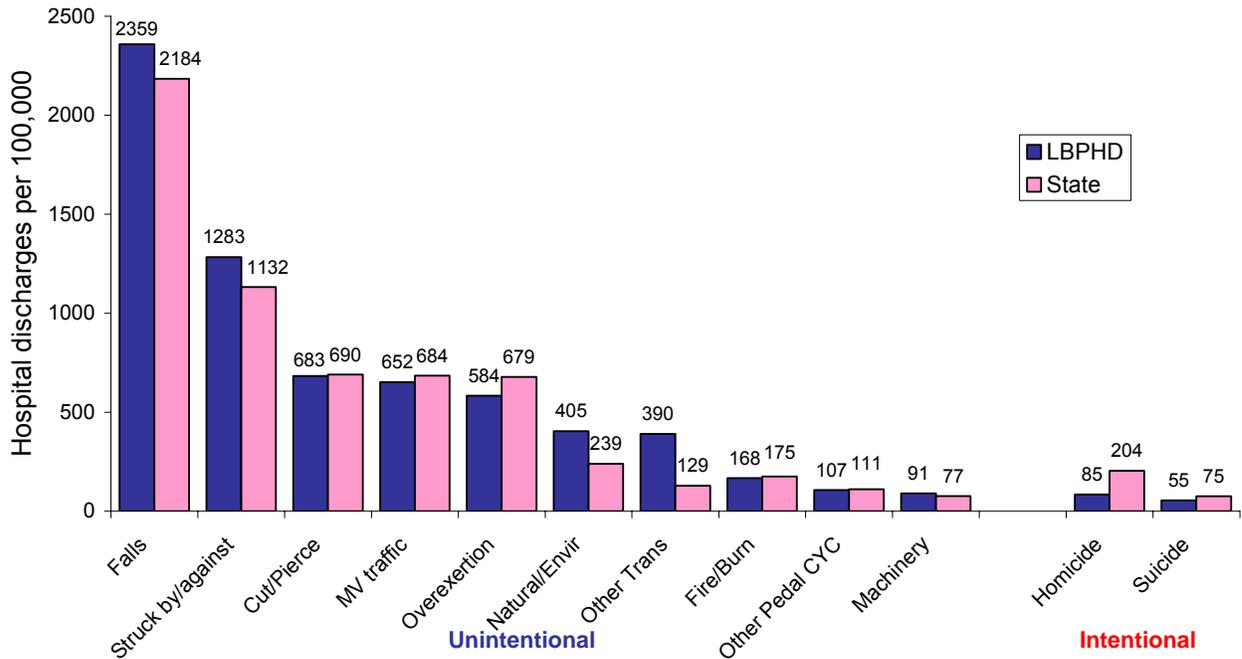
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=41	Falls N=311	Falls N=309	Falls N=426	Struck by/against N=651	Struck by/against N=149	Falls N=277	Falls N=327	Falls N=321	Falls N=451	Falls N=735	Falls N=841	Falls N=4,625
2	Struck by/against N=10	Struck by/against N=152	Struck by/against N=181	Struck by/against N=392	Falls N=459	MV traffic N=135	Cut/Pierce N=152	Overexertion N=105	Cut/Pierce N=66	MV traffic N=90	MV traffic N=49	Struck by/against N=22	Struck by/against N=1,933
3	Fire/Burn N=5	Cut/Pierce N=74	Cut/Pierce N=107	Overexertion N=111	MV traffic N=332	Cut/Pierce N=131	Struck by/against N=143	Cut/Pierce N=95	Struck by/against N=50	Overexertion N=54	Struck by/against N=48	MV traffic N=18	Cut/Pierce N=1,020
4	Cut/Pierce N=4	Natural/Envir N=46	Other Pedal CYC N=67	Cut/Pierce N=110	Overexertion N=294	Falls N=127	MV traffic N=124	Struck by/against N=87	Natural/Envir N=48	Other Trans N=49	Cut/Pierce N=30	Suffocation N=15	MV traffic N=975
5	Suffocation N=3	Poisoning N=35	Natural/Envir N=56	Other Thans N=87	Cut/Pierce N=206	Overexertion N=85	Overexertion N=109	MV traffic N=86	MV traffic N=43	Natural/Envir N=49	Overexertion N=29	Overexertion N=13	Overexertion N=884

Hospital visits includes visits as Inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause, Loup Basin Public Health Department Coverage Area, NE, 1999-2003**



Source: Nebraska Hospital Discharge Data 1999-2003

### Age

- Hospital discharge rates due to falls were highest for persons age 85 and older. Among children age 14 and under, the 1-4 year age group had the highest fall injury rate (4,214 per 100,000), which was relatively lower than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury hospital discharge rate after the 75-84 and 85 and older age groups. Females had a higher fall injury hospital discharge rate compared to males (2,431 vs. 2,284 per 100,000) (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rate (3,428 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,136 per 100,000). The rate was second highest for persons age 5-14 years at 2,386 per 100,000 population (*Table H3*).
- The 15-24 year age group also had the highest hospital discharge rates for cutting/piercing injuries (1,085 per 100,000), motor vehicle crash injuries (1,748 per 100,000), and overexertion injuries (1,548 per 100,000) (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls than males (2,431 vs. 2,284 per 100,000) (*Table H3*).
- The injury hospital discharge rates for cutting/piercing and struck by/against for males were about twice as high as those for females (903 and 1,779 vs. 471 and 804 per 100,000 respectively) (*Table H3*).
- Females had a slightly higher motor vehicle crash hospital discharge rate than males (656 vs. 647 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Loup Basin Public Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Loup Basin Public HD									State				
		Male			Female			Total			Rate				
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total		
MV traffic	<1			0			0			0			128.9	121.4	125.2
MV traffic	1-4	4	0.8	*	4	0.8	*	8	0.8	108.4	251.0	229.3	240.4		
MV traffic	5-14	44	9.1	354.9	46	9.4	395.8	90	9.2	374.7	400.0	436.0	417.6		
MV traffic	15-24	162	33.5	1637.2	170	34.6	1868.5	332	34.1	1748	1444.2	1831.5	1633.7		
MV traffic	25-34	66	13.6	915.9	69	14.1	958.1	135	13.8	937	855.6	993.0	923.2		
MV traffic	35-44	75	15.5	666.1	49	10	434.9	124	12.7	550.5	607.3	708.3	657.6		
MV traffic	45-54	38	7.9	322.6	48	9.8	422.2	86	8.8	371.5	476.5	523.1	499.9		
MV traffic	55-64	28	5.8	323.9	15	3.1	169.4	43	4.4	245.7	346.5	441.2	394.9		
MV traffic	65-74	47	9.7	634	43	8.8	508.7	90	9.2	567.3	327.3	382.2	357.1		
MV traffic	75-84	12	2.5	217.8	37	7.5	511.1	49	5	384.4	402.4	393.8	397.3		
MV traffic	85+	8	1.7	440	10	2	251.6	18	1.8	310.7	404.8	248.5	293.6		
<b>Total</b>		<b>484</b>	<b>100.0</b>	<b>647.2</b>	<b>491</b>	<b>100.0</b>	<b>655.6</b>	<b>975</b>	<b>100.0</b>	<b>652.0</b>	<b>629.3</b>	<b>737.3</b>	<b>684.0</b>		
Falls	<1	20	1	2114.2	21	0.8	2362.2	41	0.9	2234.3	2298.5	2139.4	2220.8		
Falls	1-4	191	9.7	5036.9	120	4.5	3344.5	311	6.7	4214.1	4871.2	3721.2	4309.7		
Falls	5-14	405	20.6	3266.9	330	12.4	2839.7	735	15.9	3060.2	2855	2404.1	2634.8		
Falls	15-24	288	14.7	2910.6	171	6.4	1879.5	459	9.9	2416.7	1570.9	1323.5	1449.9		
Falls	25-34	53	2.7	735.5	74	2.8	1027.5	127	2.7	881.5	1048.4	1303.4	1173.8		
Falls	35-44	134	6.8	1190.2	143	5.4	1269.1	277	6	1229.6	1084.2	1305.6	1220.2		
Falls	45-54	133	6.8	1129.1	194	7.3	1706.5	327	7.1	1412.7	1116	1610.3	1364.2		
Falls	55-64	136	6.9	1573.2	185	7	2089	321	6.9	1834.2	1337.7	1976.8	1664.3		
Falls	65-74	176	9	2374.2	275	10.3	3253.3	451	9.8	2842.6	2151.5	3581	2926.8		
Falls	75-84	217	11	3939	518	19.5	7155.7	735	15.9	5765.6	4355.2	7355	6138.2		
Falls	85+	212	10.8	11661	629	23.6	15824	841	18.2	14518	10070	14640	13320		
<b>Total</b>		<b>1965</b>	<b>100.0</b>	<b>2283.9</b>	<b>2660</b>	<b>100.0</b>	<b>2430.7</b>	<b>4625</b>	<b>100.0</b>	<b>2359.0</b>	<b>2013.8</b>	<b>2349.3</b>	<b>2184.0</b>		
Cut/Pierce	<1	3	0.4	*	1	0.3	*	4	0.4	*	228.7	185.5	207.6		
Cut/Pierce	1-4	53	7.9	1397.7	21	6	585.3	74	7.3	1002.7	925.2	609.5	771.1		
Cut/Pierce	5-14	126	18.8	1016.4	91	25.9	783.1	217	21.3	903.5	1033.2	615.8	829.4		
Cut/Pierce	15-24	152	22.7	1536.1	54	15.4	593.5	206	20.2	1084.6	1399.6	650.1	1032.9		
Cut/Pierce	25-34	90	13.5	1249	41	11.7	569.3	131	12.8	909.2	1138.4	596.8	872.2		
Cut/Pierce	35-44	100	14.9	888.2	52	14.8	461.5	152	14.9	674.7	861.0	517.5	690.1		
Cut/Pierce	45-54	52	7.8	441.5	43	12.3	378.3	95	9.3	410.4	650.7	401.2	525.4		
Cut/Pierce	55-64	48	7.2	555.2	18	5.1	203.3	66	6.5	377.1	555.0	309.7	429.6		
Cut/Pierce	65-74	24	3.6	323.8	12	3.4	142	36	3.5	226.9	582.4	266.5	411.1		
Cut/Pierce	75-84	16	2.4	290.4	14	4	193.4	30	2.9	235.3	448.3	214.8	309.5		
Cut/Pierce	85+	5	0.7	275	4	1.1	*	9	0.9	155.4	333.7	194.8	234.9		
<b>Total</b>		<b>669</b>	<b>100.0</b>	<b>903.0</b>	<b>351</b>	<b>100.0</b>	<b>470.8</b>	<b>1020</b>	<b>100.0</b>	<b>683.0</b>	<b>893.0</b>	<b>492.5</b>	<b>689.8</b>		
Struck by/against	0-1	6	0.4	634.2	4	0.7	*	10	0.5	545	836	692.9	766.1		
Struck by/against	1-4	97	7.2	2558	55	9.3	1532.9	152	7.9	2059.6	2812.4	1729.5	2283.7		
Struck by/against	5-14	398	29.7	3210.5	175	29.6	1505.9	573	29.6	2385.7	2919.3	1521.6	2236.7		
Struck by/against	15-24	502	37.4	5073.3	149	25.2	1637.7	651	33.7	3427.6	3069.3	1161.5	2135.8		
Struck by/against	25-34	92	6.9	1276.7	57	9.6	791.4	149	7.7	1034.1	1212	676.9	948.9		
Struck by/against	35-44	90	6.7	799.4	53	9	470.4	143	7.4	634.8	854.1	527.3	691.6		
Struck by/against	45-54	60	4.5	509.4	27	4.6	237.5	87	4.5	375.9	574.9	385.7	479.9		
Struck by/against	55-64	30	2.2	347	20	3.4	225.8	50	2.6	285.7	414.7	291.2	351.6		
Struck by/against	65-74	31	2.3	418.2	17	2.9	201.1	48	2.5	302.5	415.7	292.7	349		
Struck by/against	75-84	29	2.2	526.4	19	3.2	262.5	48	2.5	376.5	415.6	363.7	384.7		
Struck by/against	85+	6	0.4	330	16	2.7	402.5	22	1.1	379.8	507.4	519.4	516		
<b>Total</b>		<b>1341</b>	<b>100.0</b>	<b>1779.4</b>	<b>592</b>	<b>100.0</b>	<b>804.1</b>	<b>1933</b>	<b>100.0</b>	<b>1283.0</b>	<b>1488.5</b>	<b>786.4</b>	<b>1132.3</b>		
Overexertion	<1	1	0.2	*	2	0.4	*	3	0.3	*	111.1	156.8	133.4		
Overexertion	1-4	9	2.1	237.3	12	2.7	334.4	21	2.4	284.6	352.6	519.6	434.1		
Overexertion	5-14	60	13.7	484	71	15.9	611	131	14.8	545.4	537.1	610.3	572.9		
Overexertion	15-24	193	44.2	1950.5	101	22.6	1110.1	294	33.3	1547.9	1317.5	1024.1	1173.9		
Overexertion	25-34	35	8	485.7	50	11.2	694.3	85	9.6	590	952.4	828.7	891.6		
Overexertion	35-44	56	12.8	497.4	53	11.9	470.4	109	12.3	483.9	817.7	677.3	747.9		
Overexertion	45-54	50	11.4	424.5	55	12.3	483.8	105	11.9	453.6	616.4	572.9	594.5		
Overexertion	55-64	13	3	150.4	27	6	304.9	40	4.5	228.6	426.6	433.8	430.3		
Overexertion	65-74	13	3	175.4	41	9.2	485	54	6.1	340.4	356.1	445.4	404.6		
Overexertion	75-84	5	1.1	90.8	24	5.4	331.5	29	3.3	227.5	311.8	419.9	376.0		
Overexertion	85+	2	0.5	*	11	2.5	276.7	13	1.5	224.4	236.9	387.2	343.8		
<b>Total</b>		<b>437</b>	<b>100.0</b>	<b>589.9</b>	<b>447</b>	<b>100.0</b>	<b>578.1</b>	<b>884</b>	<b>100.0</b>	<b>584.0</b>	<b>705.5</b>	<b>635.6</b>	<b>679.2</b>		

Source: Nebraska Hospital Discharge Data 1999-2003  
Rates are per 100,000 per year

\* Fewer than five discharges

INJURY REPORT, 1999-2003

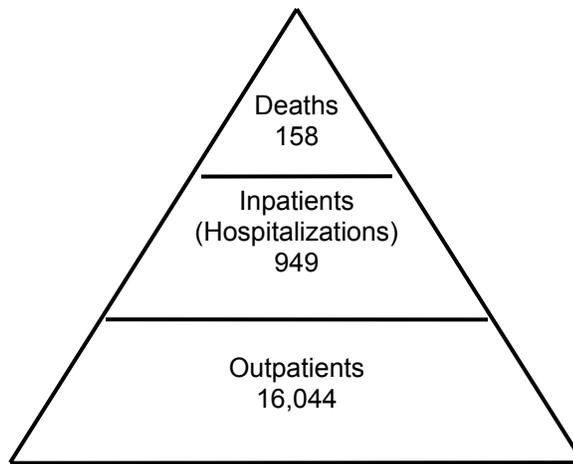
**North Central District Health Department Coverage Area**

Antelope, Boyd, Brown, Cherry, Holt, Keya Paha, Knox, Pierce, and Rock Counties

**Summary**

Injury is a public health problem in the North Central District Health Department (NCDHD) coverage area. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 158 injury deaths, nearly 1,000 residents in Antelope, Boyd, Brown, Cherry, Holt, Keya Paha, Knox, Pierce, and Rock Counties were hospitalized and more than 16,000 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharges and struck by/against injuries were second, followed by overexertion, motor vehicle crashes, and cutting/piercing.

**Figure A: Injury Pyramid, Residents of North Central District Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-34, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were almost twice as likely as females to die from injuries.

The following table highlights NCDHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, and suicide (*Table A*).

**Table A: Injury Death Rates, North Central District Health Department Coverage Area, NE, 2003**

Cause of Death	Death Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	51.3	19.4
Fall	6.1	3.5
Motor Vehicle Crash	36.0	12.0
Suicide	13.0	8.2

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the counties served by the NCDHD coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
North Central District Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	966
2	Cancer	579
3	Stroke	220
4	Injury	153
5	Chronic Lung Disease	111

Source: DHHS Death Certificate Data 1999-2003

- An average of 31 residents died from an injury each year in the NCDHD coverage area (*Table D2*).
- Deaths due to injury made up 5.5% of total deaths in these counties compared to 6% of deaths in Nebraska. In the NCDHD coverage area, more than half of deaths among 15-34 year olds were due to injuries (*Table D2*).

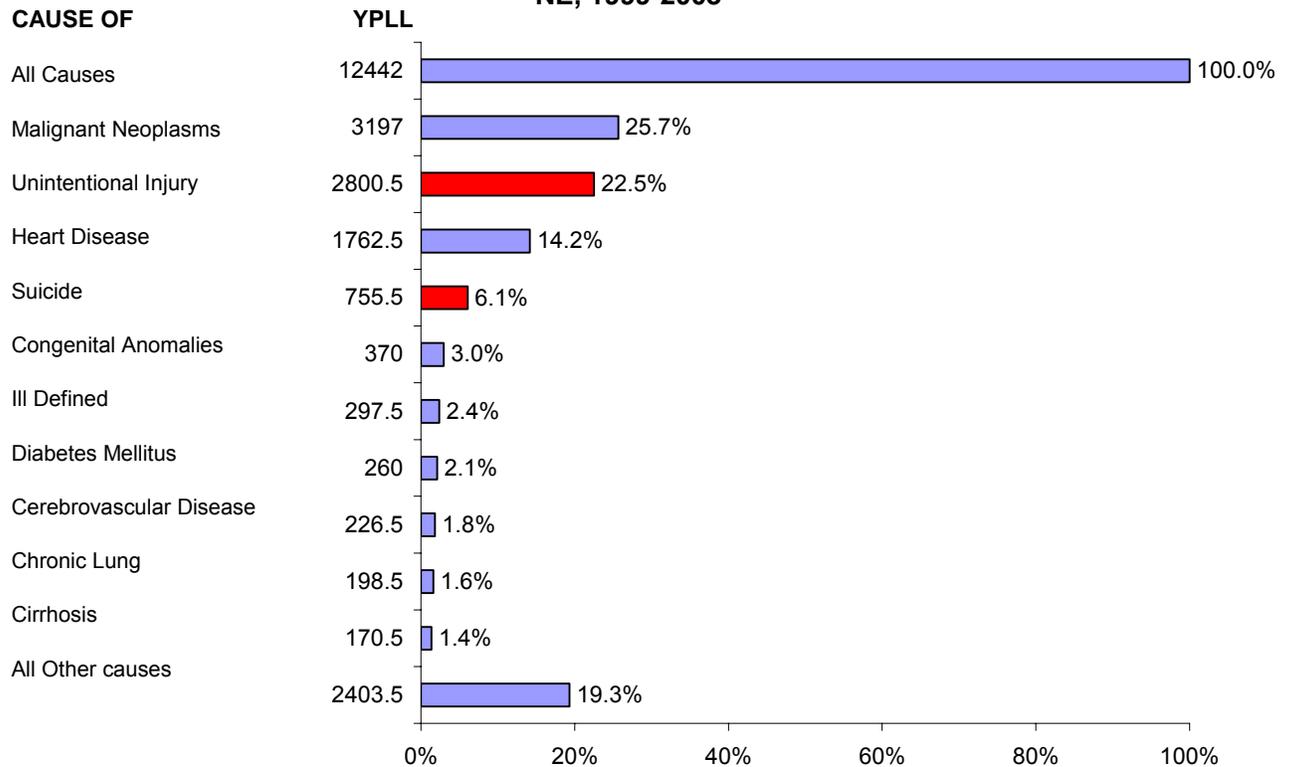
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
North Central District Health Department Coverage Area, NE, 1999-2003**

Age Group	Injury Deaths	Annual Average		Percent of Death due to Injury
		Injury Deaths	All Deaths	
≤14	6	2	22	27.3
15-19	16	3	17	94.1
20-24	12	2	14	85.7
25-29	6	1	11	54.5
30-34	5	1	7	71.4
35-39	6	1	17	35.3
40-44	8	2	25	32.0
45-49	11	2	39	28.2
50-54	10	2	52	19.2
55-59	4	1	75	5.3
60-64	3	1	82	3.7
65-74	14	3	387	3.6
75-84	18	4	809	2.2
85+	34	7	1,240	2.7
<b>Total</b>	<b>153</b>	<b>31</b>	<b>2,797</b>	<b>5.5</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked second (22.5%), following those from cancer (25.7%). Suicide ranked 4<sup>th</sup> at 6.1% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before Age 75 by Cause of Death, North Central District Health Department Coverage Area, NE, 1999-2003**



- The NCDHD area had a higher unintentional injury rate (42.3 per 100,000), but lower suicide rate (10.1 per 100,000) than Nebraska rates (33.3 and 10.6 per 100,000) (Table D3). The NCDHD has not met the 2010 Nebraska Objective of 19.4 or fewer unintentional injury deaths per 100,000 population.

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, North Central District Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	76	74.5	56.2	49	87.5	28.6	125	79.1	42.3	3,020	68.3	33.3
Suicide	24	23.5	19.5	1	1.8	*	25	15.8	10.1	894	20.2	10.6
Homicide	1	1.0	*	2	3.6	*	3	1.9	*	273	6.2	3.2
Undetermined	0	0.0	*	0	0.0	*	0	0.0	*	139	3.1	1.6
Adverse Effects	1	1.0	*	4	7.1	*	5	3.2	1.2	93	2.1	1.0
<b>Total</b>	<b>102</b>	<b>100.0</b>	<b>77.2</b>	<b>56</b>	<b>100.0</b>	<b>33.1</b>	<b>158</b>	<b>100.0</b>	<b>54.9</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

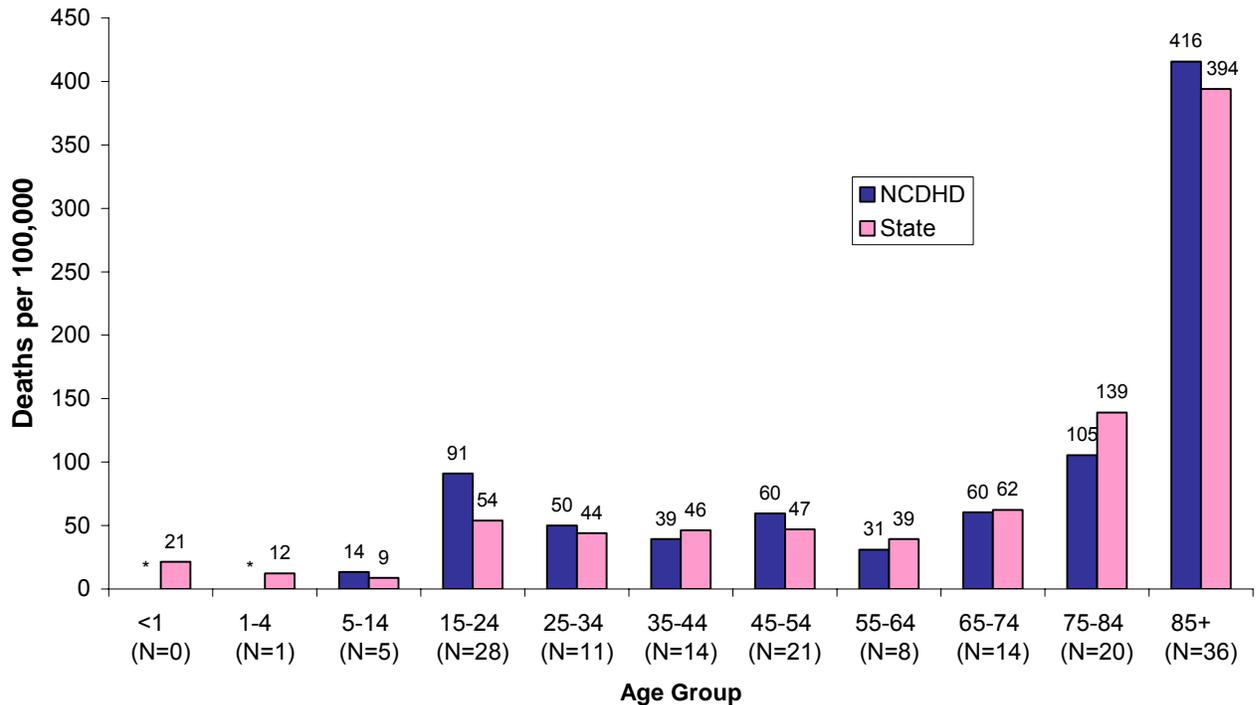
- More males (65%) died from all injury-related causes than females (35%) (Table D4).
- Injury death rates were the highest for the oldest age group, 85 and older. Persons in this age group had a higher injury death rate of 416 per 100,000 compared to the Nebraska rate of 394 per 100,000 (Figure D2).

**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race,  
North Central District Health Department Coverage Area, NE, 1999-2003**

	North Central HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	102	64.6	9,313	54.8	2,848	64.3	386,563	53.1
Female	56	35.4	7,680	45.2	1,581	35.7	341,506	46.9
Total	158	100.0	16,993	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	0	0.0	130	0.8	26	0.6	7,142	1.0
1-4	1	0.6	1,026	6.0	58	1.3	59,764	8.2
5-14	5	3.2	2,624	15.4	107	2.4	122,382	16.8
15-24	28	17.7	3,404	20.0	699	15.8	144,001	19.8
25-34	11	7.0	1,435	8.4	486	11.0	84,574	11.6
35-44	14	8.9	1,858	10.9	593	13.4	84,445	11.6
45-54	21	13.3	1,690	10.0	547	12.4	66,321	9.1
55-64	8	5.1	1,078	6.3	292	6.6	39,540	5.4
65-74	14	8.9	1,186	7.0	355	8.0	40,555	5.6
75-84	20	12.7	1,388	8.2	575	13.0	45,135	6.2
85+	36	22.8	1,174	6.9	691	15.6	34,222	4.7
Total	158	100.0	16,993	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	0	0.0			194	4.4		
Native American	5	3.2			72	1.6		
White	153	96.8			4,123	93.1		
Other	0	0.0			11	0.3		
Total	158	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

**Figure D2: All Injury Death Rates by Age,  
North Central District Health Department Coverage Area, NE, 1999-2003**



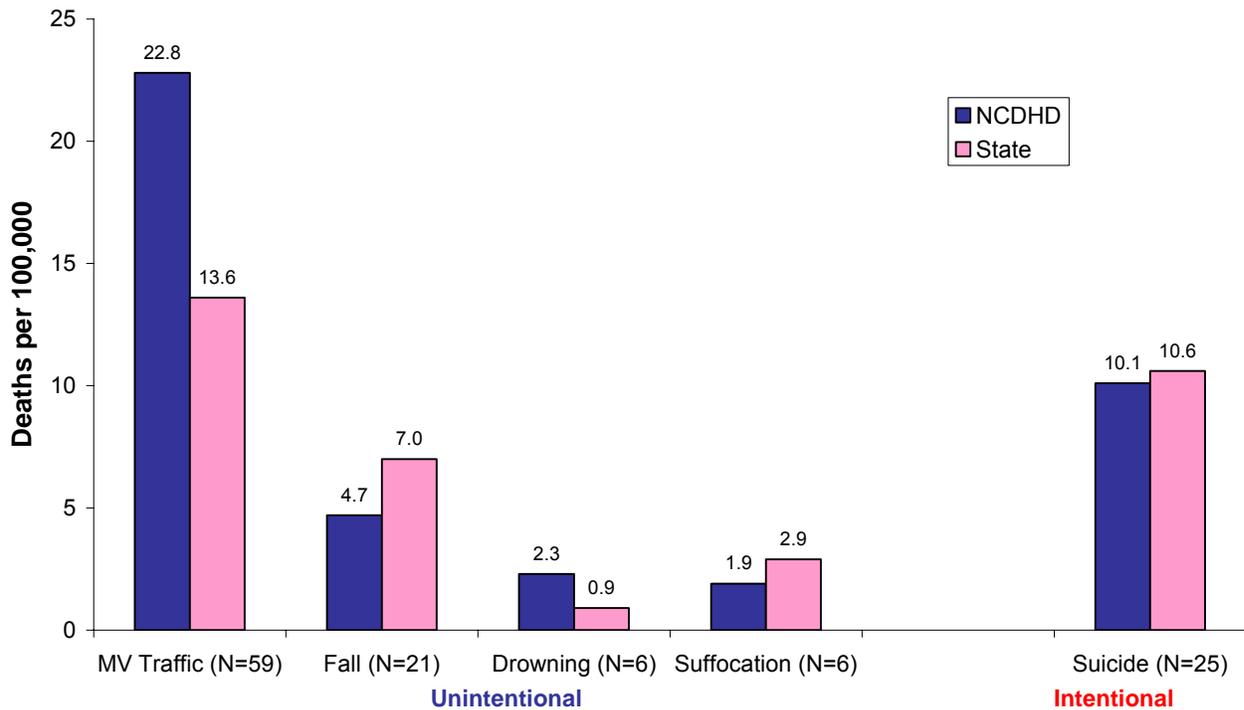
\* Fewer than five deaths

Source: DHHS Death Certificate Data 1999-2003

### Leading causes

- Motor vehicle crashes were the leading cause of injury deaths with an age-adjusted rate of 22.8 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (*Figure D3*). The NCDHD has not met the 2010 Nebraska Objective of 12.0 or fewer motor vehicle crash injury deaths per 100,000 population.
- Suicide was the second leading cause of injury deaths. The age-adjusted death rate for suicide was similar to the Nebraska rate (10.1 vs. 10.6 per 100,000 respectively) (*Figure D3*).
- Falls were the third leading cause of injury deaths. The age-adjusted death rate due to falls was lower than the Nebraska rate (4.7 vs. 7.0 per 100,000 respectively) (*Figure D3*). The NCDHD has not met the 2010 Nebraska Objective of 3.5 or fewer fall injury deaths per 100,000 population.

**Figure D3: Age-adjusted Injury Death Rates by Cause, North Central District Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- Persons age 15-24 years (N=18) were involved in the most motor vehicle crashes, making up 31% of total deaths due to motor vehicle crashes (N=59) (Table D5).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, North Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	4	11.8	1	4.0	5	8.5
15-24	10	29.4	8	32.0	18	30.5
25-34	3	8.8	2	8.0	5	8.5
35-44	4	11.8	2	8.0	6	10.2
45-54	5	14.7	2	8.0	7	11.9
55-64	0	0.0	1	4.0	1	1.7
65-74	3	8.8	2	8.0	5	8.5
75-84	2	5.9	4	16.0	6	10.2
85+	3	8.8	3	12.0	6	10.2
<b>Total</b>	<b>34</b>	<b>100.0</b>	<b>25</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Persons 85 years and older accounted for nearly 67% (N=14) of deaths due to fall injuries (Table D6).

**Table D6: Deaths Due to Fall by Age and Gender,  
North Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
55-64	2	20.0	0	0.0	2	9.5
65-74	1	10.0	1	9.1	2	9.5
75-84	1	10.0	2	18.2	3	14.3
85+	6	60.0	8	72.7	14	66.7
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>21</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Those in the 55-64 year age group had the most deaths (N=4) due to suicide (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
North Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	2	16.7	0	0.0	2	13.3
25-34	1	8.3	0	0.0	1	6.7
35-44	2	16.7	1	33.3	3	20.0
45-54	3	25.0	0	0.0	3	20.0
55-64	3	25.0	1	33.3	4	26.7
65-74	1	8.3	1	33.3	2	13.3
<b>Total</b>	<b>12</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

**Gender**

- More males (N=34) died from motor vehicle crashes than females (N=25) (*Table D5*).
- More females (N=11) died from falls than males (N=10) (*Table D6*).
- More males (N=12) died from suicide than females (N=3) (*Table D7*).

## Hospital discharges

### Overall

- The NCDHD coverage area had a lower unintentional injury hospital discharge rate (6,131 per 100,000), suicide attempt rate (29 per 100,000), and assault rate (116 per 100,000) compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).
- More males (N=8,760) than females (N=7,228) were treated at a hospital for all injury-related causes (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, North Central District Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	8,591	98.1	7,062.9	7,058	97.6	5,221.8	15,649	97.9	6,130.8	665,407	95.9	7,609.6
Suicide	13	0.1	12.4	47	0.7	45.0	60	0.4	28.9	6,379	0.9	75.0
Homicide	142	1.6	129.3	102	1.4	102.1	244	1.5	115.5	17,720	2.6	203.9
Undetermined	12	0.1	11.3	20	0.3	16.9	32	0.2	14.2	4,181	0.6	48.3
Other	2	0.0	*	1	0.0	*	3	0.0	*	404	0.1	4.7
<b>Total</b>	<b>8,760</b>	<b>100.0</b>	<b>7,217.7</b>	<b>7,228</b>	<b>100.0</b>	<b>5,386.8</b>	<b>15,988</b>	<b>100.0</b>	<b>6,290.8</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five discharges

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined with an age-adjusted rate of 1,801 per 100,000. The rate was relatively lower than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the 15-24 year age group (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges for all ages combined, and the leading cause of hospital discharges for persons age 15-24. The age-adjusted hospital discharge rate for struck by/against was lower than the Nebraska rate (865 vs. 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Overexertion was the third leading cause of injury hospital discharges. The age-adjusted rate was slightly lower than the Nebraska rate (637 vs. 679 per 100,000) (*Figure H1*).
- Motor vehicle crashes (478 per 100,000) and cutting/piercing (473 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking cause of injury hospital discharges in the NCDHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, North Central District Health Department Coverage Area, NE, 1999-2003**

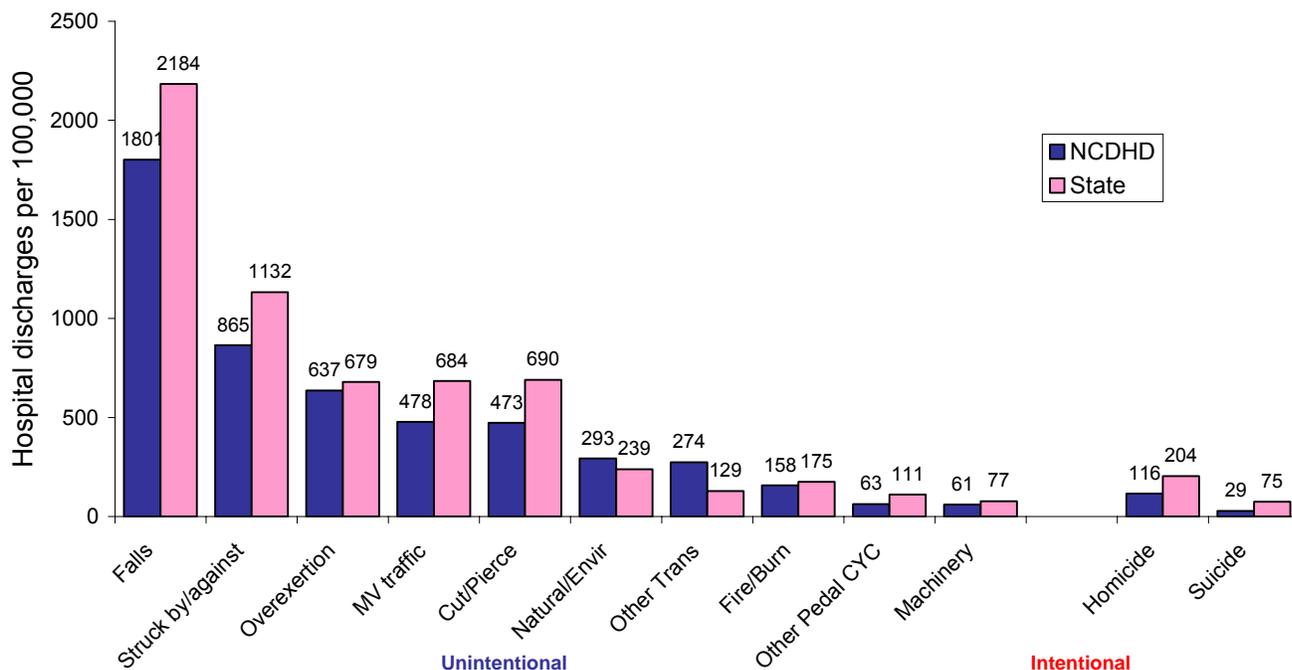
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=52	Falls N=365	Falls N=345	Falls N=411	Struck by/against N=651	Falls N=244	Falls N=339	Falls N=401	Falls N=372	Falls N=525	Falls N=831	Falls N=887	Falls N=5,315
2	Fire/Burn N=16	Struck by/against N=154	Struck by/against N=176	Struck by/against N=342	Falls N=543	Overexertion N=196	Overexertion N=249	Overexertion N=177	Struck by/against N=84	Cut/Pierce N=83	Overexertion N=66	Struck by/against N=27	Struck by/against N=2,075
3	Struck by/against N=12	Fire/Burn N=59	Cut/Pierce N=75	Overexertion N=159	MV traffic N=453	Cut/Pierce N=178	Struck by/against N=192	Struck by/against N=145	Overexertion N=79	Overexertion N=79	Struck by/against N=65	Overexertion N=22	Overexertion N=1,485
4	Poisoning N=8	Cut/Pierce N=56	Other Pedal CYC N=57	Cut/Pierce N=106	Overexertion N=397	Struck by/against N=150	Cut/Pierce N=171	MV traffic N=114	Natural/Envir N=69	Struck by/against N=77	MV traffic N=59	Natural/Envir N=17	MV traffic N=1,112
5	MV traffic N=7	Poisoning N=52	Other trans N=52	Other trans N=88	Cut/Pierce N=213	MV traffic N=114	MV traffic N=132	Cut/Pierce N=113	Cut/Pierce N=60	Natural/Envir N=61	Natural/Envir N=45	MV traffic N=14	Cut/Pierce N=1,100

Hospital visits includes visits as Inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause, North Central District Health Department Coverage Area, NE, 1999-2003**



Source: Nebraska Hospital Discharge Data 1999-2003

### Age

- The hospital discharge rate due to falls was the highest for persons age 85 and older. Among children age 14 and under, the 1-4 year age group had the highest fall injury hospital discharge rate (3,111 per 100,000), which was relatively lower than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rate (2,120 per 100,000) for struck by/against, which was slightly lower than the Nebraska rate (2,136 per 100,000). The 5-14 year age group had the second highest rate at 1,399 per 100,000 (*Table H3*).
- Hospital discharge rates for overexertion (1,293 per 100,000) and motor vehicle crash injuries (1,475 per 100,000) were the highest for individuals in the 15-24 year age group (*Table H3*).
- The hospital discharge rate for cutting/piercing injuries was highest for the 25-34 year age group (808 per 100,000) in the NCDHD coverage area (*Table H3*).

### Gender

- Females in the NCDHD coverage area had a higher fall-related injury hospital discharge rate than males (1,899 vs. 1,701 per 100,000) (*Table H3*).
- The injury hospital discharge rate for struck by/against for males was more than twice as high as that for females (1,190 vs. 548 per 100,000) (*Table H3*).
- Males had higher motor vehicle injury hospital discharge rate than females (483 vs. 473 per 100,000) (*Table H3*).

- The cutting/piercing injury hospital discharge rate for males was nearly twice as high as that for females (614 vs. 336 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, North Central District Health Department Coverage Area, NE, 1999-2003**

Cause	Age	North Central HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
MV traffic	<1	3	0.5	*	4	0.7	*	7	0.6	255.7	128.9	121.4	125.2
MV traffic	1-4	8	1.4	136.6	9	1.7	153.2	17	1.5	144.9	251.0	229.3	240.4
MV traffic	5-14	40	7.1	207.2	57	10.5	321.7	97	8.7	262	400.0	436.0	417.6
MV traffic	15-24	246	43.4	1497.6	207	38	1448.7	453	40.7	1474.8	1444.2	1831.5	1633.7
MV traffic	25-34	69	12.2	621.2	45	8.3	412.3	114	10.3	517.7	855.6	993.0	923.2
MV traffic	35-44	65	11.5	365.1	67	12.3	376.8	132	11.9	371	607.3	708.3	657.6
MV traffic	45-54	61	10.8	339	53	9.7	307.4	114	10.3	323.5	476.5	523.1	499.9
MV traffic	55-64	20	3.5	157.9	33	6.1	251	53	4.8	205.3	346.5	441.2	394.9
MV traffic	65-74	19	3.4	176.8	33	6.1	265.8	52	4.7	224.5	327.3	382.2	357.1
MV traffic	75-84	29	5.1	354.4	30	5.5	278	59	5.3	310.9	402.4	393.8	397.3
MV traffic	85+	7	1.2	252.5	7	1.3	118.8	14	1.3	161.6	404.8	248.5	293.6
<b>Total</b>		<b>567</b>	<b>100.0</b>	<b>482.9</b>	<b>545</b>	<b>100.0</b>	<b>472.6</b>	<b>1112</b>	<b>100.0</b>	<b>478.0</b>	<b>629.3</b>	<b>737.3</b>	<b>684.0</b>
Falls	<1	17	0.8	1214.3	35	1.1	2615.8	52	1	1899.2	2298.5	2139.4	2220.8
Falls	1-4	206	9.3	3517.8	159	5.1	2706.4	365	6.9	3111.4	4871.2	3721.2	4309.7
Falls	5-14	439	19.8	2274.3	317	10.2	1788.8	756	14.2	2041.9	2855	2404.1	2634.8
Falls	15-24	355	16	2161.2	188	6.1	1315.7	543	10.2	1767.9	1570.9	1323.5	1449.9
Falls	25-34	113	5.1	1017.3	131	4.2	1200.3	244	4.6	1108	1048.4	1303.4	1173.8
Falls	35-44	143	6.4	803.3	196	6.3	1102.2	339	6.4	952.7	1084.2	1357.6	1220.2
Falls	45-54	167	7.5	928.1	234	7.6	1357	401	7.5	1138	1116	1610.3	1364.2
Falls	55-64	182	8.2	1436.7	190	6.1	1445.1	372	7	1441	1337.7	1976.8	1664.3
Falls	65-74	156	7	1451.3	369	11.9	2972	525	9.9	2266.4	2151.5	3581	2926.8
Falls	75-84	261	11.8	3189.5	570	18.4	5281.2	831	15.6	4379.2	4355.2	7355	6138.2
Falls	85+	180	8.1	6493.5	707	22.8	12003	887	16.7	10240	10070	14640	13320
<b>Total</b>		<b>2219</b>	<b>100.0</b>	<b>1700.7</b>	<b>3096</b>	<b>100.0</b>	<b>1898.9</b>	<b>5315</b>	<b>100.0</b>	<b>1801.0</b>	<b>2013.8</b>	<b>2349.3</b>	<b>2184.0</b>
Cut/Pierce	<1	2	0.3	*				2	0.2	*	228.7	185.5	207.6
Cut/Pierce	1-4	34	4.8	580.6	22	5.7	374.5	56	5.1	477.4	925.2	609.5	771.1
Cut/Pierce	5-14	128	18	663.1	53	13.7	299.1	181	16.5	488.9	1033.2	615.8	829.4
Cut/Pierce	15-24	162	22.8	986.2	51	13.1	356.9	213	19.4	693.5	1399.6	650.1	1032.9
Cut/Pierce	25-34	114	16	1026.3	64	16.5	586.4	178	16.2	808.3	1138.4	596.8	872.2
Cut/Pierce	35-44	97	13.6	544.9	74	19.1	416.2	171	15.5	480.6	861.0	517.5	690.1
Cut/Pierce	45-54	75	10.5	416.8	38	9.8	220.4	113	10.3	320.7	650.7	401.2	525.4
Cut/Pierce	55-64	29	4.1	228.9	31	8	235.8	60	5.5	232.4	555.0	309.7	429.6
Cut/Pierce	65-74	53	7.4	493.1	30	7.7	241.6	83	7.5	358.3	582.4	266.5	411.1
Cut/Pierce	75-84	15	2.1	183.3	17	4.4	157.5	32	2.9	168.6	448.3	214.8	309.5
Cut/Pierce	85+	3	0.4	108.2	8	2.1	135.8	11	1	127	333.7	194.8	234.9
<b>Total</b>		<b>712</b>	<b>100.0</b>	<b>613.7</b>	<b>388</b>	<b>100.0</b>	<b>336.3</b>	<b>1100</b>	<b>100.0</b>	<b>473.0</b>	<b>893.0</b>	<b>492.5</b>	<b>689.8</b>
Struck by/against	<1	7	0.5	500	5	0.8	373.7	12	0.6	438.3	836	692.9	766.1
Struck by/against	1-4	96	6.7	1639.3	58	8.9	987.2	154	7.4	1312.8	2812.4	1729.5	2283.7
Struck by/against	5-14	352	24.7	1823.6	166	25.5	936.7	518	25	1399.1	2919.3	1521.6	2236.7
Struck by/against	15-24	520	36.5	3165.7	131	20.2	916.8	651	31.4	2119.5	3069.3	1161.5	2135.8
Struck by/against	25-34	106	7.4	954.3	44	6.8	403.2	150	7.2	681.1	1212	676.9	948.9
Struck by/against	35-44	112	7.9	629.1	80	12.3	449.9	192	9.3	539.6	854.1	527.3	691.6
Struck by/against	45-54	96	6.7	533.5	49	7.5	284.2	145	7	411.5	574.9	385.7	479.9
Struck by/against	55-64	50	3.5	394.7	34	5.2	258.6	84	4	325.4	414.7	291.2	351.6
Struck by/against	65-74	45	3.2	418.6	32	4.9	257.7	77	3.7	332.4	415.7	292.7	349
Struck by/against	75-84	30	2.1	366.6	35	5.4	324.3	65	3.1	342.5	415.6	363.7	384.7
Struck by/against	85+	11	0.8	396.8	16	2.5	271.6	27	1.3	311.7	507.4	519.4	516
<b>Total</b>		<b>1425</b>	<b>100.0</b>	<b>1190.2</b>	<b>650</b>	<b>100.0</b>	<b>547.7</b>	<b>2075</b>	<b>100.0</b>	<b>865.0</b>	<b>1488.5</b>	<b>786.4</b>	<b>1132.3</b>
Overexertion	<1	1	0.1	*	1	0.1	*	2	0.1	*	111.1	156.8	133.4
Overexertion	1-4	8	1.1	136.6	26	3.5	442.6	34	2.3	289.8	352.6	519.6	434.1
Overexertion	5-14	80	10.7	414.4	104	14.1	586.9	184	12.4	497	537.1	610.3	572.9
Overexertion	15-24	237	31.6	1442.8	160	21.8	1119.7	397	26.7	1292.5	1317.5	1024.1	1173.9
Overexertion	25-34	111	14.8	999.3	85	11.6	778.8	196	13.2	890	952.4	828.7	891.6
Overexertion	35-44	123	16.4	690.9	126	17.1	708.6	249	16.8	699.8	817.7	677.3	747.9
Overexertion	45-54	103	13.7	572.4	74	10.1	429.1	177	11.9	502.3	616.4	572.9	594.5
Overexertion	55-64	33	4.4	260.5	46	6.3	349.9	79	5.3	306	426.6	433.8	430.3
Overexertion	65-74	26	3.5	241.9	53	7.2	426.9	79	5.3	341	356.1	445.4	404.6
Overexertion	75-84	23	3.1	281.1	43	5.9	398.4	66	4.4	347.8	311.8	419.9	376.0
Overexertion	85+	5	0.7	180.4	17	2.3	288.6	22	1.5	254	236.9	387.2	343.8
<b>Total</b>		<b>750</b>	<b>100.0</b>	<b>648.0</b>	<b>735</b>	<b>100.0</b>	<b>625.9</b>	<b>1485</b>	<b>100.0</b>	<b>637.0</b>	<b>705.5</b>	<b>635.6</b>	<b>679.2</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

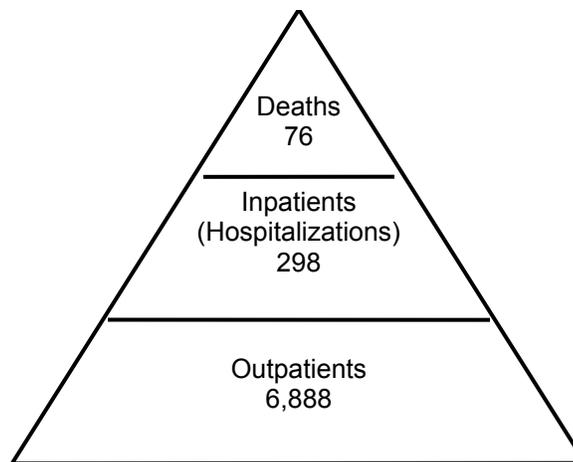
## INJURY REPORT, 1999-2003

### Northeast Nebraska Public Health Department Coverage Area Cedar, Dixon, Thurston and Wayne Counties

#### Summary

Injury is a public health problem in the Northeast Nebraska Public Health Department (NNPHD) coverage area. Overall, injury is the fifth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 76 injury deaths, nearly 300 residents in Cedar, Dixon, Thurston and Wayne Counties were hospitalized and almost 6,900 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by suffocation. In contrast to deaths, falls were the leading cause of injury-related hospital discharges and struck by/against injuries were second, followed by overexertion, motor vehicle crashes, and cutting/piercing.

**Figure A: Injury Pyramid, Residents of Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among persons age 15-34, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were more than four times as likely as females to die from injuries. Additionally, teenagers and young adults were more likely to die from motor vehicle crashes, while older adults were more likely to die from fall injuries.

The following table highlights the NNPHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, and suicide (*Table A*).

**Table A: Injury Death Rates, Northeast Nebraska Public Health Department Coverage Area, NE, 2003**

Cause of Death	Death Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	59.3	19.4
Fall	2.2	3.5
Motor Vehicle Crash	39.5	12.0
Suicide	15.9	8.2

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fifth leading cause of death in the NNPHD coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	416
2	Cancer	261
3	Stroke	131
4	Mental/Psychoses	70
5	Injury	61

Source: DHHS Death Certificate Data 1999-2003

- An average of 15 residents died from injuries each year in the NNPHD coverage area (*Table D2*).
- Deaths due to injury made up 5.9% of total deaths in the NNPHD coverage area, compared to 6% of total deaths in Nebraska. More than 75% of all deaths among teens and young adults age 15-34 were caused by injuries in the NNPHD coverage area (*Table D2*).

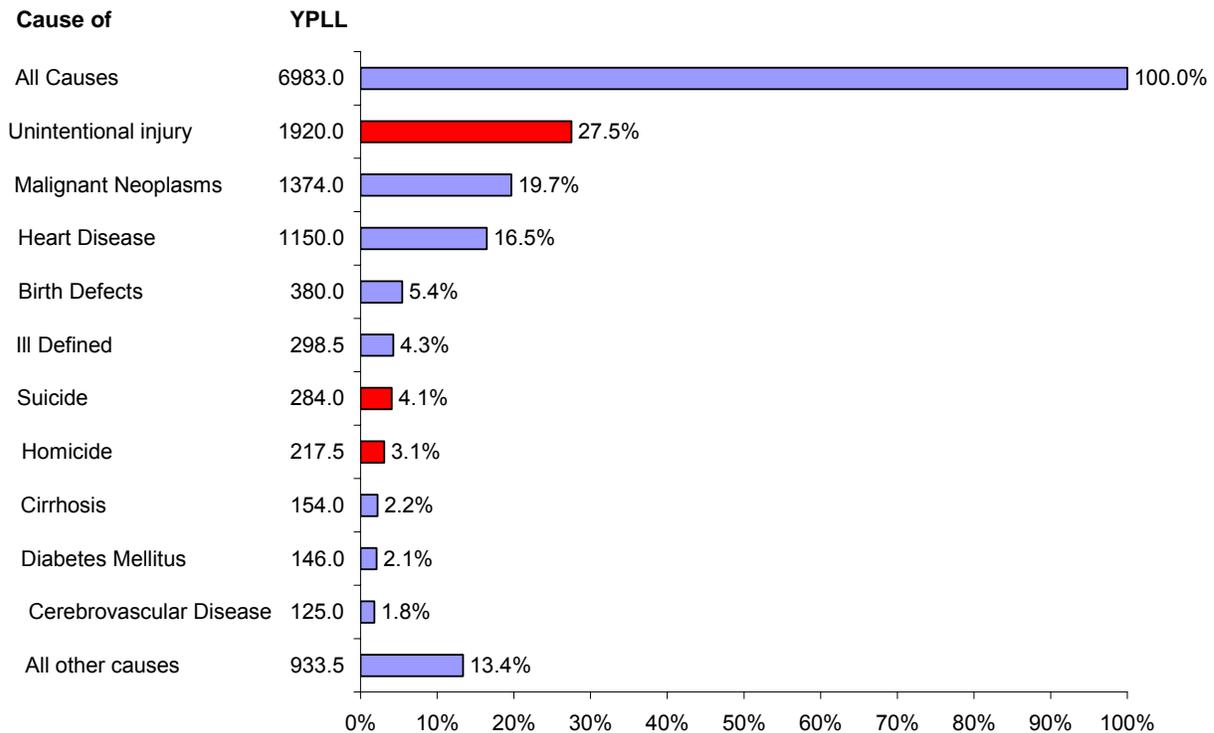
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Age Group	Injury Deaths	Annual Average Injury Deaths	All Deaths	Percent of Death due to Injury
≤14	5	1	16	31.3
15-19	10	2	13	76.9
20-24	7	1	8	87.5
25-29	3	1	3	100.0
30-34	9	2	11	81.8
35-39	5	1	10	50.0
40-44	4	1	13	30.8
45-49	2	0	20	10.0
50-54	6	1	25	24.0
55-59	0	0	20	0.0
60-64	1	0	48	2.1
65-74	9	2	185	4.9
75-84	9	2	332	2.7
85+	6	1	594	1.0
<b>Total</b>	<b>76</b>	<b>15</b>	<b>1,298</b>	<b>5.9</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked first (27.5%). Suicide ranked 6<sup>th</sup> at 4.1%, and homicide ranked 7<sup>th</sup> at 3.1% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before Age 75 by Cause of Death, Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**



- The NNPHD coverage area had a higher unintentional injury rate (35.9 per 100,000), lower suicide rate (6.4 per 100,000) and similar homicide rate (3.3 per 100,000) than Nebraska rates (33.3, 10.6, and 3.2 per 100,000 respectively) (Table D3). The NNPHD has not met the 2010 Nebraska Objective of 19.4 or fewer unintentional injury deaths per 100,000 population.

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	48	80.0	60.7	13	81.3	11.7	61	80.3	35.9	3,020	68.3	33.3
Suicide	10	16.7	13.0	0	0.0	0.0	10	13.2	6.4	894	20.2	10.6
Homicide	2	3.3	*	3	18.8	*	5	6.6	3.3	273	6.2	3.2
Undetermined	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	139	3.1	1.6
Adverse Effects	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	93	2.1	1.0
<b>Total</b>	<b>60</b>	<b>100.0</b>	<b>76.0</b>	<b>16</b>	<b>100.0</b>	<b>16.0</b>	<b>76</b>	<b>100.0</b>	<b>45.6</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

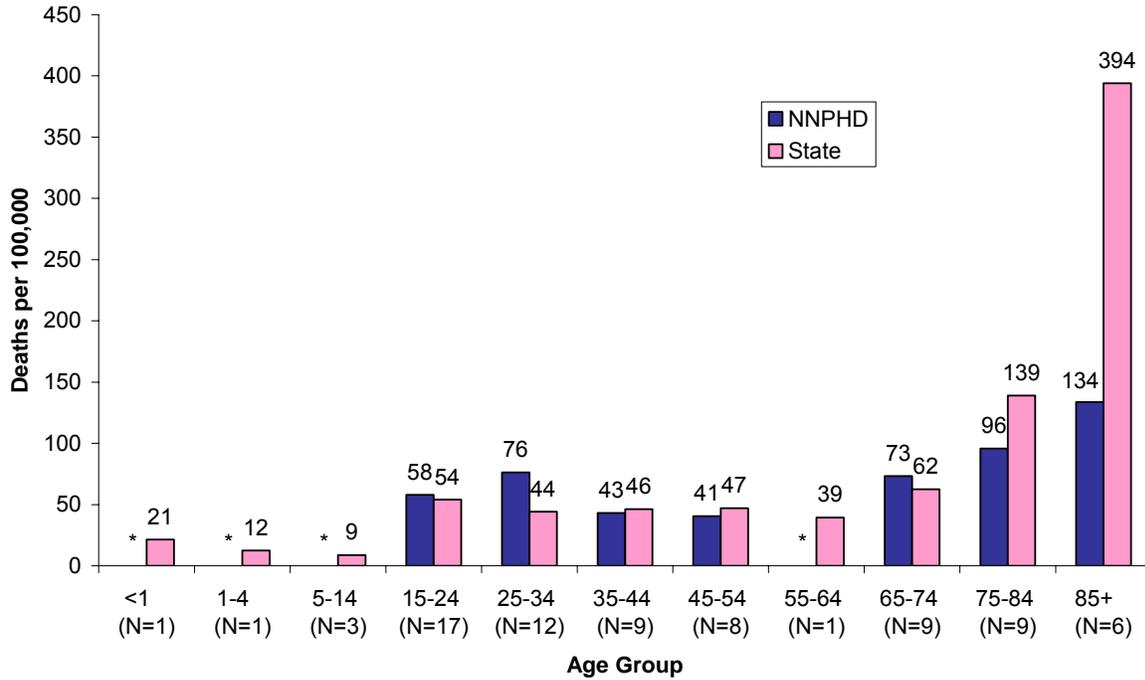
- More males (79%) died from all injury-related causes than females (21%) (Table D4).
- Injury death rates were the highest for the oldest age group, 85 and older (Figure D2).

**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race,  
Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**

	Northeast HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	60	78.9	4,022	56.0	2,848	64.3	386,563	53.1
Female	16	21.1	3,164	44.0	1,581	35.7	341,506	46.9
Total	76	100.0	7,186	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	1	1.3	60	0.8	26	0.6	7,142	1.0
1-4	1	1.3	437	6.1	58	1.3	59,764	8.2
5-14	3	4.0	1,021	14.2	107	2.4	122,382	16.8
15-24	17	22.4	1,926	26.8	699	15.8	144,001	19.8
25-34	12	15.8	683	9.5	486	11.0	84,574	11.6
35-44	9	11.8	666	9.3	593	13.4	84,445	11.6
45-54	8	10.5	643	9.0	547	12.4	66,321	9.1
55-64	1	1.3	436	6.1	292	6.6	39,540	5.4
65-74	9	11.8	428	6.0	355	8.0	40,555	5.6
75-84	9	11.8	426	5.9	575	13.0	45,135	6.2
85+	6	7.9	460	6.4	691	15.6	34,222	4.7
Total	76	100.0	7,186	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian					29	0.7		
African American	1	1.3			194	4.4		
Native American	20	26.3			72	1.6		
White	55	72.4			4,123	93.1		
Other					11	0.3		
Total	76	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

**Figure D2: All Injury Death Rates by Age, Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**

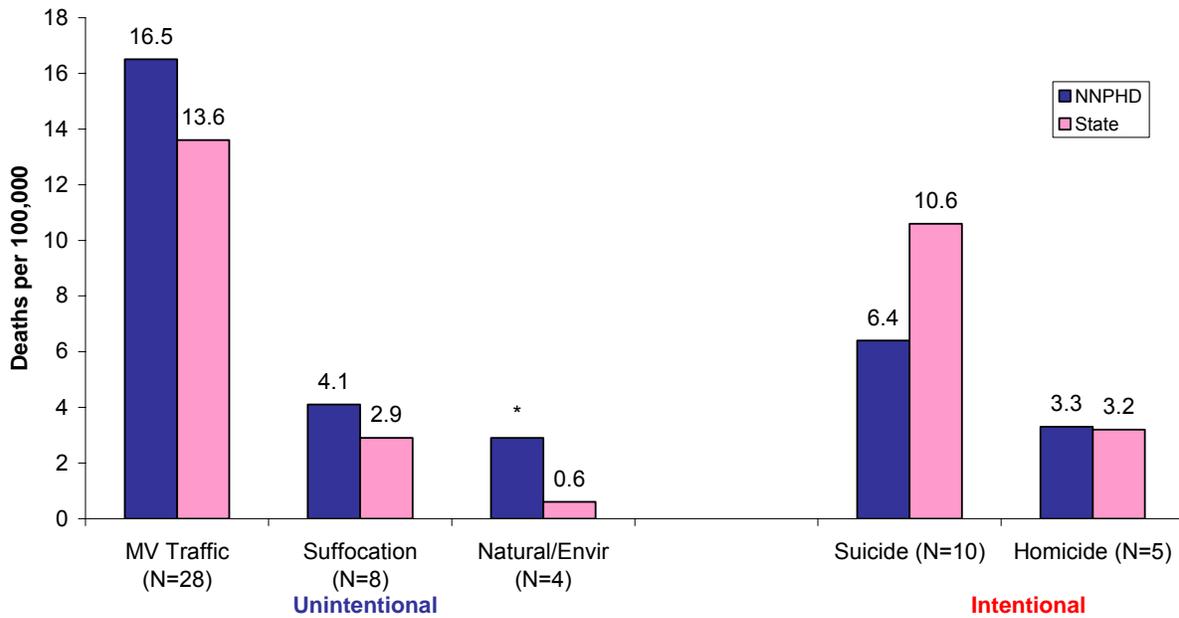


\* Fewer than five deaths  
 Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury deaths with an age-adjusted rate of 16.5 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (Figure D3). The NNPHD has not met the 2010 Nebraska Objective of 12.0 or fewer motor vehicle crash injury deaths per 100,000 population.
- Suicide was the second leading cause of injury deaths. The age-adjusted death rate for suicide was lower than the Nebraska rate (6.4 vs. 10.6 per 100,000 respectively) (Figure D3).
- Suffocation was the third leading cause of injury deaths. The age-adjusted death rate due to suffocation was higher than the Nebraska rate (4.1 vs. 2.9 per 100,000 respectively) (Figure D3).

**Figure D3: Age-adjusted Injury Death Rates by Cause, Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**



\* Fewer than five deaths  
 Source: DHHS Death Certificate Data 1999-2003

**Age**

- Persons age 15-24 years (N=14) were involved in the most fatal motor vehicle crashes, accounting for 50.0% of total deaths (N=28) due to motor vehicle crashes (Table D5).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, Northeast Nebraska Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	0	0.0	0	0.0	0	0.0
5-14	0	0.0	0	0.0	0	0.0
15-24	12	50.0	2	50.0	14	50.0
25-34	4	16.7	0	0.0	4	14.3
35-44	3	12.5	1	25.0	4	14.3
45-54	2	8.3	0	0.0	2	7.1
55-64	1	4.2	0	0.0	1	3.6
65-74	0	0.0	1	25.0	1	3.6
75-84	1	4.2	0	0.0	1	3.6
85+	1	4.2	0	0.0	1	3.6
<b>Total</b>	<b>24</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Persons 85 years and older accounted for sixty percent (N=3) of the deaths due to fall injuries (Table D6).

**Table D6: Deaths Due to Fall by Age and Gender,  
Northeast Nebraska Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
65-74	0	0.0	1	25.0	1	20.0
75-84	0	0.0	1	25.0	1	20.0
85+	1	100.0	2	50.0	3	60.0
<b>Total</b>	<b>1</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- More persons in the 35-44 year age group (30%) died from suicide than persons in other age groups (Table D7).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Northeast Nebraska Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	1	10.0	0	0.0	1	10.0
15-24	1	10.0	0	0.0	1	10.0
25-34	1	10.0	0	0.0	1	10.0
35-44	3	30.0	0	0.0	3	30.0
65-74	2	20.0	0	0.0	2	20.0
75-84	1	10.0	0	0.0	1	10.0
85+	1	10.0	0	0.0	1	10.0
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>0</b>	<b>0.0</b>	<b>10</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

**Gender**

- More males (N=24) died from motor vehicle crashes than females (N=4) (Table D5).
- More females (N=4) died from fall injuries than males (N=1) (Table D6).
- Persons in these counties who died from suicide were all males (Table D7).

## Hospital discharges

### Overall

- The NNPHD coverage area had a lower unintentional injury hospital discharge rate (3,912 per 100,000), suicide attempt rate (27 per 100,000), and homicide rate (63 per 100,000) compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).
- More males (N=3,850) than females (N=2,994) were treated at a hospital for all injury-related causes (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	3,758	97.6	4,541.5	2,926	97.7	3,298.7	6,684	97.7	3,912.0	665,407	95.9	7,609.6
Suicide	12	0.3	14.8	32	1.1	39.4	44	0.6	27.3	6,379	0.9	75.0
Homicide	71	1.8	85.5	30	1.0	40.1	101	1.5	62.5	17,720	2.6	203.9
Undetermined	9	0.2	11.5	6	0.2	7.6	15	0.2	9.5	4,181	0.6	48.3
Other	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	404	0.1	4.7
<b>Total</b>	<b>3,850</b>	<b>100.0</b>	<b>4,653.2</b>	<b>2,994</b>	<b>100.0</b>	<b>3,385.8</b>	<b>6,844</b>	<b>100.0</b>	<b>4,011.3</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined, with an age-adjusted rate of 946 per 100,000. The rate was less than half of the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the 10-14, 15-24, and 25-34 year age groups (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges for all ages combined, and the leading cause for persons age 10-14 and 15-24. The age-adjusted hospital discharge rate for struck by/against was less than half the Nebraska rate (510 vs. 1,132 per 100,000) (*Table H2 & Figure H1*).
- Overexertion was the third leading cause of injury hospital discharges. The age-adjusted rate was lower than the Nebraska rate (462 and 679 per 100,000) (*Figure H1*).
- Motor vehicle crashes (429 per 100,000) and cutting/piercing (384 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking cause of injury hospital discharges in the NNPHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**

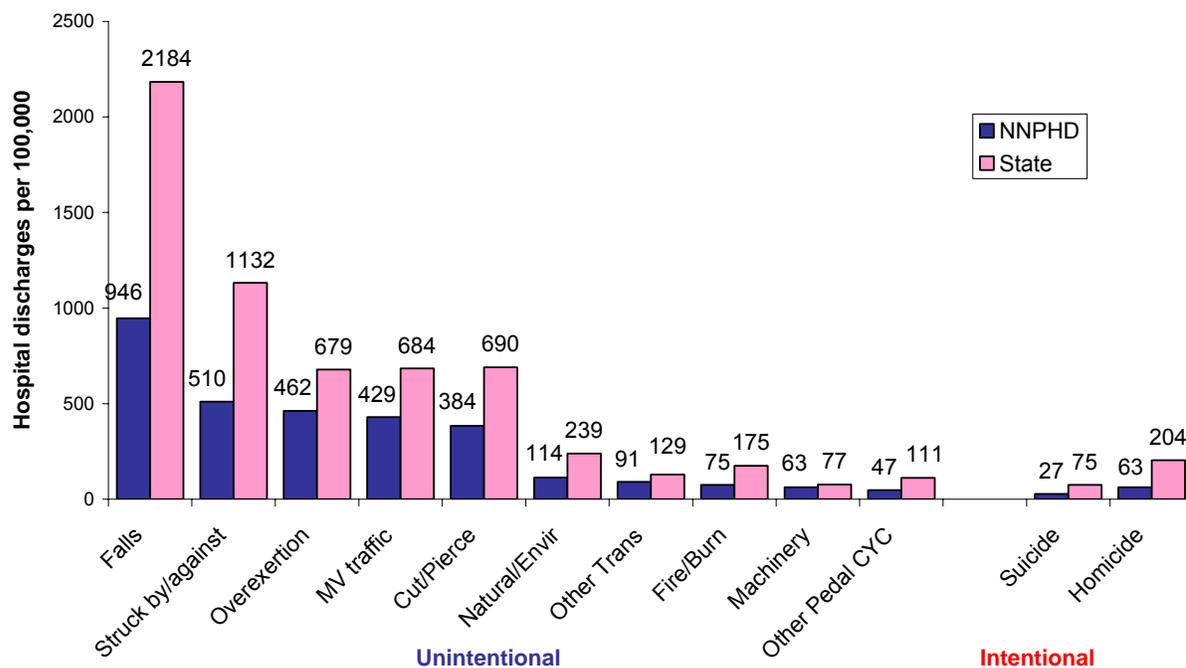
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=24	Falls N=125	Falls N=119	Struck by/against N=145	Struck by/against N=348	Overexertion N=102	Falls N=103	Falls N=157	Falls N=107	Falls N=170	Falls N=216	Falls N=290	Falls N=1,732
2	Struck by/against N=5	Struck by/against N=78	Struck by/against N=80	Falls N=117	MV traffic N=300	MV traffic N=88	Cut/Pierce N=86	Overexertion N=66	Overexertion N=51	Overexertion N=32	Overexertion N=28	MV traffic N=14	Struck by/against N=887
3	MV traffic N=4	Cut/Pierce N=32	Cut/Pierce N=49	Overexertion N=74	Overexertion N=291	Cut/Pierce N=87	Overexertion N=81	Cut/Pierce N=58	MV traffic N=33	MV traffic N=23	MV traffic N=22	Cut/Pierce N=7	Overexertion N=767
4	Cut/Pierce N=4	MV traffic N=24	Other Pedal CYC N=38	MV traffic N=58	Falls N=223	Falls N=81	MV traffic N=74	MV traffic N=52	Cut/Pierce N=31	Cut/Pierce N=18	Struck by/against N=13	Struck by/against N=7	MV traffic N=720
5	Overexertion N=4	Natural/Envir N=23	MV traffic N=28	Cut/Pierce N=57	Cut/Pierce N=177	Struck by/against N=63	Struck by/against N=69	Struck by/against N=36	Struck by/against N=26	Struck by/against N=17	Cut/Pierce N=11	Overexertion N=7	Cut/Pierce N=617

Hospital visits includes visits as Inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause, Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**



Source: Nebraska Hospital Discharge Data 1999-2003

### Age

- Hospital discharge rates due to falls were the highest for persons age 85 and older (6,460 per 100,000). Among children age 14 and under, the 1-4 year age group had the highest fall injury rate (1,439 per 100,000), which was about one third the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rate (1,185 per 100,000) for struck by/against, which was much lower than the Nebraska rate (2,136 per 100,000). Children age 1-4 years had the second highest rate at 898 per 100,000 (*Table H3*).
- The hospital discharge rate for overexertion injuries was highest for the 15-24 year age group (991 per 100,000) (*Table H3*).
- Hospital discharge rates for motor vehicle crashes (1,022 per 100,000) and cutting/piercing injuries (603 per 100,000) were the highest for individuals in the 15-24 year age group (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls than males (983 vs. 909 per 100,000) (*Table H3*).
- The injury hospital discharge rates for struck by/against and cutting/piercing for males were about twice as high as those for females (719 and 510 vs. 306 and 262 per 100,000) (*Table H3*).

- Males had a higher overexertion injury hospital discharge rate than females (499 vs. 426 per 100,000) (*Table H3*).
- Males and females had almost the same motor vehicle crash hospital discharge rates (429 vs. 430 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Northeast Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Northeast HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	12	1.6	1081.1	12	1.2	1107	24	1.4	1093.9	2298.5	2139.4	2220.8
Falls	1-4	82	10.9	1843.9	43	4.4	1013.9	125	7.2	1438.8	4871.2	3721.2	4309.7
Falls	5-14	133	17.6	1033.8	103	10.5	836.8	236	13.6	937.5	2855.0	2404.1	2634.8
Falls	15-24	127	16.8	874.6	96	9.8	647	223	12.9	759.6	1570.9	1323.5	1449.9
Falls	25-34	44	5.8	541.1	37	3.8	485.4	81	4.7	514.2	1048.4	1303.4	1173.8
Falls	35-44	52	6.9	492.2	51	5.2	493.8	103	5.9	493	1084.2	1357.6	1220.2
Falls	45-54	69	9.1	672.3	88	9	929	157	9.1	795.5	1116.0	1610.3	1364.2
Falls	55-64	42	5.6	617	65	6.7	934.6	107	6.2	777.5	1337.7	1976.8	1664.3
Falls	65-74	56	7.4	982.1	114	11.7	1730.9	170	9.8	1383.5	2151.5	3581.0	2926.8
Falls	75-84	68	9	1657.3	148	15.1	2793	216	12.5	2297.4	4355.2	7355.0	6138.2
Falls	85+	70	9.3	5351.7	220	22.5	6916.1	290	16.7	6460.2	10070.0	14640.0	13320.0
<b>Total</b>		755	100.0	908.7	977	100.0	982.6	1732	100.0	946.0	2013.8	2349.3	2184.0
Struck by/against	<1	2	0.3	*	3	1.1	*	5	0.6	227.9	836	692.9	766.1
Struck by/against	1-4	45	7.2	1011.9	33	12.6	778.1	78	8.8	897.8	2812.4	1729.5	2283.7
Struck by/against	5-14	150	24	1166	75	28.6	609.3	225	25.4	893.8	2919.3	1521.6	2236.7
Struck by/against	15-24	267	42.7	1838.7	81	30.9	545.9	348	39.2	1185.3	3069.3	1161.5	2135.8
Struck by/against	25-34	49	7.8	602.6	14	5.3	183.7	63	7.1	399.9	1212	676.9	948.9
Struck by/against	35-44	51	8.2	482.7	18	6.9	174.3	69	7.8	330.3	854.1	527.3	691.6
Struck by/against	45-54	25	4	243.6	11	4.2	116.1	36	4.1	182.4	574.9	385.7	479.9
Struck by/against	55-64	17	2.7	249.7	9	3.4	129.4	26	2.9	188.9	414.7	291.2	351.6
Struck by/against	65-74	9	1.4	157.8	8	3.1	121.5	17	1.9	138.3	415.7	292.7	349
Struck by/against	75-84	9	1.4	219.4	4	1.5	75.5	13	1.5	138.3	415.6	363.7	384.7
Struck by/against	85+	1	0.2	*	6	2.3	188.6	7	0.8	155.9	507.4	519.4	516
<b>Total</b>		625	100.0	719.4	262	100.0	305.8	887	100.0	510.0	1488.5	786.4	1132.3
Overexertion	<1	3	0.7	*	1	0.3	*	4	0.5	*	111.1	156.8	133.4
Overexertion	1-4	7	1.7	157.4	11	3.1	259.4	18	2.3	207.2	352.6	519.6	434.1
Overexertion	5-14	44	10.7	342	43	12.1	349.3	87	11.3	345.6	537.1	610.3	572.9
Overexertion	15-24	169	40.9	1163.8	122	34.5	822.2	291	37.9	991.2	1317.5	1024.1	1173.9
Overexertion	25-34	61	14.8	750.2	41	11.6	537.8	102	13.3	647.5	952.4	828.7	891.6
Overexertion	35-44	44	10.7	416.5	37	10.5	358.2	81	10.6	387.7	817.7	677.3	747.9
Overexertion	45-54	37	9	360.5	29	8.2	306.1	66	8.6	334.4	616.4	572.9	594.5
Overexertion	55-64	22	5.3	323.2	29	8.2	417	51	6.6	370.6	426.6	433.8	430.3
Overexertion	65-74	12	2.9	210.5	20	5.6	303.7	32	4.2	260.4	356.1	445.4	404.6
Overexertion	75-84	11	2.7	268.1	17	4.8	320.8	28	3.7	297.8	311.8	419.9	376.0
Overexertion	85+	3	0.7	*	4	1.1	*	7	0.9	155.9	236.9	387.2	343.8
<b>Total</b>		413	100.0	499.3	354	100.0	425.7	767	100.0	462.0	705.5	635.6	679.2
MV traffic	<1	4	1.1	*	0	0	0	4	0.6	*	128.9	121.4	125.2
MV traffic	1-4	6	1.7	134.9	18	5	424.4	24	3.3	276.2	251	229.3	240.4
MV traffic	5-14	41	11.4	318.7	45	12.5	365.6	86	11.9	341.6	400	436	417.6
MV traffic	15-24	151	41.9	1039.9	149	41.4	1004.2	300	41.7	1021.8	1444.2	1831.5	1633.7
MV traffic	25-34	40	11.1	491.9	48	13.3	629.7	88	12.2	558.6	855.6	993	923.2
MV traffic	35-44	45	12.5	425.9	29	8.1	280.8	74	10.3	354.2	607.3	708.3	657.6
MV traffic	45-54	25	6.9	243.6	27	7.5	285	52	7.2	263.5	476.5	523.1	499.9
MV traffic	55-64	17	4.7	249.7	16	4.4	230.1	33	4.6	239.8	346.5	441.2	394.9
MV traffic	65-74	7	1.9	122.8	16	4.4	242.9	23	3.2	187.2	327.3	382.2	357.1
MV traffic	75-84	15	4.2	365.6	7	1.9	132.1	22	3.1	234	402.4	393.8	397.3
MV traffic	85+	9	2.5	688.1	5	1.4	157.2	14	1.9	311.9	404.8	248.5	293.6
<b>Total</b>		360	100.0	428.8	360	100.0	429.9	720	100.0	429.0	629.3	737.3	684.0
Cut/Pierce	<1	2	0.5	*	2	1	*	4	0.6	*	228.7	185.5	207.6
Cut/Pierce	1-4	22	5.3	494.7	10	4.9	235.8	32	5.2	368.3	925.2	609.5	771.1
Cut/Pierce	5-14	74	17.9	575.2	32	15.7	260	106	17.2	421.1	1033.2	615.8	829.4
Cut/Pierce	15-24	125	30.3	860.8	52	25.5	350.5	177	28.7	602.9	1399.6	650.1	1032.9
Cut/Pierce	25-34	57	13.8	701	30	14.7	393.5	87	14.1	552.2	1138.4	596.8	872.2
Cut/Pierce	35-44	53	12.8	501.7	33	16.2	319.5	86	13.9	411.6	861.0	517.5	690.1
Cut/Pierce	45-54	34	8.2	331.3	24	11.8	253.4	58	9.4	293.9	650.7	401.2	525.4
Cut/Pierce	55-64	23	5.6	337.9	8	3.9	115	31	5	225.3	555.0	309.7	429.6
Cut/Pierce	65-74	12	2.9	210.5	6	2.9	91.1	18	2.9	146.5	582.4	266.5	411.1
Cut/Pierce	75-84	9	2.2	219.4	2	1	*	11	1.8	117	448.3	214.8	309.5
Cut/Pierce	85+	2	0.5	*	5	2.5	157.2	7	1.1	155.9	333.7	194.8	234.9
<b>Total</b>		413	100.0	509.8	204	100.0	261.7	617	100.0	384.0	893.0	492.5	689.8

Source: Nebraska Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* No rate for the number less than five

INJURY REPORT, 1999-2003

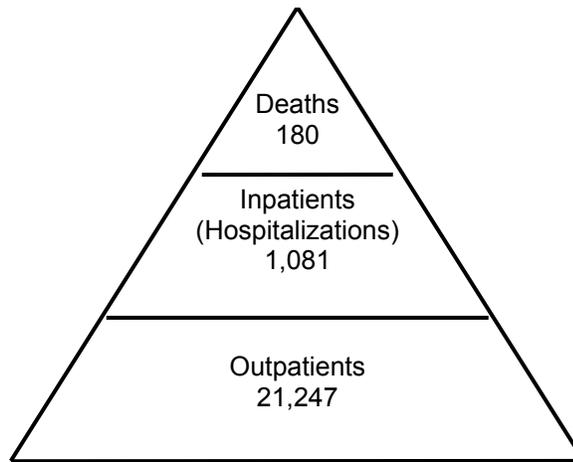
**Panhandle Public Health Department Coverage Area**

Banner, Box Butte, Cheyenne, Dawes, Deuel, Garden, Kimball, Morrill, Sheridan, and Sioux Counties

**Summary**

Injury is a public health problem in the Panhandle Public Health Department (PPHD) coverage area. Overall, injury is the fifth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 180 injury deaths, more than 1,000 residents in Banner, Box Butte, Cheyenne, Dawes, Deuel, Garden, Kimball, Morrill, Sheridan, and Sioux Counties were hospitalized and more than 21,200 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury hospital discharges and struck by/against injuries were second followed by cutting/piercing, overexertion, and motor vehicle crashes.

**Figure A: Injury Pyramid, Residents of Panhandle Public Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among people age 15-34, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were one-and-a-half times as likely as females to die from injuries.

The following table highlights PPHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, and suicide (*Table A*).

**Table A: Injury Death Rates, Panhandle Public Health Department Coverage Area, NE, 2003**

Cause of Death	Death Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	52.9	19.4
Fall	4.0	3.5
Motor Vehicle Crash	26.0	12.0
Suicide	19.7	8.2

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fifth leading cause of death in the PPHD coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Panhandle Public Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	767
2	Cancer	575
3	Stroke	189
4	Chronic Lung Disease	173
5	Injury	172

Source: DHHS Death Certificate Data 1999-2003

- An average of 34 residents died from injury each year in the PPHD coverage area (*Table D2*).
- Deaths due to injuries made up 6.1% of total deaths in the PPHD coverage area, compared to 6% of all deaths in Nebraska. In the PPHD coverage area, among 15-34 year olds, more than half of deaths were due to injuries (*Table D2*).

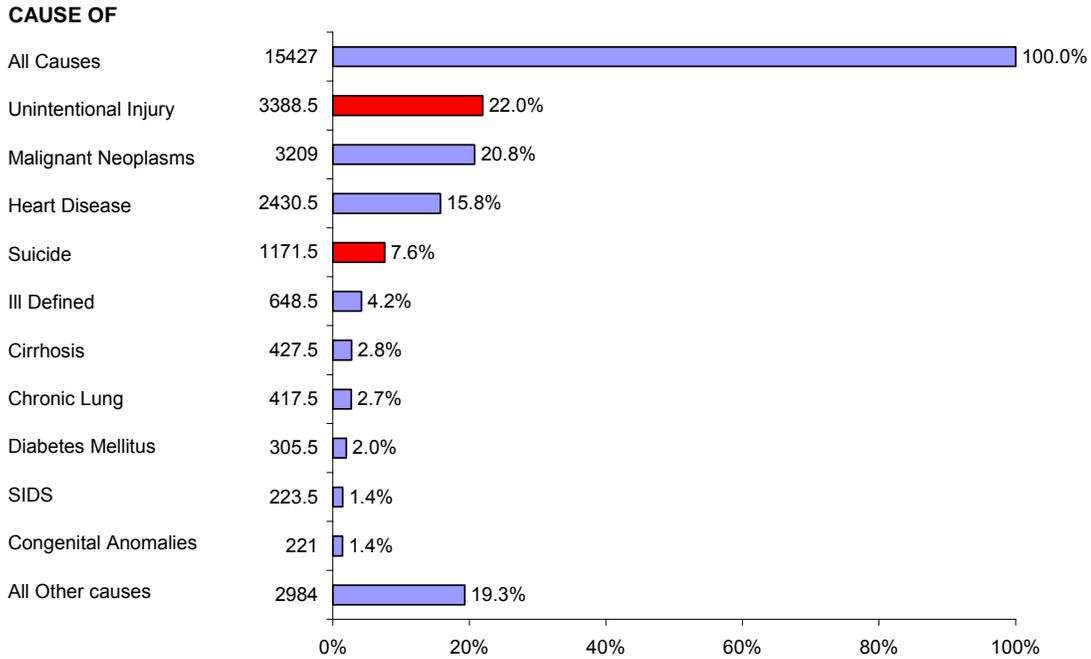
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Panhandle Public Health Department Coverage Area, NE, 1999-2003**

Age Group	Injury Deaths	Annual Average		Percent of Death due to Injury
		Injury Deaths	All Deaths	
≤14	9	2	27	33.3
15-19	13	3	15	86.7
20-24	14	3	16	87.5
25-29	7	1	9	77.8
30-34	17	3	26	65.4
35-39	6	1	21	28.6
40-44	13	3	40	32.5
45-49	13	3	45	28.9
50-54	10	2	59	16.9
55-59	8	2	82	9.8
60-64	5	1	113	4.4
65-74	8	2	423	1.9
75-84	23	5	832	2.8
85+	26	5	1,101	2.4
<b>Total</b>	<b>172</b>	<b>34</b>	<b>2,809</b>	<b>6.1</b>

Source: DHHS Death Certificate Data 1999-2003

- Unintentional injury was the leading cause of Years of Potential Life Lost (YPLL) in the PPHD at 22%. Suicide ranked 4<sup>th</sup> at 7.6% (*Figure D1*).

**Figure D1: Years of Potential Life Lost(YPLL) before Age 75 by Cause of Death, Panhandle Public Health Department Coverage Area, NE, 1999-2003**



- The PPHD coverage area had a higher unintentional injury rate (44.8 per 100,000), and suicide rate (15.3 per 100,000) than Nebraska rates (33.3 and 10.6 per 100,000 respectively) (Table D3). The PPHD has not met the 2010 Nebraska Objective of 19.4 or fewer unintentional injury deaths per 100,000 population.

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Panhandle Public Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	70	64.8	53.5	60	83.3	36.4	130	72.2	44.8	3,020	68.3	33.3
Suicide	31	28.7	24.4	8	11.1	6.4	39	21.7	15.3	894	20.2	10.6
Homicide	2	1.9	*	1	1.4	*	3	1.7	*	273	6.2	3.2
Undetermined	4	3.7	*	.	.	*	4	2.2	*	139	3.1	1.6
Adverse Effects	1	0.9	*	3	4.2	*	4	2.2	*	93	2.1	1.0
<b>Total</b>	<b>108</b>	<b>100.0</b>	<b>83.9</b>	<b>72</b>	<b>100.0</b>	<b>44.4</b>	<b>180</b>	<b>100.0</b>	<b>63.9</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

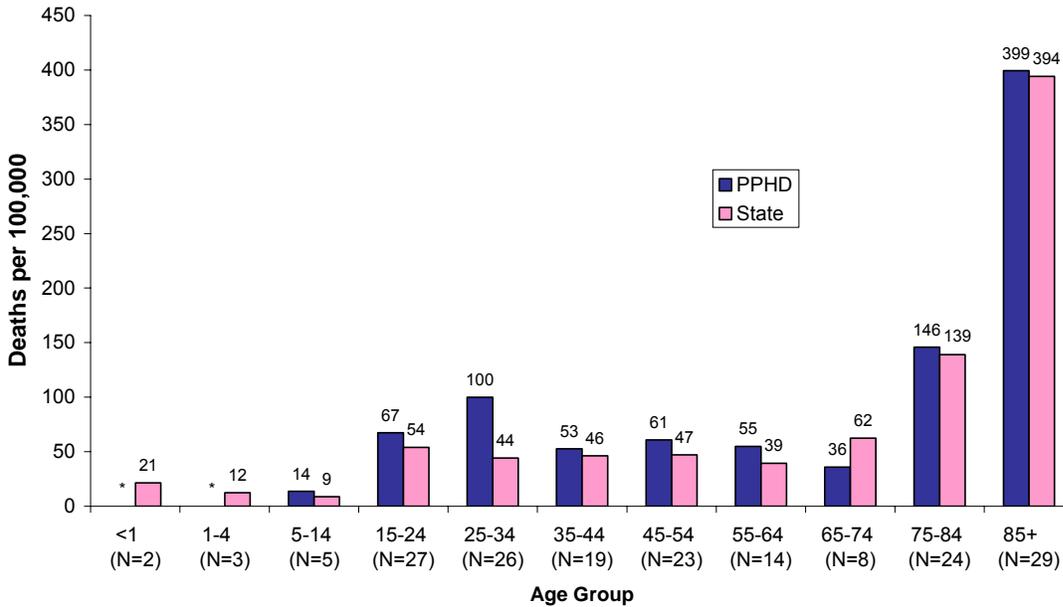
- More males (60%) died from all injury-related causes than females (40%) (Table D4).
- Injury death rates were the highest for the oldest age group, 85 and older (399 per 100,000). The injury death rate for persons in this age group was slightly higher than the state rate (394 per 100,000) (Figure D2).

**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race,  
Panhandle Public Health Department Coverage Area, NE, 1999-2003**

	Panhandle HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	108	60.0	11,810	52.9	2,848	64.3	386,563	53.1
Female	72	40.0	10,517	47.1	1,581	35.7	341,506	46.9
Total	180	100.0	22,327	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	2	1.1	151	0.7	26	0.6	7,142	1.0
1-4	3	1.7	1,427	6.4	58	1.3	59,764	8.2
5-14	5	2.8	3,804	17.0	107	2.4	122,382	16.8
15-24	27	15.0	4,515	20.2	699	15.8	144,001	19.8
25-34	26	14.4	2,120	9.5	486	11.0	84,574	11.6
35-44	19	10.6	2,226	10.0	593	13.4	84,445	11.6
45-54	23	12.8	1,696	7.6	547	12.4	66,321	9.1
55-64	14	7.8	1,212	5.4	292	6.6	39,540	5.4
65-74	8	4.4	1,775	8.0	355	8.0	40,555	5.6
75-84	24	13.3	2,011	9.0	575	13.0	45,135	6.2
85+	29	16.1	1,391	6.2	691	15.6	34,222	4.7
Total	180	100.0	22,328	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	0	0.0			194	4.4		
Native American	6	3.3			72	1.6		
White	174	96.7			4,123	93.1		
Other	0	0.0			11	0.3		
Total	180	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

**Figure D2: All Injury Death Rates by Age, Panhandle Public Health Department Coverage Area, NE, 1999-2003**

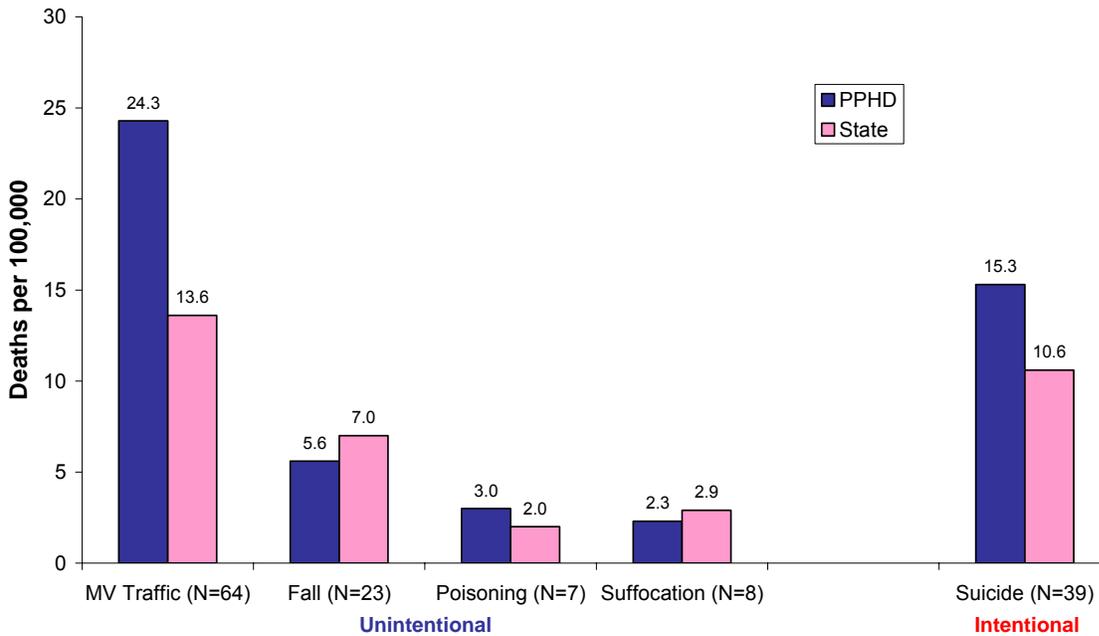


\* Fewer than five deaths  
 Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury deaths with an age-adjusted rate of 24.3 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (Figure D3). The PPHD has not met the 2010 Nebraska Objective of 12.0 or fewer motor vehicle crash injury deaths per 100,000 population.
- Suicide was the second leading cause of injury deaths. The age-adjusted death rate for suicide was higher than the Nebraska rate (15.3 vs. 10.6 per 100,000) (Figure D3).
- Falls were the third leading cause of injury deaths. The age-adjusted death rate due to falls was slightly lower than the Nebraska rate (5.6 vs. 7.0 per 100,000) (Figure D3). The PPHD has not met the 2010 Nebraska Objective of 3.5 or fewer fall injury deaths per 100,000 population.

**Figure D3: Age-adjusted Injury Death Rates by Cause, Panhandle Public Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- Persons age 15-24 years (N=18) were most likely to die in a motor vehicle crash, making up 28.1% of total deaths due to motor vehicle crashes (N=64) (*Table D5*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, Panhandle Public Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	0	0.0	1	3.7	1	1.6
5-14	0	0.0	2	7.4	2	3.1
15-24	12	32.4	6	22.2	18	28.1
25-34	7	18.9	4	14.8	11	17.2
35-44	5	13.5	2	7.4	7	10.9
45-54	5	13.5	5	18.5	10	15.6
55-64	5	13.5	2	7.4	7	10.9
65-74	1	2.7	0	0.0	1	1.6
75-84	2	5.4	3	11.1	5	7.8
85+	0	0.0	2	7.4	2	3.1
<b>Total</b>	<b>37</b>	<b>100.0</b>	<b>27</b>	<b>100.0</b>	<b>64</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- More than 56% of deaths (N=13) due to fall injuries were among persons 85 years and older (*Table D6*).

**Table D6: Deaths Due to Fall by Age and Gender,  
Panhandle Public Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
45-54	1	12.5	0	0.0	1	4.3
65-74	1	12.5	0	0.0	1	4.3
75-84	2	25.0	6	40.0	8	34.8
85+	4	50.0	9	60.0	13	56.5
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>	<b>23</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Those in the 35-44 year age group had more suicide deaths (N=9) than other age groups (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Panhandle Public Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	1	3.2	0	0.0	1	2.6
15-24	5	16.1	0	0.0	5	12.8
25-34	6	19.4	1	12.5	7	17.9
35-44	5	16.1	4	50.0	9	23.1
45-54	4	12.9	1	12.5	5	12.8
55-64	3	9.7	0	0.0	3	7.7
65-74	2	6.5	1	12.5	3	7.7
75-84	3	9.7	1	12.5	4	10.3
85+	2	6.5	0	0.0	2	5.1
<b>Total</b>	<b>31</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>	<b>39</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

### Gender

- More males (N=37) died from motor vehicle crashes than females (N=27) (*Table D5*).
- More females (N=15) died from falls than males (N=8) in the PPHD coverage area (*Table D6*).
- More males (N=31) died from suicide than females (N=8) (*Table D7*).

## Hospital discharges

### Overall

- The PPHD coverage area had a lower unintentional injury hospital discharge rate (7,234 per 100,000), and homicide rate (189 per 100,000), but higher suicide attempt rate (81 per 100,000) compared to Nebraska rates (7,610, 204, and 75 per 100,000 respectively) (*Table H1*).
- More males (N=11,035) than females (N=9,412) were treated at a hospital for all injury-related causes (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Panhandle Public Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	10,540	95.5	8,081.2	9,008	95.7	6,409.4	19,548	95.6	7,233.9	665,407	95.9	7,609.6
Suicide	68	0.6	60.8	124	1.3	100.4	192	0.9	80.9	6,379	0.9	75.0
Homicide	289	2.6	232.1	170	1.8	147.0	459	2.2	188.9	17,720	2.6	203.9
Undetermined	130	1.2	101.9	107	1.1	83.8	237	1.2	92.7	4,181	0.6	48.3
Other	8	0.1	6.4	3	0.0	*	11	0.1	4.4	404	0.1	4.7
<b>Total</b>	<b>11,035</b>	<b>100.0</b>	<b>8,482.4</b>	<b>9,412</b>	<b>100.0</b>	<b>6,743.0</b>	<b>20,447</b>	<b>100.0</b>	<b>7,600.8</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five discharges

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined with an age-adjusted rate of 2,077 per 100,000. The rate was relatively lower than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the 15-24 year age group in the PPHD coverage area (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges for all ages combined, and the leading cause of injury hospital discharges for persons age 15-24. The age-adjusted hospital discharge rate for struck by/against was lower than the Nebraska rate (948 vs. 1,132 per 100,000) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharges. The age-adjusted rate was slightly lower than the Nebraska rate (644 vs. 690 per 100,000) (*Figure H1*).
- Overexertion (640 per 100,000) and motor vehicle crashes (469 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking causes of injury hospital discharges in the PPHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Panhandle Public Health Department Coverage Area, NE, 1999-2003**

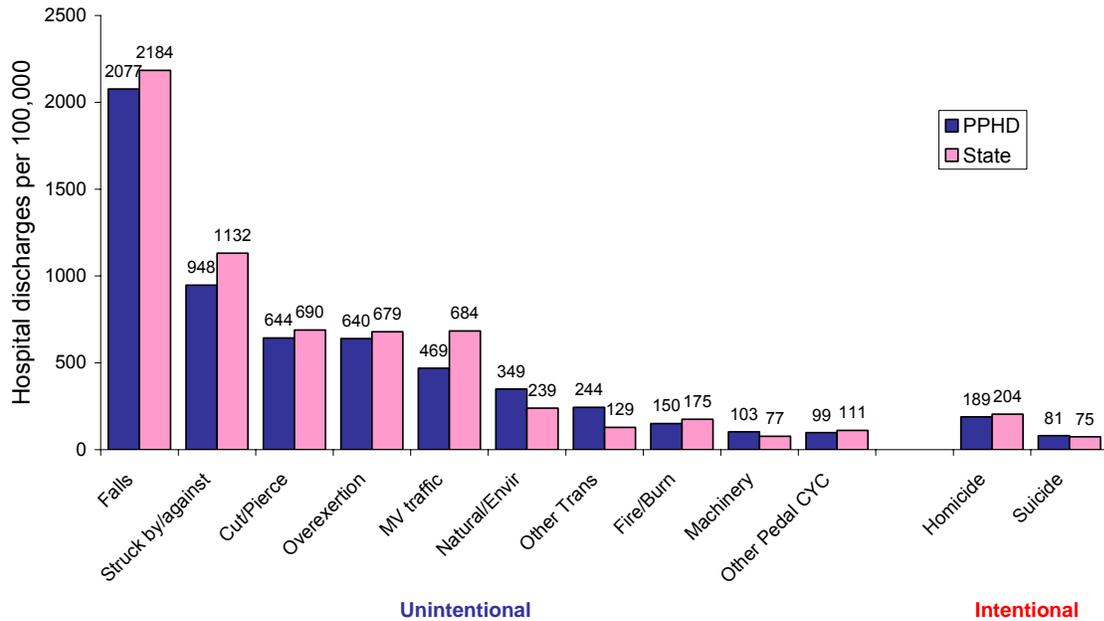
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=60	Falls N=495	Falls N=443	Falls N=593	Struck by/against N=818	Falls N=306	Falls N=389	Falls N=381	Falls N=396	Falls N=618	Falls N=930	Falls N=873	Falls N=6,101
2	Struck by/against N=11	Struck by/against N=153	Struck by/against N=241	Struck by/against N=443	Falls N=617	Overexertion N=220	Cut/Pierce N=229	Cut/Pierce N=161	Cut/Pierce N=96	Cut/Pierce N=94	Overexertion N=93	Natural/Envir N=31	Struck by/against N=2,484
3	Natural/Envir N=9	Cut/Pierce N=95	Cut/Pierce N=119	Overexertion N=201	MV traffic N=525	Cut/Pierce N=218	Overexertion N=222	Overexertion N=159	Overexertion N=84	Overexertion N=93	Struck by/against N=81	MV traffic N=27	Overexertion N=1,669
4	Fire/Burn N=7	Natural/Envir N=86	Natural/Envir N=78	Cut/Pierce N=177	Overexertion N=488	Struck by/against N=214	Struck by/against N=213	Struck by/against N=119	Struck by/against N=75	Natural/Envir N=91	Cut/Pierce N=55	Struck by/against N=27	Cut/Pierce N=1,644
5	Poisoning N=6	Poisoning N=84	Other Pedal CYC N=77	Other Pedal CYC N=93	Cut/Pierce N=382	MV traffic N=168	MV traffic N=122	Natural/Envir N=95	Natural/Envir N=62	Struck by/against N=89	Natural/Envir N=51	Overexertion N=27	MV traffic N=1,228

Hospital visits includes visits as Inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause, Panhandle Public Health Department Coverage Area, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- Hospital discharge rates due to falls were the highest for persons age 85 and older. Among children age 14 and under, the 1-4 year age group had the highest fall injury hospital discharge rate (4,046 per 100,000), which was relatively lower than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury hospital discharge rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rate (3,428 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,136 per 100,000). The rate was second highest for the 5-14 year age group at 2,386 per 100,000 (*Table H3*).
- The hospital discharge rate for cutting/piercing injuries was the highest for the 15-24 year age group (954 per 100,000) in the PPHD coverage area (*Table H3*).
- Hospital discharge rates for overexertion (1,219 per 100,000) and motor vehicle crash injuries (1,312 per 100,000) were the highest for individuals in the 15-24 year age group (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls than males (2,230 vs. 1,920 per 100,000) (*Table H3*).
- The injury hospital discharge rates for struck by/against and cutting/piercing for males were nearly double the rates for females (1,223 and 838 vs. 679 and 454 per 100,000) (*Table H3*).
- Males had a similar injury hospital discharge rate for overexertion to the rate for females (657 vs. 624 per 100,000) (*Table H3*).
- Males had a higher motor vehicle crash injury hospital discharge rate than females (471 vs. 467 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Panhandle Public Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Panhandle HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
MV traffic	<1	2	0.3	*	3	0.5	*	5	0.4	163.8	128.9	121.4	125.2
MV traffic	1-4	20	3.3	308.4	11	1.8	191.4	31	2.5	253.4	251.0	229.3	240.4
MV traffic	5-14	65	10.7	337.1	57	9.2	326.7	122	9.9	332.2	400.0	436.0	417.6
MV traffic	15-24	246	40.3	1210.6	279	45.1	1415.7	525	42.8	1311.6	1444.2	1831.5	1633.7
MV traffic	25-34	96	15.7	730.5	72	11.7	558.3	168	13.7	645.2	855.6	993.0	923.2
MV traffic	35-44	59	9.7	327.6	63	10.2	347.1	122	9.9	337.4	607.3	708.3	657.6
MV traffic	45-54	44	7.2	228.7	38	6.1	204.2	82	6.7	216.7	476.5	523.1	499.9
MV traffic	55-64	25	4.1	199.6	32	5.2	245.7	57	4.6	223.1	346.5	441.2	394.9
MV traffic	65-74	21	3.4	203.8	29	4.7	240.4	50	4.1	223.5	327.3	382.2	357.1
MV traffic	75-84	23	3.8	329.6	16	2.6	168.8	39	3.2	237	402.4	393.8	397.3
MV traffic	85+	9	1.5	413.6	18	2.9	354	27	2.2	371.8	404.8	248.5	293.6
<b>Total</b>		610	100.0	470.9	618	100.0	467.3	1228	100.0	469.0	629.3	737.3	684.0
Falls	<1	33	1.3	2059.9	27	0.8	1860.8	60	1	1965.3	2298.5	2139.4	2220.8
Falls	1-4	288	11.3	4440.3	207	5.8	3601.9	495	8.1	4046.4	4871.2	3721.2	4309.7
Falls	5-14	595	23.3	3085.5	441	12.4	2527.9	1036	17	2820.7	2855	2404.1	2634.8
Falls	15-24	367	14.4	1806.1	250	7.1	1268.5	617	10.1	1541.4	1570.9	1323.5	1449.9
Falls	25-34	137	5.4	1042.5	169	4.8	1310.4	306	5	1175.2	1048.4	1303.4	1173.8
Falls	35-44	170	6.7	944	219	6.2	1206.5	389	6.4	1075.8	1084.2	1357.6	1220.2
Falls	45-54	143	5.6	743.4	238	6.7	1279.2	381	6.2	1006.8	1116	1610.3	1364.2
Falls	55-64	138	5.4	1101.7	258	7.3	1980.7	396	6.5	1549.8	1337.7	1976.8	1664.3
Falls	65-74	216	8.5	2096.7	402	11.3	3332	618	10.1	2763	2151.5	3581	2926.8
Falls	75-84	246	9.6	3525.4	684	19.3	7216	930	15.2	5651.1	4355.2	7355	6138.2
Falls	85+	223	8.7	10248	650	18.3	12783	873	14.3	12023	10070	14640	13320
<b>Total</b>		2556	100.0	1920.3	3545	100.0	2229.8	6101	100.0	2077.0	2013.8	2349.3	2184.0
Cut/Pierce	<1	2	0.2	*	3	0.5	*	5	0.3	163.8	228.7	185.5	207.6
Cut/Pierce	1-4	56	5.2	863.4	39	6.8	678.6	95	5.8	776.6	925.2	609.5	771.1
Cut/Pierce	5-14	188	17.5	974.9	108	18.9	619.1	296	18	805.9	1033.2	615.8	829.4
Cut/Pierce	15-24	275	25.6	1353.3	107	18.7	542.9	382	23.2	954.3	1399.6	650.1	1032.9
Cut/Pierce	25-34	142	13.2	1080.5	76	13.3	589.3	218	13.3	837.2	1138.4	596.8	872.2
Cut/Pierce	35-44	152	14.2	844	77	13.5	424.2	229	13.9	633.3	861.0	517.5	690.1
Cut/Pierce	45-54	101	9.4	525	60	10.5	322.5	161	9.8	425.4	650.7	401.2	525.4
Cut/Pierce	55-64	62	5.8	495	34	6	261	96	5.8	375.7	555.0	309.7	429.6
Cut/Pierce	65-74	56	5.2	543.6	38	6.7	315	94	5.7	420.3	582.4	266.5	411.1
Cut/Pierce	75-84	33	3.1	472.9	22	3.9	232.1	55	3.3	334.2	448.3	214.8	309.5
Cut/Pierce	85+	6	0.6	275.7	7	1.2	137.7	13	0.8	179	333.7	194.8	234.9
<b>Total</b>		1073	100.0	838.1	571	100.0	454.3	1644	100.0	644.0	893.0	492.5	689.8
Struck by/against	0-1	7	0.4	437	4	0.5	*	11	0.4	545	836	692.9	766.1
Struck by/against	1-4	94	5.8	1449.3	59	6.8	1026.6	153	6.2	2059.6	2812.4	1729.5	2283.7
Struck by/against	5-14	459	28.4	2380.2	225	25.9	1289.8	684	27.5	2385.7	2919.3	1521.6	2236.7
Struck by/against	15-24	601	37.2	2957.7	217	24.9	1101.1	818	32.9	3427.6	3069.3	1161.5	2135.8
Struck by/against	25-34	116	7.2	882.7	98	11.3	759.9	214	8.6	1034.1	1212	676.9	948.9
Struck by/against	35-44	144	8.9	799.6	69	7.9	380.1	213	8.6	634.8	854.1	527.3	691.6
Struck by/against	45-54	63	3.9	327.5	56	6.4	301	119	4.8	375.9	574.9	385.7	479.9
Struck by/against	55-64	46	2.9	367.2	29	3.3	222.6	75	3	285.7	414.7	291.2	351.6
Struck by/against	65-74	46	2.9	446.5	43	4.9	356.4	89	3.6	302.5	415.7	292.7	349
Struck by/against	75-84	30	1.9	429.9	51	5.9	538	81	3.3	376.5	415.6	363.7	384.7
Struck by/against	85+	8	0.5	367.6	19	2.2	373.6	27	1.1	379.8	507.4	519.4	516
<b>Total</b>		1614	100.0	1223.1	870	100.0	679.3	2484	100.0	948.0	1488.5	786.4	1132.3
Overexertion	<1				1	0.1	*	1	0.1	*	111.1	156.8	133.4
Overexertion	1-4	8	0.9	123.3	26	3.2	452.4	34	2	277.9	352.6	519.6	434.1
Overexertion	5-14	118	13.8	611.9	129	15.8	739.5	247	14.8	672.5	537.1	610.3	572.9
Overexertion	15-24	281	33	1382.9	207	25.4	1050.3	488	29.3	1219.1	1317.5	1024.1	1173.9
Overexertion	25-34	113	13.3	859.8	107	13.1	829.7	220	13.2	844.9	952.4	828.7	891.6
Overexertion	35-44	121	14.2	671.9	101	12.4	556.4	222	13.3	613.9	817.7	677.3	747.9
Overexertion	45-54	86	10.1	447.1	73	8.9	392.3	159	9.5	420.2	616.4	572.9	594.5
Overexertion	55-64	46	5.4	367.2	38	4.7	291.7	84	5	328.7	426.6	433.8	430.3
Overexertion	65-74	48	5.6	465.9	45	5.5	373	93	5.6	415.8	356.1	445.4	404.6
Overexertion	75-84	25	2.9	358.3	68	8.3	717.4	93	5.6	565.1	311.8	419.9	376.0
Overexertion	85+	6	0.7	275.7	21	2.6	413	27	1.6	371.8	236.9	387.2	343.8
<b>Total</b>		852	100.0	656.9	816	100.0	623.8	1668	100.0	640.0	705.5	635.6	679.2

Source: Nebraska Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

## INJURY REPORT, 1999-2003

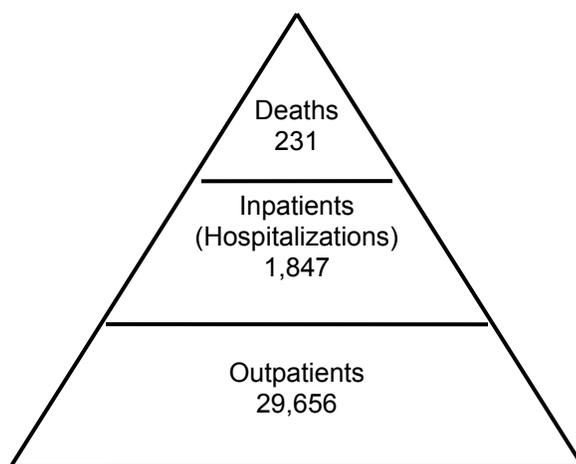
### Public Health Solutions Health Department Coverage Area

Fillmore, Gage, Jefferson, Saline, and Thayer Counties

#### Summary

Injury is a public health problem in Public Health Solutions Health Department (PHSHD) coverage area. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 231 injury deaths, nearly 2,000 residents in Fillmore, Gage, Jefferson, Saline and Thayer Counties were hospitalized and more than 29,600 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharges and struck by/against injuries were second, followed by overexertion, motor vehicle crashes, and cutting/piercing.

**Figure A: Injury Pyramid, Residents of Public Health Solutions Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were more likely than females to die from injuries. Additionally, teenagers and young adults were more likely to die from motor vehicle crashes while older adults were more likely to die from fall-related injuries.

The following table highlights PHSHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, suicide and homicide (*Table A*).

**Table A: Injury Death Rates, Public Health Solutions Health Department Coverage Area, NE, 2003**

Cause of Death	Death Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	61.6	19.4
Fall	6.9	3.5
Motor Vehicle Crash	31.9	12.0
Suicide	6.1	8.2
Homicide	1.5	2.0

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the PSHSD coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	1,185
2	Cancer	740
3	Stroke	291
4	Injury	222
5	Chronic Lung Disease	154

Source: DHHS Death Certificate Data 1999-2003

- An average of 44 residents died from injuries each year in the PSHSD coverage area (*Table D2*).
- Deaths due to injuries made up 5.9% of total deaths in the PSHSD coverage area, compared to 6% of total deaths in Nebraska.
- More than half of the deaths among 15-29 year olds were due to injuries in the PSHSD coverage area (*Table D2*).

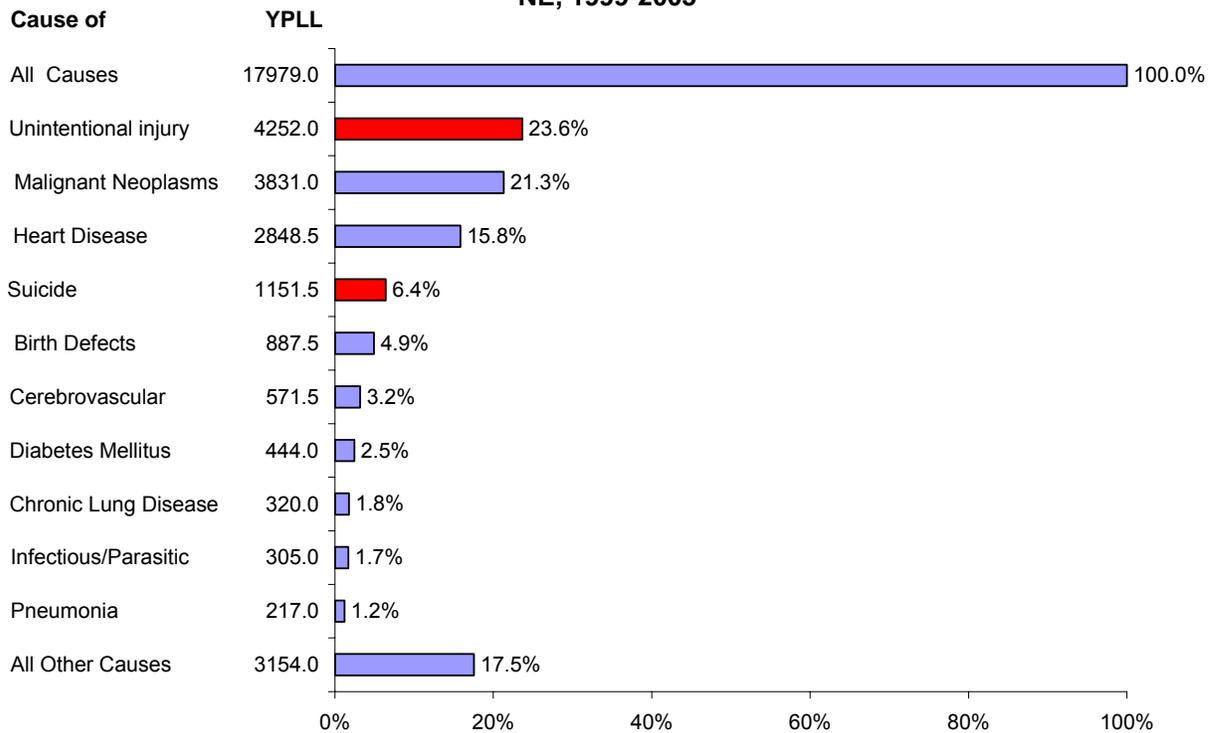
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

Age Group	Injury Deaths	Annual Average		Percent of Death due to Injury
		Injury Deaths	All Deaths	
≤14	15	4	40	37.5
15-19	19	4	21	90.5
20-24	15	3	19	78.9
25-29	8	2	11	72.7
30-34	7	1	17	41.2
35-39	10	2	24	41.7
40-44	19	4	40	47.5
45-49	9	2	47	19.1
50-54	9	2	69	13.0
55-59	9	2	94	9.6
60-64	12	2	134	9.0
65-74	14	3	524	2.7
75-84	38	8	1,063	3.6
85+	38	8	1,632	2.3
<b>Total</b>	<b>222</b>	<b>44</b>	<b>3,735</b>	<b>5.9</b>

Source: DHHS Death Certificate Data 1999-2003

- Unintentional injury was the leading cause of Years of Potential Life Lost (YPLL) in the PSHSD coverage area at 23.6%. Suicide ranked 4<sup>th</sup> at 6.4% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before Age 75 by Cause of Death, Public Health Solutions Health Department Coverage Area, NE, 1999-2003**



- The PSHSD coverage area had a higher unintentional injury rate (52.3 per 100,000) and suicide rate (12.8 per 100,000) than Nebraska rates (33.3 and 10.6 per 100,000 respectively) (Table D3). The PSHSD has not met the 2010 Nebraska Objective of 19.4 or fewer unintentional injury deaths per 100,000 population.

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	97	71.3	64.7	84	88.4	40.5	181	78.4	52.3	3,020	68.3	33.3
Suicide	33	24.3	22.7	4	4.2	*	37	16.0	12.8	894	20.2	10.6
Homicide	0	0.0	0.0	4	4.2	*	4	1.7	*	273	6.2	3.2
Undetermined	1	0.7	*	2	2.1	*	3	1.3	*	139	3.1	1.6
Adverse Effects	5	3.7	2.7	1	1.1	*	6	2.6	1.6	93	2.1	1.0
<b>Total</b>	<b>136</b>	<b>100.0</b>	<b>90.8</b>	<b>95</b>	<b>100.0</b>	<b>47.9</b>	<b>231</b>	<b>100.0</b>	<b>68.9</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

- More males (59%) died from all injury-related causes than females (41%) (Table D4).

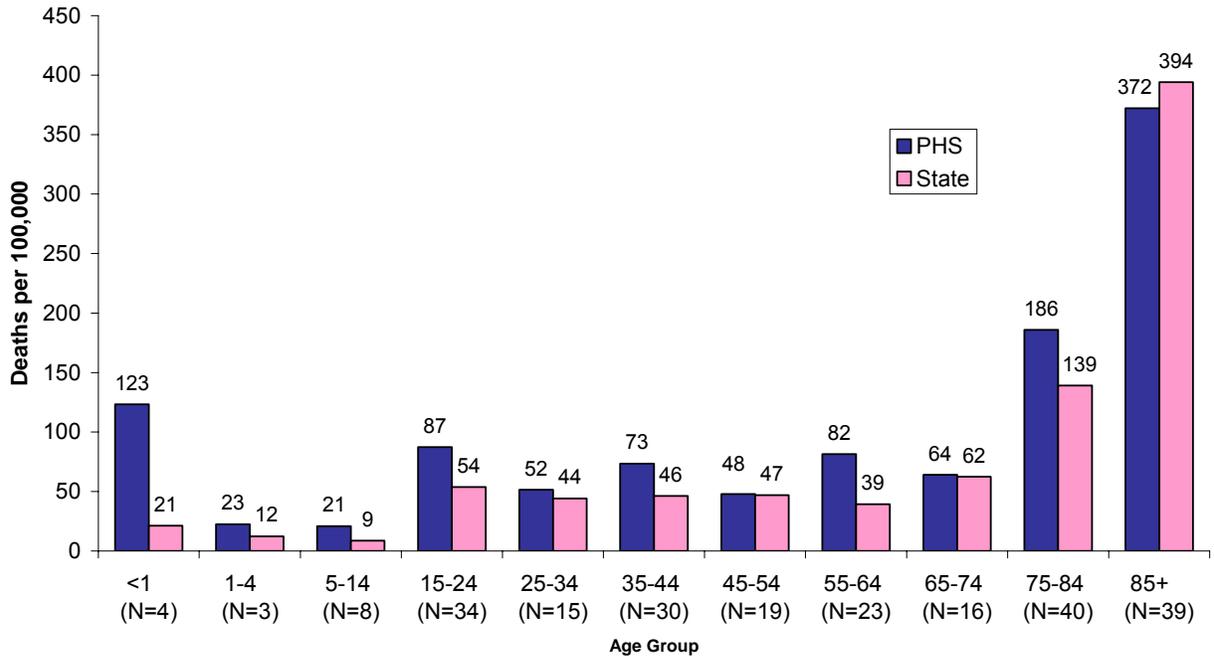
**Table D4: Injury-related Deaths and Hospital Discharges by Gender, Age, and Race,  
Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

	Public Health Solutions HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	136	58.9	16,436	52.2	2,848	64.3	386,563	53.1
Female	95	41.1	15,067	47.8	1,581	35.7	341,506	46.9
Total	231	100.0	31,503	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	4	1.7	255	0.8	26	0.6	7,142	1.0
1-4	3	1.3	2,127	6.8	58	1.3	59,764	8.2
5-14	8	3.5	4,959	15.7	107	2.4	122,382	16.8
15-24	34	14.7	5,480	17.4	699	15.8	144,001	19.8
25-34	15	6.5	2,814	8.9	486	11.0	84,574	11.6
35-44	30	13.0	3,151	10.0	593	13.4	84,445	11.6
45-54	19	8.2	2,777	8.8	547	12.4	66,321	9.1
55-64	23	10.0	1,831	5.8	292	6.6	39,540	5.4
65-74	16	6.9	2,531	8.0	355	8.0	40,555	5.6
75-84	40	17.3	3,184	10.1	575	13.0	45,135	6.2
85+	39	16.9	2,394	7.6	691	15.6	34,222	4.7
Total	231	100.0	31,503	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	1	0.4			29	0.7		
African American	2	0.9			194	4.4		
Native American	4	1.7			72	1.6		
White	224	97.0			4,123	93.1		
Other	0	0.0			11	0.3		
Total	231	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Injury death rates were the highest for the oldest age group, 85 and older. Persons in this age group had a lower injury death rate of 372 per 100,000 compared to the Nebraska rate (394 per 100,000) (Figure D2).

**Figure D2: All Injury Death Rates by Age,  
Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

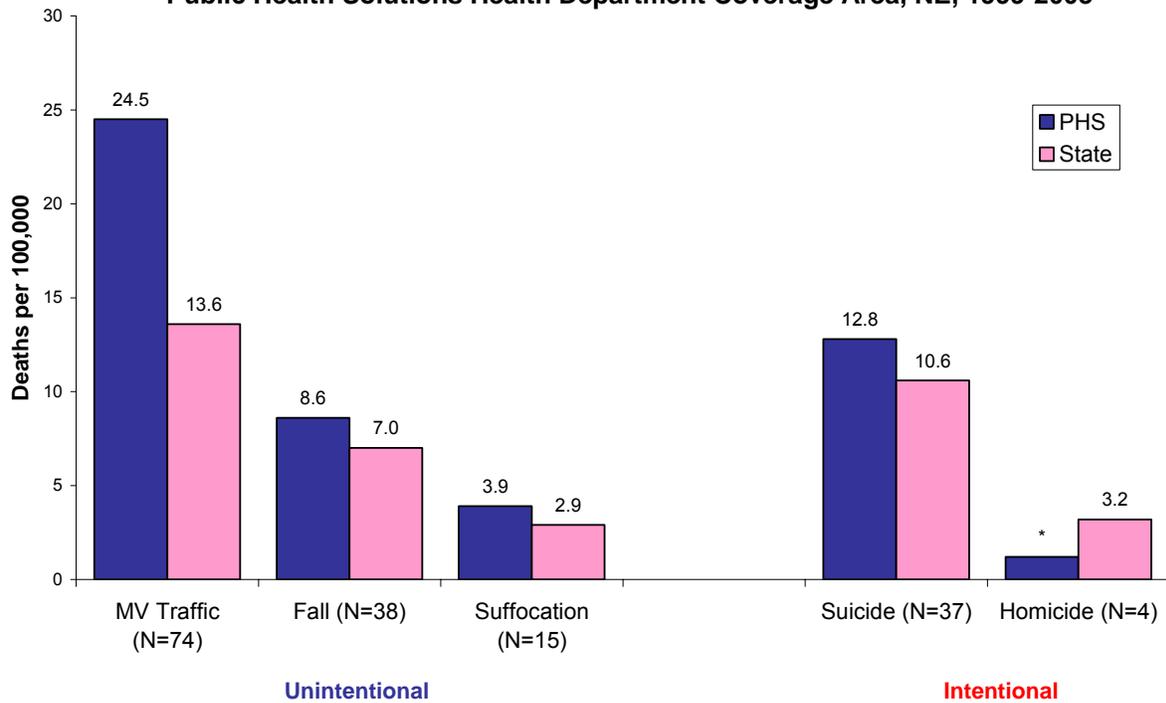


Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury deaths with an age-adjusted rate of 24.5 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (Figure D3). The PHSHD has not met the 2010 Nebraska Objective of 12.0 or fewer motor vehicle crash injury deaths per 100,000 population.
- Suicide was the second leading cause of injury deaths at 12.8 per 100,000, which was higher than the Nebraska rate (10.6 per 100,000) (Figure D3).
- Falls were the third leading cause of injury deaths. The age-adjusted death rate due to falls was higher than the Nebraska rate (8.6 vs. 7.0 per 100,000) (Figure D3). The PHSHD has not met the 2010 Nebraska Objective of 3.5 or fewer fall injury deaths per 100,000 population.

**Figure D3: Age-adjusted Injury Deaths by Cause,  
Public Health Solutions Health Department Coverage Area, NE, 1999-2003**



\* Fewer than five deaths

Source: DHHS Death Certificate Data 1999-2003

**Age**

- Of 69 motor vehicle crash deaths, the highest number was among persons age 15-24 years (30.4%), followed by the 75-84 (17.4%) and 25-34 (13.0%) year age groups (*Table D5*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender,  
Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
<1	1	3.0	0	0.0	1	1.4
1-4	1	3.0	0	0.0	1	1.4
5-14	1	3.0	3	8.3	4	5.8
15-24	10	30.3	11	30.6	21	30.4
25-34	6	18.2	3	8.3	9	13.0
35-44	3	9.1	4	11.1	7	10.1
45-54	3	9.1	5	13.9	8	11.6
55-64	3	9.1	1	2.8	4	5.8
65-74	1	3.0	2	5.6	3	4.3
75-84	5	15.2	7	19.4	12	17.4
85+	0	0.0	4	11.1	4	5.8
<b>Total</b>	<b>33</b>	<b>100.0</b>	<b>36</b>	<b>100.0</b>	<b>69</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Almost half (42.1%) of deaths due to fall injuries (N=16) were among persons 85 years and older (*Table D6*).

**Table D6: Deaths Due to Fall by Age and Gender,  
Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
35-44	5	25.0	0	0.0	5	13.2
45-54	0	0.0	1	5.6	1	2.6
55-64	3	15.0	1	5.6	4	10.5
65-74	2	10.0	0	0.0	2	5.3
75-84	5	25.0	5	27.8	10	26.3
85+	5	25.0	11	61.1	16	42.1
<b>Total</b>	<b>20</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Those in the 35-44 year age group had the most deaths (N=8) due to suicide (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	1	3.0	0	0.0	1	2.7
15-24	7	21.2	0	0.0	7	18.9
25-34	4	12.1	0	0.0	4	10.8
35-44	4	12.1	4	100.0	8	21.6
45-54	5	15.2	0	0.0	5	13.5
55-64	6	18.2	0	0.0	6	16.2
65-74	2	6.1	0	0.0	2	5.4
75-84	4	12.1	0	0.0	4	10.8
<b>Total</b>	<b>33</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

### Gender

- More females (N=36) died from motor vehicle crashes than males (N=33) (*Table D5*).
- More males (N=20) died from fall-related injuries than females (N=18) (*Table D6*).
- More than eight times as many males (N=33) as females (N=4) died from suicide (*Table D7*).

## Hospital Discharges

### Overall

- The PSHD coverage area had a higher unintentional injury hospital discharge rate (9,590 per 100,000) and slightly higher suicide attempt rate (76 per 100,000), but lower homicide rates (149 per 100,000) than Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).
- More males (N=15,438) than females (N=13,785) were treated at a hospital for all injury-related causes (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Public Health Solutions Health Department Coverage area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	15,137	98.1	10,744.0	13,442	97.5	8,484.4	28,579	97.8	9,589.7	665,407	95.9	7,609.6
Suicide	64	0.4	49.1	131	1.0	101.6	195	0.7	75.9	6,379	0.9	75.0
Homicide	207	1.3	156.6	172	1.2	141.7	379	1.3	149.0	17,720	2.6	203.9
Undetermined	27	0.2	20.7	37	0.3	28.1	64	0.2	24.4	4,181	0.6	48.3
Other	3	0.0	*	3	0.0	*	6	0.0	2.2	404	0.1	4.7
<b>Total</b>	<b>15,438</b>	<b>100.0</b>	<b>10,972.0</b>	<b>13,785</b>	<b>100.0</b>	<b>8,758.0</b>	<b>29,223</b>	<b>100.0</b>	<b>9,841.2</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: Nebraska Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five discharges

### Leading causes

- Falls were the leading cause of injury-related hospital discharges for all age groups combined, with an age-adjusted rate of 2,726 per 100,000. The rate was higher than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the 10-14 and 15-24 year age groups (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury-related hospital discharges for all age groups combined, and the leading cause for persons in the 10-14 and 15-24 age groups. The age-adjusted hospital discharge rate for struck by/against was higher than the Nebraska rate (1,453 vs. 1,132 per 100,000) (*Table H2 & Figure H1*).
- Overexertion was the third leading cause of injury-related hospital discharges. The age-adjusted rate was higher than the Nebraska rate (805 vs. 679 per 100,000) (*Table H2 & Figure H1*).
- Motor vehicle crashes (737 per 100,000) and cutting/piercing (703 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> leading cause of injury-related hospital discharges (*Table H2 & Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

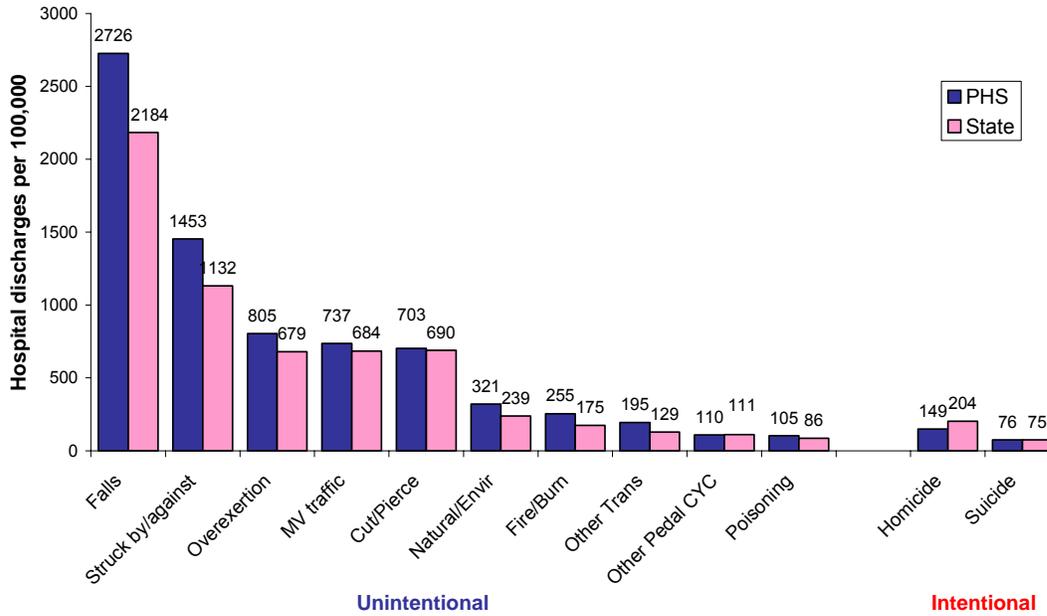
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=91	Falls N=719	Falls N=634	Struck by/against N=767	Struck by/against N=1373	Falls N=470	Falls N=606	Falls N=682	Falls N=565	Falls N=990	Falls N=1679	Falls N=1451	Falls N=9,207
2	Struck by/against N=30	Struck by/against N=290	Struck by/against N=307	Falls N=654	MV traffic N=703	Overexertion N=313	Overexertion N=330	Overexertion N=257	Struck by/against N=145	Struck by/against N=152	Overexertion N=108	Struck by/against N=72	Struck by/against N=4,036
3	Fire/Burn N=22	Poisoning N=132	Cut/Pierce N=153	Overexertion N=222	Falls N=666	MV traffic N=296	Struck by/against N=301	MV traffic N=253	Overexertion N=132	Overexertion N=140	Struck by/against N=102	Cut/Pierce N=45	Overexertion N=2,233
4	Cut/Pierce N=13	Natural/Envir N=126	Other Pedal CYC N=113	Cut/Pierce N=159	Overexertion N=583	Cut/Pierce N=283	Cut/Pierce N=289	Struck by/against N=222	Cut/Pierce N=117	Cut/Pierce N=129	MV traffic N=85	Overexertion N=39	MV traffic N=2,022
5	Poisoning N=8	Cut/Pierce N=113	Natural/Envir N=99	MV traffic N=136	Cut/Pierce N=366	Struck by/against N=275	MV traffic N=249	Cut/Pierce N=195	MV traffic N=101	Natural/Envir N=114	Cut/Pierce N=79	MV traffic N=20	Cut/Pierce N=1,941

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause, Public Health Solutions Health Department Coverage Area, NE, 1999-2003**



Source: Nebraska Hospital Discharge Data 1999-2003

### Age

- The injury hospital discharge rate due to falls was the highest for persons age 85 and older, with an age-adjusted rate of 13,844 per 100,000. Among children age 14 and under, the 1-4 year age group had the highest fall injury hospital discharge rate (5,396 per 100,000), which was higher than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 15-24 year age group had the highest injury hospital discharge rate (3,525 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,136 per 100,000). Children age 5-14 had the second highest rate at 2,803 per 100,000 (*Table H3*).
- The 15-24 year age group had the highest injury hospital discharge rate due to overexertion (1,497 per 100,000), motor vehicle crashes (1,805 per 100,000), and cutting/piercing (940 per 100,000) (*Table H3*).

### Gender

- Females had a higher injury hospital discharge rate for falls than males (2,937 vs. 2,505 per 100,000) (*Table H3*).
- The injury hospital discharge rates for struck by/against and cutting/piercing for males were nearly twice as high as those for females (1,882 and 913 vs. 1,042 and 502 per 100,000) (*Table H3*).
- Males also had higher overexertion and motor vehicle crash injury hospital discharge rates than females (850 and 760 vs. 762 and 715 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Public Health Solutions Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Public Health Solutions HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	50	1.3	3035.8	41	0.7	2568.9	91	1	2806	2298.5	2139.4	2220.8
Falls	1-4	401	10.8	5687.1	318	5.8	5067.7	719	7.8	5395.5	4871.2	3721.2	4309.7
Falls	5-14	690	18.6	3523.1	598	10.9	3191.7	1288	14	3361.1	2855.0	2404.1	2634.8
Falls	15-24	364	9.8	1824.4	302	5.5	1589.3	666	7.2	1709.7	1570.9	1323.5	1449.9
Falls	25-34	193	5.2	1295.9	277	5	1951.8	470	5.1	1616	1048.4	1303.4	1173.8
Falls	35-44	293	7.9	1405.2	313	5.7	1565.9	606	6.6	1483.8	1084.2	1357.6	1220.2
Falls	45-54	294	7.9	1462	388	7.1	1985.9	682	7.4	1720.1	1116.0	1610.3	1364.2
Falls	55-64	278	7.5	2010.1	287	5.2	1995	565	6.1	2002.4	1337.7	1976.8	1664.3
Falls	65-74	353	9.5	3142.2	637	11.6	4653.4	990	10.8	3972.2	2151.5	3581.0	2926.8
Falls	75-84	468	12.6	5223.8	1211	22	9640.2	1679	18.2	7801.7	4355.2	7355.0	6138.2
Falls	85+	323	8.7	10580	1128	20.5	15186	1451	15.8	13844	10070.0	14640.0	13320.0
<b>Total</b>		3707	100.0	2504.8	5500	100.0	2936.9	9207	100.0	2726.0	2013.8	2349.3	2184.0
Struck by/against	<1	19	0.7	1153.6	11	0.8	689.2	30	0.7	925.1	836	692.9	766.1
Struck by/against	1-4	185	7.1	2623.7	105	7.4	1673.3	290	7.2	2176.2	2812.4	1729.5	2283.7
Struck by/against	5-14	681	26.1	3477.2	393	27.5	2097.6	1074	26.6	2802.6	2919.3	1521.6	2236.7
Struck by/against	15-24	997	38.2	4997	376	26.3	1978.7	1373	34	3524.7	3069.3	1161.5	2135.8
Struck by/against	25-34	157	6	1054.2	118	8.3	831.5	275	6.8	945.5	1212	676.9	948.9
Struck by/against	35-44	183	7	877.7	118	8.3	590.3	301	7.5	737	854.1	527.3	691.6
Struck by/against	45-54	136	5.2	676.3	86	6	440.2	222	5.5	559.9	574.9	385.7	479.9
Struck by/against	55-64	84	3.2	607.4	61	4.3	424	145	3.6	513.9	414.7	291.2	351.6
Struck by/against	65-74	98	3.8	872.4	54	3.8	394.5	152	3.8	609.9	415.7	292.7	349
Struck by/against	75-84	53	2	591.6	49	3.4	390.1	102	2.5	474	415.6	363.7	384.7
Struck by/against	85+	15	0.6	491.3	57	4	767.4	72	1.8	687	507.4	519.4	516
<b>Total</b>		2608	100.0	1881.6	1428	100.0	1042.3	4036	100.0	1453.0	1488.5	786.4	1132.3
Overexertion	<1	3	0.3	*	1	0.1	*	4	0.2	*	111.1	156.8	133.4
Overexertion	1-4	26	2.2	368.7	24	2.3	382.5	50	2.2	375.2	352.6	519.6	434.1
Overexertion	5-14	123	10.4	628	154	14.6	821.9	277	12.4	722.8	537.1	610.3	572.9
Overexertion	15-24	347	29.5	1739.2	236	22.4	1242	583	26.1	1496.6	1317.5	1024.1	1173.9
Overexertion	25-34	150	12.7	1007.2	163	15.5	1148.5	313	14	1076.2	952.4	828.7	891.6
Overexertion	35-44	192	16.3	920.8	138	13.1	690.4	330	14.8	808	817.7	677.3	747.9
Overexertion	45-54	142	12.1	706.1	115	10.9	588.6	257	11.5	648.2	616.4	572.9	594.5
Overexertion	55-64	72	6.1	520.6	60	5.7	417.1	132	5.9	467.8	426.6	433.8	430.3
Overexertion	65-74	64	5.4	569.7	76	7.2	555.2	140	6.3	561.7	356.1	445.4	404.6
Overexertion	75-84	46	3.9	513.5	62	5.9	493.6	108	4.8	501.8	311.8	419.9	376.0
Overexertion	85+	13	1.1	425.8	26	2.5	350	39	1.7	372.1	236.9	387.2	343.8
<b>Total</b>		1178	100.0	849.6	1055	100.0	761.8	2233	100.0	805.0	705.5	635.6	679.2
MV traffic	<1	2	0.2	*	3	0.3	*	5	0.2	154.2	128.9	121.4	125.2
MV traffic	1-4	22	2.1	312	13	1.3	207.2	35	1.7	262.6	251	229.3	240.4
MV traffic	5-14	109	10.4	556.5	96	9.9	512.4	205	10.1	535	400	436	417.6
MV traffic	15-24	382	36.5	1914.6	321	33	1689.3	703	34.8	1804.7	1444.2	1831.5	1633.7
MV traffic	25-34	148	14.1	993.8	148	15.2	1042.8	296	14.6	1017.7	855.6	993	923.2
MV traffic	35-44	117	11.2	561.1	132	13.6	660.4	249	12.3	609.7	607.3	708.3	657.6
MV traffic	45-54	157	15	780.7	96	9.9	491.4	253	12.5	638.1	476.5	523.1	499.9
MV traffic	55-64	38	3.6	274.8	63	6.5	437.9	101	5	358	346.5	441.2	394.9
MV traffic	65-74	35	3.3	311.6	35	3.6	255.7	70	3.5	280.9	327.3	382.2	357.1
MV traffic	75-84	30	2.9	334.9	55	5.6	437.8	85	4.2	395	402.4	393.8	397.3
MV traffic	85+	8	0.8	262	12	1.2	161.6	20	1	190.8	404.8	248.5	293.6
<b>Total</b>		1048	100.0	760.3	974	100.0	715.1	2022	100.0	737.0	629.3	737.3	684.0
Cut/Pierce	<1	8	0.6	485.7	5	0.7	313.3	13	0.7	400.9	228.7	185.5	207.6
Cut/Pierce	1-4	71	5.7	1006.9	42	6.1	669.3	113	5.8	848	925.2	609.5	771.1
Cut/Pierce	5-14	199	15.9	1016.1	113	16.4	603.1	312	16.1	814.2	1033.2	615.8	829.4
Cut/Pierce	15-24	249	19.9	1248	117	17	615.7	366	18.9	939.6	1399.6	650.1	1032.9
Cut/Pierce	25-34	189	15.1	1269.1	94	13.6	662.3	283	14.6	973	1138.4	596.8	872.2
Cut/Pierce	35-44	187	14.9	896.8	102	14.8	510.3	289	14.9	707.6	861.0	517.5	690.1
Cut/Pierce	45-54	121	9.7	601.7	74	10.7	378.7	195	10	491.8	650.7	401.2	525.4
Cut/Pierce	55-64	75	6	542.3	42	6.1	292	117	6	414.7	555.0	309.7	429.6
Cut/Pierce	65-74	83	6.6	738.8	46	6.7	336	129	6.6	517.6	582.4	266.5	411.1
Cut/Pierce	75-84	50	4	558.1	29	4.2	230.9	79	4.1	367.1	448.3	214.8	309.5
Cut/Pierce	85+	19	1.5	622.3	26	3.8	350	45	2.3	429.3	333.7	194.8	234.9
<b>Total</b>		1251	100.0	913.1	690	100.0	501.8	1941	100.0	703.0	893.0	492.5	689.8

Source: Nebraska Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

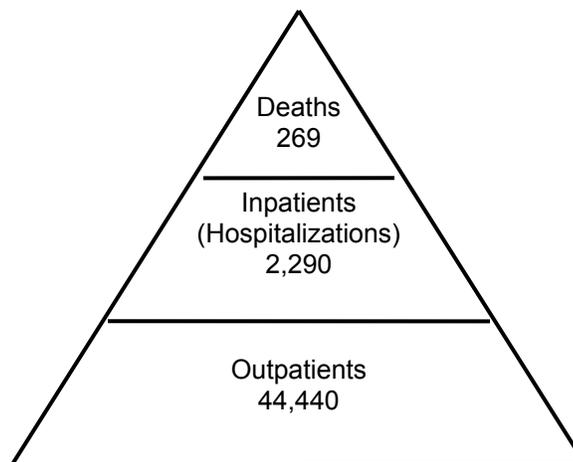
INJURY REPORT, 1999-2003

**Sarpy/Cass Department of Health and Wellness Coverage Area**  
Cass and Sarpy Counties

**Summary**

Injury is a public health problem in the Sarpy/Cass Department of Health and Wellness (SCDHW) coverage area. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 269 injury deaths, over 2,200 residents in Cass and Sarpy Counties were hospitalized and more than 44,400 residents were treated at hospitals for injuries (*Figure A*). Overall, suicide was the leading cause of injury death. Motor vehicle crashes were second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharges and struck by/against injuries were second, followed by motor vehicle crashes, overexertion, and cutting/piercing.

**Figure A: Injury Pyramid, Residents of Sarpy /Cass Department of Health and Wellness Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were more than twice as likely as females to die from an injury.

The following table highlights the SCDHW coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, suicide, and homicide (*Table A*).

**Table A: Injury Death Rates, Sarpy/Cass Department of Health and Wellness Coverage Area, NE, 2003**

Death	Age-adjusted Rate 2003	2010 Nebraska Objective (rate per
		100,000 population)
Unintentional Injury	28.3	19.4
Fall	8.1	3.5
Motor Vehicle Crash	6.6	12
Suicide	10.2	8.2
Homicide	*	2

Source: DHHS Death Certificate Data 2003

\* Fewer than five deaths

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the counties served by the SCDHW (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Sarpy/Cass Dept. of Health and Wellness Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart	1,019
2	Cancer	896
3	Stroke	263
4	Injury	261
5	Chronic Lung	214

Source: DHHS Death Certificate Data 1999-2003

- An average of 52 residents died because of an injury each year (*Table D2*).
- Deaths due to injury made up 6.7% of total deaths in the SCDHW district compared to 6% of deaths in Nebraska. In the SCDHW coverage area, 74.1% of all deaths among 15-19-year-olds and 68.4% of deaths among 20-24 year olds were due to injuries (*Table D2*).

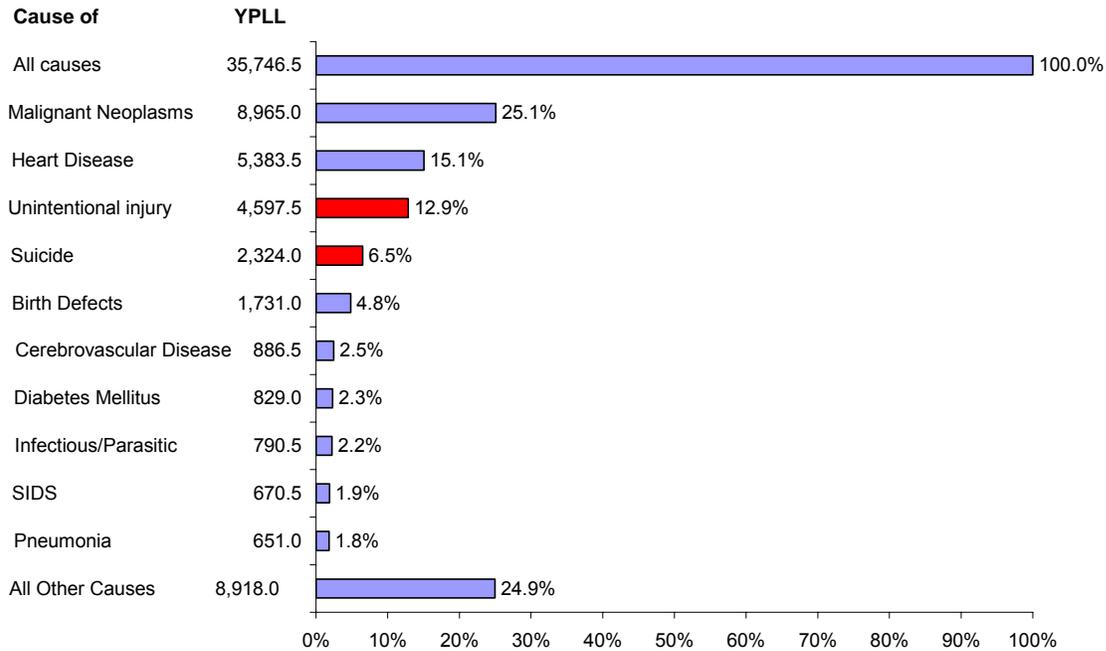
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Sarpy/Cass Dept. of Health & Wellness Coverage Area, NE, 1999-2003**

Age Group	Annual Average			Percent of Death due to Injury
	Injury Deaths	Injury Deaths	All Deaths	
<1	2	0	64	3.1
1-4	4	0	14	28.6
5-9	4	1	8	50.0
10-14	4	1	9	44.4
15-19	20	4	27	74.1
20-24	26	5	38	68.4
25-29	15	3	24	62.5
30-34	17	3	34	50.0
35-39	21	4	55	38.2
40-44	18	4	96	18.8
45-49	15	3	97	15.5
50-54	12	2	153	7.8
55-59	11	2	187	5.9
60-64	5	1	242	2.1
65-74	27	5	767	3.5
75-84	32	6	1,030	3.1
85+	28	6	1,034	2.7
<b>Total</b>	<b>261</b>	<b>52</b>	<b>3,879</b>	<b>6.7</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked third (12.9%), following that from cancer (25.1%) and heart disease (15.1%). Suicide ranked 4<sup>th</sup> at 6.5% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before 75 by Cause of Death, Sarpy/Cass Department of Health and Wellness Coverage Area, NE, 1999-2003**



- The SCDHW district had a lower unintentional injury rate (31.1 per 100,000), higher suicide rate (11.3 per 100,000), and lower homicide rate (1.2 per 100,000) when compared to Nebraska rates (33.3, 10.6, and 3.2 per 100,000) respectively (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Sarpy/Cass Department of Health and Wellness Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	114	61.3	41.4	63	75.9	21.0	177	65.8	31.1	3,020	68.3	33.3
Suicide	63	33.9	19.8	11	13.3	3.0	74	27.5	11.3	894	20.2	10.6
Homicide	5	2.7	1.2	5	6.0	1.3	10	3.7	1.2	273	6.2	3.2
Undetermined	2	1.1	*	2	2.4	*	4	1.5	*	139	3.1	1.6
Adverse Effects	2	1.1	*	2	2.4	*	4	1.5	*	93	2.1	1.0
<b>Total</b>	<b>186</b>	<b>100.0</b>	<b>64.2</b>	<b>83</b>	<b>100.0</b>	<b>26.4</b>	<b>269</b>	<b>100.0</b>	<b>45.2</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data, 1999-2003

\* Fewer than five deaths

- More males (69%) died from all injury-related causes than females (31%) (Table D4).

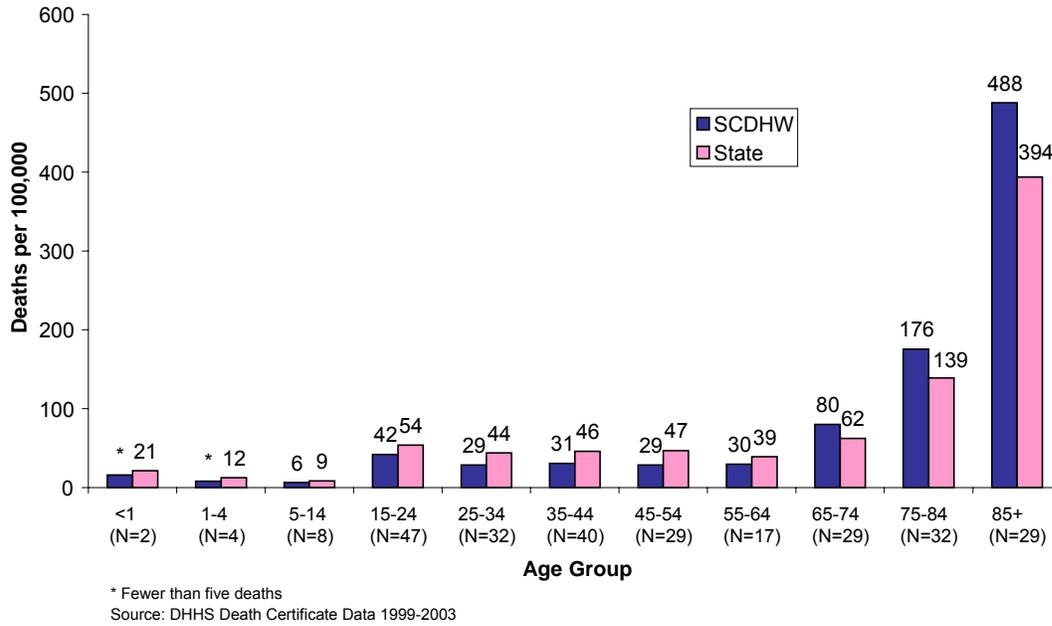
**Table D4: Injury-related Deaths and Hospital Discharges by Gender, Age, and Race,  
Sarpy/Cass Department of Health and Wellness Coverage Area, NE, 1999-2003**

	Sarpy/Cass DHW				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	186	69.1	25,397	54.4	2,848	64.3	386,563	53.1
Female	83	30.9	21,333	45.7	1,581	35.7	341,506	46.9
Total	269	100.0	46,730	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	2	0.7	574	1.2	26	0.6	7,142	1.0
1-4	4	1.5	4,684	10.0	58	1.3	59,764	8.2
5-14	8	3.0	9,273	19.8	107	2.4	122,382	16.8
15-24	47	17.5	8,810	18.9	699	15.8	144,001	19.8
25-34	32	11.9	5,785	12.4	486	11.0	84,574	11.6
35-44	40	14.9	5,992	12.8	593	13.4	84,445	11.6
45-54	29	10.8	4,485	9.6	547	12.4	66,321	9.1
55-64	17	6.3	2,537	5.4	292	6.6	39,540	5.4
65-74	29	10.8	1,896	4.1	355	8.0	40,555	5.6
75-84	32	11.9	1,643	3.5	575	13.0	45,135	6.2
85+	29	10.8	1,051	2.3	691	15.6	34,222	4.7
Total	269	100.0	46,730	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	2	0.7			29	0.7		
African								
American	3	1.1			194	4.4		
Native								
American	0	0.0			72	1.6		
White	263	97.8			4,123	93.1		
Other	1	0.4			11	0.3		
Total	269	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Injury death rates were the highest for the oldest age group, 85 and older. Persons in this age group had higher injury death rates at 488 per 100,000 compared to the Nebraska rate of 394 per 100,000 (*Figure D2*).

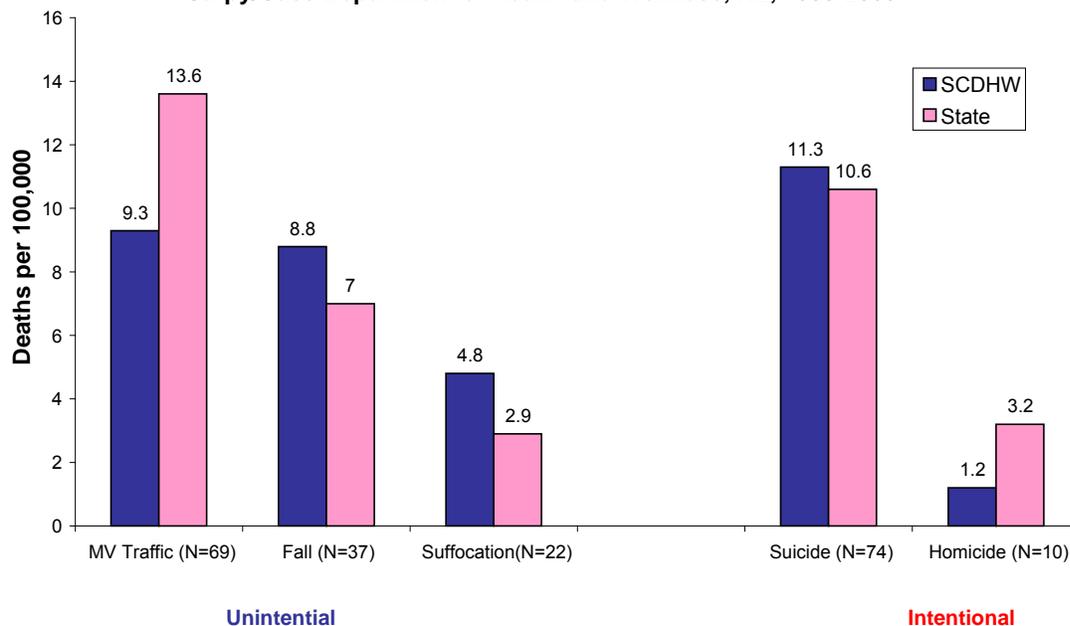
**Figure D2: All injury death rates by age, Sarpy/Cass Department of Health and Wellness coverage area, NE, 1999-2003**



### Leading causes

- Suicide was the leading cause of injury death. The age-adjusted death rate for suicide was slightly higher than the Nebraska rate (11.3 and 10.6 per 100,000 respectively) (*Figure D3*).
- Motor vehicle crashes were the second leading cause of injury death with an age-adjusted rate of 9.3 per 100,000. The rate was lower than the Nebraska rate (13.6 per 100,000) (*Figure D3*).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls was 8.8 compared to the Nebraska rate of 7.0 per 100,000 (*Figure D3*).

**Figure D3: Age-adjusted injury death rates by cause,  
Sarpy/Cass Department of Health and Wellness, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003

**Age**

- The most motor vehicle crash deaths were among persons age 15-24 (39.1%) (Table D5).
- More than 67% of the deaths (N=25) due to fall injuries were persons 75 years and older (Table D6).
- The most suicide deaths were among persons in the 35-44 year age group (21.6%), followed by the 25-34 year age group (18.9%) (Table D7).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender,  
Sarpy/Cass Department of Health and Wellness Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	1	1.9	0	0.0	1	1.4
5-14	1	1.9	0	0.0	1	1.4
15-24	24	45.3	3	18.8	27	39.1
25-34	6	11.3	4	25.0	10	14.5
35-44	11	20.8	1	6.3	12	17.4
45-54	4	7.5	2	12.5	6	8.7
55-64	2	3.8	4	25.0	6	8.7
65-74	2	3.8	1	6.3	3	4.3
75-84	2	3.8	1	6.3	3	4.3
<b>Total</b>	<b>53</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>	<b>69</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D6: Deaths Due to Fall by Age and Gender,  
Sarpy/Cass Department of Health and Wellness Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	0	0.0	1	6.3	1	2.7
15-24	1	4.8	0	0.0	1	2.7
35-44	2	9.5	0	0.0	2	5.4
45-54	3	14.3	0	0.0	3	8.1
55-64	1	4.8	0	0.0	1	2.7
65-74	4	19.0	0	0.0	4	10.8
75-84	4	19.0	9	56.3	13	35.1
85+	6	28.6	6	37.5	12	32.4
<b>Total</b>	<b>21</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D7: Deaths Due to Suicide by Age and Gender,  
Sarpy/Cass Department of Health and Wellness Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	9	14.3	3	27.3	12	16.2
25-34	12	19.0	2	18.2	14	18.9
35-44	15	23.8	1	9.1	16	21.6
45-54	11	17.5	2	18.2	13	17.6
55-64	4	6.3	1	9.1	5	6.8
65-74	6	9.5	2	18.2	8	10.8
75-84	4	6.3	0	0.0	4	5.4
85+	2	3.2	0	0.0	2	2.7
<b>Total</b>	<b>63</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>74</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Gender**

- More males (N=53) died from motor vehicle crashes than females (N=16) (*Table D5*).
- More males (N=21) died from fall injuries than females (N=16) (*Table D6*).
- Nearly six times as many males (N=63) as females died from suicide (N=11) (*Table D7*).

## Hospital discharges

### Overall

- The SCDHW coverage area had a lower unintentional injury hospital discharge rate (5,637 per 100,000), similar suicide attempt rates (73 per 100,000) and lower homicide rates (120 per 100,000) when compared to the Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Sarpy/Cass Department of Health and Wellness Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	23,289	96.0	6,106.3	19,344	95.7	5,173.5	42,633	95.8	5,637.1	665,407	95.9	7,609.6
Suicide	185	0.8	46.8	390	1.9	98.7	575	1.3	72.9	6,379	0.9	75.0
Homicide	616	2.5	150.9	355	1.8	89.1	971	2.2	119.8	17,720	2.6	203.9
Undetermined	157	0.6	41.7	127	0.6	33.6	284	0.6	37.6	4,181	0.6	48.3
Other	13	0.1	3.2	5	0.0	1.3	18	0.0	2.2	404	0.1	4.7
<b>Total</b>	<b>24,260</b>	<b>100.0</b>	<b>6,348.9</b>	<b>20,221</b>	<b>100.0</b>	<b>5,396.1</b>	<b>44,481</b>	<b>100.0</b>	<b>5,869.6</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

- More males (54%) than females (46%) were treated at a hospital for all injury-related causes (*Table D4*).

### Leading causes

- Falls were the leading cause of injury-related hospital discharge for all age groups combined with an age-adjusted rate of 1,611 per 100,000. The rate was relatively lower than the Nebraska rate (2,184 per 100,000) (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury-related hospital discharge for all age groups combined, and the leading cause for persons age 10-14. The age-adjusted hospital discharge rate for struck by/against was lower than the Nebraska rate (798 vs. 1,132 per 100,000) (*Table H2 & Figure H1*).
- Motor vehicle crashes and overexertion were tied as the third leading cause of injury hospital discharge (*Figure H1*).
- Cutting/piercing (488 per 100,000) was the fifth ranking cause of injury hospital discharge (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Sarpy/Cass Department of Health and Wellness Coverage Area, Nebraska, 1999-2003**

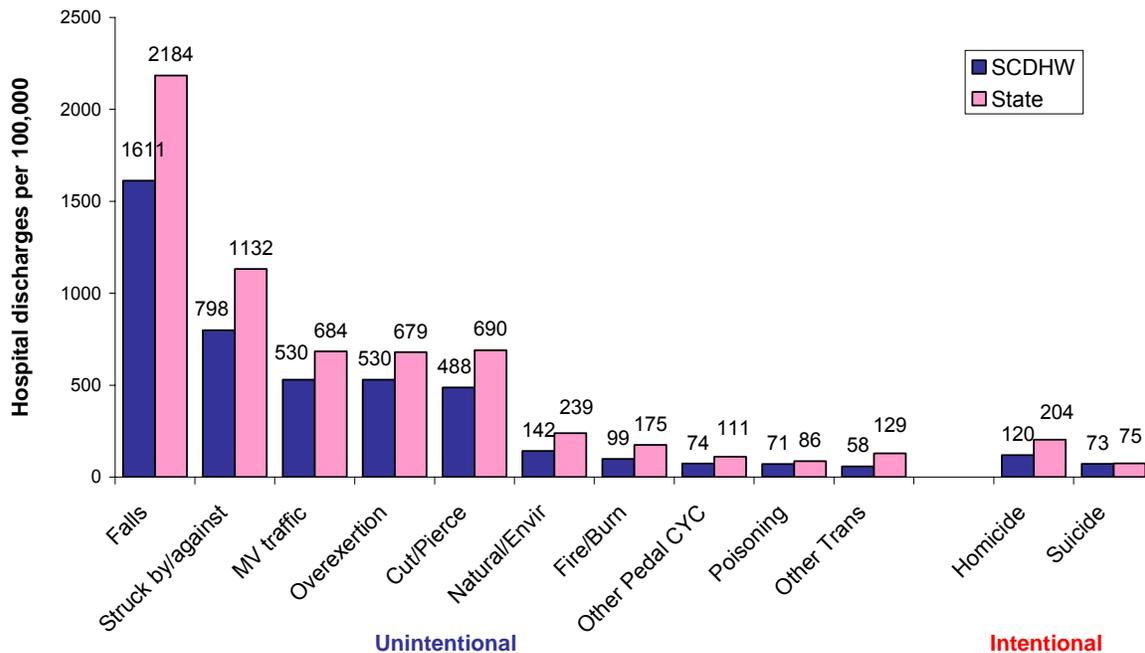
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=203	Falls N=1501	Falls N=1269	Struck by/against N=1163	MV traffic N=1601	Falls N=858	Falls N=1023	Falls N=1019	Falls N=709	Falls N=775	Falls N=948	Falls N=748	Falls N=11,174
2	Struck by/against N=88	Struck by/against N=939	Struck by/against N=853	Falls N=1153	Struck by/against N=1479	Overexertion N=738	Overexertion N=714	Overexertion N=482	Overexertion N=227	Cut/Pierce N=122	Overexertion N=49	Overexertion N=19	Struck by/against N=6,522
3	Suffocation N=31	Cut/Pierce N=255	Cut/Pierce N=312	Overexertion N=478	Overexertion N=1008	MV traffic N=708	Cut/Pierce N=660	Cut/Pierce N=421	Cut/Pierce N=218	Overexertion N=111	Cut/Pierce N=48	Struck by/against N=17	Overexertion N=4,126
4	Fire/Burn N=29	Poisoning N=225	Other Pedal CYC N=213	Cut/Pierce N=350	Falls N=968	Struck by/against N=707	MV traffic N=647	MV traffic N=377	MV traffic N=181	MV traffic N=108	Struck by/against N=48	Cut/Pierce N=16	MV traffic N=4,121
5	Poisoning N=21	Natural/Envir N=187	Natural/Envir N=153	Other Pedal CYC N=250	Cut/Pierce N=774	Cut/Pierce N=602	Struck by/against N=616	Struck by/against N=368	Struck by/against N=151	Struck by/against N=93	MV traffic N=47	MV traffic N=12	Cut/Pierce N=3,795

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted injury hospital discharge rates by cause  
Sarpy/Cass Department of Health and Wellness, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- Hospital discharge rates due to falls were the highest for persons age 85 and older. Females had a higher rate than males (13,852 vs. 9337 per 100,000) (*Table H3*).
- Among children age 14 and under, the 1-4 year age group had a fall injury rate slightly lower than the Nebraska rate (3,101 vs. 4,310). This age group had the third highest injury fall rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 1-4 year age group had the highest hospital discharge rate of struck by/against (1,940 per 100,000), which was lower than the Nebraska rate (2,284 per 100,000). (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rates of motor vehicle crash injuries, overexertion, and cutting/piercing (1,430, 1036, and 925 per 100,000 respectively) compared to other age groups (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls than males (1,738 vs. 1,483 per 100,000) (*Table H3*).
- Male hospital discharge rates for struck by/against and cutting/piercing were almost twice the rates for females (1,062 and 629 vs. 538 and 348 per 100,000) (*Table H3*).
- Female motor vehicle injury hospital discharge rates were higher than male rates (589 vs. 470 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Sarpy/Cass Department of Health and Wellness Coverage Area, NE, 1999-2003**

Cause	Age	Sarpy/Cass DHW									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	101	2	1594.1	102	1.7	1691.5	203	1.8	1641.6	2298.5	2139.4	2220.8
Falls	1-4	886	17.2	3594.2	615	10.2	2589.1	1501	13.4	3101	4871.2	3721.2	4309.7
Falls	5-14	1368	26.6	2136.2	1054	17.5	1715.9	2422	21.7	1930.4	2855.0	2404.1	2634.8
Falls	15-24	536	10.4	935.2	432	7.2	790	968	8.7	864.3	1570.9	1323.5	1449.9
Falls	25-34	388	7.6	704.1	470	7.8	841.9	858	7.7	773.5	1048.4	1303.4	1173.8
Falls	35-44	486	9.5	747.8	537	8.9	821.9	1023	9.2	785	1084.2	1357.6	1220.2
Falls	45-54	417	8.1	842.2	602	10	1180.1	1019	9.1	1013.7	1116.0	1610.3	1364.2
Falls	55-64	254	4.9	900.4	455	7.5	1591.9	709	6.3	1248.4	1337.7	1976.8	1664.3
Falls	65-74	303	5.9	1759.5	472	7.8	2490.9	775	6.9	2142.7	2151.5	3581.0	2926.8
Falls	75-84	244	4.7	3373.9	704	11.7	6405.8	948	8.5	5202.5	4355.2	7355.0	6138.2
Falls	85+	155	3	9337.3	593	9.8	13852	748	6.7	12590	10070.0	14640.0	13320.0
<b>Total</b>		5138	100.0	1482.9	6036	100.0	1738.3	11174	100.0	1611.0	2013.8	2349.3	2184.0
Struck by/against	<1	50	1.1	789.1	38	1.8	630.2	88	1.3	711.6	836	692.9	766.1
Struck by/against	1-4	595	13.6	2413.7	344	15.9	1448.2	939	14.4	1939.9	2812.4	1729.5	2283.7
Struck by/against	5-14	1375	31.5	2147.1	641	29.7	1043.5	2016	30.9	1606.8	2919.3	1521.6	2236.7
Struck by/against	15-24	1105	25.3	1927.9	374	17.3	683.9	1479	22.7	1320.6	3069.3	1161.5	2135.8
Struck by/against	25-34	454	10.4	823.9	253	11.7	453.2	707	10.8	637.3	1212	676.9	948.9
Struck by/against	35-44	374	8.6	575.5	242	11.2	370.4	616	9.4	472.7	854.1	527.3	691.6
Struck by/against	45-54	241	5.5	486.7	127	5.9	249	368	5.6	366.1	574.9	385.7	479.9
Struck by/against	55-64	88	2	312	63	2.9	220.4	151	2.3	265.9	414.7	291.2	351.6
Struck by/against	65-74	53	1.2	307.8	40	1.9	211.1	93	1.4	257.1	415.7	292.7	349
Struck by/against	75-84	25	0.6	345.7	23	1.1	209.3	48	0.7	263.4	415.6	363.7	384.7
Struck by/against	85+	4	0.1	*	13	0.6	303.7	17	0.3	286.1	507.4	519.4	516
<b>Total</b>		4364	100.0	1061.9	2158	100.0	538.1	6522	100.0	798.0	1488.5	786.4	1132.3
MV traffic	<1	8	0.4	126.3	7	0.3	116.1	15	0.4	121.3	128.9	121.4	125.2
MV traffic	1-4	36	2	146	36	1.6	151.6	72	1.7	148.7	251.0	229.3	240.4
MV traffic	5-14	176	9.6	274.8	177	7.8	288.2	353	8.6	281.4	400.0	436.0	417.6
MV traffic	15-24	716	39	1249.2	885	38.8	1618.4	1601	38.8	1429.5	1444.2	1831.5	1633.7
MV traffic	25-34	306	16.6	555.3	402	17.6	720.1	708	17.2	638.2	855.6	993.0	923.2
MV traffic	35-44	299	16.3	460.1	348	15.2	532.6	647	15.7	496.4	607.3	708.3	657.6
MV traffic	45-54	167	9.1	337.3	210	9.2	411.7	377	9.1	375	476.5	523.1	499.9
MV traffic	55-64	69	3.8	244.6	112	4.9	391.9	181	4.4	318.7	346.5	441.2	394.9
MV traffic	65-74	41	2.2	238.1	67	2.9	353.6	108	2.6	298.6	327.3	382.2	357.1
MV traffic	75-84	15	0.8	207.4	32	1.4	291.2	47	1.1	257.9	402.4	393.8	397.3
MV traffic	85+	5	0.3	301.2	7	0.3	163.5	12	0.3	202	404.8	248.5	293.6
<b>Total</b>		1838	100.0	469.6	2283	100.0	589.2	4121	100.0	530.0	629.3	737.3	684.0
Overexertion	0-1	8	0.4	126.3	7	0.4	116.1	15	0.4	121.3	111.1	156.8	133.4
Overexertion	1-4	66	3.1	267.7	91	4.6	383.1	157	3.8	324.4	352.6	519.6	434.1
Overexertion	5-14	300	13.9	468.5	306	15.5	498.2	606	14.7	483	537.1	610.3	572.9
Overexertion	15-24	594	27.5	1036.4	414	21	757.1	1008	24.4	900	1317.5	1024.1	1173.9
Overexertion	25-34	406	18.8	736.7	332	16.9	594.7	738	17.9	665.3	952.4	828.7	891.6
Overexertion	35-44	387	17.9	595.5	327	16.6	500.5	714	17.3	547.9	817.7	677.3	747.9
Overexertion	45-54	218	10.1	440.3	264	13.4	517.5	482	11.7	479.5	616.4	572.9	594.5
Overexertion	55-64	116	5.4	411.2	111	5.6	388.4	227	5.5	399.7	426.6	433.8	430.3
Overexertion	65-74	43	2	249.7	68	3.5	358.9	111	2.7	306.9	356.1	445.4	404.6
Overexertion	75-84	14	0.6	193.6	35	1.8	318.5	49	1.2	268.9	311.8	419.9	376
Overexertion	85+	5	0.2	301.2	14	0.7	327	19	0.5	319.8	236.9	387.2	343.8
<b>Total</b>		2157	100.0	550.2	1969	100.0	509.0	4126	100.0	530.0	705.5	635.6	679.2
Cut/Pierce	<1	12	0.5	189.4	5	0.4	82.9	17	0.4	137.5	228.7	185.5	207.6
Cut/Pierce	1-4	154	6.3	624.7	101	7.5	425.2	255	6.7	526.8	925.2	609.5	771.1
Cut/Pierce	5-14	418	17.1	652.7	244	18	397.2	662	17.4	527.6	1033.2	615.8	829.4
Cut/Pierce	15-24	530	21.7	924.7	244	18	446.2	774	20.4	691.1	1399.6	650.1	1032.9
Cut/Pierce	25-34	398	16.3	722.2	204	15.1	365.4	602	15.9	542.7	1138.4	596.8	872.2
Cut/Pierce	35-44	430	17.6	661.6	230	17	352	660	17.4	506.4	861.0	517.5	690.1
Cut/Pierce	45-54	255	10.4	515	166	12.3	325.4	421	11.1	418.8	650.7	401.2	525.4
Cut/Pierce	55-64	138	5.7	489.2	80	5.9	279.9	218	5.7	383.9	555.0	309.7	429.6
Cut/Pierce	65-74	73	3	423.9	49	3.6	258.6	122	3.2	337.3	582.4	266.5	411.1
Cut/Pierce	75-84	27	1.1	373.3	21	1.6	191.1	48	1.3	263.4	448.3	214.8	309.5
Cut/Pierce	85+	7	0.3	421.7	9	0.7	210.2	16	0.4	269.3	333.7	194.8	234.9
<b>Total</b>		2442	100.0	629.3	1353	100.0	348.3	3795	100.0	488.0	893.0	492.5	689.8

Source: NE Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

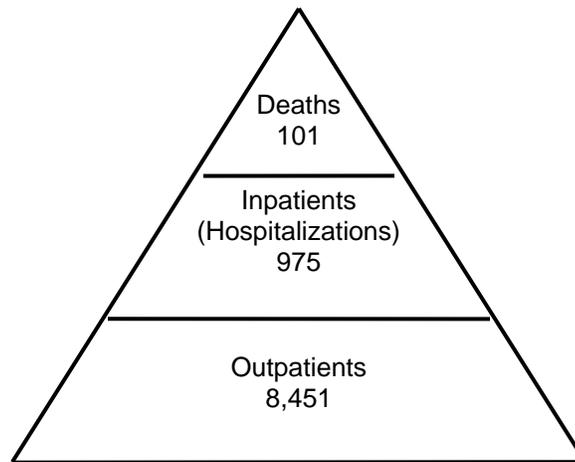
INJURY REPORT, 1999-2003

**Scotts Bluff Health Department Coverage Area**  
Scotts Bluff County

**Summary**

Injury is a public health problem in Scotts Bluff County. Overall, injury is the fifth leading cause of death (*Table D1*). From 1999-2003, there were 101 injury deaths, nearly 1,000 residents in Scotts Bluff County were hospitalized, and more than 8,000 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury death. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharge and struck by/against injuries were second, followed by cutting/piercing, overexertion, and natural/environmental.

**Figure A: Injury Pyramid, Residents of Scotts Bluff County, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-19, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were almost twice as likely as females to die from an injury.

The following table highlights Scotts Bluff County's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, suicide and homicide (*Table A*).

**Table A: Injury Death Rates, Scotts Bluff County, NE, 2003**

<b>Death</b>	<b>Age-adjusted Rate 2003</b>	<b>2010 Nebraska Objective (rate per 100,000 population)</b>
Unintentional Injury	26.3	19.4
Fall	*	3.5
Motor Vehicle Crash	*	12
Suicide	22.7	8.2
Homicide	*	2

Source: DHHS Death Certificate Data 2003

\* Fewer than five deaths

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the sixth leading cause of death in Scotts Bluff County. (*Table D1*).

**Table D1: Five Leading Causes of Death, Scotts Bluff County, Nebraska, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	546
2	Cancer	406
3	Chronic Lung Disease	146
4	Stroke	139
5	Ill-Defined	111
6	Injury	96

Source: DHHS Death Certificate Data 1999-2003

- An average of 19 residents died from an injury each year in Scotts Bluff County (*Table D2*).
- Deaths due to injury made up 4.7% of total deaths, which was lower than for Nebraska (6%). In Scotts Bluff County, for 15-19 year olds more than 77% of deaths were due to injury (*Table D2*).

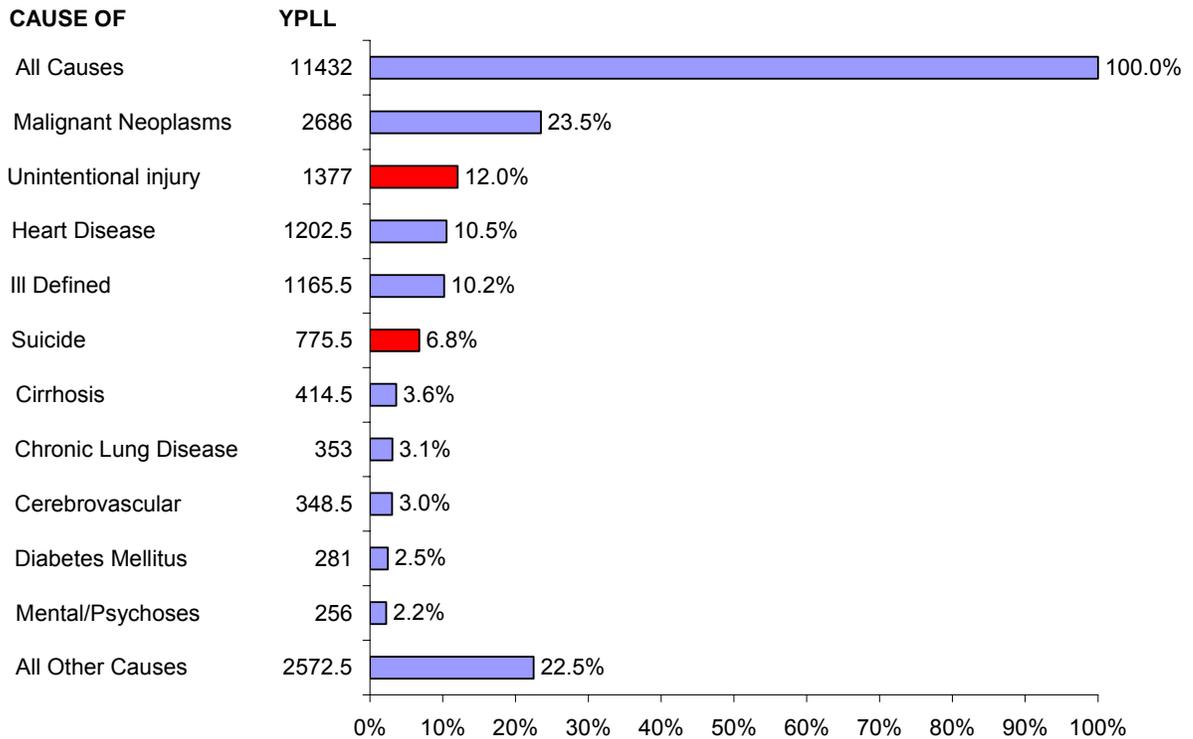
**Table D2: Injury Deaths as a Percent of All Deaths by Age, Scotts Bluff County, NE, 1999-2003**

Age Group	Annual Average			Percent of Death due to Injury
	Injury Deaths	Injury Deaths	All Deaths	
<1	1	0	8	12.5
1-4	0	0	2	0.0
5-9	1	0	2	50.0
10-14	0	0	0	0.0
15-19	14	3	18	77.8
20-24	2	0	5	40.0
25-29	5	1	9	55.6
30-34	4	1	10	40.0
35-39	8	2	18	44.4
40-44	8	2	41	19.5
45-49	3	1	41	7.3
50-54	5	1	37	13.5
55-59	3	1	58	5.2
60-64	3	1	89	3.4
65-74	3	1	374	0.8
75-84	19	4	626	3.0
85+	17	3	711	2.4
<b>Total</b>	<b>96</b>	<b>19</b>	<b>2,049</b>	<b>4.7</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked second (12.0%), following that from cancer (23.5%). Suicide ranked 5<sup>th</sup> at 6.8% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before 75 by Cause of Death, Scotts Bluff County, NE, 1999-2003**



- Scotts Bluff County had a similar unintentional injury rate (33.7 per 100,000) and higher suicide rate (14 per 100,000) when compared with Nebraska rates (33.3 and 10.6 per 100,000 respectively) (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Scotts Bluff County, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	42	64.6	47.8	27	75.0	20.8	69	68.3	33.7	3,020	68.3	33.3
Suicide	19	29.2	22.5	5	13.9	6.1	24	23.8	14.0	894	20.2	10.6
Homicide	2	3.1	*	1	2.8	*	3	3.0	*	273	6.2	3.2
Undetermined	1	1.5	*	2	5.6	*	3	3.0	*	139	3.1	1.6
Adverse Effects	1	1.5	*	1	2.8	*	2	2.0	*	93	2.1	1.0
<b>Total</b>	<b>65</b>	<b>100.0</b>	<b>75.0</b>	<b>36</b>	<b>100.0</b>	<b>29.8</b>	<b>101</b>	<b>100.0</b>	<b>51.4</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

- More males (64%) died from all injury-related causes than females (36%) (Table D4).

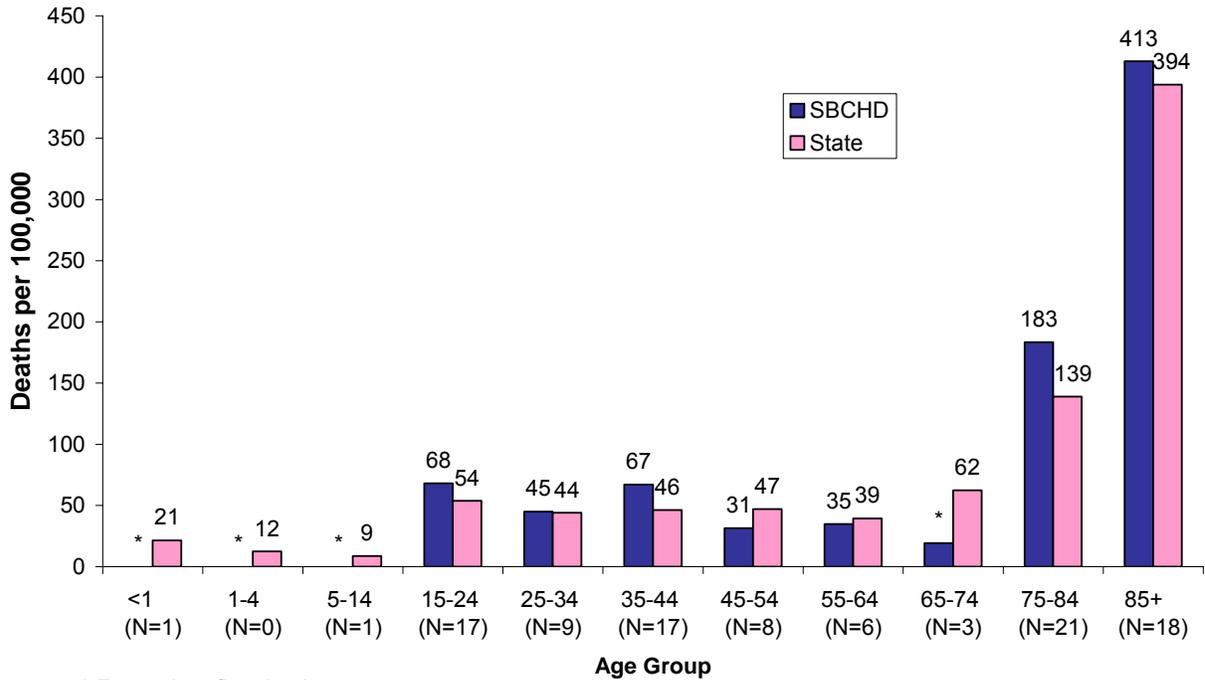
**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race,  
Scotts Bluff County, NE, 1999-2003**

	Scotts Bluff County				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	65	64.4	4,773	50.6	2,848	64.3	386,563	53.1
Female	36	35.6	4,653	49.4	1,581	35.7	341,506	46.9
Total	101	100.0	9,426	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	1	1.0	161	1.7	26	0.6	7,142	1.0
1-4			1,145	12.2	58	1.3	59,764	8.2
5-14	1	1.0	1,956	20.8	107	2.4	122,382	16.8
15-24	17	16.8	1,491	15.8	699	15.8	144,001	19.8
25-34	9	8.9	786	8.3	486	11.0	84,574	11.6
35-44	17	16.8	748	7.9	593	13.4	84,445	11.6
45-54	8	7.9	625	6.6	547	12.4	66,321	9.1
55-64	6	5.9	398	4.2	292	6.6	39,540	5.4
65-74	3	3.0	686	7.3	355	8.0	40,555	5.6
75-84	21	20.8	814	8.6	575	13.0	45,135	6.2
85+	18	17.8	616	6.5	691	15.6	34,222	4.7
Total	101	100.0	9,426	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	1	1.0			29	0.7		
African American					194	4.4		
Native American	1	1.0			72	1.6		
White	99	98.0			4,123	93.1		
Other	0	0.0			11	0.3		
Total	101	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Injury death rates were the highest for the oldest age group, those 85 and older. Persons in this age group had a slightly higher injury death rate of 413 per 100,000 when compared to the Nebraska rate of 394 per 100,000 (*Figure D2*).

**Figure D2: All Injury Death Rates by Age  
Scotts Bluff County, NE, 1999-2003**

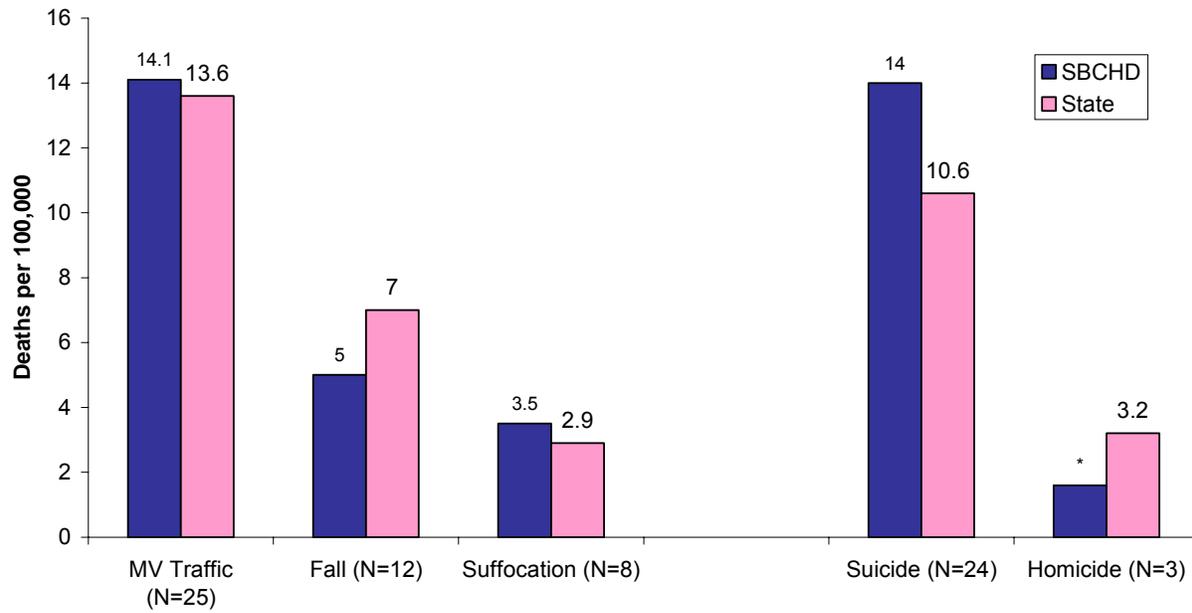


\* Fewer than five deaths  
Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury death, with an age-adjusted rate of 14.1 per 100,000. The rate was slightly higher than the Nebraska rate (13.6 per 100,000) (Figure D3).
- Suicide was the second leading cause of injury death. The age-adjusted death rate for suicide (14.0 per 100,000) was higher than the Nebraska rate (10.6 per 100,000 respectively) (Figure D3).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls (5.0 per 100,000) was lower than the Nebraska rate (7.0 per 100,000 respectively) (Figure D3).

**Figure D3: Age-adjusted Injury Death Rates by Cause  
Scotts Bluff County, NE, 1999-2003**



**Unintentional**  
\* Fewer than five deaths  
Source: DHHS Death Certificate Data 1999-2003

**Intentional**

**Age**

- Persons age 15-24 years (N=9) had the highest risk of motor vehicle crashes, making up 36% of total deaths (N=25) due to motor vehicle crashes (*Table D5*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender,  
Scotts Bluff County, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	0	0.0	0	0.0	0	0.0
5-14	1	5.3	0	0.0	1	4.0
15-24	6	31.6	3	50.0	9	36.0
25-34	3	15.8	1	16.7	4	16.0
35-44	3	15.8	1	16.7	4	16.0
45-54	1	5.3	0	0.0	1	4.0
55-64	1	5.3	0	0.0	1	4.0
65-74	1	5.3	0	0.0	1	4.0
75-84	1	5.3	1	16.7	2	8.0
85+	2	10.5	0	0.0	2	8.0
<b>Total</b>	<b>19</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>25</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Of deaths due to fall injuries (N=12), more than 83% were among persons 75 years and older (N=10) (*Table D6*).

**Table D6: Deaths Due to Falls by Age and Gender,  
Scotts Bluff County, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
55-64	2	40.0	0	0.0	2	16.7
75-84	0	0.0	5	71.4	5	41.7
85+	3	60.0	2	28.6	5	41.7
<b>Total</b>	<b>5</b>	<b>100.0</b>	<b>7</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Of 24 suicide deaths, persons age 35-44 accounted for 37%, followed by those in the 25-34 year age group (16.7%) (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Scotts Bluff County, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	3	15.8	0	0.0	3	12.5
25-34	3	15.8	1	20.0	4	16.7
35-44	6	31.6	3	60.0	9	37.5
45-54	2	10.5	1	20.0	3	12.5
55-64	2	10.5	0	0.0	2	8.3
75-84	3	15.8	0	0.0	3	12.5
<b>Total</b>	<b>19</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>	<b>24</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

## Gender

- More males (N=19) died from motor vehicle crashes than females (N=6) (*Table D5*).
- Males (N=19) were almost four times more likely to die from suicide than females (N=5). The age-adjusted rates were 22.5 vs. 6.1 per 100,000 respectively (*Table D3 & D7*).
- Males (N=5) were more likely to die from falls than females (N=7), with age-adjusted rates of 5.7 vs. 4.4 per 100,000 in Scotts Bluff County (*Table D6*).

## Hospital discharges

### Overall

- Scotts Bluff County had lower unintentional injury hospital discharge (4,616.8 per 100,000), suicide attempt (70.6 per 100,000), and homicide rates (192.7 per 100,000) when compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Scotts Bluff County, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	4,457	94.8	5,017.2	4,305	94.6	4,250.3	8,762	94.7	4,616.8	665,407	95.9	7,609.6
Suicide	45	1.0	55.6	74	1.6	84.3	119	1.3	70.6	6,379	0.9	75.0
Homicide	181	3.9	211.8	154	3.4	175.3	335	3.6	192.7	17,720	2.6	203.9
Undetermined	11	0.2	13.4	15	0.3	16.7	26	0.3	15.1	4,181	0.6	48.3
Other	5	0.1	6.2	3	0.1	3.5	8	0.1	4.8	404	0.1	4.7
<b>Total</b>	<b>4,699</b>	<b>100.0</b>	<b>5,304.1</b>	<b>4,551</b>	<b>100.0</b>	<b>4,530.1</b>	<b>9,250</b>	<b>100.0</b>	<b>4,900.0</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

- More males (51%) than females (49%) were treated at a hospital for all injury-related causes (*Table D4*).

### Leading causes

- Falls were the leading cause of injury hospital discharge for all age groups combined, with an age-adjusted rate of 1,742 per 100,000. The rate was lower than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups. (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharge for all ages combined. The age-adjusted hospital discharge rate for struck by/against was lower than the Nebraska rate (581 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharge. The age-adjusted rate was lower than the Nebraska rate (437 and 690 per 100,000) (*Figure H1*).
- Overexertion (385 per 100,000) and natural/environmental (220 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking cause of injury hospital discharge in Scotts Bluff County (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Scotts Bluff County, Nebraska, 1999-2003**

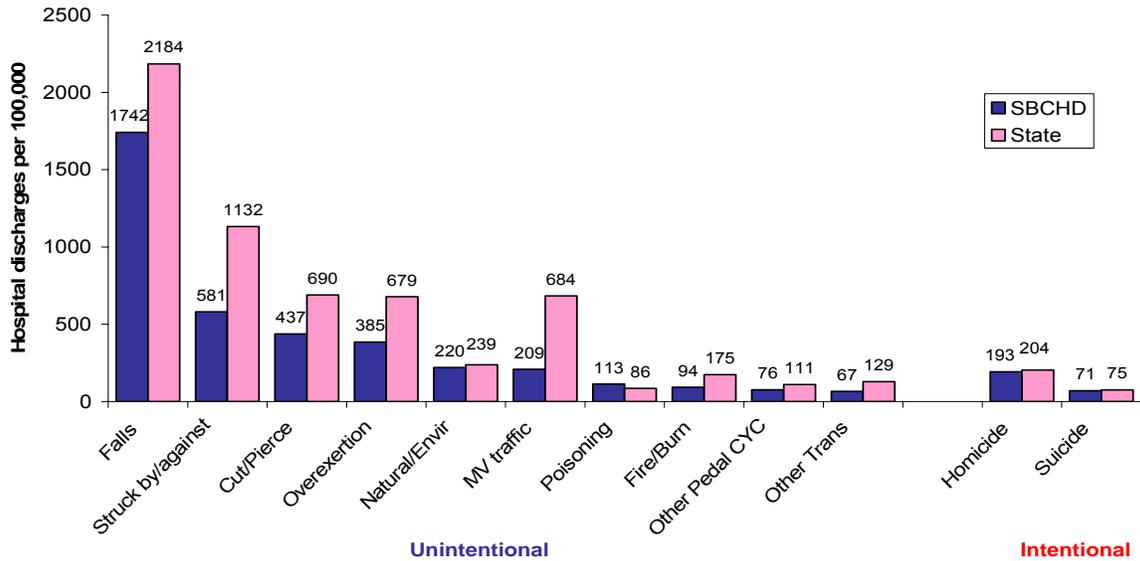
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=75	Falls N=435	Falls N=315	Falls N=323	Falls N=270	Falls N=167	Falls N=189	Falls N=192	Falls N=170	Falls N=373	Falls N=549	Falls N=488	Falls N=3,546
2	Struck by/against N=15	Struck by/against N=137	Struck by/against N=166	Struck by/against N=205	Struck by/against N=255	Cut/Pierce N=95	Overexertion N=87	Overexertion N=69	Overexertion N=31	Cut/Pierce N=38	Overexertion N=28	Struck by/against N=15	Struck by/against N=1,050
3	Poisoning N=10	Natural/Envir N=92	Cut/Pierce N=94	Cut/Pierce N=108	Cut/Pierce N=169	Overexertion N=93	Cut/Pierce N=73	Cut/Pierce N=64	Cut/Pierce N=29	Overexertion N=28	MV traffic N=22	Overexertion N=11	Cut/Pierce N=783
4	Natural/Envir N=10	Poisoning N=80	Natural/Envir N=70	Overexertion N=90	Overexertion N=169	Struck by/against N=88	Struck by/against N=66	Struck by/against N=38	Struck by/against N=28	Natural/Envir N=23	Cut/Pierce N=22	Cut/Pierce N=9	Overexertion N=686
5	Overexertion N=9	Cut/Pierce N=77	Other Pedal CYC N=54	Assault N=46	Assault N=136	MV traffic N=58	MV traffic N=42	MV traffic N=33	Natural/Envir N=13	Struck by/against N=19	Struck by/against N=18	MV traffic N=8	Natural/Envir N=398

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: Nebraska Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
Scotts Bluff County, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- Hospital discharge rates due to falls were the highest for persons age 85 and older. Among children age 14 and under, the 1-4 year age group had the highest fall injury rate (4,516 per 100,000), which was relatively higher than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 1-4 year age group had the highest hospital discharge rate (1,422.3 per 100,000) for struck by/against, which was lower than the Nebraska rate (2,283.7 per 100,000). The rate was second highest for children age 5-14 at 1,394.7 per 100,000 (*Table H3*).
- The hospital discharge rate for cutting/piercing injuries was highest for the 1-4 year age group (799.4 per 100,000) (*Table H3*).
- The hospital discharge rate for overexertion injuries was highest for the 15-24 year age group (676 per 100,000) (*Table H3*).
- The 1-4 year age group had the highest hospital discharge rate (955.1 per 100,000) for natural/environmental injuries, which was higher than the Nebraska rate (612.7 per 100,000) (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls than males (1,809.5 vs. 1,667.5 per 100,000) (*Table H3*).
- The injury hospital discharge rate for struck by/against for males was higher than that for females (741.7 vs. 433.9 per 100,000) (*Table H3*).
- The injury hospital discharge rate for cutting/piercing for males was higher than that for females (535.8 vs. 347.2 per 100,000) (*Table H3*).
- Females had a higher injury hospital discharge rate for overexertion than males (396.6 vs. 372.9 per 100,000) (*Table H3*).

- The rate for males for natural/environmental injury hospital discharge was higher than the rate for females (236.5 vs. 204.4 per 100,000) (*Table H3*).

Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Scotts Bluff County, NE, 1999-2003

Cause	Age	Scotts Bluff County									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	46	3	3500.8	29	1.4	2338.7	75	2.1	2936.6	2298.5	2139.4	2220.8
Falls	1-4	231	15.3	4664.8	204	10	4359	435	12.3	4516.2	4871.2	3721.2	4309.7
Falls	5-14	378	25	2860.8	260	12.8	1942.2	638	18	2398.5	2855.0	2404.1	2634.8
Falls	15-24	156	10.3	1260.8	114	5.6	902.8	270	7.6	1080	1570.9	1323.5	1449.9
Falls	25-34	71	4.7	735.1	96	4.7	928.9	167	4.7	835.3	1048.4	1303.4	1173.8
Falls	35-44	76	5	610.3	113	5.6	874.1	189	5.3	744.7	1084.2	1357.6	1220.2
Falls	45-54	70	4.6	565.4	122	6	934.4	192	5.4	754.8	1116.0	1610.3	1364.2
Falls	55-64	56	3.7	681.3	114	5.6	1261.8	170	4.8	985.2	1337.7	1976.8	1664.3
Falls	65-74	125	8.3	1796.5	248	12.2	2876.4	373	10.5	2394.1	2151.5	3581.0	2926.8
Falls	75-84	173	11.4	3646.7	376	18.5	5608.6	549	15.5	4795.6	4355.2	7355.0	6138.2
Falls	85+	130	8.6	9870.9	358	17.6	11772	488	13.8	11198	10070.0	14640.0	13320.0
<b>Total</b>		1512	100.0	1667.5	2034	100.0	1809.5	3546	100.0	1742.0	2013.8	2349.3	2184.0
Cut/Pierce	<1	5	1.1	380.5				5	0.6	195.8	228.7	185.5	207.6
Cut/Pierce	1-4	45	9.6	908.7	32	10.2	683.8	77	9.8	799.4	925.2	609.5	771.1
Cut/Pierce	5-14	130	27.7	983.9	72	23	537.8	202	25.8	759.4	1033.2	615.8	829.4
Cut/Pierce	15-24	104	22.1	840.5	65	20.8	514.8	169	21.6	676	1399.6	650.1	1032.9
Cut/Pierce	25-34	49	10.4	507.4	46	14.7	445.1	95	12.1	475.2	1138.4	596.8	872.2
Cut/Pierce	35-44	37	7.9	297.1	36	11.5	278.5	73	9.3	287.6	861	517.5	690.1
Cut/Pierce	45-54	39	8.3	315	25	8	191.5	64	8.2	251.6	650.7	401.2	525.4
Cut/Pierce	55-64	20	4.3	243.3	9	2.9	99.6	29	3.7	168.1	555	309.7	429.6
Cut/Pierce	65-74	21	4.5	301.8	17	5.4	197.2	38	4.9	243.9	582.4	266.5	411.1
Cut/Pierce	75-84	16	3.4	337.3	6	1.9	89.5	22	2.8	192.2	448.3	214.8	309.5
Cut/Pierce	85+	4	0.9	*	5	1.6	164.4	9	1.1	206.5	333.7	194.8	234.9
<b>Total</b>		470	100.0	535.8	313	100.0	347.2	783	100.0	437.0	893.0	492.5	689.8
Struck by/against	0-1	8	1.2	608.8	7	1.8	564.5	15	1.4	587.3	836.0	692.9	766.1
Struck by/against	1-4	89	13.7	1797.3	48	12	1025.6	137	13	1422.3	2812.4	1729.5	2283.7
Struck by/against	5-14	230	35.3	1740.7	141	35.3	1053.3	371	35.3	1394.7	2919.3	1521.6	2236.7
Struck by/against	15-24	184	28.3	1487.1	71	17.8	562.3	255	24.3	1020	3069.3	1161.5	2135.8
Struck by/against	25-34	52	8	538.4	36	9	348.3	88	8.4	440.2	1212.0	676.9	948.9
Struck by/against	35-44	35	5.4	281.1	31	7.8	239.8	66	6.3	260	854.1	527.3	691.6
Struck by/against	45-54	23	3.5	185.8	15	3.8	114.9	38	3.6	149.4	574.9	385.7	479.9
Struck by/against	55-64	15	2.3	182.5	13	3.3	143.9	28	2.7	162.3	414.7	291.2	351.6
Struck by/against	65-74	7	1.1	100.6	12	3	139.2	19	1.8	122	415.7	292.7	349.0
Struck by/against	75-84	6	0.9	126.5	12	3	179	18	1.7	157.2	415.6	363.7	384.7
Struck by/against	85+	2	0.3	*	13	3.3	427.5	15	1.4	344.2	507.4	519.4	516.0
<b>Total</b>		651	100.0	741.7	399	100.0	433.9	1050	100.0	581.0	1488.5	786.4	1132.3
Overexertion	<1	3	0.9	*	6	1.6	483.9	9	1.3	352.4	111.1	156.8	133.4
Overexertion	1-4	11	3.4	222.1	28	7.7	598.3	39	5.7	404.9	352.6	519.6	434.1
Overexertion	5-14	54	16.8	408.7	68	18.6	508	122	17.8	458.6	537.1	610.3	572.9
Overexertion	15-24	85	26.5	687	84	23	665.2	169	24.6	676	1317.5	1024.1	1173.9
Overexertion	25-34	40	12.5	414.2	53	14.5	512.8	93	13.6	465.2	952.4	828.7	891.6
Overexertion	35-44	50	15.6	401.5	37	10.1	286.2	87	12.7	342.8	817.7	677.3	747.9
Overexertion	45-54	41	12.8	331.2	28	7.7	214.5	69	10.1	271.3	616.4	572.9	594.5
Overexertion	55-64	14	4.4	170.3	17	4.7	188.2	31	4.5	179.7	426.6	433.8	430.3
Overexertion	65-74	12	3.7	172.5	16	4.4	185.6	28	4.1	179.7	356.1	445.4	404.6
Overexertion	75-84	11	3.4	231.9	17	4.7	253.6	28	4.1	244.6	311.8	419.9	376
Overexertion	85+			*	11	3	*	11	1.6	252.4	236.9	387.2	343.8
<b>Total</b>		321	100.0	372.9	365	100.0	396.6	686	100.0	385.0	705.5	635.6	679.2
Natural/Envir	<1	7	3.3	532.7	3	1.6	*	10	2.5	391.5	116.0	155.1	135.1
Natural/Envir	1-4	52	24.8	1050.1	40	21.3	854.7	92	23.1	955.1	648.3	575.3	612.7
Natural/Envir	5-14	67	31.9	507.1	45	23.9	336.1	112	28.1	421.1	378.9	307.1	343.8
Natural/Envir	15-24	21	10	169.7	25	13.3	198	46	11.6	184	222.5	216.0	219.3
Natural/Envir	25-34	13	6.2	134.6	11	5.9	106.4	24	6	120	208.9	189.0	199.1
Natural/Envir	35-44	15	7.1	120.5	19	10.1	147	34	8.5	134	212.9	188.1	200.5
Natural/Envir	45-54	8	3.8	64.6	17	9	130.2	25	6.3	98.3	183.5	163.5	173.5
Natural/Envir	55-64	6	2.9	73	7	3.7	77.5	13	3.3	75.3	194.4	154.3	173.9
Natural/Envir	65-74	11	5.2	158.1	12	6.4	139.2	23	5.8	147.6	238.6	185.4	209.8
Natural/Envir	75-84	6	2.9	126.5	6	3.2	89.5	12	3	104.8	200.9	174.1	185.0
Natural/Envir	85+	4	1.9	*	3	1.6	*	7	1.8	160.6	219.2	145.9	167.0
<b>Total</b>		210	100.0	236.5	188	100.0	204.4	398	100.0	220.0	256.3	222.7	239.2

Source: NE Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

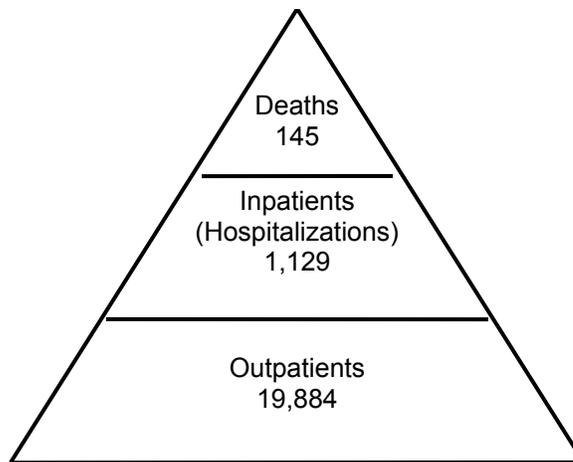
## INJURY REPORT, 1999-2003

### Southeast District Health Department Coverage Area Johnson, Nemaha, Otoe, Pawnee, and Richardson Counties

#### Summary

Injury is a public health problem in the Southeast District Health Department (SDHD) coverage area. Overall, unintentional injury is the sixth leading cause of death (*Table D1*). From 1999 to 2003, in addition to 145 injury deaths, over 1,000 residents in Johnson, Nemaha, Otoe, Pawnee, and Richardson Counties were hospitalized and more than 19,800 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury death. Falls were second, followed by suicide. In contrast to deaths, falls were the leading cause of injury-related hospital treatment and struck by/against injuries were second, followed by overexertion, cutting/piercing, and motor vehicle crashes.

**Figure A: Injury Pyramid, Residents of  
Southeast District Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 15-24, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were nearly twice as likely as females to die from an injury.

The following table highlights the SDHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, suicide, and homicide (*Table A*).

**Table A: Injury Death Rates, Southeast District Health Department Coverage Area, NE, 2003**

Cause of Death	Age-adjusted Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	37	19.4
Fall	6.4	3.5
Motor Vehicle Crash	29.3	12
Suicide	*	8.2
Homicide	*	2

Source: DHHS Death Certificate Data 2003

\* Fewer than five deaths

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the sixth leading cause of death in the SDHD coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Southeast District Health Department Coverage Area, Nebraska, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	651
2	Cancer	559
3	Stroke	209
4	Chronic Lung Disease	159
5	Ill-Defined	145
6	Injury	115

Source: DHHS Death Certificate Data 1999-2003

- An average of 27 residents died from an injury each year in the SDHD area (*Table D2*).
- Deaths due to injuries made up 5.1% of total deaths in SDHD area, compared to Nebraska at 6%. In the SDHD area, among 15-24 year olds more than 77% of deaths were due to injuries (*Table D2*).

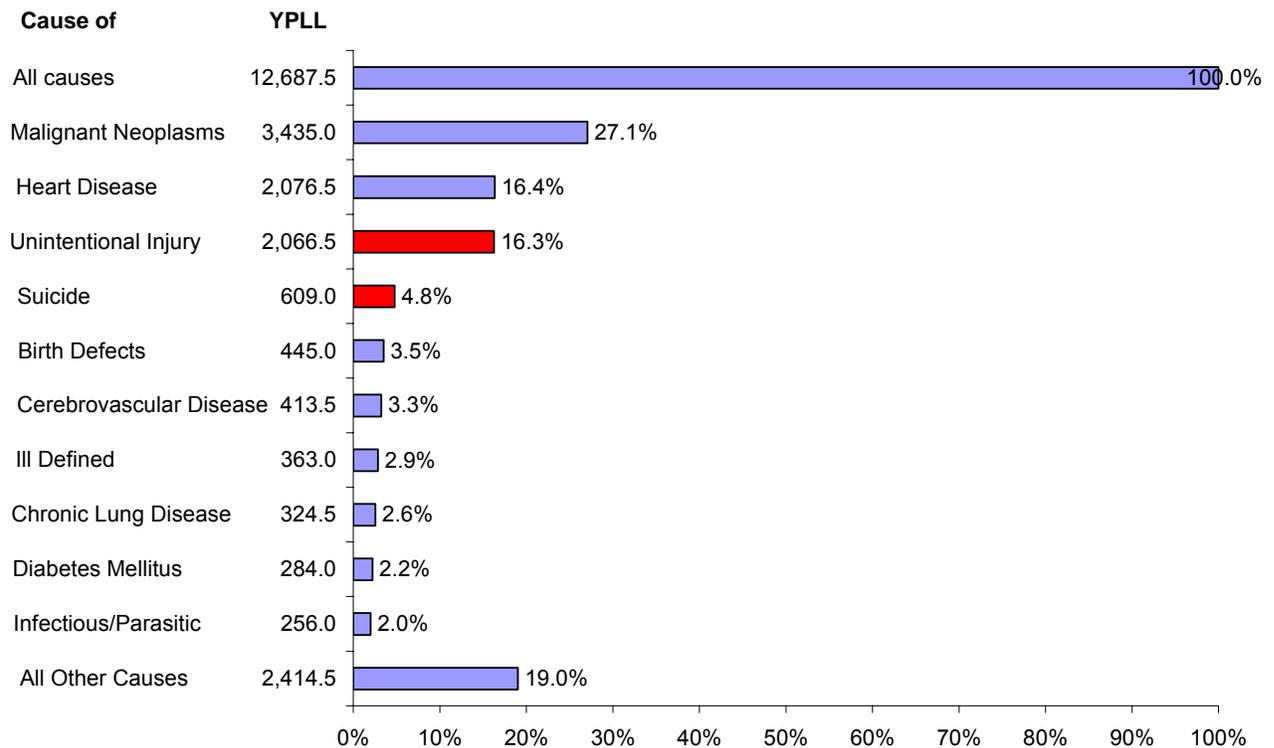
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Southeast District Health Department Coverage Area, NE, 1999-2003**

Age Group	Annual Average			Percent of Death due to Injury
	Injury Deaths	Injury Deaths	All Deaths	
<1	1	0	12	8.3
1-4	0	0	3	0.0
5-9	1	0	2	50.0
10-14	3	1	5	60.0
15-19	7	1	9	77.8
20-24	7	1	9	77.8
25-29	5	1	14	35.7
30-34	2	0	10	20.0
35-39	8	2	14	57.1
40-44	11	2	32	34.4
45-49	11	2	43	25.6
50-54	6	1	56	10.7
55-59	2	0	89	2.2
60-64	2	0	91	2.2
65-74	18	4	378	4.8
75-84	22	4	785	2.8
85+	29	6	1,091	2.7
<b>Total</b>	<b>135</b>	<b>27</b>	<b>2,643</b>	<b>5.1</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked third (16.3%), following those from cancer (27.1%) and heart disease (16.4%). Suicide ranked 4<sup>th</sup> at 4.8% (*Figure D1*).

**Figure D1: Years of Potential Lost (YPLL) before 75 by Cause of Death  
Southeast District Health Department, NE, 1999-2003**



- The SDHD area had a higher unintentional injury rate (45.4 per 100,000) and lower suicide rate (9.4 per 100,000) than Nebraska rates (33.3 and 10.6 per 100,000 respectively) (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates,  
Southeast District Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	63	72.4	60.2	52	89.7	31.4	115	79.3	45.4	3,020	68.3	33.3
Suicide	16	18.4	17.4	2	3.4	*	18	12.4	9.4	894	20.2	10.6
Homicide	2	2.3	*	0	0.0	*	2	1.4	*	273	6.2	3.2
Undetermined	4	4.6	*	1	1.7	*	5	3.4	2.9	139	3.1	1.6
Adverse Effects	2	2.3	*	3	5.2	*	5	3.4	1.8	93	2.1	1.0
<b>Total</b>	<b>87</b>	<b>100.0</b>	<b>85.8</b>	<b>58</b>	<b>100.0</b>	<b>36.3</b>	<b>145</b>	<b>100.0</b>	<b>60.4</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

- More males (60%) died from all injury-related causes than females (40%) (Table D4).

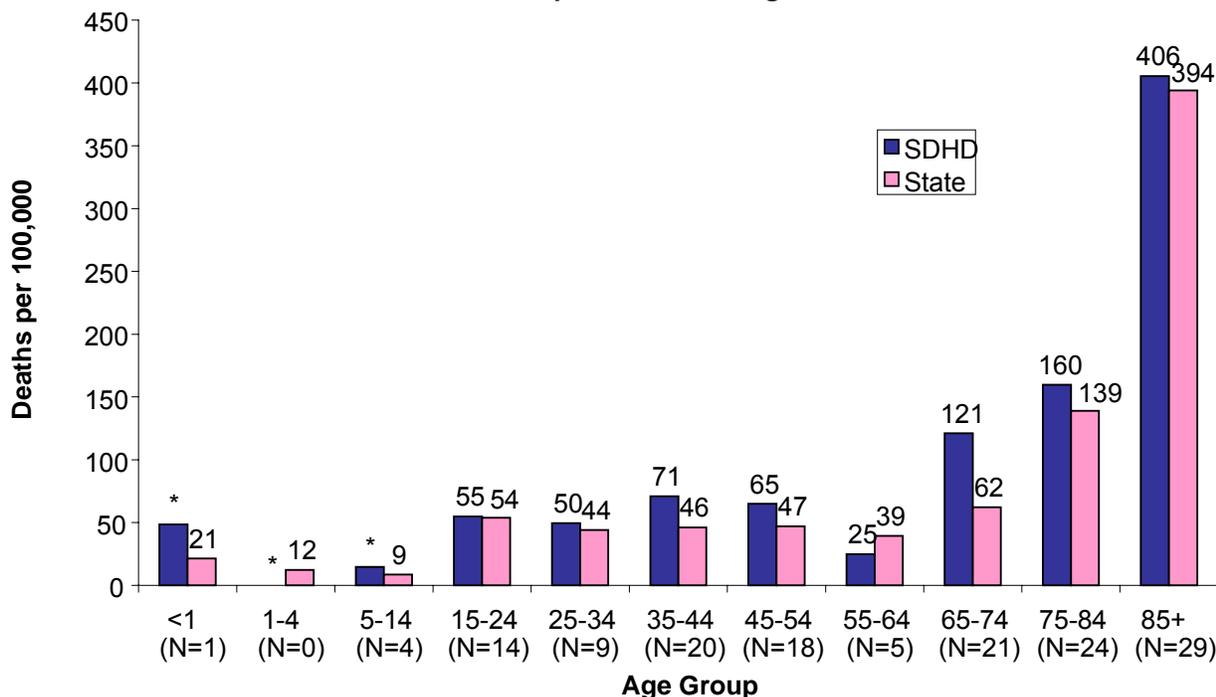
**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race, Southeast District Health Department Coverage Area, NE, 1999-2003**

	Southeast District HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	87	60.0	10,826	51.5	2,848	64.3	386,563	53.1
Female	58	40.0	10,187	48.5	1,581	35.7	341,506	46.9
Total	145	100.0	21,013	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	1	0.7	146	0.7	26	0.6	7,142	1.0
1-4	0	0.0	1,378	6.6	58	1.3	59,764	8.2
5-14	4	2.8	3,394	16.2	107	2.4	122,382	16.8
15-24	14	9.7	3,825	18.2	699	15.8	144,001	19.8
25-34	9	6.2	1,737	8.3	486	11.0	84,574	11.6
35-44	20	13.8	2,124	10.1	593	13.4	84,445	11.6
45-54	18	12.4	1,837	8.7	547	12.4	66,321	9.1
55-64	5	3.5	1,244	5.9	292	6.6	39,540	5.4
65-74	21	14.5	1,672	8.0	355	8.0	40,555	5.6
75-84	24	16.6	2,064	9.8	575	13.0	45,135	6.2
85+	29	20.0	1,592	7.6	691	15.6	34,222	4.7
Total	145	100.0	21,013	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	3	2.1			29	0.7		
African American					194	4.4		
Native American	1	0.7			72	1.6		
White	141	97.2			4,123	93.1		
Other					11	0.3		
Total	145	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Injury death rates were the highest for the oldest age group, 85 and older. Persons in this age group had a higher injury death rate of 406 per 100,000 than the Nebraska rate of 394 per 100,000 (*Figure D2*).

**Figure D2: All Injury Death Rates by Age, Southeast District Health Department Coverage Area, NE, 1999-2003**



\* Fewer than five deaths  
Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury death with an age-adjusted rate of 20.9 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (Figure D3).
- Falls were the second leading cause of injury death. The age-adjusted death rate due to falls (9.6 per 100,000) was higher than the Nebraska rate (7.0 per 100,000) (Figure D3).
- Suicide was the third leading cause of injury death at a rate of 9.4 per 100,000 (Figure D3).

**Age**

- Of 41 motor vehicle crash deaths, the most were among persons age 45-54 years (24.4%), followed by those in the 15-24 and 35-44 year age groups (22.0%, 22.0%) (Table D5).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, Southeast District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	0	0.0	1	6.7	1	2.4
15-24	8	30.8	1	6.7	9	22.0
25-34	2	7.7	2	13.3	4	9.8
35-44	7	26.9	2	13.3	9	22.0
45-54	4	15.4	6	40.0	10	24.4
65-74	2	7.7	1	6.7	3	7.3
75-84	3	11.5	1	6.7	4	9.8
85+	0	0.0	1	6.7	1	2.4
<b>Total</b>	<b>26</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>	<b>41</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- Eighty percent of deaths due to fall injuries (N=28) were among persons 75 years and older (*Table D6*).

**Table D6: Deaths Due to Fall by Age and Gender,  
Southeast District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
45-54	1	8.3	0	0.0	1	2.9
65-74	3	25.0	3	13.0	6	17.1
75-84	3	25.0	8	34.8	11	31.4
85+	5	41.7	12	52.2	17	48.6
Total	12	100.0	23	100.0	35	100.0

Source: DHHS Death Certificate Data 1999-2003

- The most suicide deaths were among those in the 35-44 year age group (33.3%) (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Southeast District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	4	25.0	0	0.0	4	22.2
25-34	2	12.5	0	0.0	2	11.1
35-44	5	31.3	1	50.0	6	33.3
45-54	2	12.5	0	0.0	2	11.1
55-64	1	6.3	0	0.0	1	5.6
65-74	2	12.5	1	50.0	3	16.7
Total	16	100.0	2	100.0	18	100.0

Source: DHHS Death Certificate Data 1999-2003

#### Gender

- More males (N=26) died from motor vehicle crashes than females (N=15) (*Table D5*).
- More females (N=23) died from fall-related injuries than males (N=12) (*Table D6*).
- More males (N=16) died from suicide than females (N=2) (*Table D7*).

## Hospital Discharges

### Overall

- The SDHD area had a higher unintentional injury hospital discharge rate (9,524 per 100,000), suicide attempt rate (92 per 100,000), and assault rate (250 per 100,000) than Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Southeast District Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	10,026	96.7	10,562.0	9,349	96.7	8,542.3	19,375	96.7	9,523.8	665,407	95.9	7,609.6
Suicide	52	0.5	60.1	111	1.1	123.0	163	0.8	92.4	6,379	0.9	75.0
Homicide	245	2.4	281.5	184	1.9	220.7	429	2.1	250.2	17,720	2.6	203.9
Undetermined	33	0.3	36.3	22	0.2	23.1	55	0.3	29.5	4,181	0.6	48.3
Other	9	0.1	9.9	1	0.0	*	10	0.0	5.4	404	0.1	4.7
<b>Total</b>	<b>10,365</b>	<b>100.0</b>	<b>10,950.0</b>	<b>9,667</b>	<b>100.0</b>	<b>8,910.1</b>	<b>20,032</b>	<b>100.0</b>	<b>9,901.3</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five discharges

- More males (51.5%) than females (48.5%) were treated at a hospital for all injury-related causes (*Table D4*).

### Leading causes

- Falls were the leading cause of injury-related hospital discharge for all age groups combined, with an age-adjusted rate of 2,904 per 100,000. The rate was higher than the Nebraska rate (2,184 per 100,000) (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury-related hospital discharge for all age groups combined. The age-adjusted hospital discharge rate for struck by/against was higher than the Nebraska rate (1,435 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Overexertion was the third leading cause of injury-related hospital discharge. The age-adjusted rate was higher than the Nebraska rate (955 and 679 per 100,000) (*Table H2 & Figure H1*).
- Cutting/piercing (883 per 100,000) and motor vehicle crashes (670 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> leading cause of injury-related hospital discharge (*Table H2 & Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Southeast District Health Department Coverage Area, NE, 1999-2003**

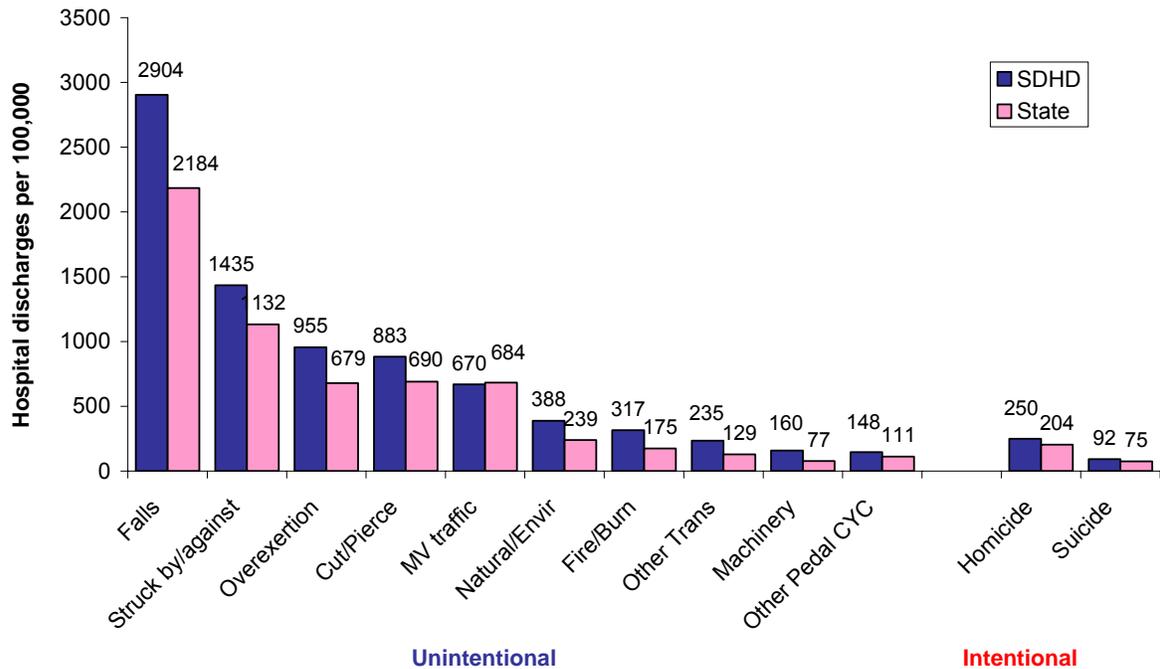
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=51	Falls N=481	Falls N=510	Falls N=505	Struck by/against N=835	Falls N=294	Falls N=403	Falls N=442	Falls N=376	Falls N=738	Falls N=1241	Falls N=1171	Falls N=6,825
2	Struck by/against N=18	Struck by/against N=216	Struck by/against N=262	Struck by/against N=432	Falls N=613	Overexertion N=219	Overexertion N=283	Overexertion N=233	Overexertion N=138	Overexertion N=142	Natural/Envir N=78	Struck by/against N=59	Struck by/against N=2,686
3	Fire/Burn N=13	Natural/Envir N=89	Cut/Pierce N=141	Overexertion N=179	MV traffic N=462	Struck by/against N=205	Cut/Pierce N=267	Struck by/against N=181	Cut/Pierce N=106	Cut/Pierce N=92	Overexertion N=77	Overexertion N=40	Overexertion N=1,812
4	Suffocation N=12	Cut/Pierce N=85	Other Pedal CYC N=101	Cut/Pierce N=156	Overexertion N=422	Cut/Pierce N=193	Struck by/against N=220	Cut/Pierce N=162	Struck by/against N=100	Struck by/against N=92	Struck by/against N=66	Cut/Pierce N=25	Cut/Pierce N=1,644
5	Natural/Envir N=6	Poisoning N=76	Natural/Envir N=91	Other Pedal CYC N=95	Cut/Pierce N=351	MV traffic N=145	MV traffic N=153	MV traffic N=129	MV traffic N=86	MV traffic N=73	Cut/Pierce N=61	Natural/Envir N=17	MV traffic N=1,247

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: NE Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
Southeast District Health Department Coverage Area, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

**Age**

- The injury hospital discharge rate due to falls was the highest for persons age 85 and older, with an age-adjusted rate of 16,375 per 100,000. Among children age 14 and under, the 1-4 year age group had the highest fall injury rate (5,416 per 100,000), which was higher than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 15-24 year age group had the highest injury hospital discharge rate (3,282 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,135.8 per 100,000). Children age 5-14 had the second highest rate at 2,563 per 100,000 (*Table H3*).
- The 15-24 year age group had the highest injury hospital discharge rate due to overexertion (1,659 per 100,000), cutting/piercing (1,380 per 100,000), and motor vehicle crash (1,816 per 100,000) (*Table H3*).

**Gender**

- Females had higher injury hospital discharge rates for falls and motor vehicle crashes than males (3,176 and 689 per 100,000 vs. 2,616 and 650 per 100,000) (*Table H3*).
- The injury hospital discharge rates for struck by/against and cutting/piercing for males were nearly twice those for females (1,860 and 1,123 vs. 1,034 and 656 per 100,000) (*Table H3*).
- Male overexertion injury hospital discharge rates were also higher than female rates (996 vs. 916 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Southeast District Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Southeast District HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	32	1.2	3016	19	0.5	1903.8	51	0.7	2476.9	2298.5	2139.4	2220.8
Falls	1-4	278	10.6	6195.7	203	4.8	4619.9	481	7	5416.1	4871.2	3721.2	4309.7
Falls	5-14	553	21.1	3970.4	462	11	3512.5	1015	14.9	3748	2855.0	2404.1	2634.8
Falls	15-24	364	13.9	2782.4	249	5.9	2014.9	613	9	2409.6	1570.9	1323.5	1449.9
Falls	25-34	115	4.4	1258.2	179	4.3	1988.4	294	4.3	1620.5	1048.4	1303.4	1173.8
Falls	35-44	165	6.3	1166.8	238	5.7	1693.1	403	5.9	1429.2	1084.2	1357.6	1220.2
Falls	45-54	191	7.3	1358.9	251	6	1840	442	6.5	1595.9	1116.0	1610.3	1364.2
Falls	55-64	160	6.1	1611.3	216	5.1	2107.7	376	5.5	1863.4	1337.7	1976.8	1664.3
Falls	65-74	194	7.4	2474.8	544	12.9	5733.6	738	10.8	4259.2	2151.5	3581.0	2926.8
Falls	75-84	297	11.3	4908.3	944	22.4	10522	1241	18.2	8260.7	4355.2	7355.0	6138.2
Falls	85+	270	10.3	12906	901	21.4	17810	1171	17.2	16375	10070.0	14640.0	13320.0
<b>Total</b>		2619	100.0	2615.9	4206	100.0	3176.0	6825	100.0	2904.0	2013.8	2349.3	2184.0
Struck by/against	<1	10	0.6	942.5	8	0.8	801.6	18	0.7	874.2	836	692.9	766.1
Struck by/against	1-4	120	7	2674.4	96	10	2184.8	216	8	2432.2	2812.4	1729.5	2283.7
Struck by/against	5-14	437	25.4	3137.6	257	26.7	1953.9	694	25.8	2562.7	2919.3	1521.6	2236.7
Struck by/against	15-24	598	34.7	4571.2	237	24.6	1917.8	835	31.1	3282.2	3069.3	1161.5	2135.8
Struck by/against	25-34	132	7.7	1444.2	73	7.6	810.9	205	7.6	1130	1212	676.9	948.9
Struck by/against	35-44	136	7.9	961.7	84	8.7	597.6	220	8.2	780.2	854.1	527.3	691.6
Struck by/against	45-54	119	6.9	846.7	62	6.4	454.5	181	6.7	653.5	574.9	385.7	479.9
Struck by/against	55-64	67	3.9	674.7	33	3.4	322	100	3.7	495.6	414.7	291.2	351.6
Struck by/against	65-74	58	3.4	739.9	34	3.5	358.3	92	3.4	531	415.7	292.7	349
Struck by/against	75-84	30	1.7	495.8	36	3.7	401.2	66	2.5	439.3	415.6	363.7	384.7
Struck by/against	85+	16	0.9	764.8	43	4.5	850	59	2.2	825.1	507.4	519.4	516
<b>Total</b>		1723	100.0	1859.6	963	100.0	1033.6	2686	100.0	1435.0	1488.5	786.4	1132.3
Overexertion	<1	0	0	*	3	0.3	*	3	0.2	145.7	111.1	156.8	133.4
Overexertion	1-4	14	1.5	312	22	2.5	500.7	36	2	405.4	352.6	519.6	434.1
Overexertion	5-14	97	10.4	696.4	122	13.9	927.5	219	12.1	808.7	537.1	610.3	572.9
Overexertion	15-24	250	26.8	1911	172	19.6	1391.8	422	23.3	1658.8	1317.5	1024.1	1173.9
Overexertion	25-34	103	11	1126.9	116	13.2	1288.6	219	12.1	1207.1	952.4	828.7	891.6
Overexertion	35-44	164	17.6	1159.7	119	13.5	846.6	283	15.6	1003.6	817.7	677.3	747.9
Overexertion	45-54	130	13.9	924.9	103	11.7	755.1	233	12.9	841.3	616.4	572.9	594.5
Overexertion	55-64	73	7.8	735.1	65	7.4	634.3	138	7.6	683.9	426.6	433.8	430.3
Overexertion	65-74	65	7	829.2	77	8.8	811.6	142	7.8	819.5	356.1	445.4	404.6
Overexertion	75-84	30	3.2	495.8	47	5.3	523.9	77	4.2	512.5	311.8	419.9	376.0
Overexertion	85+	7	0.8	334.6	33	3.8	652.3	40	2.2	559.4	236.9	387.2	343.8
<b>Total</b>		933	100.0	996.0	879	100.0	916.5	1812	100.0	955.0	705.5	635.6	679.2
Cut/Pierce	<1	1	0.1	*	4	0.7	*	5	0.3	242.8	228.7	185.5	207.6
Cut/Pierce	1-4	43	4.1	958.3	42	6.9	955.8	85	5.2	957.1	925.2	609.5	771.1
Cut/Pierce	5-14	178	17.2	1278	119	19.6	904.7	297	18.1	1096.7	1033.2	615.8	829.4
Cut/Pierce	15-24	238	23	1819.3	113	18.6	914.4	351	21.4	1379.7	1399.6	650.1	1032.9
Cut/Pierce	25-34	136	13.1	1488	57	9.4	633.2	193	11.7	1063.8	1138.4	596.8	872.2
Cut/Pierce	35-44	153	14.8	1082	114	18.8	811	267	16.2	946.9	861	517.5	690.1
Cut/Pierce	45-54	104	10	740	58	9.6	425.2	162	9.9	584.9	650.7	401.2	525.4
Cut/Pierce	55-64	70	6.8	704.9	36	5.9	351.3	106	6.4	525.3	555	309.7	429.6
Cut/Pierce	65-74	65	6.3	829.2	27	4.4	284.6	92	5.6	531	582.4	266.5	411.1
Cut/Pierce	75-84	43	4.1	710.6	18	3	200.6	61	3.7	406	448.3	214.8	309.5
Cut/Pierce	85+	6	0.6	286.8	19	3.1	375.6	25	1.5	349.6	333.7	194.8	234.9
<b>Total</b>		1037	100.0	1122.6	607	100.0	656.2	1644	100.0	883.0	893.0	492.5	689.8
MV traffic	<1	1	0.2	*	0	0	*	1	0.1	*	128.9	121.4	125.2
MV traffic	1-4	18	3	401.2	7	1.1	159.3	25	2	281.5	251.0	229.3	240.4
MV traffic	5-14	52	8.5	373.3	49	7.7	372.5	101	8.1	373	400.0	436.0	417.6
MV traffic	15-24	205	33.7	1567	257	40.3	2079.6	462	37	1816	1444.2	1831.5	1633.7
MV traffic	25-34	66	10.8	722.1	79	12.4	877.6	145	11.6	799.3	855.6	993.0	923.2
MV traffic	35-44	82	13.5	579.9	71	11.1	505.1	153	12.3	542.6	607.3	708.3	657.6
MV traffic	45-54	76	12.5	540.7	53	8.3	388.5	129	10.3	465.8	476.5	523.1	499.9
MV traffic	55-64	36	5.9	362.5	50	7.8	487.9	86	6.9	426.2	346.5	441.2	394.9
MV traffic	65-74	37	6.1	472	36	5.6	379.4	73	5.9	421.3	327.3	382.2	357.1
MV traffic	75-84	32	5.3	528.8	26	4.1	289.8	58	4.7	386.1	402.4	393.8	397.3
MV traffic	85+	4	0.7	*	10	1.6	197.7	14	1.1	195.8	404.8	248.5	293.6
<b>Total</b>		609	100.0	649.7	638	100.0	688.6	1247	100.0	670.0	629.3	737.3	684.0

Source: Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

## INJURY REPORT, 1999-2003

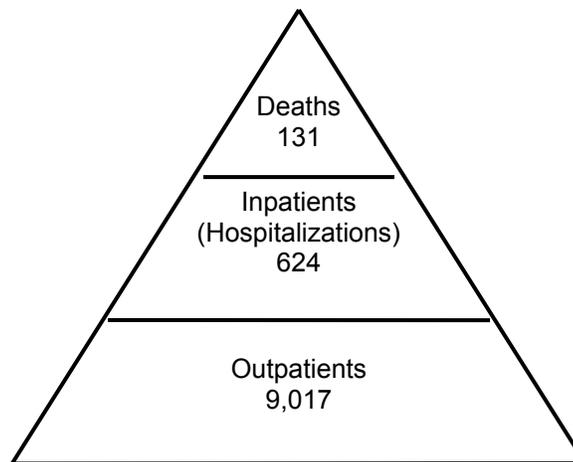
### South Heartland District Health Department Coverage Area

Adams, Clay, Nuckolls, and Webster Counties

#### Summary

Injury is a public health problem in the South Heartland District Health Department (SHDHD) coverage area. Overall, unintentional injury is the fourth leading cause of death (*Table D1*). From 1999 to 2003, in addition to over 100 injury deaths, over 600 residents in Adams, Clay, Nuckolls, and Webster Counties were hospitalized and more than 9,000 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharge and struck by/against injuries were second, followed by motor vehicle crashes, cutting/piercing, and overexertion.

**Figure A: Injury Pyramid, Residents of South Heartland District Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 10-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were more than twice as likely as females to die from an injury.

The following table highlights the SHDHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, motor vehicle crashes, and suicide (*Table A*).

**Table A: Injury Death Rates, South Heartland District Health Department Coverage Area, NE, 2003**

Cause of Death	Age-adjusted Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	39.2	19.4
Fall	*	3.5
Motor Vehicle Crash	14.7	12
Suicide	12.6	8.2
Homicide	*	2

Source: DHHS Death Certificate Data 2003

\* Fewer than five deaths

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the SHDHD coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
South Heartland District Health Department Coverage Area, Nebraska, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	850
2	Cancer	561
3	Stroke	195
4	Unintentional injury	97
5	Chronic Lung	89

Source: DHHS Death Certificate Data 2003

- An average of 25 residents died because of injury each year in the counties served by the SHDHD (*Table D2*).
- Deaths due to injuries made up 4.8% of total deaths in the SHDHD coverage area compared to 6% of total deaths in Nebraska. In the SHDHD counties, among 10-24 year olds more than 80% of deaths were due to injuries (*Table D2*).

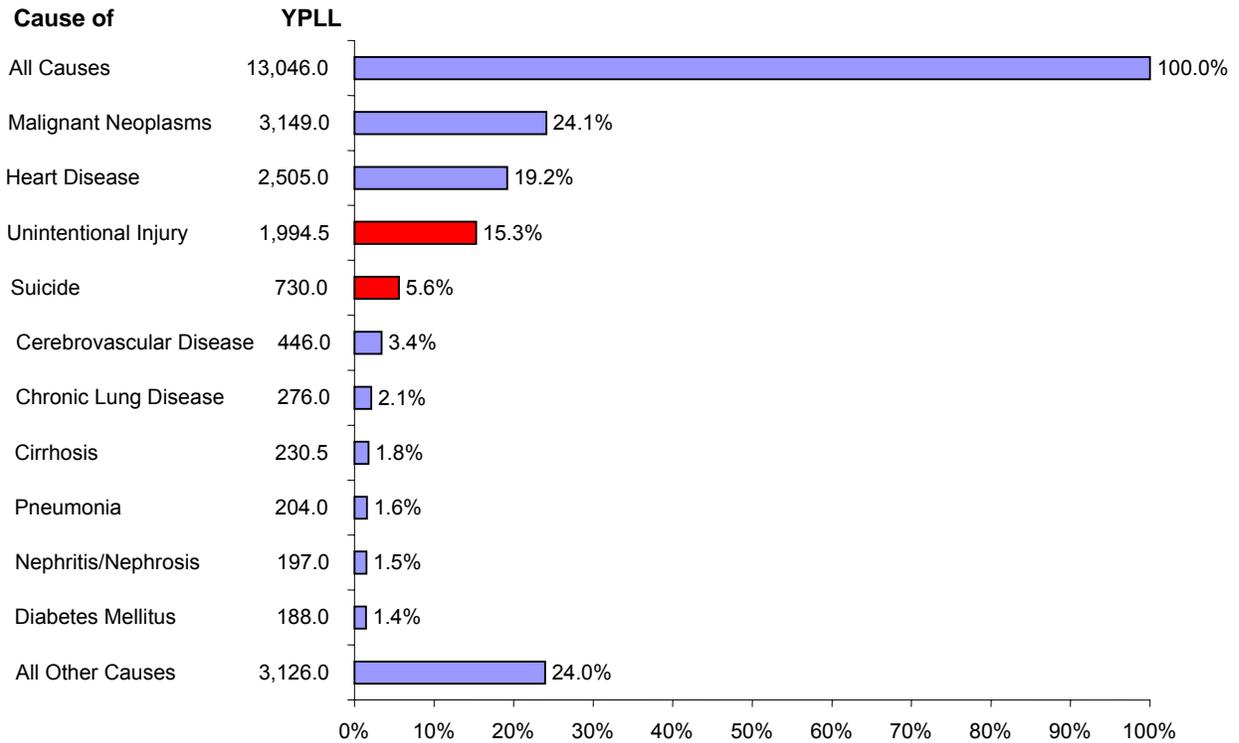
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
South Heartland District Health Department Coverage Area, NE, 1999-2003**

Age Group	Annual Average			Percent of Death due to Injury
	Injury Deaths	Injury Deaths	All Deaths	
<1	0	0	18	0.0
1-4	0	0	3	0.0
5-9	0	0	0	0.0
10-14	2	0	2	100.0
15-19	12	2	15	80.0
20-24	10	2	11	90.9
25-29	8	2	14	57.1
30-34	4	1	13	30.8
35-39	6	1	22	27.3
40-44	6	1	32	18.8
45-49	5	1	29	17.2
50-54	2	0	35	5.7
55-59	7	1	81	8.6
60-64	8	2	107	7.5
65-74	13	3	404	3.2
75-84	11	2	759	1.4
85+	30	6	1,058	2.8
<b>Total</b>	<b>124</b>	<b>25</b>	<b>2,603</b>	<b>4.8</b>

Source: DHHS Death Certificate Data 2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked third (15.3%), following those from cancer (24.1%) and heart disease (19.2%). Suicide ranked 4<sup>th</sup> at 5.6% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before 75 by Cause of Death  
South Heartland District Health Department Coverage Area, NE, 1999-2003**



- The SHDHD coverage counties had a higher unintentional injury rate (35.6 per 100,000) and lower suicide rate (9.4 per 100,000) when compared to Nebraska rates (33.3 and 10.6 per 100,000 respectively) (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates,  
South Heartland District Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	42	64.6	47.8	27	75.0	20.8	69	68.3	33.7	3,020	68.3	33.3
Suicide	19	29.2	22.5	5	13.9	6.1	24	23.8	14.0	894	20.2	10.6
Homicide	2	3.1	*	1	2.8	*	3	3.0	*	273	6.2	3.2
Undetermined	1	1.5	*	2	5.6	*	3	3.0	*	139	3.1	1.6
Adverse Effects	1	1.5	*	1	2.8	*	2	2.0	*	93	2.1	1.0
<b>Total</b>	<b>65</b>	<b>100.0</b>	<b>75.0</b>	<b>36</b>	<b>100.0</b>	<b>29.8</b>	<b>101</b>	<b>100.0</b>	<b>51.4</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 2003

\* Fewer than five deaths

- More males (65.7%) died from all injury-related causes than females in the SHDHD coverage area (34.4%) (Table D4).

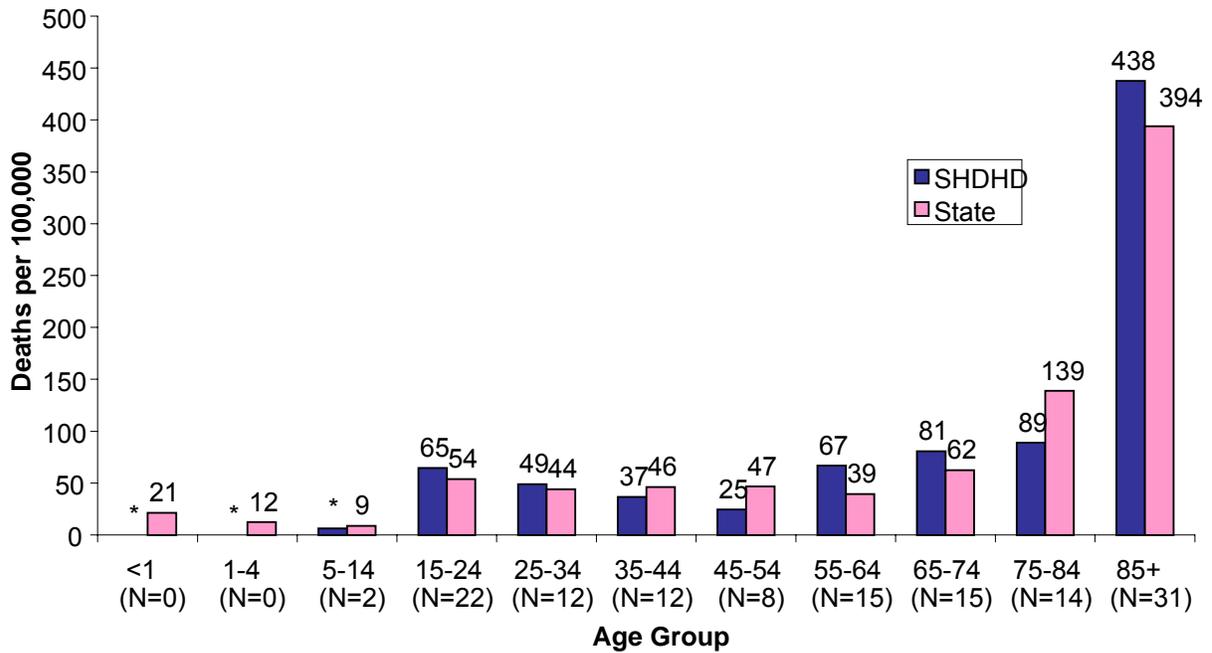
**Table D4: Injury-related Deaths and Hospital Discharges by Gender, Age, and Race, South Heartland District Health Department Coverage Area, NE, 1999-2003**

	South Heartland District HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	86	65.7	4,965	51.5	2,848	64.3	386,563	53.1
Female	45	34.4	4,676	48.5	1,581	35.7	341,506	46.9
Total	131	100.0	9,641	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	0	0.0	48	0.5	26	0.6	7,142	1.0
1-4	0	0.0	536	5.6	58	1.3	59,764	8.2
5-14	2	1.5	1,478	15.3	107	2.4	122,382	16.8
15-24	22	16.8	1,853	19.2	699	15.8	144,001	19.8
25-34	12	9.2	886	9.2	486	11.0	84,574	11.6
35-44	12	9.2	915	9.5	593	13.4	84,445	11.6
45-54	8	6.1	805	8.4	547	12.4	66,321	9.1
55-64	15	11.5	587	6.1	292	6.6	39,540	5.4
65-74	15	11.5	810	8.4	355	8.0	40,555	5.6
75-84	14	10.7	962	10.0	575	13.0	45,135	6.2
85+	31	23.7	761	7.9	691	15.6	34,222	4.7
Total	131	100.0	9,641	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	0	0.0			194	4.4		
Native American	0	0.0			72	1.6		
White	131	100.0			4,123	93.1		
Other	0	0.0			11	0.3		
Total	131	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Injury death rates were the highest for the oldest age group, 85 and older. Persons in this age group in the SHDHD counties had an injury death rate of 438 per 100,000 compared to the Nebraska rate of 394 per 100,000 (*Figure D2*).

**Figure D2: All Injury Death Rates by Age,  
South Heartland District Health Department Coverage Area, NE, 1999-2003**

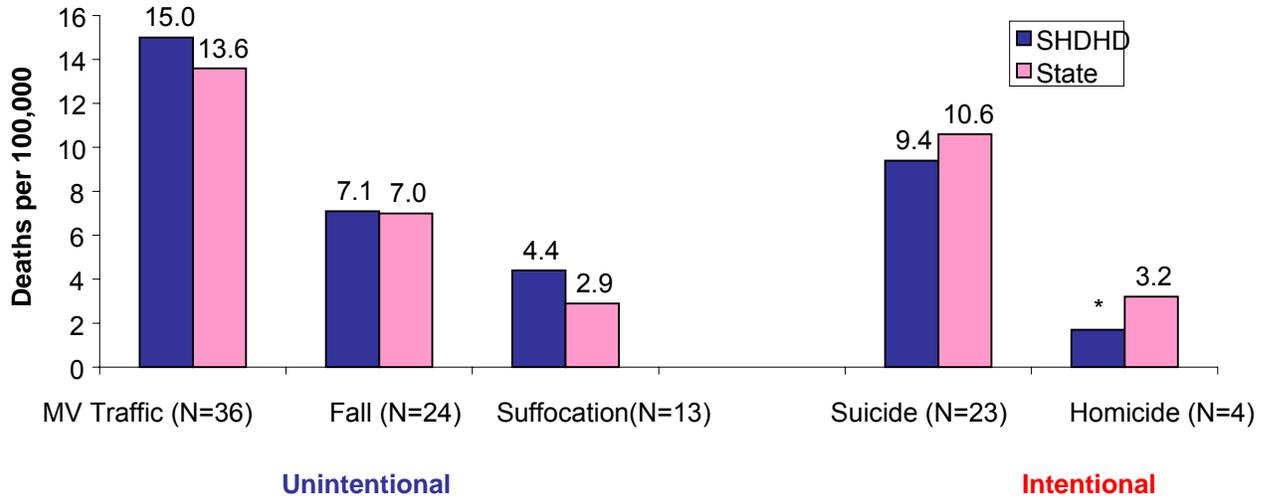


\* Fewer than five deaths  
Source: DHHS Death Certificate Data 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury death in the counties served by the SHDHD with an age-adjusted rate of 15 per 100,000. The rate was slightly higher than the Nebraska rate (13.6 per 100,000) (Figure D3).
- Suicide was the second leading cause of injury death. The age-adjusted death rate for suicide was slightly lower than the Nebraska rate (9.4 and 10.6 per 100,000 respectively) (Figure D3).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls was similar to the Nebraska rate (7.1 and 7.0 per 100,000 respectively) (Figure D3).

**Figure D3: Age-adjusted Injury Death Rates by Cause, South Heartland District Health Department Coverage Area, NE, 1999-2003**



\* Fewer than five deaths

Source: DHHS Death certificate Data 1999-2003

**Age**

- More than half (52%) of all injury deaths for teens and young adults age 15-24 years were caused by motor vehicle crashes (*Table D5*).
- More than 62% of deaths due to fall injuries (N=15) were among persons 85 years and older (*Table D6*).
- Teens and young adults age 15-24 years had the highest percentage (30.4%) of suicide deaths compared to those in other age groups in SHDHD area (*Table D7*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, South Heartland District Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	11	50.0	2	33.3	13	52.0
25-34	3	15.8	3	50.0	6	24.0
35-44	3	15.8	2	33.3	5	20.0
45-54	2	10.5	1	16.7	3	12.0
55-64	2	10.5	2	33.3	4	16.0
65-74	0	0.0	2	33.3	2	8.0
75-84	1	5.3	0	0.0	1	4.0
85+	0	0.0	2	33.3	2	8.0
<b>Total</b>	<b>22</b>	<b>115.8</b>	<b>14</b>	<b>233.3</b>	<b>36</b>	<b>144.0</b>

Source: DHHS Death Certificate Data 2003

**Table D6: Deaths Due to Fall by Age and Gender,  
South Heartland District Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
25-34	1	7.7	0	0.0	1	4.2
45-54	0	0.0	1	9.1	1	4.2
55-64	2	15.4	0	0.0	2	8.3
65-74	1	7.7	0	0.0	1	4.2
75-84	2	15.4	2	18.2	4	16.7
85+	7	53.8	8	72.7	15	62.5
<b>Total</b>	<b>13</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>24</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 2003

**Table D7: Deaths Due to Suicide by Age and Gender,  
South Heartland District Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	0	0.0	1	50.0	1	4.3
15-24	6	28.6	1	50.0	7	30.4
25-34	2	9.5	0	0.0	2	8.7
35-44	2	9.5	0	0.0	2	8.7
45-54	1	4.8	0	0.0	1	4.3
55-64	5	23.8	0	0.0	5	21.7
65-74	2	9.5	0	0.0	2	8.7
75-84	2	9.5	0	0.0	2	8.7
85+	1	4.8	0	0.0	1	4.3
<b>Total</b>	<b>21</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>23</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 2003

#### Gender

- More males (N=22) died from motor vehicle crashes than females (N=14) (*Table D5*).
- More males (N=13) died from falls than females (N=11) (*Table D6*).
- More males (N=21) died from suicide than females (N=2) (*Table D7*).

## Hospital Discharges

### Overall

- The SHDHD coverage area had a lower unintentional injury-related hospital discharge rate (3,369.7 per 100,000), suicide attempt rate (21.5 per 100,000), and homicide rate (50.3 per 100,000) compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, South Heartland District Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	4,287	97.7	3,743.2	3,892	98.1	3,014.0	8,179	97.9	3,369.7	665,407	95.9	7,609.6
Suicide	16	0.4	13.6	30	0.8	29.1	46	0.6	21.5	6,379	0.9	75.0
Homicide	77	1.8	66.0	37	0.9	35.3	114	1.4	50.3	17,720	2.6	203.9
Undetermined	5	0.1	4.4	10	0.3	9.9	15	0.2	7.2	4,181	0.6	48.3
Other	2	0.0	*	0	0.0	*	2	0.0	*	404	0.1	4.7
<b>Total</b>	<b>4,387</b>	<b>100.0</b>	<b>3,829.2</b>	<b>3,969</b>	<b>100.0</b>	<b>3,088.3</b>	<b>8,356</b>	<b>100.0</b>	<b>3,449.7</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five discharges

- More males (51.5%) than females (48.5%) were treated at a hospital for all injury-related causes (*Table D4*).

### Leading causes

- Falls were the leading cause of injury-related hospital discharge for all age groups combined, with an age-adjusted rate of 1,071 per 100,000. The rate was less than half the Nebraska rate (2,184 per 100,000) (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury-related hospital discharge for all age groups combined. The age-adjusted hospital discharge rate for struck by/against was lower than the Nebraska rate (535 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Motor vehicle crashes were the third leading cause of injury-related hospital discharge. The age-adjusted rate was lower than the Nebraska rate (338 and 684 per 100,000) (*Table H2 & Figure H1*).
- Cutting/piercing (268 per 100,000) and overexertion (251 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking cause of injury-related hospital discharge in the SHDHD coverage area (*Table H2 & Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, South Heartland District Health Department Coverage Area, NE, 1999-2003**

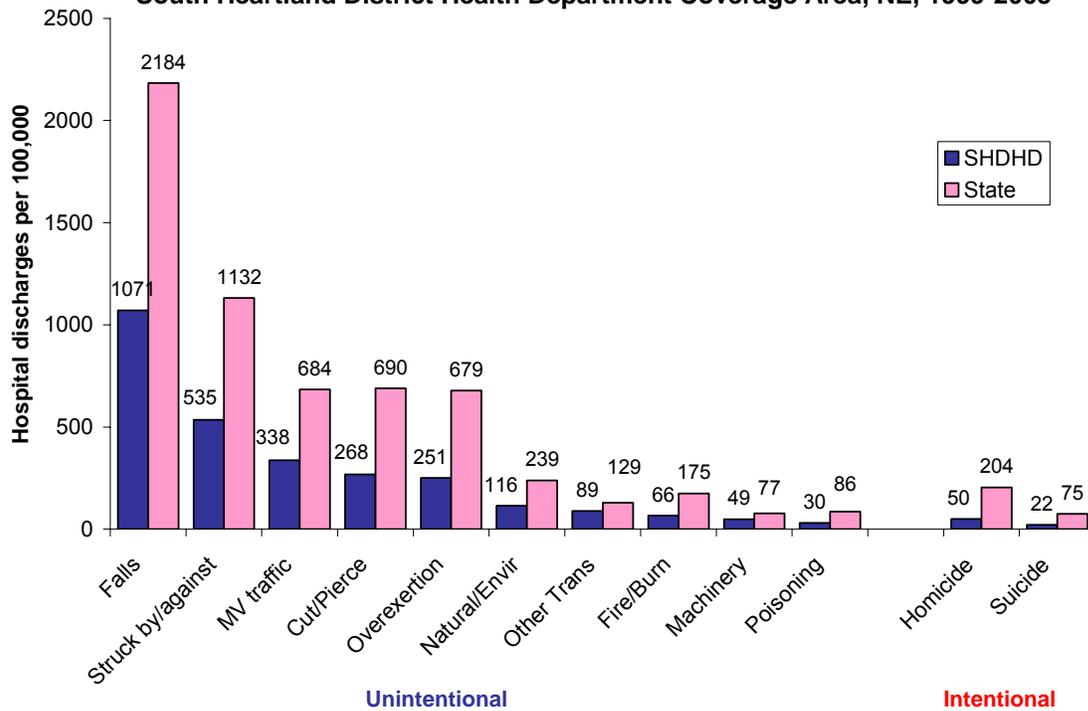
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=23	Falls N=205	Falls N=184	Struck by/against N=254	Struck by/against N=423	Falls N=137	Falls N=180	Falls N=202	Falls N=166	Falls N=325	Falls N=494	Falls N=471	Falls N=2,878
2	Struck by/against N=5	Struck by/against N=68	Struck by/against N=117	Falls N=232	MV traffic N=297	MV traffic N=121	Cut/Pierce N=98	Cut/Pierce N=81	Cut/Pierce N=47	Overexertion N=45	MV traffic N=29	Struck by/against N=12	Struck by/against N=1,223
3	Suffocation N=4	Fire/Burn N=30	Cut/Pierce N=48	Overexertion N=72	Falls N=259	Struck by/against N=106	MV traffic N=90	MV traffic N=78	Struck by/against N=42	MV traffic N=40	Overexertion N=26	MV traffic N=6	MV traffic N=769
4	Overexertion N=4	Cut/Pierce N=25	Natural/Envir N=26	Cut/Pierce N=65	Overexertion N=160	Cut/Pierce N=76	Struck by/against N=89	Overexertion N=56	MV traffic N=31	Struck by/against N=37	Struck by/against N=17	Natural/Envir N=5	Cut/Pierce N=606
5	Fire/Burn N=3	MV traffic N=24	MV traffic N=18	Other Trans N=38	Cut/Pierce N=118	Overexertion N=71	Overexertion N=78	Struck by/against N=53	Overexertion N=28	Cut/Pierce N=33	Cut/Pierce N=12	Cut/Pierce N=3	Overexertion N=572

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: NE Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
South Heartland District Health Department Coverage Area, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- The injury hospital discharge rate due to falls was the highest for persons age 85 and older. Among children age 14 and under, the 1-4 year age group had the highest fall injury rate (1,849.7 per 100,000), which was lower than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury rate following the 75-84 and 85 and older age groups (*Table H3*).
- The 15-24 year age group had the highest injury hospital discharge rate (1,240.4 per 100,000) for struck by/against, which was lower than the Nebraska rate (2,135.8 per 100,000). The rate was second highest for children ages 5-14 at 1,177.9 per 100,000 (*Table H3*).
- The 15-24 year age group had the highest injury hospital discharge rate (870.9 per 100,000) for motor vehicle crash injuries, which was lower than the Nebraska rate (1,633.7 per 100,000) (*Table H3*).
- The injury hospital discharge rates for cutting/piercing (358.8 per 100,000) and overexertion (469.2 per 100,000) were also the highest for the 5-14 year age group (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls and motor vehicle crashes than males (1,162.1 and 353.6 per 100,000 vs. 975.5 and 321.8 per 100,000). Females also had a higher overexertion injury hospital discharge rate than males (254.3 vs. 248.3 per 100,000) (*Table H3*).
- Males had higher injury hospital discharge rates for struck by/against and cutting/piercing than females (708.6 and 368.5 vs. 370.1 and 172.4 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, South Heartland District Health Department Coverage Area, NE, 1999-2003**

Cause	Age	South Heartland District HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
Falls	<1	17	1.5	1216.9	6	0.3	438.3	23	0.8	831.5	2298.5	2139.4	2220.8
Falls	1-4	116	10.1	1998.6	89	5.2	1685.9	205	7.1	1849.7	4871.2	3721.2	4309.7
Falls	5-14	198	17.2	1248.4	218	12.6	1394.2	416	14.5	1320.8	2855.0	2404.1	2634.8
Falls	15-24	148	12.9	848.3	111	6.4	666.4	259	9	759.5	1570.9	1323.5	1449.9
Falls	25-34	59	5.1	469.4	78	4.5	653.6	137	4.8	559.1	1048.4	1303.4	1173.8
Falls	35-44	85	7.4	512	95	5.5	589.9	180	6.3	550.3	1084.2	1357.6	1220.2
Falls	45-54	87	7.6	534.8	115	6.7	710.7	202	7	622.5	1116.0	1610.3	1364.2
Falls	55-64	70	6.1	642.4	96	5.6	834.5	166	5.8	741	1337.7	1976.8	1664.3
Falls	65-74	101	8.8	1222.5	224	13	2167.6	325	11.3	1747.7	2151.5	3581.0	2926.8
Falls	75-84	171	14.9	2656.1	323	18.7	3479.5	494	17.2	3142.3	4355.2	7355.0	6138.2
Falls	85+	98	8.5	4766.5	373	21.6	7425.8	471	16.4	6653.5	10070.0	14640.0	13320.0
<b>Total</b>		<b>1150</b>	<b>100.0</b>	<b>975.5</b>	<b>1728</b>	<b>100.0</b>	<b>1162.1</b>	<b>2878</b>	<b>100.0</b>	<b>1071.0</b>	<b>2013.8</b>	<b>2349.3</b>	<b>2184.0</b>
Struck by/against	<1	4	0.5	*	1	0.2	*	5	0.4	180.8	836	692.9	766.1
Struck by/against	1-4	45	5.6	775.3	23	5.6	435.7	68	5.6	613.6	2812.4	1729.5	2283.7
Struck by/against	5-14	224	27.7	1412.4	147	35.5	940.1	371	30.3	1177.9	2919.3	1521.6	2236.7
Struck by/against	15-24	322	39.8	1845.7	101	24.4	606.4	423	34.6	1240.4	3069.3	1161.5	2135.8
Struck by/against	25-34	70	8.7	557	36	8.7	301.7	106	8.7	432.6	1212	676.9	948.9
Struck by/against	35-44	54	6.7	325.2	35	8.5	217.3	89	7.3	272.1	854.1	527.3	691.6
Struck by/against	45-54	29	3.6	178.3	24	5.8	148.3	53	4.3	163.3	574.9	385.7	479.9
Struck by/against	55-64	28	3.5	257	14	3.4	121.7	42	3.4	187.5	414.7	291.2	351.6
Struck by/against	65-74	21	2.6	254.2	16	3.9	154.8	37	3	199	415.7	292.7	349
Struck by/against	75-84	7	0.9	108.7	10	2.4	107.7	17	1.4	108.1	415.6	363.7	384.7
Struck by/against	85+	5	0.6	243.2	7	1.7	139.4	12	1	169.5	507.4	519.4	516
<b>Total</b>		<b>809</b>	<b>100.0</b>	<b>708.6</b>	<b>414</b>	<b>100.0</b>	<b>370.1</b>	<b>1223</b>	<b>100.0</b>	<b>535.0</b>	<b>1488.5</b>	<b>786.4</b>	<b>1132.3</b>
MV traffic	<1	0	0	*	1	0.2	*	1	0.1	*	128.9	121.4	125.2
MV traffic	1-4	11	3	189.5	13	3.2	246.3	24	3.1	216.5	251.0	229.3	240.4
MV traffic	5-14	18	4.9	113.5	34	8.5	217.4	52	6.8	165.1	400.0	436.0	417.6
MV traffic	15-24	134	36.5	768.1	163	40.5	978.6	297	38.6	870.9	1444.2	1831.5	1633.7
MV traffic	25-34	64	17.4	509.2	57	14.2	477.6	121	15.7	493.8	855.6	993.0	923.2
MV traffic	35-44	41	11.2	246.9	49	12.2	304.3	90	11.7	275.2	607.3	708.3	657.6
MV traffic	45-54	49	13.4	301.2	29	7.2	179.2	78	10.1	240.4	476.5	523.1	499.9
MV traffic	55-64	17	4.6	156	14	3.5	121.7	31	4	138.4	346.5	441.2	394.9
MV traffic	65-74	18	4.9	217.9	22	5.5	212.9	40	5.2	215.1	327.3	382.2	357.1
MV traffic	75-84	15	4.1	233	14	3.5	150.8	29	3.8	184.5	402.4	393.8	397.3
MV traffic	85+	0	0	*	6	1.5	119.5	6	0.8	84.8	404.8	248.5	293.6
<b>Total</b>		<b>367</b>	<b>100.0</b>	<b>321.8</b>	<b>402</b>	<b>100.0</b>	<b>353.6</b>	<b>769</b>	<b>100.0</b>	<b>338.0</b>	<b>629.3</b>	<b>737.3</b>	<b>684.0</b>
Cut/Pierce	<1	0	0	*	0	0	*	0	0	*	228.7	185.5	207.6
Cut/Pierce	1-4	19	4.6	327.4	6	3.1	113.7	25	4.1	225.6	925.2	609.5	771.1
Cut/Pierce	5-14	66	16	416.1	47	24.2	300.6	113	18.6	358.8	1033.2	615.8	829.4
Cut/Pierce	15-24	88	21.4	504.4	30	15.5	180.1	118	19.5	346	1399.6	650.1	1032.9
Cut/Pierce	25-34	55	13.3	437.6	21	10.8	176	76	12.5	310.2	1138.4	596.8	872.2
Cut/Pierce	35-44	69	16.7	415.6	29	14.9	180.1	98	16.2	299.6	861	517.5	690.1
Cut/Pierce	45-54	56	13.6	344.3	25	12.9	154.5	81	13.4	249.6	650.7	401.2	525.4
Cut/Pierce	55-64	32	7.8	293.7	15	7.7	130.4	47	7.8	209.8	555	309.7	429.6
Cut/Pierce	65-74	20	4.9	242.1	13	6.7	125.8	33	5.4	177.5	582.4	266.5	411.1
Cut/Pierce	75-84	5	1.2	77.7	7	3.6	75.4	12	2	76.3	448.3	214.8	309.5
Cut/Pierce	85+	2	0.5	*	1	0.5	*	3	0.5	*	333.7	194.8	234.9
<b>Total</b>		<b>412</b>	<b>100.0</b>	<b>368.5</b>	<b>194</b>	<b>100.0</b>	<b>172.4</b>	<b>606</b>	<b>100.0</b>	<b>268.0</b>	<b>893.0</b>	<b>492.5</b>	<b>689.8</b>
Overexertion	<1	2	0.7	*	2	0.7	*	4	0.7	*	111.1	156.8	133.4
Overexertion	1-4	9	3.1	155.1	8	2.8	151.5	17	3	153.4	352.6	519.6	434.1
Overexertion	5-14	37	12.9	233.3	49	17.2	313.4	86	15	273.1	537.1	610.3	572.9
Overexertion	15-24	81	28.2	464.3	79	27.7	474.3	160	28	469.2	1317.5	1024.1	1173.9
Overexertion	25-34	42	14.6	334.2	29	10.2	243	71	12.4	289.8	952.4	828.7	891.6
Overexertion	35-44	44	15.3	265	34	11.9	211.1	78	13.6	238.5	817.7	677.3	747.9
Overexertion	45-54	28	9.8	172.1	28	9.8	173	56	9.8	172.6	616.4	572.9	594.5
Overexertion	55-64	7	2.4	64.2	21	7.4	182.5	28	4.9	125	426.6	433.8	430.3
Overexertion	65-74	24	8.4	290.5	21	7.4	203.2	45	7.9	242	356.1	445.4	404.6
Overexertion	75-84	13	4.5	201.9	13	4.6	140	26	4.5	165.4	311.8	419.9	376.0
Overexertion	85+	0	0	*	1	0.4	*	1	0.2	*	236.9	387.2	343.8
<b>Total</b>		<b>287</b>	<b>100.0</b>	<b>254.3</b>	<b>285</b>	<b>100.0</b>	<b>248.3</b>	<b>572</b>	<b>100.0</b>	<b>251.0</b>	<b>705.5</b>	<b>635.6</b>	<b>679.2</b>

Source: Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

## INJURY REPORT, 1999-2003

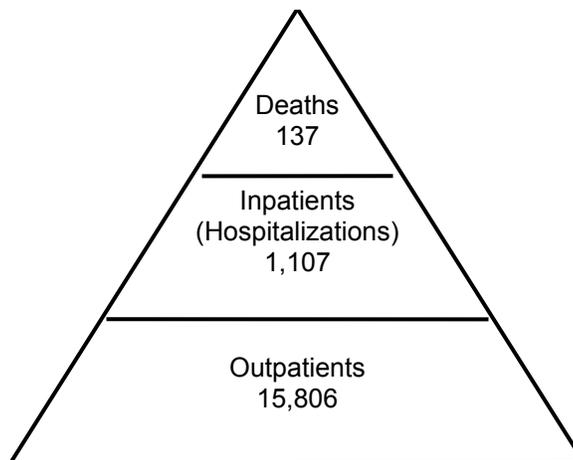
### Southwest Nebraska Public Health Department Coverage Area

Perkins, Chase, Hayes, Frontier, Dundy, Hitchcock, Red Willow, and Furnas Counties

#### Summary

Injury is a public health problem in the Southwest Nebraska Public Health Department (SNPHD) coverage area. Overall, injury is the fourth leading cause of death (*Table D1*). From 1999-2003, in addition to over 137 injury deaths, more than 1,000 residents in Perkins, Chase, Hayes, Frontier, Dundy, Hitchcock, Red Willow, and Furnas Counties were hospitalized and more than 15,800 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury death. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharge and struck by/against injuries were second, followed by cutting/piercing, overexertion and motor vehicle crashes.

**Figure A: Injury Pyramid, Residents of Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 10-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. Males were more likely to die from an injury than females.

The following table highlights the SNPHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries and motor vehicle crashes (*Table A*).

**Table A: Injury Death Rates, Southwest Nebraska Public Health Department Coverage Area, NE, 2003**

Death	Age-adjusted Rate 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	46.3	19.4
Fall	*	3.5
Motor Vehicle Crash	23.6	12
Suicide	*	8.2
Homicide	*	2

Source: DHHS Death Certificate Data 2003

\* Fewer than five deaths

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the counties served by the SNPHD (*Table D1*).

**Table D1: Five Leading Causes of Death, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	569
2	Cancer	437
3	Stroke	169
4	Injury	129
5	Chronic Lung Disease	114

Source: DHHS Death Certificate Data 1999-2003

- An average of 26 residents died because of injury each year in the SNPHD coverage area (*Table D2*).
- Deaths due to injury made up 6.3% of total deaths, compared to 6% of deaths in Nebraska. In the SNPHD area, among 10-14 year olds, 78% of deaths were due to injuries and among 15-19 year olds, 75% of deaths were due to injuries (*Table D2*).

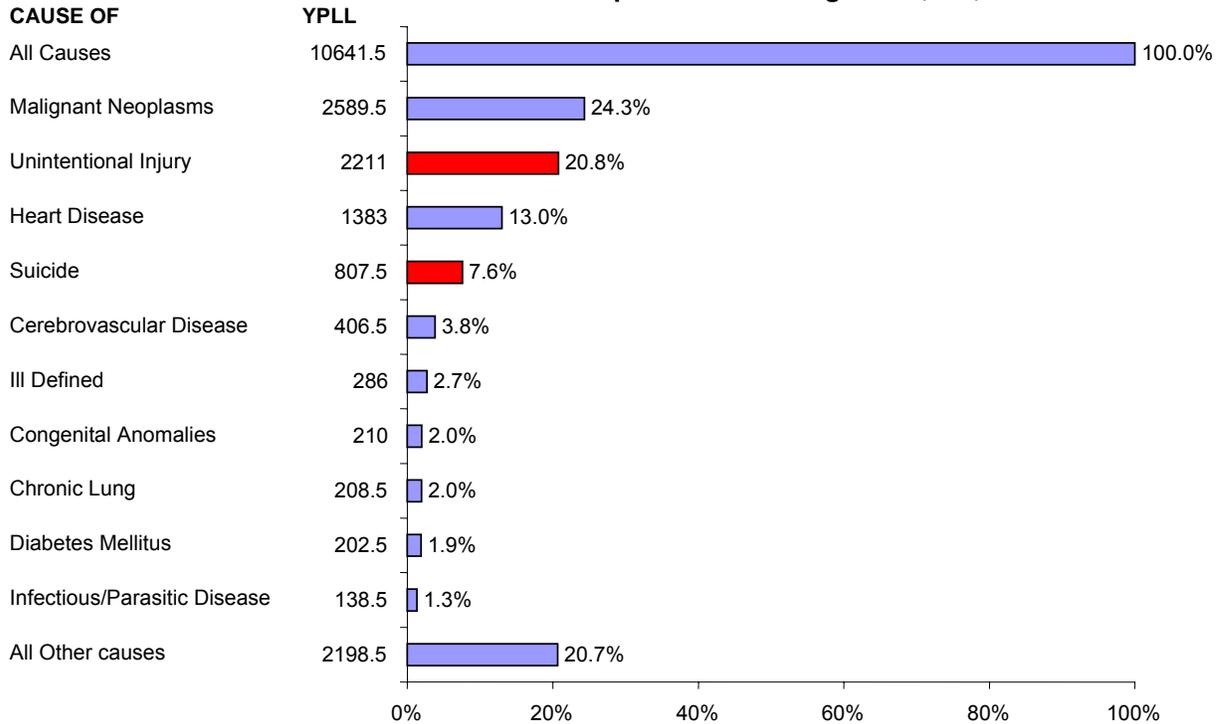
**Table D2: Injury Deaths as a Percent of All Deaths by Age, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Age Group	Injury Deaths	Annual Average Injury Deaths	All Deaths	Percent of Death due to Injury
<1	0	0	7	0.0
1-4	0	0	0	0.0
5-9	0	0	1	0.0
10-14	7	1	9	77.8
15-19	9	2	12	75.0
20-24	9	2	13	69.2
25-29	6	1	9	66.7
30-34	4	1	10	40.0
35-39	7	1	13	53.8
40-44	5	1	23	21.7
45-49	10	2	30	33.3
50-54	8	2	39	20.5
55-59	6	1	65	9.2
60-64	6	1	88	6.8
65-74	11	2	328	3.4
75-84	18	4	587	3.1
85+	23	5	828	2.8
<b>Total</b>	<b>129</b>	<b>26</b>	<b>2,062</b>	<b>6.3</b>

Source: DHHS Death Certificate Data 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked second (20.8%), following those from cancer (24.3%). Suicide ranked 4<sup>th</sup> at 7.6% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before Age 75 by Cause of Death, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**



- The SNPHD had a higher unintentional injury rate (48.1 per 100,000) and suicide rate (17.3 per 100,000) than Nebraska rates (33.3 and 10.6 per 100,000 respectively) (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	49	64.5	56.2	52	85.2	40.4	101	73.7	48.1	3,020	68.3	33.3
Suicide	21	27.6	27.7	6	9.8	7.3	27	19.7	17.3	894	20.2	10.6
Homicide	1	1.3	*	0	0.0	*	1	0.7	*	273	6.2	3.2
Undetermined	4	5.3	*	3	4.9	*	7	5.1	4.2	139	3.1	1.6
Adverse Effects	1	1.3	*	0	0.0	*	1	0.7	*	93	2.1	1.0
<b>Total</b>	<b>76</b>	<b>100.0</b>	<b>91.8</b>	<b>61</b>	<b>100.0</b>	<b>51.3</b>	<b>137</b>	<b>100.0</b>	<b>71.1</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data 1999-2003

\* Fewer than five deaths

- More males (55.5%) died from all injury-related causes than females (44.5%) (Table D4).

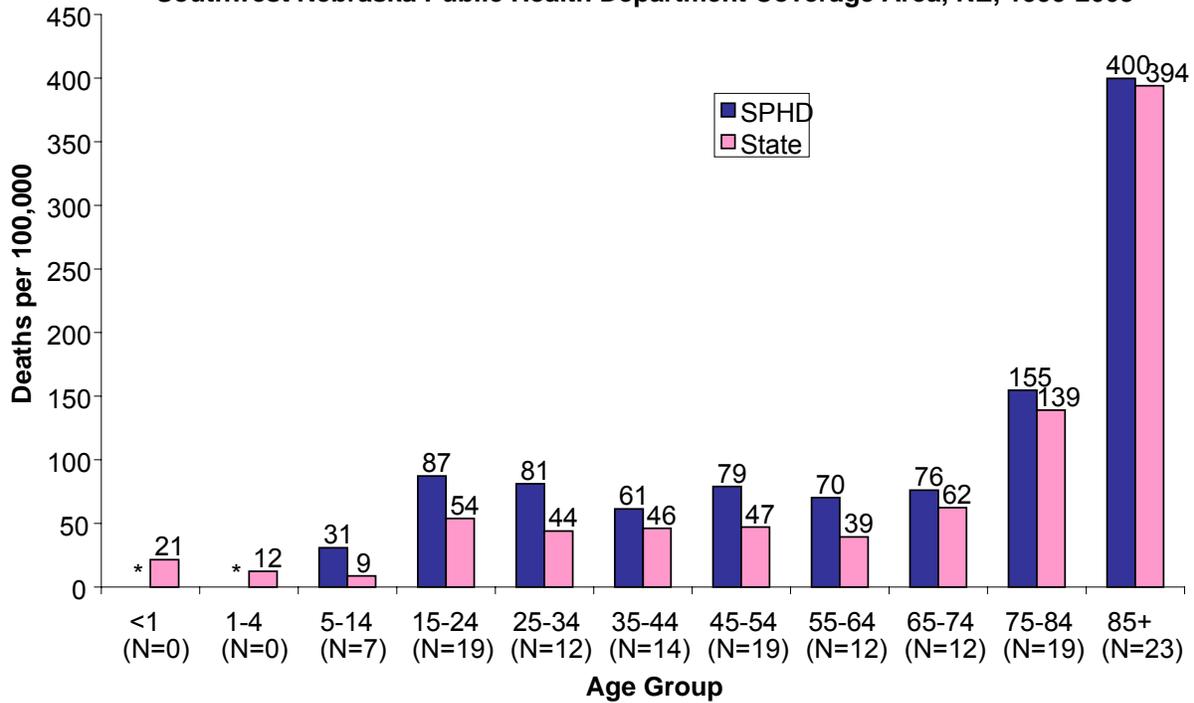
**Table D4: Injury-related Deaths and Hospital Discharges by Gender, Age, and Race, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

	Southwest NE Public HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	76	55.5	8,802	52.0	2,848	64.3	386,563	53.1
Female	61	44.5	8,111	48.0	1,581	35.7	341,506	46.9
Total	137	100.0	16,913	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	0	0.0	123	0.7	26	0.6	7,142	1.0
1-4	0	0.0	1,055	6.2	58	1.3	59,764	8.2
5-14	7	5.1	2,836	16.8	107	2.4	122,382	16.8
15-24	19	13.9	3,441	20.4	699	15.8	144,001	19.8
25-34	12	8.8	1,231	7.3	486	11.0	84,574	11.6
35-44	14	10.2	1,403	8.3	593	13.4	84,445	11.6
45-54	19	13.9	1,287	7.6	547	12.4	66,321	9.1
55-64	12	8.8	946	5.6	292	6.6	39,540	5.4
65-74	12	8.8	1,556	9.2	355	8.0	40,555	5.6
75-84	19	13.9	1,644	9.7	575	13.0	45,135	6.2
85+	23	16.8	1,391	8.2	691	15.6	34,222	4.7
Total	137	100.0	16,913	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	0	0.0			194	4.4		
Native American	2	1.5			72	1.6		
White	134	97.8			4,123	93.1		
Other	1	0.7			11	0.3		
Total	137	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Injury death rates were the highest for the oldest age groups, 75 and older. Persons age 85 and older had an injury death rate of 400 per 100,000 compared to the Nebraska rate of 394 per 100,000 (*Figure D2*).

**Figure D2: All Injury Death Rates by Age,  
Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**



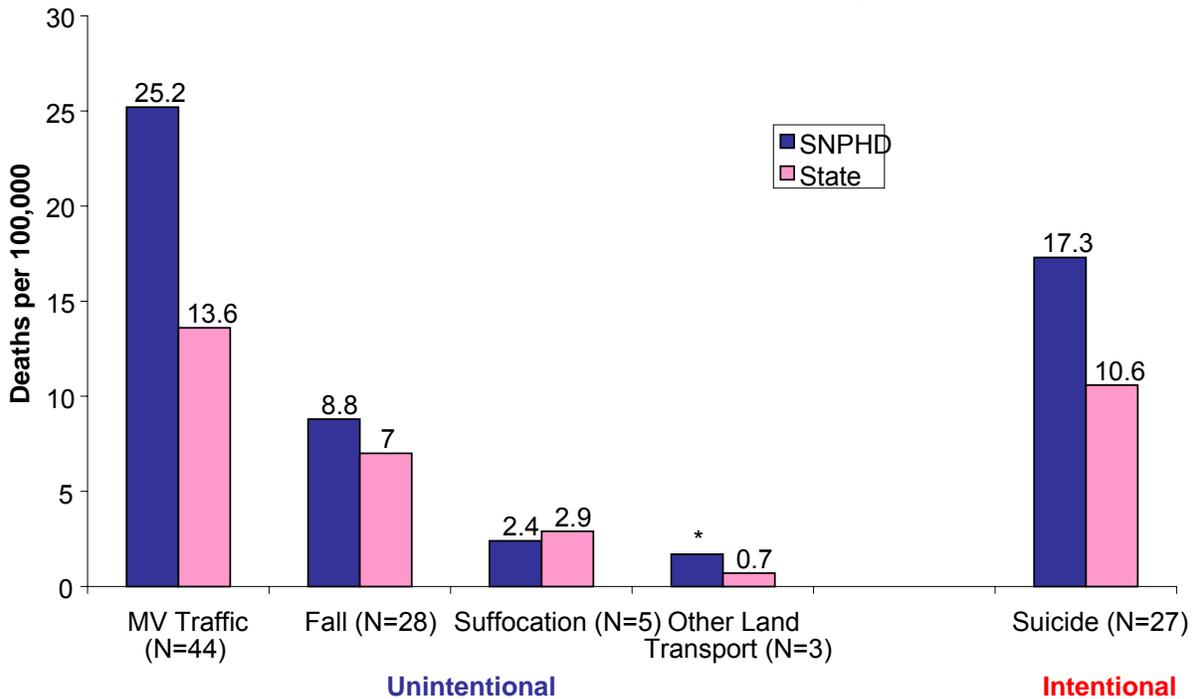
\* Fewer than five deaths

Source: DHHS Death Certificate Data 1999-2003

### Leading causes

- Motor vehicle crashes were the leading cause of injury death, with an age-adjusted rate of 25.2 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (*Figure D3*).
- Suicide was the second leading cause of injury death. The age-adjusted death rate for suicide was higher than the Nebraska rate (17.3 and 10.6 per 100,000 respectively) (*Figure D3*).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls was slightly higher than the Nebraska rate (8.8 and 7.0 per 100,000 respectively) (*Figure D3*).

**Figure D3: Age-adjusted Injury Death Rates by Cause, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data 1999-2003  
\* Fewer than five deaths

**Age**

- Persons age 15-24 years (N=14) had the highest risk of motor vehicle crashes, making up 32% of total deaths (N=44) due to motor vehicle crashes (Table D5).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, Southwest Nebraska Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	1	4.2	4	20.0	5	11.4
15-24	7	29.2	7	35.0	14	31.8
35-44	2	8.3	3	15.0	5	11.4
45-54	7	29.2	2	10.0	9	20.5
55-64	4	16.7	0	0.0	4	9.1
65-74	2	8.3	1	5.0	3	6.8
75-84	0	0.0	1	5.0	1	2.3
85+	1	4.2	2	10.0	3	6.8
<b>Total</b>	<b>24</b>	<b>100.0</b>	<b>20</b>	<b>100.0</b>	<b>44</b>	<b>100.0</b>

Source: DHHS Death Certificate Data 1999-2003

- More than 60% of deaths due to fall injuries were among those age 85 years and older (Table D6).

**Table D6: Deaths Due to Fall by Age and Gender,  
Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
25-34	1	14.3	0	0.0	1	3.6
35-44	1	14.3	0	0.0	1	3.6
65-74	1	14.3	0	0.0	1	3.6
75-84	1	14.3	7	33.3	8	28.6
85+	3	42.9	14	66.7	17	60.7
Total	7	100.0	21	100.0	28	100.0

Source: DHHS Death Certificate Data 1999-2003

- Nearly 30 percent of suicide deaths were among persons age 25-34. (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	0	0.0	1	16.7	1	3.7
15-24	2	9.5	0	0.0	2	7.4
25-34	7	33.3	1	16.7	8	29.6
35-44	1	4.8	1	16.7	2	7.4
45-54	3	14.3	1	16.7	4	14.8
55-64	4	19.0	1	16.7	5	18.5
65-74	3	14.3	0	0.0	3	11.1
75-84	0	0.0	1	16.7	1	3.7
85+	1	4.8	0	0.0	1	3.7
Total	21	100.0	6	100.0	27	100.0

Source: DHHS Death Certificate Data 1999-2003

#### Gender

- More males (N=24) died from motor vehicle crashes than females (N=20) (*Table D5*).
- More females (N=21) died from fall injuries than males (N=7) (*Table D6*).
- More males (N=21) died from suicide than females (N=6) in the SNPHD coverage area (*Table D7*).

## Hospital discharges

### Overall

- The counties served by the SNPHD had a higher unintentional injury hospital discharge rate (8950 per 100,000), and suicide attempt rate (95 per 100,000), but lower homicide rate (137 per 100,000) when compared to Nebraska rates (7610, 75, and 204 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	8,155	97.7	10,030.0	7,258	97.4	7,915.0	15,413	97.6	8,949.7	665,407	95.9	7,609.6
Suicide	49	0.6	64.3	86	1.2	123.9	135	0.9	94.7	6,379	0.9	75.0
Homicide	121	1.4	159.9	79	1.1	114.7	200	1.3	136.8	17,720	2.6	203.9
Undetermined	23	0.3	28.7	25	0.3	28.7	48	0.3	28.7	4,181	0.6	48.3
Other	1	0.0	*				1	0.0	*	404	0.1	4.7
<b>Total</b>	<b>8,349</b>	<b>100.0</b>	<b>10,284.0</b>	<b>7,448</b>	<b>100.0</b>	<b>8,182.2</b>	<b>15,797</b>	<b>100.0</b>	<b>9,210.5</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five discharges

- More males (52%) were treated at a hospital for all injury-related causes than females (48%) (*Table D4*).

### Leading causes

- Falls were the leading cause of injury hospital discharge for all age groups combined with an age-adjusted rate of 2,532 per 100,000. Falls were the leading cause of hospital discharges for the age groups 0-4, 5-9, and 25 to 85 years and older. The rate was relatively higher than the Nebraska rate (2,184 per 100,000) (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharge for all age groups combined and the leading cause for persons age 10-24. The age-adjusted hospital discharge rate for struck by/against was higher than the Nebraska rate (1,446 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharge. The age-adjusted rate was higher than the Nebraska rate (906 and 690 per 100,000) (*Figure H1*).
- Overexertion (852 per 100,000) and motor vehicle crashes (495 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking causes of injury hospital discharge in the SNPHD area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

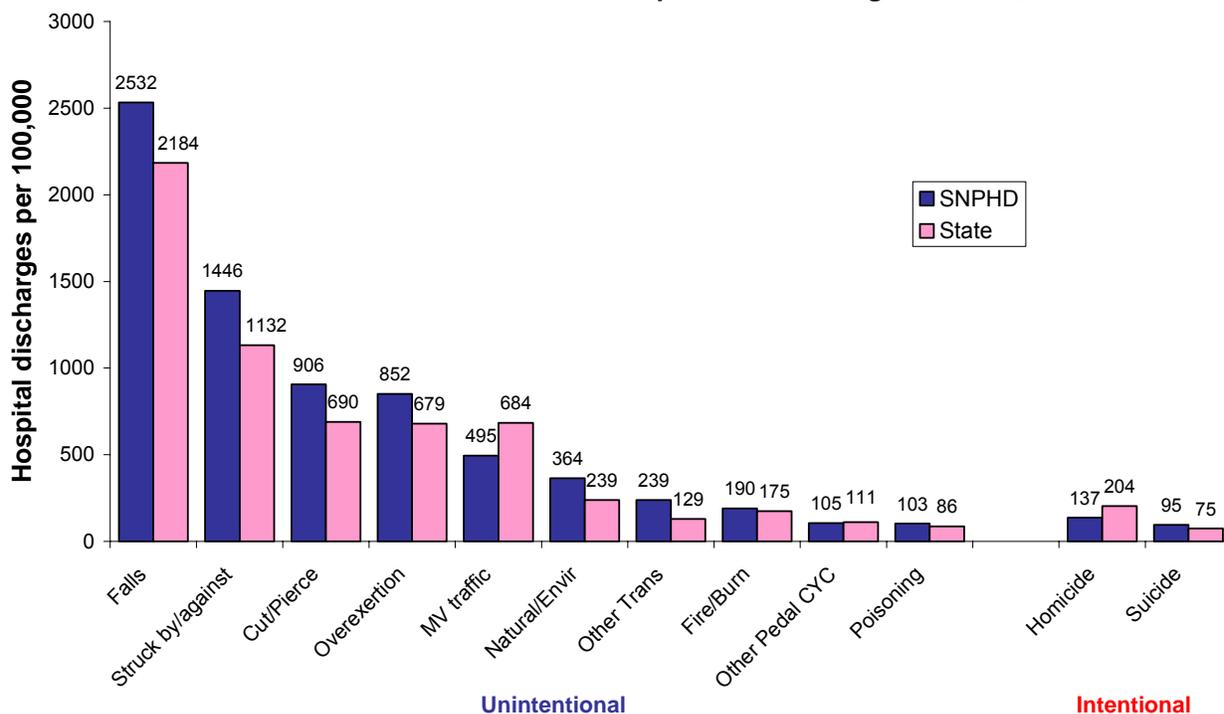
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=50	Falls N=326	Falls N=318	Struck by/against N=508	Struck by/against N=822	Falls N=189	Falls N=287	Falls N=310	Falls N=261	Falls N=589	Falls N=918	Falls N=933	Falls N=5,055
2	Fire/Burn N=16	Struck by/against N=132	Struck by/against N=177	Falls N=419	Falls N=455	Struck by/against N=156	Cut/Pierce N=157	Cut/Pierce N=146	Overexertion N=91	Cut/Pierce N=124	Struck by/against N=67	Struck by/against N=54	Struck by/against N=2,325
3	Struck by/against N=12	Cut/Pierce N=129	Cut/Pierce N=133	Overexertion N=173	Overexertion N=421	Overexertion N=156	Overexertion N=151	Overexertion N=125	Cut/Pierce N=74	Struck by/against N=99	Overexertion N=59	Cut/Pierce N=27	Cut/Pierce N=1,440
4	Poisoning N=6	Poisoning N=65	Other Pedal CYC N=59	Cut/Pierce N=142	MV traffic N=314	Cut/Pierce N=150	Struck by/against N=124	Struck by/against N=112	Struck by/against N=62	Overexertion N=85	Cut/Pierce N=55	Overexertion N=20	Overexertion N=1,341
5	Suffocation N=4	Natural/Envir N=50	Natural/Envir N=41	Other Pedal CYC N=65	Cut/Pierce N=301	MV traffic N=97	MV traffic N=88	MV traffic N=69	MV traffic N=52	Natural/Envir N=70	Natural/Envir N=50	Natural/Envir N=19	MV traffic N=778

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: NE Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Hospital Discharge Rates by Cause, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- Hospital discharge rates due to falls were the highest for persons age 85 and older. Females had almost twice the rate compared to males (9,026 vs. 5,263 per 100,000) (*Table H3*).
- Among children age 14 and under, the 1-4 year age group had a fall injury rate that was comparable to the Nebraska rate (4,376 vs. 4310) (*Table H3*).
- Persons age 15-24 years had the highest hospital discharge rate (3,775 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,136 per 100,000). The rate was second highest for the 5-14 year age group at 3,012 per 100,000 (*Table H3*).
- Hospital discharge rates for overexertion (1,933 per 100,000) and motor vehicle crash injuries (1,442 per 100,000) were the highest for individuals in the 15-24 year age group (*Table H3*).
- Hospital discharge rates for cutting/piercing injuries were highest for the 1-4 year age group (1,732 per 100,000 population) in the SNPHD area (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls than males (2,765 vs. 2,289 per 100,000) (*Table H3*).
- Males had higher injury hospital discharge rates for struck by/against and cutting/piercing than females (1,947 and 1,204 vs. 965 and 620 per 100,000) (*Table H3*).
- Female overexertion injury hospital discharge rates were higher than male rates (880 vs. 822 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Southwest Nebraska Public Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Southwest HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
MV traffic	<1	1	0.3	*				1	0.1	*	128.9	121.4	125.2
MV traffic	1-4	5	1.3	129	4	1.1	*	9	1.2	120.8	251.0	229.3	240.4
MV traffic	5-14	37	9.3	322.9	26	6.9	230.4	63	8.1	277	400.0	436.0	417.6
MV traffic	15-24	175	43.8	1500.6	139	36.8	1374.2	314	40.4	1441.9	1444.2	1831.5	1633.7
MV traffic	25-34	49	12.3	661.5	48	12.7	650.7	97	12.5	656.1	855.6	993.0	923.2
MV traffic	35-44	47	11.8	411.3	41	10.8	359.4	88	11.3	385.4	607.3	708.3	657.6
MV traffic	45-54	32	8	263.3	37	9.8	310.4	69	8.9	286.6	476.5	523.1	499.9
MV traffic	55-64	24	6	286.2	28	7.4	322.2	52	6.7	304.5	346.5	441.2	394.9
MV traffic	65-74	19	4.8	258.6	24	6.3	284.9	43	5.5	272.7	327.3	382.2	357.1
MV traffic	75-84	8	2	158.3	19	5	263	27	3.5	219.9	402.4	393.8	397.3
MV traffic	85+	3	0.8	*	12	3.2	293.5	15	1.9	260.7	404.8	248.5	293.6
<b>Total</b>		400	100.0	507.7	378	100.0	482.0	778	100.0	495.0	629.3	737.3	684.0
Falls	<1										2298.5	2139.4	2220.8
Falls	1-4	183	9.3	4720.1	143	4.6	4003.4	326	6.4	4376.4	4871.2	3721.2	4309.7
Falls	5-14	378	19.1	3299	359	11.7	3180.9	737	14.6	3240.4	2855	2404.1	2634.8
Falls	15-24	255	12.9	2186.6	200	6.5	1977.3	455	9	2089.4	1570.9	1323.5	1449.9
Falls	25-34	76	3.9	1026.1	113	3.7	1531.8	189	3.7	1278.4	1048.4	1303.4	1173.8
Falls	35-44	137	6.9	1198.8	150	4.9	1314.9	287	5.7	1256.8	1084.2	1357.6	1220.2
Falls	45-54	122	6.2	1003.9	188	6.1	1576.9	310	6.1	1287.6	1116	1610.3	1364.2
Falls	55-64	106	5.4	1264	155	5	1783.5	261	5.2	1528.4	1337.7	1976.8	1664.3
Falls	65-74	189	9.6	2572.5	400	13	4748.9	589	11.7	3734.9	2151.5	3581	2926.8
Falls	75-84	266	13.5	5263.2	652	21.2	9025.5	918	18.2	7476.8	4355.2	7355	6138.2
Falls	85+	233	11.8	13986	700	22.7	17123	933	18.5	16215	10070	14640	13320
<b>Total</b>		1945	100.0	2289.2	3060	100.0	2764.7	5005	100.0	2532.0	2013.8	2349.3	2184.0
Cut/Pierce	<1	2	0.2	*	0		*	2	0.1	*	228.7	185.5	207.6
Cut/Pierce	1-4	81	8.5	2089.2	48	9.9	1343.8	129	9	1731.8	925.2	609.5	771.1
Cut/Pierce	5-14	172	18	1501.1	103	21.3	912.6	275	19.1	1209.1	1033.2	615.8	829.4
Cut/Pierce	15-24	219	22.9	1877.9	82	17	810.7	301	20.9	1382.2	1399.6	650.1	1032.9
Cut/Pierce	25-34	104	10.9	1404.1	46	9.5	623.6	150	10.4	1014.6	1138.4	596.8	872.2
Cut/Pierce	35-44	93	9.7	813.8	64	13.3	561	157	10.9	687.5	861.0	517.5	690.1
Cut/Pierce	45-54	93	9.7	765.2	53	11	444.6	146	10.1	606.4	650.7	401.2	525.4
Cut/Pierce	55-64	54	5.6	643.9	20	4.1	230.1	74	5.1	433.3	555.0	309.7	429.6
Cut/Pierce	65-74	88	9.2	1197.8	36	7.5	427.4	124	8.6	786.3	582.4	266.5	411.1
Cut/Pierce	75-84	34	3.6	672.7	21	4.3	290.7	55	3.8	448	448.3	214.8	309.5
Cut/Pierce	85+	17	1.8	1020.4	10	2.1	244.6	27	1.9	469.2	333.7	194.8	234.9
<b>Total</b>		957	100.0	1204.5	483	100.0	620.4	1440	100.0	906.0	893.0	492.5	689.8
Struck by/against	0-1	6	0.4	632.2	6	0.8	671.9	12	0.5	651.5	836	692.9	766.1
Struck by/against	1-4	86	5.5	2218.2	46	6	1287.8	132	5.7	1772	2812.4	1729.5	2283.7
Struck by/against	5-14	436	27.9	3805.2	249	32.5	2206.3	685	29.5	3011.8	2919.3	1521.6	2236.7
Struck by/against	15-24	647	41.5	5547.9	175	22.9	1730.1	822	35.4	3774.6	3069.3	1161.5	2135.8
Struck by/against	25-34	95	6.1	1282.6	61	8	826.9	156	6.7	1055.2	1212	676.9	948.9
Struck by/against	35-44	76	4.9	665	48	6.3	420.8	124	5.3	543	854.1	527.3	691.6
Struck by/against	45-54	61	3.9	501.9	51	6.7	427.8	112	4.8	465.2	574.9	385.7	479.9
Struck by/against	55-64	39	2.5	465.1	23	3	264.6	62	2.7	363.1	414.7	291.2	351.6
Struck by/against	65-74	66	4.2	898.3	33	4.3	391.8	99	4.3	627.8	415.7	292.7	349
Struck by/against	75-84	32	2.1	633.2	35	4.6	484.5	67	2.9	545.7	415.6	363.7	384.7
Struck by/against	85+	16	1	960.4	38	5	929.5	54	2.3	938.5	507.4	519.4	516
<b>Total</b>		1560	100.0	1947.4	765	100.0	964.9	2325	100.0	1446.0	1488.5	786.4	1132.3
Overexertion	<1	1	0.2	*	0		*	1	0.1	*	111.1	156.8	133.4
Overexertion	1-4	12	1.8	309.5	22	3.2	615.9	34	2.5	456.4	352.6	519.6	434.1
Overexertion	5-14	85	13	741.8	113	16.4	1001.2	198	14.8	870.6	537.1	610.3	572.9
Overexertion	15-24	230	35.2	1972.2	191	27.8	1888.3	421	31.4	1933.2	1317.5	1024.1	1173.9
Overexertion	25-34	75	11.5	1012.6	81	11.8	1098	156	11.6	1055.2	952.4	828.7	891.6
Overexertion	35-44	79	12.1	691.3	72	10.5	631.1	151	11.3	661.2	817.7	677.3	747.9
Overexertion	45-54	57	8.7	469	68	9.9	570.4	125	9.3	519.2	616.4	572.9	594.5
Overexertion	55-64	44	6.7	524.7	47	6.8	540.8	91	6.8	532.9	426.6	433.8	430.3
Overexertion	65-74	38	5.8	517.2	47	6.8	558	85	6.3	539	356.1	445.4	404.6
Overexertion	75-84	24	3.7	474.9	35	5.1	484.5	59	4.4	480.5	311.8	419.9	376.0
Overexertion	85+	8	1.2	480.2	12	1.7	293.5	20	1.5	347.6	236.9	387.2	343.8
<b>Total</b>		653	100.0	821.6	688	100.0	880.3	1341	100.0	852.0	705.5	635.6	679.2

Source: Hospital Discharge Data 1999-2003

Rates are per 100,000 per year

\* Fewer than five discharges

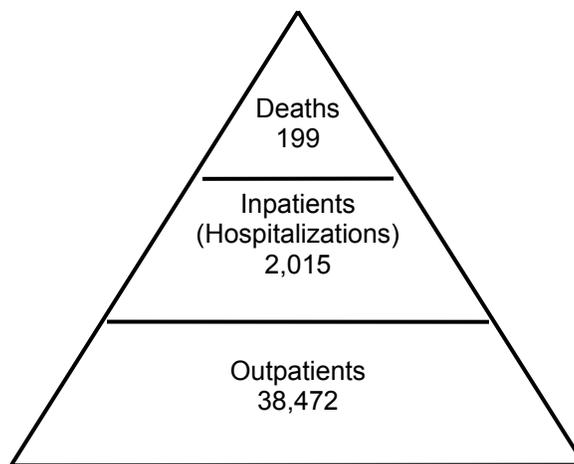
INJURY REPORT, 1999-2003

**Three Rivers District Health Department Coverage Area**  
Dodge, Saunders and Washington Counties

**Summary**

Injury is a public health problem in Three Rivers District Health Department (TRDHD) coverage area. Overall, injury is the fourth leading cause of death in Dodge, Saunders, and Washington counties (*Table D1*). From 1999 to 2003, in addition to 199 injury deaths, more than 2,000 residents in these counties were hospitalized and more than 38,400 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury death. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharge and struck by/against injuries were second, followed by cutting/piercing, motor vehicle crashes, and overexertion.

**Figure A: Injury deaths, hospital inpatients and outpatients**  
Three Rivers District Health Department coverage area, NE, 1999-2003



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 5-29, most were due to injuries. Therefore, more years of potential life were lost due to injuries. More than twice as many males died from injuries as females.

The following table highlights the TRDHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls and motor vehicle crashes (*Table A*).

**Table A. Injury Death rates, Three Rivers District Health Department Coverage Area, NE, 2003**

Cause of Death	Injury Death Rates 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	45.2	19.4
Fall	6.4	3.5
Motor Vehicle Crash	21.0	12.0

Source: DHHS Death Certificate Data, 2003.

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the fourth leading cause of death in the counties served by the TRDHD (*Table D1*).

**Table D1: Five Leading Causes of Death,  
Three Rivers District Health Department, Nebraska, 1999-2003**

Rank	Cause	Total Number of Death
1	Cancer	831
2	Heart Disease	807
3	Stroke	332
4	Injury	189
5	Chronic Lung Disease	166

Source: DHHS Death Certificate Data, 1999-2003

- An average of 38 residents died from injury each year in the TRPHD coverage area (*Table D2*).
- Deaths due to injury made up 5.1% of total deaths, compared to 6% for Nebraska. Among the 10-14 year age group, all deaths were due to injuries. In addition, 84% of the deaths in the 15-24 year age group and 56.3% of deaths in the 25-29 year age group were due to injuries in the TRPHD coverage area (*Table D2*).

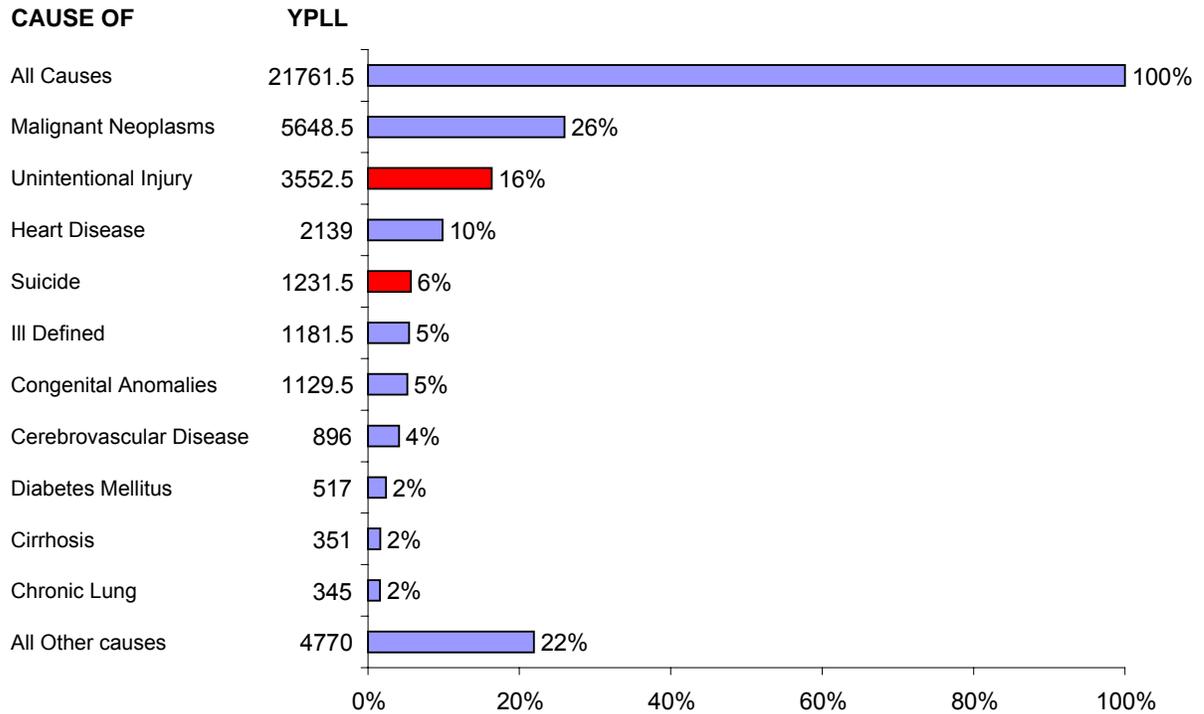
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Three Rivers District Health Department Coverage Area, NE, 1999-2003**

Age Group	Injury Deaths	Annual Average Injury Deaths	All Deaths	Percent of Death due to Injury
<1	1	0	32	3.1
1-4	3	1	7	42.9
5-9	2	0	3	66.7
10-14	2	0	2	100.0
15-19	21	4	25	84.0
20-24	16	3	19	84.2
25-29	9	2	16	56.3
30-34	6	1	18	33.3
35-39	9	2	23	39.1
40-44	13	3	56	23.2
45-49	14	3	61	23.0
50-54	13	3	98	13.3
55-59	4	1	126	3.2
60-64	7	1	182	3.8
65-74	14	3	531	2.6
75-84	26	5	1,089	2.4
85+	29	6	1,441	2.0
<b>Total</b>	<b>189</b>	<b>38</b>	<b>3,729</b>	<b>5.1</b>

Source: DHHS Death Certificate Date, 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked second (16.3%), following those from cancer (26.0%). Suicide ranked 4<sup>th</sup> at 5.7% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before Age 75 by Cause of Death, Three Rivers District Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data, 1999-2003

- The TRDHD coverage area had a higher unintentional injury rate (36.6 per 100,000) but lower suicide rate (8.8 per 100,000) and homicide rate (1.6 per 100,000) than Nebraska rates (33.3, 10.6, and 3.2 per 100,000 respectively) (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, Three Rivers District Health Department Coverage Area, NE, 1999-2003**

Cause	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	95	70.4	51.8	54	84.4	21.9	149	74.9	36.6	3,020	68.3	33.3
Suicide	31	23.0	16.4	3	4.7	*	34	17.1	8.8	894	20.2	10.6
Homicide	3	2.2	*	3	4.7	*	6	3.0	1.6	273	6.2	3.2
Undetermined	4	3.0	*	3	4.7	*	7	3.5	1.7	139	3.1	1.6
Adverse Effects	2	1.5	*	1	1.6	*	3	1.5	*	93	2.1	1.0
<b>Total</b>	<b>135</b>	<b>100.0</b>	<b>73.0</b>	<b>64</b>	<b>100.0</b>	<b>26.7</b>	<b>199</b>	<b>100.0</b>	<b>49.4</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data, 1999-2003

\* Fewer than five deaths

- More males (68%) died from injuries than females (32%) (Table D4).

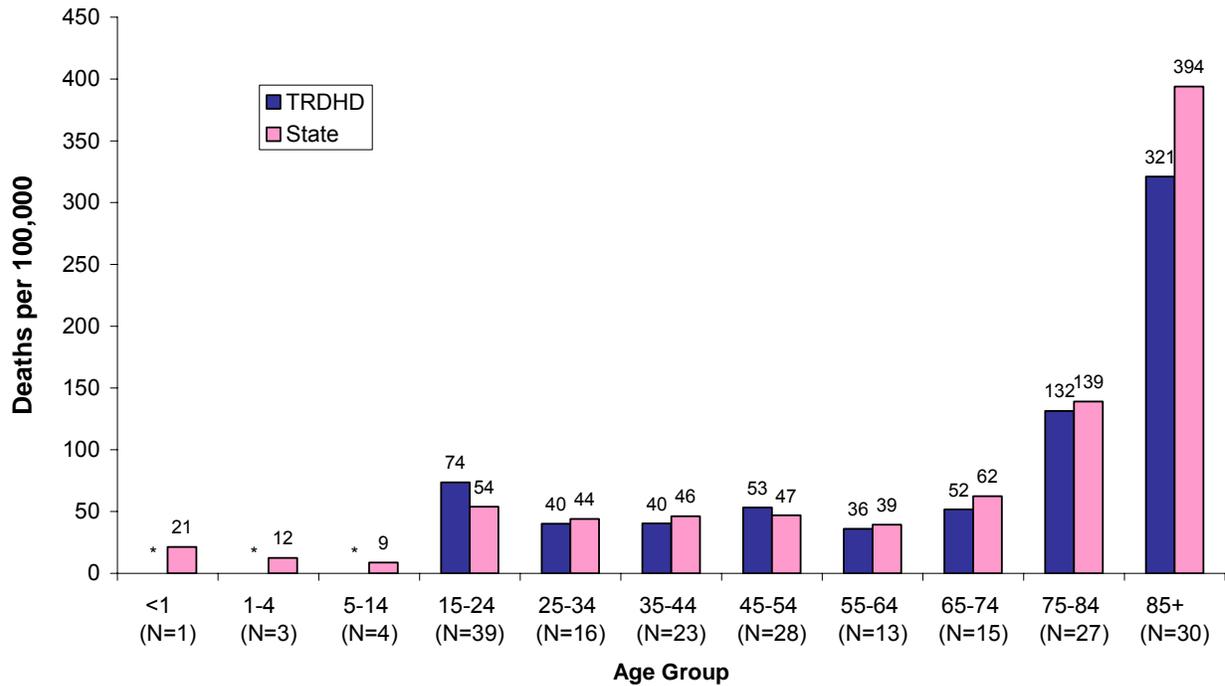
**Table D4: Injury Related Deaths and Hospital Discharges by Gender, Age, and Race,  
Three Rivers District Health Department Coverage Area, NE, 1999-2003**

	Three Rivers District Health Department				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	135	67.8	22,178	54.8	2,848	64.3	386,563	53.1
Female	64	32.2	18,309	45.2	1,581	35.7	341,506	46.9
Total	199	100.0	40,487	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	1	0.5	302	0.8	26	0.6	7,142	1.0
1-4	3	1.5	3,071	7.6	58	1.3	59,764	8.2
5-14	4	2.0	6,950	17.2	107	2.4	122,382	16.8
15-24	39	19.6	8,288	20.5	699	15.8	144,001	19.8
25-34	16	8.0	4,366	10.8	486	11.0	84,574	11.6
35-44	23	11.6	4,822	11.9	593	13.4	84,445	11.6
45-54	28	14.1	3,718	9.2	547	12.4	66,321	9.1
55-64	13	6.5	2,237	5.5	292	6.6	39,540	5.4
65-74	15	7.5	2,307	5.7	355	8.0	40,555	5.6
75-84	27	13.6	2,458	6.1	575	13.0	45,135	6.2
85+	30	15.1	1,968	4.9	691	15.6	34,222	4.7
Total	199	100.0	40,487	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	1	0.5			29	0.7		
African American	0	0.0			194	4.4		
Native American	0	0.0			72	1.6		
White	197	99.0			4,123	93.1		
Other	1	0.5			11	0.3		
Total	199	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Age-adjusted injury death rates were the highest for the oldest age group, 85 years and older. Persons in this age group had a slightly lower injury death rate of 321 per 100,000 compared to the Nebraska rate of 394 per 100,000 (*Figure D2*).

**Figure D2: All Injury Death Rates by Age,  
Three Rivers District Health Department Coverage Area, NE, 1999-2003**

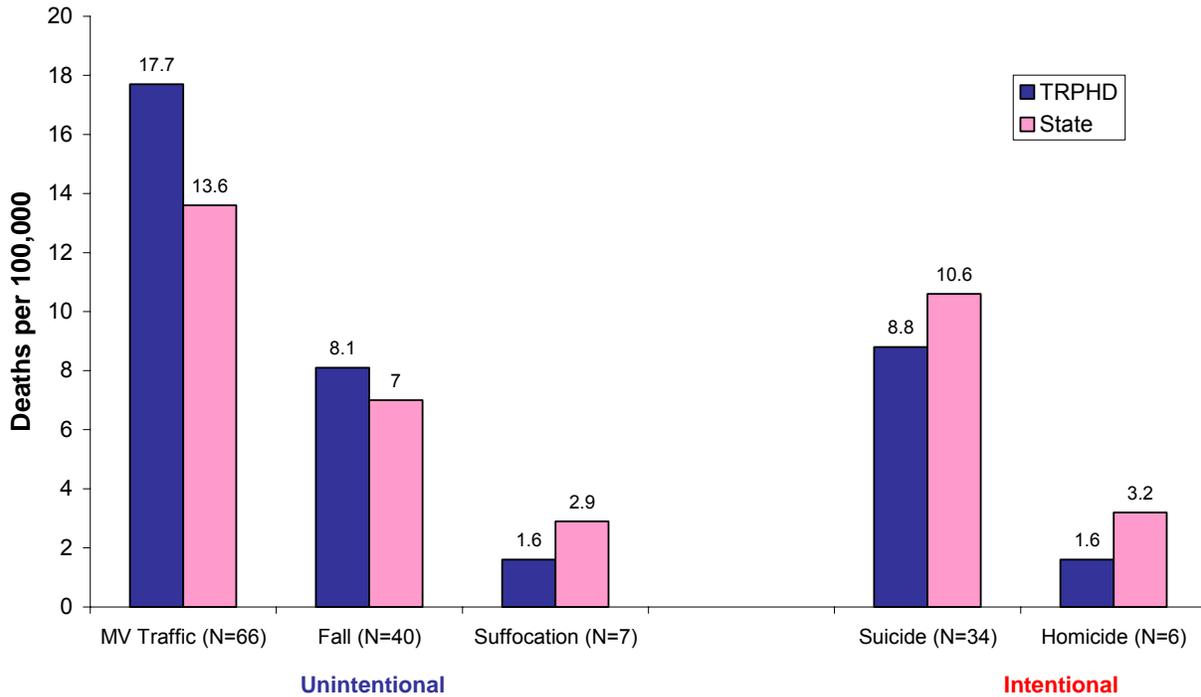


\* Fewer than five deaths  
Source: DHHS Death Certificate Data, 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury death with an age-adjusted rate of 17.7 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (*Figure D3*).
- Suicide was the second leading cause of injury death. The age-adjusted death rate for suicide was lower than the Nebraska rate (8.8 and 10.6 per 100,000 respectively) (*Figure D3*).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls was slightly higher than the Nebraska rate (8.1 and 7.0 per 100,000 respectively) (*Figure D3*).

**Figure D3: Age-adjusted Injury Death Rates by Cause  
Three Rivers Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data, 1999-2003

**Age**

- Persons age 15-24 years (N=22) were involved in the most motor vehicle crashes, accounting for 33.3% of total deaths (N=66) (*Table D5*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender,  
Three Rivers District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	0	0.0	1	5.0	1	1.5
5-14	1	2.2	2	10.0	3	4.5
15-24	16	34.8	6	30.0	22	33.3
25-34	5	10.9	3	15.0	8	12.1
35-44	5	10.9	4	20.0	9	13.6
45-54	4	8.7	1	5.0	5	7.6
55-64	5	10.9	1	5.0	6	9.1
65-74	5	10.9	1	5.0	6	9.1
75-84	4	8.7	1	5.0	5	7.6
85+	1	2.2	0	0.0	1	1.5
<b>Total</b>	<b>46</b>	<b>100.0</b>	<b>20</b>	<b>100.0</b>	<b>66</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

- More than 52% of deaths (N=21) due to fall injuries were persons 85 years and older (*Table D6*).

**Table D6: Deaths Due to Falls by Age and Gender,  
Three Rivers District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
25-34	1	5.9	0	0.0	1	2.5
35-44	2	11.8	0	0.0	2	5.0
45-54	2	11.8	1	4.3	3	7.5
65-74	1	5.9	2	8.7	3	7.5
75-84	5	29.4	5	21.7	10	25.0
85+	6	35.3	15	65.2	21	52.5
<b>Total</b>	<b>17</b>	<b>100.0</b>	<b>23</b>	<b>100.0</b>	<b>40</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

- The most suicide deaths were among persons in the 15-24 year age group (32%) (Table D7).

**Table D7: Deaths Due to Suicide by Age and Gender,  
Three Rivers District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	0	0.0	1	33.3	1	2.9
15-24	11	35.5	0	0.0	11	32.4
25-34	1	3.2	0	0.0	1	2.9
35-44	7	22.6	0	0.0	7	20.6
45-54	6	19.4	2	66.7	8	23.5
55-64	3	9.7	0	0.0	3	8.8
65-74	2	6.5	0	0.0	2	5.9
75-84	1	3.2	0	0.0	1	2.9
<b>Total</b>	<b>31</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

## Gender

- More males (N=46) died from motor vehicle crashes than females (N=20) (Table D5).
- More females (N=23) died from falls than males (N=17) in the TRPHD coverage area (Table D6).
- More males (N=31) died from suicide than females (N=3) in the TRPHD coverage area (Table D7).

## Hospital discharges

### Overall

- The counties served by the TRPHD had a higher unintentional injury hospital discharge rate (10,110 per 100,000), suicide attempt rate (87 per 100,000), and assault rate (231 per 100,000) compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).
- More males (55%) than females (45%) were treated at hospitals for all injury-related causes (*Table D4*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Three Rivers District Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	20,952	96.6	11,481.0	17,252	97.1	8,786.2	38,204	96.8	10,110.0	665,407	95.9	7,609.6
Suicide	102	0.5	57.5	203	1.1	115.3	305	0.8	86.9	6,379	0.9	75.0
Homicide	556	2.6	309.8	265	1.5	155.8	821	2.1	231.4	17,720	2.6	203.9
Undetermined	56	0.3	31.4	44	0.2	24.4	100	0.3	27.8	4,181	0.6	48.3
Other	17	0.1	9.7	1	0.0	0.6	18	0.0	5.1	404	0.1	4.7
<b>Total</b>	<b>21,683</b>	<b>100.0</b>	<b>11,890.0</b>	<b>17,765</b>	<b>100.0</b>	<b>9,082.2</b>	<b>39,448</b>	<b>100.0</b>	<b>10,461.0</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

### Leading causes

- Falls were the leading cause of injury hospital discharges for all age groups combined, with an age-adjusted rate of 3,093 per 100,000. The rate was relatively higher than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the 15-24 year age group (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges for all ages combined, and the leading cause for persons ages 15-24. The age-adjusted hospital discharge rate for struck by/against was higher than the Nebraska rate (1,585 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharges. The age-adjusted rate was higher than the Nebraska rate (989 and 690 per 100,000) (*Figure H1*).
- Motor vehicle crashes (918 per 100,000) and overexertion (728 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking cause of injury hospital discharge in the TRPHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Three Rivers District Health Department Coverage Area, Nebraska, 1999-2003**

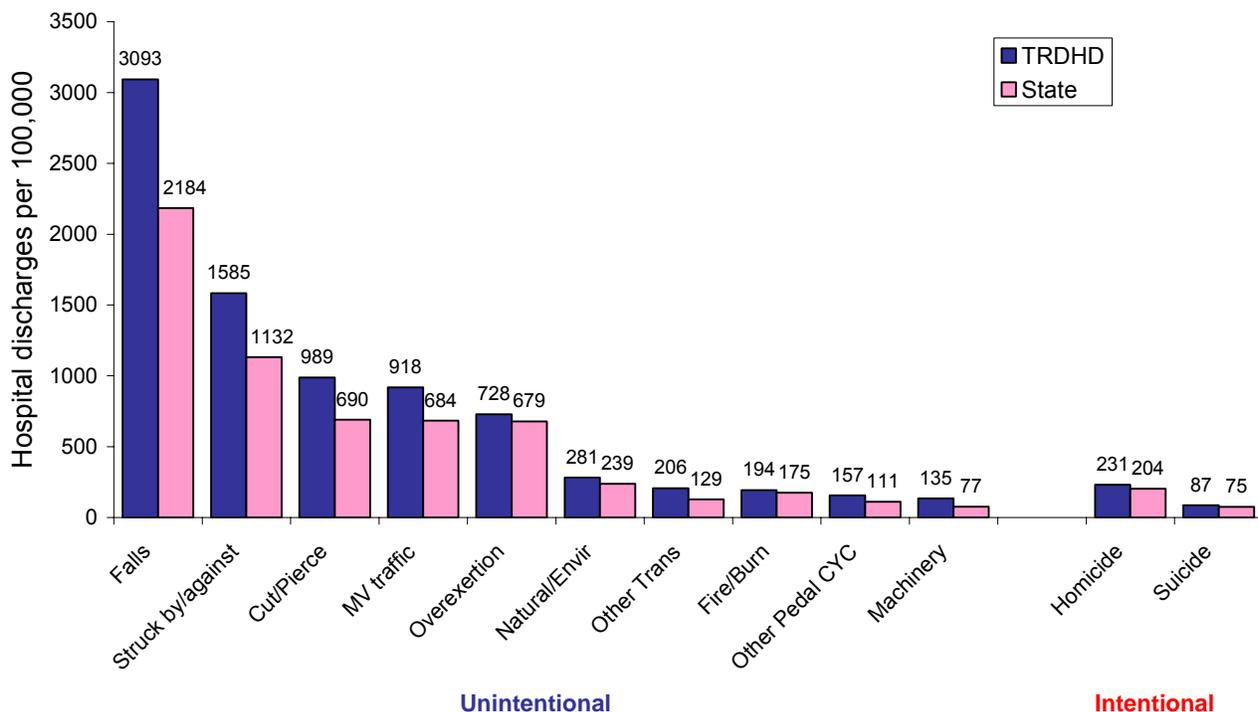
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=138	Falls N=1,197	Falls N=1,008	Falls N=1,091	Struck by/against N=1,755	Falls N=775	Falls N=1,059	Falls N=958	Falls N=736	Falls N=1,080	Falls N=1,553	Falls N=1,451	Falls N=12,358
2	Struck by/against N=32	Struck by/against N=468	Struck by/against N=580	Struck by/against N=1,045	Falls N=1,312	Struck by/against N=643	Cut/Pierce N=613	Cut/Pierce N=409	Cut/Pierce N=215	MV traffic N=143	MV traffic N=112	Struck by/against N=47	Struck by/against N=5,810
3	Cut/Pierce N=12	Cut/Pierce N=162	Cut/Pierce N=249	Cut/Pierce N=332	MV traffic N=1,278	Cut/Pierce N=576	Struck by/against N=551	Overexertion N=396	Overexertion N=193	Cut/Pierce N=140	Cut/Pierce N=95	Overexertion N=30	Cut/Pierce N=3,594
4	Fire/Burn N=9	Poisoning N=151	Other Pedal CYC N=213	Overexertion N=213	Cut/Pierce N=775	MV traffic N=480	Overexertion N=500	Struck by/against N=343	MV traffic N=183	Struck by/against N=109	Struck by/against N=84	MV traffic N=25	MV traffic N=3,361
5	Poisoning N=9	Natural/Envir N=143	Natural/Envir N=133	Other Pedal CYC N=196	Overexertion N=655	Overexertion N=371	MV traffic N=469	MV traffic N=314	Struck by/against N=153	Overexertion N=103	Overexertion N=58	Natural/Envir N=17	Overexertion N=2,673

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: NE Hospital Discharge Data, 1999-2003

**Figure H1: Age-Adjusted Injury Hospital Discharge Rates by Cause  
Three Rivers District Health Department Coverage Area, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- The hospital discharge rate for falls was the highest for persons age 85 and older (*Table H3*).
- Among children age 14 and under, the 1-4 year age group had the highest fall injury rate (6,509 per 100,000), which was relatively higher than the Nebraska rate (4,310 per 100,000). This age group had the third highest injury fall rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rate (3,313 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,136 per 100,000). The rate was second highest for the 5-14 year age group at 3,006 per 100,000 (*Table H3*).
- The hospital discharge rate for cutting/piercing injuries was highest for the 15-24 year age group (1,463 per 100,000) (*Table H3*).
- Hospital discharge rates for motor vehicle crashes (2,413 per 100,000) and overexertion injuries (1,237 per 100,000) were the highest for individuals in the 15-24 year age group (*Table H3*).

### Gender

- Females had higher injury hospital discharge rates for falls than males (3,235 vs. 2,946 per 100,000) (*Table H3*).
- The injury hospital discharge rates for struck by/against and cutting/piercing for males were more than twice those for females (2,128 and 1,337 vs. 1,061 and 562 per 100,000) (*Table H3*).
- The motor vehicle injury hospital discharge rate was higher for females than for males (957 vs. 879 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, Three Rivers District Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Three Rivers HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
MV traffic	<1	4	0.2	169.1	1	0.1	45.8	5	0.1	109.9	128.9	121.4	125.2
MV traffic	1-4	34	2.1	363.1	29	1.7	321.3	63	1.9	342.6	251.0	229.3	240.4
MV traffic	5-14	141	8.7	509.5	148	8.5	560.8	289	8.6	534.5	400.0	436.0	417.6
MV traffic	15-24	626	38.8	2328.2	652	37.3	2499.6	1278	38	2412.6	1444.2	1831.5	1633.7
MV traffic	25-34	219	13.6	1081.4	261	14.9	1333.3	480	14.3	1205.2	855.6	993.0	923.2
MV traffic	35-44	229	14.2	802.1	240	13.7	845.4	469	14	823.7	607.3	708.3	657.6
MV traffic	45-54	156	9.7	590.9	158	9	604.1	314	9.3	597.5	476.5	523.1	499.9
MV traffic	55-64	84	5.2	469.9	99	5.7	543.4	183	5.4	507	346.5	441.2	394.9
MV traffic	65-74	57	3.5	422.1	86	4.9	555.5	143	4.3	493.4	327.3	382.2	357.1
MV traffic	75-84	49	3	581.5	63	3.6	520.8	112	3.3	545.7	402.4	393.8	397.3
MV traffic	85+	13	0.8	510.8	12	0.7	176.4	25	0.7	267.5	404.8	248.5	293.6
<b>Total</b>		1612	100.0	879.0	1749	100.0	956.5	3361	100.0	918.0	629.3	737.3	684.0
Falls	<1	72	1.3	3043.1	66	0.9	3022	138	1.1	3033	2298.5	2139.4	2220.8
Falls	1-4	675	12.5	7208.5	522	7.5	5783.9	1197	9.7	6509.3	4871.2	3721.2	4309.7
Falls	5-14	1125	20.9	4064.9	974	14	3690.7	2099	17	3882.2	2855	2404.1	2634.8
Falls	15-24	726	13.5	2700.1	586	8.4	2246.6	1312	10.6	2476.8	1570.9	1323.5	1449.9
Falls	25-34	370	6.9	1827.1	405	5.8	2069	775	6.3	1946	1048.4	1303.4	1173.8
Falls	35-44	516	9.6	1807.4	543	7.8	1912.7	1059	8.6	1859.9	1084.2	1357.6	1220.2
Falls	45-54	436	8.1	1651.6	522	7.5	1995.9	958	7.8	1823	1116	1610.3	1364.2
Falls	55-64	263	4.9	1471.2	473	6.8	2596.5	736	6	2039.2	1337.7	1976.8	1664.3
Falls	65-74	417	7.7	3088.2	663	9.5	4282.4	1080	8.7	3726.1	2151.5	3581	2926.8
Falls	75-84	503	9.3	5968.9	1050	15.1	8679.8	1553	12.6	7566.8	4355.2	7355	6138.2
Falls	85+	287	5.3	11277	1164	16.7	17115	1451	11.7	15525	10070	14640	13320
<b>Total</b>		5390	100.0	2946.0	6968	100.0	3235.0	12358	100.0	3093.0	2013.8	2349.3	2184.0
Cut/Pierce	<1	6	0.2	253.6	6	0.5	274.7	12	0.3	263.7	228.7	185.5	207.6
Cut/Pierce	1-4	94	3.9	1003.8	68	5.8	753.5	162	4.5	881	925.2	609.5	771.1
Cut/Pierce	5-14	388	16	1401.9	193	16.5	731.3	581	16.2	1074.6	1033.2	615.8	829.4
Cut/Pierce	15-24	547	22.6	2034.4	228	19.4	874.1	775	21.6	1463	1399.6	650.1	1032.9
Cut/Pierce	25-34	404	16.7	1995	172	14.7	878.7	576	16	1446.3	1138.4	596.8	872.2
Cut/Pierce	35-44	393	16.2	1376.6	220	18.8	774.9	613	17.1	1076.6	861.0	517.5	690.1
Cut/Pierce	45-54	279	11.5	1056.9	130	11.1	497.1	409	11.4	778.3	650.7	401.2	525.4
Cut/Pierce	55-64	146	6	816.7	69	5.9	378.8	215	6	595.7	555.0	309.7	429.6
Cut/Pierce	65-74	98	4	725.8	42	3.6	271.3	140	3.9	483	582.4	266.5	411.1
Cut/Pierce	75-84	56	2.3	664.5	39	3.3	322.4	95	2.6	462.9	448.3	214.8	309.5
Cut/Pierce	85+	10	0.4	392.9	6	0.5	88.2	16	0.4	171.2	333.7	194.8	234.9
<b>Total</b>		2421	100.0	1337.1	1173	100.0	562.1	3594	100.0	989.0	893.0	492.5	689.8
Struck by/against	0-1	15	0.4	634	17	0.9	778.4	32	0.6	703.3	836	692.9	766.1
Struck by/against	1-4	308	7.9	3289.2	160	8.3	1772.9	468	8.1	2545	2812.4	1729.5	2283.7
Struck by/against	5-14	1049	26.9	3790.3	576	30	2182.6	1625	28	3005.5	2919.3	1521.6	2236.7
Struck by/against	15-24	1284	33	4775.4	471	24.6	1805.7	1755	30.2	3313.1	3069.3	1161.5	2135.8
Struck by/against	25-34	450	11.6	2222.1	193	10.1	986	643	11.1	1614.5	1212	676.9	948.9
Struck by/against	35-44	345	8.9	1208.4	206	10.7	725.6	551	9.5	967.7	854.1	527.3	691.6
Struck by/against	45-54	222	5.7	840.9	121	6.3	462.7	343	5.9	652.7	574.9	385.7	479.9
Struck by/against	55-64	92	2.4	514.7	61	3.2	334.9	153	2.6	423.9	414.7	291.2	351.6
Struck by/against	65-74	66	1.7	488.8	43	2.2	277.7	109	1.9	376.1	415.7	292.7	349
Struck by/against	75-84	38	1	450.9	46	2.4	380.3	84	1.4	409.3	415.6	363.7	384.7
Struck by/against	85+	24	0.6	943	23	1.2	338.2	47	0.8	502.9	507.4	519.4	516
<b>Total</b>		3893	100.0	2127.7	1917	100.0	1060.8	5810	100.0	1585.0	1488.5	786.4	1132.3
Overexertion	<1	1	0.1	42.3	5	0.4	228.9	6	0.2	131.9	111.1	156.8	133.4
Overexertion	1-4	29	1.9	309.7	49	4.2	542.9	78	2.9	424.2	352.6	519.6	434.1
Overexertion	5-14	140	9.3	505.9	143	12.3	541.9	283	10.6	523.4	537.1	610.3	572.9
Overexertion	15-24	397	26.4	1476.5	258	22.1	989.1	655	24.5	1236.5	1317.5	1024.1	1173.9
Overexertion	25-34	223	14.8	1101.2	148	12.7	756.1	371	13.9	931.6	952.4	828.7	891.6
Overexertion	35-44	319	21.2	1117.4	181	15.5	637.6	500	18.7	878.1	817.7	677.3	747.9
Overexertion	45-54	219	14.5	829.6	177	15.2	676.8	396	14.8	753.5	616.4	572.9	594.5
Overexertion	55-64	104	6.9	581.8	89	7.6	488.6	193	7.2	534.7	426.6	433.8	430.3
Overexertion	65-74	43	2.9	318.4	60	5.1	387.5	103	3.9	355.4	356.1	445.4	404.6
Overexertion	75-84	25	1.7	296.7	33	2.8	272.8	58	2.2	282.6	311.8	419.9	376.0
Overexertion	85+	6	0.4	235.8	24	2.1	352.9	30	1.1	321	236.9	387.2	343.8
<b>Total</b>		1506	100.0	827.7	1167	100.0	632.6	2673	100.0	728.0	705.5	635.6	679.2

Source: Hospital Discharge Data 1999-2003

Rates are per 100,000 population are age-adjusted to the 2000 U.S. standard population

INJURY REPORT, 1999-2003

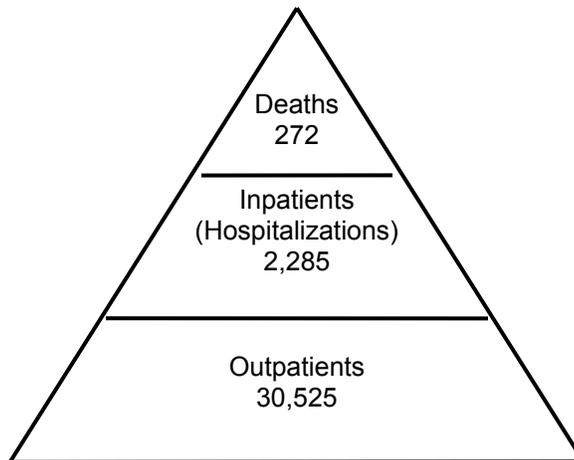
**Two Rivers Public Health Department Coverage Area**

Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney, and Phelps Counties

**Summary**

Injury is a public health problem in the Two Rivers Public Health Department (TRPHD) coverage area. Overall, unintentional injury is the fourth leading cause of death (*Table D1*). From 1999-2003, in addition to 272 injury deaths, over 2,200 residents in Buffalo, Dawson, Franklin, Gosper, Harlan, Kearney, and Phelps counties were hospitalized and more than 30,500 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury deaths, followed by suicide and falls. In contrast to deaths, falls were the leading cause of injury related hospital discharge and struck by/against injuries were second, followed by cutting/piercing, overexertion, and motor vehicle crashes.

**Figure A: Injury Pyramid, Residents of Two Rivers Public Health Department coverage area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Of all deaths among those age 10-34, most were due to injury. Therefore, more years of potential life were lost due to injury. More males died from injury than females.

The following table highlights the TRPHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls, motor vehicle crashes, and suicide (*Table A*).

**Table A. Injury Death rates, Two Rivers Public Health Department Coverage Area, NE, 2003**

Cause of Death	Injury Death Rates 2003	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	44.9	19.4
Fall	9.9	3.5
Motor Vehicle Crash	21.8	12.0
Suicide	9.8	8.2

Source: DHHS Death Certificate Data, 2003.

## Injury Deaths

- In the TRPHD coverage area from 1999 to 2003, injuries, including unintentional and intentional, ranked as the fourth leading cause of death (*Table D1*) and resulted in 264 deaths. (*Table D2*).

**Table D1: Five Leading Causes of Death,  
Two Rivers Public Health Department Coverage Area, Nebraska, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	1,210
2	Cancer	905
3	Stroke	340
4	Injury	264
5	Chronic Lung Disease	190

Source: DHHS Death Certificate Data, 1999-2003

- Deaths due to injury accounted for 6.1% of all deaths, compared to 6.0% for Nebraska. Among children, teens, and young adults, injury was the leading cause of death, which is consistent with Nebraska rates. More than half of the deaths resulting from injury occurred among the 1-4 year age group (60%), the 10-14 year age group (50%), and in teens and young adults, age 15-34. The greatest percentage of deaths caused by injury were among 15-19 years old (83%) (*Table D2*).

**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
Two Rivers Health Department Coverage Area, NE, 1999-2003**

Age Group	Annual Average			Percent of
	Injury Deaths	Injury Deaths	All Deaths	Death due to Injury
<1	1	0	42	2.4
1-4	6	0	10	60.0
5-9	1	0	4	25.0
10-14	2	0	4	50.0
15-19	29	6	35	82.9
20-24	22	4	32	68.8
25-29	15	3	20	75.0
30-34	13	3	25	52.0
35-39	18	4	45	40.0
40-44	13	3	44	29.5
45-49	16	3	77	20.8
50-54	10	2	111	9.0
55-59	16	3	144	11.1
60-64	4	1	190	2.1
65-74	23	5	676	3.4
75-84	37	7	1,230	3.0
85+	38	8	1,634	2.3
<b>Total</b>	<b>264</b>	<b>53</b>	<b>4,323</b>	<b>6.1</b>

Source: DHHS Death Certificate Data, 1999-2003

- Injury deaths (18.8%) and injury-related hospital discharges (19.1%) were most common among teens and young adults, age 15-24 (*Table D3*).

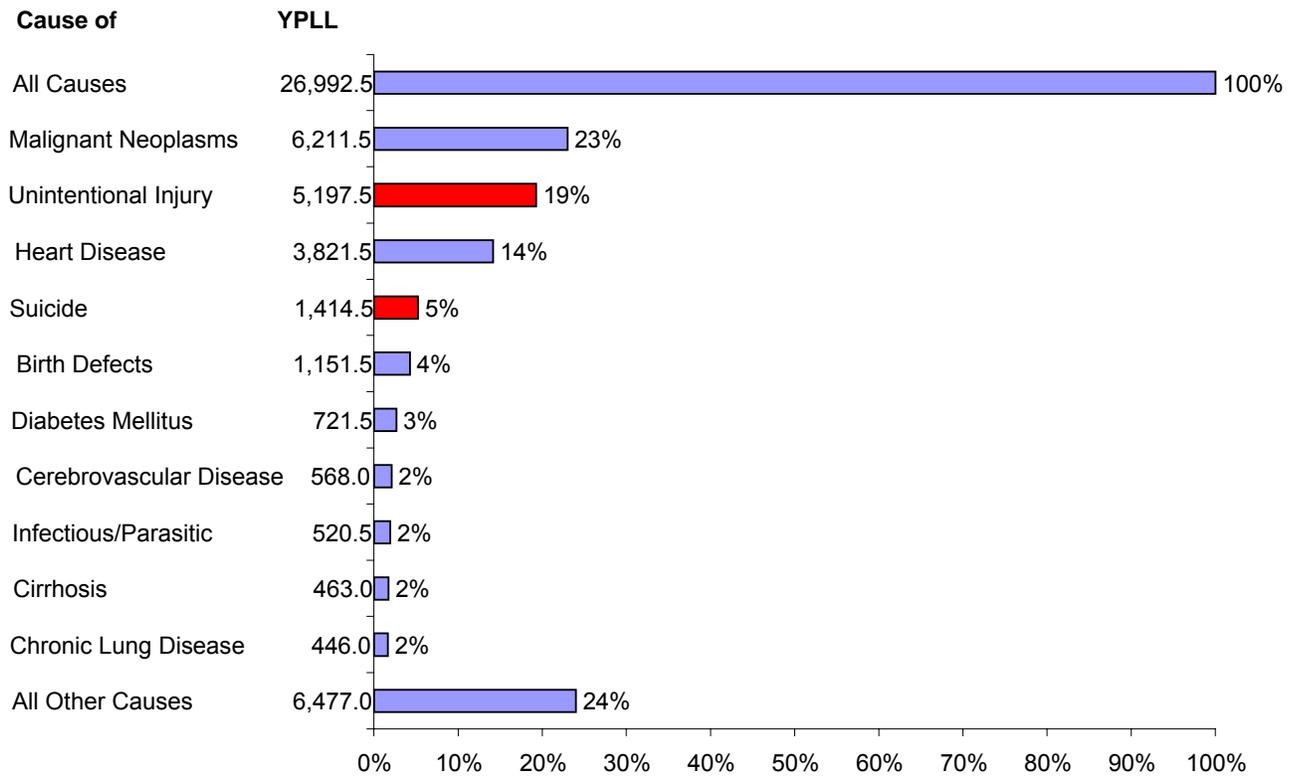
**Table D3: Injury-related Deaths and Hospital Discharges by Gender, Age, and Race,  
Two Rivers Public Health Department Coverage Area, NE, 1999-2003**

	Two Rivers HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	161	59.2	17,156	52.3	2,848	64.3	386,563	53.1
Female	111	40.8	15,654	47.7	1,581	35.7	341,506	46.9
Total	272	100.0	32,810	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	1	0.4	330	1.0	26	0.6	7,142	1.0
1-4	6	2.2	2,738	8.4	58	1.3	59,764	8.2
5-14	3	1.1	5,605	17.1	107	2.4	122,382	16.8
15-24	51	18.8	6,255	19.1	699	15.8	144,001	19.8
25-34	28	10.3	3,082	9.4	486	11.0	84,574	11.6
35-44	31	11.4	3,071	9.4	593	13.4	84,445	11.6
45-54	27	9.9	2,296	7.0	547	12.4	66,321	9.1
55-64	20	7.4	1,663	5.1	292	6.6	39,540	5.4
65-74	25	9.2	2,218	6.8	355	8.0	40,555	5.6
75-84	39	14.3	2,932	8.9	575	13.0	45,135	6.2
85+	41	15.1	2,620	8.0	691	15.6	34,222	4.7
Total	272	100.0	32,810	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	0	0.0			29	0.7		
African American	0	0.0			194	4.4		
Native American	2	0.7			72	1.6		
White	269	98.9			4,123	93.1		
Other	1	0.4			11	0.3		
Total	272	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Years of Potential Life Lost (YPLL) from unintentional injury ranked second (19.3%), following those from cancer (26.0%). Suicide ranked 4<sup>th</sup> at 6.8% (Figure D1).

**Figure D1: Years of Potential Life Lost (YPLL) before 75 by Cause of Death, Two Rivers Public Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data, 1999-2003

- The TRPHD coverage area had a higher unintentional injury death rate (42 per 100,000) compared to the Nebraska rate (33 per 100,000), mainly because of a higher motor vehicle crash death rate (19.6 per 100,000) in the TRPHD coverage area than in Nebraska (13.6 per 100,000) (*Table D4 & Figure D3*).
- Males were more likely to die from injury (70.3 per 100,000), unintentional injury (50.3 per 100,000), and suicide (16.7 per 100,000) than females (39.2, 33.2, and 2.8 per 100,000 respectively) (*Table D4*).

**Table D4: Injury Deaths, Percentage, and Age-adjusted Rates, Two Rivers Public Health Department Coverage Area, NE, 1999-2003**

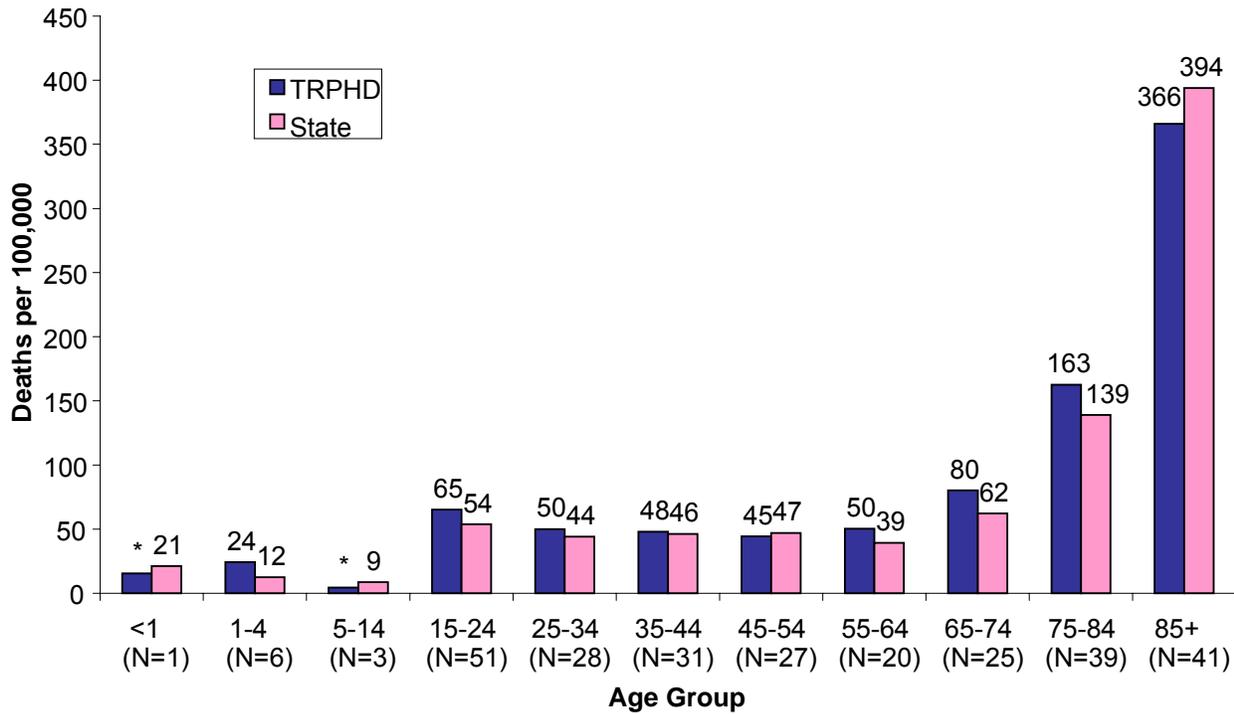
Intent	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	115	71.4	50.3	96	86.5	33.2	211	77.6	41.7	3,020	33.3	33.3
Suicide	38	23.6	16.7	6	5.4	2.8	44	16.2	9.6	894	10.6	10.6
Homicide	5	3.1	1.9	4	3.6	*	9	3.3	1.9	273	3.2	3.2
Undetermined	0	0.0	*	1	0.9	*	1	0.4	*	139	1.6	1.6
Legal/War	1	0.6	*	0	0.0	*	1	0.4	*	10	0.1	0.0
Adverse Effects	2	1.2	*	4	3.6	*	6	2.2	0.9	93	1.0	1.0
<b>Total</b>	<b>161</b>	<b>100.0</b>	<b>70.3</b>	<b>111</b>	<b>100.0</b>	<b>39.2</b>	<b>272</b>	<b>100.0</b>	<b>54.6</b>	<b>4,429</b>	<b>100.2</b>	<b>48.9</b>

Source: DHHS Death Certificate Data, 1999-2003

\* Fewer than five deaths

- Generally injury death rates by age are fairly consistent until age 75 or older, when a sharp increase occurs, primarily caused by falls (*Figure D2*).

**Figure D2: All Injury Death Rates by Age,  
Two Rivers Public Health Department, NE, 1999-2003**



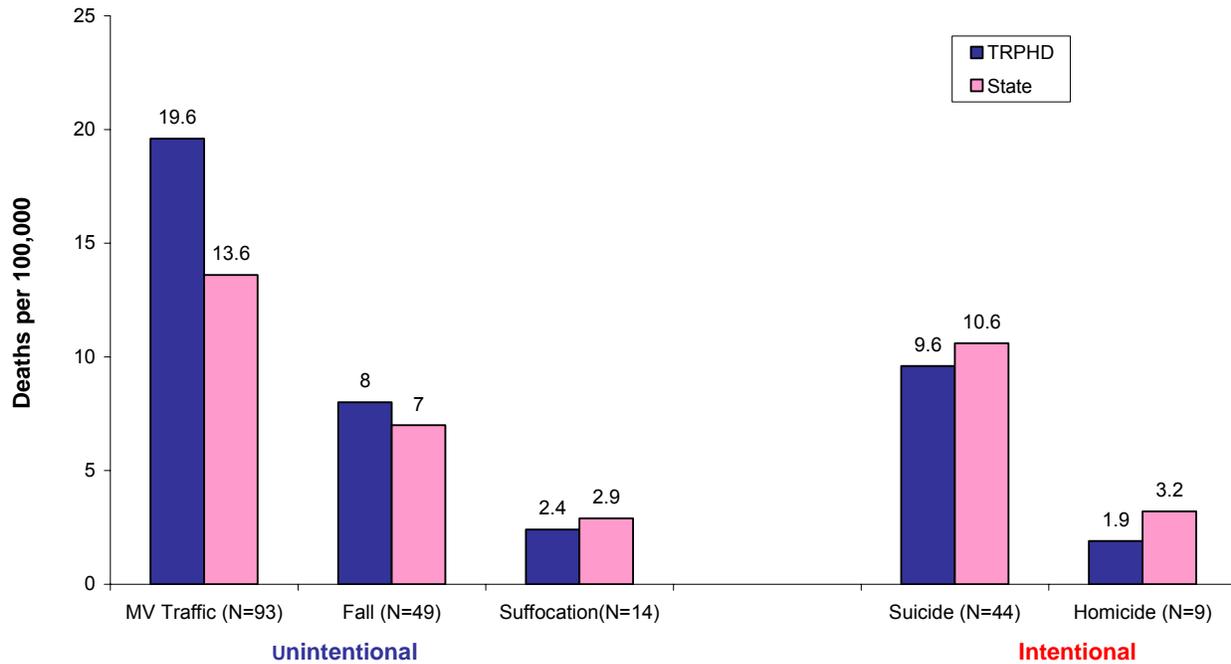
\* Fewer than five deaths

Source: DHHS Death Certificate Data, 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury death (19.6 per 100,000). Suicide was the second leading cause of injury death (9.6 per 100,000), followed by falls (8.0 per 100,000) (Figure D3).

**Figure D3: Age-adjusted Injury Death Rates by Cause**  
**Two Rivers Public Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data, 1999-2003

**Age**

- Nearly one third (32.3%) of the 93 motor vehicle crash deaths were teens and young adults (30), 15-24 years old (*Table D5*).
- All fall-related deaths occurred among adults age 45 or older. Older adults 75 years or older accounted for most of these deaths (83%) (*Table D6*).
- There were 44 suicide deaths in the TRPHD counties with the most in the 15-24 (20.5%) and 35-44 year age groups (20.5%) (*Table D7*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender, Two Rivers Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	2	3.6	1	2.6	3	3.2
5-14	1	1.8	1	2.6	2	2.2
15-24	17	30.9	13	34.2	30	32.3
25-34	12	21.8	2	5.3	14	15.1
35-44	6	10.9	7	18.4	13	14.0
45-54	8	14.5	4	10.5	12	12.9
55-64	4	7.3	3	7.9	7	7.5
65-74	2	3.6	5	13.2	7	7.5
75-84	3	5.5	2	5.3	5	5.4
<b>Total</b>	<b>55</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>	<b>93</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D6: Deaths Due to Fall by Age and Gender,  
Two Rivers Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
45-54	1	5.9	1	3.1	2	4.1
55-64	1	5.9	0	0.0	1	2.0
65-74	3	17.6	2	6.3	5	10.2
75-84	4	23.5	11	34.4	15	30.6
85+	8	47.1	18	56.3	26	53.1
<b>Total</b>	<b>17</b>	<b>100.0</b>	<b>32</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Table D7: Deaths Due to Suicide by Age and Gender,  
Two Rivers Public Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	9	23.7	0	0.0	9	20.5
25-34	6	15.8	1	16.7	7	15.9
35-44	8	21.1	1	16.7	9	20.5
45-54	5	13.2	2	33.3	7	15.9
55-64	4	10.5	2	33.3	6	13.6
65-74	1	2.6	0	0.0	1	2.3
75-84	4	10.5	0	0.0	4	9.1
85+	1	2.6	0	0.0	1	2.3
<b>Total</b>	<b>38</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>44</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Gender**

- More males died from motor vehicle crashes and suicide than females. However, more females died due to fall injuries.
- There were a total of 93 motor vehicle crash deaths; 55 males and 38 females (*Table D5*).
- Females (N=32) were nearly twice as likely to die from falls as males (N=17) (*Table D6*).
- Thirty-eight out of a total of 44 deaths due to suicide were males (*Table D7*).

## Hospital Discharges

### Overall

- The TRPHD coverage area had a lower unintentional injury hospital discharge rate (6,081 per 100,000), similar suicide attempt rate (75 per 100,000), and higher assault rate (126.5 per 100,000) than Nebraska rates (7,610, 75, and 203.9 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, Two Rivers Public Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	15,607	95.6	6,703.7	13,856	95.2	5,473.6	29,463	95.4	6,081.4	665,407	95.9	7,609.6
Suicide	115	0.7	49.2	230	1.6	99.9	345	1.1	74.9	6,379	0.9	75.0
Homicide	364	2.2	146.7	240	1.6	106.8	604	2.0	126.5	17,720	2.6	203.9
Undetermined	237	1.5	105.5	221	1.5	92.8	458	1.5	99.1	4,181	0.6	48.3
Other	3	0.0 *		0	0.0 *		3	0.0 *		404	0.1	4.7
<b>Total</b>	<b>16,326</b>	<b>100.0</b>	<b>7,006.2</b>	<b>14,547</b>	<b>100.0</b>	<b>5,773.1</b>	<b>30,873</b>	<b>100.0</b>	<b>6,382.5</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

\* Fewer than five hospital discharges

- More males (52.3%) than females (47.7%) were treated at hospitals for all injury-related causes (*Table D4*).

### Leading Causes

- Falls were the leading cause of injury hospital discharges with an age-adjusted rate of 2,016 per 100,000. The rate was lower than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the 15-24 year age groups (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges, and the leading cause in the 15-24 year age groups. The age-adjusted hospital discharge rate for struck by/against was lower than the Nebraska rate (908 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharge. The age-adjusted rate was lower than the Nebraska rate (579 and 690 per 100,000 respectively) (*Figure H1*).
- Overexertion (476 per 100,000) and motor vehicle crashes (418 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking cause of injury hospital discharges in the WCDHD coverage area (*Figure H1*).

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, Two Rivers Public Health Department Coverage Area, Nebraska, 1999-2003**

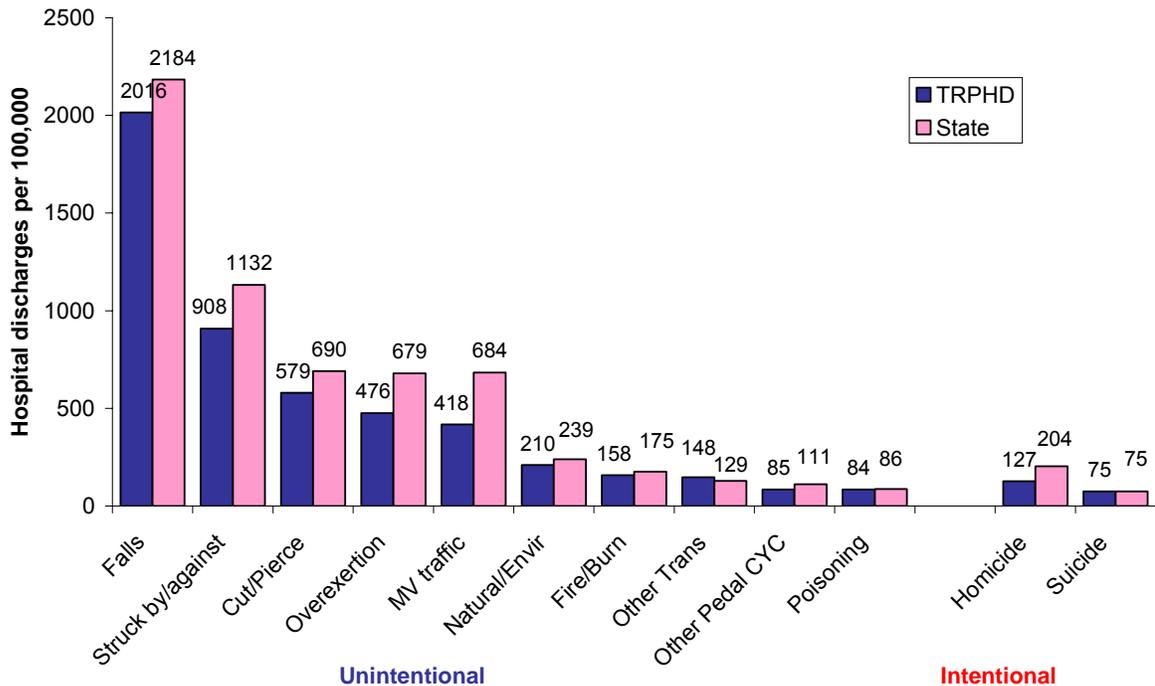
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=136	Falls N=971	Falls N=790	Falls N=769	Struck by/against N=1345	Falls N=462	Falls N=608	Falls N=541	Falls N=609	Falls N=951	Falls N=1737	Falls N=1864	Falls N=10,335
2	Struck by/against N=42	Struck by/against N=426	Struck by/against N=493	Struck by/against N=755	Falls N=897	Cut/Pierce N=409	Cut/Pierce N=348	Cut/Pierce N=290	Cut/Pierce N=131	Cut/Pierce N=124	MV traffic N=106	Struck by/against N=54	Struck by/against N=4,341
3	Fire/Burn N=22	Cut/Pierce N=179	Cut/Pierce N=234	Overexertion N=289	Overexertion N=700	Struck by/against N=403	Struck by/against N=346	Struck by/against N=207	Overexertion N=112	Overexertion N=102	Overexertion N=76	MV traffic N=33	Cut/Pierce N=2,684
4	Poisoning N=13	Poisoning N=155	Other Pedal CYC N=121	Cut/Pierce N=239	MV traffic N=688	MV traffic N=293	Overexertion N=276	Overexertion N=198	MV traffic N=98	Struck by/against N=100	Struck by/against N=73	Overexertion N=31	Overexertion N=2,256
5	Suffocation N=12	Natural/Envir N=142	Natural/Envir N=118	Other Pedal CYC N=153	Cut/Pierce N=636	Overexertion N=289	MV traffic N=257	MV traffic N=179	Struck by/against N=97	MV traffic N=83	Cut/Pierce N=65	Cut/Pierce N=17	MV traffic N=1,987

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: NE Hospital Discharge Data, 1999-2003

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
Two Rivers Public Health Department, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

### Age

- Fall injuries were most likely to happen to older adults. There was a sharp increase in fall injuries in persons age 65 and older (*Table H3*).
- Falls are the leading cause of hospital discharge for the 14-and-under age groups (*Table H2*). The 1-4 year age group had the highest fall injury rate (3,940 per 100,000), which was lower than the Nebraska rate (4,310 per 100,000) (*Table H3*).
- Injuries due to struck by/against were more common among children and young adults, ages 1-24. The 5-14 year age group had the highest rate (1,901.9 per 100,000) followed by the 1-4 year age group (1,728.7 per 100,000). (*Table H3*).
- The 15-24 year age group had the highest injury-related hospital discharge rates for cutting/piercing (813.4 per 100,000), overexertion (895.2 per 100,000), and motor vehicle crashes (879.9) (*Table H3*).

### Gender

- Overall, females had higher injury-related hospital discharge rates for falls (2,201.9 per 100,000) and motor vehicle crashes (431.3 per 100,000) than males (1,825.8 and 404.4 per 100,000 respectively) but lower rates for struck by/against (613.4 vs. 1,209.0 per 100,000), cutting/piercing (416.2 vs. 745.8 per 100,000), and overexertion (461.9 vs. 489.9 per 100,000) (*Table H3*). However, males 14 and under had a higher fall injury discharge rate than females 14 and under.

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age,  
Two Rivers Public Health Department Coverage Area, NE, 1999-2003**

Cause	Age	Two Rivers HD									State		
		Male			Female			Total			Male	Female	Total
		N	%	Rate	N	%	Rate	N	%	Rate			
Falls	<1	75	1.8	2339.4	61	1	1909.2	136	1.3	2124.7	2298.5	2139.4	2220.8
Falls	1-4	528	12.7	4132.1	443	7.2	3733.7	971	9.4	3940.3	4871.2	3721.2	4309.7
Falls	5-14	860	20.6	2567.5	699	11.3	2176.1	1559	15.1	2375.9	2855.0	2404.1	2634.8
Falls	15-24	515	12.3	1294.9	382	6.2	994.3	897	8.7	1147.2	1570.9	1323.5	1449.9
Falls	25-34	227	5.4	793	235	3.8	863.1	462	4.5	827.2	1048.4	1303.4	1173.8
Falls	35-44	277	6.6	847.9	331	5.4	1043.4	608	5.9	944.2	1084.2	1357.6	1220.2
Falls	45-54	224	5.4	732	317	5.1	1055.8	541	5.2	892.4	1116.0	1610.3	1364.2
Falls	55-64	234	5.6	1194.9	375	6.1	1868.2	609	5.9	1535.7	1337.7	1976.8	1664.3
Falls	65-74	330	7.9	2343.1	621	10.1	3645.9	951	9.2	3056.2	2151.5	3581.0	2926.8
Falls	75-84	534	12.8	5400.5	1203	19.5	8542.2	1737	16.8	7246.3	4355.2	7355.0	6138.2
Falls	85+	369	8.8	10727	1495	24.3	19251	1864	18	16634	10070.0	14640.0	13320.0
<b>Total</b>		4173	100.0	1825.8	6162	100.0	2201.9	10335	100.0	2016.0	2013.8	2349.3	2184.0
Struck by/against	<1	22	0.8	686.2	20	1.4	626	42	1	656.1	836	692.9	766.1
Struck by/against	1-4	271	9.3	2120.8	155	10.9	1306.4	426	9.8	1728.7	2812.4	1729.5	2283.7
Struck by/against	5-14	814	27.9	2430.1	434	30.5	1351.1	1248	28.7	1901.9	2919.3	1521.6	2236.7
Struck by/against	15-24	1008	34.6	2534.4	337	23.6	877.1	1345	31	1720.1	3069.3	1161.5	2135.8
Struck by/against	25-34	261	9	911.8	142	10	521.5	403	9.3	721.5	1212	676.9	948.9
Struck by/against	35-44	220	7.5	673.4	126	8.8	397.2	346	8	537.3	854.1	527.3	691.6
Struck by/against	45-54	130	4.5	424.8	77	5.4	256.5	207	4.8	341.4	574.9	385.7	479.9
Struck by/against	55-64	64	2.2	326.8	33	2.3	164.4	97	2.2	244.6	414.7	291.2	351.6
Struck by/against	65-74	68	2.3	482.8	32	2.2	187.9	100	2.3	321.4	415.7	292.7	349
Struck by/against	75-84	41	1.4	414.6	32	2.2	227.2	73	1.7	304.5	415.6	363.7	384.7
Struck by/against	85+	17	0.6	494.2	37	2.6	476.4	54	1.2	481.9	507.4	519.4	516
<b>Total</b>		2916	100.0	1209.0	1425	100.0	613.4	4341	100.0	908.0	1488.5	786.4	1132.3
Cut/Pierce	<1	5	0.3	156	7	0.7	219.1	12	0.4	187.5	228.7	185.5	207.6
Cut/Pierce	1-4	107	6.2	837.4	72	7.6	606.8	179	6.7	726.4	925.2	609.5	771.1
Cut/Pierce	5-14	306	17.6	913.5	167	17.6	519.9	473	17.6	720.8	1033.2	615.8	829.4
Cut/Pierce	15-24	432	24.9	1086.2	204	21.5	531	636	23.7	813.4	1399.6	650.1	1032.9
Cut/Pierce	25-34	284	16.4	992.2	125	13.2	459.1	409	15.2	732.3	1138.4	596.8	872.2
Cut/Pierce	35-44	204	11.8	624.5	144	15.2	453.9	348	13	540.4	861.0	517.5	690.1
Cut/Pierce	45-54	191	11	624.2	99	10.4	329.7	290	10.8	478.4	650.7	401.2	525.4
Cut/Pierce	55-64	81	4.7	413.6	50	5.3	249.1	131	4.9	330.3	555.0	309.7	429.6
Cut/Pierce	65-74	80	4.6	568	44	4.6	258.3	124	4.6	398.5	582.4	266.5	411.1
Cut/Pierce	75-84	36	2.1	364.1	29	3.1	205.9	65	2.4	271.2	448.3	214.8	309.5
Cut/Pierce	85+	8	0.5	232.6	9	0.9	115.9	17	0.6	151.7	333.7	194.8	234.9
<b>Total</b>		1734	100.0	745.8	950	100.0	416.2	2684	100.0	579.0	893.0	492.5	689.8
Overexertion	<1	4	0.3	124.8	3	0.3	93.9	7	0.3	109.4	111.1	156.8	133.4
Overexertion	1-4	45	3.9	352.2	53	4.8	446.7	98	4.3	397.7	352.6	519.6	434.1
Overexertion	5-14	181	15.6	540.4	186	17	579.1	367	16.3	559.3	537.1	610.3	572.9
Overexertion	15-24	395	34	993.2	305	27.9	793.9	700	31	895.2	1317.5	1024.1	1173.9
Overexertion	25-34	148	12.7	517	141	12.9	517.8	289	12.8	517.4	952.4	828.7	891.6
Overexertion	35-44	152	13.1	465.3	124	11.3	390.9	276	12.2	428.6	817.7	677.3	747.9
Overexertion	45-54	112	9.6	366	86	7.9	286.4	198	8.8	326.6	616.4	572.9	594.5
Overexertion	55-64	63	5.4	321.7	49	4.5	244.1	112	5	282.4	426.6	433.8	430.3
Overexertion	65-74	39	3.4	276.9	63	5.8	369.9	102	4.5	327.8	356.1	445.4	404.6
Overexertion	75-84	18	1.5	182	58	5.3	411.8	76	3.4	317	311.8	419.9	376
Overexertion	85+	6	0.5	174.4	25	2.3	321.9	31	1.4	276.6	236.9	387.2	343.8
<b>Total</b>		1163	100.0	489.9	1093	100.0	461.9	2256	100.0	476.0	705.5	635.6	679.2
MV traffic	<1	5	0.5	156	5	0.5	156.5	10	0.5	156.2	128.9	121.4	125.2
MV traffic	1-4	30	3.1	234.8	19	1.9	160.1	49	2.5	198.8	251.0	229.3	240.4
MV traffic	5-14	92	9.6	274.7	99	9.6	308.2	191	9.6	291.1	400.0	436.0	417.6
MV traffic	15-24	343	35.7	862.4	345	33.6	898	688	34.6	879.9	1444.2	1831.5	1633.7
MV traffic	25-34	122	12.7	426.2	171	16.7	628	293	14.7	524.6	855.6	993.0	923.2
MV traffic	35-44	127	13.2	388.8	130	12.7	409.8	257	12.9	399.1	607.3	708.3	657.6
MV traffic	45-54	92	9.6	300.7	87	8.5	289.8	179	9	295.3	476.5	523.1	499.9
MV traffic	55-64	55	5.7	280.8	43	4.2	214.2	98	4.9	247.1	346.5	441.2	394.9
MV traffic	65-74	40	4.2	284	43	4.2	252.5	83	4.2	266.7	327.3	382.2	357.1
MV traffic	75-84	39	4.1	394.4	67	6.5	475.8	106	5.3	442.2	402.4	393.8	397.3
MV traffic	85+	16	1.7	465.1	17	1.7	218.9	33	1.7	294.5	404.8	248.5	293.6
<b>Total</b>		961	100.0	404.4	1026	100.0	431.3	1987	100.0	418.0	629.3	737.3	684.0

Source: Hospital Discharge Data 1999-2003

Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

INJURY REPORT, 1999-2003

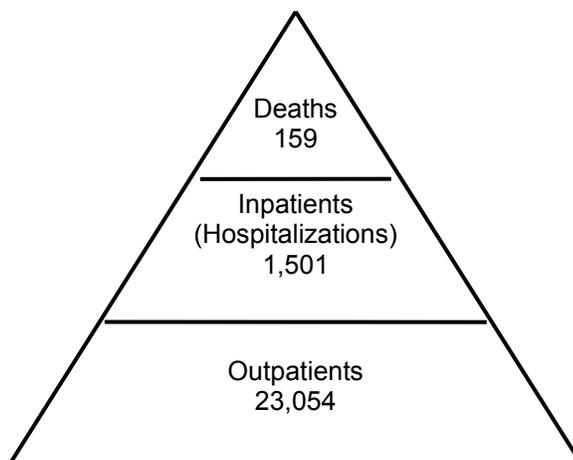
**West Central District Health Department Coverage Area**

Arthur, Grant, Hooker, Keith, Lincoln, Logan, McPherson, and Thomas Counties

**Summary**

Injury is a public health problem in the West Central District Health Department (WCDHD) coverage area. Overall, injury is the third leading cause of death in this area (*Table D1*). From 1999 to 2003, in addition to 159 injury deaths, more than 1,500 residents in Arthur, Grant, Hooker, Keith, Lincoln, Logan, McPherson, and Thomas counties were hospitalized and more than 23,000 residents were treated at hospitals for injuries (*Figure A*). Overall, motor vehicle crashes were the leading cause of injury death. Suicide was second, followed by falls. In contrast to deaths, falls were the leading cause of injury-related hospital discharge and struck by/against injuries were second, followed by cutting/piercing, motor vehicle crashes, and overexertion.

**Figure A: Injury Pyramid, Residents of West Central District Health Department Coverage Area, NE, 1999-2003**



The pattern of injury varied by age and gender. Injury had a greater impact on children and young adults. Injury is the leading cause of death from ages 1 to 29. Therefore, more years of potential life were lost due to injuries. More than twice as many males (68.6%) died from injury as females (31.5%).

The following table highlights the WCDHD coverage area's progress towards the 2010 Nebraska Health Goals and Objectives related to deaths due to unintentional injuries, falls and motor vehicle crashes (*Table A*).

**Table A: Injury Death rates, West Central District Health Department Coverage Area, NE 2003**

Cause of Death	2003 Death Rate	2010 Nebraska Objective (rate per 100,000 population)
Unintentional Injury	48.3	19.4
Fall	13.4	3.5
Motor Vehicle Crash	16.7	12.0

Source: DHHS Death Certificate Data

## Injury Deaths

### Overall

- From 1999 to 2003, injuries, including unintentional and intentional, were the third leading cause of death in the West Central District Health Department (WCDHD) coverage area (*Table D1*).

**Table D1: Five Leading Causes of Death,  
West Central District Health Department Coverage Area, NE, 1999-2003**

Rank	Cause	Total Number of Death
1	Heart Disease	697
2	Cancer	542
3	Injury	152
4	Stroke	151
5	Chronic Lung Disease	142

Source: DHHS Death Certificate Data, 1999-2003

- An average of 30 residents died from injuries each year in the WCDHD coverage area (*Table D2*).
- Deaths due to injury made up 6.5% of total deaths, which was higher than that for Nebraska (6%). In the WCDHD coverage area, more than half of the deaths resulting from injury occurred among those age 1-29 years. Among the 5-9 and 15-24 year age groups, 80% of deaths were due to injury (*Table D2*).

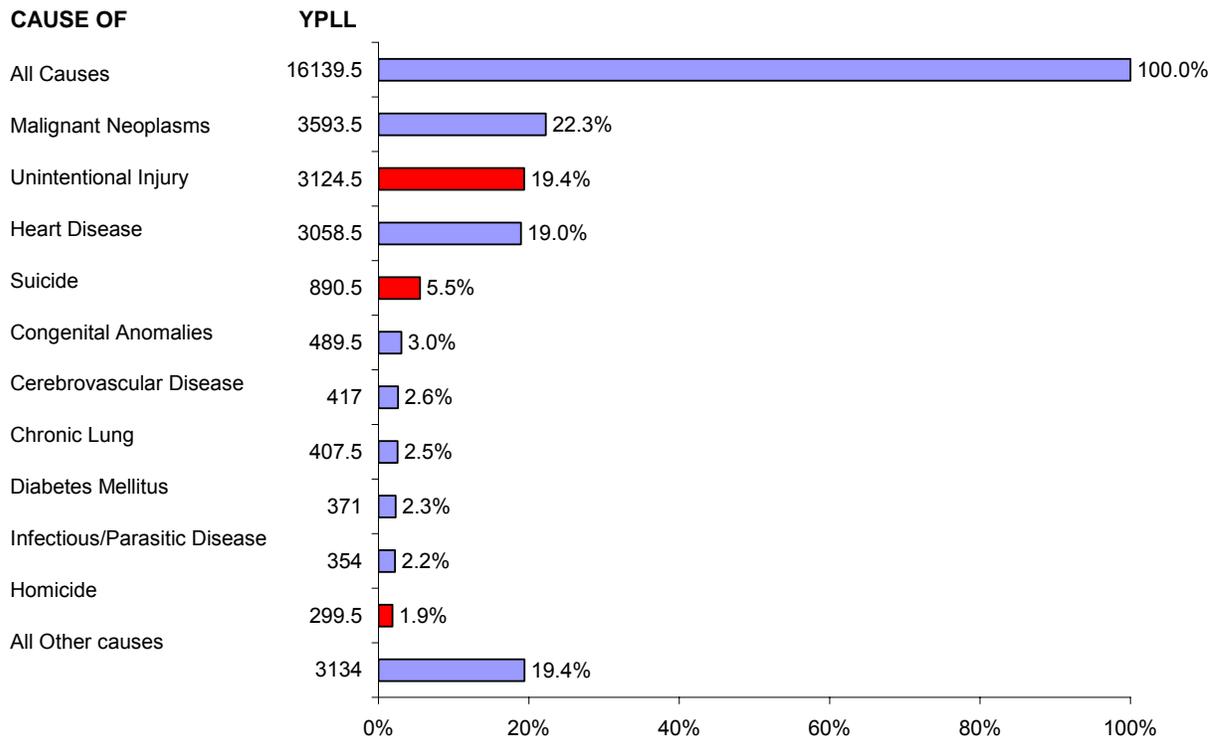
**Table D2: Injury Deaths as a Percent of All Deaths by Age,  
West Central District Health Department Coverage Area, NE, 1999-2003**

Age Group	Annual Average			Percent of Death due to Injury
	Injury Deaths	Injury Deaths	All Deaths	
<1	1	0	15	6.7
1-4	3	1	6	50.0
5-9	4	1	5	80.0
10-14	2	0	3	66.7
15-19	12	2	15	80.0
20-24	11	2	13	84.6
25-29	10	2	14	71.4
30-34	4	1	13	30.8
35-39	13	3	30	43.3
40-44	14	3	46	30.4
45-49	13	3	52	25.0
50-54	7	1	80	8.8
55-59	7	1	84	8.3
60-64	4	1	106	3.8
65-74	14	3	413	3.4
75-84	14	3	683	2.1
85+	19	4	746	2.5
<b>Total</b>	<b>152</b>	<b>30</b>	<b>2,324</b>	<b>6.5</b>

Source: DHHS Death Certificate Data, 1999-2003

- Years of Potential Life Lost (YPLL) from unintentional injury ranked second (19.4%), following that from cancer (22.3%). Suicide ranked 4<sup>th</sup> at 5.5% (*Figure D1*).

**Figure D1: Years of Potential Life Lost (YPLL) before 75 by Cause of Death, West Central District Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data, 1999-2003

- The counties served by the WCDHD had higher unintentional injury, suicide and homicide rates (43.2, 15.1, and 3.9 per 100,000 respectively) compared to Nebraska rates (33.3, 10.6, and 3.2 per 100,000 respectively) (Table D3).

**Table D3: Injury Deaths, Percentage, and Age-adjusted Rates, West Central District Health Department Coverage Area, NE, 1999-2003**

Cause	Male			Female			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	71	65.1	63.6	36	72.0	23.5	107	67.3	43.2	3,020	68.3	33.3
Suicide	32	29.4	27.2	4	8.0	3.4	36	22.6	15.1	894	20.2	10.6
Homicide	5	4.6	4.3	4	8.0	3.4	9	5.7	3.9	273	6.2	3.2
Undetermined	1	0.9	0.8	1	2.0	0.9	2	1.3	0.8	139	3.1	1.6
Adverse Effects	0	0.0	0.0	5	10.0	3.3	5	3.1	1.7	93	2.1	1.0
<b>Total</b>	<b>109</b>	<b>100.0</b>	<b>95.9</b>	<b>50</b>	<b>100.0</b>	<b>34.6</b>	<b>159</b>	<b>100.0</b>	<b>64.7</b>	<b>4,419</b>	<b>100.0</b>	<b>48.9</b>

Source: DHHS Death Certificate Data, 1999-2003

- More males (69%) died from all injury-related causes than females (31%) (Table D4).

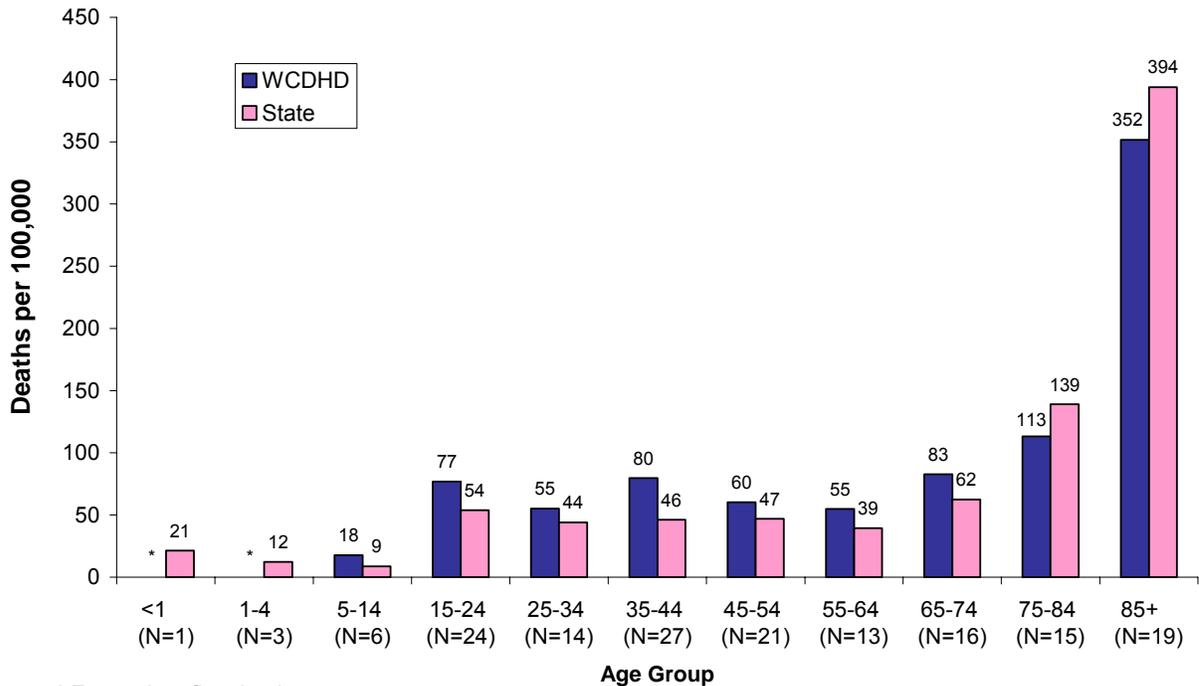
**Table D4: Injury-related Deaths and Hospital Discharges by Gender, Age, and Race,  
West Central District Health Department Coverage Area, NE, 1999-2003**

	West Central HD				State			
	Deaths		Hospital Discharges		Deaths		Hospital Discharges	
	N	%	N	%	N	%	N	%
<b>Gender</b>								
Male	109	68.6	13,329	54.3	2,848	64.3	386,563	53.1
Female	50	31.5	11,226	45.7	1,581	35.7	341,506	46.9
Total	159	100.0	24,555	100.0	4,429	100.0	728,069	100.0
<b>Age</b>								
<1	1	0.6	248	1.0	26	0.6	7,142	1.0
1-4	3	1.9	1,896	7.7	58	1.3	59,764	8.2
5-14	6	3.8	3,836	15.6	107	2.4	122,382	16.8
15-24	24	15.1	5,265	21.4	699	15.8	144,001	19.8
25-34	14	8.8	3,074	12.5	486	11.0	84,574	11.6
35-44	27	17.0	2,760	11.2	593	13.4	84,445	11.6
45-54	21	13.2	2,342	9.5	547	12.4	66,321	9.1
55-64	13	8.2	1,423	5.8	292	6.6	39,540	5.4
65-74	16	10.1	1,335	5.4	355	8.0	40,555	5.6
75-84	15	9.4	1,415	5.8	575	13.0	45,135	6.2
85+	19	12.0	961	3.9	691	15.6	34,222	4.7
Total	159	100.0	24,555	100.0	4,429	100.0	728,081	100.0
<b>Race</b>								
Asian	1	0.6			29	0.7		
African American	2	1.3			194	4.4		
Native American	0	0.0			72	1.6		
White	156	98.1			4,123	93.1		
Other	0	0.0			11	0.3		
Total	159	100.0			4,429	100.0		

Note: Hospital discharges include hospital inpatients, outpatients, and ER visits.

- Injury death rates were the highest for the oldest age group, 85 and older. Persons in this age group had a slightly lower injury death rate of 352 per 100,000 compared to the Nebraska rate of 394 per 100,000 (*Figure D2*).

**Figure D2: All Injury Death Rates by Age**  
**West Central District Health Department Coverage Area, NE, 1999-2003**

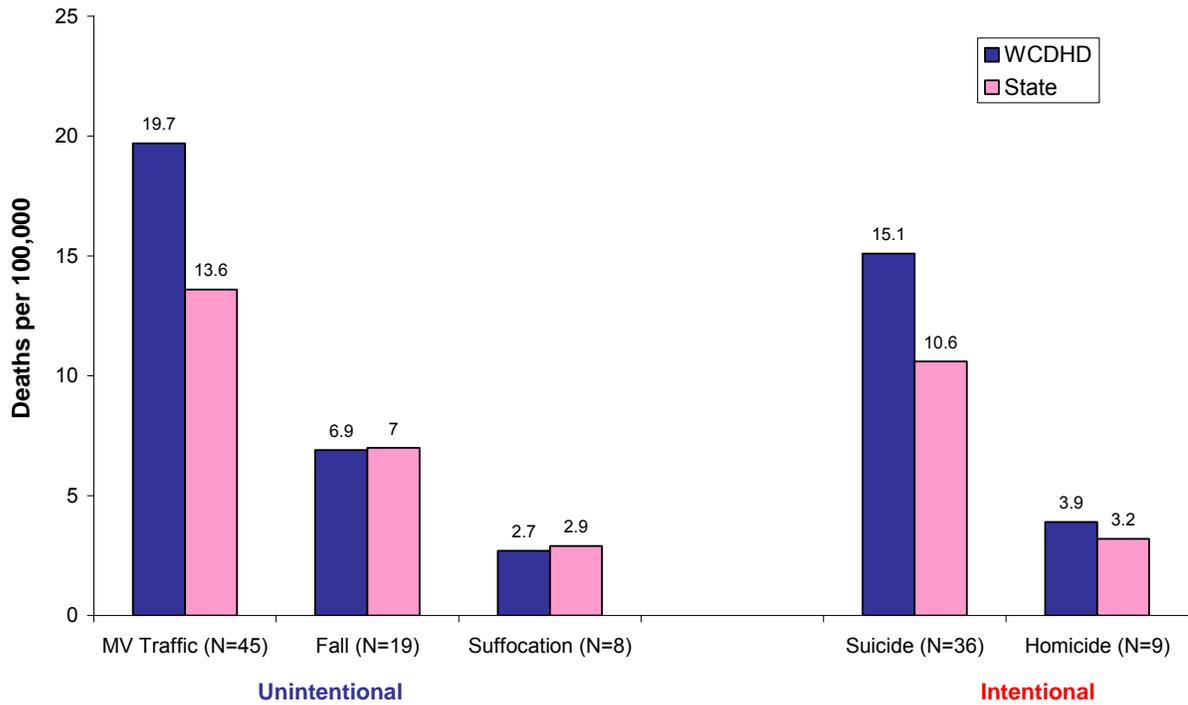


\* Fewer than five deaths  
 Source: DHHS Death Certificate, 1999-2003

**Leading causes**

- Motor vehicle crashes were the leading cause of injury death with an age-adjusted rate of 19.7 per 100,000. The rate was higher than the Nebraska rate (13.6 per 100,000) (Figure D3).
- Suicide was the second leading cause of injury death in the WCDHD coverage area. The age-adjusted death rate for suicide was higher than the Nebraska rate (15.1 and 10.6 per 100,000 respectively) (Figure D3).
- Falls were the third leading cause of injury death. The age-adjusted death rate due to falls was slightly lower than the Nebraska rate (6.9 and 7.0 per 100,000 respectively) (Figure D3).

**Figure D3: Age-adjusted Injury Death Rates by Cause  
West Central District Health Department Coverage Area, NE, 1999-2003**



Source: DHHS Death Certificate Data, 1999-2003

**Age**

- Persons age 15-24 years (N=13) were involved in the most fatal motor vehicle crashes, making up 28.9% of total deaths (N=45) due to motor vehicle crashes (*Table D5*).

**Table D5: Deaths Due to Motor Vehicle Crash by Age and Gender,  
West Central District Health Department Coverage Area, NE, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
1-4	1	3.2	0	0.0	1	2.2
5-14	2	6.5	2	14.3	4	8.9
15-24	9	29.0	4	28.6	13	28.9
25-34	6	19.4	1	7.1	7	15.6
35-44	6	19.4	2	14.3	8	17.8
45-54	3	9.7	1	7.1	4	8.9
55-64	2	6.5	1	7.1	3	6.7
65-74	1	3.2	2	14.3	3	6.7
75-84	1	3.2	0	0.0	1	2.2
85+	0	0.0	1	7.1	1	2.2
<b>Total</b>	<b>31</b>	<b>100.0</b>	<b>14</b>	<b>100.0</b>	<b>45</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

- More than 58% of deaths (N=11) due to fall injuries were among persons 75 years and older (*Table D6*).

**Table D6: Deaths Due to Fall by Age and Gender,  
West Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
5-14	0	0.0	1	11.1	1	5.3
15-24	1	10.0	0	0.0	1	5.3
25-34	1	10.0	0	0.0	1	5.3
45-54	2	20.0	0	0.0	2	10.5
65-74	2	20.0	1	11.1	3	15.8
75-84	1	10.0	5	55.6	6	31.6
85+	3	30.0	2	22.2	5	26.3
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

- Half of deaths (N=16) due to suicide were among persons ages 35-54 years (*Table D7*).

**Table D7: Deaths Due to Suicide by Age and Gender,  
West Central District Health Department Coverage Area, 1999-2003**

Age	Male		Female		Total	
	N	%	N	%	N	%
15-24	2	6.3	1	25.0	3	8.3
25-34	2	6.3	0	0.0	2	5.6
35-44	8	25.0	1	25.0	9	25.0
45-54	8	25.0	1	25.0	9	25.0
55-64	3	9.4	1	25.0	4	11.1
65-74	4	12.5	0	0.0	4	11.1
75-84	5	15.6	0	0.0	5	13.9
<b>Total</b>	<b>32</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>36</b>	<b>100.0</b>

Source: DHHS Death Certificate Data, 1999-2003

**Gender**

- More males (N=31) died from motor vehicle crashes than females (N=14) (*Table D5*).
- More males (N=10) died from falls than females (N=9) with age-adjusted rates of 8.6 vs. 5.2 per 100,000 in the WCDHD area (*Table D6*).
- Eight times as many males (N=32) died from suicide as females (N=4). The age-adjusted rates were 27.2 vs. 3.4 per 100,000 respectively (*Table D7*).

## Hospital discharges

### Overall

- The WCDHD coverage area had a higher unintentional injury hospital discharge rate (9,954 per 100,000), suicide attempt rate (90 per 100,000), and assault rate (297 per 100,000) when compared to Nebraska rates (7,610, 75, and 204 per 100,000 respectively) (*Table H1*).

**Table H1: Injury Hospital Discharges, Percentage, and Age-adjusted Rates, West Central District Health Department Coverage Area, NE, 1999-2003**

Intent	Males			Females			Total			State		
	N	%	Rate	N	%	Rate	N	%	Rate	N	%	Rate
Unintentional	12,630	96.0	11,130.0	10,656	96.4	8,820.4	23,286	96.2	9,954.2	665,407	95.9	7,609.6
Suicide	64	0.5	58.1	130	1.2	120.3	194	0.8	89.8	6,379	0.9	75.0
Homicide	405	3.1	373.8	240	2.2	223.7	645	2.7	297.4	17,720	2.6	203.9
Undetermined	50	0.4	45.1	25	0.2	20.6	75	0.3	32.6	4,181	0.6	48.3
Other	4	0.0	*	1	0.0	*	5	0.0	2.4	404	0.1	4.7
<b>Total</b>	<b>13,153</b>	<b>100.0</b>	<b>11,611.0</b>	<b>11,052</b>	<b>100.0</b>	<b>9,186.0</b>	<b>24,205</b>	<b>100.0</b>	<b>10,376.0</b>	<b>694,091</b>	<b>100.0</b>	<b>7,941.5</b>

Source: NE Hospital Discharge Data 1999-2003

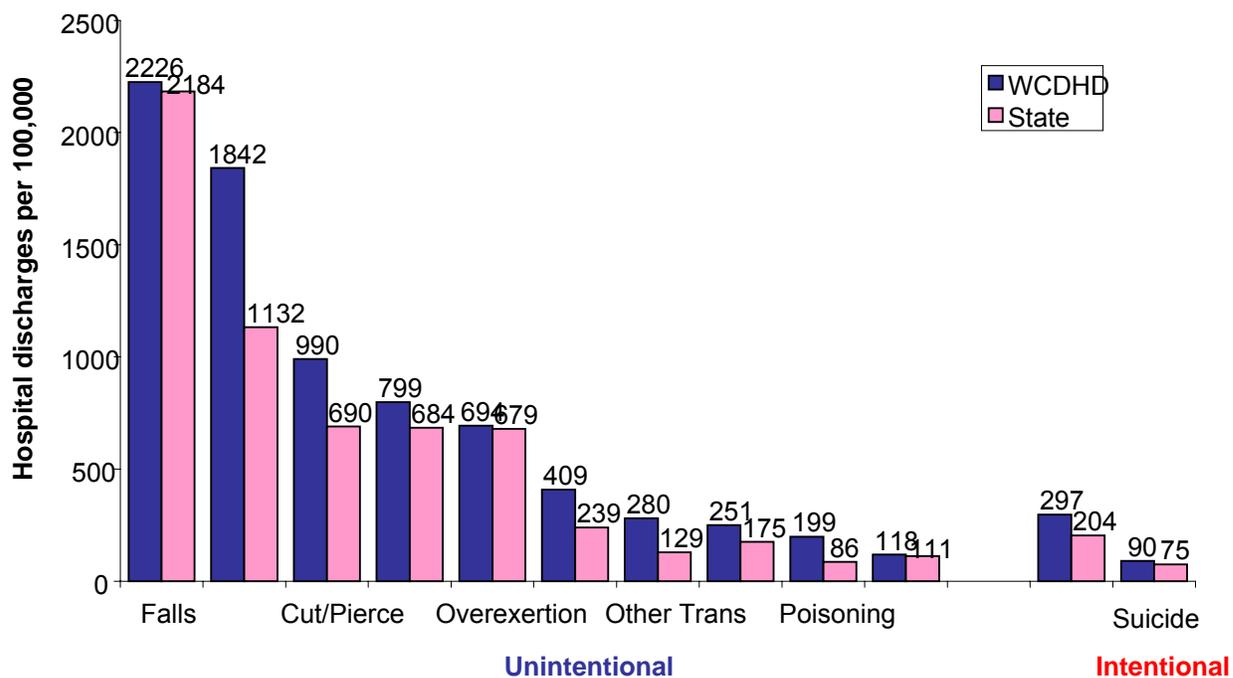
Rates per 100,000 population are age-adjusted to the 2000 U.S. standard population

- More males (54%) than females (46%) were treated at a hospital for all injury-related causes (*Table D4*).

### Leading causes

- Falls were the leading cause of injury hospital discharges with an age-adjusted rate of 2,226 per 100,000. The rate was slightly higher than the Nebraska rate (2,184 per 100,000). Falls were also the leading cause of hospital discharges for all age groups except for the 10-34 year age groups (*Table H2 & Figure H1*).
- Struck by/against was the second leading cause of injury hospital discharges, and the leading cause in the 10-34 year age groups. The age-adjusted hospital discharge rate for struck by/against was higher than the Nebraska rate (1,842 and 1,132 per 100,000 respectively) (*Table H2 & Figure H1*).
- Cutting/piercing was the third leading cause of injury hospital discharge. The age-adjusted rate was higher than the Nebraska rate (990 and 690 per 100,000 respectively) (*Figure H1*).
- Motor vehicle crashes (799 per 100,000) and overexertion (694 per 100,000) were the 4<sup>th</sup> and 5<sup>th</sup> ranking cause of injury hospital discharges in the WCDHD coverage area (*Figure H1*).

**Figure H1: Age-adjusted Injury Hospital Discharge Rates by Cause  
West Central District Health Department Coverage Area, NE, 1999-2003**



Source: NE Hospital Discharge Data 1999-2003

**Table H2: Five Leading Causes of Hospital Discharges for Injury by Age, West Central District Health Department Coverage Area, Nebraska, 1999-2003**

Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	84+	All Ages
1	Falls N=89	Falls N=494	Falls N=447	Struck by/against N=678	Struck by/against N=1,291	Struck by/against N=471	Falls N=430	Falls N=471	Falls N=360	Falls N=460	Falls N=784	Falls N=688	Falls N=5,618
2	Struck by/against N=46	Struck by/against N=403	Struck by/against N=408	Falls N=405	MV traffic N=664	Falls N=417	Struck by/against N=358	Struck by/against N=236	Cut/Pierce N=127	Cut/Pierce N=85	Struck by/against N=70	Struck by/against N=45	Struck by/against N=4,183
3	Fire/Burn N=22	Cut/Pierce N=146	Cut/Pierce N=198	Cut/Pierce N=186	Falls N=573	Cut/Pierce N=344	Cut/Pierce N=332	Overexertion N=225	Struck by/against N=104	Struck by/against N=73	Overexertion N=56	Overexertion N=19	Cut/Pierce N=2,231
4	Natural/Envir N=11	Poisoning N=143	Other Pedal CYC N=85	MV traffic N=102	Cut/Pierce N=544	MV traffic N=303	Overexertion N=254	Cut/Pierce N=220	Overexertion N=96	Overexertion N=68	MV traffic N=50	MV traffic N=10	MV traffic N=1,789
5	Poisoning N=10	Natural/Envir N=136	Natural/Envir N=81	Overexertion N=101	Overexertion N=365	Overexertion N=292	MV traffic N=219	MV traffic N=183	MV traffic N=78	MV traffic N=65	Cut/Pierce N=34	Cut/Pierce N=10	Overexertion N=1,562

Hospital visits includes visits as inpatient, ER and non-ER patient

Note: Causes coded as "other specified" and "unspecified" are excluded from this matrix

Source: NE Hospital Discharge Data, 1999-2003

### **Age**

- Hospital discharge rates due to falls were the highest for persons ages 85 and older. Among children age 14 and under, the 1-4 year age group had the highest fall injury rate (4,139 per 100,000), which was relatively lower than the Nebraska rate (4,310 per 100,000). This age group had the third highest fall injury rate after the 75-84 and 85 and older age groups (*Table H3*).
- The 15-24 year age group had the highest hospital discharge rate (4,144 per 100,000) for struck by/against, which was higher than the Nebraska rate (2,136 per 100,000). The rate was second highest for children ages 1-4 at 3,376 per 100,000 (*Table H3*).
- Hospital discharge rates for cutting/piercing injuries were highest for the 15-24 year age group (1,746 per 100,000) (*Table H3*).
- Hospital discharge rates for motor vehicle crash (2,131 per 100,000) and overexertion injuries (1,172 per 100,000) were the highest for individuals in the 15-24 year age group (*Table H3*).

### **Gender**

- Females had higher injury hospital discharge rates for falls than males (2,508 vs. 1,933 per 100,000) (*Table H3*).
- The injury hospital discharge rates for struck by/against and cutting/piercing for males were nearly twice those for females (2,410 and 1,269 vs. 1,294 and 722 per 100,000) (*Table H3*).
- Female motor vehicle injury hospital discharge rates were higher than male rates (813 vs. 784 per 100,000) (*Table H3*).

**Table H3: Five Leading Causes of Injury Hospital Discharges, Rates by Gender and Age, West Central District Health Department Coverage Area, NE, 1999-2003**

Cause	Age	West Central HD									State		
		Male			Female			Total			Rate		
		N	%	Rate	N	%	Rate	N	%	Rate	Male	Female	Total
MV traffic	<1				3	0.3	204.6	3	0.2	100.9	128.9	121.4	125.2
MV traffic	1-4	29	3.3	470.9	15	1.6	259.6	44	2.5	368.6	251.0	229.3	240.4
MV traffic	5-14	94	10.8	531.4	76	8.3	467.5	170	9.5	500.8	400.0	436.0	417.6
MV traffic	15-24	300	34.4	1885.6	364	39.7	2387.5	664	37.1	2131.2	1444.2	1831.5	1633.7
MV traffic	25-34	177	20.3	1392.9	126	13.7	995.2	303	16.9	1194.4	855.6	993.0	923.2
MV traffic	35-44	103	11.8	618.3	116	12.6	674.8	219	12.2	647	607.3	708.3	657.6
MV traffic	45-54	88	10.1	504.4	95	10.3	546.9	183	10.2	525.6	476.5	523.1	499.9
MV traffic	55-64	32	3.7	275.9	46	5	380.8	78	4.4	329.4	346.5	441.2	394.9
MV traffic	65-74	24	2.8	269.1	41	4.5	393.6	65	3.6	336.2	327.3	382.2	357.1
MV traffic	75-84	23	2.6	420.4	27	2.9	346.6	50	2.8	377	402.4	393.8	397.3
MV traffic	85+	1	0.1	60.3	9	1	240.2	10	0.6	185	404.8	248.5	293.6
<b>Total</b>		871	100.0	783.9	918	100.0	813.1	1789	100.0	799.0	629.3	737.3	684.0
Falls	<1	46	2.1	3052.4	43	1.3	2933.2	89	1.6	2993.6	2298.5	2139.4	2220.8
Falls	1-4	288	12.9	4676.8	206	6.1	3565.2	494	8.8	4138.7	4871.2	3721.2	4309.7
Falls	5-14	451	20.2	2549.6	401	11.9	2466.9	852	15.2	2510	2855	2404.1	2634.8
Falls	15-24	295	13.2	1854.2	278	8.2	1823.4	573	10.2	1839.1	1570.9	1323.5	1449.9
Falls	25-34	162	7.2	1274.9	255	7.5	2014.1	417	7.4	1643.8	1048.4	1303.4	1173.8
Falls	35-44	173	7.7	1038.5	257	7.6	1495	430	7.7	1270.3	1084.2	1357.6	1220.2
Falls	45-54	178	8	1020.3	293	8.7	1686.8	471	8.4	1352.8	1116	1610.3	1364.2
Falls	55-64	141	6.3	1215.5	219	6.5	1812.9	360	6.4	1520.3	1337.7	1976.8	1664.3
Falls	65-74	146	6.5	1637.1	314	9.3	3014.6	460	8.2	2379.2	2151.5	3581	2926.8
Falls	75-84	193	8.6	3527.7	591	17.5	7585.7	784	14	5911.6	4355.2	7355	6138.2
Falls	85+	163	7.3	9831.1	525	15.5	14011	688	12.2	12729	10070	14640	13320
<b>Total</b>		2236	100.0	1933.2	3382	100.0	2507.9	5618	100.0	2226.0	2013.8	2349.3	2184.0
Cut/Pierce	<1	4	0.3	265.4	1	0.1	68.2	5	0.2	168.2	228.7	185.5	207.6
Cut/Pierce	1-4	83	5.8	1347.8	63	7.9	1090.3	146	6.5	1223.2	925.2	609.5	771.1
Cut/Pierce	5-14	234	16.4	1322.9	150	18.7	922.8	384	17.2	1131.3	1033.2	615.8	829.4
Cut/Pierce	15-24	392	27.4	2463.9	152	19	997	544	24.4	1746.1	1399.6	650.1	1032.9
Cut/Pierce	25-34	220	15.4	1731.3	124	15.5	979.4	344	15.4	1356	1138.4	596.8	872.2
Cut/Pierce	35-44	193	13.5	1158.5	139	17.4	808.6	332	14.9	980.8	861.0	517.5	690.1
Cut/Pierce	45-54	134	9.4	768.1	86	10.7	495.1	220	9.9	631.9	650.7	401.2	525.4
Cut/Pierce	55-64	80	5.6	689.7	47	5.9	389.1	127	5.7	536.3	555.0	309.7	429.6
Cut/Pierce	65-74	62	4.3	695.2	23	2.9	220.8	85	3.8	439.6	582.4	266.5	411.1
Cut/Pierce	75-84	22	1.5	402.1	12	1.5	154	34	1.5	256.4	448.3	214.8	309.5
Cut/Pierce	85+	6	0.4	361.9	4	0.5	106.8	10	0.4	185	333.7	194.8	234.9
<b>Total</b>		1430	100.0	1268.8	801	100.0	721.9	2231	100.0	990.0	893.0	492.5	689.8
Struck by/against	0-1	17	0.6	1128.1	29	2	1978.2	46	1.1	1547.3	836	692.9	766.1
Struck by/against	1-4	248	9.1	4027.3	155	10.7	2682.6	403	9.6	3376.3	2812.4	1729.5	2283.7
Struck by/against	5-14	707	25.9	3996.8	379	26.1	2331.6	1086	26	3199.4	2919.3	1521.6	2236.7
Struck by/against	15-24	945	34.6	5939.7	346	23.8	2269.4	1291	30.9	4143.7	3069.3	1161.5	2135.8
Struck by/against	25-34	306	11.2	2408.1	165	11.4	1303.2	471	11.3	1856.7	1212	676.9	948.9
Struck by/against	35-44	227	8.3	1362.6	131	9	762	358	8.6	1057.6	854.1	527.3	691.6
Struck by/against	45-54	141	5.2	808.2	95	6.5	546.9	236	5.6	677.8	574.9	385.7	479.9
Struck by/against	55-64	63	2.3	543.1	41	2.8	339.4	104	2.5	439.2	414.7	291.2	351.6
Struck by/against	65-74	36	1.3	403.7	37	2.5	355.2	73	1.7	377.6	415.7	292.7	349
Struck by/against	75-84	29	1.1	530.1	41	2.8	526.2	70	1.7	527.8	415.6	363.7	384.7
Struck by/against	85+	12	0.4	723.8	33	2.3	880.7	45	1.1	832.6	507.4	519.4	516
<b>Total</b>		2731	100.0	2409.7	1452	100.0	1294.4	4183	100.0	1842.0	1488.5	786.4	1132.3
Overexertion	<1				2	0.2	136.4	2	0.1	67.3	111.1	156.8	133.4
Overexertion	1-4	21	2.8	341	38	4.7	657.7	59	3.8	494.3	352.6	519.6	434.1
Overexertion	5-14	44	5.9	248.7	82	10.1	504.5	126	8.1	371.2	537.1	610.3	572.9
Overexertion	15-24	188	25.1	1181.6	177	21.8	1161	365	23.4	1171.5	1317.5	1024.1	1173.9
Overexertion	25-34	140	18.7	1101.8	152	18.7	1200.5	292	18.7	1151.1	952.4	828.7	891.6
Overexertion	35-44	139	18.5	834.4	115	14.2	669	254	16.3	750.4	817.7	677.3	747.9
Overexertion	45-54	116	15.5	664.9	109	13.4	627.5	225	14.4	646.3	616.4	572.9	594.5
Overexertion	55-64	46	6.1	396.6	50	6.2	413.9	96	6.1	405.4	426.6	433.8	430.3
Overexertion	65-74	34	4.5	381.3	34	4.2	326.4	68	4.4	351.7	356.1	445.4	404.6
Overexertion	75-84	18	2.4	329	38	4.7	487.7	56	3.6	422.3	311.8	419.9	376.0
Overexertion	85+	4	0.5	241.3	15	1.8	400.3	19	1.2	351.5	236.9	387.2	343.8
<b>Total</b>		750	100.0	671.9	812	100.0	714.6	1562	100.0	694.0	705.5	635.6	679.2

Source: Hospital Discharge Data 1999-2003  
Rates per 100,000 population

## Glossary

### Age-adjusted rates

Age-adjusted death and hospital discharge rates are presented in many of the tables in this report. All of the age-adjusted rates are per 100,000 Nebraskans, and are age-adjusted to the 2000 U.S. standard population using the direct method applied to eleven age groups. Direct age-adjustment involves the application of age-specific rates in a population of interest to a standardized age distribution (i.e., that of the U.S.), in order to eliminate differences in observed rates that result from age differences between the populations. This adjustment is usually done when comparing two or more populations at one point in time or one population at two or more points in time.

Age-adjusted rates (AAR) are calculated by the direct method as follows:

$$\text{AAR} = \text{Summation of } (\text{ASR}_i * \text{weight}_i)$$

Where  $\text{ASR}_i$  = the age-specific rates for the population of interest

$\text{Weight}_i$  = the standard weight in age group  $i$

### Age Adjustment Table

All Ages — Eleven Age Groups

Age	U.S. 2000 Standard Population (1,000s)	Adjustment Weights
All Ages	274,634	1.000000
Under 1	3,795	0.013818
1-4	15,192	0.055317
5-14	39,977	0.145565
15-24	38,077	0.138646
25-34	37,233	0.135573
35-44	44,659	0.162613
45-54	37,030	0.134834
55-64	23,961	0.087247
65-74	18,136	0.066037
75-84	12,315	0.044842
85+	4,259	0.015508

### Years of Potential Life Lost

Years of potential life lost (YPLL) is a measure of premature death. In this report, YPLL before age 75 is calculated from the difference between 75 and the age at death. For example, the death of a person 40 years old contributes 35 years of life lost before age 75. YPLL is calculated by summing the years of life lost for all deaths over all ages.

### Definition of Terms

**Age-adjusted rate:** A rate that has been standardized to the age distribution of a particular population, so that it is independent of the age distribution of the population it represents. Age-adjusted rates are used to compare rates over time or between different population groups.

**Age-specific rate:** A rate for a specified age group is calculated by dividing the actual number of cases in a given period (e.g., 1999-2003) for a specific age group by the population in that age group for that period. The numerator and the denominator refer to the same age group.

**Crude death rate or crude hospitalization rate:** The number of deaths or hospitalizations in a specified number of population (e.g., per 100,000). Crude rates are not adjusted for differences in demographic distributions among populations, such as age distributions.

**E-Codes:** The external cause of injury codes (E-codes) are a subset of the International Classification of Diseases, and are used to classify the environmental events, circumstances, and conditions that are the cause of injury, poisoning, or other adverse effects. E-code classifications used in this report are listed in the Appendix (Table 1).

**Hospital discharges:** Records from hospital discharges; including hospital inpatient and outpatient.

Inpatient

An "hospital inpatient" is a person who has been admitted to a hospital for bed occupancy for purposes of receiving inpatient hospital services. A person is considered an inpatient if he was formally admitted as an inpatient with the expectation that he would remain at least overnight and occupy a bed, even though it later develops that he can be discharged or that he is transferred to another hospital and does not actually use a hospital bed overnight. [Medicare Intermediary Manual §3101.]

Outpatient

A "hospital outpatient" is a person who has not been admitted by the hospital as an inpatient but is registered on the hospital records as an outpatient and receives services (rather than supplies alone) from the hospital. The inpatient of a skilled nursing facility may be considered the outpatient of a participating hospital. However, the inpatient of a participating hospital cannot be considered an outpatient of that or any other hospital. [Medicare Intermediary Manual §3112.1.]

Outpatient ER record

An outpatient record with an Emergency Department Visit Revenue Code (0450-0459) present in locator 42 (Revenue Code) of the UB-92 form, or Loop 2400 SV201 234 of the ANSI 837i transaction, or other electronic equivalent.

Outpatient Non-ER record

If a 0450-0459 Revenue Code is not present on the outpatient record, the record is defined as an outpatient non-ER record.

**ICD-9-CM:** The International Classification of Diseases, Ninth Revision, Clinical Modification coding system is used to classify diagnoses on inpatient and outpatient care records.

**ICD-10:** The International Classification of Diseases, Tenth Revision, is the system used to classify the causes of death listed on death certificates beginning in 1999.

**Intent of injury:** Intentional injuries, such as homicide and suicide, involve acts in which there is intent to kill or harm. Unintentional injuries involve acts in which there is no intent to harm; these injuries are sometimes labeled as "accidental." In some cases, the intentionality has not been determined. These injuries are categorized as "undetermined intent."

**Legal intervention:** This category includes injuries that were inflicted in the course of performing legal law enforcement actions. In this report, as in National Vital Statistics Reports, injuries due to legal intervention are grouped with homicide and assault.

**Mechanism of injury:** The activities or circumstances that led to the hospitalization, emergency room treatment, or death (e.g., fall, motor vehicle crash).

**Other specified and classifiable:** Injuries that may include foreign body entering eye or orifice, caught accidentally in or between objects, accident caused by explosive material, accident caused by electric current, exposure to radiation, or late effects of accidents.

**Place of occurrence codes:** This code is used to designate the place where the injury occurred (e.g., home, farm, mine and quarry, street and highway, public building, place for recreation and sports, and residential institution).

**Rate:** The number of cases or records per 100,000 persons.

**Underlying cause of death:** Defined by the World Health Organization as the disease or injury that initiated the train of events leading directly to death; or the circumstances of the accident or violence, which produced the fatal injury. Most standard mortality data is compiled by underlying cause of death.

**Falls:** The falls category includes:

- fall on or from stairs or steps,
- fall on or from ladders or scaffolding,
- fall from or out of building or other structure, such as a balcony or roof,
- fall into hole or other opening in surface,
- fall from one level to another including: fall from playground equipment, chairs, beds, and other furniture,
- fall on same level from slipping, tripping, or stumbling,
- fall on same level from collision, pushing, or shoving, by or with other person, including in sports other and unspecified falls.

**Overexertion:** Overexertion is defined in ICD-9-CM as “overexertion and strenuous movements.” The category includes excessive physical exercise; overexertion from lifting, pulling and pushing; and strenuous movements in recreational and other activities.

**Struck by/against:** The struck by/against category includes:

- struck accidentally by a falling object
  - collapse of building or
  - object falling from a machine
- striking against or struck accidentally by objects and persons
  - being kicked or stepped on during a game, or being struck by a hit or thrown ball in sports, or
  - caused by a crowd by collective fear or panic (i.e., crushed, stepped on).

**Suffocation:** The unintentional suffocation category is defined as inhalation and ingestion of food or other object causing obstruction of respiratory tract; or accidental mechanical suffocation including suffocation in a bed or cradle, by a plastic bag, due to lack of air in closed place, or by falling earth or other substance.

**Cutting/piercing:** The unintentional cutting and/or piercing category is defined as injuries caused by cutting and piercing instruments or objects, including a powered lawn mower, other powered hand tools, powered household appliances and implements, knives, swords, and daggers, other hand tools and implements, hypodermic needles, and other specified cutting and piercing instruments or objects.

## Appendix

**Table 1. Recommended framework of E-code groupings for presenting injury mortality and morbidity data (February 1, 2007)**

This matrix contains the ICD-9 external-cause-of-injury codes used for coding of injury mortality data and additional ICD-9-CM external-cause-of-injury codes, designated in bold, only used for coding of injury morbidity data. In addition, a list of ICD-9-CM external-cause-of-injury codes that have been added since 1994 along with their descriptors is appended to the matrix.

Mechanism/ Cause	Manner/Intent				
	Unintentional	Self-inflicted	Assault	Undetermined	Other <sup>1</sup>
<b>Cut/pierce</b>	E920.0-.9	E956	E966	E986	E974
<b>Drowning/submersion</b>	E830.0-.9, E832.0-.9 E910.0-.9	E954	E964	E984	
<b>Fall</b>	E880.0-E886.9, E888	E957.0-.9	E968.1	E987.0-.9	
<b>Fire/burn<sup>3</sup></b>	E890.0-E899, E924.0-.9	E958.1,.2,.7	E961, E968.0,.3, <b>E979.3</b>	E988.1,.2,.7	
<b>Fire/flame<sup>3</sup></b>	E890.0-E899	E958.1	E968.0, <b>E979.3</b>	E988.1	
<b>Hot object/substance</b>	E924.0-.9	E958.2,.7	E961, E968.3	E988.2,.7	
<b>Firearm<sup>3</sup></b>	E922.0-.3,.8,.9	E955.0-.4	E965.0-4, <b>E979.4</b>	E985.0-.4	E970
<b>Machinery</b>	E919 (.0-.9)				
<b>Motor vehicle traffic<sup>2,3</sup></b>	E810-E819 (.0-.9)	E958.5	<b>E968.5</b>	E988.5	
<b>Occupant</b>	E810-E819 (.0,.1)				
<b>Motorcyclist</b>	E810-E819 (.2,.3)				
<b>Pedal cyclist</b>	E810-E819 (.6)				
<b>Pedestrian</b>	E810-E819 (.7)				
<b>Unspecified</b>	E810-E819 (.9)				
<b>Pedal cyclist, other</b>	E800-E807 (.3) E820-E825 (.6), E826.1,.9 E827-E829(.1)				
<b>Pedestrian, other</b>	E800-807(.2) E820-E825(.7) E826-E829(.0)				
<b>Transport, other</b>	E800-E807 (.0,.1,.8,.9) E820-E825 (.0-.5,.8,.9) E826.2-.8 E827-E829 (.2-.9), E831.0-.9, E833.0-	E958.6		E988.6	

	E845.9				
<b>Natural/environmental</b>	E900.0-E909, E928.0-.2	E958.3		E988.3	
<b>Bites and stings<sup>3</sup></b>	E905.0-.6,.9 E906.0-.4,.5,.9				
<b>Overexertion</b>	E927				
<b>Poisoning</b>	E850.0-E869.9	E950.0- E952.9	E962.0-.9, <b>E979.6,.7</b>	E980.0- E982.9	E972
<b>Struck by, against</b>	E916-E917.9		E960.0; E968.2		E973, E975
<b>Suffocation</b>	E911-E913.9	E953.0-.9	E963	E983.0-.9	
<b>Other specified and classifiable<sup>3,4</sup></b>	E846-E848, E914- E915 E918, E921.0-.9, <b>E922.4,.5</b> E923.0-.9, E925.0- E926.9 <b>E928(.3-.5),</b> E929.0-.5	E955.5,. <b>6</b> ,. <b>7</b> ,.9 E958.0,.4	E960.1, E965.5- .9 E967.0-.9, E968.4,. <b>6</b> , . <b>7</b> <b>E979 (.0- .2,.5,.8,.9)</b>	E985.5,. <b>6</b> ,. <b>7</b> E988.0,.4	E971, E978, E990-E994, E996 E997.0-.2
<b>Other specified, not elsewhere classifiable</b>	E928.8, E929.8	E958.8, E959	E968.8, E969, E999.1	E988.8, E989	E977, E995, E997.8 E998, E999.0
<b>Unspecified</b>	E887, E928.9, E929.9	E958.9	E968.9	E988.9	E976, E997.9
<b>All injury<sup>3</sup></b>	E800-E869, E880- E929	E950-E959	E960-E969, <b>E979</b> , E999.1	E980-E989	E970-E978, E990- E999.0
<b>Adverse effects</b>					E870-E879 E930.0-E949.9
<b>Medical care</b>					E870-E879
<b>Drugs</b>					E930.0-E949.9
<b>All external causes</b>					E800-E999

<sup>1</sup>Includes legal intervention (E970-E978) and operations of war (E990-E999).

<sup>2</sup>Three 4th-digit codes (.4 [occupant of streetcar], .5 [rider of animal], .8 [other specified person]) are not presented separately because of small numbers. However, because they are included in the overall motor vehicle traffic category, the sum of these categories can be derived by subtraction.

<sup>3</sup>Codes in bold are for morbidity coding only. For details see table 2.

<sup>4</sup>E849 (place of occurrence) has been excluded from the matrix. For mortality coding, an *ICD-9* E849 code does not exist. For morbidity coding, an *ICD-9-CM* E849 code should never be first-listed E code and should only appear as an additional code to specify the place of occurrence of the injury incident.

## References

*Injury in Nebraska*. December 2005. Lincoln, NE: Nebraska Health and Human Services System; December 2005.

Nebraska Rev. Stat. Section 71-2082

Nebraska Department of Health and Human Services. 186 NAC 3, Rules and Regulations Governing the External Cause of Injury Registry

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