Mortality

More Oregonians died in 2002 (31,082) than in any prior year, a result of a growing and aging population. Oregon's death rate rose 2.2 percent to 886.9 per 100,000 population during 2002, up from 867.8 during 2001. (Unless otherwise specified, references to death rates mean crude rates; see the Appendix for further discussion of crude and age-adjusted rates.) Over the previous ten years the rate fluctuated between 860 and 909 per 100,000 population. [Figure 6-1, Table 6-3].

Oregon has long had lower age-adjusted death rates than the nation; in 2000 (the most recent available data), the state's age-adjusted rate was 4.3 percent lower than the nation's and ranked 30th among the states (including the District of Columbia).

Four new tables have been added to this year's annual report: Table 6-45 provides age-adjusted death rates by county and cause; Table 6-46 provides information about on-the-job injuries; Tables 6-47 and 6-48 show the number of times leading causes of death were mentioned on death certificates where they were not the underlying cause of death, the former by residence county and the latter by sex and age.

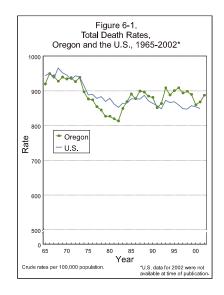
LIFE EXPECTANCY

For the first time, this report includes information about the life expectancy of Oregonians. The oldest Oregonian ever recorded to have died was a 117-year-old Siberian-born man who died in 1999. Most of the state's residents have far shorter lives, but the long-term trend is for an increasing life expectancy. Since 1960, the life expectancy of Oregonians increased from 70.9 years at birth to 77.9 in 2002.

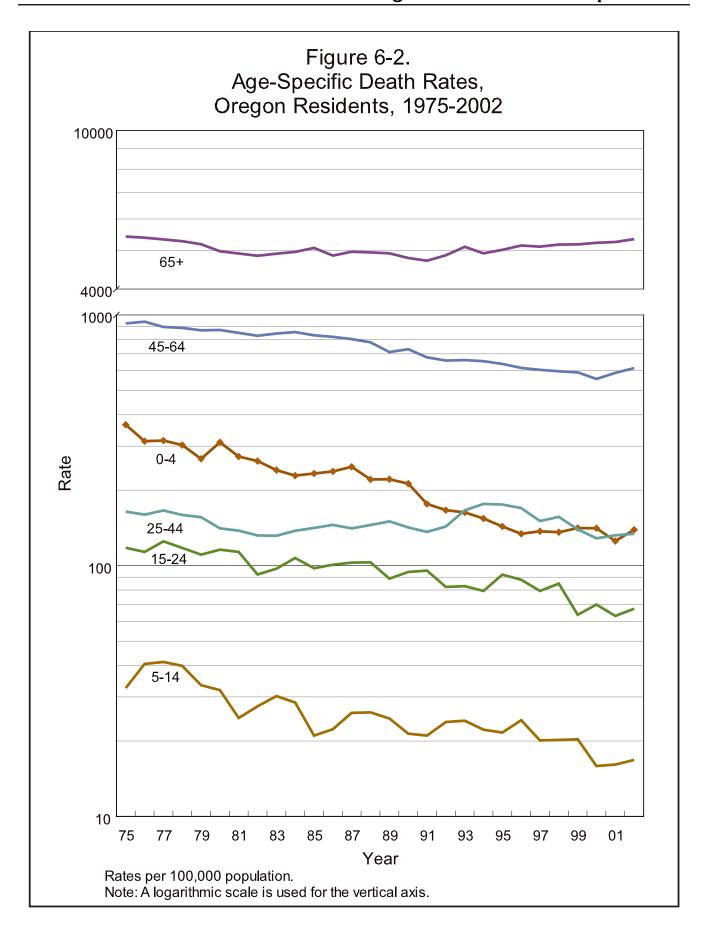
Life expectancy is a theoretical construct that represents the average number of years a group of infants would live if they were to experience, throughout their lives, the age-specific death rates

Life Expectancy, Oregon and the United States, 1960-2002								
Year	Oregon			United States				
	Total	Male	Female	Total	Male	Female		
1960	70.9	N.A.	N.A.	69.7	66.6	73.1		
1970	72.1	68.4	76.2	70.8	67.1	74.7		
1980	75.0	71.4	78.8	73.7	70.0	77.4		
1990	76.6	73.4	79.8	75.4	71.8	78.8		
2000	78.0	75.6	80.5	77.0	74.3	79.4		
2001	78.0	75.9	80.2	77.2	74.4	79.8		
2002	77.9	75.7	80.0	77.4	74.7	79.9		

U.S. data sources: National Center for Health Statistics. Health, United States, 2003. Hyattsville, Maryland. 2003. (http://www.cdc.gov/nchs/data/hus/tables/2003/03hus027.pdf) National Center for Health Statistics. National Vital Statistics Reports, Vol. 52, No. 13. Deaths: Preliminary Data for 2002. (http://www.cdc.gov/nchs/data/nvsr/nvsr52_nvsr52_13.pdf)



The life expectancy of Oregonians in 2002 was 77.9 years.



present at their birth. It is affected by such factors as the environment, the economy, health behaviors, modernization, and improving medical technology.

Since 2000, Oregon life expectancy has changed little for males but decreased by half a year for females (see table on page 6-1). Nonetheless, in 2002, the life expectancy of Oregon females (80.0 years) remained higher than that for males (75.7 years).

Although the state's life expectancy is higher than the nation's (77.9 vs. 77.4), since 1960, national life expectancy has increased to a greater extent than Oregon's (11.0% versus 9.9%). The state's higher life expectancy in 2002 is largely a consequence of the greater life expectancy of Oregon males; female life expectancy is about the same in the state and the nation as a whole.

Among the nations of the world, the United States ranks 24th in life expectancy, tied with Cyprus. Life expectancy is longest in Japan — 81.9 years.

DEMOGRAPHIC CHARACTERISTICS

Gender

The overall increase in Oregon's mortality rate is mirrored in all age groups and both genders. [Table 6-1]. Although the crude death rate for females (893.8) is 1.6 percent higher than that recorded for males (879.8) it would be a mistake to conclude that the risk of death is greater among females than males; the age-specific death rates for males 15 or older are, without exception, higher for males than females. The increase in female death rates vis-à-vis male rates seen over the past decade is largely due to the changing age distribution within these two population groups rather than a decline in the health status of the former. Proportionately, there are simply larger numbers of elderly within the female population than there are in the male population, and the elderly, even under the best of circumstances are more likely to die than are their younger counterparts. The age-adjusted death rates for males and females during 2002 were 1,025.1 and 728.5, respectively. (See Appendix B for further information about age-specific and age-adjusted death rates.)

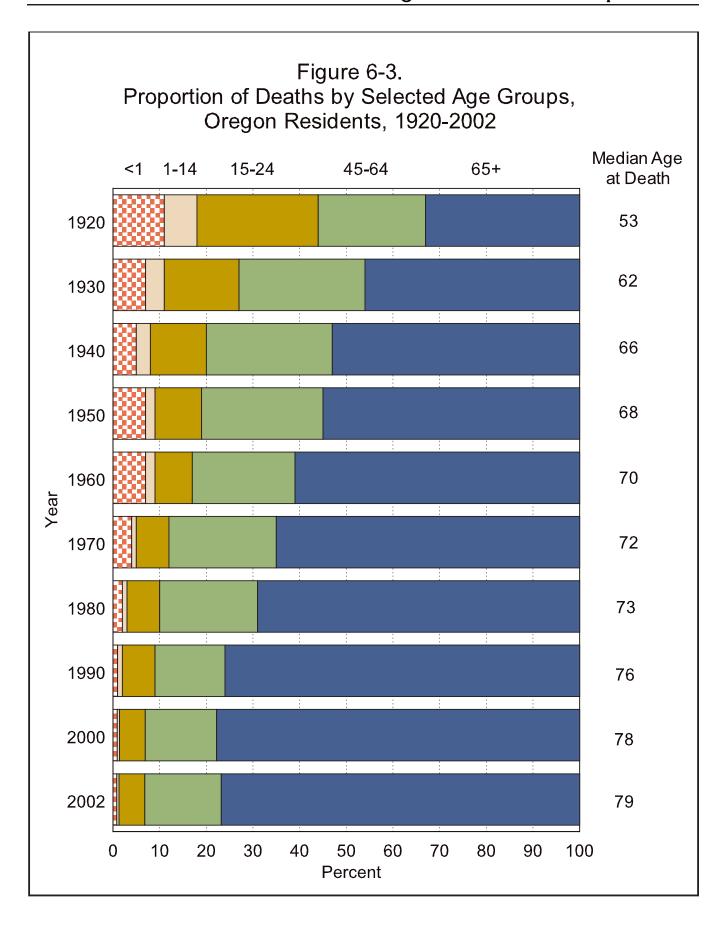
Age

Although the age-specific death rates increased for all age groups between 2001 and 2002, the long-term trend has been toward lower rates for all age groups except Oregonians 65 or older. [Figure 6-2]. The rising rates seen in this group over the past dozen years is a reflection of the increasingly greater proportion of very old persons within it. More than three in four deaths are among persons 65 or older. [Figure 6-3].

Table 6-1 shows the disparity in age-specific death rates by gender; most striking is the threefold greater risk of death among males ages 15-24 than among similarly-aged females, 99.8 per 100,000 population versus 33.3. During 2002, for the first time, the overall median age at death rose to 79 years, 75 for males and 81 for females.

The United States ranks 24th in life expectancy, tied with Cyprus.

The oldest
Oregonian to die in
2002 was a 112
year-old woman.



LEADING CAUSES OF DEATH²

Overview

During 2002, heart disease was once again the number one killer of Oregonians displacing malignant neoplasms (cancer) which ranked first, for the first time, during 2001. Nonetheless, both causes claimed essentially the same number of Oregonians — a little over 7,200 for each. During 2001, there were five more deaths attributed to cancer than to heart disease, but more recently there were 13 more deaths from heart disease than cancer. Together, these two causes accounted for 46.6 percent of all resident deaths. Although the number of deaths resulting from these two causes were similar, malignant neoplasms resulted in the loss of nearly twice as many years of potential life, a reflection of the younger ages of cancer's victims.

Causes of death varied by age group. Among infants, perinatal conditions were most common, but unintentional injuries ranked first for Oregonians ages 1-34. From age 35 through age 74, cancer was the leading cause of death, but among residents 75 or older, heart disease ranked first.

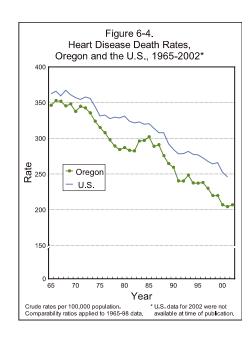
Heart Disease

Despite brief occasional breaks in the long-term downward trend of the heart disease death rate, heart disease has been the leading cause of death in Oregon every year (with the exception of 2001) since the influenza pandemic of 1918-1919.² During 2002, both the number of deaths and the death rate increased compared to 2001, from 7,086 to 7,245, and from 204.1 per 100,000 population to 206.7. [Figure 6-4]. The age-adjusted death rate was 197.9. Heart disease was listed on 4,237 death certificates as a contributing factor in the decedent's death, but not the underlying cause.

The 2002 crude death rate for heart disease was 10.5 percent higher for males than females (217.1 versus 196.5). However, age-adjusted rates for heart disease show that the risk of death from this cause is actually far greater among males than females, 260.4 compared to 153.1, a 70.1 percent difference. [Table 6-44m and Table 6-44f].

Although heart disease is the leading cause of death overall, by age group it ranks first only among Oregonians 75 or older. Nonetheless, it is among the top five causes of death for all age groups 25 or older. The median age at death for heart disease was 81 years. Reflecting the relatively older ages at which Oregonians died from heart disease was this cause's rank by years of potential life lost; 12,333 years of potential life were lost due to heart disease, making it third following cancer and unintentional injuries. [Table 6-11].

Oregon's rate has consistently been lower than the US rate; in 2000 (the most recent available data), the state's age-adjusted death rate was 23.1 percent lower than the nation's and ranked 46th among the states (including the District of Columbia). That is,



Heart disease is the leading cause of death for Oregonians 75 or older.

Figure 6-5.
Cancer Death Rates,
Oregon and the U.S., 1965-2002*

250

225

Oregon

U.S.

175

150

65

70

75

80

85

90

95

00

Year

Crude rates per 100,000 population.
Comparability ratios applied to 1965-98 data.

*U.S. data for 2002 were not available at time of publication,

Oregon had the sixth lowest rate. [Table 6-50]. Every 73 minutes, on average, a resident died from heart disease.

The heart disease category includes a number of conditions, but most common, and accounting for the majority of heart disease deaths, were myocardial infarctions and other forms of ischemic heart disease such as coronary artery disease. [Table 6-6].

Cancer

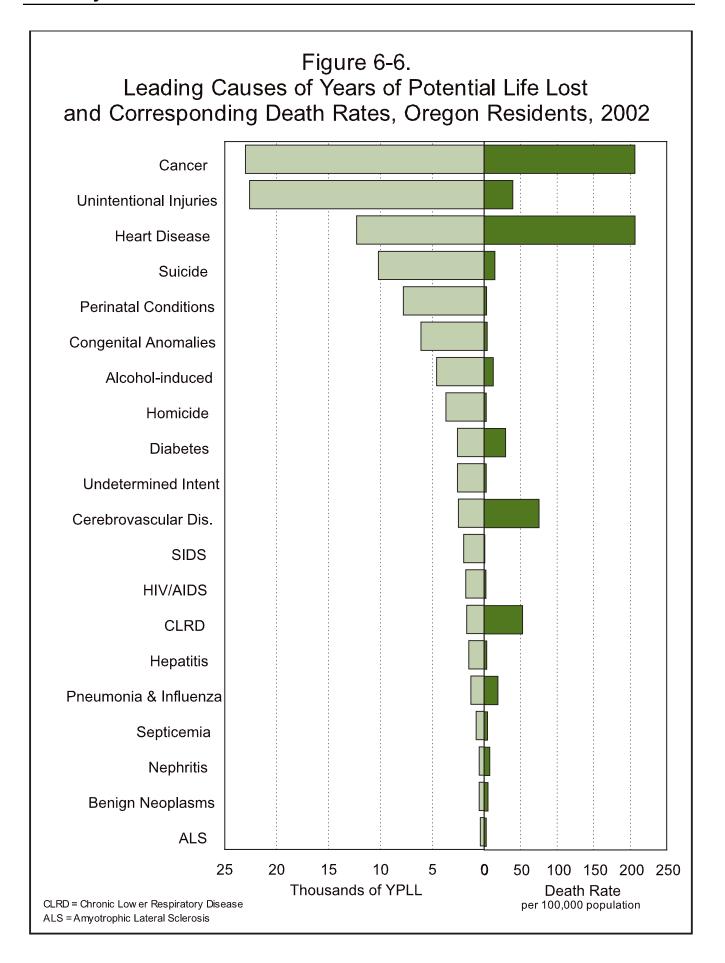
In 2001, for the first time ever, cancer was the leading cause of death among Oregonians — by five deaths. In 2002, malignant neoplasms slipped back into second place with 13 fewer deaths attributed to it than to heart disease. During 2002, the number of deaths increased to 7,232 compared to 7,091 during the previous year, and the rate increased from 204.3 to 206.4. [Figure 6-5]. For many decades, the cancer death rate increased inexorably, but by the early 1990s it had plateaued; since then the rate has trended downward. The age-adjusted death rate was 200.9 in 2002. Cancer was not the underlying cause, but was a contributing factor in 836 deaths.

The difference in death rates between males and females has narrowed greatly during the past two decades. During 2002, the crude death rate for cancer was 5.2 percent higher for males than females, 211.6 per 100,000 population compared to 201.2, but the disparity was far greater when age-adjusted death rates were compared, 239.7 versus 175.8, a 36.3 percent difference. [Table 6-44m and Table 6-44f]. Malignant neoplasms kill more Oregon females than does heart disease. [Table 6-2].

Cancer was one of the top four leading causes of death in every age group except infants and was the leading cause of death for residents ages 35 to 74. Half of all deaths from this cause in 2002 occurred by age 73, a decrease compared to 2001 when the median age of death was 74. No other cause of death accounted for more

Years of Potential Life Lost

Mortality rates alone do not show the full impact upon society of certain causes of death. The deaths of young people are a greater "cost" to society than deaths of older people in terms of years of potential life lost (YPLL). The YPLL yardstick quantifies premature mortality occurring in younger age groups by measuring the number of years between age at death and a set standard. With the standard set at 65 years, for example, a death at age 21 results in 44 years lost. The numbers of YPLL for all decedents are then totaled. Figure 6-6 shows the disparity between death rates and the years of potential life lost. (In all references to YPLL in this report, the standard is 65 years unless otherwise noted.)



Lung cancer claimed the lives of twice as many women as did breast cancer.

Lung Cancer Death Rates							
Year	Total	Male	Female				
1970	33.5	56.4	11.4				
1975	41.2	65.9	17.7				
1980	48.3	69.9	27.4				
1985	56.2	76.0	37.2				
1990	64.3	81.2	48.1				
1995	62.5	69.5	55.7				
2000	60.5	65.3	55.7				
2002	58.7	61.1	56.4				
Rates per 100,000 population.							

years of potential life lost than did malignant neoplasms: 22,994. [Figure 6-6].

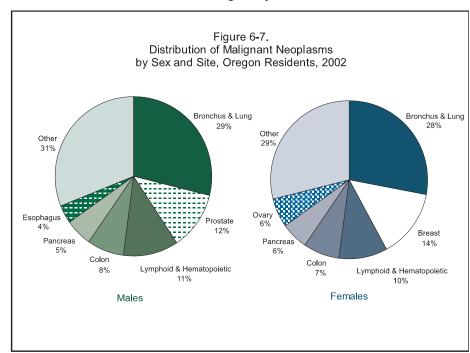
Oregon's age-adjusted malignant neoplasm death rate has long been lower than that of the United States, but only marginally. In 2000, the state's rate was 1.2 percent lower than the nation's and ranked 30th. Cancer claimed the life of a resident every 73 minutes, on average.

The most common fatal cancer for both sexes is lung cancer, a cause that would be rare in the absence of smoking. [Figure 6-7]. Its increasing frequency drove the decades-long increase in the overall neoplasm death rate, especially among females. Thirty years ago, there were 3.4 male deaths due to lung cancer for every female death, but by 2002 the ratio was 1.1:1.0. Although more often in the public eye than lung cancer, breast cancer claimed just one-half the number of women, 996 versus 501, respectively. Among males, the prostate was the second most common site. Lymphoid and hematopoietic cancer (e.g., leukemia and multiple myeloma) ranked third for each sex while colon cancer ranked fourth.

Cerebrovascular Disease

At 75.3 deaths per 100,000 population, the cerebrovascular disease death rate has remained essentially unchanged after dropping sharply in 2000. [Figure 6-8]. The number of deaths totaled 2,639, up from the 2,604 recorded during 2001. Cerebrovascular disease was mentioned as a factor, but not the underlying cause, in another 1,521 resident deaths. This disease is the third leading cause of death overall, but second among persons 85 and older.

Many more females than males died from this cause. Although the female crude death rate was 54.5 percent higher than the rate for males (91.3 versus 59.1), the age-adjusted death rates were much



closer, 73.3 and 70.4, respectively. [Table 6-44m and Table 6-44f]. The age-adjusted death rate for both genders was 71.6.

Fatal cerebrovascular disease was rare before age 55, but by age 85 it was the second most common cause of death among women and third among men. Despite the frequency with which it occurred, it ranked 11th by years of potential life lost (2,461), a consequence of the older ages of decedents (compared to relatively younger ages at death for many other causes). Four-fifths of the deaths occurred after age 74. The median age of death was 83, unchanged from the year before.

The cerebrovascular disease death rate has long been higher in Oregon than in the US. In 2000, the age-adjusted death rate was 17.8 percent higher and seventh highest among the states. On average, an Oregonian died from cerebrovascular disease every 3.3 hours.

Intracerebral hemorrhages and cerebral infarctions are examples of two forms of cerebrovascular disease, but appearing most commonly on death certificates is the more general term "stroke."

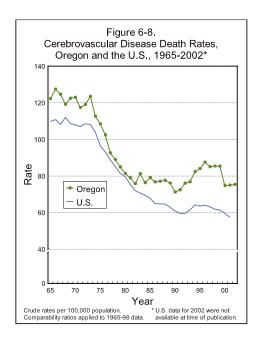
Chronic Lower Respiratory Disease

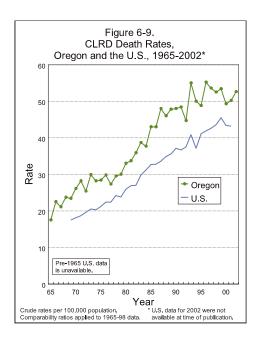
Chronic lower respiratory disease death rates increased for several decades, plateauing in the early to mid-1990s. [Figure 6-9]. Increased smoking, particularly by women, drove the rising death rate and resulted in CLRD becoming the fourth most common cause of death beginning in 1987. During 2002, the crude rate was 52.6 per 100,000 population, reflecting the deaths of 1,842 Oregonians. CLRD contributed to an even larger number of deaths where it was not the underlying cause: 1,887. The age-adjusted death rate was 50.8.

Until recently, far more males succumbed to CLRD than did females, but by 2000 more females than males died from this cause. The pattern extended into 2001, but in 2002 reverted to the previous pattern of a larger number of male deaths (941) than female deaths (901). The 2002 age-adjusted death rates were 64.7 and 42.5, a 52.2 percent difference. [Table 6-44m and Table 6-44f].

CLRD is the third leading cause of death for Oregonians ages 55-74, but the largest number of CLRD deaths occurred to residents 75-84 years old where CLRD ranked fourth. [Table 6-4]. Although the fourth most common cause of death overall, chronic lower respiratory disease ranked 14th in the number of years of potential life lost. The median age at death was 78, unchanged from the previous year.

Oregon's CLRD age-adjusted death rate has long been higher than that of the nation's, although the disparity has decreased in recent years. In 2000 (the most recent available data year), the state's rate was 7.5 percent higher and ranked 21st among the states and the District of Columbia. An Oregonian died from CLRD every 4.8 hours, on average, during 2002.







Males were twice as likely as females to die from unintentional injuries.

The group of allied conditions categorized as CLRD includes four principal diseases: chronic and unspecified bronchitis, emphysema, asthma, and chronic airways obstruction. At least eight in every 10 bronchitis, emphysema, and other chronic airways obstruction disease deaths were linked to tobacco use, a proportion similar to that recorded for cancers of the lung and larynx. [Table 6-18].

Unintentional Injuries

The unintentional injury³ crude death rate has trended up for the past several years, reaching 39.4 per 100,000 population in 2002, a level similar to that seen during most of the 1990s. [Table 6-3 and Figure 6-10]. Fatal unintentional injuries claimed 1,382 Oregonians, making it the fifth leading cause of death, and contributed to the deaths of another 555 residents. Fifty-five of the deaths occurred on the job. [Table 6-46].

A strong gender dichotomy exists in unintentional injury deaths. The age-adjusted death rates revealed that males were about twice as likely to die in this manner as were females (51.4 versus 26.3). [Table 6-44m and Table 6-44f]. However, this disparity is typically less pronounced among the very young and the very old. The age-adjusted death rate for both genders was 38.6.

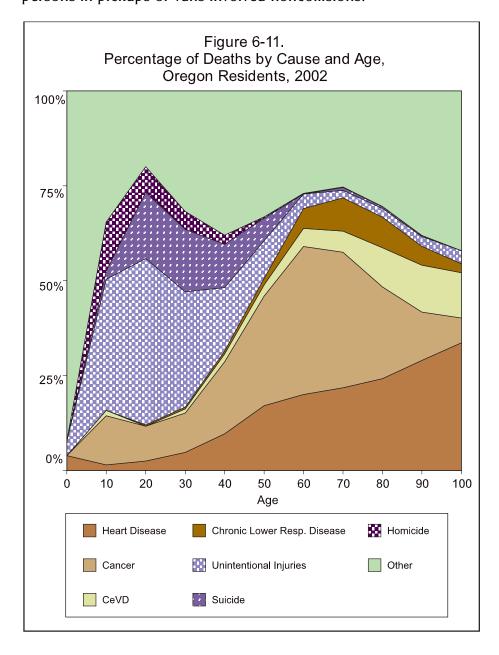
Unintentional injuries were the leading cause of death among children and young adults ages 1-34 years [Figure 6-11] with the age-specific rates relatively invariant from midteens until retirement. During the "golden years," however, the risk of falling victim to a fatal unintentional injury increases markedly. Although the fifth leading cause of death, unintentional injuries account for more years of potential life lost (22,563) than any other cause except cancer, reflecting its position as the most common killer of young Oregonians. The median age at death has trended upward since the mid-1990s, increasing to 54 in 2002, a two-year increase compared to 2001 and a new high. By comparison, the median age at death in 1992 for this cause was 45.

During the past several decades, Oregon's unintentional injury death rate was, nearly without exception, notably higher than that of the nation's. More recently, however, the difference has been small; in 2000, Oregon's age-adjusted death rate was 2.3 percent higher than the nation's and ranked 28th highest. Every 6.3 hours, an Oregonian succumbed to an unintentional injury.

Just as leading causes of death vary within different age groups, so does the type of fatal unintentional injury. [Figure 6-12]. Most unintentional injury deaths occurring to children under age five involved suffocation, usually in bed. [Table 6-23]. Beginning at age 5 and through age 74 (with one exception) motor vehicle crashes predominated; the exception occurred among 35- to 44-year-olds where poisoning (usually of drugs used in an illicit manner) was most common. Among 45- to 54-year-olds, poisoning ranked a close second to motor vehicle crashes. Oregonians 75 or older were most vulnerable to falls.

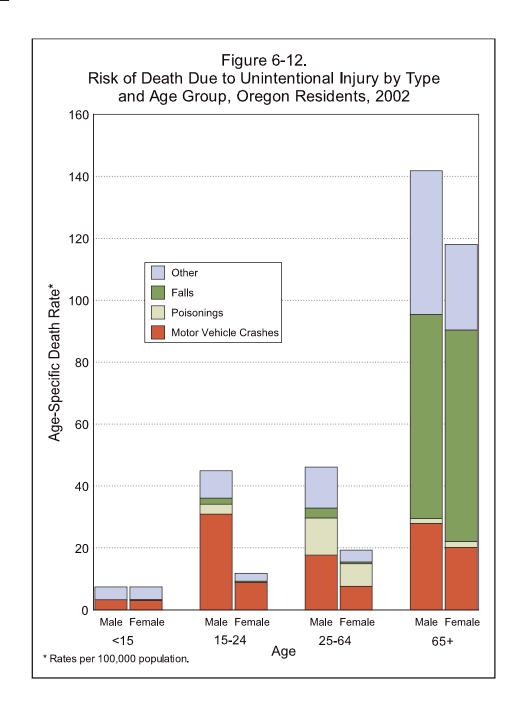
Motor vehicle accidents/crashes (MVAs/MVCs) posed the greatest risk of fatal injuries to Oregon residents. In fact, transportation-related injuries accounted for 38.2 percent of all unintentional injury deaths with nine out of ten of these resulting from motor vehicle crashes. [Table 6-6]. Of the 461 MVC deaths, two-thirds occurred among males and one-fifth among residents ages 15-24. In rank order, MVC death rates were highest among residents ages 85+, 75-84, and 15-24. [Table 6-7t]. In most deadly Oregon traffic accidents, the fatalities occurred among persons traveling by car (224) or pickup truck/van (77). Less common were the deaths of pedestrians (59), motorcyclists (29) and pedal cyclists (10). [Table 6-27]. Interestingly, while one-fourth (24.6%) of all fatalities occurring among persons in cars resulted from noncollisions (i.e., rollovers following loss of control), one-third (33.8%) of fatalities occurring among persons in pickups or vans involved noncollisions.

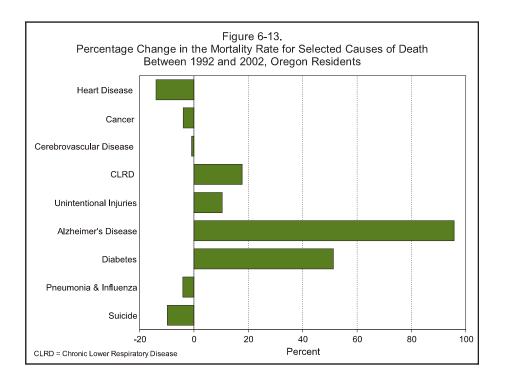
Nearly two fifths of all unintentional deaths resulted from motor vehicle crashes.



Four-fifths of all fatal falls occurred among persons 75 or older.

Falls, the second most common type of fatal unintentional injury claimed 343 Oregonians, most (79.0%) of whom were 75 or older. [Table 6-24]. About half of all falls occurred on the same level, most from slipping or tripping. Twenty involved falls from stairs/steps, 18 from beds, and 13 from ladders. Among adults 75 or more years of age, falls were the greatest cause of an unintended fatal injury. [Table 6-23]. Age-adjusted death rates revealed that males were at a 42.3 percent greater risk of suffering a fatal fall than were females. [Table 6-44m and Table 6-44f]. (The increase in age-adjusted death rates seen in 2000 and 2001 may reflect, in part, improved reporting of falls on death certificates resulting from querying physicians; the increase in 2002 cannot be attributed to this. [Table 6-44].)





Unintentional poisonings, most often by narcotics and hallucinogens, ranked third among the types of fatal unintentional injuries. [Table 6-23]. Although 199 deaths were attributed to this category, it alone does not account for all deaths resulting from overdoses/poisonings; depending on how the fatality was reported on the death certificate, the death could be attributed to an unintentional injury or a mental/behavioral disorder (see the first footnote of Table 6-31). Age-adjusted death rates indicate that males were 64.3 percent more likely than females to die from unintentional overdoses/poisonings. These types of deaths were most common among residents 35-54 years of age.

Ranking fourth, drownings (including those involving watercraft) accounted for the deaths of 59 residents. [Table 6-41]. In Oregon, drownings not involving watercraft were most common (38). Of these, most (25) occurred in natural water with the remainder having occurred in bathtubs/hot tubs (8) and swimming pools (3). [Table 6-28].

Alzheimer's Disease

Mirroring the aging of Oregon's population has been the seemingly inexorable rise in the number of Alzheimer's disease deaths. In just the past decade, the death rate nearly doubled, the largest increase among the leading causes of death. [Figure 6-13]. During 2002, the tangles and plaques characteristic of this disease led to the deaths of 1,125 Oregonians and a record high death rate (32.1 per 100,000 population). The age-adjusted death rate was 30.4. Alzheimer's disease contributed to the deaths of 502 Oregonians (where it was not the underlying cause).

The Alzheimer's disease death rate has increased 18 out of the last 20 years.

Oregon's
Alzheimer's disease
death rate ranked
fourth highest
among the states.

Diabetes caused or contributed to the deaths of 3,179
Oregonians.

Women have long been at greater risk of dying from this disease, in part because they are less likely to die from causes of death that most commonly claim their victims at younger ages. The age-adjusted death rate for women was 33.7 percent higher than that for men (33.3 vs. 24.9). [Table 6-44m and Table 6-44f]. Alzheimer's disease is the eighth leading cause of death among men but fifth among women.

This devastating disorder takes years to claim its victim's lives; more than 9 in 10 of the deaths occurred after the decedent's 75th birthday. [Table 6-6]. The median age at death was 86 years. [Table 6-13]. Concomitant with the high median age at death was a minimal number (38) of years of potential life lost. Alzheimer's disease is the fifth leading cause of death among Oregonians age 75-84 and fourth leading cause among those 85 or older.

Oregonians have long been more likely to die from Alzheimer's disease than other U.S. residents. In 2000 (the most recent available data year), the state's death rate was 38.9 percent higher than the nation's and ranked fourth among the states (including the District of Columbia). On average, an Oregonian succumbed to Alzheimer's disease every 7.8 hours.

Because of differences between the state and the nation in leading cause of death categorization, the comparability ratios published by the National Center for Health Statistics should not be applied to Oregon data (unless only ICD-9 code 331.0 is used). Please see Appendix B for further information.

Diabetes Mellitus

With 1,034 resident deaths in 2002, diabetes mellitus was the seventh leading cause of death. The death rate for this disease has increased nearly every year since 1985, but 2002 was one of the few years recording a decline, albeit a marginal one; the crude rate fell from 29.8 per 100,000 population to 29.5. [Table 6-3]. The age-adjusted death rate was 28.5. Diabetes was a contributing factor more often than it was the underlying cause of death, 2,145 vs. 1,034. Some of the increase in deaths attributed to diabetes during 1999-2001 resulted from querying certifying physicians for the underlying cause when renal failure (not otherwise specified) was listed on the death certificate.

Although the crude death rate for females was marginally higher than that for males, age-adjusted death rates showed that males were at the greatest risk (33.1 vs. 25.1 for females). [Table 6-44m and Table 6-44f]. Diabetes was the sixth leading cause of death for males and seventh for females.

Eight Oregonians ages 25-34 were the youngest residents claimed by diabetes, but 89.8 percent of all deaths occurred after age 54. It was the fifth leading cause of death for Oregonians ages 55-74. The median age was 77, unchanged from the prior year, and one of the lowest ages recorded among the natural causes of death. [Table 6-13]. Diabetes resulted in the loss of 2,575 years of potential life.

The Oregon and United States diabetes mellitus age-adjusted death rates are little different. At 4.8 percent lower than the U.S. rate, Oregon ranks 35th among the states. Every 8.5 hours, on average, an Oregonian died from diabetes.

Influenza and Pneumonia

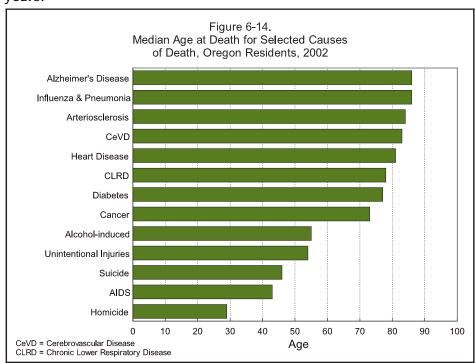
In 2002, influenza/pneumonia claimed 661 Oregonians, making it the eighth leading cause of death. The crude death rate was 18.9 per 100,000 population and the age-adjusted death rate 17.8. Influenza/pneumonia contributed to almost three times as many deaths as it directly caused: 1,712.

Although more women than men died from these two infectious diseases in 2002 (379 vs. 282), age-adjusted death rates revealed that males were at greater risk (20.6 vs. 16.3). [Table 6-44m and Table 6-44f]. Influenza and pneumonia ranked eighth among the leading causes of death for females and 10th for males.

These two related types of pulmonary infections claimed Oregonians in every age group, but 80.2 percent of the deaths occurred after age 74. The median age at death was 86 and the years of potential life lost 1,317. [Figure 6-14].

Oregon's age-adjusted death rate in 2000 (the most recent available data year) was 24.9 percent lower than the nation's and ranked 47th (i.e., fifth lowest, including the District of Columbia). Every 13.3 hours, on average, influenza and pneumonia claimed the life of an Oregonian.

In 1918, influenza swept across America in less than a week and around the world in three months. The pandemic persisted in 1919 with the influenza the leading cause of death in Oregon during both years.



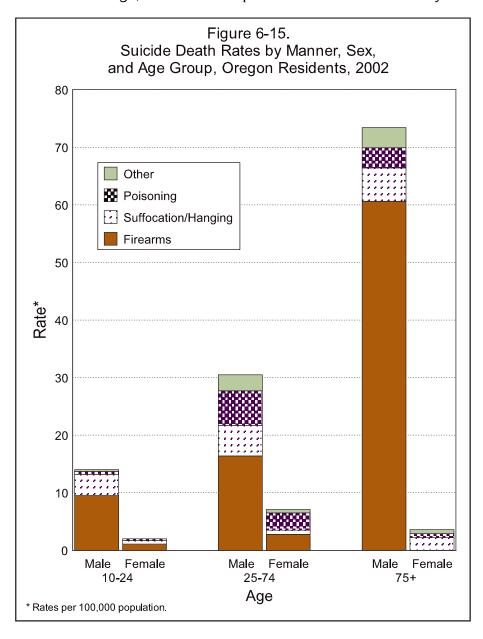
Oregon's influenza and pneumonia death rate was the fifth lowest among the states. Suicide is the second leading cause of death for Oregonians ages 15-34.

Suicide

The suicide death rate fell slightly during 2002, to 14.8 per 100,000 population, but has varied little since 1999.⁵ In 1998, the rate reached 17.4, a record high, when 569 Oregonians died by suicide. By comparison, 517 residents did so in 2002. Two of the suicides occurred while the decedent was on the job.

Males have long been at a far greater risk of suicide than females; with age-adjusted death rates of 25.3 and 4.7, respectively, males were over five times more likely to die by suicide, but gender-specific rate differences were greatest among the elderly. [Table 6-44m, Table 6-44f, Table 6-7m and Table 6-7f].

Overall, suicide rates peak among the elderly, but this masks a gender-based dichotomy: females were more likely to commit suicide in middle age, where the rate peaked at 11.5 for 45- to 54-year-



olds, while rates among males increased sharply beginning at age 75, with the highest rate (110.3) recorded among those 85 or older. (The 2002 suicide rate for females 85 or older is somewhat elevated, but is based on few deaths, and hence, not a reliable measure.) Although suicide rates are high among the elderly, most deaths (70.0%) occur before age 55, resulting in the fourth largest number of years of potential life lost (10,150) by cause. Suicide was the second leading cause of death among residents ages 15-34. The median age at death has ranged between 44 and 46 since 1997 and was 46 years in 2002, up from 44 in 2001. The youngest individuals to die by suicide were two 13-year-olds, a boy and a girl, and the oldest a 94-year-old male. All three fatalities resulted from gunshot injuries.

Oregonians have long had higher suicide rates than the residents of most other states. In 2000 (the most recent available data year), Oregon's age-adjusted suicide rate was 35.6 percent higher than the nation's and ranked 10th highest among the states. On average, an Oregonian committed suicide every 16.9 hours in 2002.

The method of suicide varied by age and gender, but overall most (56.3%) deaths resulted from fatal gunshot injuries. [Table 6-29 and Figure 6-15]. Although most suicides were committed with guns, there was a considerable dichotomy by sex; six-tenths (59.7%) of males shot themselves, but only four-tenths (38.8%) of females did so. (Two-thirds of gunshot fatalities resulted from the use of handguns.). Females were just as likely to poison themselves (38.8%) as they were to shoot themselves, while males were much less likely (15.5%) to die by poisoning. A sharp difference in methodology by gender is the type of poison used: 97.0 percent of all poisoning deaths by females involved medications compared to just 56.7 percent of the poisoning deaths among males. Overall, one in five (19.3%) suicides involved poisoning. Hanging/suffocation was the third most common method of suicide (16.6%) with only a small difference in the proportion of males and females using this method.

Alcohol-induced Deaths

Alcoholism (including related disorders and alcohol poisonings)⁶ claimed 442 Oregonians during 2002, making it the 10th leading cause of death. Alcohol was a factor in another 385 deaths, but did not directly cause the death. The crude death rate for this group of allied conditions was 12.6 per 100,000 population. Although the rate for this cause has increased every year since 1999, when it was 9.2, some of the initial increase may have resulted from querying physicians about the role of alcohol in their patients' deaths, when causes suggestive of alcohol use were mentioned on death certificates.

Fatal alcohol abuse was the ninth leading cause of death among males and the 12th among females. The age-adjusted alcohol-induced death rate was over twice as high for males than for females (18.2 vs. 7.1). [Table 6-44m and Table 6-44f]. The overall age-adjusted death rate was 12.3. [Table 6-44].

Oregon's suicide rate was 36 percent higher than the nation's and ranked tenth highest among the states.

During the past decade, the median age at death for alcoholism fell from 60 to 55.

Oregon had the fifth highest Parkinson's disease death rate in the

nation.

Age-specific alcoholism rates peaked among residents ages 55-74. This disorder was the fifth leading cause of death along 35- to 44-year-olds and the fourth among 45- to 54-year-olds. Oregonians have been dying at younger ages from this cause; in 1992 the median age at death was 60 years, but by 2002 it had fallen to 55 years, the lowest ever recorded. Alcoholism was the seventh leading cause of premature death, accounting for 4,560 years of potential life lost.

The Oregon alcohol-induced death rate has long been higher than that of the United States. In 2000 (the most recent available data year), Oregon's rate was 29.0 percent higher than the nation's and ranked 12th among the states. However, at least part of the difference between the state and the nation may result from a reporting artifact: while Oregon queries physicians for additional information when causes listed on death certificates are suggestive of alcohol use, many states do not. An Oregonian succumbed to alcoholism every 19.8 hours, on average.

This category is comprised of alcohol-related disorders from multiple organ systems with alcoholic liver disease accounting for the majority (63.3%). If intentional and unintentional injury deaths where alcohol was a factor (e.g., motor vehicle crashes) were included in this category, the count would be considerably higher. (The role, if any, of alcohol in injury deaths is rarely reported on death certificates.)

Parkinson's Disease

Ranking 12th during 2002, Parkinson's disease claimed 306 Oregon residents; the crude death rate was 8.7 per 100,000 population and the age-adjusted death rate was 8.2. While the death rates for many major causes have fallen in recent decades, the death rate for this neurological disorder has continued to trend upward. [Table 6-3].

Men more often die from this disease than do women and in 2002 they were over twice as likely to do so. Their age-adjusted death rate was 12.4 compared to 5.7 for women. [Table 6-44m and Table 6-44f].

Parkinson's disease claims almost exclusively persons 55 or older although one young adult did die from the disorder during 2002. [Table 6-6]. The median age at death was 83 in 2002, but has shown no clear trend during the previous decade, ranging between 81 and 83. As with many other causes, the high median age at death was associated with few years of potential life lost; in 2002, Parkinson's claimed just 56 years.

Among the most common causes of death of Oregon residents, the state's death rates ranked among the top 10 nationally for five causes; three of those causes are neurological diseases (Parkinson's disease, Alzheimer's disease and amyotrophic lateral sclerosis). [Table 6-50]. Oregon's Parkinson's disease death rate has long been higher than the nation's, and at 35.1 percent higher during 2000, the rate was fifth highest among the states. Every 1.2 days, on average, an Oregonian died from Parkinson's disease.

Arteriosclerosis

The long-term trend of a diminishing number of deaths due to arteriosclerosis paused in 2002. The number of deaths increased from 195 to 210 and the crude death rate from 5.6 per 100,000 population to 6.0. Still, this is the second lowest rate ever recorded. [Table 6-3]. Arteriosclerosis was the 14th leading cause of death in 2002. However, the number of deaths attributed to arteriosclerosis does not include all deaths related to this cause, since many have been classified under more specific manifestations of cardiac and cerebral disease.

Each year more women than men die from arteriosclerosis; however, age-adjusted death rates show that males were at a greater risk of dying from this disease (7.0 vs. 4.9) in 2002. [Table 6-44]. Arteriosclerosis was the 13th leading cause of death among females and 15th among males.

Three-fourths (75.7%) of the deaths occurred among those 75 or older. The median age at death for this cause is typically among the highest, and in 2002 was 84 years (compared to 86 years recorded for Alzheimer's disease and pneumonia/influenza). Because most deaths attributed to arteriosclerosis do not occur until age 65 or older, the number of years of potential life lost is typically very small; in 2002 just 160 years were lost.

Oregon's age-adjusted death rate was 23.1 percent higher than the nation's during 2002 (the most recent available data year) and ranked 13th highest among the states. A resident died from arteriosclerosis every 1.7 days, on average.

Homicide

Oregon's homicide⁷ rate has trended downward over the past decade but changed little between 2001 and 2002, falling from 3.1 per 100,000 population to 3.0, the second lowest rate since 1965. The highest rate (6.8) occurred in 1986. With 106 victims, homicide was the 22nd leading cause of death during 2002. Four of these deaths occurred while the decedent was on the job.

Every year, more males than females are murdered — and 2002 was no exception. The male age-adjusted death rate (3.9) was 62.5 percent higher than the 2.4 recorded for females. [Table 6-44m and Table 6-44f]. The age-adjusted rate for both genders was 3.1.

Even the youngest Oregonians were at risk; 21 children who had not yet reached their 15th birthday were murdered during 2002. In fact, the age group at greatest risk of becoming a homicide victim were infants — this is no one-year aberration. Although typically based on relatively few events, rates are consistently highest for Oregon babies compared to any other age group when viewed over multiple years. During 2002, the highest homicide rates were among the following groups: infants, 6.6; 15- to 24-year-olds, 4.5; and 25-to 34-year-olds, 4.4. [Table 6-7t]. No Oregonian 85 or older was intentionally killed during 2002. Compared to other causes, homicide was one of the most frequent causes of death among children

In 2002, the homicide rate was less than one-half of what it was in 1986.

Oregon infants are more likely to be homicide victims than are Oregonians in any other age group.

and young adults; it was the third leading cause of death among 1-to 14-year-olds and the fourth leading cause among 15- to 34-year-olds. [Table 6-4]. The median age for homicide victims was 29, the lowest among the leading causes (except SIDS and perinatal conditions) and down from 37 the year before. With 3,700 years of potential life lost, homicide was the eighth leading cause of premature death.

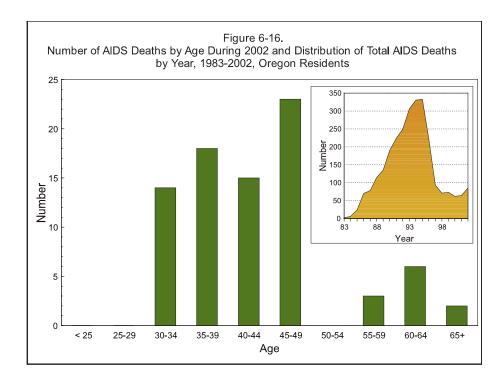
Historically, Oregon's homicide rate has been among the lowest in the nation. During 2000 (the most recent available data year), Oregon's rate was 54.2 percent lower than the nation's and ranked 41st among the states and the District of Columbia. [Table 6-50]. During 2002, a resident was murdered every 3.4 days, on average.

Firearms are unrivaled as an implement of homicide, accounting for six in 10 deaths. Sharp objects accounted for one in eight deaths and strangulation one in 15 deaths. The infamous blunt object of whodunits was used in one homicide only. [Table 6-29].

AIDS/HIV

After peaking at 333 deaths in 1995, the number of AIDS/HIV deaths trended downward to a low of 62 in 2000. The number of deaths due to AIDS/HIV increased marginally in 2001 and more strongly in 2002 when 87 Oregonians died. The crude death rate was 2.5 per 100,000 population in 2002, up from 1.8 recorded for both 2000 and 2001.

Among the leading causes of death, there is no stronger dichotomy by gender in the risk of death than there is with AIDS/HIV. The age-adjusted death rate for males was 4.5, 7.5 times higher than the rate for females (0.6). [Table 6-44m and Table 6-44f]. The age-adjusted rate for both genders was 2.5.



Age-specific death rates rose sharply in early adulthood peaking at 6.1 per 100,000 among 35- to 44-year-olds, declining to 5.6 among 45- to 54-year-olds and then falling rapidly, but these rates are driven largely by deaths among males. The years of potential life lost increased to 1,833 during 2002, the highest recorded since 1997. The median age at death rose by one year to 43 years, the highest ever recorded. A decade earlier, half of all deaths occurred by age 38.

Oregon's AIDS/HIV rate has long been lower than the nation's; in 2000 (the most recent available data year), the state's rate was 65.4 percent less than the national rate and ranked 33rd among the states. On average during 2002, a resident died every 4.2 days from this devastating disease.

This category is more inclusive than it was prior to 1999; please see Appendix B.

Between 2001 and 2002, the AIDS/HIV death rate increased 39 percent.

ENDNOTES

- 1. World Health Organization. The World Health Report 2003. Geneva, Switzerland. 2003. (http://www.who.int/whr/2002/en/whr2002 annex1.pdf).
- 2. Periodically, the International Classification of Disease manual is revised. The 10th revision was implemented in 1999 resulting in: considerably greater detail for some causes (and less detail for others): shifts of inclusion in terms and titles from one category, section, or chapter to another; regrouping of diseases; new titles and sections; and modifications of the coding rules. As a result, serious breaks occurred in the comparability for a number of causes of death. Readers wishing to compare death rates (and/or number of deaths) for 1999 and subsequent years to prior years should use the comparability ratios described in Appendix B.
- 3. Statewide records of cause of death were first collected in 1908.
- 4. Unintentional injuries is preferred to the term accidents (ICD-10 V00-X59, Y85-Y86) among health professionals.
- 5. Note that residents choosing the "Death with Dignity" option are not counted here; they are included in the appropriate disease categories.
- 6. This cause includes both natural and acute poisoning deaths—unlike data prior to 1999 which excluded the latter. Beginning with 1999 data, the following causes are included: alcoholic mental/behavioral disorders, degeneration of the nervous system, polyneuropathy, cardiomyopathy, gastritis, liver disease, maternal care for damage to fetus from alcohol, fetus or newborn affected by maternal alcohol use, alcohol in the blood, acute unintentional alcohol poisoning, acute suicidal alcohol poisoning, and acute alcohol poisoning of undetermined manner. The ICD-10 codes are F10, G31.2, G62.1, I42.6, K29.2, K70, O35.4, P04.3, R78.0, X45, X65, and Y15, respectively.
- 7. Unlike ICD-9, deaths resulting from legal intervention are no longer included in this category; see Table 6-30 for the number of deaths attributable to the actions of law enforcement officers.