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# Injury in Oregon

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Injury Prevention and Epidemiology Program

Annual Report, 2009



OREGON DEPARTMENT OF  
HUMAN SERVICES

PUBLIC HEALTH DIVISION



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Oregon Department of Human Services

Division of Public Health

Injury Prevention and Epidemiology

<http://www.oregon.gov/DHS/ph/ipe/index.shtml>

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## Executive Summary

Injury is among the leading causes of death and hospitalization in Oregon. Although injuries are inaccurately considered random events, injuries are preventable, and making injury a top public health priority assures reduction in the injury burden in Oregon. In 2007, more than 2,400 Oregonians died as a result of injury, and over 18,400 were hospitalized as a direct result of injuries.

- In 2007, the leading cause of injury mortality in Oregon was suicide, at 15.5 deaths per 100,000 (age adjusted). This was over 600 deaths in 2007. Suicide contributes to over 10,000 years of potential life lost (YPLL) in Oregon each year.
- Although generally declining, motor vehicle traffic-related deaths were the second leading cause of injury mortality in 2007, with a rate of 12.1 per 100,000 (age adjusted).
- Unintentional falls were the third leading cause of injury mortality in 2007 with a rate of 9.6 deaths per 100,000 (age adjusted). Unintentional falls are the leading cause of hospitalization due to injury.
- Unintentional poisonings were the fourth leading cause of injury mortality in 2007, with a rate of 9.4 per 100,000 (age adjusted). Unintentional poisonings have increased faster than any other type of injury. Over 1,000 hospitalizations and over 360 deaths resulted from unintentional poisoning in 2007.
- Injury is responsible for more years of potential life lost in Oregon than cancer, heart disease, or stroke. For persons under 45 years of age, injury is the leading cause of death in Oregon.
- Unintentional injury hospitalization charges exceeded \$348 million in 2007.

Oregon can take steps to minimize the risks of injury by modifying the environments, products, policies, and behaviors that facilitate or fail to prevent injury. These steps begin with understanding the impact and causes that lead to injury.



## Introduction

Injury is the third leading cause of death in Oregon, behind only cancer and heart disease. It is also among the leading causes of hospitalization. It is typical to consider some causes of death—cancer, heart disease, stroke—as mainly affecting Oregonians in older age groups. However, everyone is affected by injury, regardless of age, sex, or race. In fact, injury is the leading cause of death among Oregonians under 45 years of age. More than 2,400 Oregonians died in 2007 as a result of injury; more than 1,600 of these were unintentional injuries.

Oregon Department of Human Services (DHS), Public Health Division, in cooperation with the Centers for Disease Control and Prevention (CDC), has implemented statewide injury surveillance and prevention in the effort to reduce the burden of injury among Oregonians. This means that injury deaths and hospitalizations are tracked over time in an effort to understand the impact and causes of injury in Oregon, and that knowledge is used to promote efforts to prevent injuries in the community.

## DEFINING INJURY

It is common to consider injuries accidents or random events. However, this implies that injuries are unpredictable and unpreventable. Actually, injuries are preventable (and at the community level are also predictable), and there is a need to make injury prevention a top public health priority and recognize that injuries are preventable.

Although injuries can be categorized in multiple ways—where they occur, how they occur, etc.—it is typical to categorize injuries in terms of mechanism and intent. Mechanism (or cause) typifies how the injury occurred—for instance, by motor vehicle, firearm, struck by an object, by falling, etc. Intent is classified as unintentional or intentional (or else unknown, undetermined). While unintentional injuries often result as a form of rapid transfer of energy from object to person (e.g. being struck by a motor vehicle), intentional injuries are the result of intentional harm imposed upon one person by another, or upon oneself (e.g. suicide). This report does not include injuries sustained as a result of adverse effects of surgical or medical procedures.



## INJURY AS A PUBLIC HEALTH ISSUE

Public health is a population-based health approach by which health issues are addressed at the community level, versus at the individual level. Prevention is a primary goal of this approach, and efforts to prevent adverse outcomes (whether communicable or chronic diseases, or injuries), target communities over individuals. Since the whole community is the focus of prevention, many different solutions to preventing injuries can be applied to the many different types of injury.

The public health approach to injury prevention is a process that involves identifying and defining the problem, identifying risk and protective factors, developing and testing prevention strategies, and assuring widespread adoption of effective strategies.

Rather than address single types of injury that occur to individuals on a one-to-one basis, broad causes and prevention solutions are the focus of injury prevention in public health. Instead of focusing on individuals and the treatment of individual injuries as they arise, it is the whole community, the community's whole health, and community-level prevention which defines the public health approach.

Sometimes, prevention at the community level involves changing the environment in which injuries occur—for example: installing traffic signals at intersections, or requiring certain products to be fire safe. At other times, prevention at the community level involves education—such as informing school sports programs about preventing head injuries, or providing information to guide changes in health policies or laws. Although the public health workforce may not always directly provide prevention services, public health agencies identify the important conditions and patterns that contribute to injury at the community level, and identify and leverage solutions through community partnerships to promote prevention.

## INJURY PREVENTION

This annual report is written by the Injury Prevention and Epidemiology Program, which is within the Public Health Division of the Oregon Department of Human Services, and whose goal it is to improve the health and safety of the public in Oregon through the reduction of the burden of injuries.

The Injury Prevention and Epidemiology Program works to reduce the burden of injury in Oregon by monitoring injury events (Deaths, hospitalizations, etc.) in the population, and utilizing information about injury occurrence to update and carry out the state injury prevention plan. The state injury prevention plan is a roadmap of how to reduce injury in Oregon, which includes goals and objectives, actions and tasks, and measures of success that help determine when goals and objectives in injury reduction have been reached. The state injury prevention plan can be found online at <http://www.oregon.gov/DHS/ph/ipe/index.shtml>.



## DATA LIMITATIONS, TECHNICAL ISSUES

This annual report focuses on data from 2007, which is the most recent complete mortality data that is available in Oregon at the time of this report. However, in order to assess trends in injury over time and compare recent data with previous years, data are shown going back to 1990 for most mortality outcomes, and 1997 for hospitalizations. Some data are aggregated over a three year period when the number of events is too few to calculate a reliable rate, or when an aggregated rate better reflects occurrences in some age groups. In this case, the average number of cases by year (per 100,000 population) is the rate shown. This is known as the average annual rate, and uses the midpoint population as the rate denominator.

The primary sources of data are mortality data, which are obtained from the Oregon Center for Health Statistics, and hospitalization data, which are obtained from all non-federal Oregon acute-care inpatient facilities. Hospitalization data do not contain personal identifiers that would facilitate identification of multiple admissions, and may include re-admissions, transfers, and deaths.

Hospitalization data do not contain information about persons treated in emergency departments and released. Hospitalization data relies on the International Classification of Diseases version 9 (ICD-9). In 1999, a change occurred in the way the causes of death are coded, from the International Classification for Diseases (ICD) version 9 to ICD version 10. The change in coding means that mortality data prior to 1999 are not directly comparable to data from 1999 and thereafter, although these data can give an idea of general trends in types of injuries over time.

Unless otherwise noted, all rates presented in this report are age-adjusted. Age-adjusted rates are weighted by a standard population so that the rate in question can be compared to rates from other locations or groups (the Oregon rate of suicide compared to the national rate of suicide, for instance). Although the value of an adjusted rate is not in itself a useful measure, adjusted rates help determine whether two or more rates differ and allow comparisons across groups or time periods. All age-adjusted rates are calculated using the National Center for Health Statistics (NCHS) age distribution #1 age group-specific weights.

Crude rates show the actual number of events in the population in question (i.e. population of Oregon), although crude rates do not account for differences in population structures between populations that might explain differences between the rates. For example, the differences in higher crude

rates comparing males to females might be explained by the fact that there are fewer older males than older females. As a result of different population structures, differences in crude rates might very well be the result of the demographic differences in two or more populations.

Since all measures are prone to some random error, confidence limits are used for some rates to show the possible variability in those measures. Confidence limits form an interval which contains the range of possible values for an estimate. Confidence intervals are sometimes helpful for determining whether two rates are truly different, in the statistical sense.

Between census years, population estimates are used as denominators for rates. Denominators for this report are based on National Center for Health Statistics (NCHS) estimates. NCHS updates population estimates every year, which means that estimates for previous years change yearly. In this report, population denominators for 2000-2007 are based on 2007 estimates.

This report uses the most current data available at the time of this writing. However, state vital statistics records are sometimes updated as changes in some death certificates may occur.

## THE BURDEN OF INJURY IN OREGON: AN

### OVERVIEW

Injury is the third leading cause of death in Oregon. Even when unintentional injury alone is considered in comparison with the leading causes of death, injury still ranks among the leading causes of deaths in 2007.

*Table A.1. Leading causes of death in Oregon, 2007<sup>1</sup>*

<b>Cause of Death</b>	<b>No.</b>
Cancer	7,398
Heart Disease	6,632
Injury (all types of intent) <sup>2</sup>	2,454

However, there are substantial differences in the number of injury deaths that occur by age group (see Appendix), and therefore in the ranking of leading causes of death by age

group. Injury is the leading cause of death for Oregonians under 45 years of age. After age 44, the mortality burden greatly shifts to causes such as cancer (malignant neoplasm), heart disease, stroke, and chronic respiratory disease. As a leading cause of death for younger age groups, injury has a substantial impact on the population of the state.

The impact of injury cannot be viewed solely in terms of rates and counts alone. In order to fully understand the burden of injury on Oregonians, the years of potential life lost—a measure of the number of the years of potential life lost due to premature death—should also be assessed (See Figure A.1).

Years of potential life lost (YPLL) measures the potential years that might have been lived by deceased persons, had the individuals in question lived to at least age 65. Since the majority of deaths occur among persons in older age groups, general mortality rates mostly show the underlying disease processes in the older population.

YPLL more adequately reflects the impact of injury in a population since the measure shows the number of years that might have been lived had some deaths not occurred earlier than expected. Figure A.1 shows the burden of injury in Oregon by years of potential life lost in comparison with the crude

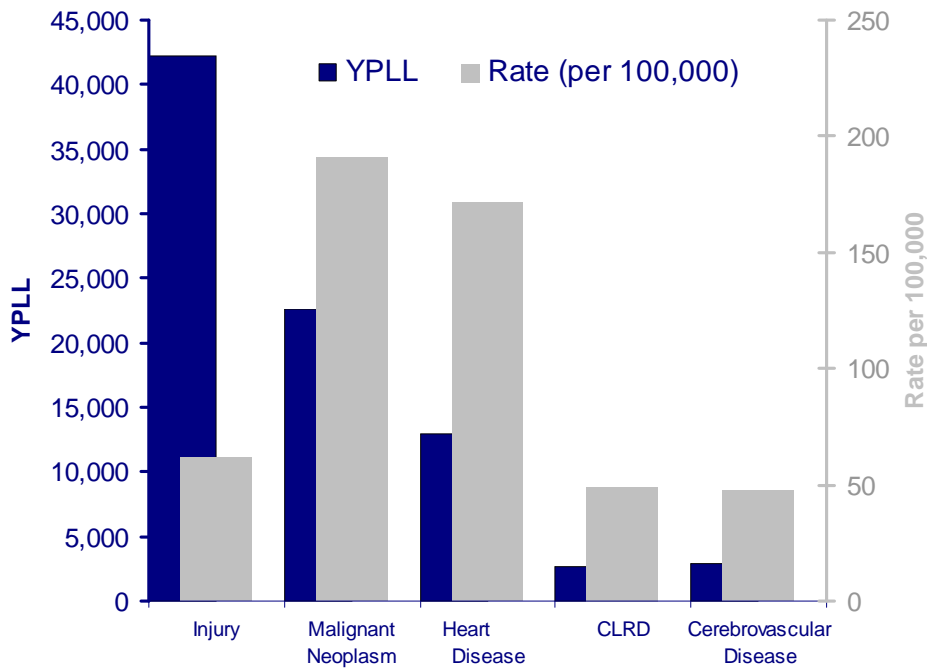
<sup>1</sup> Year to date count of deaths, subject to change based on changes that may occur if some death certificates are updated.

<sup>2</sup> Does not include deaths due to complications from medical or surgical care; does include injury due to self-inflicted harm and intentional harm by others.

rates for the same leading causes of death. It is clear that although cancer ranks as the leading cause of death, injury exceeds cancer in the number of years of potential life lost.

**Figure A.1**

**Years of potential life lost (YPLL) and crude rates due to leading causes of death, 2007**



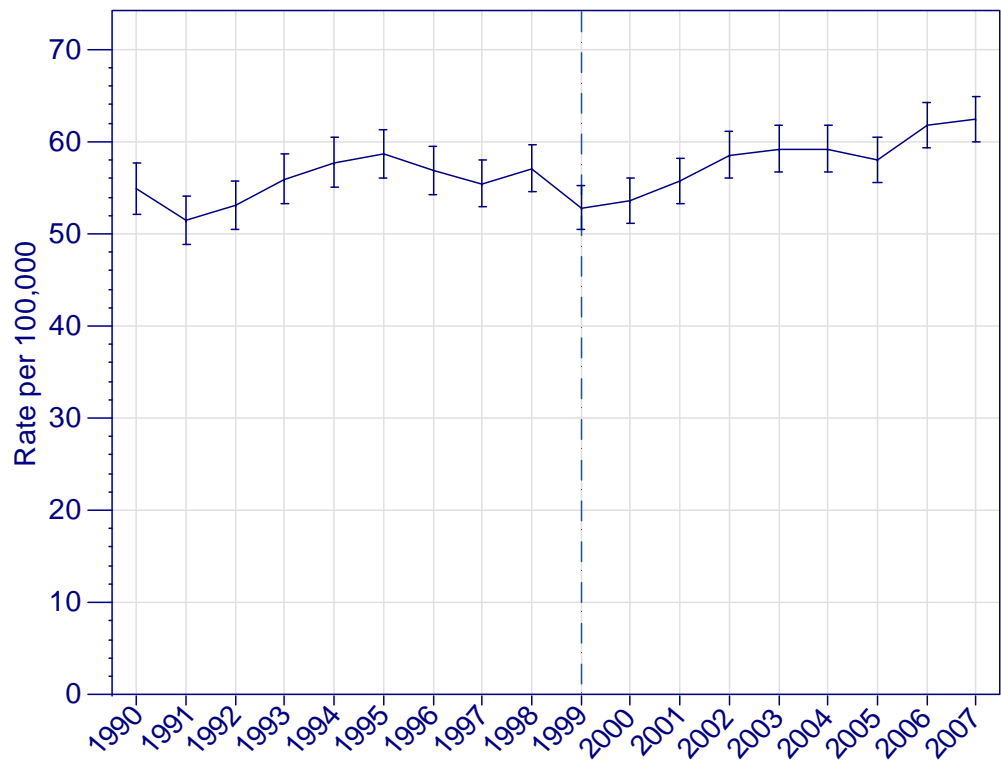
***Injury exceeds all other leading causes of death in the number of years of potential life lost (YPLL).***

TRENDS IN INJURY

The rate of total injury mortality increased between 1999 and 2007, with an age-adjusted rate of 52.8 per 100,000 population in 1999 to 65.0 per 100,000 in 2007 (Figure A.2). Confidence intervals suggest that the rate has changed significantly since 1999. In 2007, the age-adjusted total injury rate in Oregon was higher than the national rate of 59.1 in the same year.<sup>3</sup>

**Figure A.2**

### Total Injury Mortality Age-adjusted Rate, 1990-2007



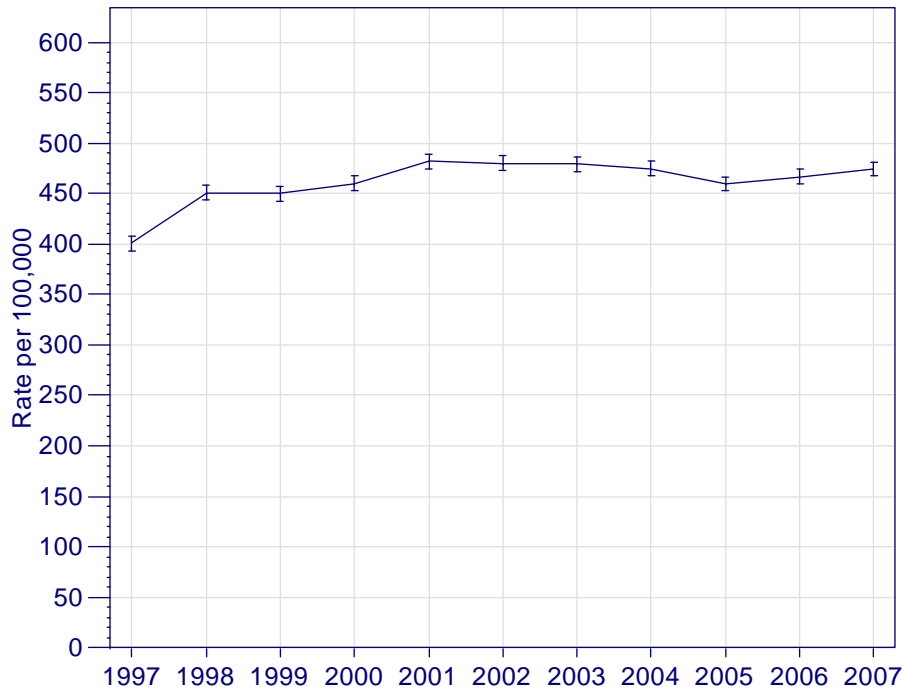
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

Age-adjusted rates of total injury hospitalization increased from 400.6 to 474.4 per 100,000 population between 1997 and 2007, with the highest rate during 2001 (Figure A.3). There is a significant difference between the rate in 1997 and the rate in 2007.

<sup>3</sup>Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, WISQARS Fatal Injuries: Mortality Reports.

**Figure A.3**

## Total Injury Hospitalizations Age-adjusted Rate, 1997-2007



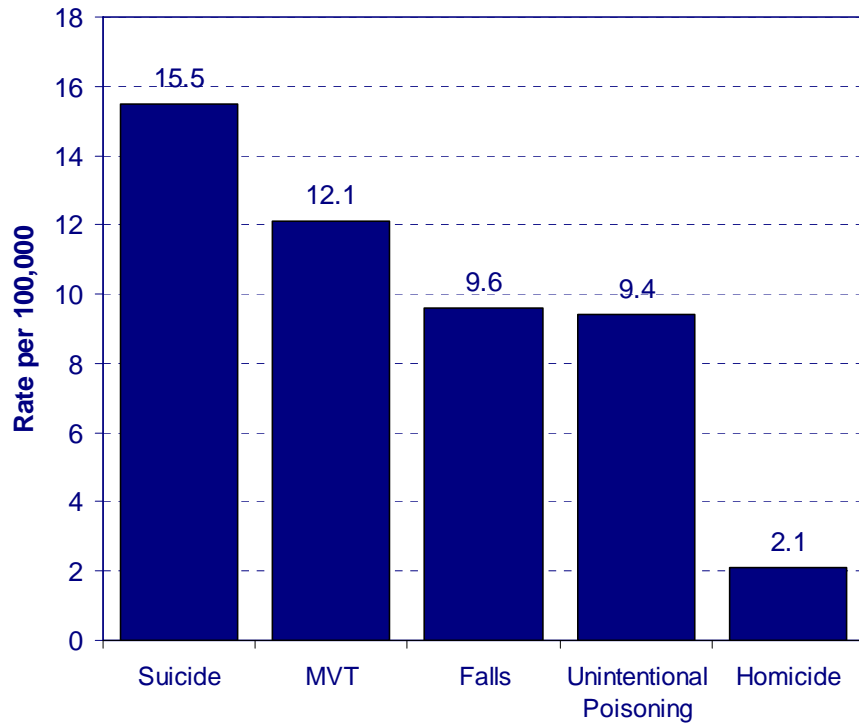
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

**LEADING CAUSES OF INJURY DEATH**

In 2007, the 5 leading causes of injury mortality by age-adjusted rate were suicide, motor vehicle traffic fatalities (MVT), falls, unintentional poisoning, and homicide (Figure A.4). The rate of suicide was 15.5 per 100,000 population in 2007, MVT was 12.1 per 100,000, poisoning was 9.4, falls were 9.6, and the homicide rate was 2.1 per 100,000 population.

**Figure A.4**

**Age-adjusted injury mortality rates , 2007**



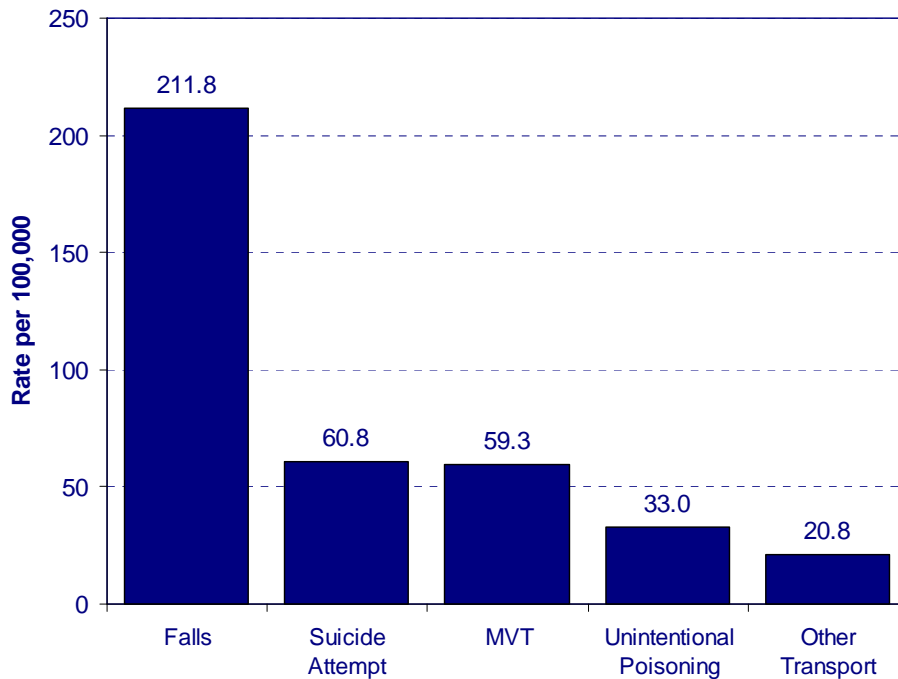
***The rate of unintentional poisoning death has increased faster than any other leading cause of injury death.***

**LEADING CAUSES OF INJURY HOSPITALIZATION**

Although suicide leads injury deaths in 2007, the leading cause of hospitalization in Oregon is falls, with 211.8 hospitalizations per 100,000 population (Figure A.5). The rate of falls hospitalization is more than 3 times greater than the next highest hospitalization rate—suicide attempts. There were 60.8 suicide attempt hospitalizations per 100,000 population, 59.3 motor vehicle traffic (MVT), 33.0 unintentional poisonings, and 20.8 non-traffic transport (“other transport”) injuries per 100,000 population in 2007.

**Figure A.5**

**Age-adjusted injury hospitalization rates, 2007**



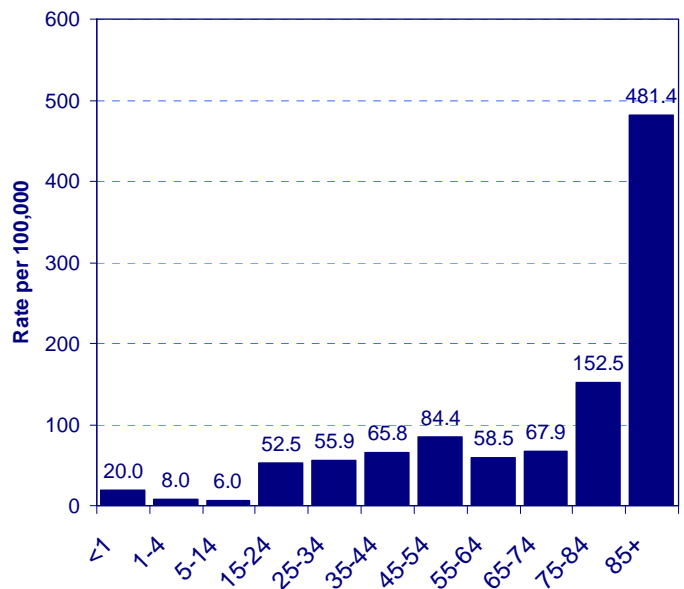
**INJURY RATES BY AGE GROUP**

Although injuries are the leading cause of death among persons 1-44 years of age, the highest rates of injury occur among older persons, mainly due to the high rate of fall injuries and deaths. Since the population of the older age groups in Oregon is proportionally smaller than most other age groups, the highest mortality and hospitalization rates are in the older age groups—and most prominently among those 85 years of age and older (See Figure A.6 and Figure A.7).

*Table A.2. Total number of injury deaths by age, 2007.*

Age	No.
<1	10
1-4	15
5-14	28
15-24	256
25-34	293
35-44	336
45-54	473
55-64	267
65-74	169
75-84	254
85+	353

**Injury mortality rates by age group, 2007**



**Figure A.6**

The substantially higher rates of injury death and hospitalization rates in older age groups would give the appearance that the vast majority of injury deaths and hospitalizations occur among elderly persons, when in fact, the greatest overall number of injury deaths (68%) in 2007 occurred among person under the age of 65.

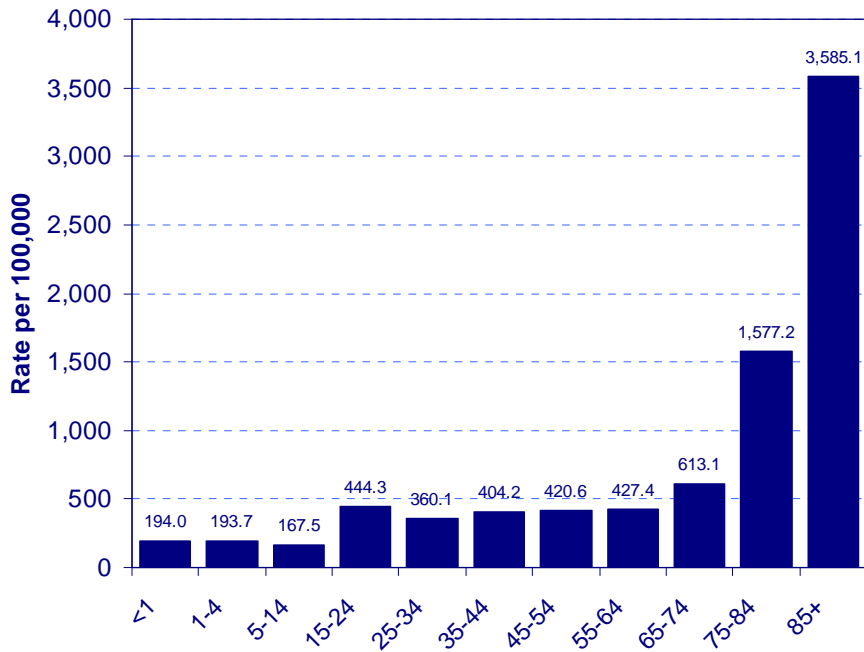
Similarly, 61% of injury hospitalizations occurred among persons under age 65. In terms of YPLL, deaths among younger persons contribute 100% of all potential years lost due to injury (Figure A.1) since deaths occurring among those 65 and older are not used in the calculation of YPLL.

*Table A.3 Total number of injury hospitalizations by age, 2007.*

Age	No.
<1	97
1-4	364
5-14	787
15-24	2,165
25-34	1,887
35-44	2,065
45-54	2,356
55-64	1,951
65-74	1,527
75-84	2,627
85+	2,629

**Figure A.7**

**Injury hospitalization rates by age group, 2007**



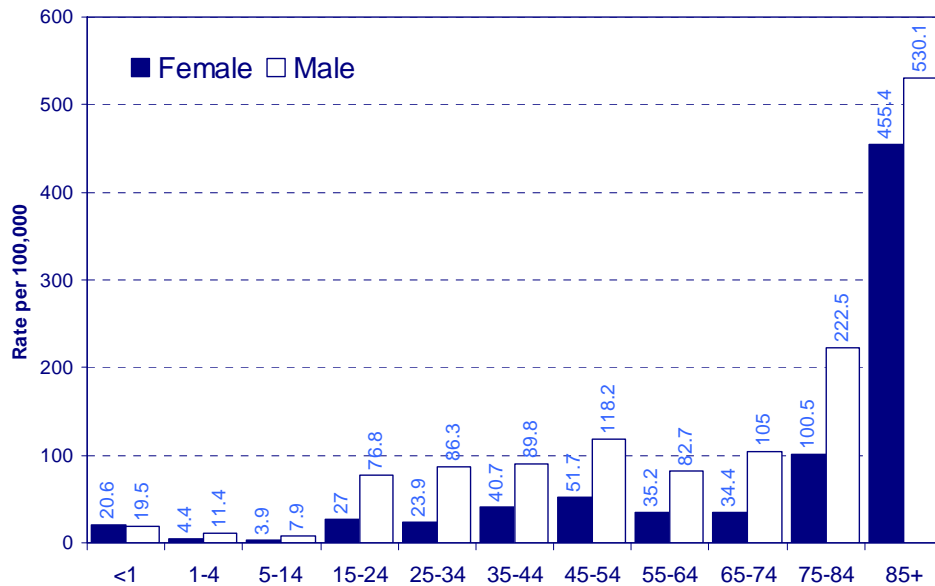
***High rates of injury hospitalization in the oldest age groups are mostly attributable to the high rate of fall hospitalizations among older adults.***

**INJURY RATES BY SEX AND AGE GROUP**

There are observable differences in total injury mortality rates between males and females, with male rates higher than female rates (Figure A.8). However, the same pattern is not in evidence when assessing hospitalization rates, as females demonstrate greater age-specific rates of hospitalization compared to males after age 64—a pattern that continues through the oldest age group.

**Figure A.8**

**Rate of total injury mortality by age group and sex, 2007**

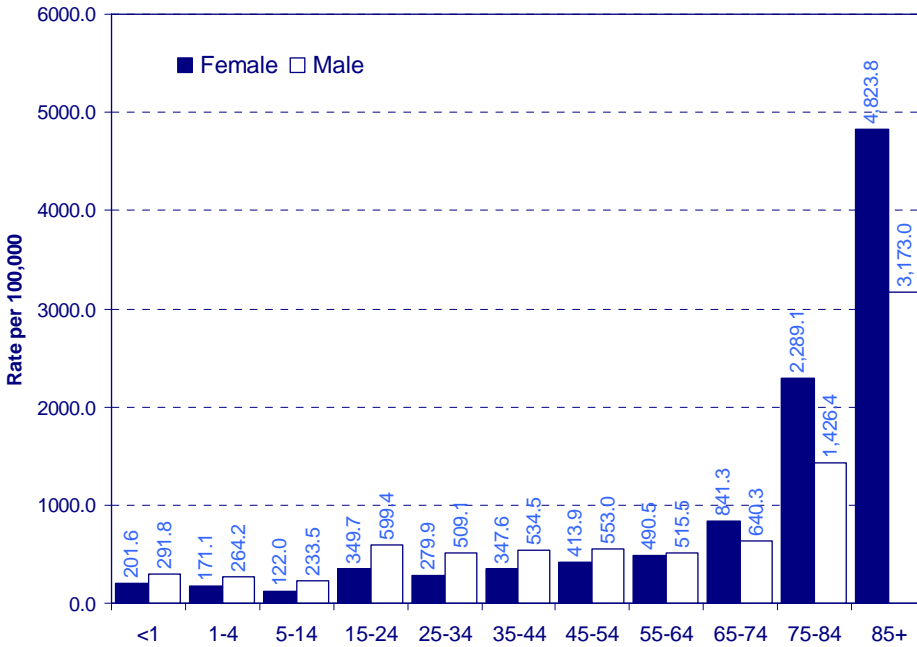


Males have higher rates of mortality for all of the leading injury causes of death. For suicide and MVT deaths, the age-adjusted male rate is approximately twice the female rate of mortality in 2007.

Females are hospitalized more frequently than males for falls, suicide attempts, and unintentional poisonings. Males have a higher rate of hospitalization for MVT injury than females.

**Figure A.9**

**Rate of total injury hospitalization by age group and sex, 2007**



***Age-adjusted hospitalization rates in 2007 show that females are hospitalized more frequently than males for falls, suicide attempts, and unintentional poisonings.***

## FOR FURTHER INFORMATION ON INJURY AND INJURY PREVENTION

- Injury Prevention and Epidemiology Program, Public health Division, Oregon Department of Human Services:  
[www.oregon.gov/DHS/ph/ipe/index.shtml](http://www.oregon.gov/DHS/ph/ipe/index.shtml)
- Centers for Disease Control and Prevention, National center for Injury Prevention and Control: [www.cdc.gov/ncipc/](http://www.cdc.gov/ncipc/)
- Oregon SafeKids: [www.oregon.gov/DHS/ph/safekids/index.shtml](http://www.oregon.gov/DHS/ph/safekids/index.shtml)
- National SafeKids: [www.safekids.org](http://www.safekids.org)
- American Academy of Pediatrics: [www.aap.org/default.htm](http://www.aap.org/default.htm)
- State and Territorial Injury Prevention Directors Association:  
[www.stipda.org/](http://www.stipda.org/)
- United States Consumer Product Safety Commission:  
[www.cpsc.gov/](http://www.cpsc.gov/)
- Partnership Against Violence Network: [www.pavnet.org/](http://www.pavnet.org/)
- Suicide Prevention Resource Center: [www.sprc.org](http://www.sprc.org)
- Society for the Advancement of Violence and Injury Research:  
[www.savirweb.org](http://www.savirweb.org)
- Brain Injury Association of Oregon: [www.biaoregon.org](http://www.biaoregon.org)
- Attorney General's Task Force on Sexual Assault:  
[www.oregonsatf.org](http://www.oregonsatf.org)



## 1

## Suicide

**S**uicide is among the leading causes of death in Oregon, and is a major public health issue nationally. Each year, there are more than 500 suicides in Oregon, and more than 1,800 hospitalizations due to suicide attempts.

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### S U I C I D E F A C T S

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- There were 604 suicides in Oregon in 2007.
  - Men are more likely to die from suicide than women.
  - Suicide risk increases with age, and is highest among older males.
  - Self-inflicted injury hospitalization charges in Oregon exceeded \$30 million in 2007.
- 

Rates of suicide increase with age, and among men, this pattern is apparent, as rates more than double between persons 55-64 years of age and those 85 years of age and older. Hospitalizations are the only level of care from which suicide attempts are reported—attempts treated in emergency departments, urgent care clinics, and primary care go unreported. Hospitalizations are the only data available to allow assessing the number of attempts for the entire population.

Nationally, the CDC estimates that almost as many persons are seen in emergency rooms for suicide attempts as are hospitalized.<sup>4</sup>

Although nationally, men are four times more likely to die from suicide than women, women attempt suicide three times more often than men during their lifetime.<sup>5</sup> In Oregon in 2007, there were 5 times more suicides than

<sup>4</sup> Centers for Disease Control, Suicide Fact Sheet, [www.cdc.gov/ncipc/factsheets/suifacts.htm](http://www.cdc.gov/ncipc/factsheets/suifacts.htm)

<sup>5</sup> Centers for Disease Control, Suicide Fact Sheet, [www.cdc.gov/ncipc/factsheets/suifacts.htm](http://www.cdc.gov/ncipc/factsheets/suifacts.htm)

homicides. For Oregonians 35 to 54 years old, suicide ranks among the top five causes of death. In Oregon, women have a higher rate of hospitalization due to suicide attempt, and the highest rates occur among those 15-24 years of age.

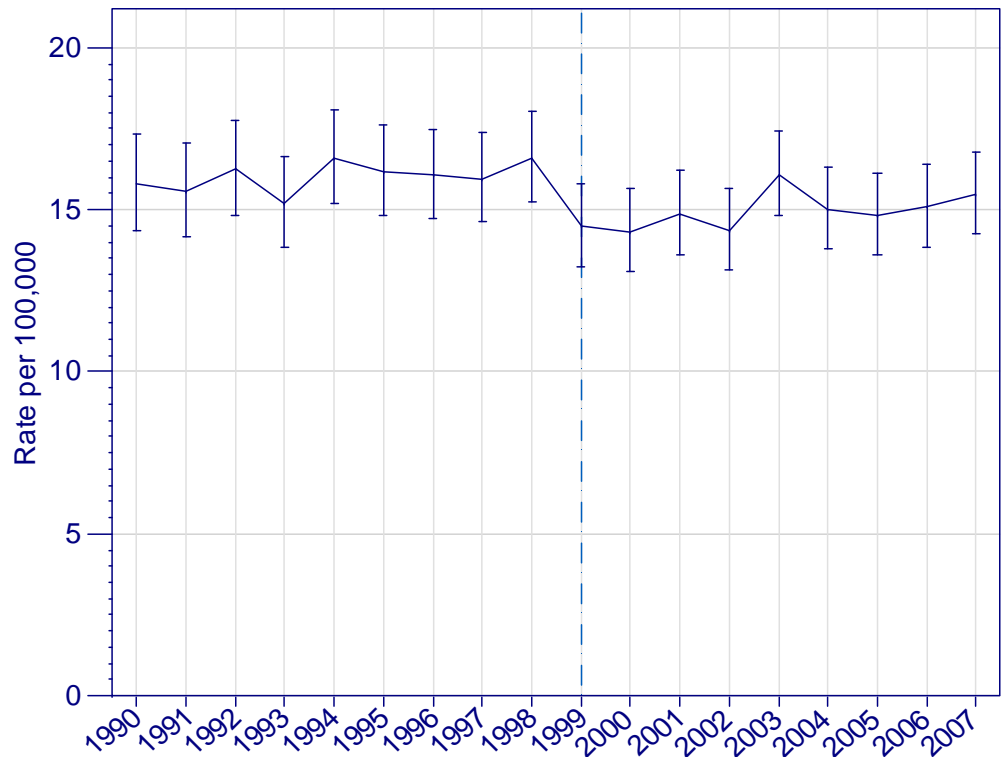


## DEATHS

The age-adjusted rate of deaths due to suicide has varied little between 1999 and 2007, and the rate in 2007 is only slightly higher than the rate in 1999 (Figure 1.1), and not statistically different. In 1999, the rate of suicide was 14.5 per 100,000 population, while in 2007 the rate was 15.5. On average, there are over 540 suicides annually in Oregon.

**Figure 1.1**

### Suicide Mortality Age-adjusted Rate, 1990-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

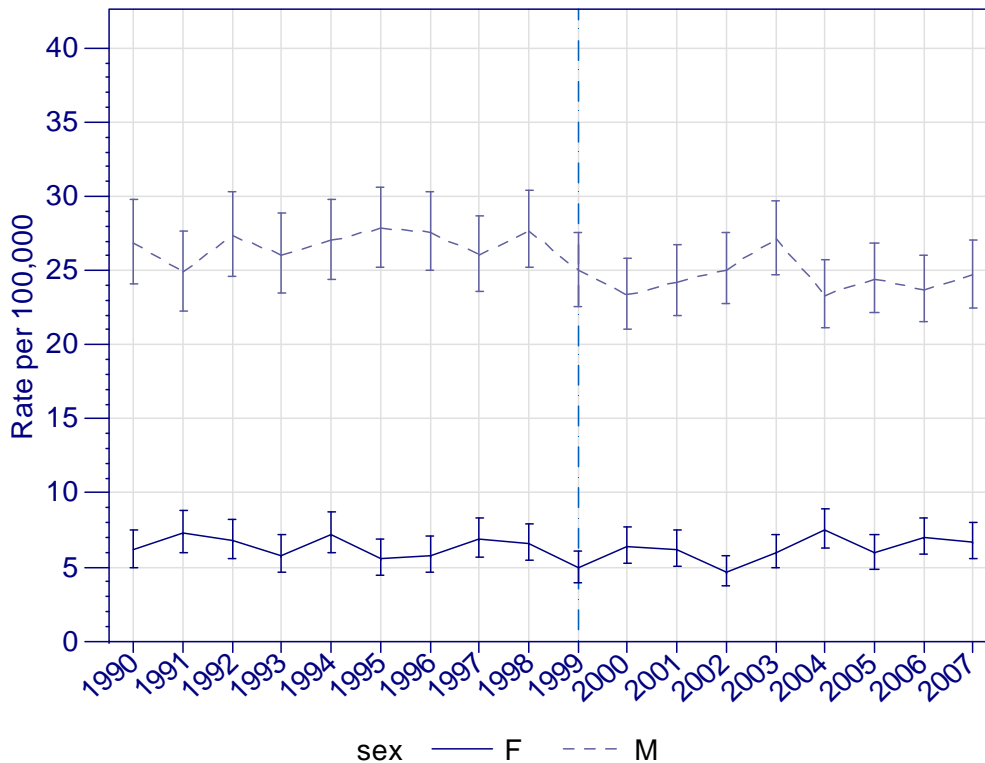
The suicide rate among males is typically about 5 times greater than that among females. Neither the female or male rate of suicide has changed substantially between 1999 and 2007, although there was a slight peak in suicide incidence in 2003 for males (Figure 1.2). The suicide rate among males in 2007 is significantly higher than the rate among females.

Nearly 58% of deaths due to suicide involved the use of firearms, 20% involved poisons. Just over seventeen percent involve suffocation (e.g. hanging), and the remainder involve other means (Table 1.1).

**Figure 1.2**

## Suicide Mortality

### Age-adjusted rate by sex, 1990-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

Suicide rates increase with age, although this increase is mainly the result of higher suicide rates in men than women (Figure 1.3). For men 85 years of age or older, the average annual rate of suicide death is about 14 times greater than that among women 85 and older.

***The rate of suicide among males is typically about 5 times greater than that among females.***

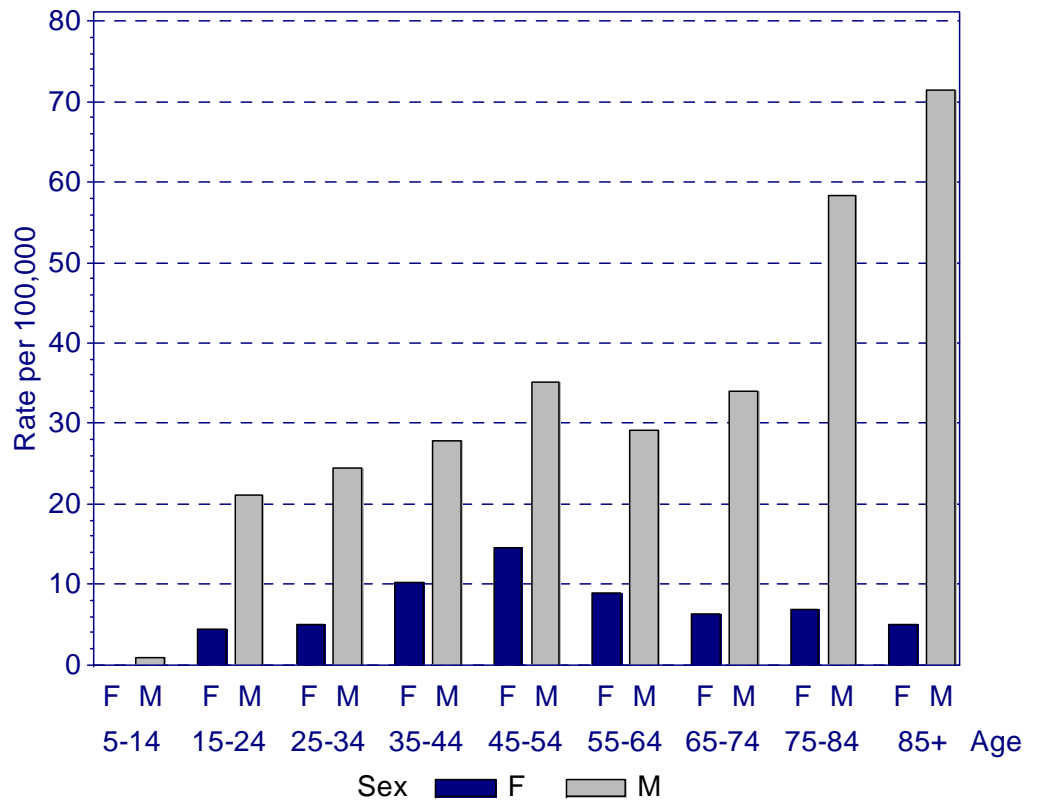
*Table 1.1. Select leading mechanisms of suicide, number and percent, 2007*

<b>Mechanism</b>	<b>%</b>	<b>No.</b>
Firearm	57.6	327
Poisoning	20.4	116
Suffocation	18.0	102
Fall	2.8	16
Drowning	2.5	14
Cut/pierce	1.8	10

**Figure 1.3**

## Suicide Mortality

Average annual rate by age and sex, 2005-2007

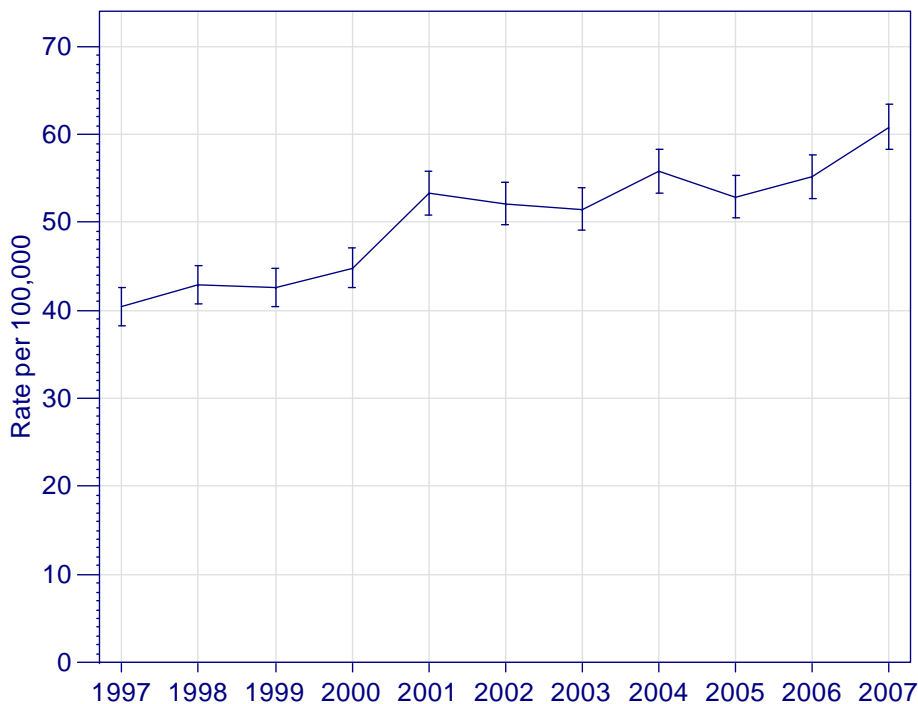


## HOSPITALIZATIONS

The rate of hospitalization due to suicide attempt has increased significantly between 1997 and 2007, with the 2007 rate 50% higher than the rate in 1997 (Figure 1.4). The rate increased significantly from 40.4 per 100,000 in 1997 to 60.8 per 100,000 in 2007.

**Figure 1.4**

### Self Harm/Suicide Attempt Hospitalizations Age-adjusted Rate, 1997-2007



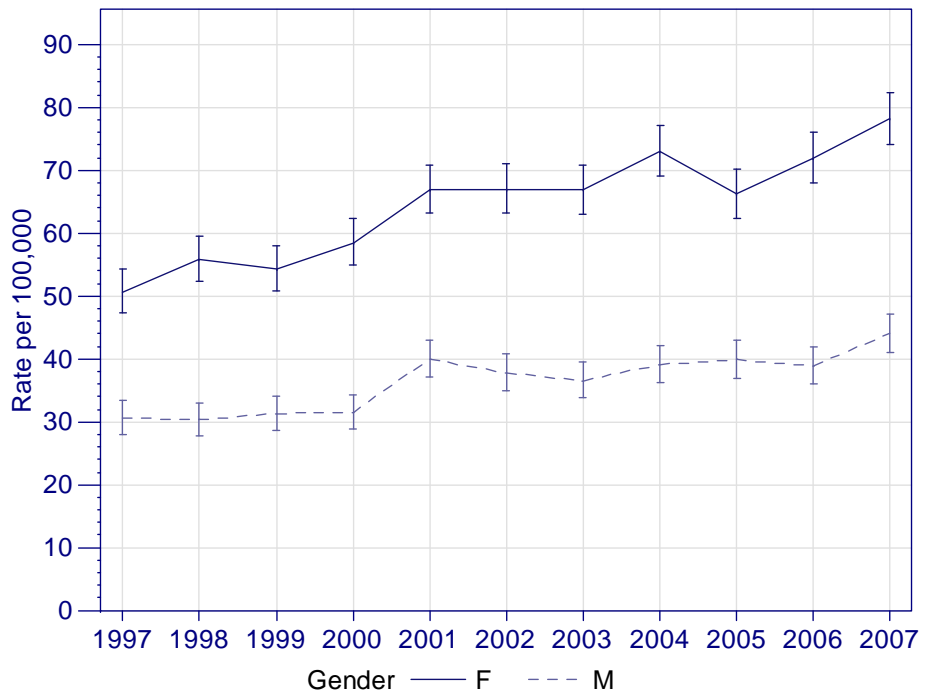
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

The age-adjusted rate of hospitalization among females due to suicide attempt is nearly twice the male rate. In 2007, the rate of hospitalization among females was 78.2 per 100,000 compared to 47.2 per 100,000 population among males (Figure 1.5). The female rate in 2007 was 54% higher than in 1997, which represented a significant increase. The female rate is significantly higher than the male rate.

**Figure 1.5**

## Self Harm/Suicide Attempt Hospitalizations

Age-adjusted rate by sex, 1997-2007



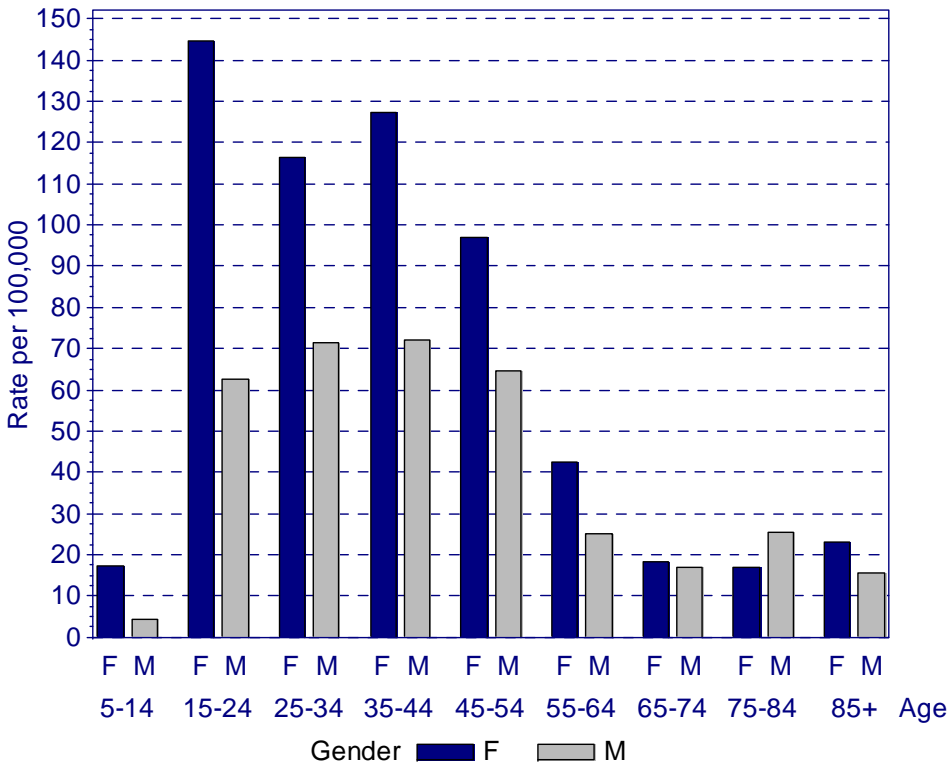
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

Female hospitalization rates are typically greater than those of males in the same age groups. Females 15-24 had the highest rate in 2007, followed by females 35-44 (Figure 1.6). Both female and male rates decline after age 54.

***The rate of suicide attempt hospitalization among females was significantly greater in 2007 than it was in 1997.***

Figure 1.6

## Self Harm/Suicide Attempt Hospitalization Rate by age and sex, 2007



The proportion of hospitalizations due to specific mechanisms of suicide attempt is quite divergent from the proportions of suicide deaths due to the same mechanism. For hospitalizations, just over 92% percent are due to poisoning, while the next most frequent mechanism of injury—cutting and/or piercing—is less than 5% (Table 1.2). Firearms were involved in less than 2% of suicide attempt hospitalizations, an indication of the lethality of the means compared to the proportion of suicide deaths that involve firearms (>50%).

*Table 1.2. Number and percent of suicide attempts by mechanism, 2007*

<b>Mechanism</b>	<b>%</b>	<b>No.</b>
Poisoning	92.5	2078
Cut/pierce	4.3	97
Firearm	1.6	35
Falls	0.4	9
Suffocation	0.4	9
Not elsewhere classifiable	0.3	6
Other specified	0.3	6
Motor vehicle traffic	0.2	4
Fire/burn	0.1	2

***Although firearms were involved in less than 2% of suicide attempt hospitalizations, over 50% of suicide deaths involved a firearm.***

## YOUTH

Youth are considered at increased risk for suicide, and youth suicide remains an important public health issue. In 2007, Oregon had the 23<sup>rd</sup> highest youth suicide rate in the nation.

In 2007 the rate of youth suicide in Oregon among 10 to 24 year old persons decreased from 2006. The rate in 1999 was 8.2 per 100,000 population, while the 2007 rate was 8.1 per 100,000 population. Nationally, youth suicide rates appear to be increasing.

Hospitalization rates vary over the same time period, from 53.0 per 100,000 in 1997 to 75.4 per 100,000 in 2007.

Table 1.3. Youth (10-24) suicide mortality rates, 1990-2007

1990	12.9
1991	12.7
1992	12.7
1993	10.1
1994	11.9
1995	13.7
1996	11.5
1997	9.8
1998	10.2
1999	8.2
2000	11.2
2001	7.0
2002	8.2
2003	8.4
2004	9.6
2005	8.4
2006	10.4
2007	8.1

Table 1.4. Youth (10-24) suicide attempt hospitalization rates, 1997-2007

1997	53.0
1998	53.7
1999	51.8
2000	53.4
2001	66.4
2002	61.8
2003	74.3
2004	67.9
2005	62.4
2006	65.7
2007	75.4

## OLDER ADULTS

Adults 65 years of age and older are also considered an at-risk group for suicide, and demonstrate the highest suicide rates of any age group. Older men, especially, are at increased risk for suicide.

The rates for this group declined 7%, from a rate of 26.1 in 1999 to 24.7 per 100,000 in 2007.

Hospitalizations for suicide attempts have increased since 1997—from 8.3 per 100,000 to 19.0 per 100,000 in 2007.

Table 1.5. Elder (65+) suicide attempt hospitalization rates, 1997-2007

1997	8.3
1998	9.6
1999	11.2
2000	13.4
2001	12.9
2002	13.4
2003	12.6
2004	15.2
2005	14.5
2006	14.0
2007	19.0

Table 1.6. Elder (65+) suicide mortality rates, 1990-2007.

1990	31.1
1991	26.4
1992	29.0
1993	27.8
1994	25.1
1995	25.5
1996	27.6
1997	26.8
1998	26.9
1999	26.1
2000	26.2
2001	22.8
2002	23.7
2003	27.4
2004	23.0
2005	25.8
2006	21.6
2007	24.7

## PREVENTION

Suicide is a major public health issues both nationally and in Oregon. The rates of suicide are especially high among elderly men. The Oregon Injury Prevention and Epidemiology Program has developed an elder suicide prevention plan which emphasizes the following prevention concepts and strategies:

- Promote awareness that suicide in older adults is a public health problem that is preventable.
- Develop broad-based support for elder suicide prevention.
- Develop and implement strategies to reduce the stigma associated with aging and with being a senior consumer of mental health, substance abuse and suicide prevention services.
- Develop and implement community-based suicide prevention programs for older adults.
- Promote efforts to reduce access to lethal means and methods of self-harm by older adults.
- Implement training for recognition and assessment of at-risk behavior in and delivery of effective treatment to older adults.
- Develop and promote effective clinical and professional practices for suicide prevention.
- Improve reporting and portrayals of suicidal behavior, mental illness, and substance abuse among older adults in the entertainment and news media.
- Promote and support research on late life suicide and suicide prevention.
- Improve and expand surveillance systems and evaluation of prevention programs for suicidal behavior.
- Review Oregon's Youth Suicide Prevention Plan at:  
<http://www.oregon.gov/DHS/ph/ipe/ysp/2000plan/index.shtml>
- Review Oregon's Older Adult Suicide Prevention Plan at:  
<http://www.oregon.gov/DHS/ph/ipe/esp/index.shtml>



# 2

## Motor Vehicle Traffic

**M**otor vehicle traffic (MVT) injuries are one of the leading causes of death and hospitalization in Oregon, and are the second leading cause of injury death. Every year, more than 400 Oregonians are killed in motor vehicle traffic incidents, and over 2,200 are hospitalized.

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### MOTOR VEHICLE TRAFFIC INJURY FACTS

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- More deaths among 15-24 year olds than any other age group.
  - The rate of MVT deaths has been declining since 2003.
  - Over 450 Oregonians are killed in motor vehicle traffic crashes every year.
  - Total charges for MVT injury hospitalization exceeded \$88 million in 2007.
- 

Motor vehicle traffic injuries include all those involving automobiles, trucks, vans, motorcycles and motorized cycles, traveling on public roadways. The major categories of motor vehicle traffic involvement include vehicle occupants, motor cyclists, pedal cyclists, and pedestrians, depending specifically on the decedent's or patient's involvement.

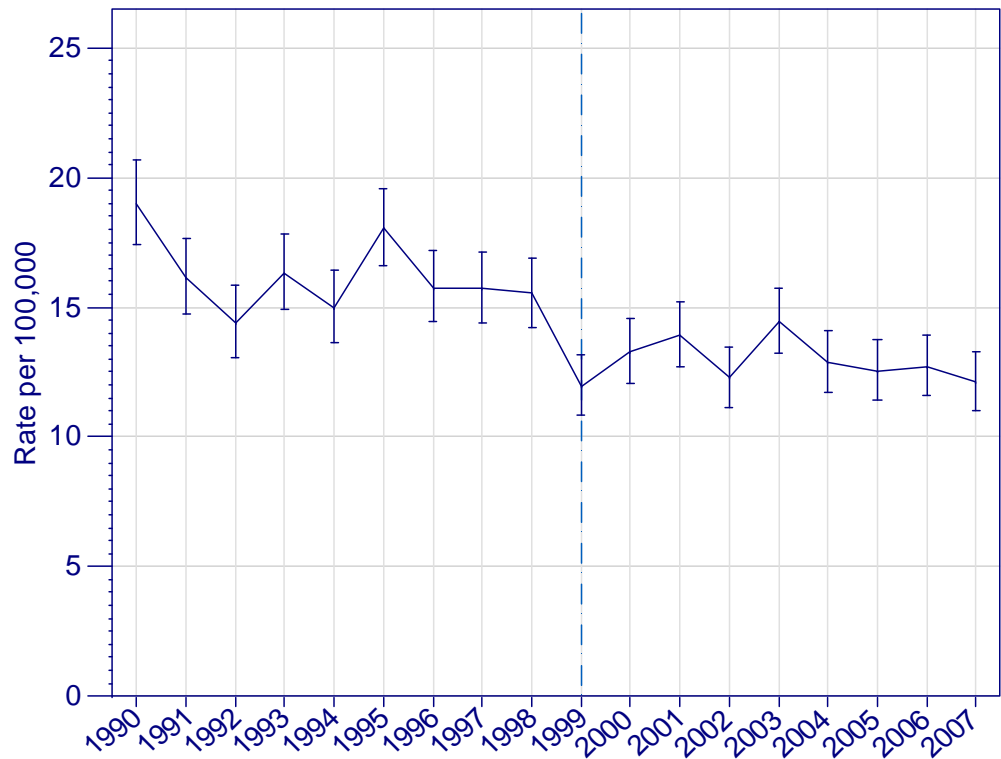


## DEATHS

The motor vehicle traffic death rate in Oregon has decreased since 2003 after a period of relative stasis, although the rate in 2007 is not statistically different from the rate in 1999 (Figure 2.1). In 1999, the rate was 11.9 per 100,000, and 12.1 per 100,000 in 2007. Although there is no significant difference in the rates between 1999 and 2007, motor vehicle traffic deaths have declined over several recent decades.

**Figure 2.1**

### Motor Vehicle Traffic Mortality Age-adjusted Rate, 1990-2007

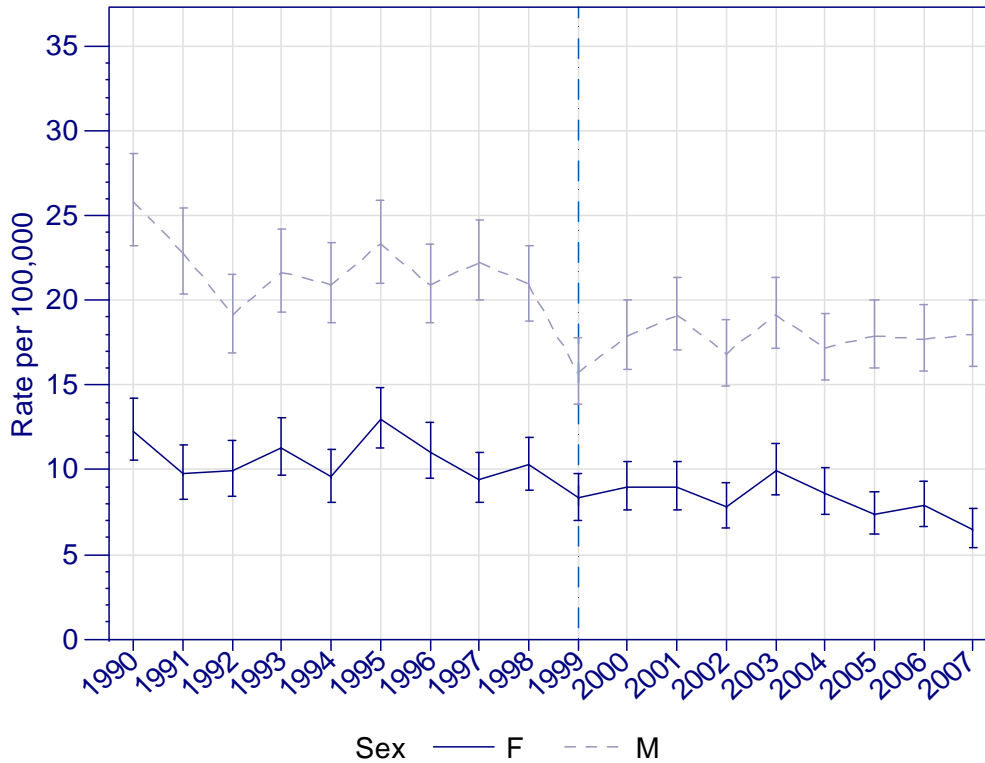


\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

The rate of motor vehicle traffic mortality is significantly higher for males overall compared to females (Figure 2.2). Neither males nor females show an overall decrease in the sex-specific mortality rates between 1999 and 2007, although males show the greatest decline since 1990.

Figure 2.2

## Motor Vehicle Traffic Deaths Age-adjusted Rate by Sex, 1990-2007



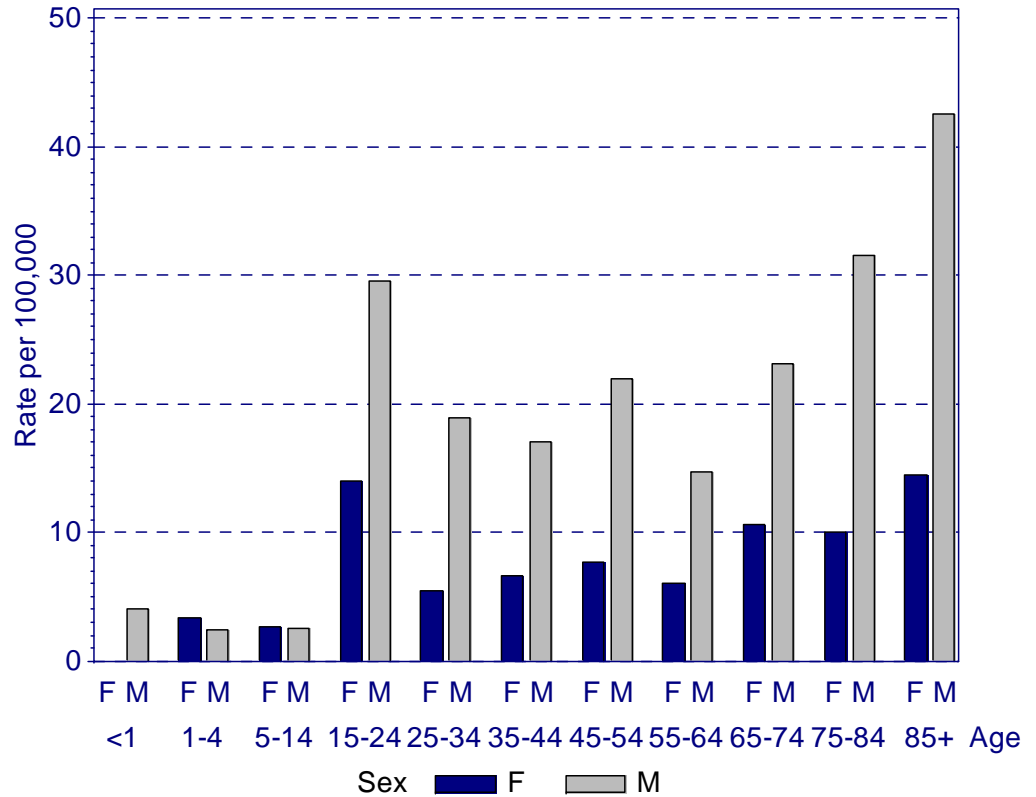
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

The highest age-specific mortality rates are among males 85 and older, followed by males 75 to 85 (Figure 2.3). The highest rates for females show a similar pattern in the age distribution, although rates among females are lower. However, the rates among females steadily increase with age, beginning in the 25-34 year old age group.

**Figure 2.3**

# Motor Vehicle Traffic Mortality

Average annual rate by age and sex, 2005-2007



By category of involvement (Table 2.1), the majority of motor vehicle traffic deaths involved occupants of motor vehicles (55% in 2007), followed by other, motorcycle, pedestrian, and pedal cyclist involvement.

*Table 2.1. MVT mortality by category of involvement, 2007.*

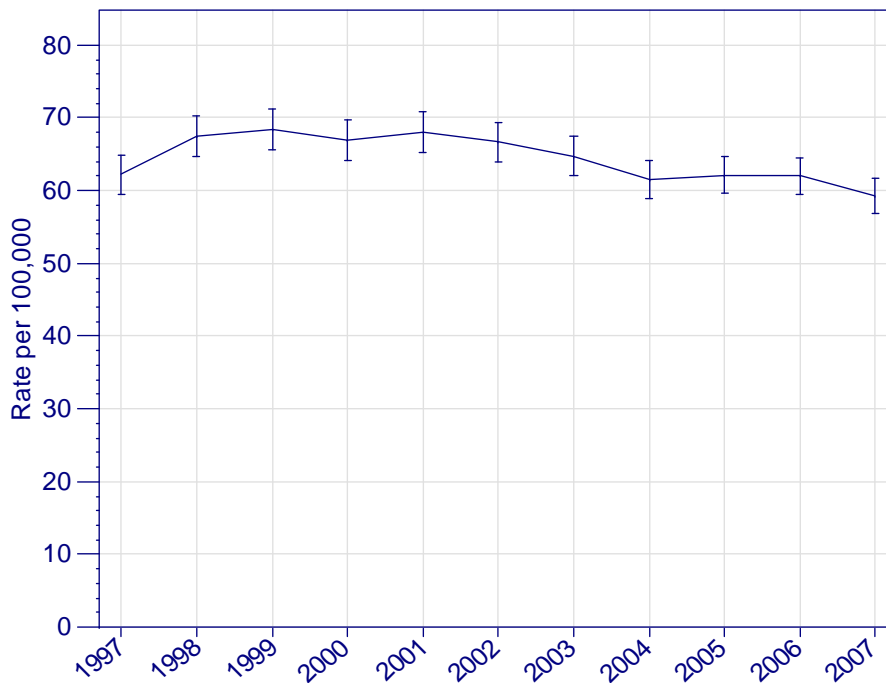
Involvement	%
Occupant	55.3
Other	17.9
Motorcyclists	12.0
Pedestrians	10.9
Pedal Cyclists	3.3

## HOSPITALIZATIONS

The age-adjusted motor vehicle traffic hospitalization rate in Oregon has fluctuated since 1997, without an overall significant decrease in the rate between the 1997 and 2007 rate (Figure 2.4). The rate in 1997 was 62.2 per 100,000 persons, and was 59.3 in 2007.

**Figure 2.4**

### Motor Vehicle Traffic Injury Hospitalizations Age-adjusted rate, 1997-2007

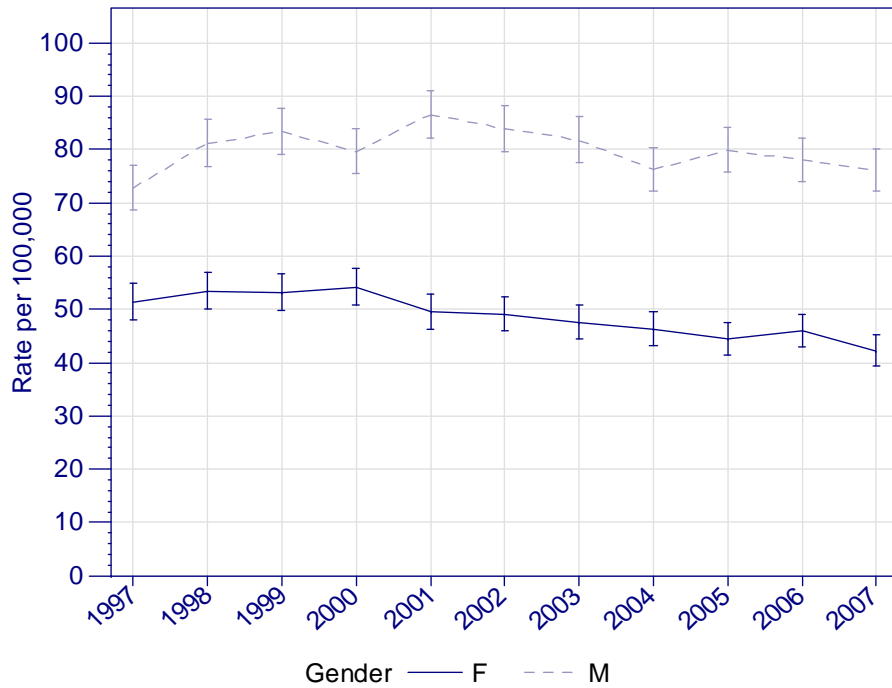


\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

The rate of motor vehicle traffic hospitalization is significantly higher for males overall compared to females—a trend which is consistent for the entire period of 1997-2007 (Figure 2.5). Females show an overall significant decrease in the sex-specific mortality rates between 1997 and 2007. There was no significant decrease among males between the 1997 rate and the 2007 rate.

**Figure 2.5**

## Motor Vehicle Traffic Injury Hospitalizations Age-adjusted rate by sex, 1997-2007



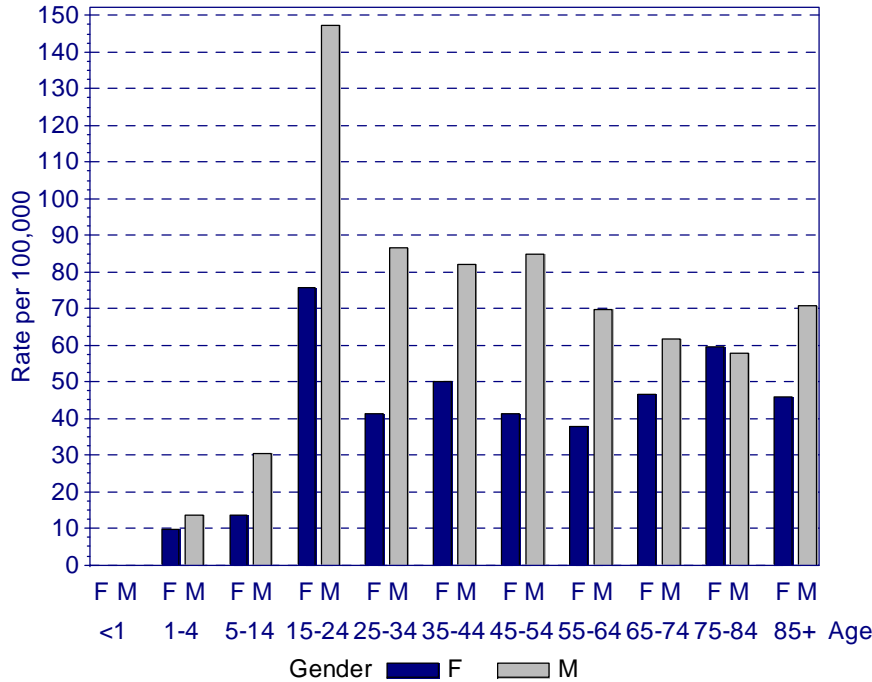
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

***The rate of motor vehicle traffic hospitalization is significantly higher for males overall compared to females.***

**Figure 2.6**

# Motor Vehicle Injury Hospitalization

Rate by age and sex, 2007



The highest hospitalization rates are among males 15 to 24 years of age, followed by males 25-34 (Figure 2.6). The highest rates for females show a similar distribution, although the rates for males remain consistently higher.

*Table 2.2. MVT hospitalization by category of involvement, 2007.*

Involvement	%
Occupant	66.6
Motorcyclists	15.9
Pedestrians	10.3
Pedal Cyclists	4.9
Unspecified	1.8
Other	0.5

## CHILDREN, TEENS, AND OLDER ADULTS

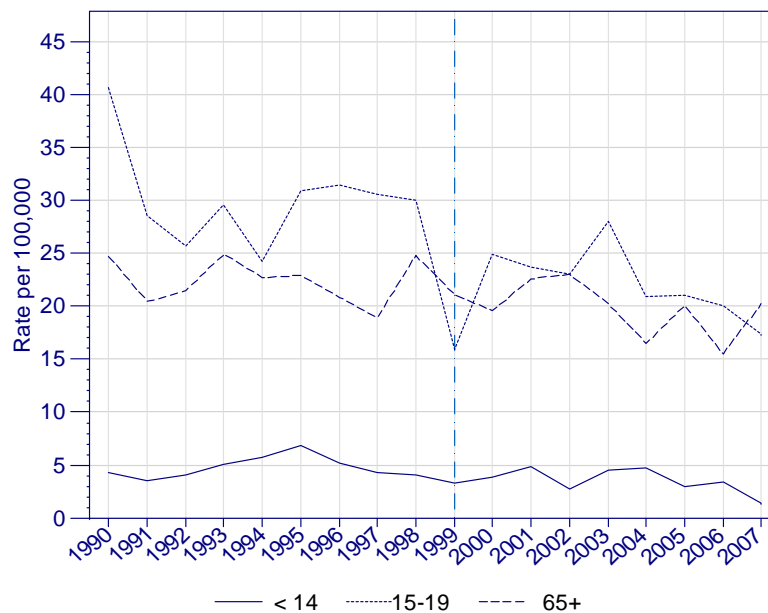
Three age groups stand out for MVT injury prevention action—children, teens, and older adults.

### CHILDREN

Motor vehicle traffic is a leading cause of injury death for children 0-14 years of age. Between 1999 and 2007, 223 Oregon children under 15 died as a result of motor vehicle traffic injuries. This translates into a rate of nearly 3.3 per 100,000 children in 1999 to 1.4 per 100,000 children in 2007—a decrease of 58% (Figure 2.7).

**Figure 2.7**

**Motor Vehicle Traffic Deaths in Three Age Groups**  
Age Group-Specific Rates, 1990-2007

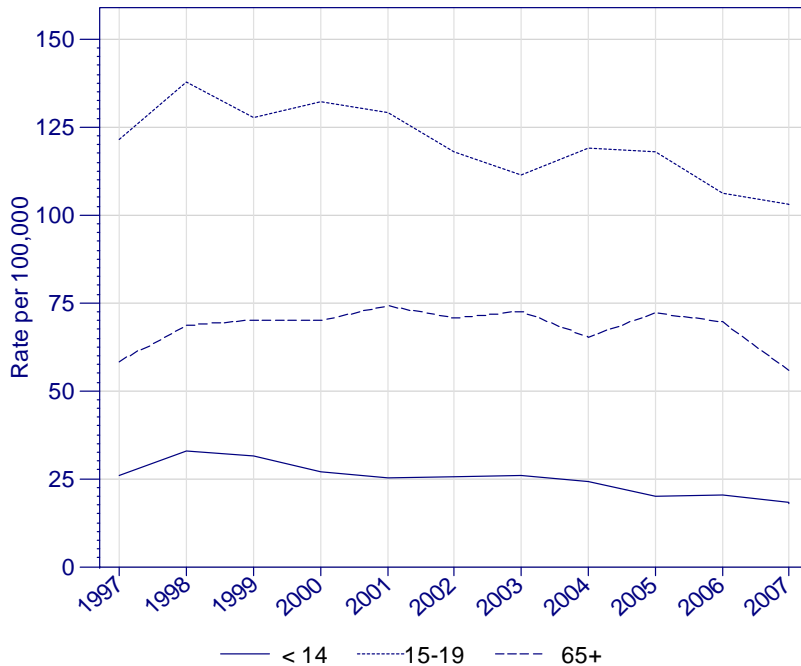


Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

The hospitalization rate also decreased significantly between 1997 and 2007 for children under 15 (Figure 2.8). The rate in 1997 was 26.1 per 100,000 population, and declined to 18.4 per 100,000 children in 2007—a decrease of 29%. Between 1997 and 2007, over 1,900 hospitalizations associated with motor vehicle traffic injuries occurred among children under 15 years of age.

**Figure 2.8**

**Motor Vehicle Traffic Hospitalizations in Three Age Groups**  
 Age Group-Specific Rates, 1997-2007



**TEENS**

The rate of mortality for 15 to 19 year olds did not decline between 1999 and 2007, from 15.9 deaths per 100,000 population in 2000 to 17.4 in 2007. However, the rate in 2007 is well below the peak rate within this interval, in 2003. Teens have the highest rate of hospitalization due to motor vehicle traffic incidents in the state, and among the highest rates of motor vehicle traffic mortality. Nationally, motor vehicle traffic mortality and hospitalization rates for teens are known to be high, and Oregon reflects similar trends.

The rate of hospitalization for teens 15-19 declined 15% between 1997 and 2007, from a high of 121.6 per 100,000 population in 2001 to 103.2 per 100,000 in 2007.

Annually, more than 40 deaths and 250 hospitalizations occur in the 15-19 year old age group due to motor vehicle traffic.

## OLDER ADULTS

The rate of mortality for adults 65 and older decreased slightly between 1999 and 2007 from 21.1 deaths per 100,000 population to 20.2 deaths per 100,000 in 2007.

Motor vehicle traffic injury was the second leading cause of hospitalization among older adults and was the second leading cause of death for those 65 to 74. Between 1999 and 2007, over 800 deaths in older adults were due to motor vehicle traffic injury.

Hospitalization rates for older adults due to motor vehicle traffic remained little changed between 1999 and 2007. Annually, over 300 hospitalizations in older adults are due to motor vehicle injuries.

National data from the 2001 National Household Travel Survey<sup>6</sup>, conducted under the Federal Highway Administration, indicates that the average daily person miles traveled decreases with age, after age 65. For persons 36 to 65 years of age, the average daily miles traveled in 2001 was 48.8, while for persons over 65, this number decreases to 27.5. If adults in Oregon travel similar daily distances as the national whole, this may indicate that older adults in Oregon have a higher rate of mortality per miles traveled than those under age 65.

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<sup>6</sup> U.S. Dept. of Transportation, Federal Highway Administration, *Summary of travel trends: 2001 national household travel survey*: <http://nhts.ornl.gov/2001/pub/STT.pdf>

## PREVENTION

Motor vehicle traffic injuries are preventable; protective equipment such as safety belts and prevention of impaired driving can reduce the burden of injury caused by MVT.

Impaired driving contributes substantially to MVT injuries in Oregon. In 2004, 44% of MVT fatalities in Oregon involved alcohol.<sup>7</sup> Each alcohol-related fatality costs an estimated \$3.6 million in monetary and quality of life costs, while the estimated cost per survivor of alcohol-related crashes is \$108,000.<sup>8</sup> In light of the approximately 400 MVT deaths, and 2,200 hospitalizations in Oregon each year, the costs of MVT injuries are enormous.

In the 2008 Behavioral Risk Factor Survey, most Oregonians (97.9%) responded that they always or nearly always wear a seatbelt while driving or riding in a car. However, males are less likely than females to wear a seatbelt, and 3.0% of males in Oregon are at risk as a result, compared to 1.3% of females.

Fewer people always wear seatbelts (93.3%), and again, males are more at risk than females overall, with 8.5% of males responding that they did not always wear seatbelts while driving or riding in a car compared to 4.3% of females.

The Oregon Injury Prevention and Epidemiology Program worked with community partners in the effort to establish a graduated driver's license in Oregon. Research has shown that GDL programs reduce the crash risk among teens.



<sup>7</sup> National Highway Traffic Safety Administration (NHTSA), available from [www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/RNotes/2005/809\\_904/809904.htm](http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/RNotes/2005/809_904/809904.htm)

<sup>8</sup> National Highway Traffic Safety Administration (NHTSA), available from [www.nhtsa.dot.gov/people/injury/alcohol/impaired\\_driving\\_pg2/OR.htm](http://www.nhtsa.dot.gov/people/injury/alcohol/impaired_driving_pg2/OR.htm)

Recommended MVT injury prevention measures include:

- Promote and maintain effective measures to reduce impaired driving. The Task Force on Community Preventive Services, an independent, nonfederal panel of community health experts, has recently issued recommendations that outline effective measures that include: sobriety checkpoints, “zero tolerance” laws for young drivers, reducing legal blood alcohol concentration to 0.08%, minimum legal drinking age laws, server intervention training programs, mass media campaigns to reduce alcohol-impaired driving, school-based health promotion programs to promote avoiding riding with impaired drivers, and multifaceted community-based programs.<sup>9</sup>
- Placing children in age- and size-appropriate restraint systems, which reduce fatal and serious injuries by more than half.<sup>10</sup> Child safety seats reduce the risk of death in passenger cars by 71% for infants, and by 54% for children ages 1-4 years.<sup>11</sup>
- Enhance safety belt enforcement programs.

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<sup>9</sup> Guide to Community Preventive Services: [www.thecommunityguide.org/mvoi/](http://www.thecommunityguide.org/mvoi/), CDC: [www.cdc.gov/ncipc/duip/mvsafety.htm](http://www.cdc.gov/ncipc/duip/mvsafety.htm)

<sup>10</sup> Department of Transportation (US), National Highway Traffic Safety Administration (NHTSA). [BoosterSeat.gov](http://BoosterSeat.gov). Washington (DC): NHTSA; 2006d. Available from [www.boosterseat.gov](http://www.boosterseat.gov).

<sup>11</sup> Department of Transportation (US), National Highway Traffic Safety Administration (NHTSA), [Traffic Safety Facts 2005: Children](http://TrafficSafetyFacts2005:Children). Washington (DC): NHTSA; 2006b. Available from [www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2005/ChildrenTSF05.pdf](http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2005/ChildrenTSF05.pdf)



## 3

## Falls

**F**all injuries<sup>12</sup> are one of the leading causes of injury hospitalization in Oregon, and among the leading causes of injury-related death for older adults. More hospitalizations are due to falls than any other single injury-related cause. Each year, over 400 deaths and 8,600 hospitalizations in Oregon are due to falls.

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### FALL INJURY FACTS

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- Falls are the overall leading cause of injury hospitalization in Oregon.
  - Leading cause of injury death among those 75 years of age and older in 2006.
  - Leading cause of injury hospitalization for those 45 years of age and older in 2006.
  - Leading cause of injury hospitalization for those under 15 years of age in 2006.
  - Hospitalization charges for falls in 2006 exceeded \$186 million.
- 

Falls are a major injury issue for older adults in Oregon, as the rates of both hospitalization and death due to falls are vastly greater in the older age groups, and increase with age.

In 2007 the rate of hospitalization due to falls in persons 65-74 years of age was 409 per 100,000. For persons 85 and older, the rate increased to 3,271 hospitalizations per 100,000—an 8-fold increase in risk of hospitalization between persons 65-74 and persons 85 and older. The increase in risk of fall mortality for persons 85 and older is more than 20 times higher than for those 65-74 years of age.

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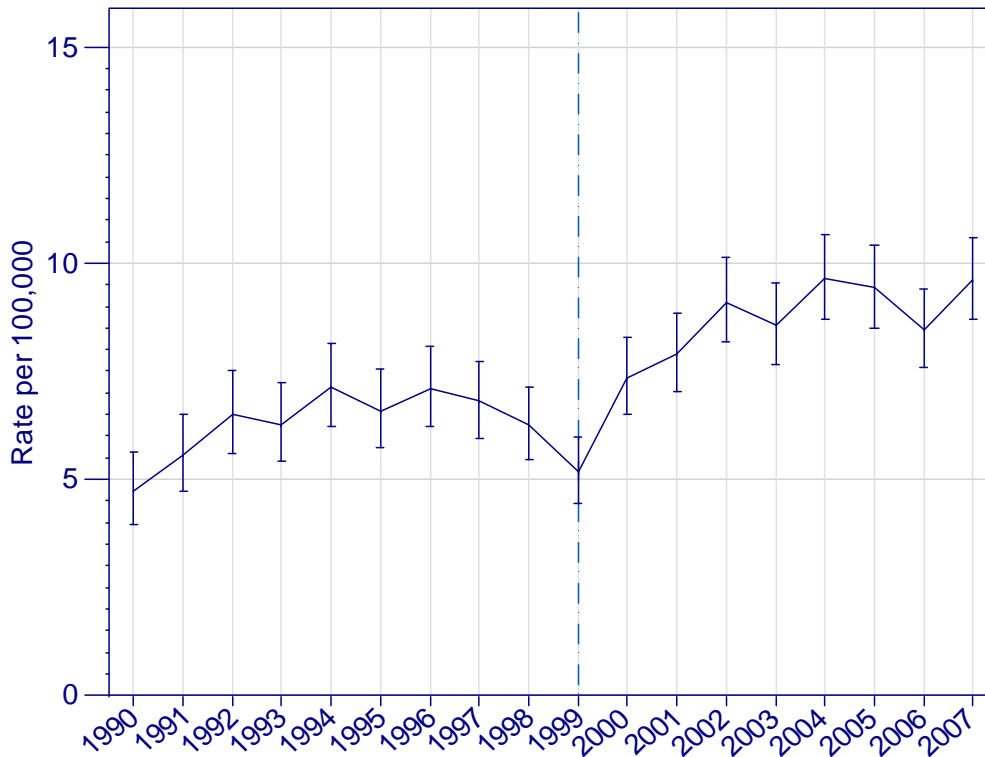
<sup>12</sup> Only unintentional falls are described in this section.

## DEATHS

In the general population of Oregon, the age-adjusted fall death rate has increased between 1999 and 2007 (Figure 3.1). The rate in 2007—9.6 per 100,000—is significantly higher than the 1999 rate of 5.2 per 100,000. In general, unintentional fall deaths appear to be following a trend of increase since 1990, and expected trend as Oregon’s population ages.

**Figure 3.1**

### Fall Mortality Age-adjusted Rate, 1990-2007

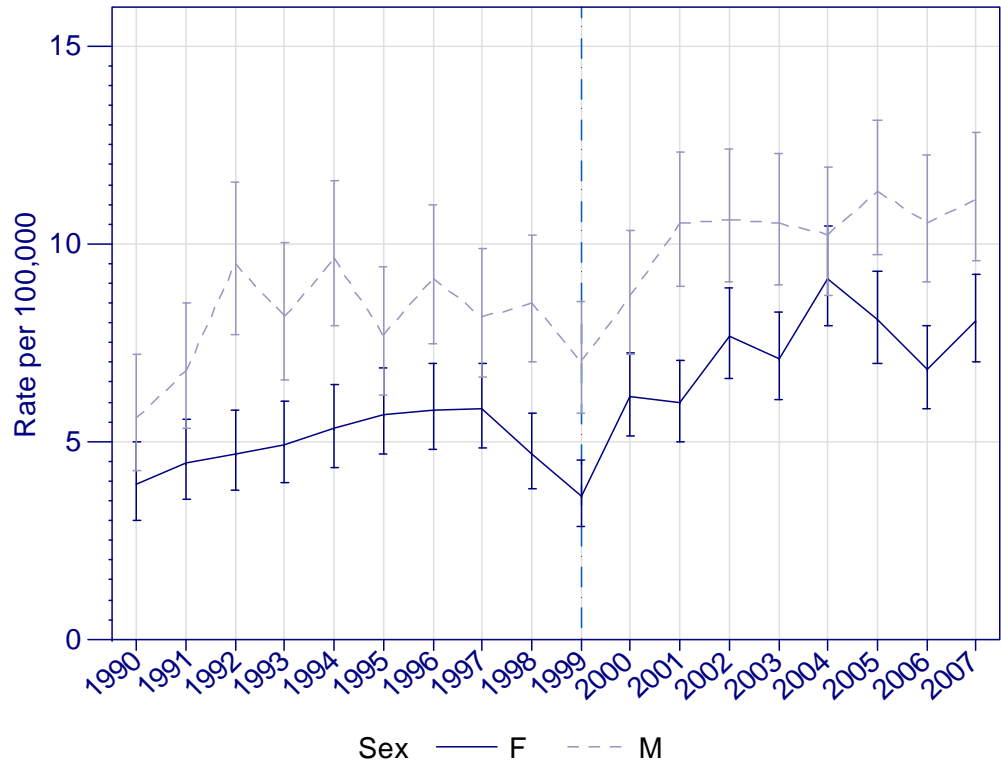


\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

While more than 50% of all fall deaths are among females, males actually have a significantly higher mortality rate which is especially apparent in older age groups. This is due to the higher risk older men face in more severe falls—such as falls from ladders or steps and stairs. Compared to men, older women in Oregon are more likely to fall from bed or trip/stumble on one level.

**Figure 3.2**

## Fall Deaths Age-adjusted Rate by Sex, 1990-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

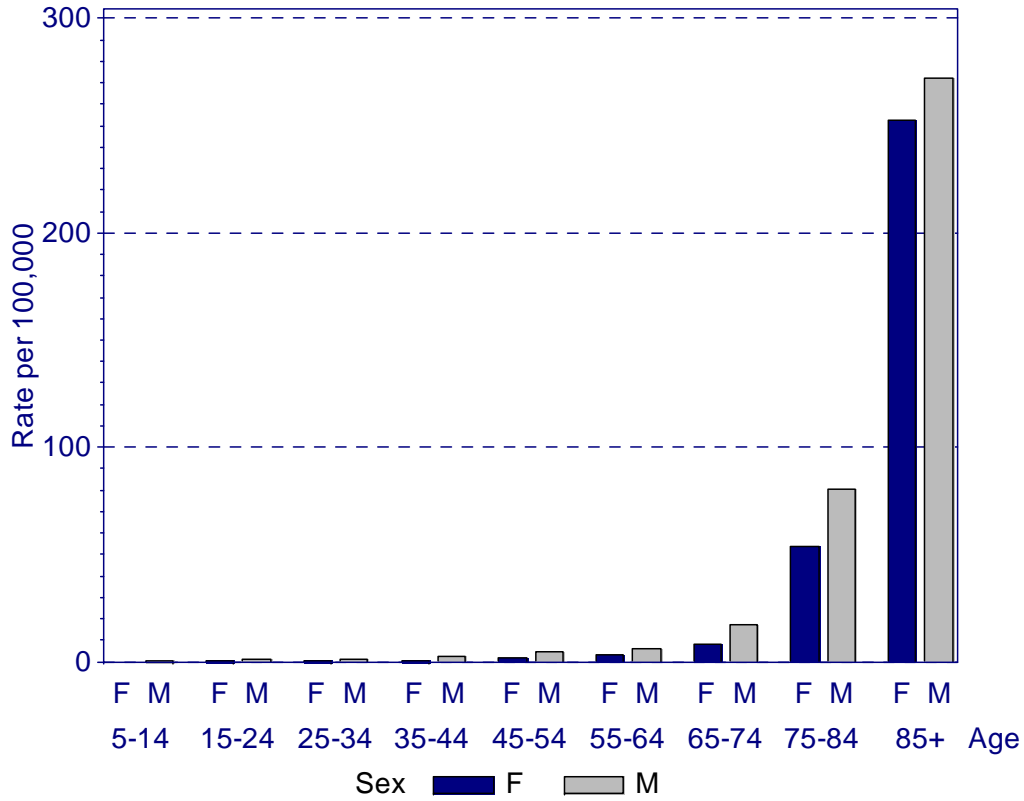
While the aggregated rate of fall deaths is below 10 deaths per 100,000, the rate of death increases greatly with age (Table 3.3). Persons 85 years of age and older are at increased risk of death compared to all other age groups, and demonstrate a mortality rate of over 250 persons per 100,000 population.

***Compared to women, older men are at increased risk of falls that may cause more severe injury—such as from ladders, stairs or steps.***

Figure 3.3

# Fall Mortality

Average annual rate by age and sex, 2005-2007

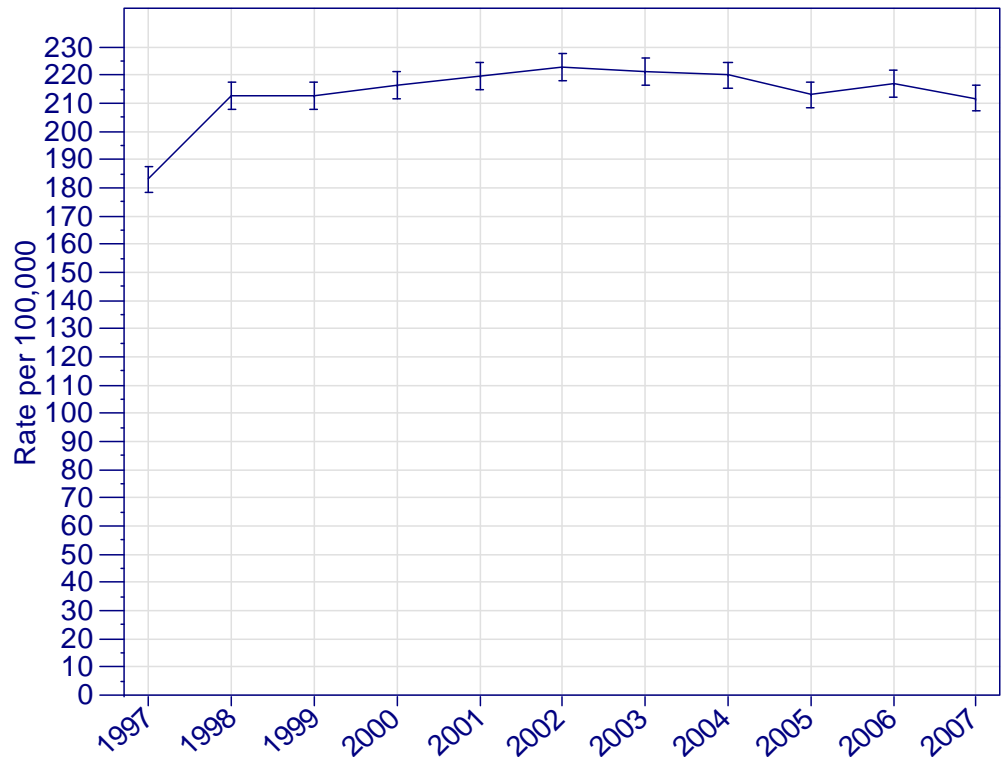


## HOSPITALIZATIONS

The age-adjusted fall hospitalization rate increased between 1997 and 2007, from 183.2 hospitalizations per 100,000 in 1997 to 211.8 hospitalizations per 100,000 in 2007 (Figure 3.4). However, fall hospitalizations vary greatly by sex and age.

**Figure 3.4**

### Fall Hospitalizations Age-adjusted rate, 1997-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

Females have a significantly higher rate of hospitalization than males, and the female rate of 226.7 per 100,000 is 25% greater than the male rate of 183.1 per 100,000 in 2006.

Figure 3.5

## Fall Hospitalizations

Age-adjusted rate by sex, 1997-2007



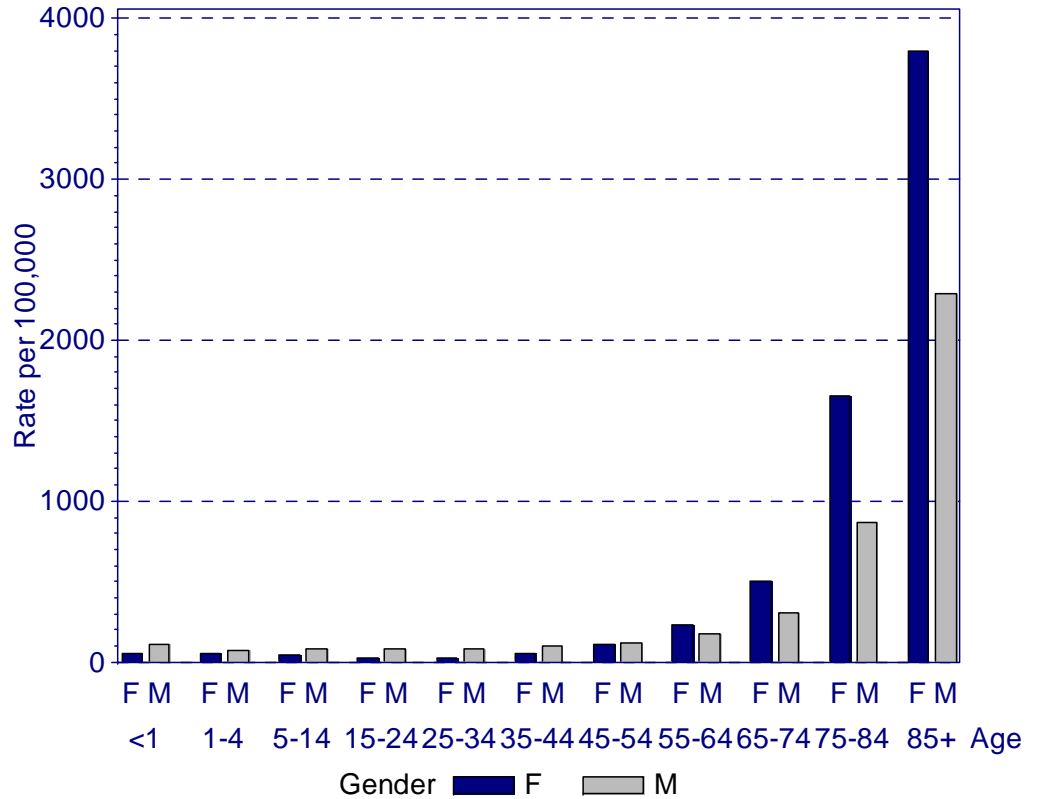
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

Rates of hospitalization increase with age (Figure 3.6). Females 85 and older are 2.3 times more likely to be hospitalized for a fall than women 75-84, and nearly 8 times more likely than women 65-74. For males, the increased risk associated with age is also apparent. For men 85 and older, the risk of hospitalization is 2.6 times greater than for men 75-84, and more than 7 times greater than for men 65-74. Fall risk is multifactorial, and as age increases, many risk factors associated with falls—multiple medications, postural hypotension, impaired mobility, chronic health conditions, and impaired vision—increase as well, which further amplifies fall risk.

**Figure 3.6**

# Fall Hospitalization

Rate by age and sex, 2007



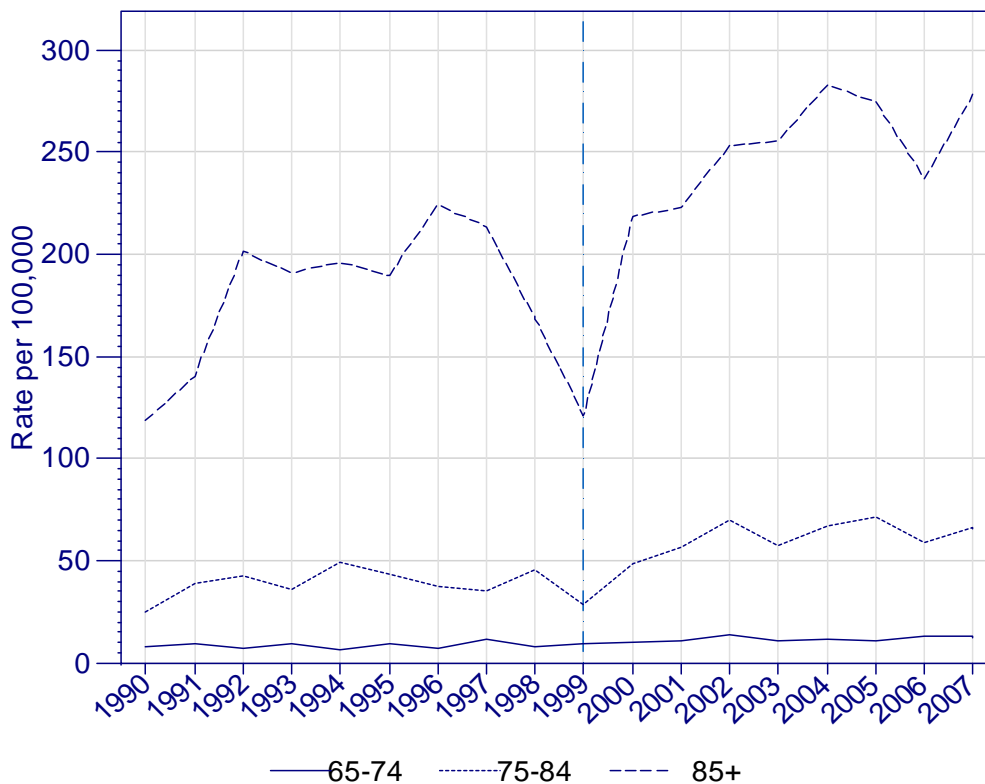
***For older adults, age increases many risk factors associated with falls—multiple medications, postural hypotension, impaired mobility, chronic health conditions, and impaired vision.***

## OLDER ADULTS

The highest mortality and hospitalization rates among older adults are those seen in persons 85 and older (Figures 3.7 and 3.8). The mortality rate among persons 85 and older increased from 118.6 to 278.2 deaths per 100,000 persons between 1999 and 2007. However, there was a 13% decrease in the rate among the 85 and older age group between 2004 and 2006. There was also an increase among those 75-84 years of age between 1999 and 2007, from 24.8 deaths to 656.6 per 100,000. The fall mortality rate also increased among seniors 65 to 74 years of age, from 98.0 deaths per 100,000 in 1999 to 13.2 per 100,000 in 2007.

**Figure 3.7**

### Fall Deaths in Three Age Groups Age Group-Specific Rates, 1990-2007

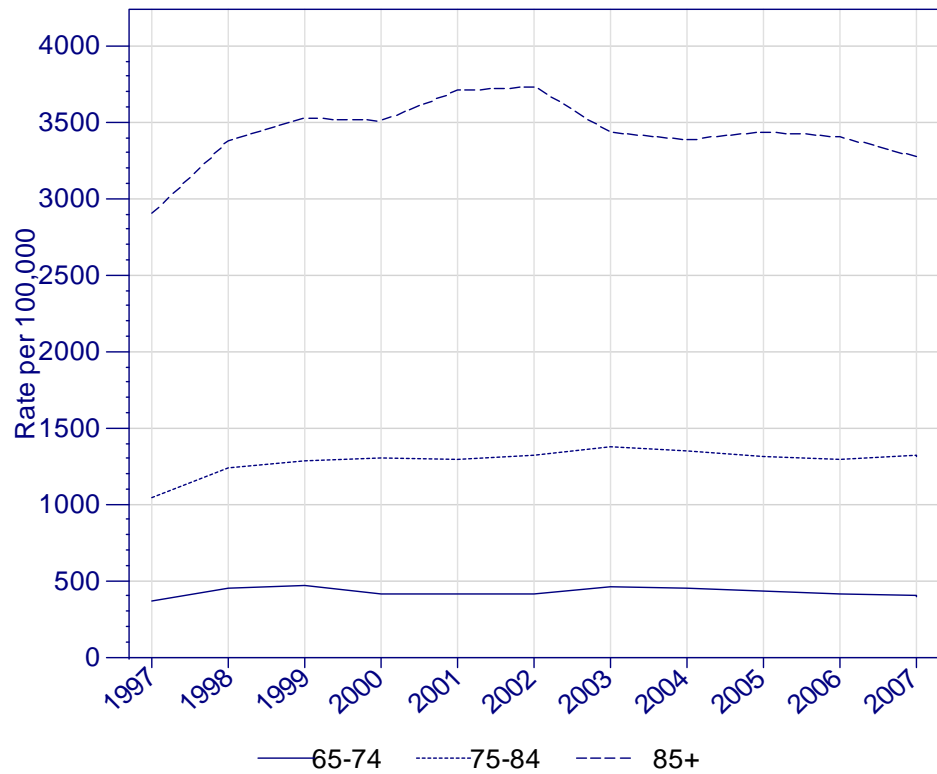


Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

The hospitalization rates among seniors are the highest of any injury outcome and for any age group. Among persons 85 and older, there were 3,271 hospitalizations per 100,000 in 2007. This was a slight decline from the rate in 2006, which was 3,405 hospitalizations per 100,000.

**Figure 3.8**

### Fall Hospitalizations in Three Age Groups Age Group-Specific Rates, 1997-2007



## PREVENTION

Falls are a significant injury problem, especially for older adults, among whom the majority of falls occur, and where the rates increase greatly with age. Nationally, falls are the leading cause of injury death, the most common cause of non-fatal injury injuries and hospital admissions for trauma, and cost billions of dollars annually in direct medical costs.<sup>13</sup> In Oregon, falls are the most frequent cause of traumatic brain injury (TBI) hospitalizations, and are associated with at least a third of all TBI hospitalizations.

In the 2008 Behavioral Risk Factor Survey, 12.1% of adults 65 years of age and older responded that they had experienced at least one fall within the preceding 3 months. 4.7% of Oregon seniors experienced at least 2 falls. Among those that fell, 25% resulted in injury.



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<sup>13</sup> Centers for Disease Control and Prevention, National Center for Injury Prevention and Control [www.cdc.gov/ncipc/factsheets/adultfalls.htm](http://www.cdc.gov/ncipc/factsheets/adultfalls.htm)

Falls can be prevented, and among the elderly where most falls occur, recommendations<sup>14</sup> for prevention include:

*In the Community:*

- Implement evidence-based group exercise that decreases falls, increases strength, mobility, coordination, balance, and overall physical fitness.
- Educate older adults and their families about falls.
- Conduct environmental assessments to reduce fall hazards and improve safety in the homes of older adults and in institutions.

*In the Healthcare Sector:*

- Screen each senior for falls at every primary care visit.
- Promote regular eye exams for seniors.
- Conduct medication review and assess for dangerous interactions in primary care, pharmacies, and other settings.
- Conduct fall assessment in annual primary care visits for those ages 55 and older to enable prevention before a fall occurs.

*In Public Health:*

- Institute sentinel fall surveillance in Oregon emergency departments to gather circumstantial information needed to focus and tailor prevention strategies.
- Convene a partnership to obtain the resources necessary to implement community based primary prevention strategies and public health surveillance and research.

As Oregon's population ages, falls will likely remain a significant injury concern. This is why taking action on healthy aging—such as getting regular exercise—is important in starting early in the life cycle to protect from future fall injuries and deaths. For more information, see the Oregon Public Health Division's report *Fall Injuries among Older Adults* at <http://www.oregon.gov/DHS/ph/ipe/index.shtml>.

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<sup>14</sup> Oregon Public Health Division, *Fall Injuries among Older Adults* at <http://www.oregon.gov/DHS/ph/ipe/index.shtml>; Centers for Disease Control and Prevention, National Center for Injury Prevention and Control [www.cdc.gov/ncipc/factsheets/adultfalls.htm](http://www.cdc.gov/ncipc/factsheets/adultfalls.htm)



## 4

## Poisoning

Unintentional poisonings are the most frequent cause of unintentional injury after motor vehicle traffic and fall deaths. There were over 363 deaths in 2007 due to unintentional poisoning, and the absolute number increased over 150% since 2001. There were over 1,200 hospitalizations in 2007. It is unknown how many persons are treated in emergency rooms and released. In 2007, the number of unintentional poisonings among persons 25-64 surpassed the number of deaths attributable to motor vehicle traffic. A large number of these deaths are due to prescription drug poisoning—sometimes referred to as “overdose” deaths.

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### UNINTENTIONAL POISONING INJURY FACTS

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- There is a long term trend of increase in poisoning deaths.
  - Over 95% of unintentional poisoning deaths are due to drugs and medicines.
  - Males have higher rates of both death and hospitalization.
  - The poisoning mortality rate is highest in those 45-54 years of age.
  - Over \$16 million in hospitalization charges in 2007 were due to unintentional poisoning.
- 

Unintentional poisonings are due to a variety of substances, although the single greatest cause of unintentional poisoning deaths both in Oregon and nationally are drugs/medicines.<sup>15</sup> However, unintentional poisoning includes non-opioid analgesics, psychotherapeutic drugs, narcotics and hallucinogens, drugs acting on the central nervous system, alcohol, organic solvents and halogenated hydrocarbons, carbon monoxide and other gases, pesticides, and other or unspecified chemicals or drugs. Although the rate of poisoning due to chemical, gases and various solids has changed little over recent years, poisoning due to drugs and medicines has increased steadily.

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<sup>15</sup> Centers for Disease Control and Prevention. Unintentional Poisoning Deaths—United States, 1999-2004. MMWR, 2007; 56(05): 93-96.

The age-adjusted rate of unintentional poisoning mortality in Oregon in 2007 was comparable to the national rate reported in 2007 (9.4 versus 9.9, respectively).

Much like national rates, mortality due to unintentional poisoning has increased substantially in Oregon between 1999 and 2007. While the rate of hospitalization has increased significantly in the same time period, the rate of increase has not been as great as that seen in mortality rates.

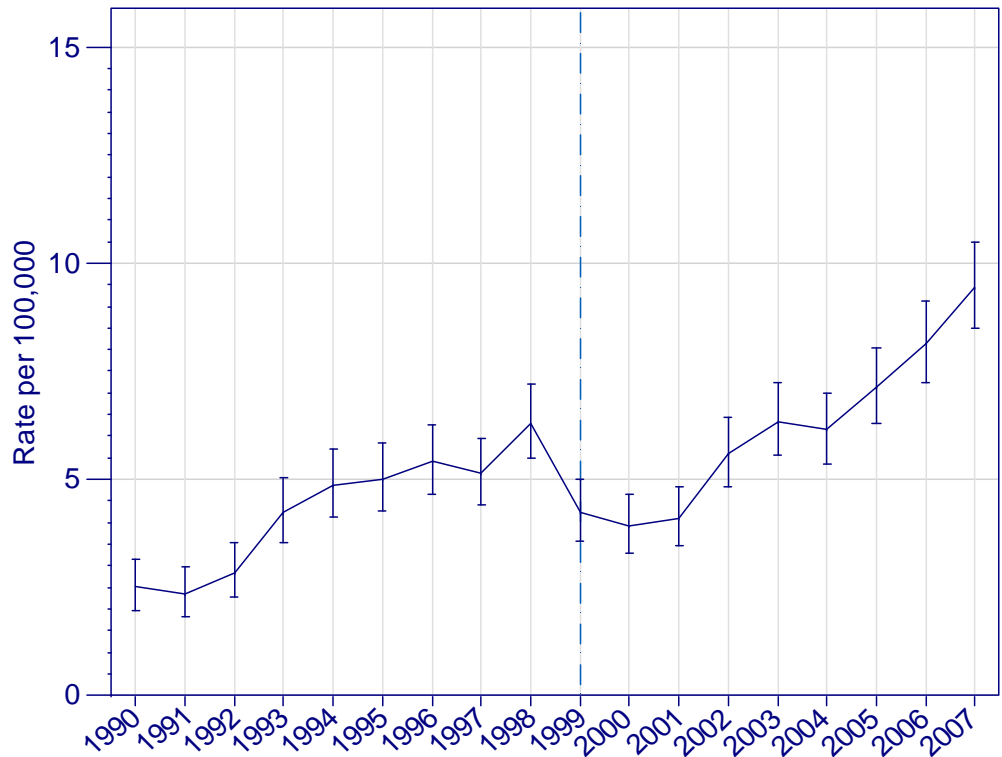


## DEATHS

The age-adjusted mortality rate due to unintentional poisoning increased from 4.2 deaths per 100,000 in 1999 to 9.4 per 100,000 in 2007—an increase of 124% (Figure 4.1). With the exception of a very slight decline in the rate between 2003 and 2004, the rate has continued to rise from 1999 to 2007, and demonstrates a general increase since 1990.

**Figure 4.1**

### Unintentional Poisoning Mortality Age-adjusted Rate, 1990-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

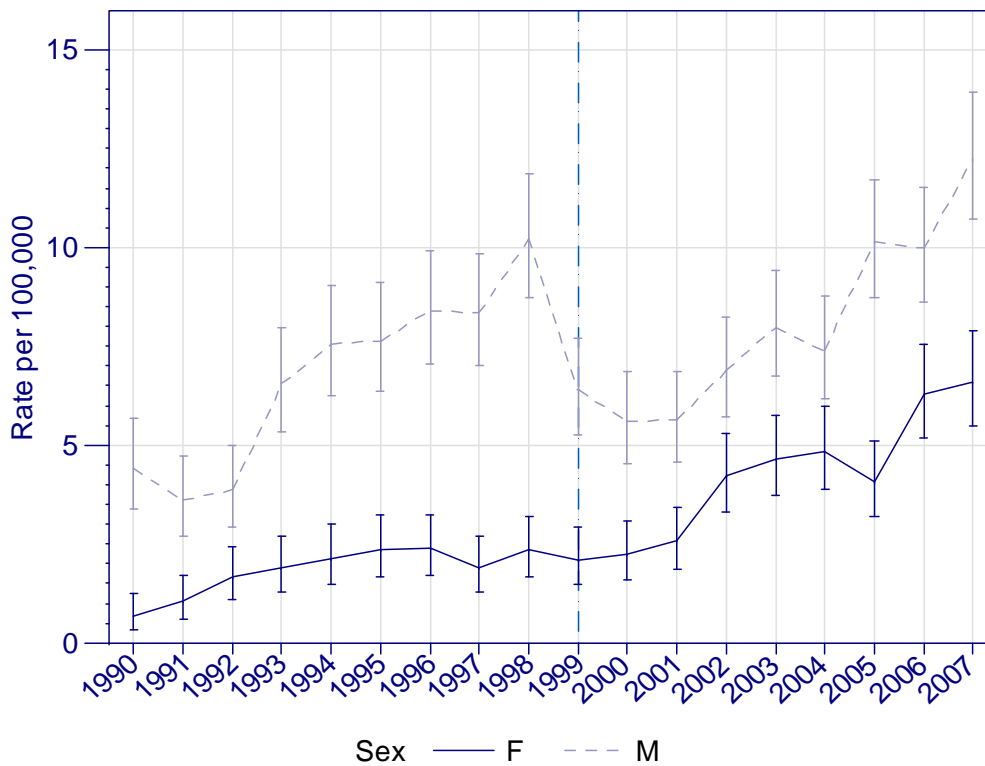
Compared to females, the rate for males was significantly higher overall for the entire time period shown in Figure 3.2.

The highest rates of death are in the 45-54 year old age group, followed by those in the 35-44 year old age group. For males, deaths peak at age 45-54, while for females, this peak is reached in the 35-44 year old age group (Figure 4.3).

**Figure 4.2**

## Unintentional Poisoning Deaths

### Age-adjusted Rate by Sex, 1990-2007



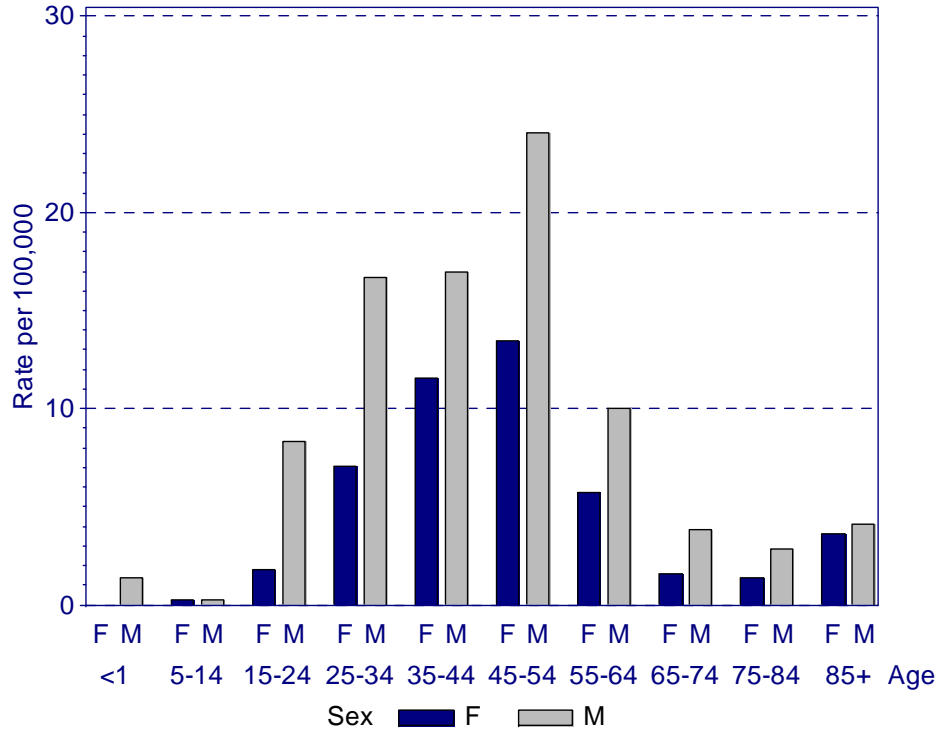
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
 Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

Much of the increase in poisoning mortality in Oregon is driven by deaths associated with prescription opioids—drugs meant for treatment of pain, but which are often diverted or misused. For more information on this trend, see the Oregon Office of Disease Prevention and Epidemiology publication, *CD Summary*: <http://www.oregon.gov/DHS/ph/cdsummary/2009/ohd5820.pdf>.

**Figure 4.3**

# Unintentional Poisoning Mortality

Average annual rate by age and sex, 2005-2007



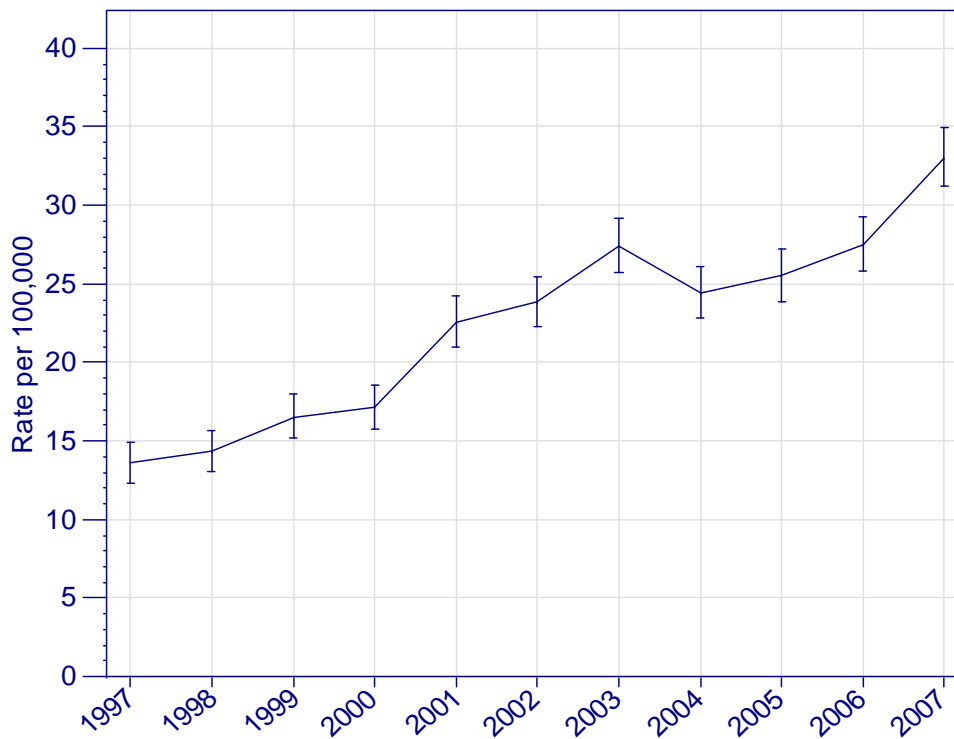
***In 2007, the number of unintentional poisonings among persons 25-64 years of age surpassed the number of deaths attributable to motor vehicle traffic.***

## HOSPITALIZATIONS

The rate of unintentional poisoning hospitalization significantly increased between 1997 and 2007, falling only during a time period between 2003 and 2004 (Figure 4.4). In 1997 the rate of hospitalization was 13.6 per 100,000, increasing to 33.0 in 2007—a 143% increase.

**Figure 4.4**

### Unintentional Poisoning Hospitalizations Age-adjusted rate, 1997-2007

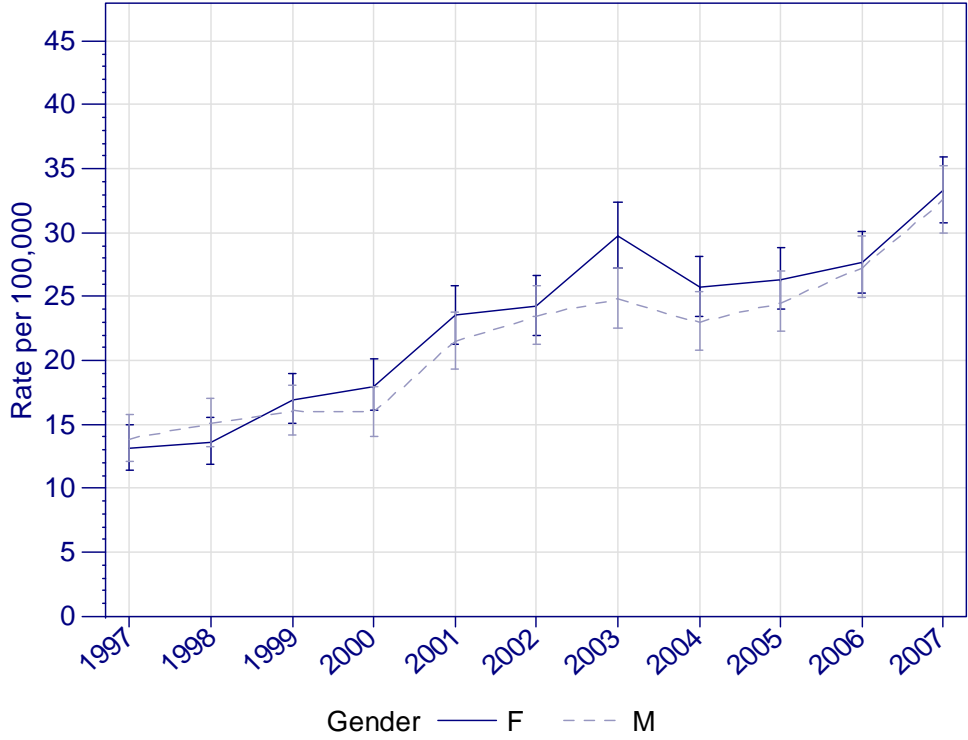


\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

The rates among males and females increased over this time period, with male rates being slightly higher than that of females (Figure 3.5).

**Figure 4.5**

**Unintentional Poisoning Hospitalizations**  
 Age-adjusted rate by sex, 1997-2007



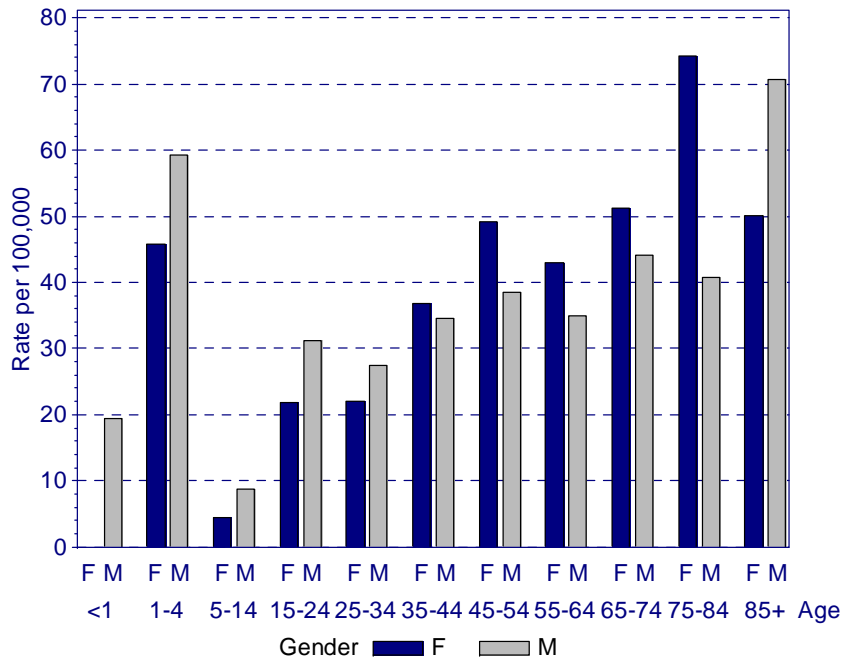
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

The rate of hospitalization generally increases with age, although there are two distinct peaks in hospitalization rates—those for children 1-4 years of age, and those for the oldest adults (Figure 4.6). For females the highest rate is among those 75-84, while the highest rate for males is among those 85 years of age and older. Although the highest rates are in these age groups, the greatest number of hospitalizations occurred in the 45-54 year age group in 2006.

Figure 4.6

# Unintentional Poisoning Hospitalization

Rate by age and sex, 2007



## PREVENTION

Unintentional poisonings occur for a number of reasons, and involve substances from carbon monoxide and household chemicals to prescription drugs and narcotics. Poisonings can be prevented at both the household and community levels. A large and increasing number of poisonings occur due to prescription drugs—mostly narcotic opioids intended to treat pain. The Oregon Office of Disease Prevention and Epidemiology publication *CD Summary* (<http://www.oregon.gov/DHS/ph/cdsummary/2009/ohd5820.pdf>), provides an overview on the increase in opioid-related deaths in Oregon.

In 2010, Oregon will implement a prescription drug monitoring program (PDMP) that is designed to decrease diversion of opioid drugs. For more information, check the PDMP website:

[http://www.oregon.gov/DHS/ph/ipe/test\\_pdmp.shtml](http://www.oregon.gov/DHS/ph/ipe/test_pdmp.shtml)

Some recommendations for prevention include:

- Properly managing opioid prescriptions may help reduce the prevalence of prescription diversion from patients to addicts.
- Screening for substance abuse can be implemented in emergency departments prior to dispensing opioid painkillers.
- Communities and safety advocates can raise awareness by participating in National Poison Prevention Week which occurs each March (third week of the month). See [www.poisonprevention.org/poison.htm](http://www.poisonprevention.org/poison.htm) for further information.
- In the household:
  - Read and follow all drug labels carefully, and never share or sell prescription drugs.
  - Keep all medicines in their original containers, and keep them out of reach of children. Keep opioid pain medications in a place that can only be accessed by the person taking them or dispensing them (or their caretaker).
  - Keep the Oregon Poison Control phone number (1-800-222-1222) on or near the telephone.
  - Dispose of old medications or chemical products properly.



## 5

## Homicide and Assault

**H**omicide and assault were responsible for nearly 80 deaths and over 600 hospitalizations in Oregon in 2007. Males have the highest rates of homicide and assault, especially those in the 15-34 year old age groups.

The age-adjusted rate of homicide in Oregon (2.1 per 100,000 population in 2007) has consistently been below the national rate (6.1 per 100,000 population in 2007).

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### HOMICIDE AND ASSAULT FACTS

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- There were 81 homicides in Oregon in 2007.
  - There are more homicides and assault hospitalizations among males 15-24 years of age than any other age group.
  - Over \$13 million in hospitalization charges occurred in 2006 due to assault injuries.
- 

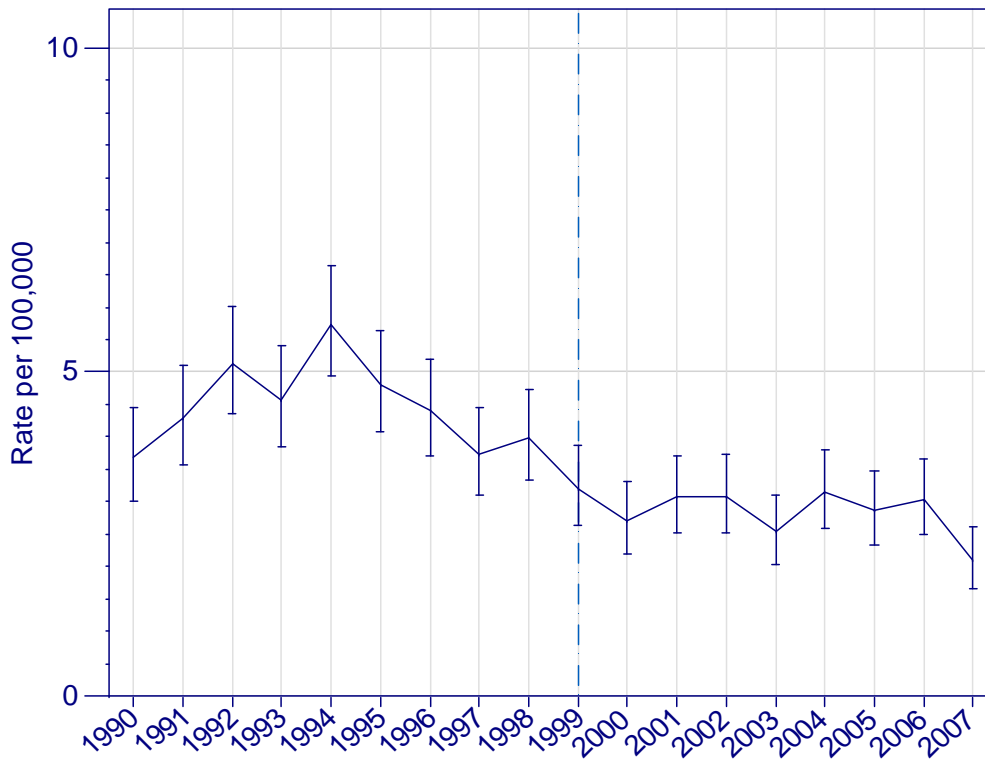


## DEATHS

The age-adjusted rate of homicide declined between 1999 and 2007; the confidence intervals for the rates suggest a significant difference between the 1999 and 2007 rates (Figure 5.1). The age-adjusted rate in 1999 was 3.2 per 100,000 population and 2.1 per 100,000 in 2007. The trend in homicide has been toward a general decrease since 1994.

**Figure 5.1**

### Homicide Mortality Age-adjusted Rate, 1990-2007



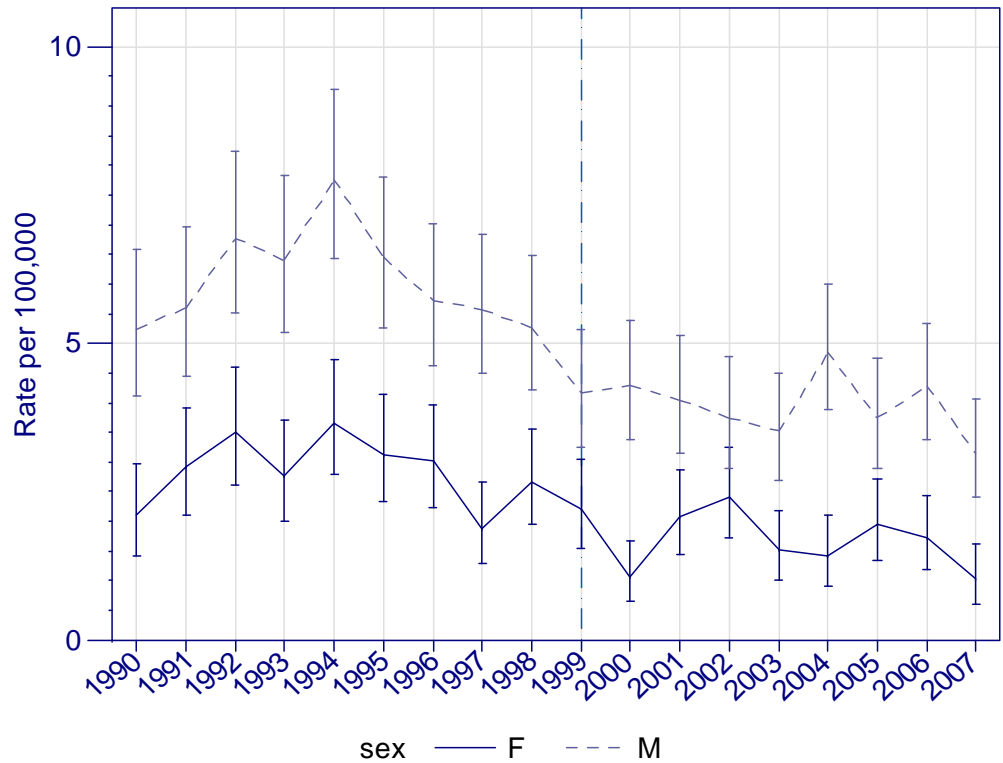
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

The rate of homicide among males is statistically higher than females (Figure 5.2). In 2007, the rate among males was 3.2 per 100,000; among females the rate was 1.0 per 100,000.

Most homicides occur among males 15-24 years of age (Figure 5.3), although the highest rate is among females less than 1 year of age. The later (rate among females <1) is not a reliable estimate due to being based on 6 cases, and should therefore be interpreted with caution. The same caveat applies to the rate among males <1 year of age.

**Figure 5.2**

### Homicide Mortality Age-adjusted rate by sex, 1990-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

Most homicides (53.2%) in 2007 involved a firearm (Table 5.1). Just over 12.7% involved cutting (e.g. knife/sharp object). 17.7% involved other means that were either not specified on death certificates, or not specifiable into major categories.

Figure 5.3

# Homicide Mortality

Average annual rate by age and sex, 2005-2007

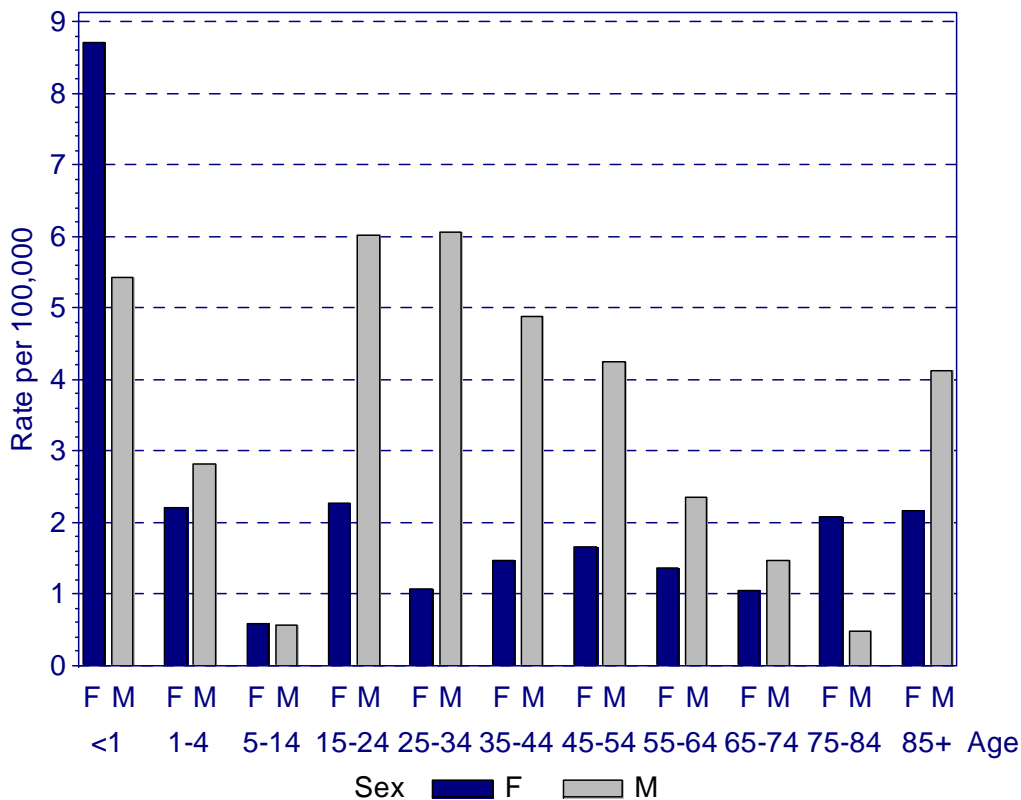


Table 5.1. Homicides by mechanism, 2007.

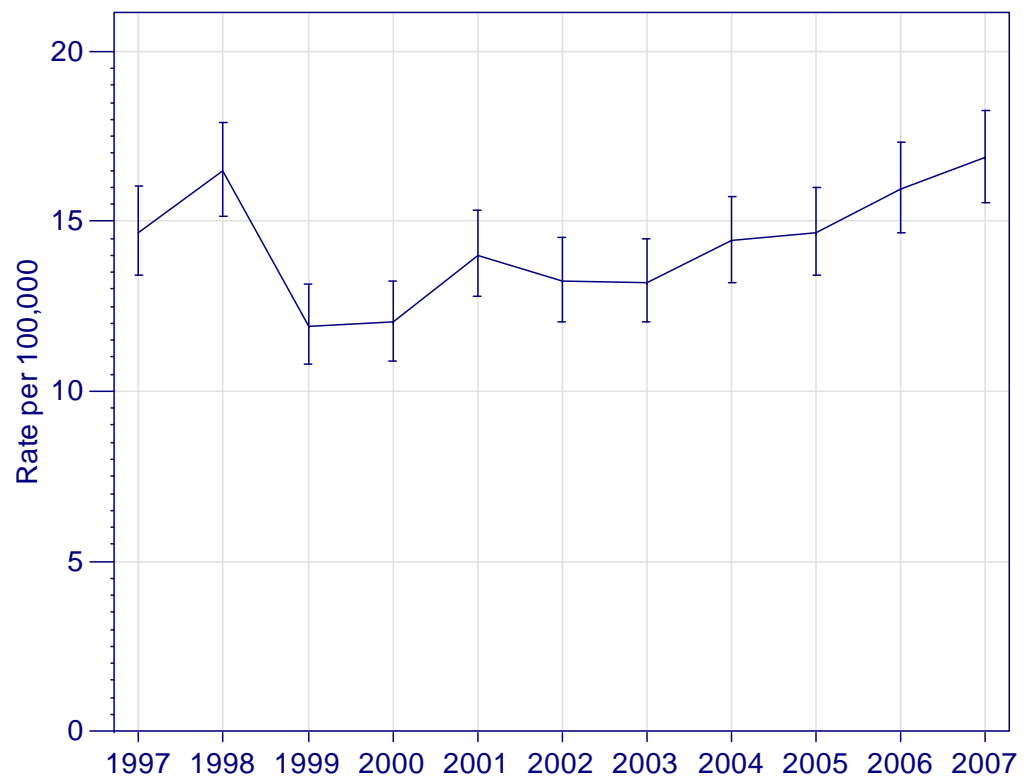
Mechanism	%
Firearm	53.2
Not specified	17.7
Cut/pierce	12.7
Other specified, not elsewhere classifiable	6.3
Suffocation	5.1
Poisoning	2.5
Fire/flame	1.3
Struck by/against	1.3

## HOSPITALIZATIONS

Although the homicide rate decreased between 1999 and 2007, the rate of hospitalization due to assault generally increased during the same period (Figure 5.4). The rate in 1997 was 14.7 per 100,000, increasing to 16.9 per 100,000 in 2006—an increase of 15%.

**Figure 5.4**

### Assault Injury Hospitalizations Age-adjusted Rate, 1997-2007

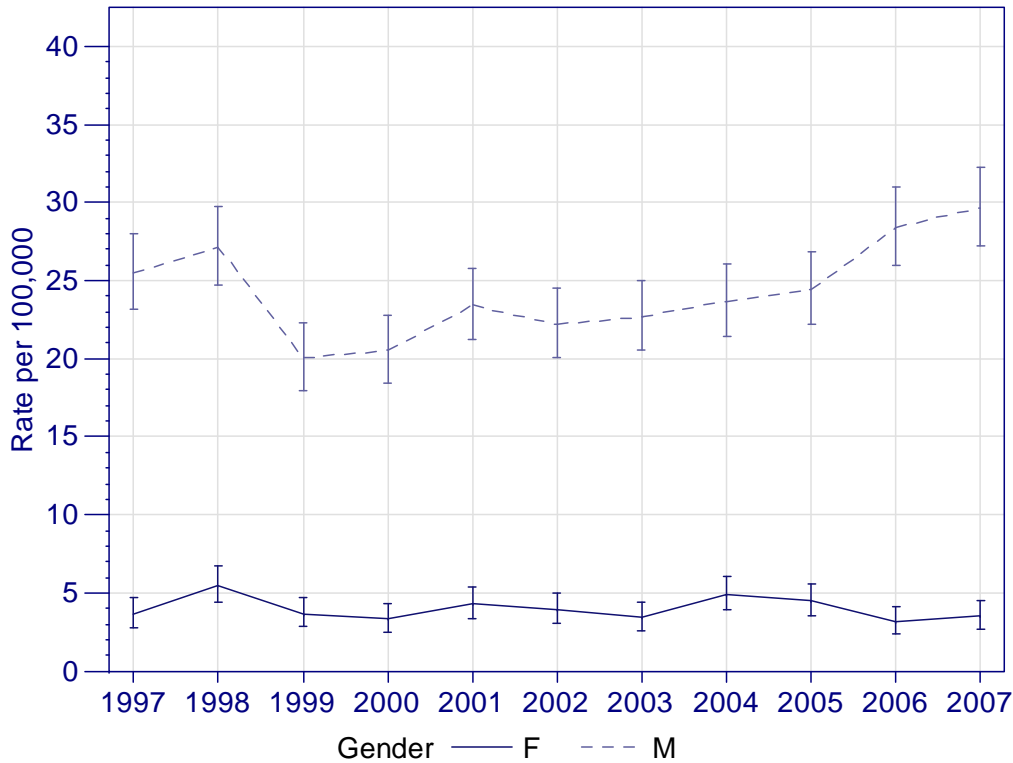


\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

Males have a higher rate of hospitalization due to assault compared to females, and the rate for males is typically about 5 times as high as the female rate. Much of the recent increase in assault hospitalizations is attributable to male hospitalizations (Figure 5.5).

Figure 5.5

## Assault Hospitalizations Age-adjusted rate by sex, 1997-2007



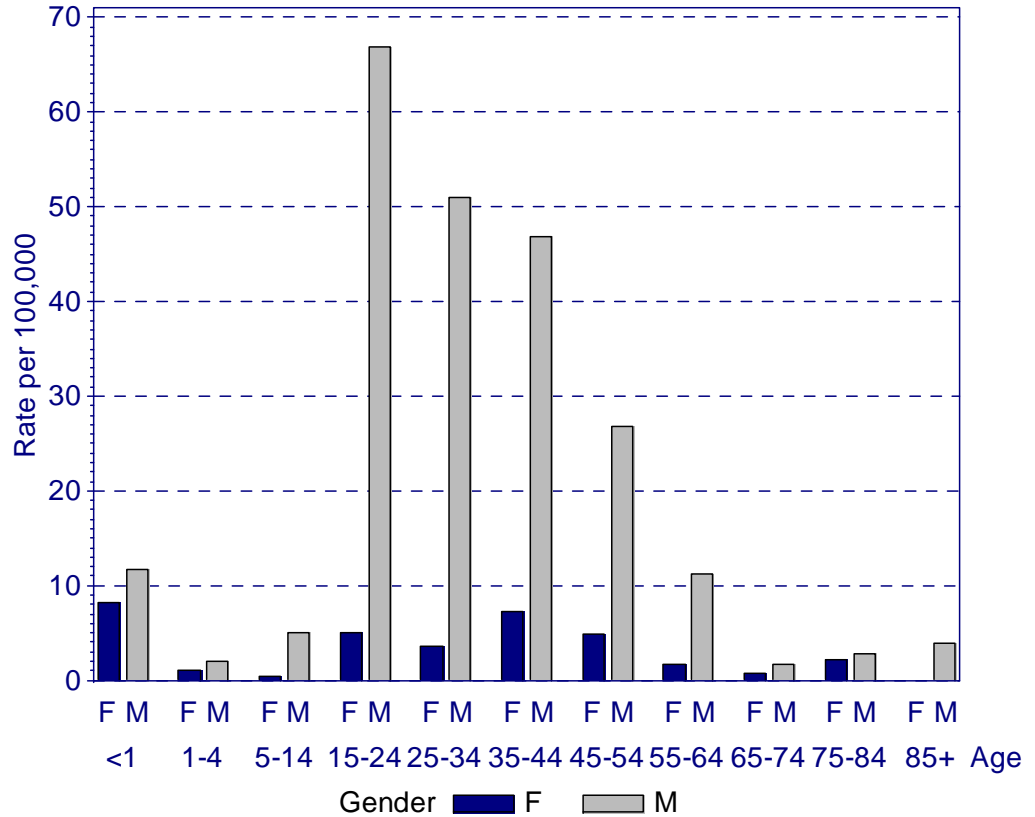
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

Males demonstrate the highest overall rate in the 15-24 year old age group. The rate for this age-group is 66.8 per 100,000 population, while the rate for females in the same age group is 5.1 per 100,000 (Figure 5.6).

Much like homicide rates, males generally demonstrate the highest rates of assault hospitalization among age groups.

**Figure 5.6**

## Assault Injury Hospitalization Rate by age and sex, 2007



*Table 5.2. Assaults by mechanism, 2007.*

Mechanism	%
Struck by/against	52.5
Cut/pierce	19.3
Not specified	11.9
Firearm	9.5
Not elsewhere classifiable	4.2
Other specified	1.6
Motor vehicle traffic	0.5
Falls	0.3
Drowning	0.2

More than half—52.2% of assault hospitalizations involved being struck by or against an object (e.g. blunt object or bodily force). Cutting/piercing by an object (e.g. knife) was involved in 19.3%. Firearm was involved in 9.5%, and 17.7% involved mechanisms not specific in the data (i.e. poison), not classifiable into major categories, or missing from the certificate of death.

## PREVENTION

Violence inflicts a tremendous social toll, and is manifest in many forms such as child maltreatment, sexual violence, intimate partner violence, youth violence, homicide and suicide. The primary goal of violence prevention is stopping all forms of violence before they begin. Violence often has complex social causes, and in order to understand the circumstances and risk factors that lead to violence, the Oregon IPE Program participates in the National Violent Death Reporting System (NVDRS), which monitors violent deaths and risk factors.

Significant disparities exist in violence mortality, and this is evident when homicide rates among African-Americans are compared to whites. Nationally, the sixth leading cause of mortality for African-Americans is homicide—a cause which is not in the top 10 causes of death for non-Hispanic whites.<sup>16</sup> Between 2002 and 2006, the adjusted rate (aggregate) of homicide among African-American males in Oregon was 16.0 deaths per 100,000, compared to 3.7 per 100,000 among white males. Although this is lower than the national rate<sup>17</sup> of 37.8 among African-Americans in 2006, the rate in Oregon points out the progress still to be made in preventing violence—especially where disparities in outcomes and prevention occur.



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<sup>16</sup> <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5401a1.htm#tab>

<sup>17</sup> CDC, WISQARS: <http://www.cdc.gov/ncipc/wisqars/>

Violence, including sexual violence can be prevented by:

- Use and support of programs that have been developed to reduce child maltreatment and abuse. Sources include evidence-based programs such as the national Nurse-Family Partnership: [www.nursefamilypartnership.org/index.cfm?fuseaction=home](http://www.nursefamilypartnership.org/index.cfm?fuseaction=home), and parenting intervention programs [www.cdc.gov/ncipc/publications/parenting/ChildMalT-Briefing.pdf](http://www.cdc.gov/ncipc/publications/parenting/ChildMalT-Briefing.pdf)
- Youth violence can be prevented through implementing and supporting best practices programs including parent and family based strategies, home visit strategies, social-cognitive strategies, and school-based mentoring strategies.<sup>18</sup>
- Helping parents identify and address social and cultural influences that may promote attitudes and violent behaviors in their kids.
- Creating policies at work, at school, and in other places that address sexual harassment.
- Developing mass media (e.g., radio, TV, magazines, newspapers) messages that promote norms, or shared beliefs, about healthy sexual relationships.

For further information on violence prevention, and Oregon's violence prevention actions, see:

- The Oregon Violent Death Reporting System:  
[www.oregon.gov/DHS/ph/ipe/nvdrs/index.shtml](http://www.oregon.gov/DHS/ph/ipe/nvdrs/index.shtml)
- Oregon Violence Against Women Prevention Plan:  
[www.oregon.gov/DHS/ph/ipe/index.shtml](http://www.oregon.gov/DHS/ph/ipe/index.shtml)
- Report on the costs of intimate partner violence (IPV):  
[www.oregon.gov/DHS/ph/ipv/index.shtml](http://www.oregon.gov/DHS/ph/ipv/index.shtml)
- Recommendations to Prevent Sexual Violence in Oregon:  
[www.oregon.gov/DHS/ph/ipe/index.shtml](http://www.oregon.gov/DHS/ph/ipe/index.shtml)

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<sup>18</sup> Best Practices of Youth Violence Prevention: a Sourcebook for Community Action, [www.cdc.gov/ncipc/dvp/bestpractices.htm](http://www.cdc.gov/ncipc/dvp/bestpractices.htm)



# 6

## Other Transport

**N**ot all transport-related injuries occur on public roadways, and non-traffic transport injuries are a frequent cause of injury death. On average, about 50 Oregon residents die annually as a result of non-traffic transport injuries involving transport such as watercraft, off-road vehicles, trains, aircraft, or animals. There are also over 690 hospitalizations per year on average, involving other non-traffic transport injuries. Due to changes in cause of death coding, data for other transport injury deaths is only shown for 1999 through 2007. Other transport

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### OTHER TRANSPORT INJURY FACTS

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- Between 2001 and 2007, over 320 deaths were due to non-traffic transport injuries.
  - The most frequent category of involvement of other transport death is watercraft.
  - Off-road vehicles are the most frequent cause of hospitalization.
  - Off-road vehicles are the second most frequent cause of other transport mortality.
- 

mortality is shown as a combination of two categories—other transport and other land transport, so that mortality can be compared with hospitalization.

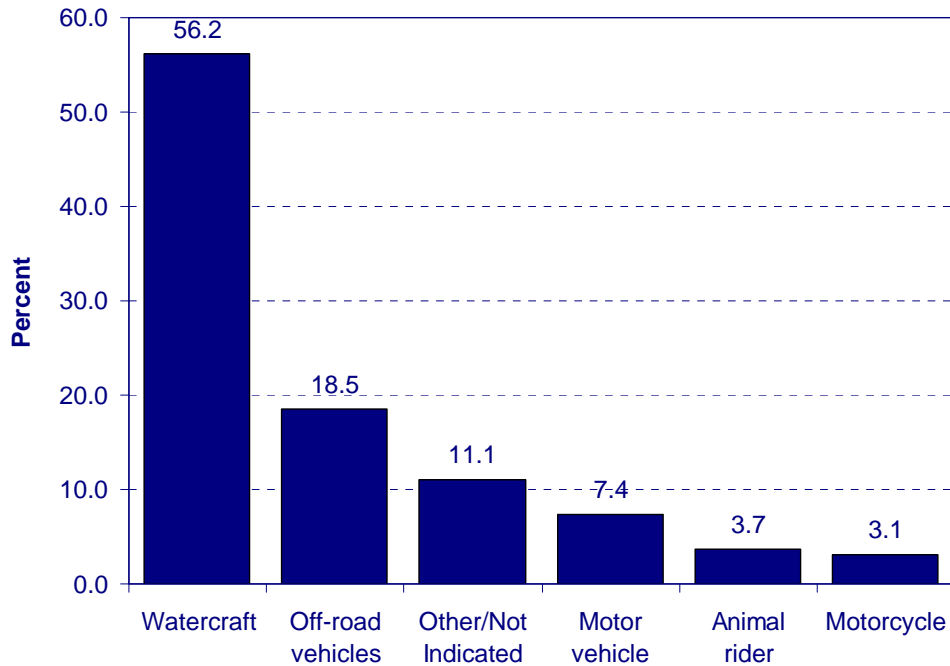
The most frequent cause of mortality due to non-traffic transport injuries involves watercraft, followed by off-road vehicles. On average, 30 deaths

occur annually due to injuries sustained through watercraft involvement, while 10 deaths on average occur annually due to non-traffic off-road vehicle involvement.



Figure 6.1

### Other transport mortality (%) by category of involvement , 2005-2007



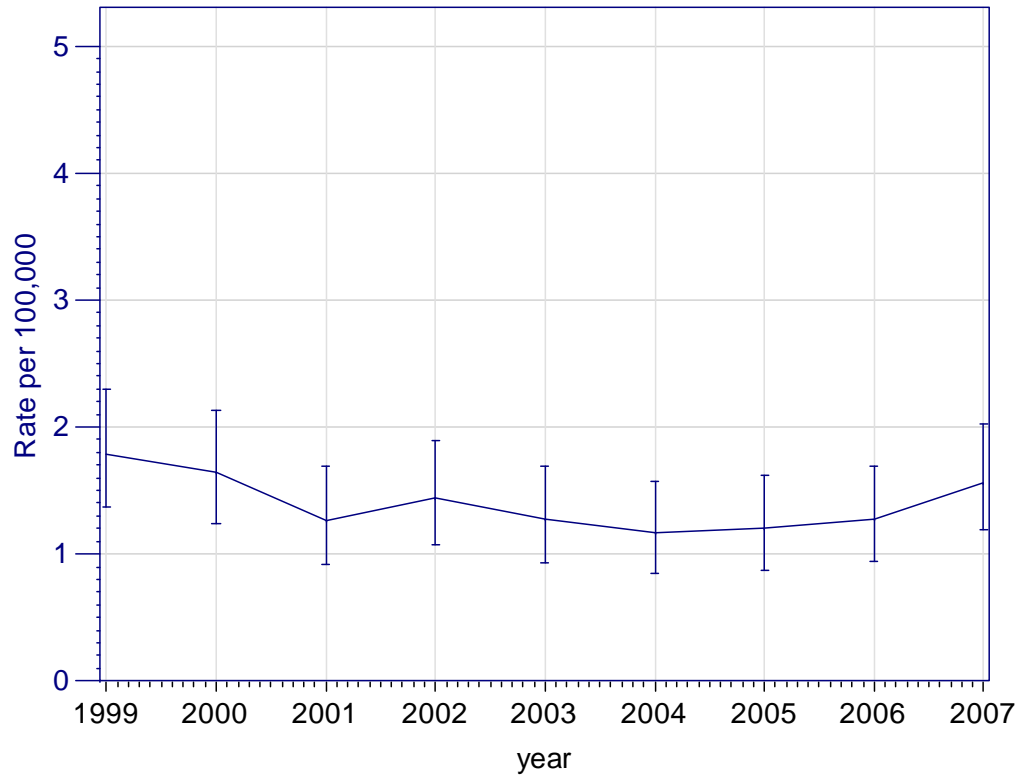
Approximately 5 deaths occur annually due to involvement of other non-traffic transport. The rate of mortality due to other transport injuries has not changed significantly between 1999 and 2007. In 1999 the rate was 1.8 per 100,000 persons, while the 2007 rate was 1.6 deaths per 100,000 (Figure 6.2).

***On average, 30 deaths occur annually due to injuries sustained through watercraft involvement, while 10 deaths on average occur annually due to non-traffic off-road vehicle involvement.***

**Figure 6.2**

## Other Transport Mortality

Age-adjusted Rate, 1999-2007

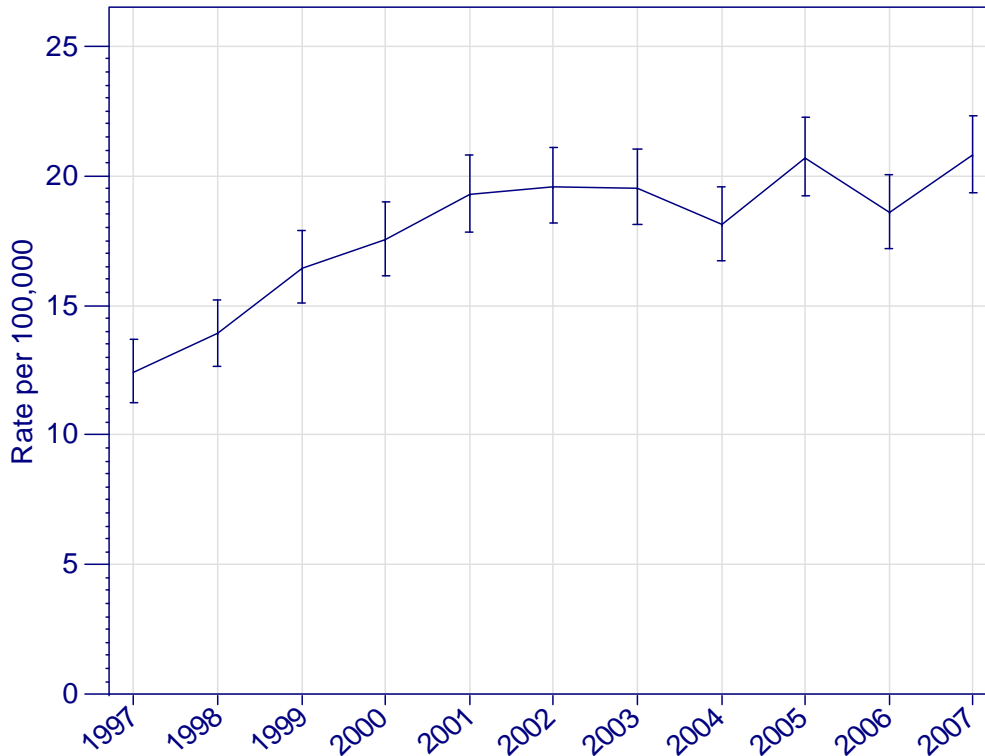


\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
 Combined categories of other land transport and other transport

The rate of other transport injury hospitalization has increased between 1997 and 2007 (Figure 6.3). The 1997 rate was 12.4 per 100,000 while the 2007 rate was 20.8 per 100,000.

Figure 6.3

## Other Transport Hospitalizations Age-adjusted rate, 1997-2007

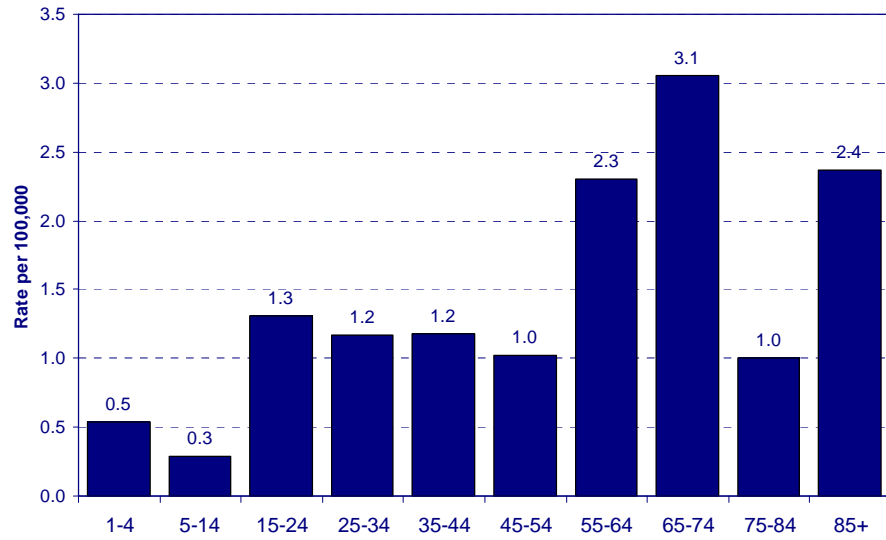


\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

Mortality due to transport injuries generally increases with age, and there are two distinct peaks in incidence occurring in older age groups (Figure 6.4). This pattern is observed even when land transport injuries and other non-traffic transport (e.g. water transport) injuries are analyzed separately. Since the number of non-traffic transport injuries is relatively small, some age groups contain counts of less than 20 deaths, requiring that the rates are interpreted with caution. Although the highest mortality rates occur in the 65-74 year old age group, the most frequently involved age group (by count) is the 55-44 year old age group.

**Figure 6.4**

**Average annual rate of other transport mortality by age group, 2005-2007**

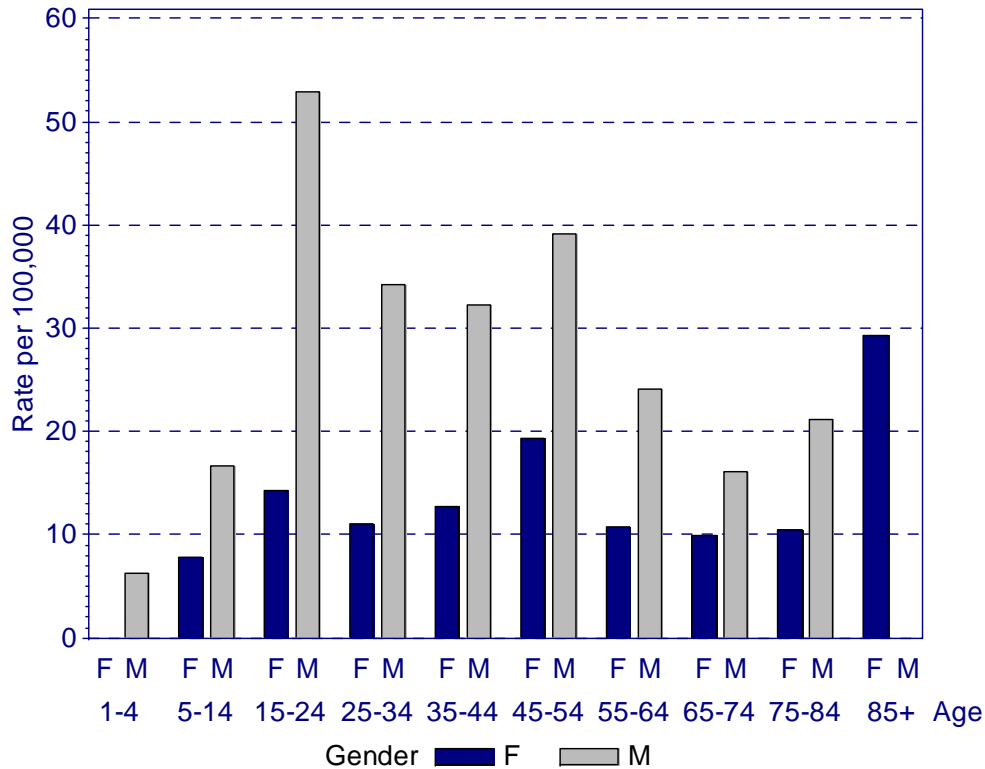


***Mortality due to transport injuries generally increases with age, and there are two distinct peaks in mortality occurring in older age groups.***

Figure 6.5

# Other Transport Hospitalization

Rate by age and sex, 2007



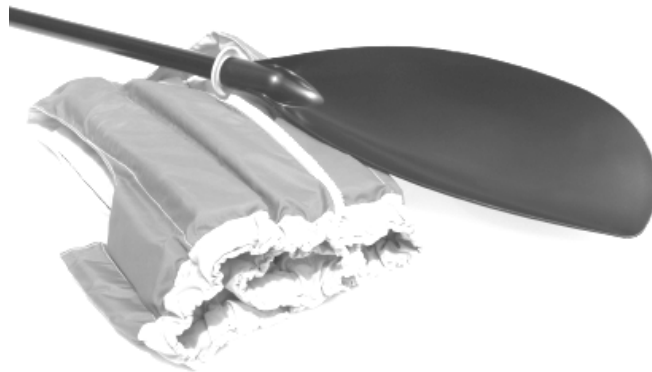
The rate of hospitalization for other transport injuries is highest among males 15-24. Females demonstrate the highest rates among those 85 and older.

**Although the highest rates of mortality occur among older persons, the highest rates of hospitalization occur among males 15-24 years of age.**

## PREVENTION

Injuries involving watercraft, off-road vehicles, and other forms of transport can be prevented. Recommendations include:

- Avoid alcohol or other intoxicants when operating any form of transport.
- Follow all safety laws when operating transport.
- Use personal safety equipment. Children especially should use safety equipment, including helmets. Children should never operate transport intended for adults.
- Oregon statute requires boats to carry U.S. Coast Guard readily-accessible personal floatation devices (PFDs) for each person on board.<sup>19</sup> PFDs are required to be appropriately sized for each person for which they are intended. For children 12 and under, a PFD must be worn at all times on a deck or open cockpit of a vessel while underway.<sup>20</sup>
- Persons under 18 riding on public lands while operating a Class I or III ATV must wear a helmet. An ATV operator's permit is required for all motorcycle (Class III) operators who are between age 7 and 17 years or anyone who does not possess a driver's license.



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<sup>19</sup> Oregon Revised Statutes, Chapter 830.

<sup>20</sup> This includes both motorized and non-motorized vessels; few exceptions under Oregon law, see summary of state boating laws on Oregon State Marine Board website for further details. Oregon State Marine Board: [www.boatoregon.com/Safety/Lifejacket.html](http://www.boatoregon.com/Safety/Lifejacket.html)





## Drowning

**B**etween 1999 and 2007 there were 486 unintentional drowning deaths in Oregon. Although not occurring at the magnitude of deaths for causes such as motor vehicle traffic injuries, suicide, falls, poisoning, or homicide, drowning is a frequent and preventable injury problem, especially for children where it remains a leading cause of death for those under 15 years of age.

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### DROWNING INJURY FACTS

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- Most drowning deaths are among males.
  - Drowning is a leading cause of death among children under 15 years of age.
  - The highest rate of drowning occurs among males 15-24 years of age.
- 

Most drowning deaths occur in the summer months, and what makes Oregon somewhat unique is the frequent occurrence of drowning deaths in water bodies fed by snow melt—mostly cold-running rivers found throughout the state.

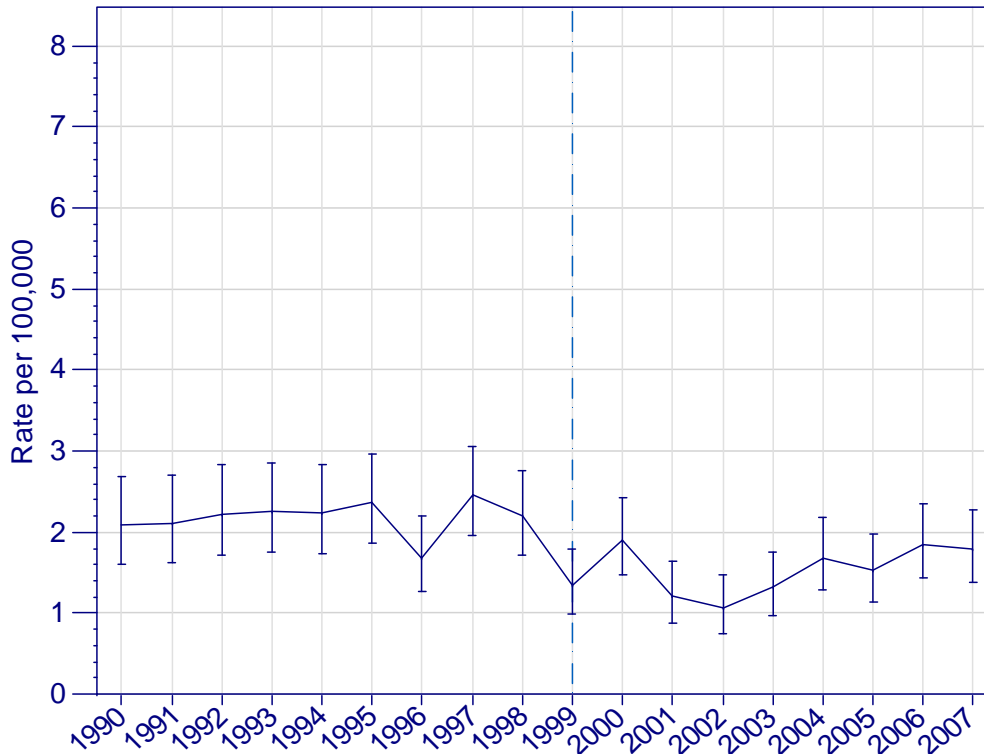
### DEATHS

The age-adjusted rate of drowning remained relatively unchanged during the 1999-2007 period, remaining below 2 deaths per 100,000 in 2006.



Figure 7.1

## Drowning Mortality Age-adjusted Rate, 1990-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

In 2007, 21.5% of drowning deaths occurred among 15-24 year olds; 18% occurred among 35-44 year olds; more than 13% of drowning deaths occurred among persons 65 and older, and just under 13% occurred among children 14 and younger.

Males overall have a higher drowning mortality rate than females; the male rate in 2007—2.9 per 100,000—was significantly higher than the rate for females—0.6 per 100,000. The rate among males appears to have increased each year since 2002.

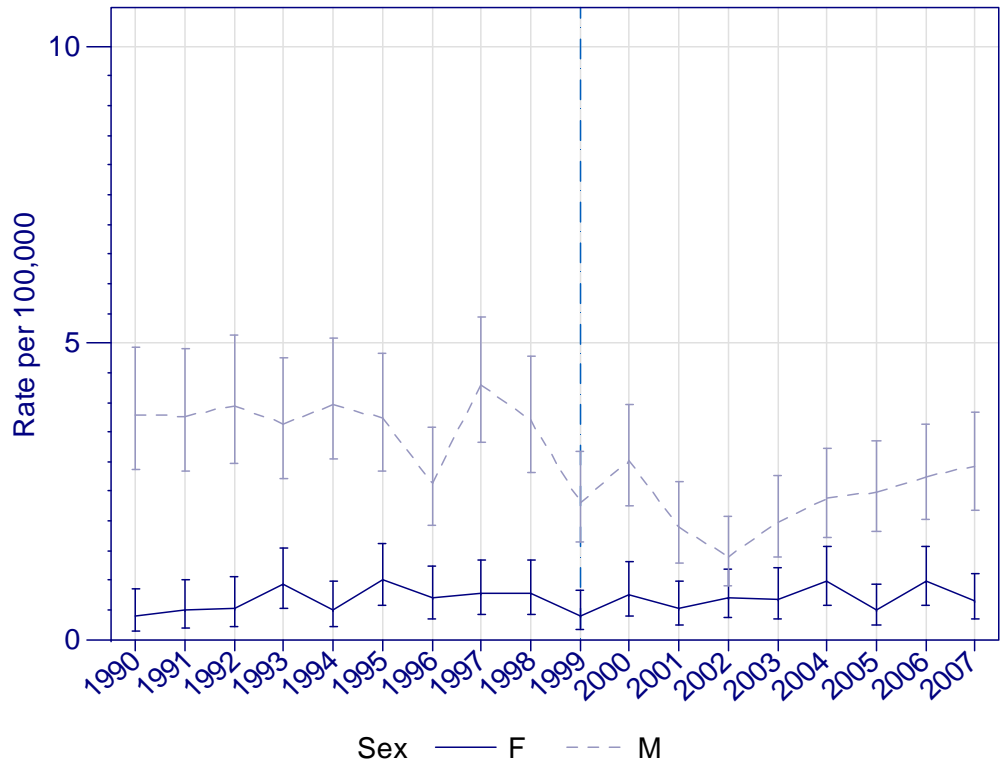
Table 7.1. Percent of drowning deaths by age, 2007.

Age	%
<1	0
1-4	7.7
5-14	4.6
15-24	21.5
25-34	10.8
35-44	18.5
45-54	13.8
55-64	9.2
65-74	7.7
75-84	4.6
85+	1.5

**Figure 7.2**

## Drowning Deaths

### Age-adjusted Rate by Sex, 1990-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.  
 Vertical break at 1999 (dotted line) indicates coding change from ICD-9 to ICD-10

## HOSPITALIZATIONS

Hospitalization rates for drowning/submersion are typically very low, reflecting the lethality of drowning as a cause of injury death.

Between 1997 and 2007, there were 303 hospitalizations overall for drowning/submersion—27 in 2007. The rates of hospitalization are below 1 case per 100,000 population for each year between since 1997.



## PREVENTION

Drowning can be prevented in many ways including:

- Particularly for young children around pools, active supervision by caretakers is essential. In addition, ensuring appropriate barriers around pools can also reduce risk. While swimming skills can help prevent drowning, teaching young children to swim is not a substitute for active supervision.
- Personal floatation devices (a.k.a. life vests) should be worn in both motorized and non-motorized water craft, as well as for non-boating recreation in rivers and lakes. Oregon statute requires boats to carry U.S. Coast Guard readily-accessible PFDs for each person on board.<sup>21</sup> PFDs are required to be appropriately sized for each person for which they are intended. For children 12 and under, a PFD must be worn at all times on a deck or open cockpit of a vessel while underway.<sup>22</sup>
- As of 2005, Oregon building code requires that all residential outdoor swimming pools, including in-ground, aboveground on on-ground pools, hot tubs or spas shall be provided with a barrier. Pools require four-sided fencing and locking access gates.<sup>23</sup> Where the wall of a dwelling serves as part of the barrier, the pools shall be equipped with a powered safety cover or other means of protection, such as self-closing doors. Spas or hot tubs with a locking safety cover are exempt from the 4-sided fencing rule (Appendix G, 2005 Oregon Residential Specialty Code).
- Extra caution should be used when swimming in cold bodies of water. Cold water can cause an immediate effect of gasping and lack of control, known as swim failure. Cold water can cause drowning even before hypothermia sets in. Don't swim in water colder than 60° F.

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<sup>21</sup> Oregon Revised Statutes, Chapter 830.

<sup>22</sup> This includes both motorized and non-motorized vessels; few exceptions under Oregon law, see summary of state boating laws on Oregon State Marine Board website for further details. Oregon State Marine Board: [www.boatoregon.com/Safety/Lifejacket.html](http://www.boatoregon.com/Safety/Lifejacket.html)

<sup>23</sup> Oregon Residential Specialty Code, 2005.

- Alcohol and water sports do not mix. Avoid alcohol or other intoxicants when engaged in water sports.

A recent study by the Oregon Injury Prevention and Epidemiology Program found that 34% of drowning deaths in Oregon children 15 years of age and younger occurred in swimming pools (the remaining sites included rivers and streams, lakes, canals, ocean, tubs, and not specified).<sup>24</sup> For drowning fatalities in this age group, the type of water body was 6 times more likely to have been a swimming pool for children under 3 years of age. Active supervision of children in and around water bodies is an extremely important factor in preventing drowning fatalities in children.

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<sup>24</sup> <http://www.oregon.gov/DHS/ph/cdsummary/2007/ohd5610.pdf>





## Other Unintentional Injury

Injury surveillance is not limited to the major causes of injury death and hospitalization, and there are numerous causes of injury death and hospitalization that although uncommon, make up a substantial proportion of the injuries that occur in Oregon each year.

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### OTHER INJURY FACTS

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- On average, there are approximately 50 suffocations annually in Oregon.
  - There are on average 32 deaths caused by fire or flame in Oregon per year.
  - More hospitalizations are due to non-traffic bicycle injuries than those due to traffic-related bicycle injuries
- 

This section covers unintentional injuries where the annual rate of mortality is generally less than 2 cases per 100,000. These injuries include deaths due to fires and burns, injury deaths involving machinery, deaths due to natural or environmental causes (e.g. bitten by animals, exposure to excessive heat or cold, natural disasters), and unintentional suffocation deaths. Hospitalizations include injury by cutting/piercing, overexertion, machinery, natural/environmental causes, fire/burns, and firearm injuries.<sup>25</sup>

The rate of unintentional suffocation in Oregon was 1.3 per 100,000 in 2007. The rate of fire and burn mortality was 0.8 deaths per 100,000. Deaths due to natural/environmental causes occurred 0.4 times per 100,000 in 2007, and machinery caused 0.2 injury deaths per 100,000.

For hospitalizations, being struck by/against (such as falling objects) resulted in 11.0 hospitalizations per 100,000 persons in 2007. Non-motor vehicle bicycle (pedal cycle) injury hospitalizations occurred 10.7 times per 100,000 persons. Overexertion caused 7.5 hospitalizations per 100,000

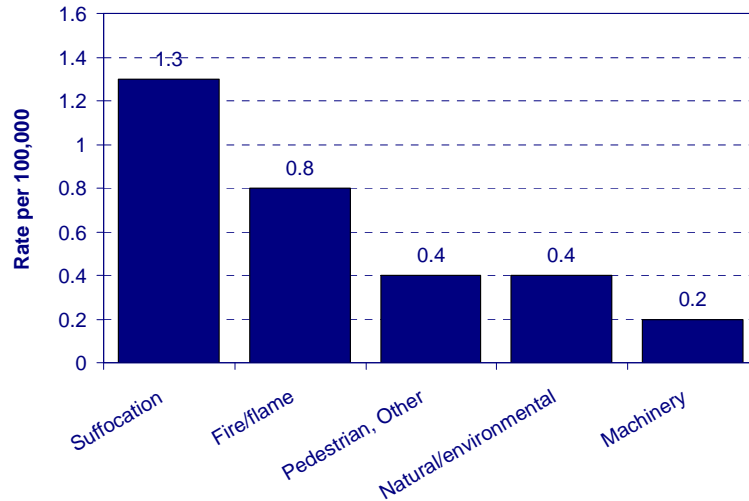
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<sup>25</sup> Detailed tables of causes of injury death by manner and intent can be found in the report appendix.

persons in 2007. Natural or environmental injuries resulted in 5.0 hospitalizations in the same period. Cut/piercing, fire/burn, and unintentional firearm injuries causes 3.6, 4.6, and 1.6 hospitalizations, respectively, per 100,000 persons per year.

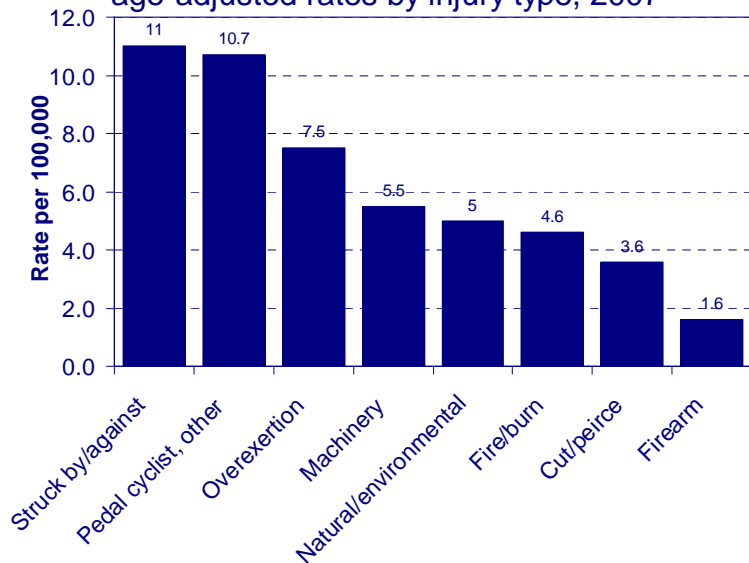
**Figure 8.1**

**Other unintentional injury mortality: age-adjusted rates by injury type, 2007**



**Figure 8.2**

**Other unintentional injury hospitalization: age-adjusted rates by injury type, 2007**



## PREVENTION

### FIRE/BURN INJURIES

- CDC recommends the following tips to reduce fire injuries and deaths:
  - Never leave food unattended on a stove.
  - Keep cooking areas free of flammable objects (such as, potholders and towels).
  - Avoid wearing clothes with long, loose-fitting sleeves when cooking.
  - Never smoke in bed or leave burning cigarettes unattended. Do not empty smoldering ashes in a trash can, and keep ashtrays away from upholstered furniture and curtains.
  - Never place portable space heaters near flammable materials (such as, drapery).
  - Keep all matches and lighters out of reach of children. Store them up high, preferably in a locked cabinet.
  - Install smoke alarms on every floor of the home, including the basement, and particularly near rooms in which people sleep.
  - Use long-life smoke alarms with lithium-powered batteries and hush buttons, which allow persons to stop false alarms quickly. If long-life alarms are not available, use regular alarms, and replace the batteries annually.
  - Test all smoke alarms every month to ensure they work properly.
  - Devise a family fire escape plan and practice it every 6 months. In the plan, describe at least two different ways each family member can escape every room, and designate a safe place in front of the home for family members to meet after escaping a fire.
  - If possible, install or retrofit fire sprinklers into home.

## NON-MOTOR VEHICLE PEDAL CYCLIST INJURIES

In Oregon, traumatic brain injuries (TBI) incurred from non-motor vehicle traffic bicycle crashes (non-traffic crashes) are the 5<sup>th</sup> leading cause of TBI. 74% of bicycle-associated injury hospitalizations are due to non-traffic bicycle injuries. Helmets save lives, and are an effective way to prevent head injury. Whether in traffic or not, helmets should be used to prevent serious injury.

## UNINTENTIONAL FIREARM INJURIES

- Store firearms safely: unloaded and secure. See the Lok-it-Up campaign website for more information:

<http://depts.washington.edu/lokitup/>

- Ask: always ask if there is a firearm where your child plays. See <http://www.paxusa.org/ask/index.html> for more information on the ASK campaign.
- Educate: alert others to the importance of safe firearm storage

## STRUCK BY AGAINST: SPORTS INJURIES

Sports injuries are the leading cause of “struck by/against” injuries. Prevention of sports injuries should focus on safety and preventing head injuries through use of helmets and protective equipment. Helmets protect from brain injury—a potentially serious consequence of sports injuries—and should be used for all contact sports as well as in-line skating, and skateboarding. Children, especially, should wear helmets when engaged in sports activities where impact could result in head injury. For more information, see the CDC’s Heads Up information site for preventing brain injury: [http://www.cdc.gov/ncipc/pub-res/tbi\\_toolkit/patients/preventing.htm](http://www.cdc.gov/ncipc/pub-res/tbi_toolkit/patients/preventing.htm)





## Traumatic Brain Injury

**T**raumatic brain injury (TBI) is defined as any jolt or blow to the head, or a head penetrating injury, disrupting brain functioning. The CDC estimates that nationally 50,000 people die in the US each year as a result of TBI, 235,000 are hospitalized, and 1.1 million are treated and released from emergency departments.<sup>26</sup> Nationally, the leading causes of TBI are falls, motor vehicle traffic crashes, struck by/against objects or persons, and assault.

TBI is a considerable injury problem in public health because of the individual and social impacts resulting from TBI. It is estimated that 5.3 million persons in the US require either life-long or long-term assistance in performing activities in daily living due to TBI, and the direct and indirect medical costs of TBI were estimated at \$60 billion in 2000.<sup>27</sup>

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### TBI FACTS

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- There were over 681 deaths in Oregon associated with TBI in 2007.
  - There were over 3,000 hospitalizations associated with TBI in 2007.
  - Males have higher rates of TBI associated death and hospitalization.
  - Firearms are the most frequent cause of TBI death.
  - Falls are the most frequent cause of TBI hospitalization.
  - TBI was associated with over \$145 million in hospitalization charges in 2007.
- 

Generally, TBIs are considered a contributing cause of death where injury deaths are concerned, and therefore TBI deaths are associated with some of the leading causes of injury death in Oregon (i.e. MVT, Falls). In terms of hospitalizations, TBI is determined through assessing all diagnostic codes listed in hospital discharge data. As a result of these two conditions, TBI is

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<sup>26</sup> Centers for Disease Control, TBI Fact Sheet, [www.cdc.gov/ncipc/tbi/FactSheets/TBI\\_Fact\\_Sheets.htm](http://www.cdc.gov/ncipc/tbi/FactSheets/TBI_Fact_Sheets.htm)

<sup>27</sup> Ibid.

not represented in this report as an independent cause of death or hospitalization, but rather, is associated with the particular mechanism (i.e. MVT, fall, drowning/submersion, etc.) or intent (i.e. unintentional, suicide, homicide) that led to the injury. Therefore, some deaths and hospitalizations reported in this section are also reported in other sections of this report, except as different causes of death and hospitalization.

Deaths associated with TBI have significantly declined in recent years, at the same time that hospitalizations have significantly increased. It is not entirely clear why this pattern has emerged, but due to the nature of TBI (associated with numerous types of injury events), there may likely be multiple factors contributing to the change in incidence—among them, improvements in safety, policies, and medical care.

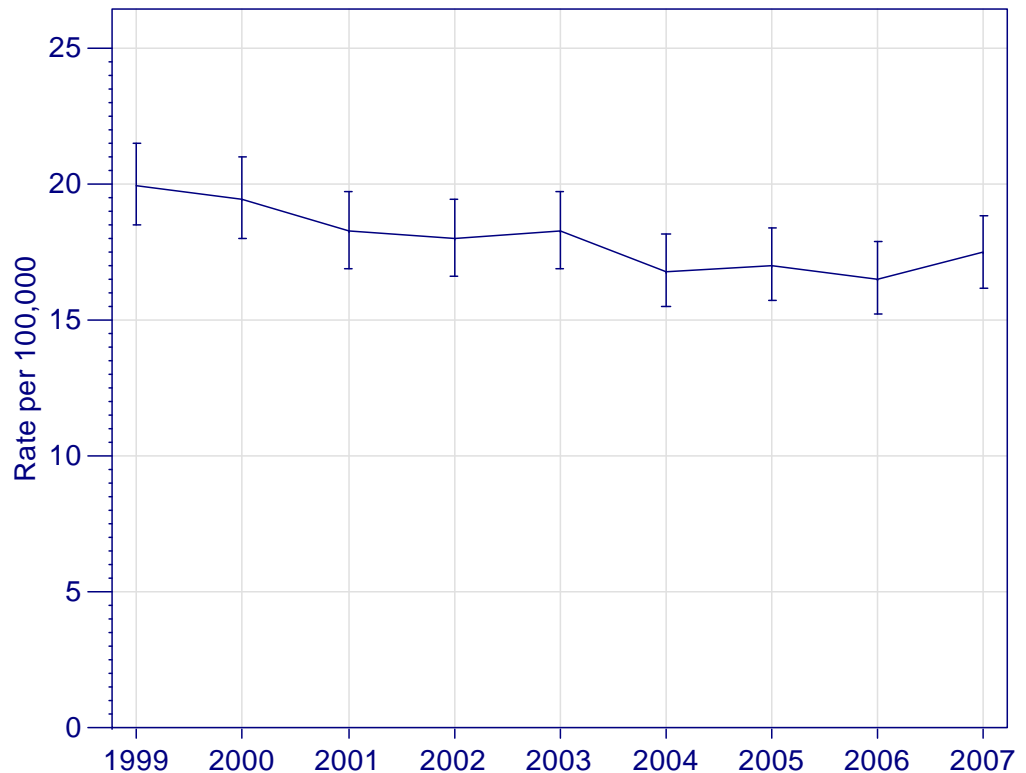


## DEATHS

The age-adjusted mortality rate due to TBI declined between 1999 and 2006, yet increased in 2007 from the 2006 rate (Figure 9.1). The rate in 1999 was 20.0 per 100,000, while the 2007 rate was 17.5 per 100,000. In total, there were 4,506 deaths in Oregon associated with TBI between 1999 and 2007.

**Figure 9.1**

### Traumatic Brain Injury Mortality Age-adjusted Rate, 1999-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

The rate of TBI is higher in males than females, typically three times the female rate from year to year. In 2007, the male rate was 28.7 per 100,000 compared to the female rate of 7.2 per 100,000 (Figure 9.2).

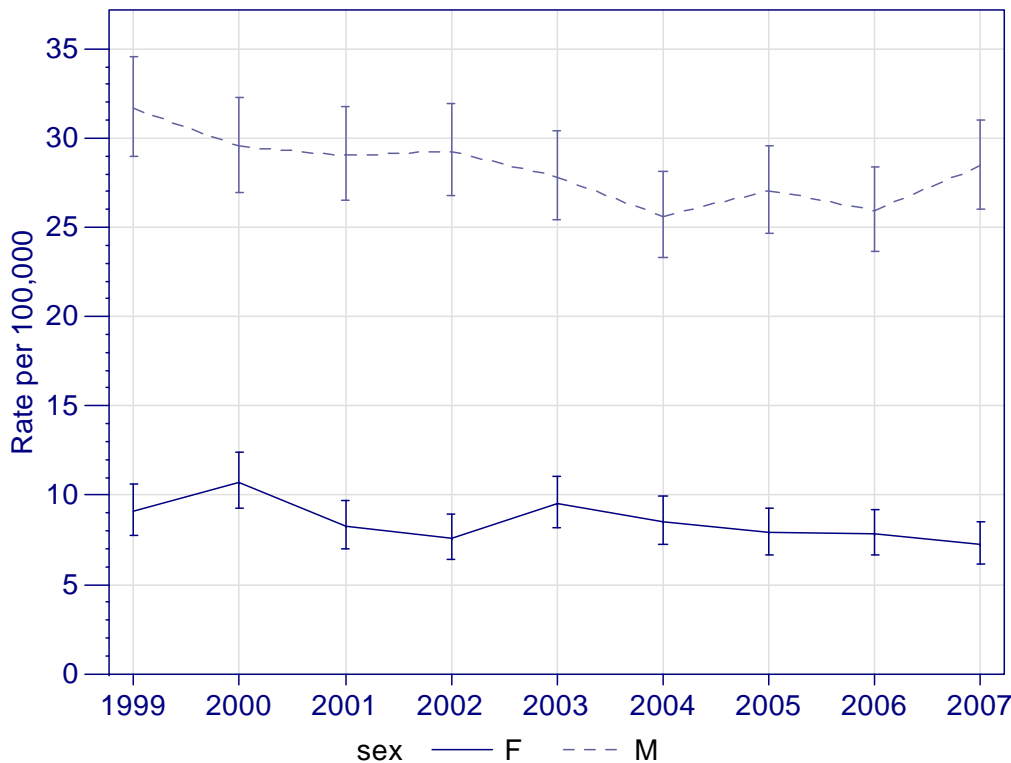
The age distribution of TBI rates shows that rates generally increase with age, and that the highest rates are among males 85 and older (Figure 9.3).

The rate for males in this age group is 137.4 per 100,000 population, while the rate for females in the same age group is 71.0 per 100,000. The high rate among older men generally reflects the higher risk and mortality due to falls, motor vehicle traffic deaths, and firearms, all of which demonstrate higher rates among older men compared to older women.

**Figure 9.2**

## Traumatic Brain Injury Mortality

Age-adjusted rate by sex, 1999-2007



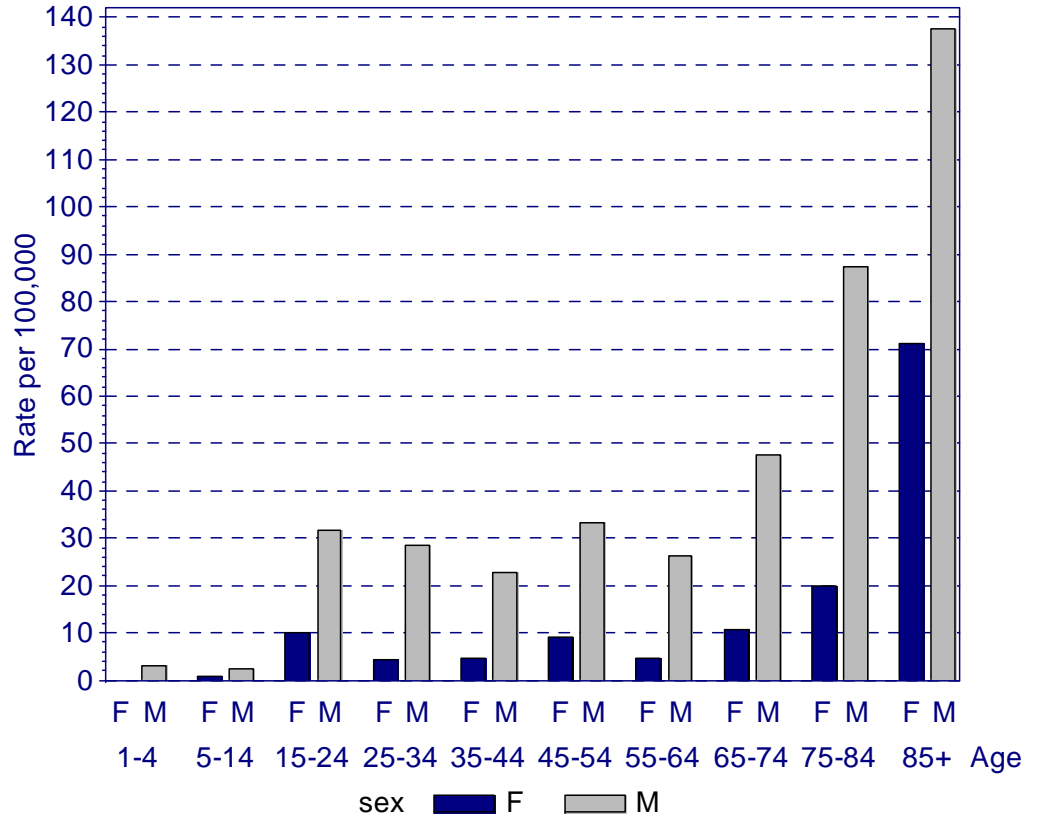
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

The leading causes of TBI indicate that firearms were involved in 43% of all TBI deaths in 2007 (Figure 9.4). 29% of TBI deaths were the result of MVT injury, and 17% were due to falls. The remaining 10% were due to a variety of other causes.

**Figure 9.3**

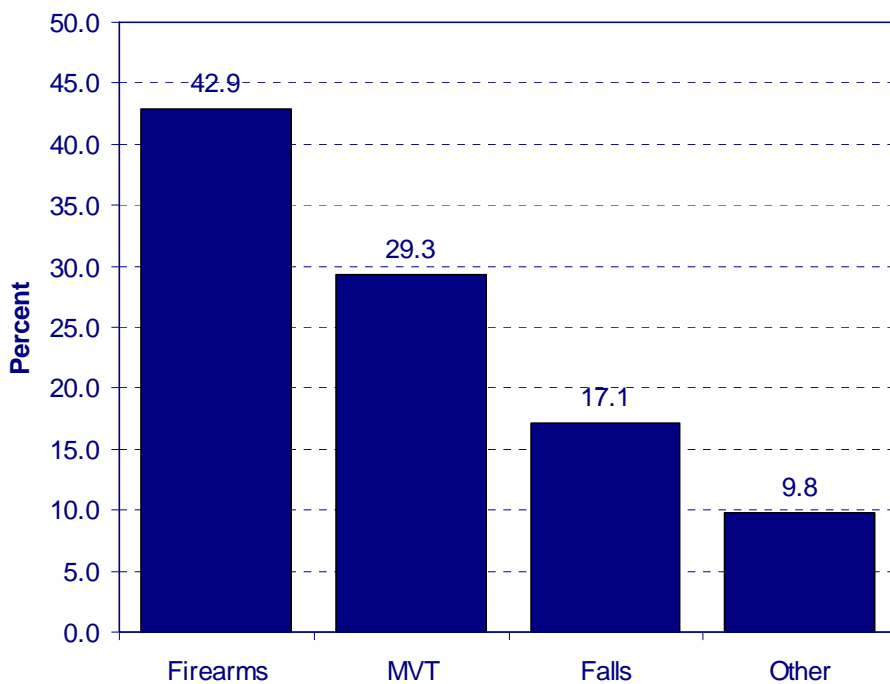
## Traumatic Brain Injury Mortality

Rate by age and sex, 2007



**Figure 9.4**

**Leading mechanisms of traumatic brain injury mortality by percent, 2007**

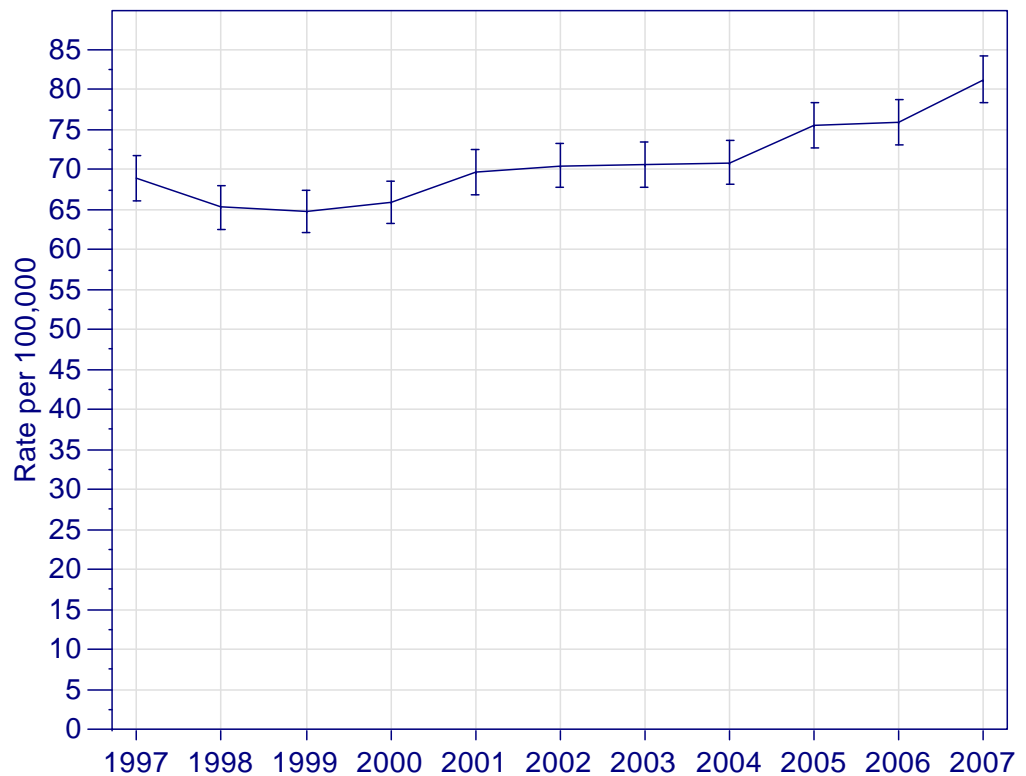


## HOSPITALIZATIONS

TBI-associated hospitalization rates have increased since 1997. The rate in 1999 was 68.9 per 100,000, which increases to 81.2 per 100,000 in 2007 (Figure 9.5).

**Figure 9.5**

### Traumatic Brain Injury Hospitalization Age-adjusted Rate, 1997-2007



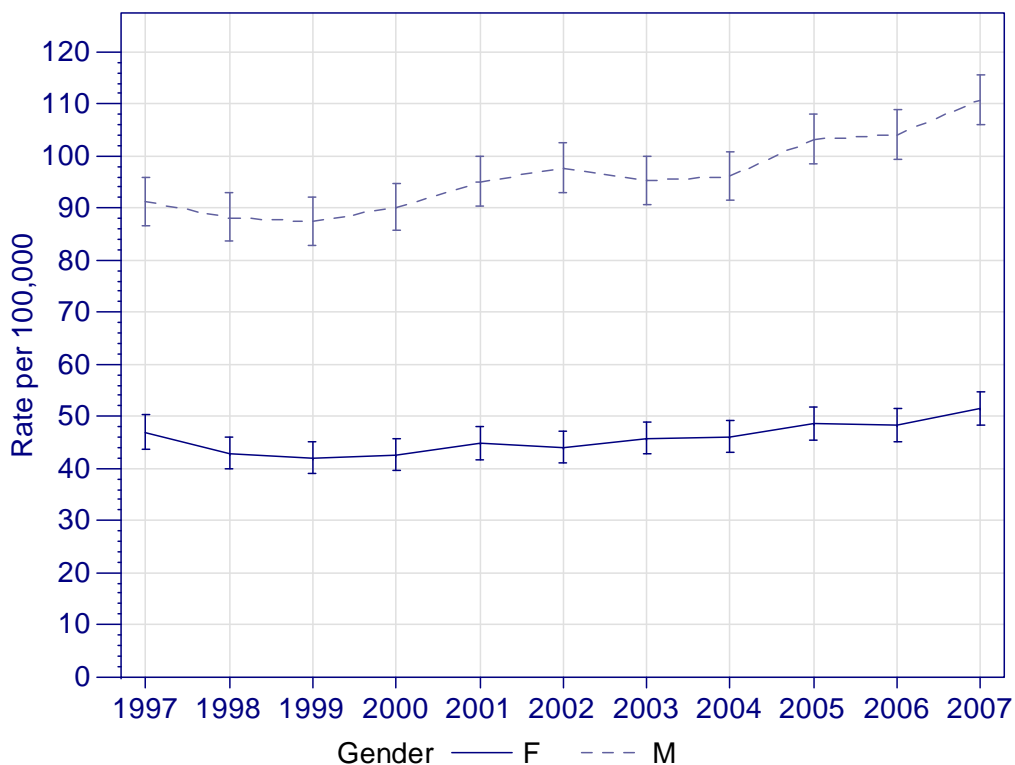
\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

The rate of TBI hospitalization is higher in males than in females. In 2007, the rate for males was 110.8 per 100,000 while the female rate was 51.4 per 100,000 (Figure 9.6).

The highest rates by age occur among those 85 years of age and older. The rate for males is higher than that for females in all age categories (Figure 9.7). Each year, there are more than 3,000 TBI hospitalizations among Oregon residents.

Figure 9.6

## Traumatic Brain Injury Hospitalization Age-adjusted rate by sex, 1997-2007



\*Vertical bars indicate 95% confidence intervals for age-adjusted rate.

Most of the TBI-associated hospitalizations in 2007 involved falls (42%). Motor vehicle traffic hospitalizations were the second leading cause (31%), followed by stuck by/against an object (9%).

**Figure 9.7**

## Traumatic Brain Injury Hospitalization Rate by age and sex, 2007

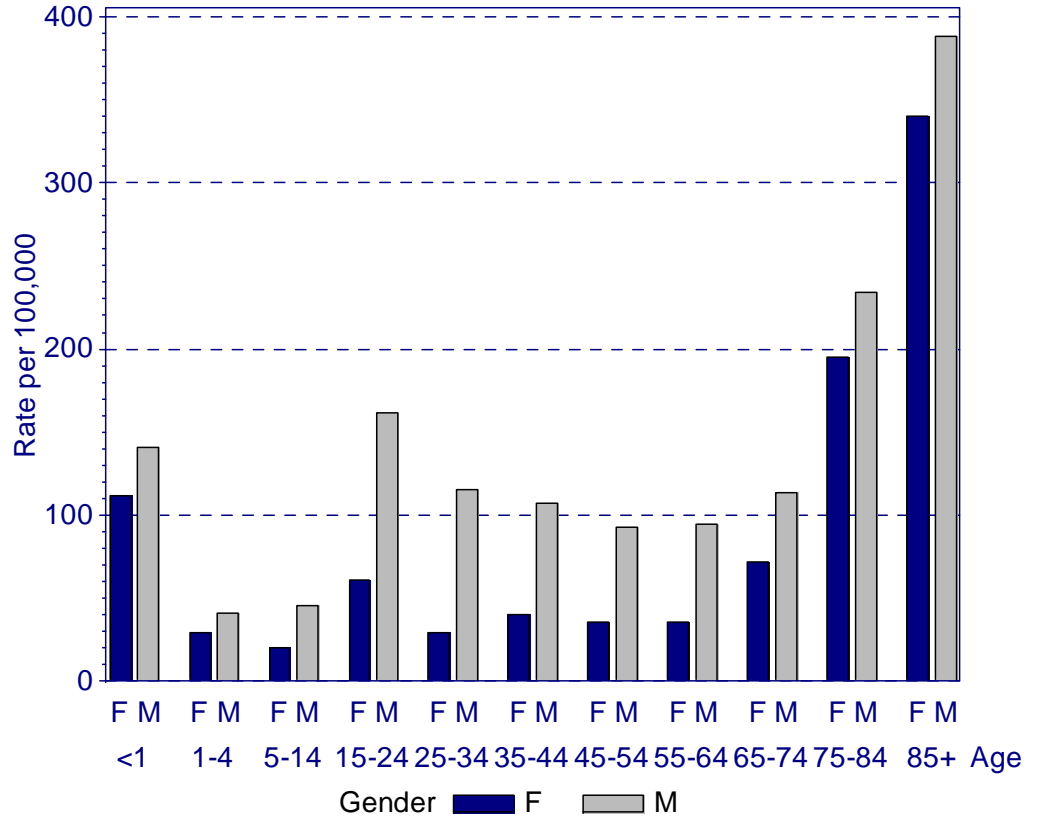
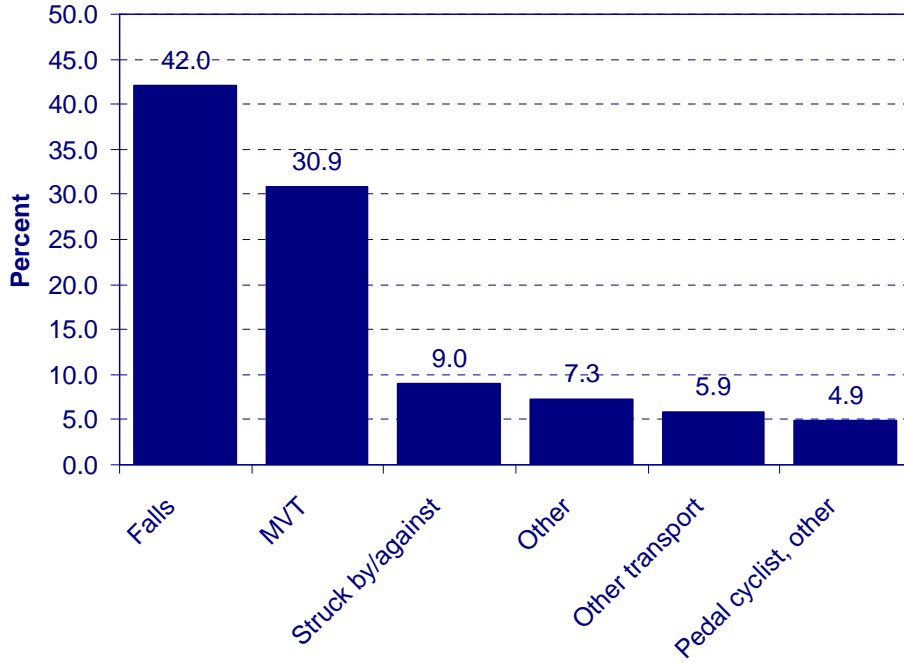


Figure 9.8

Leading mechanisms of traumatic brain injury hospitalization by percent, 2007



## PREVENTION

There are many ways in which the chances of sustaining a traumatic brain injury can be reduced. These include<sup>28</sup>:

- Always wearing a seatbelt while riding or driving in a motor vehicle.
- Never drive under the influence of alcohol.
- Use the correct safety seat, booster, or seatbelt for children. Oregon's laws require that infants ride in rear-facing seats until one year of age **and** 20 lbs. Children over one year **and** between 20 and 40 lbs must be secured with a forward-facing child safety seat up to a minimum of 40 lbs, or the weight limit of the seat. Children weighing over 40 lbs must be secured in a booster seat until they are 8 years of age **or** 4' 9" in height. Children 8 years of age and older, **or** taller than 4' 9" must ride properly secured with the vehicle safety belt system.
- Everyone should wear helmets when engaged in riding bicycles, scooters, motorcycles, all-terrain vehicles, snowmobiles, skateboards, or when using inline skates. Helmets should also be worn when engaged in contact sports (football, ice hockey, boxing), and sports such as baseball and softball when running or batting. Other outdoor activities also require helmets for safety, including skiing and snowboarding, and horseback riding.
- Make living and play spaces safer for children. This includes installing window guards and safety gates that can prevent falls down stairs or through open windows.
- Seniors should undergo clinical assessments for falls at every primary health care visit.
- Seniors should participate in community-sponsored programs such as Tai Chi which are designed to reduce falls through improving gait and balance.
- Conduct environmental fall assessment for all seniors. Make living spaces safer for seniors by removing tripping or stumbling hazards such as throw rugs or clutter in walkways; installing non-slip mats in

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<sup>28</sup> Adapted from CDC prevention recommendations: [www.cdc.gov/ncipc/tbi/Prevention.htm](http://www.cdc.gov/ncipc/tbi/Prevention.htm)

tubs and showers and grab bars next to toilets, tubs, and showers; installing handrails on both sides of stairways; improving lighting in the household.

- Raising community awareness by participating in Brain Injury Awareness Month, in March.

For further information on TBI prevention, see:

- The Brain Injury Recovery Kit: [www.daytimer.com/birk/](http://www.daytimer.com/birk/)
- Understanding Brain Injury, A Guide for Employers: [biaoregon.org/medicalpro.htm](http://biaoregon.org/medicalpro.htm)
- Period of Purple Crying, preventing shaken baby Syndrome and other Infant Abuse: [www.dontshake.com/Subject.aspx?CategoryID=13](http://www.dontshake.com/Subject.aspx?CategoryID=13)
- Heads Up Toolkit for Physicians: [www.cdc.gov/ncipc/tbi/physicians\\_tool\\_kit.htm](http://www.cdc.gov/ncipc/tbi/physicians_tool_kit.htm) and Heads Up: Concussion in Youth Sports: [www.cdc.gov/ConcussionInYouthSports/](http://www.cdc.gov/ConcussionInYouthSports/)
- CDC has published guidelines on evidence-based programs that reduce falls called *Preventing Falls: What Works A CDC Compendium of Effective Community-based Interventions from Around the World* <http://www.cdc.gov/ncipc/preventingfalls/>



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All rates in tables are per 100,000 population. Rates for counts (N) less than 5 are suppressed. Rates based on counts/frequencies less than 20 are not stable, and should be interpreted with caution.

Table 1. Age-adjusted injury mortality rates (per 100,000 population) and injury frequency (N) by year, 2001-2007.

Intent	Cause	Year													
		2001		2002		2003		2004		2005		2006		2007	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Unintentional	Cut/pierce	-	-	1	0.0	3	0.1	1	0.0	1	0.0	2	0.1	1	0.0
	Drowning	42	1.2	38	1.1	46	1.3	59	1.7	55	1.5	68	1.9	66	1.8
	Fall	293	7.9	343	9.1	331	8.6	381	9.6	381	9.4	351	8.5	406	9.6
	Fire/flame	34	1.0	39	1.1	27	0.7	34	0.9	23	0.6	29	0.7	34	0.8
	Hot object/scald	-	-	1	0.0	-	-	1	0.0	1	0.0	1	0.0	1	0.0
	Firearm	11	0.3	9	0.3	4	0.1	7	0.2	3	0.1	2	0.1	8	0.2
	Machinery	13	0.4	15	0.4	8	0.2	13	0.4	11	0.3	10	0.3	8	0.2
	Motor Vehicle traffic	488	13.9	443	12.3	519	14.4	467	12.9	464	12.5	476	12.7	455	12.1
	Pedal cyclist, other	4	0.1	5	0.1	6	0.2	6	0.2	3	0.1	3	0.1	5	0.1
	Pedestrian, other	11	0.3	12	0.3	10	0.3	12	0.3	12	0.3	13	0.3	15	0.4
	Transport (land), other	16	0.5	15	0.4	13	0.4	19	0.5	15	0.4	18	0.5	31	0.8
	Transport, other	28	0.8	37	1.0	34	0.9	24	0.6	30	0.8	32	0.8	29	0.7
	Natural/environmental	15	0.4	19	0.5	13	0.4	17	0.5	20	0.5	13	0.3	15	0.4
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	1	0.0
	Poisoning	144	4.1	199	5.6	232	6.3	224	6.1	262	7.1	310	8.1	363	9.4
	Struck by/against	11	0.3	23	0.6	16	0.5	11	0.3	8	0.2	10	0.3	11	0.3
	Suffocation	50	1.4	55	1.5	37	1.0	62	1.7	46	1.2	69	1.7	55	1.3
	Other specified, classifiable	18	0.5	32	0.9	22	0.6	14	0.4	14	0.4	13	0.4	15	0.4
	Other specified, not elsewhere classifiable	30	0.8	18	0.5	12	0.3	12	0.3	20	0.5	29	0.7	19	0.4
	Not specified	48	1.3	78	2.1	55	1.4	59	1.5	58	1.4	126	3.0	104	2.4

Table 1. Age-adjusted injury mortality rates (per 100,000 population) and injury frequency (N) by year, 2001-2007.

Intent	Cause	Year													
		2001		2002		2003		2004		2005		2006		2007	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Suicide	Cut/pierce	9	0.3	9	0.2	13	0.4	9	0.2	8	0.2	8	0.2	10	0.3
	Drowning	8	0.2	6	0.2	10	0.3	5	0.1	7	0.2	11	0.3	14	0.4
	Fall	10	0.3	14	0.4	11	0.3	11	0.3	12	0.3	14	0.4	16	0.4
	Fire/flame	2	0.1	2	0.1	3	0.1	2	0.1	3	0.1	2	0.0	1	0.0
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	287	8.1	291	8.1	329	8.9	300	8.0	320	8.4	307	8.0	327	8.3
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	4	0.1	-	-	2	0.1	2	0.1	2	0.1	-	-	3	0.1
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	93	2.6	100	2.8	116	3.2	116	3.1	115	3.0	127	3.3	116	2.9
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	103	2.9	86	2.4	98	2.7	101	2.8	86	2.4	97	2.6	102	2.7
	Other specified, classifiable	4	0.1	5	0.1	5	0.1	5	0.1	2	0.1	2	0.1	2	0.0
	Other specified, not elsewhere classifiable	4	0.1	2	0.1	2	0.1	3	0.1	4	0.1	2	0.0	8	0.2
	Not specified	-	-	2	0.1	-	-	1	0.0	-	-	3	0.1	5	0.1

Table 1. Age-adjusted injury mortality rates (per 100,000 population) and injury frequency (N) by year, 2001-2007.

Intent	Cause	Year													
		2001		2002		2003		2004		2005		2006		2007	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Homicide	Cut/pierce	21	0.6	13	0.4	9	0.2	16	0.5	19	0.5	19	0.5	10	0.2
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fall	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/flame	-	-	4	0.1	-	-	2	0.1	1	0.0	-	-	1	0.0
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	49	1.4	64	1.8	51	1.4	64	1.8	55	1.5	60	1.7	42	1.1
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	2	0.1	1	0.0	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	1	0.0	-	-	-	-	-	-	-	-	1	0.0	2	0.1
	Struck by/against	2	0.1	2	0.1	4	0.1	3	0.1	12	0.3	1	0.0	2	0.1
	Suffocation	11	0.3	7	0.2	8	0.2	3	0.1	4	0.1	8	0.2	4	0.1
	Other specified, classifiable	4	0.1	3	0.1	-	-	2	0.1	7	0.2	9	0.3	-	-
	Other specified, not elsewhere classifiable	6	0.2	1	0.0	2	0.1	6	0.2	2	0.1	6	0.2	5	0.1
	Not specified	11	0.3	11	0.3	17	0.5	16	0.5	3	0.1	7	0.2	14	0.4

Table 2. Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+		
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
Unintentional	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Drowning	-	-	5	2.7	3	-	14	2.9	8	1.5	12	2.3	9	1.6	6	1.3	5	2.0	3	-	1	-	
	Fall	-	-	-	-	2	-	2	-	4	-	12	2.3	21	3.7	17	3.7	33	13.2	111	66.6	204	278.2	
	Fire/flame	1	-	2	-	4	-	-	-	-	-	-	-	6	1.1	7	1.5	2	-	9	5.4	3	-	
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
	Firearm	-	-	-	-	-	-	2	-	2	-	-	-	2	-	-	-	1	-	1	-	-	-	
	Machinery	-	-	-	-	-	-	-	-	1	-	2	-	1	-	2	-	2	-	-	-	-	-	
	Motor Vehicle traffic	-	-	1	-	9	1.9	110	22.6	65	12.4	66	12.9	68	12.1	38	8.3	44	17.7	36	21.6	18	24.5	
	Pedal cyclist, other	-	-	-	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	1	-	-	-	
	Pedestrian, other	-	-	1	-	-	-	3	-	-	-	1	-	4	-	3	-	2	-	1	-	-	-	
	Transport (land), other	-	-	-	-	-	-	9	1.8	2	-	4	-	6	1.1	1	-	5	2.0	3	-	1	-	
	Transport, other	-	-	2	-	1	-	3	-	2	-	2	-	5	0.9	7	1.5	4	-	3	-	-	-	
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	1	-	3	-	4	-	2	-	3	-	2	-	
	Overexertion	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Poisoning	1	-	-	-	3	-	30	6.2	72	13.7	79	15.5	130	23.2	39	8.5	3	-	3	-	3	-	
	Struck by/against	-	-	-	-	1	-	-	-	2	-	1	-	5	0.9	1	-	-	-	1	-	-	-	
	Suffocation	5	10.0	-	-	1	-	2	-	2	-	1	-	6	1.1	9	2.0	6	2.4	9	5.4	14	19.1	
	Other specified, classifiable	-	-	-	-	-	-	1	-	2	-	2	-	5	0.9	3	-	1	-	-	-	1	-	
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	1	-	2	-	-	-	1	-	6	1.3	1	-	1	-	7	9.5	
	Not specified	-	-	-	-	1	-	-	-	-	-	-	-	6	1.1	4	-	2	-	21	12.6	70	95.5	

Table 2. Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Suicide	Cut/pierce	-	-	-	-	-	-	-	-	-	-	3	-	6	1.1	-	-	1	-	-	-	-	-
	Drowning	-	-	-	-	-	-	1	-	5	1.0	4	-	2	-	-	-	2	-	-	-	-	-
	Fall	-	-	-	-	-	-	2	-	4	-	1	-	3	-	4	-	2	-	-	-	-	-
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	1	-	30	6.2	44	8.4	43	8.4	69	12.3	51	11.2	32	12.8	36	21.6	21	28.6
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	4	-	10	1.9	24	4.7	38	6.8	23	5.0	10	4.0	4	-	3	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	17	3.5	24	4.6	23	4.5	18	3.2	12	2.6	5	2.0	1	-	2	-
	Other specified, classifiable	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	2	-	3	-	2	-	-	-	1	-	-	-
	Not specified	-	-	-	-	-	-	1	-	1	-	2	-	-	-	-	-	1	-	-	-	-	-

Table 2. Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+		
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
Homicide	Cut/pierce	-	-	-	-	-	-	1	-	5	1.0	-	-	3	-	1	-	-	-	-	-	-	-	
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Fall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Firearm	-	-	-	-	1	-	8	1.6	13	2.5	6	1.2	9	1.6	3	-	1	-	1	-	1	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	1	-	-	-
	Other specified, classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	2	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1	-
	Not specified	1	-	2	-	-	-	1	-	2	-	3	-	3	-	1	-	1	-	-	-	-	-	-

Table 3. Female Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Unintentional	Total	3	-	4	-	8	3.5	43	18.1	39	15.3	50	20.0	88	30.9	50	21.5	31	23.7	90	94.2	214	447.1
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	2	-	-	-	-	-	3	-	1	-	2	-	2	-	2	-	-	-	1	-
	Fall	-	-	-	-	-	-	-	-	-	-	3	-	4	-	4	-	8	6.1	53	55.5	143	298.7
	Fire/flame	1	-	-	-	3	-	-	-	-	-	-	-	4	-	1	-	-	-	6	6.3	2	-
	Firearm	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	1	-	3	-	32	13.5	11	4.3	16	6.4	18	6.3	15	6.4	13	9.9	11	11.5	5	10.4
	Pedestrian, other	-	-	-	-	-	-	1	-	-	-	-	-	1	-	1	-	2	-	1	-	-	-
	Transport (land), other	-	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	1	-	-	-	1	-
	Transport, other	-	-	1	-	-	-	1	-	-	-	1	-	1	-	2	-	1	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	2	-
	Poisoning	-	-	-	-	1	-	5	2.1	23	9.0	28	11.2	52	18.3	17	7.3	-	-	1	-	2	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Suffocation	2	-	-	-	1	-	-	-	1	-	-	-	2	-	2	-	3	-	5	5.2	7	14.6
	Other specified, classifiable	-	-	-	-	-	-	-	-	1	-	-	-	2	-	2	-	-	-	-	-	1	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	5	10.4
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	12	12.6	45	94.0

Table 3. Female Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Suicide	Total	-	-	-	-	-	-	13	5.5	16	6.3	26	10.4	40	14.1	19	8.2	13	9.9	3	-	4	-
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-
	Fall	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	1	-	-	-	-	-
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	3	-	6	2.4	8	3.2	18	6.3	8	3.4	5	3.8	1	-	1	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	4	-	11	4.4	15	5.3	8	3.4	5	3.8	1	-	2	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	9	3.8	5	2.0	3	-	4	-	1	-	1	-	1	-	1	-
	Other specified, classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-

Table 3. Female Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Homicide	Total	2	-	-	-	1	-	6	2.5	2	-	2	-	2	-	2	-	-	-	2	-	-	-
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	3	-	1	-	1	-	2	-	1	-	-	-	1	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-
	Other specified, classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not specified	1	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-

Table 3. Female Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Undetermined	Total	-	-	-	-	-	-	2	-	4	-	24	9.6	17	6.0	11	4.7	1	-	1	-	-	-
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-
	Fall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	2	-	3	-	21	8.4	14	4.9	11	4.7	1	-	-	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-

Table 4. Male Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Unintentional	Total	4	-	7	7.3	17	7.1	134	53.6	127	47.2	133	51.0	192	69.6	99	44.3	82	69.4	116	163.3	111	435.9
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Drowning	-	-	3	-	3	-	14	5.6	5	1.9	11	4.2	7	2.5	4	-	3	-	3	-	-	-
	Fall	-	-	-	-	2	-	2	-	4	-	9	3.5	17	6.2	13	5.8	25	21.2	58	81.7	61	239.5
	Fire/flame	-	-	2	-	1	-	-	-	-	-	-	-	2	-	6	2.7	2	-	3	-	1	-
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
	Firearm	-	-	-	-	-	-	1	-	2	-	-	-	2	-	-	-	1	-	1	-	-	-
	Machinery	-	-	-	-	-	-	-	-	1	-	2	-	1	-	2	-	2	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	6	2.5	78	31.2	54	20.1	50	19.2	50	18.1	23	10.3	31	26.3	25	35.2	13	51.1
	Pedal cyclist, other	-	-	-	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	1	-	-	-
	Pedestrian, other	-	-	1	-	-	-	2	-	-	-	1	-	3	-	2	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	6	2.4	2	-	4	-	5	1.8	1	-	4	-	3	-	-	-
	Transport, other	-	-	1	-	1	-	2	-	2	-	1	-	4	-	5	2.2	3	-	3	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	3	-	2	-	1	-	3	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	1	-	-	-	2	-	25	10.0	49	18.2	51	19.6	78	28.3	22	9.8	3	-	2	-	1	-
	Struck by/against	-	-	-	-	1	-	-	-	2	-	1	-	4	-	1	-	-	-	1	-	-	-
	Suffocation	3	-	-	-	-	-	2	-	1	-	1	-	4	-	7	3.1	3	-	4	-	7	27.5
	Other specified, classifiable	-	-	-	-	-	-	1	-	1	-	2	-	3	-	1	-	1	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	1	-	2	-	-	-	1	-	5	2.2	1	-	-	-	2	-
	Not specified	-	-	-	-	1	-	-	-	-	-	-	-	6	2.2	3	-	2	-	9	12.7	25	98.2

Table 4. Male Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Suicide	Total	-	-	-	-	1	-	45	18.0	73	27.1	76	29.2	100	36.3	74	33.1	40	33.9	39	54.9	22	86.4
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	3	-	5	1.8	-	-	1	-	-	-	-	-
	Drowning	-	-	-	-	-	-	1	-	5	1.9	1	-	2	-	-	-	1	-	-	-	-	-
	Fall	-	-	-	-	-	-	2	-	3	-	1	-	2	-	3	-	1	-	-	-	-	-
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	1	-	27	10.8	38	14.1	35	13.4	51	18.5	43	19.2	27	22.9	35	49.3	20	78.5
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	4	-	6	2.2	13	5.0	23	8.3	15	6.7	5	4.2	3	-	1	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	8	3.2	19	7.1	20	7.7	14	5.1	11	4.9	4	-	-	-	1	-
	Other specified, classifiable	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	2	-	2	-	1	-	-	-	1	-	-	-
	Not specified	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1	-	-	-	-	-

Table 4. Male Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+		
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
Homicide	Total	-	-	3	-	1	-	7	2.8	19	7.1	9	3.5	16	5.8	3	-	2	-	-	-	-	1	-
	Cut/pierce	-	-	-	-	-	-	1	-	5	1.9	-	-	3	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	1	-	5	2.0	12	4.5	5	1.9	7	2.5	2	-	1	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
	Other specified, classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1	-
	Not specified	-	-	2	-	-	-	-	-	2	-	2	-	3	-	1	-	1	-	-	-	-	-	-

Table 4. Male Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Undetermined	Total	1	-	1	-	-	-	5	2.0	12	4.5	13	5.0	16	5.8	9	4.0	-	-	3	-	1	-
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	1	-	-	-	1	-	1	-	1	-	-	-	-	-	-	-
	Fall	-	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
	Hot object/scald	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	1	-	-	-	1	-	9	3.3	9	3.5	6	2.2	7	3.1	-	-	2	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Suffocation	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, classifiable	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	2	-	2	-	5	1.8	-	-	-	-	-	-	-	1

Table 4. Male Injury mortality by age group (rate per 100,000 population and frequency), 2007.

Intent	Cause	<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Legal/War	Total	-	-	-	-	-	-	1	-	1	-	3	-	2	-	-	-	-	-	-	-	-	-
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/flame	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	1	-	1	-	3	-	2	-	-	-	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor Vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport (land), other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified, not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5. Age-adjusted injury hospitalization rates (per 100,000 population) and injury frequency (N) by year, 2001-2007.

Intent	Mechanism	2001		2002		2003		2004		2005		2006		2007	
		N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate
Unintentional	Total	14486	407.0	14755	407.5	14960	408.4	14798	397.7	14675	387.2	15084	389.6	15374	391.2
	Cut/pierce	251	7.2	187	5.3	216	6.1	184	5.1	177	4.9	169	4.6	131	3.5
	Drowning	29	0.8	29	0.8	37	1.0	18	0.5	21	0.6	33	0.9	27	0.7
	Falls	7955	229	8214	233	8274	233	8370	234	8288	229	8642	235	8603	230
	Fire/burn	190	5.5	179	5.1	174	4.9	178	5.0	141	3.9	126	3.4	174	4.7
	Firearm	53	1.5	57	1.6	51	1.4	50	1.4	44	1.2	58	1.6	59	1.6
	Machinery	173	5.0	169	4.8	202	5.7	217	6.1	179	4.9	214	5.8	211	5.6
	Motor vehicle traffic	2379	68.5	2364	67.2	2313	65.1	2213	61.9	2280	62.9	2313	62.8	2222	59.5
	Natural/environmental	231	6.7	235	6.7	252	7.1	247	6.9	184	5.1	180	4.9	190	5.1
	Not elsewhere classifiable	43	1.2	52	1.5	40	1.1	22	0.6	35	1.0	45	1.2	54	1.4
	Not specified	190	5.5	197	5.6	229	6.4	248	6.9	200	5.5	211	5.7	218	5.8
	Other specified	271	7.8	277	7.9	295	8.3	278	7.8	253	7.0	302	8.2	267	7.1
	Overexertion	407	11.7	418	11.9	379	10.7	357	10.0	321	8.9	288	7.8	296	7.9
	Pedal cyclist, other	271	7.8	310	8.8	307	8.6	333	9.3	306	8.4	296	8.0	395	10.6
	Pedestrian, other	37	1.1	36	1.0	42	1.2	47	1.3	33	0.9	36	1.0	24	0.6
	Poisoning	788	22.7	849	24.1	984	27.7	891	24.9	944	26.1	1038	28.2	1266	33.9
	Struck by/against	506	14.6	414	11.8	418	11.8	440	12.3	461	12.7	414	11.2	408	10.9
	Suffocation	40	1.2	78	2.2	51	1.4	53	1.5	53	1.5	33	0.9	49	1.3
	Transport, other	672	19.4	690	19.6	696	19.6	652	18.2	755	20.8	686	18.6	780	20.9

Table 5. Age-adjusted injury hospitalization rates (per 100,000 population) and injury frequency (N) by year, 2001-2007.

Intent	Mechanism	2001		2002		2003		2004		2005		2006		2007	
		N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate
Self-inflicted	Total	1852	53.3	1826	52.2	1828	51.5	1986	55.8	1897	52.9	2014	55.2	2247	60.8
	Cut/pierce	76	2.2	75	2.1	74	2.1	83	2.3	78	2.2	65	1.8	97	2.6
	Drowning	1	-	1	-	-	-	2	-	-	-	-	-	1	-
	Falls	16	0.5	13	0.4	6	0.2	12	0.3	8	0.2	9	0.2	9	0.2
	Fire/burn	-	-	4	-	2	-	2	-	2	-	1	-	2	-
	Firearm	29	0.8	30	0.9	31	0.9	33	0.9	28	0.8	28	0.8	35	0.9
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	3	-	-	-	7	0.2	4	-	1	-	3	-	4	-
	Natural/environmental	1	-	1	-	1	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	6	0.2	4	-	7	0.2	6	0.2	6	0.2	12	0.3	6	0.2
	Not specified	2	-	-	-	2	-	2	-	-	-	3	-	-	-
	Other specified	5	0.1	3	-	3	-	4	-	5	0.1	3	-	6	0.2
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	1701	49.0	1681	47.8	1688	47.5	1829	51.1	1758	48.5	1882	51.1	2078	55.6
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	12	0.3	14	0.4	7	0.2	9	0.3	11	0.3	8	0.2	9	0.2
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5. Age-adjusted injury hospitalization rates (per 100,000 population) and injury frequency (N) by year, 2001-2007.

Intent	Mechanism	2001		2002		2003		2004		2005		2006		2007	
		N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate
Assault	Total	486	14.0	463	13.2	465	13.2	512	14.4	523	14.7	576	16.0	612	16.9
	Cut/pierce	114	3.3	100	2.8	97	2.7	117	3.3	134	3.7	127	3.5	118	3.2
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	1	-
	Falls	3	-	1	-	2	-	4	-	2	-	2	-	2	-
	Fire/burn	1	-	1	-	-	-	3	-	2	-	1	-	-	-
	Firearm	46	1.3	51	1.4	74	2.1	73	2.0	50	1.4	54	1.5	58	1.6
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	2	-	4	-	3	-	3	-	5	0.1	2	-	3	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	27	0.8	20	0.6	20	0.6	20	0.6	29	0.8	19	0.5	26	0.7
	Not specified	56	1.6	42	1.2	44	1.2	50	1.4	50	1.4	46	1.2	73	2.0
	Other specified	6	0.2	12	0.3	8	0.2	9	0.3	8	0.2	10	0.3	10	0.3
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	1	-	1	-	4	-	-	-	1	-	2	-	-	-
	Struck by/against	228	6.6	231	6.6	212	6.0	230	6.4	239	6.6	313	8.5	321	8.6
	Suffocation	2	-	-	-	1	-	3	-	3	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5. Age-adjusted injury hospitalization rates (per 100,000 population) and injury frequency (N) by year, 2001-2007.

Intent	Mechanism	2001		2002		2003		2004		2005		2006		2007	
		N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate
Other	Total	15	0.4	16	0.5	13	-	13	0.4	22	0.6	18	0.5	16	0.4
	Cut/pierce	-	-	1	-	-	-	-	-	-	-	1	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	7	0.2	6	0.2	4	-	4	-	14	0.4	8	0.2	4	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	-	-	-	-	1	-	-	-	-	-	1	-	-	-
	Not specified	-	-	-	-	-	-	1	-	1	-	-	-	2	-
	Other specified	-	-	-	-	-	-	-	-	-	-	1	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	8	0.2	9	0.3	8	0.2	8	0.2	7	0.2	7	0.2	10	0.3
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5. Age-adjusted injury hospitalization rates (per 100,000 population) and injury frequency (N) by year, 2001-2007.

Intent	Mechanism	2001		2002		2003		2004		2005		2006		2007	
		N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate	N	Adjusted Rate
Undetermined	Total	251	7.2	234	6.6	213	6.0	235	6.6	169	4.6	216	5.8	206	5.4
	Cut/pierce	5	0.1	5	0.1	3	-	3	-	3	-	6	0.2	2	-
	Drowning	1	-	-	-	1	-	-	-	1	-	-	-	-	-
	Falls	5	0.1	7	0.2	4	-	4	-	3	-	6	0.2	3	-
	Fire/burn	1	-	-	-	3	-	1	-	1	-	-	-	-	-
	Firearm	19	0.5	15	0.4	12	0.3	13	0.4	8	0.2	14	0.4	15	0.4
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	3	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	1	-	1	-
	Not elsewhere classifiable	5	0.1	6	0.2	3	-	2	-	1	-	1	-	4	-
	Not specified	8	0.2	9	0.3	7	0.2	11	0.3	6	0.2	10	0.3	2	-
	Other specified	-	-	1	-	1	-	1	-	1	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	207	6.0	191	5.4	178	5.0	200	5.6	141	3.9	177	4.8	179	4.8
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	1	-	-	-	1	-	1	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6. Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

		Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
Intent	Mechanism	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Unintentional	Total	91	182.0	360	191.6	713	151.8	1444	296.3	1210	230.9	1383	270.7	1771	316.2	1736	380.3	1469	589.8	2586	1553	2611	3561		
	Cut/pierce	-	-	4	-	11	2.3	18	3.7	35	6.7	26	5.1	16	2.9	12	2.6	4	-	5	3.0	-	-		
	Drowning	1	-	13	6.9	5	1.1	2	-	3	-	-	-	2	-	1	-	-	-	-	-	-	-		
	Falls	41	82.0	113	60.1	294	62.6	280	57.5	298	56.9	402	78.7	628	112.1	935	204.8	1018	408.7	2195	1318	2399	3271		
	Fire/burn	6	12.0	22	11.7	20	4.3	18	3.7	14	2.7	21	4.1	26	4.6	28	6.1	7	2.8	8	4.8	4	-		
	Firearm	-	-	1	-	-	-	22	4.5	10	1.9	11	2.2	3	-	6	1.3	2	-	3	-	1	-		
	Machinery	-	-	2	-	1	-	23	4.7	41	7.8	44	8.6	44	7.9	30	6.6	12	4.8	13	7.8	1	-		
	Motor vehicle traffic	4	-	22	11.7	104	22.1	548	112.5	338	64.5	339	66.3	351	62.7	244	53.4	134	53.8	98	58.8	40	54.5		
	Natural/environmental	1	-	5	2.7	14	3.0	24	4.9	22	4.2	26	5.1	40	7.1	23	5.0	11	4.4	11	6.6	13	17.7		
	Not elsewhere classifiable	-	-	1	-	2	-	5	1.0	6	1.1	4	-	7	1.2	10	2.2	9	3.6	7	4.2	3	-		
	Not specified	7	14.0	9	4.8	8	1.7	12	2.5	11	2.1	19	3.7	26	4.6	28	6.1	26	10.4	38	22.8	34	46.4		
	Other specified	12	24.0	29	15.4	28	6.0	25	5.1	28	5.3	31	6.1	45	8.0	22	4.8	15	6.0	22	13.2	10	13.6		
	Overexertion	1	-	1	-	8	1.7	29	6.0	35	6.7	41	8.0	38	6.8	56	12.3	30	12.0	34	20.4	23	31.4		
	Pedal cyclist, other	-	-	9	4.8	66	14.0	68	14.0	61	11.6	57	11.2	67	12.0	38	8.3	20	8.0	7	4.2	2	-		
	Pedestrian, other	-	-	3	-	1	-	3	-	-	-	4	-	2	-	5	1.1	2	-	2	-	2	-		
	Poisoning	9	18.0	99	52.7	31	6.6	130	26.7	130	24.8	182	35.6	246	43.9	178	39.0	119	47.8	100	60.0	42	57.3		
	Struck by/against	3	-	10	5.3	60	12.8	70	14.4	57	10.9	58	11.4	63	11.2	37	8.1	24	9.6	12	7.2	14	19.1		
	Suffocation	6	12.0	10	5.3	2	-	1	-	1	-	2	-	4	-	4	-	4	-	6	3.6	9	12.3		
	Transport, other	-	-	7	3.7	58	12.3	166	34.1	120	22.9	116	22.7	163	29.1	79	17.3	32	12.8	25	15.0	14	19.1		

Table 6. Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

Intent	Mechanism	Age group																					
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+	
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Self-inflicted	Total	-	-	-	-	50	10.6	499	102.4	489	93.3	507	99.2	454	81.1	155	34.0	44	17.7	34	20.4	15	20.5
	Cut/pierce	-	-	-	-	-	-	21	4.3	25	4.8	19	3.7	19	3.4	5	1.1	2	-	2	-	4	-
	Drowning	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	2	-	3	-	3	-	1	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	8	1.6	7	1.3	5	1.0	5	0.9	5	1.1	1	-	3	-	1	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	3	-	1	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	-	-	-	-	-	-	3	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified	-	-	-	-	-	-	1	-	2	-	-	-	3	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	48	10.2	463	95.0	447	85.3	475	93.0	422	75.3	144	31.5	41	16.5	29	17.4	9	12.3
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	2	-	1	-	2	-	1	-	1	-	1	-	-	-	-	-	1	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6. Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

Intent	Mechanism	Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Assault	Total	5	10.0	3	-	14	3.0	179	36.7	146	27.9	140	27.4	88	15.7	29	6.4	3	-	4	-	1	-	-	-
	Cut/pierce	-	-	-	-	3	-	45	9.2	24	4.6	26	5.1	13	2.3	6	1.3	-	-	1	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	3	-	20	4.1	23	4.4	8	1.6	1	-	2	-	1	-	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	1	-	2	-	1	-	6	1.2	3	-	4	-	6	1.1	1	-	1	-	1	-	1	-	-	-
	Not specified	2	-	-	-	1	-	13	2.7	20	3.8	20	3.9	12	2.1	5	1.1	-	-	-	-	-	-	-	-
	Other specified	-	-	1	-	2	-	1	-	2	-	3	-	1	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	2	-	-	-	4	-	93	19.1	72	13.7	79	15.5	52	9.3	15	3.3	1	-	2	-	1	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6. Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

Intent	Mechanism	Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Other	Total	-	-	-	-	1	-	-	-	-	-	2	-	5	1.0	5	0.9	2	-	1	-	-	-	-	-
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	2	-	3	-	4	-	-	-	1	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6. Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

		Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
Intent	Mechanism	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Undetermined	Total	1	-	1	-	9	1.9	43	8.8	40	7.6	30	5.9	38	6.8	29	6.4	10	4.0	3	-	2	-		
	Cut/pierce	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	1	-	4	-	5	1.0	2	-	2	-	-	-	-	-	-	-	-	-	1	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	1	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	1	-	7	1.5	35	7.2	32	6.1	27	5.3	34	6.1	29	6.4	10	4.0	3	-	1	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 7. Female Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

		Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
Intent	Mechanism	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Unintentional	Total	32	131.6	142	154.7	222	96.7	400	168.5	326	127.8	460	183.8	716	251.8	861	369.8	870	664.2	1803	1887	1953	4080		
	Cut/pierce	-	-	-	-	7	3.0	3	-	4	-	5	2.0	4	-	-	-	-	-	1	-	2	-	-	-
	Drowning	1	-	5	5.4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	14	57.6	47	51.2	95	41.4	67	28.2	75	29.4	134	53.5	297	104.4	547	234.9	655	500.0	1577	1651	1817	3796		
	Fire/burn	-	-	8	8.7	7	3.0	5	2.1	4	-	6	2.4	8	2.8	6	2.6	3	-	3	-	3	-	2	-
	Firearm	-	-	-	-	-	-	1	-	1	-	1	-	1	-	-	-	-	-	1	-	1	-	-	-
	Machinery	-	-	1	-	1	-	1	-	-	-	3	-	8	2.8	-	-	1	-	1	-	1	-	-	-
	Motor vehicle traffic	3	-	9	9.8	31	13.5	180	75.8	105	41.2	125	49.9	117	41.1	88	37.8	61	46.6	57	59.7	22	46.0		
	Natural/environmental	1	-	3	-	6	2.6	9	3.8	10	3.9	11	4.4	18	6.3	14	6.0	2	-	6	6.3	10	20.9		
	Not elsewhere classifiable	-	-	-	-	-	-	2	-	2	-	1	-	3	-	4	-	5	3.8	5	5.2	2	-		
	Not specified	1	-	1	-	3	-	3	-	5	2.0	4	-	13	4.6	17	7.3	18	13.7	22	23.0	19	39.7		
	Other specified	6	24.7	12	13.1	9	3.9	8	3.4	8	3.1	10	4.0	14	4.9	6	2.6	6	4.6	17	17.8	8	16.7		
	Overexertion	-	-	-	-	2	-	8	3.4	13	5.1	17	6.8	16	5.6	26	11.2	20	15.3	17	17.8	18	37.6		
	Pedal cyclist, other	-	-	3	-	18	7.8	17	7.2	11	4.3	8	3.2	11	3.9	14	6.0	4	-	4	-	-	-		
	Pedestrian, other	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	1	-	2	-	2	-		
	Poisoning	4	-	42	45.8	10	4.4	52	21.9	56	22.0	92	36.8	140	49.2	100	42.9	67	51.1	71	74.3	24	50.1		
	Struck by/against	-	-	4	-	13	5.7	10	4.2	4	-	10	4.0	9	3.2	9	3.9	10	7.6	5	5.2	10	20.9		
	Suffocation	2	-	3	-	-	-	-	-	-	-	1	-	2	-	2	-	2	-	3	-	5	10.4		
	Transport, other	-	-	1	-	18	7.8	34	14.3	28	11.0	32	12.8	55	19.3	25	10.7	13	9.9	10	10.5	14	29.2		

Table 7. Female Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

		Age group																									
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+					
Intent	Mechanism	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Self-inflicted	Total	-	-	-	-	40	17.4	343	144.5	297	116.4	319	127.4	276	97.1	99	42.5	24	18.3	16	16.7	11	23.0				
	Cut/pierce	-	-	-	-	-	-	11	4.6	6	2.4	6	2.4	10	3.5	1	-	-	-	-	-	2	-	3	-		
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Falls	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Fire/burn	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-		
	Firearm	-	-	-	-	-	-	1	-	3	-	2	-	1	-	1	-	-	-	-	-	-	-	-	-		
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	3	-	1	-	-	-	-	-	-	-	-	-	-	-		
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Not elsewhere classifiable	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Other specified	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-		
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Poisoning	-	-	-	-	40	17.4	328	138.2	284	111.3	307	122.6	261	91.8	97	41.7	24	18.3	14	14.7	8	16.7				
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-		
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Table 7. Female Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

Intent	Mechanism	Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Assault	Total	2	-	1	-	1	-	12	5.1	9	3.5	18	7.2	14	4.9	4	-	1	-	2	-	-	-	-	-
	Cut/pierce	-	-	-	-	-	-	4	-	4	-	2	-	-	-	-	-	-	-	-	-	1	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	-	-	1	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-
	Not specified	2	-	-	-	-	-	-	-	2	-	3	-	2	-	-	-	-	-	-	-	-	-	-	-
	Other specified	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	-	-	-	-	-	-	6	2.5	2	-	10	4.0	9	3.2	3	-	-	-	-	-	1	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 7. Female Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

Intent	Mechanism	Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Other	Total	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	-	-		
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Falls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Firearm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Struck by/against	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	-	-	-	-		
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Table 7. Female Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

		Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
Intent	Mechanism	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Undetermined	Total	-	-	-	-	4	-	13	5.5	13	5.1	13	5.2	19	6.7	12	5.2	7	5.3	2	-	1	-	-	-
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	3	-	11	4.6	11	4.3	13	5.2	18	6.3	12	5.2	7	5.3	2	-	1	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 8. Male Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

		Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
Intent	Mechanism	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
Unintentional	Total	59	229.6	218	226.7	491	204.3	1044	417.8	884	328.7	923	354.1	1055	382.6	874	390.8	599	507.3	783	1103	658	2584		
	Cut/pierce	-	-	4	-	4	-	15	6.0	31	11.5	21	8.1	12	4.4	12	5.4	3	-	3	-	-	-	-	-
	Drowning	-	-	8	8.3	3	-	2	-	3	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-
	Falls	27	105.1	66	68.6	199	82.8	213	85.2	223	82.9	268	102.8	331	120.0	387	173.0	363	307.4	618	870.2	582	2285		
	Fire/burn	6	23.3	14	14.6	13	5.4	13	5.2	10	3.7	15	5.8	18	6.5	22	9.8	4	-	5	7.0	2	-		
	Firearm	-	-	1	-	-	-	21	8.4	9	3.3	10	3.8	2	-	6	2.7	1	-	2	-	1	-		
	Machinery	-	-	1	-	-	-	22	8.8	41	15.2	41	15.7	36	13.1	30	13.4	11	9.3	12	16.9	1	-		
	Motor vehicle traffic	1	-	13	13.5	73	30.4	368	147.3	233	86.6	214	82.1	234	84.9	156	69.7	73	61.8	41	57.7	18	70.7		
	Natural/environmental	-	-	2	-	8	3.3	15	6.0	12	4.5	15	5.8	22	8.0	9	4.0	9	7.6	5	7.0	3	-		
	Not elsewhere classifiable	-	-	1	-	2	-	3	-	4	-	3	-	4	-	6	2.7	4	-	2	-	1	-		
	Not specified	6	23.3	8	8.3	5	2.1	9	3.6	6	2.2	15	5.8	13	4.7	11	4.9	8	6.8	16	22.5	15	58.9		
	Other specified	6	23.3	17	17.7	19	7.9	17	6.8	20	7.4	21	8.1	31	11.2	16	7.2	9	7.6	5	7.0	2	-		
	Overexertion	1	-	1	-	6	2.5	21	8.4	22	8.2	24	9.2	22	8.0	30	13.4	10	8.5	17	23.9	5	19.6		
	Pedal cyclist, other	-	-	6	6.2	48	20.0	51	20.4	50	18.6	49	18.8	56	20.3	24	10.7	16	13.6	3	-	2	-		
	Pedestrian, other	-	-	-	-	1	-	3	-	-	-	4	-	2	-	2	-	1	-	-	-	-	-		
	Poisoning	5	19.5	57	59.3	21	8.7	78	31.2	74	27.5	90	34.5	106	38.4	78	34.9	52	44.0	29	40.8	18	70.7		
	Struck by/against	3	-	6	6.2	47	19.6	60	24.0	53	19.7	48	18.4	54	19.6	28	12.5	14	11.9	7	9.9	4	-		
	Suffocation	4	-	7	7.3	2	-	1	-	1	-	1	-	2	-	2	-	2	-	3	-	4	-		
	Transport, other	-	-	6	6.2	40	16.6	132	52.8	92	34.2	84	32.2	108	39.2	54	24.1	19	16.1	15	21.1	-	-		

Table 8. Male Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

		Age group																									
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+					
Intent	Mechanism	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Self-inflicted	Total	-	-	-	-	10	4.2	156	62.4	192	71.4	188	72.1	178	64.6	56	25.0	20	16.9	18	25.3	4	-	-	-	-	-
	Cut/pierce	-	-	-	-	-	-	10	4.0	19	7.1	13	5.0	9	3.3	4	-	2	-	-	-	-	-	1	-	-	-
	Drowning	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	1	-	2	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	-	-	7	2.8	4	-	3	-	4	-	4	-	1	-	3	-	1	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	-	-	-	-	-	-	2	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other specified	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	8	3.3	135	54.0	163	60.6	168	64.5	161	58.4	47	21.0	17	14.4	15	21.1	1	-	-	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	2	-	1	-	2	-	1	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 8. Male Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

Intent	Mechanism	Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Assault	Total	3	-	2	-	12	5.0	167	66.8	137	50.9	122	46.8	74	26.8	25	11.2	2	-	2	-	1	-	-	-
	Cut/pierce	-	-	-	-	3	-	41	16.4	20	7.4	24	9.2	13	4.7	6	2.7	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	2	-	18	7.2	23	8.6	8	3.1	1	-	1	-	-	-	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	1	-	1	-	1	-	6	2.4	3	-	2	-	4	-	1	-	1	-	1	-	1	-	-	-
	Not specified	-	-	-	-	1	-	13	5.2	18	6.7	17	6.5	10	3.6	5	2.2	-	-	-	-	-	-	-	-
	Other specified	-	-	1	-	1	-	1	-	2	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	2	-	-	-	4	-	87	34.8	70	26.0	69	26.5	43	15.6	12	5.4	1	-	1	-	-	-	1	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 8. Male Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

Intent	Mechanism	Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Other	Total	-	-	-	-	1	-	-	-	2	-	4	-	4	-	2	-	-	-	-	-	-	-	-	-
	Cut/pierce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	1	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	2	-	2	-	3	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 8. Male Injury hospitalization by age group (rate per 100,000 population and frequency), 2007.

		Age group																							
		<1		1-4		5-14		15-24		25-34		35-44		45-54		55-64		65-74		75-84		85+			
Intent	Mechanism	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate		
Undetermined	Total	1	-	1	-	5	2.1	30	12.0	27	10.0	17	6.5	19	6.9	17	7.6	3	-	1	-	1	-	1	-
	Cut/pierce	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Drowning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Falls	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Fire/burn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Firearm	-	-	-	-	1	-	4	-	4	-	2	-	2	-	-	-	-	-	-	-	-	-	1	-
	Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Motor vehicle traffic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural/environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not elsewhere classifiable	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	Not specified	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Overexertion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedal cyclist, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pedestrian, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Poisoning	-	-	1	-	4	-	24	9.6	21	7.8	14	5.4	16	5.8	17	7.6	3	-	1	-	-	-	-	-
	Struck by/against	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suffocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transport, other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## Public Data Sources

**Behavioral Risk Factor Surveillance System (BRFSS):** The BRFSS, administered and supported by the Behavioral Surveillance Branch (BSB) of the CDC, is an on-going data collection program designed to measure behavioral risk factors in the adult population 18 years of age or over living in households.

[www.dhs.state.or.us/dhs/ph/chs/brfs/index.shtml](http://www.dhs.state.or.us/dhs/ph/chs/brfs/index.shtml)

**Oregon Healthy Teens Survey:** OHT monitors risk behaviors and other factors that influence the health and well-being of Oregon's children and adolescents

[www.dhs.state.or.us/dhs/ph/chs/youthsurvey/index.shtml](http://www.dhs.state.or.us/dhs/ph/chs/youthsurvey/index.shtml)

**Web-based Injury Statistics Query and Reporting System (WISQARS):** Available online from the centers for Disease Control and Prevention, WISQARS is an interactive database system that provides customized reports of injury data at the national and state level

[www.cdc.gov/ncipc/wisqars/](http://www.cdc.gov/ncipc/wisqars/)