Mortality

As Oregon's population both ages and increases, the annual number of deaths trends upwards. During 2010, the number of deaths increased to 31,899, up from 31,547.[1] The crude death rate increased from 825.1 per 100,000 population in 2009 to 829.8 in 2010. [Figure 6-1, Table 6-3]. (Unless otherwise specified, references to death rates mean crude death rates; see the Appendix for further discussion of crude and age-adjusted rates.) The age-adjusted death rate decreased from 739.7 to 735.0. Overall, the death rate has seen a somewhat uneven, but statistically significant, long-term downward trend since 1990.[2]

The age-adjusted death rate is at one of its lowest levels.[2]

In 2009 (the most recent year for which final U.S. data are available),[3] Oregon's age-adjusted death rate was 1.1 percent lower than the U.S. rate and ranked 30th among the states and District of Columbia. [Table 6-54]. During the past 25 years, the greatest difference between the U.S. and Oregon rates occurred in 1986 when Oregon's rate was 7.3 percent lower than the U.S. rate (907.4 versus 978.4) and 38th among the states and District of Columbia.

Oregon's age-adjusted cause-specific death rates ranked among the top 10 highest rates in the states and District of Columbia for five causes: viral hepatitis (4th), Parkinson's disease (4th), alcohol-induced deaths (4th), hypertension (7th), and amyotrophic lateral sclerosis (7th). At the same time, Oregon was among the states with the 10 lowest rates for eight causes, excluding states with unreliable data for each cause: septicemia (4th lowest), HIV/AIDS (4th lowest), heart disease (4th lowest), influenza and pneumonia (5th lowest), congenital malformations (5th lowest), nephritis and nephrosis (6th lowest), homicide (7th lowest), and perinatal conditions (8th lowest).

Life expectancy

The longest living Oregonian ever recorded was a Siberian-born man who died in 1999 at 117 years of age. 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 has increased from 70.9 years at birth to 79.5 in 2010.

Figure 6-1.
Total death rates,
Oregon and the U.S., 1984-2010

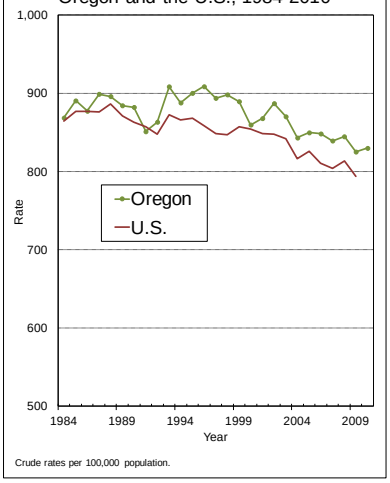
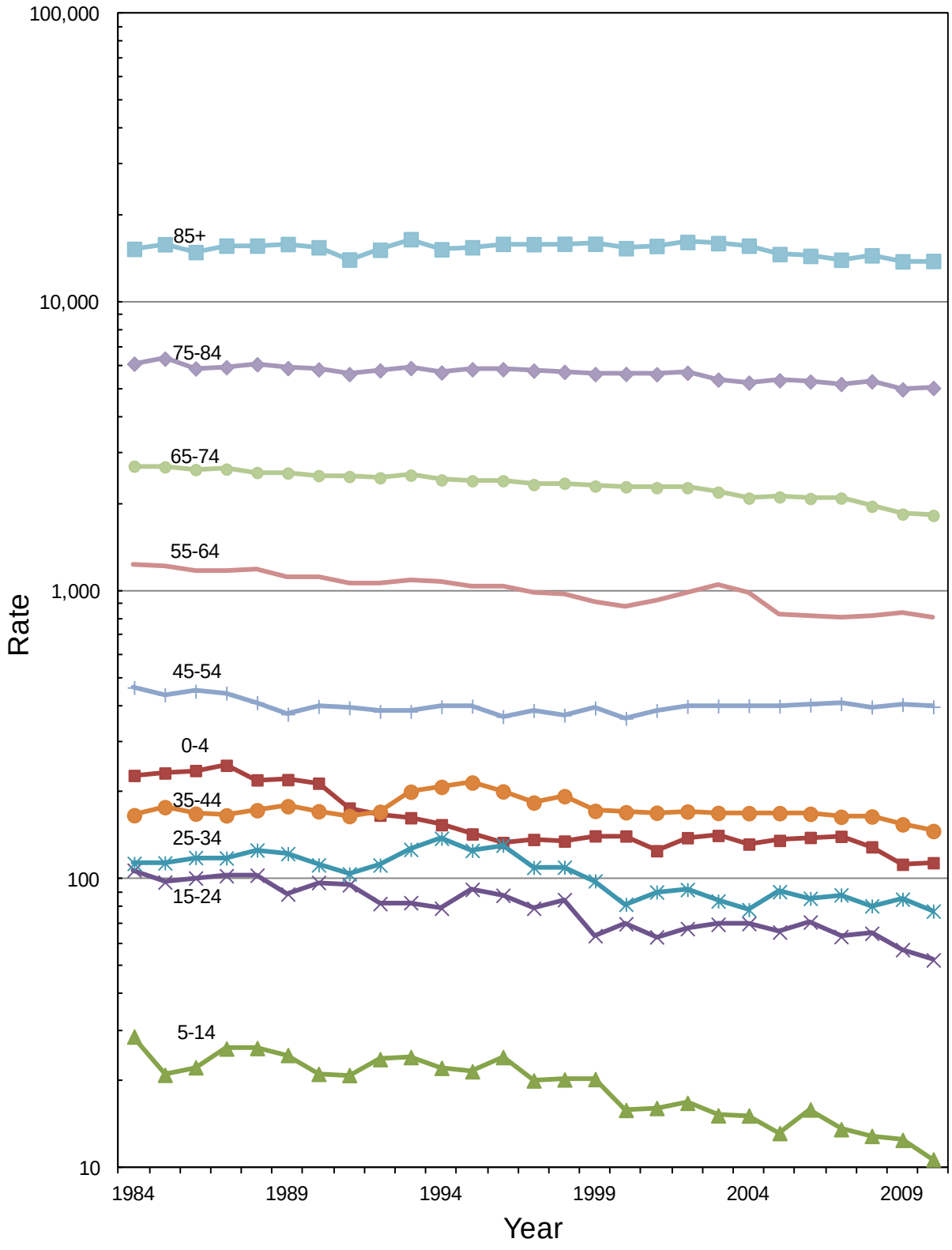


Figure 6-2.
Age-specific death rates, Oregon residents, 1984-2010



Rates per 100,000 population.
Note: A logarithmic scale is used for the vertical axis.

Table A - Life expectancy, Oregon and the United States, 1960-2010						
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	76.7	73.3	80.1	75.4	71.8	78.8
2000	78.0	75.6	80.4	76.8	74.1	79.3
2005	78.5	76.3	80.7	77.4	74.9	79.9
2009	79.4	77.2	81.6	78.5	76.0	80.9
2010	79.5	77.4	81.6	N/A	N/A	N/A

2009 is the most recent year for which final U.S. data are available. US data sources: National Center for Health Statistics. Hyattsville, MD. 2011. Kochanek KD, Xu J, Murphy SL, Minino AM, Hsiang-Ching K. Deaths: Final Data for 2009. National Vital Statistics Reports, Vol 60 no 3. (http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf)

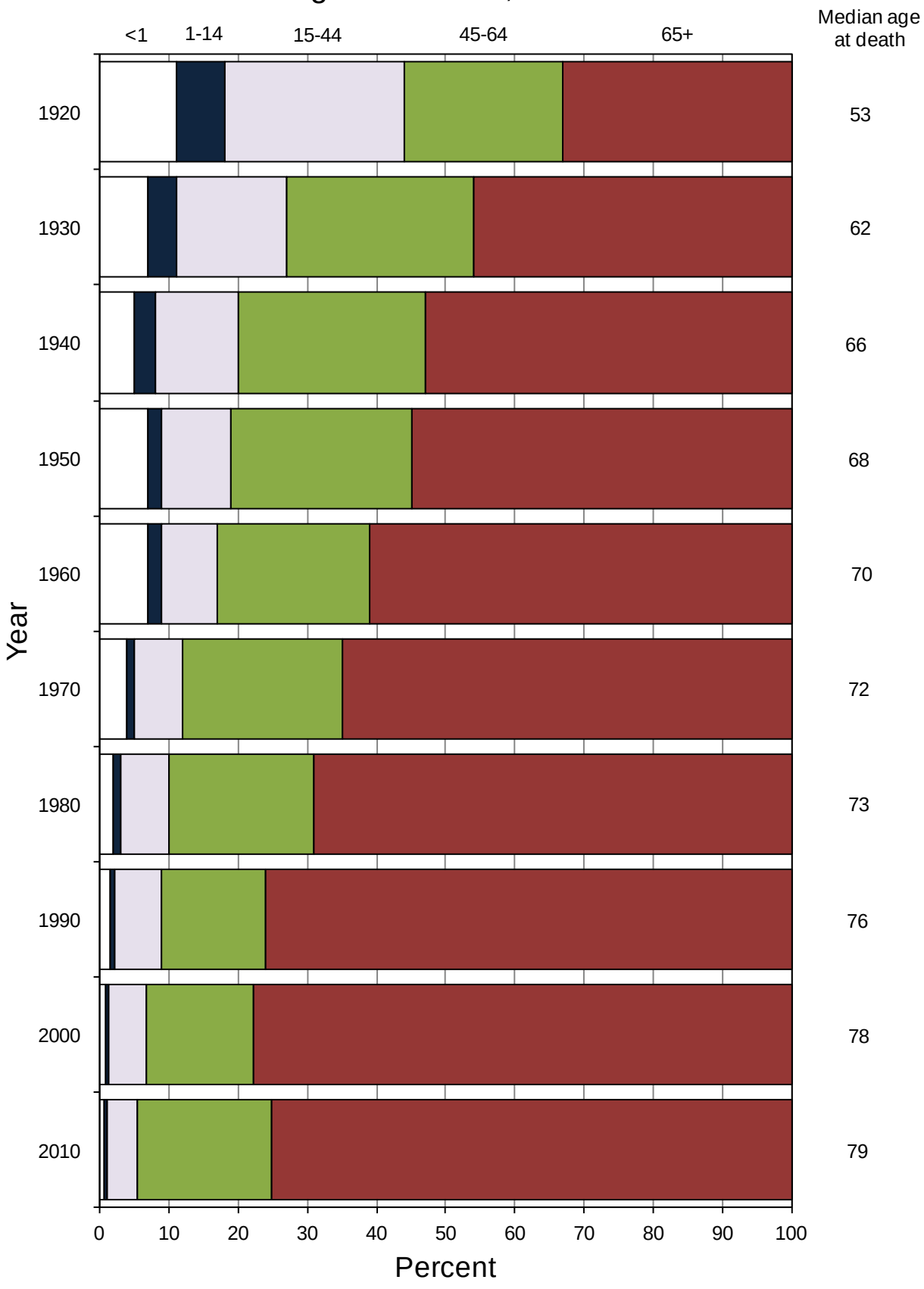
Life expectancy is a theoretical construct representing the average number of years a group of infants will live if they were to experience, throughout their lives, the age-specific death rates present at the time of their birth. It is affected by such factors as the environment, the economy, health behaviors, and changing medical technology.

Oregon's life expectancy increased slightly between 2009 and 2010, from 79.4 to 79.5 years, a record high. Life expectancy stayed the same among females between 2009 and 2010 (81.6) and increased for males (from 77.2 to 77.4).

The oldest Oregonian to die in 2010 was a 107-year-old female.

Life expectancy varied by six years among Oregon's counties, using a five-year average (2006 through 2010). [Table 6-56]. The 13 counties where life expectancy was statistically significantly longer than the state average in 2006–2010 (79.0) were: Benton (82.3), Clackamas (79.4), Crook (80.3), Deschutes (81.2), Gilliam (81.4), Hood River (80.5), Morrow (80.1), Polk (80.0), Sherman (81.9), Tillamook (79.7), Wallowa (81.5), Washington (81.4), and Wheeler (81.6). The 20 counties with significantly shorter life expectancy were: Baker (77.4), Clatsop (78.4), Columbia (78.2), Coos (76.6), Curry (76.7), Douglas (77.0), Harney (78.4), Jefferson (75.9), Josephine (76.8), Klamath (76.0), Lake (77.3), Lincoln (77.6), Linn (77.5), Malheur (78.5), Marion (78.3), Multnomah (78.6), Umatilla (78.1), Union (78.9), Wasco (77.1), and Yamhill (78.6).

Figure 6-3.
Proportion of deaths by selected age groups, Oregon residents, 1920-2010



Demographic characteristics

Gender

Between 2009 and 2010, mortality rates for both males and females increased, resulting in an increase in Oregon's crude rate. [Table 6-1]. The male rate increased only slightly (828.4 per 100,000 population in 2009 compared to 828.5 in 2010), and the female rate increased 1.1 percent (821.8 compared to 831.1).

During 2010, the female crude death rate was higher than the male rate. This was a reversal of what was seen in the 20th century, where male rates were higher than female rates. [Table 6-1]. Increases in female crude death rates vis-à-vis male rates seen over the past decade are largely due to the changing age distribution within these two groups, rather than a decline in the health status of females. Proportionately, there are simply larger numbers of elderly women than men, and the elderly, even under the best of circumstances, are more likely to die than their younger counterparts. Despite recent fluctuations in crude death rates, the age-adjusted death rates for males have consistently been higher than those for females. In the 2008–2010 time period, the male age-adjusted death rate was 34.8 percent higher than the female rate, 870.6 compared to 645.8. [Table 6-47m and Table 6-47f]. (See Appendix B for further information about age-specific and age-adjusted death rates.)

Age

Compared with rates in 2000, age-specific death rates have declined for five of the six age groups shown in Table 6-1; the exception is Oregonians ages 45 through 64 where the rate increased. The greatest decline (32.7 %) was seen among those ages 5–14.

Table 6-1 shows the disparity in age-specific death rates by gender: male rates are higher than female rates across all age categories. The age-specific death rate for males in the 15–24 year age group is 2.8 times higher than the rate for women in the same age group, 76.8 per 100,000 versus 27.1, a statistically significant difference. For both sexes combined, the median age at death remained unchanged in 2010 at 79 years. The male and female median ages at death also remained unchanged at 75 years and 82 years, respectively.

Table B - Age-adjusted death rates by county of residence, 2010

County	RATE
Oregon Total	**735.0**
Baker	827.6
Benton**	578.9
Clackamas	756.0
Clatsop	758.5
Columbia	722.7
Coos*	879.8
Crook	737.4
Curry*	847.2
Deschutes**	656.5
Douglas*	887.0
Gilliam	558.3
Grant	774.9
Harney	847.5
Hood River**	596.1
Jackson	765.9
Jefferson	823.3
Josephine*	814.9
Klamath*	850.2
Lake	903.4
Lane	712.3
Lincoln*	833.8
Linn*	806.9
Malheur	807.8
Marion	753.0
Morrow**	557.2
Multnomah	735.2
Polk	682.7
Sherman	441.1
Tillamook**	626.7
Umatilla*	805.5
Union	749.4
Wallowa	605.2
Wasco*	872.7
Washington**	621.3
Wheeler	560.8
Yamhill	773.6

Rates per 100,000 population.

* Statistically significantly higher than the state rate.

** Statistically significantly lower than the state rate.

County of residence

In 2010, the state age-adjusted death rate was 735.0 per 100,000 population. Nine counties had statistically higher age-adjusted rates, while six counties were significantly lower. [Table B]. Simply residing in a particular county will not necessarily increase or decrease one's chance of dying in a given year. Mortality is a consequence of many factors, including: availability and quality of medical care, environmental exposure, smoking, and other personal health behaviors, socioeconomic status, and heredity. Elevated age-adjusted death rates do not necessarily indicate that residing within one county will cause a reduction in longevity. For example, persons with chronic debilitating disease may move, in disproportionate numbers, to an area with a lower cost of living or to an area with specialized medical facilities.

Hispanic ethnicity and race

Beginning in 2006, the state of Oregon changed its method of collecting race and Hispanic ethnicity information. Previously, the informant on the death certificate could report only one race for the decedent. Since most informants are immediate family members (parents, spouse, or children of the decedent), the assumption is that the informant would know best which race or ethnicity the decedent would have reported. Now the informant on the death certificate can report multiple race categories for the decedent.

There are three Hispanic ethnicity choices based on the country or countries of origin: Mexican, Cuban, and Puerto Rican. A person of Hispanic ethnicity may belong to any race category. There are six major race categories: White, Black or African American, American Indian/ Alaska Native, Asian, Hawaiian or Pacific Islander, and Other Specified.

The data collected for the Asian categories allow for differentiation by Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, and other Asian. Among Pacific Islanders, the data collected allow for differentiation among Hawaiian, Guamanian, Samoan and other Pacific Islander. However, the counts in these more specific race categories are too small for reliable statistical reporting.

Most (93.5 %) decedents are still reported as non-Hispanic White only. Multiple race categories were marked on the death certificates for 209 decedents in 2010. [Table 6-9]. A majority of those with multiple race categories (94.7 %)

identified, in part, as White (in combination with one or two other races), and 75.1 percent of those selecting multiple race categories identified, in part, as American Indian. Allowing multiple race selections raises the mortality counts and rates for all race categories. For instance, when looking at single-mention race categories, the count of American Indian decedents in 2010 was 280. [Table 6-9]. This count increased by 56.1 percent to 437 when also including multiple race decedents identifying in part as American Indian, in combination with other races. [Table 6-10].

Other databases, such as birth, youth surveys, and adult telephone surveys, are now also collecting multiple race categories. The younger participants in those databases more frequently report multiple races.

Table C - Two or more races indicated for decedents, 2010

Race Group*	Percent
White	<1
African American	5.7
American Indian	35.9
Asian[1]	6.5
Hawaiian & Pac. Isl.[2]	22.6

* Decedents of Hispanic ethnicity may belong to any race.

[1] Includes Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, and other Asian.

[2] Includes Native Hawaiian, Guamanian, Samoan, and other Pacific Islander.

Leading causes of death[4,5]

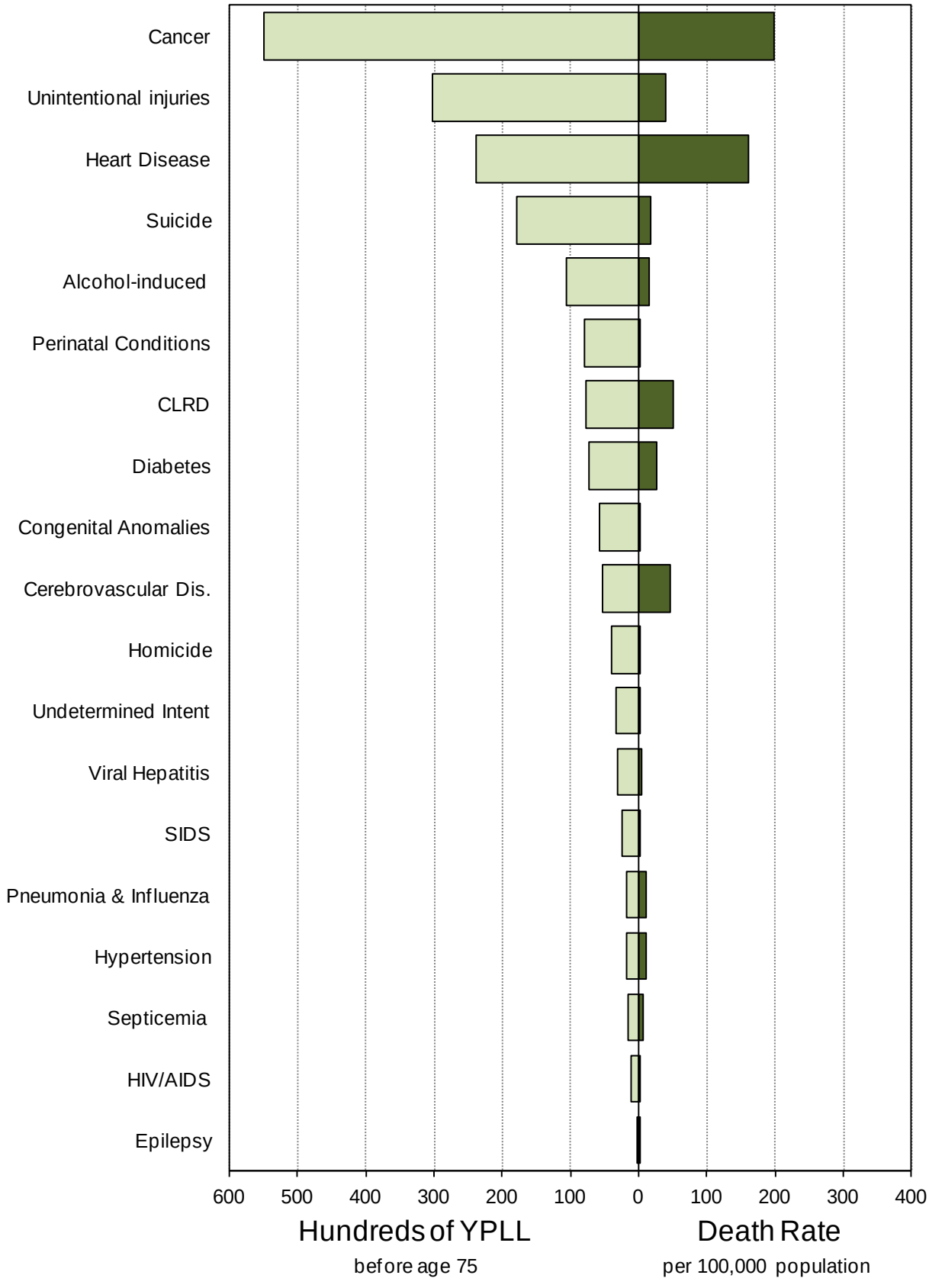
Overview

During the 20th century, with the notable exception of the great influenza pandemic of 1918–1919, heart disease was the leading cause of death among Oregonians. The 21st century, however, has been marked by the emergence of cancer as the leading cause of death. In 2001, for the first time, more Oregonians died from malignant neoplasms than diseases of the heart. During 2010, 7,630 Oregonians died from cancer while 6,191 died from heart disease.

Together, malignant neoplasms and heart disease accounted for 43.3 percent of all deaths during 2010. Although the numbers of deaths resulting from these causes were similar, malignant neoplasms resulted in the loss of over twice as many years of potential life as heart disease, a reflection of the younger ages of cancer's victims. [Figure 6-4 and Table 6-14]. The apparent increasing risk of cancer vis-à-vis heart disease during the 21st century is not the result of an increasing cancer death rate, but rather a declining heart disease death rate. In fact, the malignant neoplasm death rate has trended downwards in the past decade, but the heart disease death rate has fallen more rapidly.

Causes of death varied by age group. Among infants, perinatal conditions were most common, but unintentional injuries ranked first for Oregonians ages 1 through 44. From ages 45 through 84, cancer was the leading cause of death. Among residents 85 or older heart disease ranked first [Table 6-4].

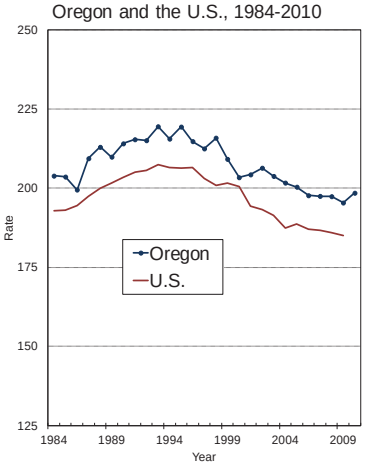
Figure 6-4.
Leading causes of years of potential life lost and corresponding death rates, Oregon residents, 2010



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 the 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 age. With the standard set at 75 years, a death at age 21 results in 54 years lost. The numbers of YPLL for all decedents are then totaled. Figure 6-4 shows, the disparity between death rates and the years of potential life lost. In all references to YPLL in this report, the standard is 75 years, unless otherwise noted. Use of YPLL measures in Figure 6-4 highlights the impact of death due to unintentional injuries. Injuries surpass any other cause for the potential years of life lost as younger people are more likely to die from injuries. [Tables 6-13 and 6-14].

Figure 6-5.
Cancer death rates,
Oregon and the U.S., 1984-2010



Crude rates per 100,000 population.
Comparability ratios applied to data prior to 1999.

Cancer

During 2010, cancer was the leading cause of death among Oregonians, claiming the lives of 7,630 Oregonians. Malignant neoplasms were also a contributing factor, but not the underlying cause, in another 902 deaths. For many decades the cancer crude death rate increased inexorably, but in the early 1990s it hit a plateau; since then, the rate has trended downward. In 2010, the crude death rate increased to 198.5 per 100,000 population compared to 195.4 in 2009.

Figure 6-6.
Distribution of malignant neoplasms
by sex and site, Oregon residents, 2010

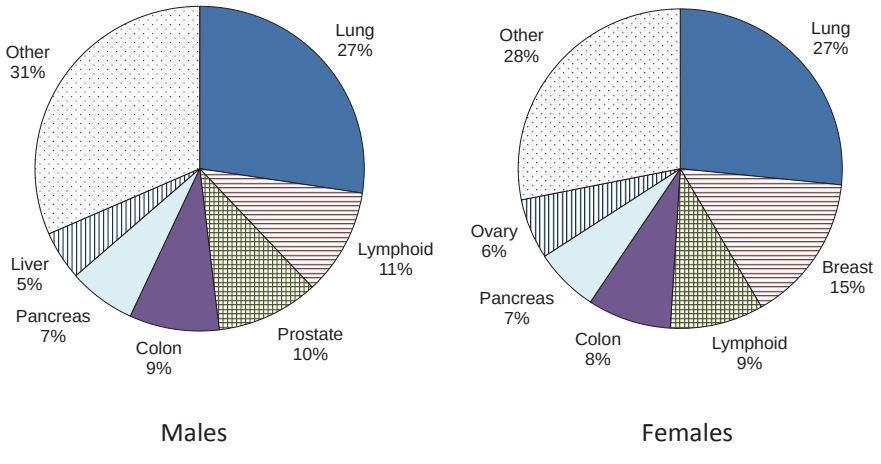


Table D - Lung cancer deaths - ratio of males to females	
1965	5.5
1975	3.6
1985	2.0
1995	1.2
2005	1.2
2010	1.1

[Table 6-3]. Age-adjusted death rates increased slightly as well, rising from 176.7 in 2009 to 177.9 in 2010. [Table 6-46t].

Malignant neoplasms were the leading cause of death for both sexes, but the difference in death rates between males and females has narrowed greatly during the past two decades. During 2010, the crude death rate for cancer was 7.0 percent higher for males than females, 205.2 versus 191.8. [Table 6-2]. Nonetheless, the disparity was far greater when age-adjusted death rates were compared, 206.5 versus 156.7, a 31.8 percent difference. [Table 6-46m and Table 6-46f].

Cancer was one of the top five leading causes of death among Oregonians of all ages, except infants, and was the leading cause of death for residents ages 45 through 84. The median age at death remained unchanged at 73 years. Malignant neoplasms were the leading cause of premature death and accounted for 54,941 years of potential life lost.

During the three-year period 2008–2010, five Oregon counties had age-adjusted rates statistically significantly higher than the state rate (179.1): Lincoln (208.1), Coos (206.5), Douglas (202.1), Josephine (201.9), and Linn (198.2). Three counties recorded statistically significantly lower rates: Washington (158.1), Deschutes (154.2), and Benton (149.9).

Lung cancer claimed the lives of 1.8 times as many women as did breast cancer.

In the past, Oregon's age-adjusted cancer death rate was typically a little lower than the U.S. rate. However, since 2001, Oregon's rate has been slightly higher. In 2009, the rate was 0.2 percent higher than that of the nation and ranked 28th among the states and District of Columbia.[3] [Table 6-54].

The most common fatal cancer for both sexes is lung cancer, a cause that would be rare in the absence of smoking. [Figure 6-6]. The increasing prevalence of smoking drove the decades-long increase in the overall malignant neoplasm death rate, especially among women. In 1960, there were 5.7 male deaths due to lung cancer for every female death, but by 2010 there were 1.1 male deaths for every female death. Although breast cancer is more often in the public eye, lung cancer claimed the lives of 1.8 times as many women as did breast cancer: 983 versus 555, respectively.

Heart disease

Despite brief occasional breaks in the long-term downward trend in its crude death rate, heart disease was the leading cause of death in Oregon during most of the 20th century.

In 2001, for the first time, more deaths (five) resulted from cancer than from heart disease. During 2010, heart disease was the second leading cause of death and 6,191 Oregonians succumbed to heart disease, 1,439 fewer than from malignant neoplasms. The crude death rate fell from 162.8 in 2009 to 161.0 in 2010, while the age-adjusted death rate fell from 143.0 per 100,000 population to 139.7, a record low. By comparison, the age-adjusted death rate was 264.2 in 1990, 89.1 percent higher than the 2010 rate. Heart disease was listed on 5,751 death certificates as a contributing factor in the decedent's death, but not the underlying cause.

The heart disease death rate continues to fall.

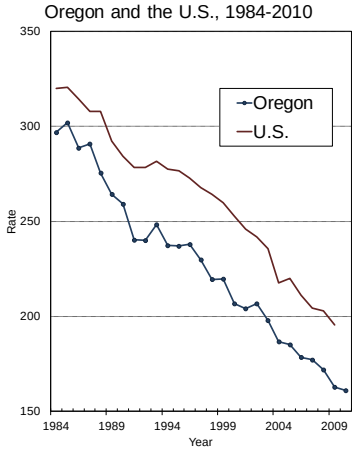
The 2010 crude death rate for heart disease was 11.1 percent higher for males than females (169.5 versus 152.6). The 2010 age-adjusted death rate for heart disease was 59.7 percent higher for males than females (176.2 versus 110.3). [Table 6-46m and Table 6-46f].

Heart disease was the leading cause of death for Oregonians age 85 or older and one of the top-five causes among Oregonians ages 25 through 84. It was the second leading cause of death for residents ages 45-84. [Table 6-4]. The median age at death remained unchanged at 83 years in 2010. [Table 6-15]. The relatively older ages at which Oregonians died from heart disease suppress this cause's rank among the causes of premature death; 23,929 years of potential life were lost, making it the third leading cause of premature death following cancer and unintentional injuries. [Table 6-13].

The age-adjusted death rates for 11 Oregon counties during 2008–2010 were statistically significantly higher than the state rate (145.6): Malheur (197.4), Curry (190.7), Wasco (186.9), Douglas (180.1), Linn (174.8), Lincoln (170.8), Columbia (168.7), Coos (164.9), Klamath (164.2), Josephine (164.0), and Marion (158.1). Statistically significantly lower rates were recorded for four counties: Deschutes (125.9), Lane (125.1), Washington (122.8), and Benton (117.2).

In 2009, the state's age-adjusted death rate was 20.8 percent lower than the U.S. rate, and Oregon ranked 48th (4th lowest) among the states, including the District of Columbia.[3] [Table 6-54]. Oregon's heart disease death rate has long been lower than the U.S. rate; however, the U.S. has seen a striking downward trend in the overall age-adjusted heart disease

Figure 6-7.
Heart disease death rates,
Oregon and the U.S., 1984-2010



Crude rates per 100,000 population.
Comparability ratios applied to data prior to 1999.

Oregon's 2009 age-adjusted heart disease death rate was the 4th lowest nationally.

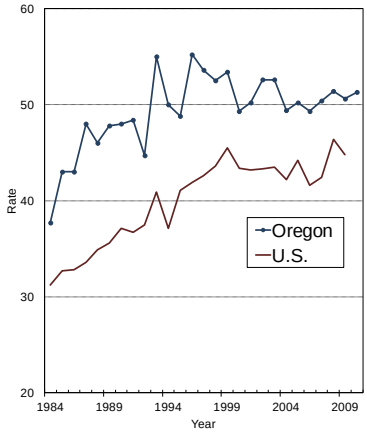
death rate. In 2007 the U.S. age-adjusted rate was 190.9 compared to 180.1 in 2009. [Table 6-57].

Chronic lower respiratory disease

Chronic lower respiratory disease (CLRD) crude death rates increased steadily for several decades, reaching a record high of 54.9 per 100,000 population in 1996. Increased smoking, particularly by women, drove the rising death rate. CLRD is now the third leading cause of death, with 30 more deaths than cerebrovascular disease. Since 2000, the rate has varied little, ranging between 49.3 and 52.6. [Table 6-3, Figure 6-8]. The crude death rate for CLRD increased from 50.6 per 100,000 in 2009 to 51.3 in 2010. The age-adjusted death rate increased from 46.4 to 46.5 [Table 6-46t]. CLRD was the underlying cause of death for 1,973 of Oregon's residents, but it contributed to an even larger number of deaths where it was not the underlying cause: 2,106.

In 2010, more females than males died from CLRD (1,026 versus 947), and the crude death rate was also higher for females than for males (53.3 versus 49.4). However, the age-adjusted death rate was higher for males: 51.6 per 100,000 population versus 42.8 for females. [Tables 6-46m and 6-46f]. For most of the 20th century, far more males succumbed to CLRD than did females, but since 1999 this pattern has generally been reversed (with the exceptions of 2002 and 2008). The increasing number of women dying from CLRD is a reflection of the age distribution of Oregon's population. Even in years where more females than males died of CLRD, the age-adjusted death rates were still higher for males than females.

Figure 6-8.
CLRD death rates,
Oregon and the U.S., 1984-2010



Crude rates per 100,000 population.
Comparability ratios applied to data prior to 1999.

CLRD is the third leading cause of death for Oregonians ages 55 to 84, and the age group with the largest number of CLRD deaths (677) was residents ages 75 to 84. [Table 6-4]. Although the third most common cause of death overall, chronic lower respiratory disease ranked seventh in the number of years of potential life lost (7,799). The median age at death was 78, unchanged from the previous year.

During the three-year period 2008–2010, four counties had age-adjusted death rates statistically significantly higher than the state's (47.0): Douglas (64.5), Lincoln (63.6), Curry (63.6), and Umatilla (61.1). Four counties had significantly lower rates: Polk (36.6), Washington (31.7), Hood River (28.9), and Benton (26.7).

Oregon's age-adjusted CLRD death rate has long been higher than that of the nation, but the disparity has abated somewhat in recent years. The greatest disparity occurred in 1987 when Oregon's rate was 26.8 percent higher and ranked 11th among the states, including the District of Columbia. During 2009, the state's rate was 7.8 percent higher than the nation's rate and ranked 24th.[3] [Table 6-54]. Chronic lower respiratory disease includes a variety of conditions including emphysema, COPD, bronchitis, and asthma.

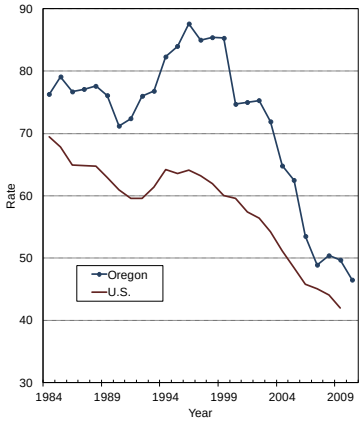
Cerebrovascular disease

Accounting for 5.6 percent of all deaths, cerebrovascular disease was the fourth leading cause of mortality among Oregonians. The number of deaths attributed to cerebrovascular disease fell from 1,900 in 2009 to 1,787 in 2010. The number of deaths where this disease was a contributing factor increased slightly from 1,356 to 1,373. For the past decade, the crude death rate for this cause has trended downward, and in 2010 fell to a record low of 46.5 per 100,000 population, down from 49.7 in 2009. [Figure 6-9]. The age-adjusted death rate also decreased, from 44.0 in 2009 to 40.5 in 2010. [Table 6-46t].

For trend analysis, researchers should be aware of a coding change that occurred between 2004 and 2005 when the National Center for Health Statistics altered the cause of death classification methodology. In prior years, "multi-infarct dementia" was coded to I63.9 (cerebral infarction, unspecified) and "vascular dementia" as I67.9 (cerebrovascular disease, unspecified). Beginning in 2005, "multi-infarct dementia" was assigned to code F01.1 and "vascular dementia" to F01.9. Therefore, certain deaths are no longer counted as forms of organic dementia, reducing the number and rate of deaths attributed to this cause following 2005.

More females than males died from cerebrovascular disease, and the male crude death rate was 25.4 percent lower than the rate for females (39.7 versus 53.2). While the age-adjusted rate for males was 9.9 percent higher than the rate for females (42.2 versus 38.4), the difference was not statistically significant. [Tables 6-46m and 6-46f].

Figure 6-9.
Cerebrovascular disease death rates,
Oregon and the U.S., 1984-2010

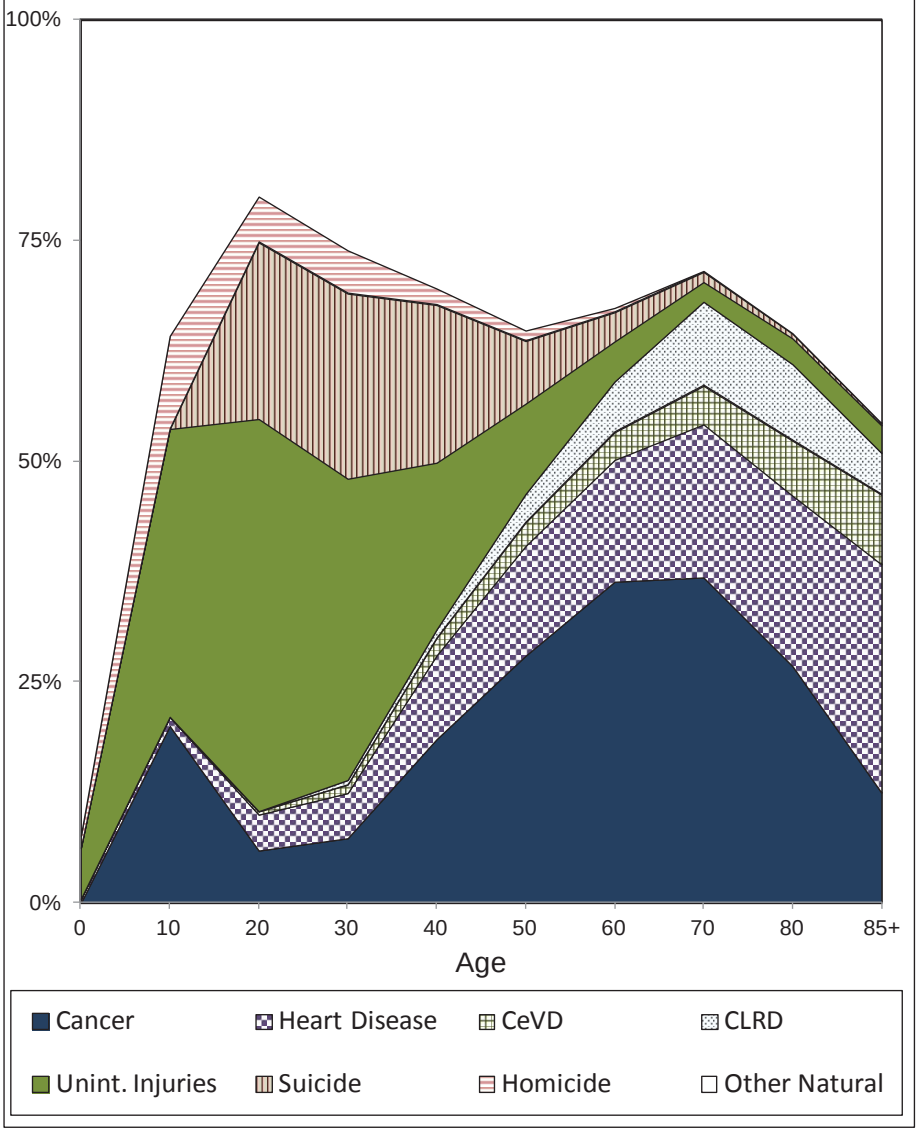


Crude rates per 100,000 population.
Comparability ratios applied to data prior to 1999.

Fatal cerebrovascular disease was uncommon before age 45, but by age 65 it was the fourth most common cause of death among Oregon residents. [Table 6-4]. Despite the frequency with which it occurred, it ranked 10th by years of potential life lost (5,206), a consequence of the older ages of decedents (compared to relatively younger ages at death for many other causes). [Table 6-13]. Over three-fourths (76.0 %) of the deaths occurred after age 74, and the median age at death remained unchanged from the previous year at 84 years.

During the three-year period 2008–2010, one county had an age-adjusted death rate statistically significantly higher

Figure 6-10.
Percentage of deaths by cause and age, Oregon residents, 2010



than the state rate (43.3): Marion County (50.7). One county had a significantly lower rate: Lane County (38.0).

The cerebrovascular disease death rate has long been higher in Oregon than in the U.S. as a whole. In 2009, the age-adjusted death rate was 12.9 percent higher than the nation's rate and ranked 13th among the states, including the District of Columbia.[3] [Table 6-54].

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

Unintentional injuries

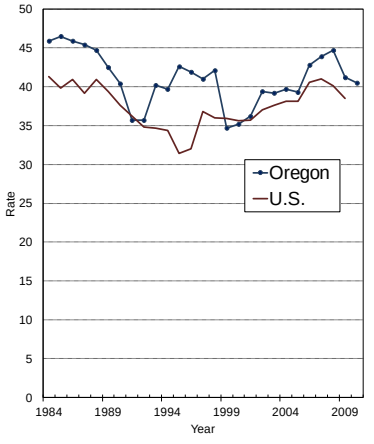
The unintentional injury[6] crude death rate decreased from 41.2 in 2009 to 40.5 in 2010. [Table 6-3 and Figure 6-11]. Fatal unintentional injuries claimed the lives of 1,557 Oregonians, and contributed to the deaths of another 596 residents. The age-adjusted death rate decreased from 38.8 a year earlier to 37.8 in 2010. Unintentional injuries were the fifth leading cause of death of Oregonians.

A strong gender dichotomy exists in unintentional injury deaths. The crude death rate was higher for males than for females (48.9 versus 32.1). The disparity in age-adjusted death rates was even greater; the male rate was 1.8 times the female rate: 49.1 versus 26.9. [Tables 6-46m and 6-46f].

Unintentional injuries were the leading cause of death among children and adults ages 1-44 years. [Table 6-4]. While age-specific rates are relatively invariant from the mid-teens until middle age, the oldest age groups have a greatly increased unintentional injury death rate largely due to increased risk of falling. [Table 6-7t and Figure 6-12]. Although the fifth leading cause of death, unintentional injuries ranked second in years of potential life lost (30,199), reflecting its role as the most common killer of young Oregonians. The median age at death increased from 55 in 2009 to 60 in 2010. By comparison, the median age at death in 1996 was 43.

Excluding counties with fewer than 20 deaths in the unintentional injury category during the 2008–2010 period, eight counties had age-adjusted death rates statistically significantly higher than the state rate (39.6): Lake (92.1), Harney (85.7), Jefferson (82.9), Baker (66.6),

Figure 6-11.
Unintentional injury death rates,
Oregon and the U.S., 1984-2010



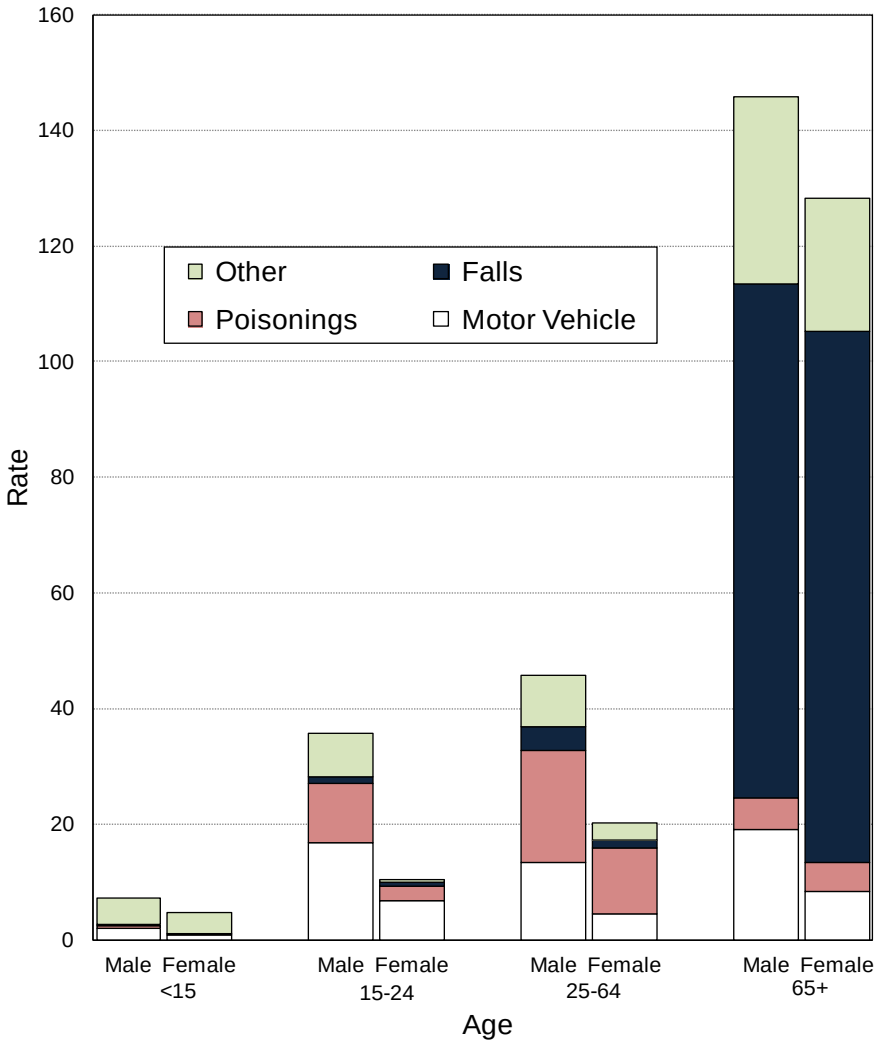
Crude rates per 100,000 population.
Comparability ratios applied to data prior to 1999.

Curry (62.3), Josephine (57.3), Douglas (50.3), and Lane (44.7). Two counties had significantly lower rates: Washington (26.4) and Benton (21.7).

During most of the past several decades, Oregon's unintentional injury death rate has, with few exceptions, been higher than that of the nation. In 2009, the state's age-adjusted death rate was 5.4 percent higher than the U.S. rate and ranked 31st among the states and District of Columbia.[3]

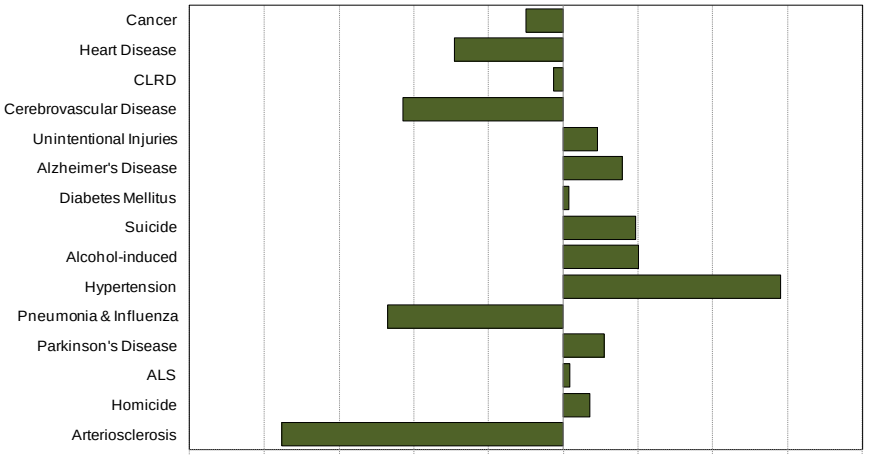
Thirty-seven work-related deaths occurred in Oregon in 2010 (including both Oregon and non-Oregon residents). The victims were overwhelmingly male (31 males versus six females), with motor vehicle crashes accounting for most of the deaths. [Table 6-49].

Figure 6-12.
Unintentional injury death rates by age and type of injury, Oregon residents, 2010



Rates per 100,000 population.

Figure 6-13.
Percentage change in age-adjusted mortality rates for selected causes of death between 2000 and 2010, Oregon residents



CLRD = Chronic Lower Respiratory Disease

Just as the leading cause of death varies within different age groups, so does the type of fatal unintentional injury. [Figure 6-12]. Unintentional injury deaths occurring to children under five years of age most commonly resulted from suffocation. Transportation-related injuries were most common among decedents ages 5–24 and 55–64. Among those ages 25–54 poisoning (usually of drugs used in an illicit manner) was the most common cause of unintentional injury death. Falls were the most common type of unintentional injury death among Oregonians 65 or older. [Table 6-26].

Falls. Falls were the most common type of fatal unintentional injury in 2010, claiming 535 Oregonians, most of whom (87.9%) were 65 or older. [Table 6-26]. Falls commonly occurred on the same level (63.4 %), most often from slipping or tripping. Twenty-four (24) involved stairs and steps, 15 involved falls from beds, and falls from buildings or structures caused eight deaths. [Table 6-27]. The age-adjusted death rates for fatal falls revealed that the male rate was 33.0 percent higher than the female rate (14.1 versus 10.6). [Table 6-46m and Table 6-46f]. The age-adjusted death rate for falls has increased 64.4 percent since 2000, from 7.4 per 100,000 population to 12.1 in 2010, a statistically significant difference.

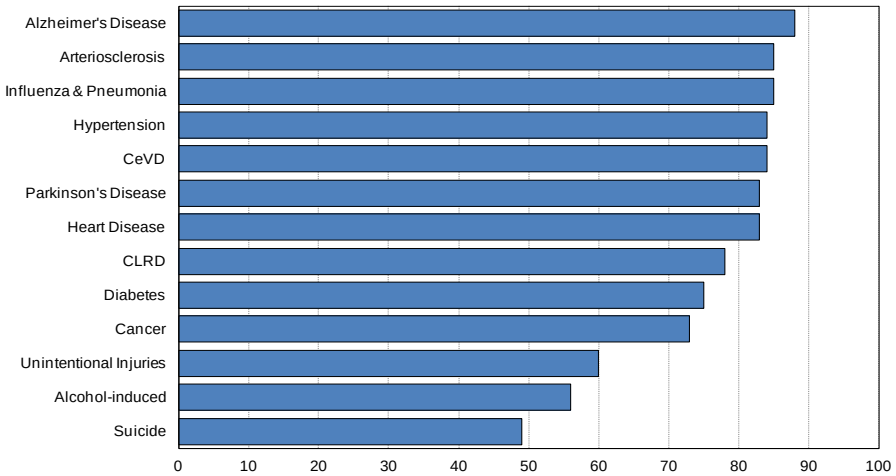
Overdoses and poisonings. Unintentional poisonings involving drugs/medications, most often by narcotics and hallucinogens, ranked second among the types of fatal

unintentional injuries, claiming 383 Oregonians in 2010. The 2010 age-adjusted death rate for poisonings is 2.5 times higher than the age-adjusted rate in 2000 (9.8 in 2010 versus 3.9 in 2000), a statistically significant difference. As with most other types of unintentional injuries, age-adjusted poisoning death rates were far higher for males than females (12.4 versus 7.0). [Table 6-46m and Table 6-46f]. The death rate peaked among residents ages 45–54 (20.2 per 100,000). [Table 6-7t].

Although 383 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, a death could be attributed to an unintentional injury or to a mental/ behavioral disorder (see the first footnote of Table 6-34).

Transportation and related fatalities. Transportation-related injuries accounted for the third largest number of unintentional injury deaths (360) among Oregon residents, with motor vehicle traffic accidents accounting for 85.3 percent of all transportation injury deaths. [Table 6-26]. Of the 307 motor vehicle traffic accidents, 72.6 percent occurred among males. The age-adjusted motor vehicle traffic accident death rate for males was 2.8 times higher than the rate for females (12.0 per 100,000 population versus 4.3). [Tables 6-46m and 6-46f]. Although teens and young adults ages 15–24 accounted for 19.2 percent of all transportation fatalities, age-specific death rates were highest

Figure 6-14.
Median age at death for selected causes of death,
Oregon residents, 2010



CeVD = Cerebrovascular Disease
CLRD = Chronic Lower Respiratory Disease

among the elderly. In rank order, the motor vehicle traffic accident death rates were highest for residents ages 75–84 (19.1), 85+ (13.9), 15–24 (11.5), 55–64 (11.0), and 45–54 (8.9). [Table 6-7t].

In most motor vehicle land transport deaths occurring in Oregon, the fatalities occurred among persons traveling by unspecified vehicle (91), car (88), foot (74), motorcycle (44), or pickup or van (32). Less common were the deaths of those traveling by pedal cycle (10), all-terrain vehicle (9), heavy transport vehicle (5), animal-drawn vehicle (3), and agricultural vehicle (1). While 18.2 percent of all fatalities occurring among persons in cars resulted from non-collisions (i.e., rollovers following loss of control), 28.1 percent of fatalities occurring among persons in pickups or vans involved non-collisions. [Table 6-28].

Suffocation or obstruction. Ranking fourth, suffocation or obstruction (including hanging and strangulation) accounted for the deaths of 90 residents. [Table 6-26]. Of these 90 deaths, most (45, or 50.0 %) involved inhalation or ingestion of objects or substances other than food or gastric contents. Oregonians age 85 and older accounted for the highest number of deaths (20, or 22.2 %), and those ages 75 to 84 accounted for the second highest number of deaths (19, or 21.1 %).

Drownings. Ranking fifth, drownings (including those involving watercraft) accounted for the deaths of 63 residents. [Table 6-26]. There were 69 drowning deaths that occurred in Oregon (including non-resident deaths), and most of these deaths did not involve watercraft. Forty-five deaths occurred in natural water. Seven deaths occurred in bathtubs/hot tubs and three occurred in swimming pools. Three deaths involved watercraft. [Table 6-31].

Alzheimer's disease

Historically, the number of deaths from Alzheimer's disease has mirrored the aging of Oregon's population, but deaths from Alzheimer's disease have fluctuated little in recent years. The number of deaths increased from 1,212 in 2009 to 1,297 in 2010. The crude death rate also increased, from 31.7 per 100,000 in 2009 to 33.7 in 2010. The highest Alzheimer's disease death rate was seen in 2004 (35.3).

The age-adjusted death rate also increased, from 27.7 in 2009 to 28.7 in 2010. While the age-adjusted death rate has fluctuated little in recent years, it has increased over time. The 2010 age-adjusted rate is 78.3 percent higher than the 1990 rate (16.1). This is the largest increase seen among the top 10 leading causes of death. Alzheimer's disease also contributed to the deaths of 336 residents (where it was not the underlying cause).

Women have long been at greater risk of dying from this disease, in part because they are less likely to die from causes that most commonly lead to death at younger ages. The age-adjusted death rate for women was 33.5 percent higher than that for men (31.9 versus 23.9). [Tables 6-46m and 6-46f]. Alzheimer's disease was the ninth leading cause of death among men but fifth among women. [Table 6-2].

This devastating disorder takes years to claim its victim's lives; 94.7 percent of Alzheimer's deaths in 2010 occurred after the decedent's 75th birthday. [Table 6-6]. The median age at death increased to a record high of 88 years in 2010. Alzheimer's disease was the sixth leading cause of death overall.

Excluding those with fewer than 20 deaths in this category, five counties had statistically significant higher age-adjusted death rates than the state (28.9) during the three-year period 2008–2010: Wasco (45.1), Coos (38.4), Klamath (38.0), Jackson (37.4), and Clackamas (37.0). Two counties had significantly lower rates: Linn (22.7) and Marion (22.0).

Oregonians have long been more likely to die from Alzheimer's disease than other U.S. residents. In 2009, the state's age-adjusted death rate was 17.4 percent higher than the nation's (27.6 and 23.5, respectively) and ranked 15th among the states and District of Columbia.[3] [Table 6-54].

Although deaths resulting from Alzheimer's disease and Alzheimer's dementia are counted here, deaths attributed to dementia, organic dementia, presenile dementia, multi-infarct dementia, and vascular dementia are included in ICD-10 codes F01 (vascular dementia) and F03 (unspecified dementia).

Beginning in 2005, the National Center for Health Statistics changed the way certain types of dementia were classified, resulting in an increase in the number of deaths attributed to vascular dementia (F01) and a decline in the number of deaths counted in the cerebrovascular disease category (see

Table 6-6, footnote 10, for additional information). During 2010, the deaths of 1,907 Oregonians were attributed under the rubric "organic dementia" (ICD codes F01 and F03). Together, organic dementia and Alzheimer's disease/dementia accounted for 3,204 deaths, surpassing the third leading cause of death, chronic lower respiratory disease (1,973).

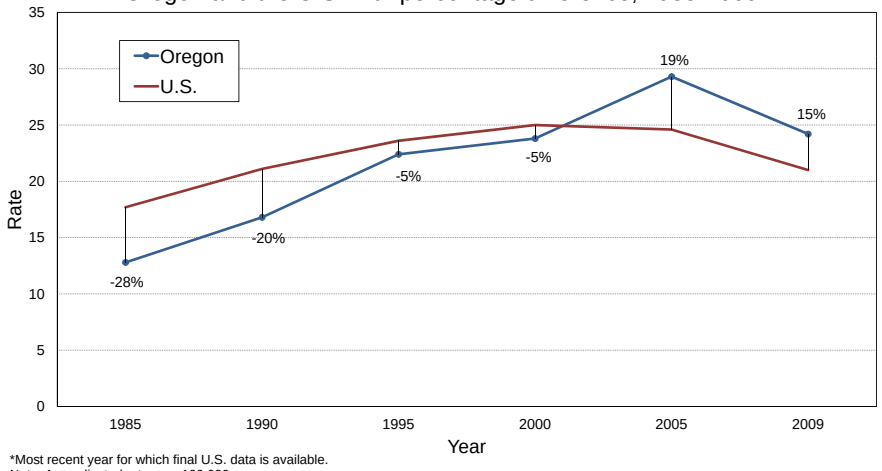
Table E - Diabetes death rates and state ranking		
Year	**U.S.**	**Oregon**
1982	17.2	12.2
Percent difference: -29.1		
Rank: Lowest		
2009	20.9	25
Percent difference: +19.6		
Rank: 11th highest		

Diabetes mellitus

During 2010, diabetes mellitus was the seventh leading cause of mortality. Although the death rate for diabetes increased nearly every year during 1985–2001, it changed little during 2001–2004. Then, in 2005 the rate increased 4.0 percent over the 2004 rate to a high of 31.1 per 100,000 population. The rate has since decreased. The rate in 2010 was slightly lower than the rate in 2009 (27.4 versus 28.0). [Table 6-3]. The age-adjusted rate in 2010 (24.2) was 40.7 percent higher than the rate in 1990 (17.2) and 17.4 percent lower than 2005's record high (29.3). Diabetes was a contributing factor more often than it was the underlying cause of death: 2,595 versus 1,052.

The crude death rate for males was 19.7 percent higher than the rate for females (29.8 versus 24.9). [Table 6-2]. The difference between male and female rates was even greater when looking at age-adjusted rates. The age-adjusted death rate for males was 54.6 percent higher than the rate for females (30.0 versus 19.4). [Tables 6-46m and 6-46f].

Figure 6-15.
Age-adjusted Diabetes Mellitus death rates,
Oregon and the U.S. with percentage difference, 1985-2009*



*Most recent year for which final U.S. data is available.
Note: Age-adjusted rates per 100,000.

The majority of deaths (89.4 %) occurred after age 54. Three Oregonians younger than 25 years old died from diabetes in 2010. It was the fifth leading cause of death among Oregonians ages 55–74. The median age at death remained unchanged at 75 and was one of the lower median ages recorded among the natural causes of death. [Table 6-15]. Diabetes resulted in a loss of 7,292 years of potential life.

During the three-year period 2008–2010, three counties had statistically significantly higher age-adjusted death rates compared to the state's (24.7): Klamath (38.0), Umatilla (35.7), and Marion (31.8). No counties had a significantly lower rate.

Prior to 1987, Oregon's age-adjusted diabetes death rate was consistently 25 percent to 30 percent lower than the nation's. The Oregon advantage gradually diminished thereafter, and in 1997, for the first time, Oregon's rate exceeded the U.S. In 2009, Oregon's age-adjusted rate was 19.6 percent higher than the U.S. rate, ranking 11th among the states and District of Columbia.[3]

Suicide

Suicide claimed the lives of 685 Oregonians during 2010, increasing from 640 deaths in the previous year. The crude death rate increased from 16.7 per 100,000 population in 2009 to a record high of 17.8 in 2010. [Table 6-3]. The age-adjusted death rate was 17.1 during 2010, up from 16.1 the year before, but still slightly lower than the record high of 17.2 in 1998. [Table 6-46t].

Males have long been at a far greater risk than females, with age-adjusted death rates of 27.2 and 7.5, respectively. [Tables 6-46m and 6-46f]. Gender-specific rate differences were greatest among the elderly. [Tables 6-7m, and 6-7f].

Overall, suicide rates peak among the elderly, but this masks a gender-based dichotomy: females were more likely to die by suicide in middle age where the crude rate peaked at 15.1 among 45- to 54-year-olds, while rates among males generally increased with age, with the highest crude rate (82.1) recorded among those over age 84. [Tables 6-7t, 6-7m and 6-7f]. Although suicide death rates are high among the elderly, 62.2 percent of deaths occurred before age 55, resulting in the fourth largest number of years of potential life lost (17,963) by cause. Suicide was the second-leading cause of death among residents ages 15–34, third among

those ages 35–44, and fifth among those ages 45–54. The median age at death remained unchanged at 49 years. The youngest person to die by suicide was a 15-year-old male and the oldest a 97-year-old male.

Excluding counties with fewer than 20 deaths in this category, four Oregon counties had age-adjusted death rates that were statistically significantly higher than the state's rate (16.0) during the three-year period 2008–2010: Curry (38.7), Coos (31.3), Klamath (27.8), and Jackson (20.2). Two counties had significantly lower rates: Washington (12.2) and Benton (9.9).

Table F - Number of times a male Oregonian was more likely to die by suicide than females, by age, 2006-2010	
5-14	2.2
15-24	4.0
25-34	4.2
35-44	2.5
45-54	2.7
55-64	3.3
65-74	4.4
75-84	7.7
85+	24.8

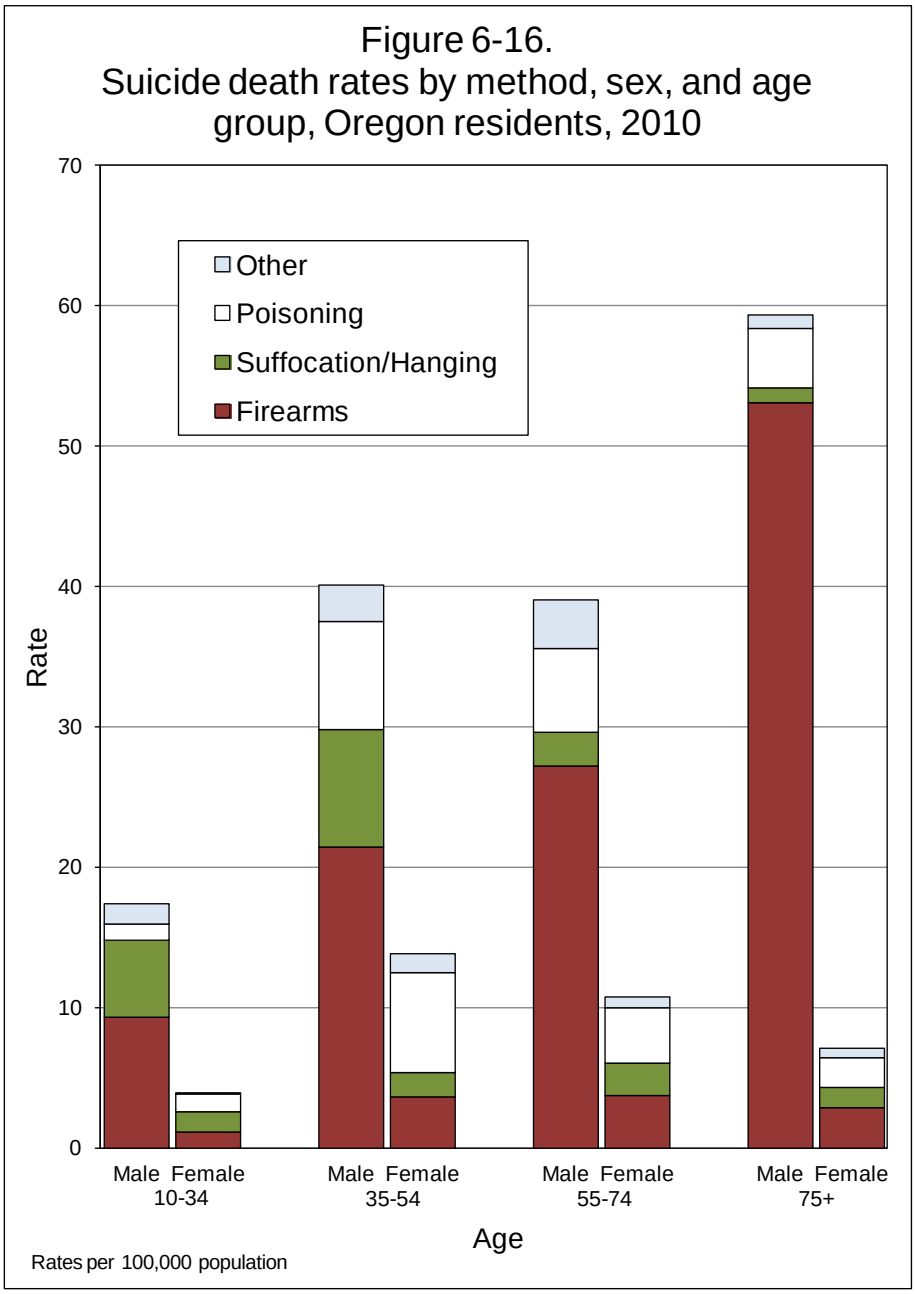


Table G - Suicide characteristics by region, 2010			
Age	**Metro[1]**	**Coastal[2]**	**Other**
<25	6.2%	3.3%	9.7%
25-64	79.0%	71.7%	70.7%
65+	14.8%	25.0%	19.6%
Method	**Metro[1]**	**Coastal[2]**	**Other**
Firearm	45.7%	61.7%	59.7%
Hanging/suff.	20.2%	10.0%	17.0%
Poison	23.0%	18.3%	19.1%
Other	11.1%	10.0%	4.2%

[1] Metro counties: Clackamas, Multnomah, and Washington.
[2] Coastal counties: Clatsop, Coos, Curry, Lincoln, and Tillamook.

Oregonians have long had higher suicide rates than residents of most other states. In 2009, Oregon's age-adjusted suicide rate was 36.4 percent higher than the nation's and ranked 11th among the states and District of Columbia.[3]

The method of suicide varied by age and gender, but overall most deaths (54.9 %) resulted from fatal gunshot injuries. [Table 6-32 and Figure 6-16]. Firearms were the most common method of suicide for males (61.9 %) and the second most common method for females (30.0 %). Handguns were utilized in 67.3 percent of firearm suicides.

Poisoning was the second most common method of suicide (20.4 %). However, the proportion of females who poisoned themselves was three times that of males (42.7 versus 14.2 %). Drugs and medications were the most common method of poisoning for both females (84.4) and males (78.9).

Hanging/suffocation was the third most common method of suicide (17.5 %). A slightly higher proportion of females committed suicide in this manner than males (19.3 and 17.0 percent, respectively).

Alcohol-induced deaths[7]

The alcohol-induced deaths category was created to summarize alcohol-related deaths, but excludes alcohol-related injury deaths. It is not typically reported as a leading cause of death within the National Center for Health Statistics leading causes of death taxonomy, but when alcohol conditions are combined it becomes the ninth leading cause of death in Oregon. This category is comprised of alcohol-related disorders from multiple organ systems, with alcoholic liver disease accounting for the greatest number of deaths (63.2 %). If intentional and unintentional injury deaths where alcohol was a factor (e.g., motor vehicle crashes and homicides) 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.

Alcohol-induced deaths claimed 571 Oregonians during 2010. Additionally, alcohol was a contributing factor, but not the direct cause, in no fewer than 544 deaths. [Table 6-50]. The crude death rate remained unchanged at 14.9 per 100,000 population during 2010, and the age-adjusted death rate decreased from 13.4 in 2009 to 13.0 in 2010. [Table 6-46t].

Fatal alcohol abuse was the eighth leading cause of death among men and 11th leading cause among women, but the difference is greater than this would suggest: the age-adjusted death rate for males was 2.7 times the rate for females, 19.2 versus 7.2, respectively. [Tables 6-46m and 6-46f].

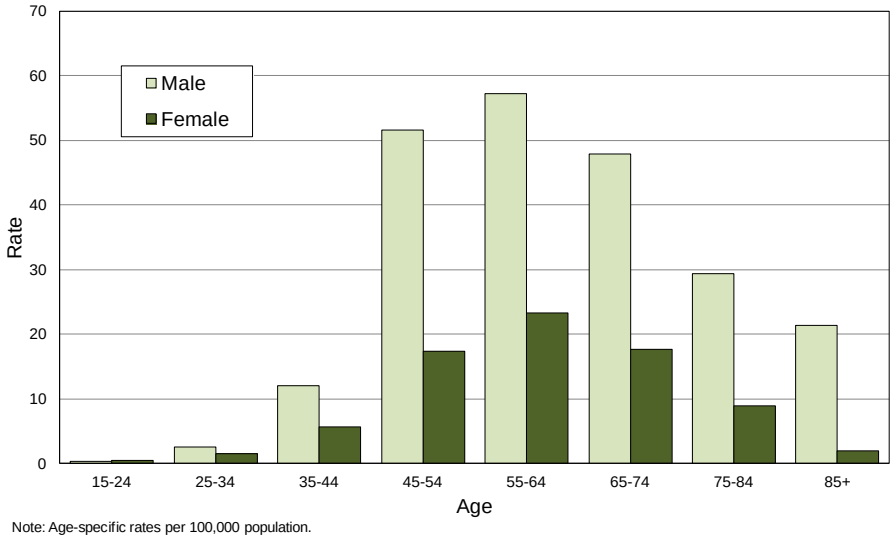
Oregon's 2009 age-adjusted alcohol-induced death rate was the 4th highest nationally.

Age-specific alcohol induced death rates peaked among residents ages 55–64. [Table 6-7t and Figure 6-17]. This category was the fourth leading cause of death among residents ages 45–64 years and the fifth leading cause of death among those ages 35–44. The median age at death remained unchanged from the previous year at 56. Oregonians are dying at markedly younger ages than they were in 1988 when the median age of alcohol-induced death was 62. In 2010, alcohol-induced death was the fifth leading cause of premature death, accounting for 10,666 years of potential life lost.

During the period 2008–2010, five counties had age-adjusted rates statistically significantly higher than the state's rate (13.1), excluding counties with fewer than 20 deaths in this category: Jefferson (40.1), Klamath (26.1), Crook (24.9), Coos (24.6), and Josephine (19.1). Rates were significantly below the state rate in three counties: Washington (8.3), Clackamas (8.3), and Benton (7.9).

The Oregon alcohol-induced death rate has long been higher than that for the United States. In 2009, Oregon's

Figure 6-17.
Age-specific alcohol-induced death rates, by sex,
Oregon residents, 2010



Note: Age-specific rates per 100,000 population.

Table H - Alcohol-induced deaths by diagnoses, 2010	
Diagnosis	**Count**
Alcoholic liver disease	361
Mental/behavioral disorders	136
Poisoning, accidental	44
Cardiomyopathy	12
Acute or chronic pancreatitis	12
Degeneration of nervous system	3
Poisoning, undetermined intent	3

age-adjusted rate was 86.5 percent higher than the nation's and ranked fourth among the states and the District of Columbia.[3] However, at least part of the difference between the state and the nation likely results from a reporting artifact: while Oregon queries physicians for additional information when causes listed on death certificates are suggestive of alcohol use, such as esophageal varices, many states do not.

Influenza and pneumonia

During 2010, influenza/pneumonia claimed 419 Oregonians, down from 509 a year earlier. The crude death rate decreased from 13.3 per 100,000 population in 2009 to 10.9 in 2010. In addition, the age-adjusted rate decreased from 12.0 to 9.3. Influenza and pneumonia contributed to three times as many deaths as they directly caused: 1,254.

Although more women than men died from these two infectious diseases in 2010 (226 versus 193), age-adjusted death rates revealed that males were still at greater risk (10.6 per 100,000 population versus 8.6). [Tables 6-46m and 6-46f]. These two related types of pulmonary infections claimed Oregonians in every age group, but 74.2 percent of the deaths occurred after age 74. The median age at death increased from 83 to 85.

During the three-year period of 2008–2010, the age-adjusted death rate was statistically significantly higher than the state's rate (11.2) in Union County (21.5). Washington County had a significantly lower rate (8.3).

Oregon's 2009 age-adjusted influenza and pneumonia death rate was the 5th lowest nationally.

In recent years, Oregon's age-adjusted death rate for influenza and pneumonia has been markedly lower than the rates for most other states. In 2009, Oregon's age-adjusted death rate was 27.2 percent lower than the nation's and ranked 47th (5th lowest) among the states, including the District of Columbia.[3] [Table 6-54].

In 1918, influenza spread across America in less than a week and around the world in three months. The pandemic persisted into 1919, with influenza the leading cause of death in Oregon during both years. In 1918 alone, the pandemic claimed the lives of 2,105 Oregonians at a time when Oregon's population was much smaller than it is today

.

Hypertension

During 2010, 442 Oregonians died as a consequence of hypertension (including hypertensive renal disease), making it the 10th leading cause of death. However, the number of deaths attributed to hypertension does not include all deaths related to this cause because many have been classified to more specific manifestations of cardiovascular disease. The crude death rate increased from 11.1 in 2009 to a record high of 11.5 in 2010, which is 2.3 times higher than the 1990 rate of 5.0. [Table 6-3]. The age-adjusted death rate increased slightly from 9.5 in 2009 to 9.8 in 2010. The highest age-adjusted rate was in 2005 (10.6).

Oregon's 2009 age-adjusted hypertension death rate was 7th highest nationally.

The crude death rate for females was higher than the rate for males (13.7 versus 9.3). The age-adjusted death rate for females was slightly higher than the rate for males (9.8 versus 9.5).

Deaths from hypertension are rare among middle-aged and younger Oregonians, but by age 65 begin to increase sharply. Age-specific death rates are 16.7 times higher among residents 85 or older compared to those ages 65–74 (272.9 versus 16.3).

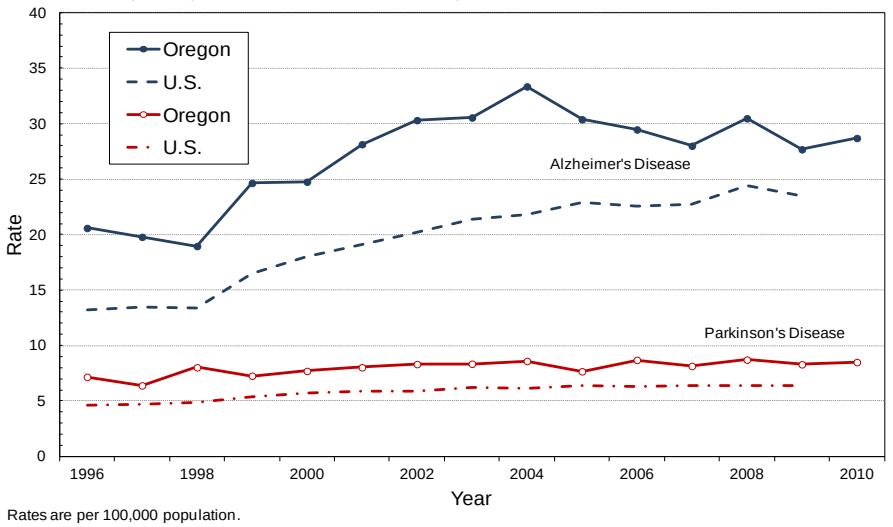
During the three-year period 2008–2010, the age-adjusted death rate was statistically significantly higher than the state's rate (9.6) in Umatilla County (17.2). No counties had a death rate statistically significantly lower than the state's rate.

Oregon's age-adjusted hypertension death rate was markedly lower than the U.S. rate through 1985, but this trend has since reversed. In 2009, Oregon's age-adjusted hypertension death rate was 22.1 percent higher than the U.S. rate (9.4 versus 7.7) and ranked seventh nationally.[3] [Table 6-54].

Parkinson's disease

Ranking 13th among the leading causes of death during 2010, Parkinson's disease claimed 356 Oregon residents. The crude death rate increased to 9.3 per 100,000 population in 2010 from 9.0 in 2009. The age-adjusted death rate increased to 8.5 in 2010 from 8.3 in 2009. While the mortality rates for many causes have fallen in recent decades, the rate for this neurological disorder continues to trend upward, despite any short-term decreases. [Table 6-3]. The age-adjusted Parkinson's death rate for males was 2.3 times higher than that of females (12.8 versus 5.5). [Tables 6-46m and 6-46f].

Figure 6-18.
Alzheimer's Disease and Parkinson's Disease
age-adjusted death rates, Oregon and the U.S., 1996-2010



Rates are per 100,000 population.

Parkinson's disease almost exclusively claims persons 55 or older. [Table 6-6]. The median age at death has fluctuated little during the previous decade, ranging between 82 and 84. This year the median age of death decreased from 84 in 2009 to 83.

Oregon's 2009 age-adjusted Parkinson's disease death rate was the 4th highest nationally.

During 2008–2010, there were no counties with age-adjusted rates significantly higher or lower than the state rate (8.5).

Oregon's age-adjusted Parkinson's disease death rate has long been higher than the nation's, as have two other neurological disorders: Alzheimer's disease and amyotrophic lateral sclerosis. [Table 6-54, Figure 6-18]. During 2009, Oregon's age-adjusted death rate was 28.1 percent higher than the U.S. rate and ranked fourth among the states and District of Columbia.[3]

Homicide

Oregon's homicide rate increased from 2.7 per 100,000 population in 2009 to 3.0 in 2010. [Table 6-3]. With 114 victims, homicide was the 20th leading cause of death during 2010. Only Lane and Multnomah counties had more than 10 residents die from homicide in 2010. [Table 6-35].

Every year, more males than females are murdered, and 2010 was no exception. The male age-adjusted death rate remained unchanged for the previous year at 3.3 per 100,000 population. The female age-adjusted rate was 2.5 in 2010, an increase from 1.9 in 2009. The total (both sexes) age-adjusted rate was 2.9, an increase from 2.6 in 2009. [Tables 6-46t, 6-46m and 6-46f].

By age, infants had higher homicide death rates than Oregonians in any other age group. During 2006–2010, their homicide rate was 5.8 compared to 3.6 for 15- to 24-year-olds, the age group with the second highest crude homicide death rate (rates based on multiple years yield more representative values than those based on the relatively small numbers recorded for any single year). Children between the ages of 5 to 14 and adults ages 75 to 84 had the lowest homicide death rates during 2006–2010 (0.8 and 1.1, respectively).

The median age at death for homicide victims in 2010 was 41 years, a record high, and one year of age higher than the previous year. However, homicide continues to have the lowest median age at death among the leading causes (except for causes associated with infancy). With 4,080 years of potential life lost, homicide was the 11th leading cause of premature death. During the period 2008–2010, no counties had homicide rates statistically significantly higher than the state rate (2.7). Washington County's rate (1.5) was significantly lower than the state rate.

Historically, Oregon's homicide death rate has been markedly lower than the nation's. During 2009, the state's rate was 52.7 percent lower and ranked 41st (7th lowest) among 47 states including the District of Columbia (states with unreliable rates excluded).[3] [Table 6-54].

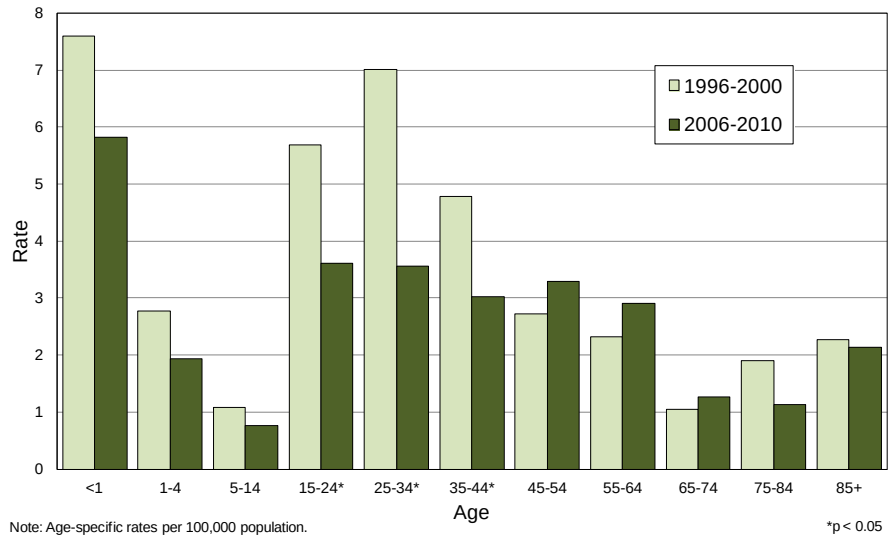
Firearms were the most common implement of homicide, accounting for 59 (51.8%) homicide deaths in 2010.

Table I - Leading methods of homicide, 2010

Method	Count
Firearms	59
Sharp objects	16
Hanging/suffocation	10
Neglect & maltreatment	3
Poisoning	1
Drowning/submersion	1
Blunt objects	1

Oregon's 2009 age-adjusted homicide death rate was the 7th lowest nationally.

Figure 6-19.
Age-specific homicide rates, Oregon residents,
1996-2000 and 2006-2010



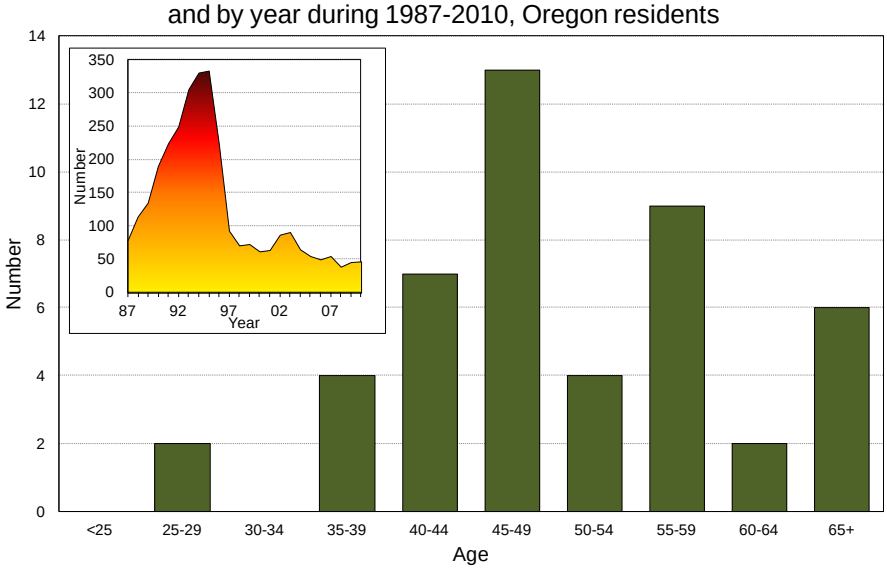
AIDS/HIV

After peaking at 360 deaths in 1995, the number of AIDS/HIV deaths has declined. In 2010, the number of deaths increased slightly from 46 in 2009 to 47. The age-adjusted death rate has also greatly decreased since 1995, from 11.5 per 100,000 population to 1.2 in 2010.

In 2010, AIDS/HIV was the 26th leading cause of death among Oregonians. There is a large dichotomy by sex when looking at risk of death from AIDS/HIV. The male age-adjusted rate during the five-year period 2006–2010 was 7.3 times higher than the female rate (2.2 and 0.3, respectively). (Rates based on multiple years yield more representative values than those based on the relatively small numbers of females recorded for any single year).

Unlike most causes of death, AIDS/HIV most often claims middle-aged adults. [Figure 6-20]. Age-specific death rates rose sharply in early adulthood with the highest rate among those ages 45–54 (3.2) and the second highest among those ages 55–64 (2.2). These rates are driven largely by deaths among males. [Tables 6-7t, 6-7m, and 6-7f]. The youngest person to die from this disease was a 28-year-old male and the oldest a 76-year-old male. The median age at death has gradually increased over time: in 1996 the median age at death was 39, compared to 49 in 2010. [Table 6-15]. The years of potential life lost were 1,130 years. [Table 6-13].

Figure 6-20.
Number of AIDS deaths by age during 2010
and by year during 1987-2010, Oregon residents



Oregon's AIDS/HIV age-adjusted death rate has long been lower than the nation's and in 2009 was 63.3 percent lower than the national rate, ranking 35th (4th lowest) among 38 states including the District of Columbia (states with unreliable data excluded).[3] [Table 6-54].

Oregon's 2009 age-adjusted HIV/AIDS death rate was the 4th lowest nationally.

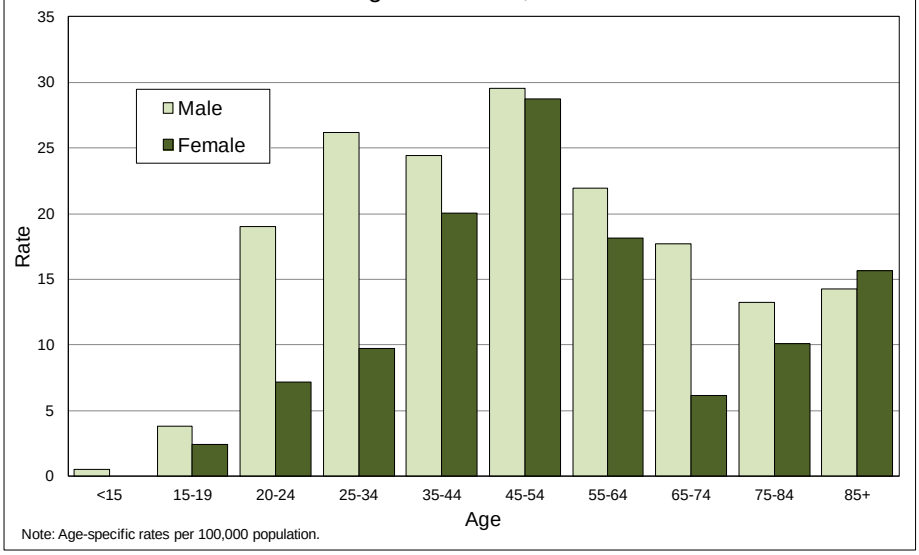
Drug-induced deaths

During 2010, more deaths were attributed to drug-related causes compared to those attributed to alcohol, 575 versus 571. Because of a considerable overlap between the drug-induced death category and other cause of death categories, it is not counted among the leading causes of death. Nevertheless, with a crude death rate of 15.0 per 100,000 population, drugs/poisonings represented a significant cause of mortality among Oregonians. The drug-induced death rate has trended up during recent years, with the rate in 2006 (15.7) representing the record high.

Males were more likely to die from drug-induced causes than females. Their age-adjusted death rate was 17.1 per 100,000 population compared to 11.8 for females. Nearly half of all drug-induced deaths (47.3 %) occurred among residents ages 35–54.

During the period 2008–2010, four counties had age-adjusted rates statistically significantly higher than the state rate (14.3): Clatsop (24.8), Lincoln (22.8), Lane (19.1), and Multnomah (19.0). Excluding counties with fewer than 20

Figure 6-21.
Age-specific drug-induced death rates, by sex,
Oregon residents, 2010



Note: Age-specific rates per 100,000 population.

deaths in this category, only Washington County (7.9) had a rate significantly lower than the state rate.

This category consists of ICD codes included in other cause of death rubrics, with the majority of deaths categorized as mental disorders, unintentional injuries, and suicide.

Maternal deaths

Before 2006, the category for maternal death (ICD10 codes O00-O99) included only fatalities where the female was either pregnant at the time of death or pregnant within 42 days before death. In addition, for every death of a female between 17 and 44 attributable to such causes as infections, cerebrovascular disease, digestive diseases or ill-defined unknown causes, the Center for Health Statistics would re-contact the physician, and ask if the woman was pregnant at the time of death or within 42 days prior to death. Typically this querying process might yield one additional maternal death record. However, the types of records queried were small in number.

Beginning in 2006, Oregon modified the reporting of maternal deaths by adding a new item to the death certificate. An item-specific box was added under the section for causes of death. For all female decedents between 10 and 60 years of age, the medical certifier must now indicate if the decedent was pregnant at death, pregnant within 42 days of death, or pregnant within one year of death. As shown in Figure 6-22, the addition of this question has increased the count of maternal deaths.

Male veteran deaths

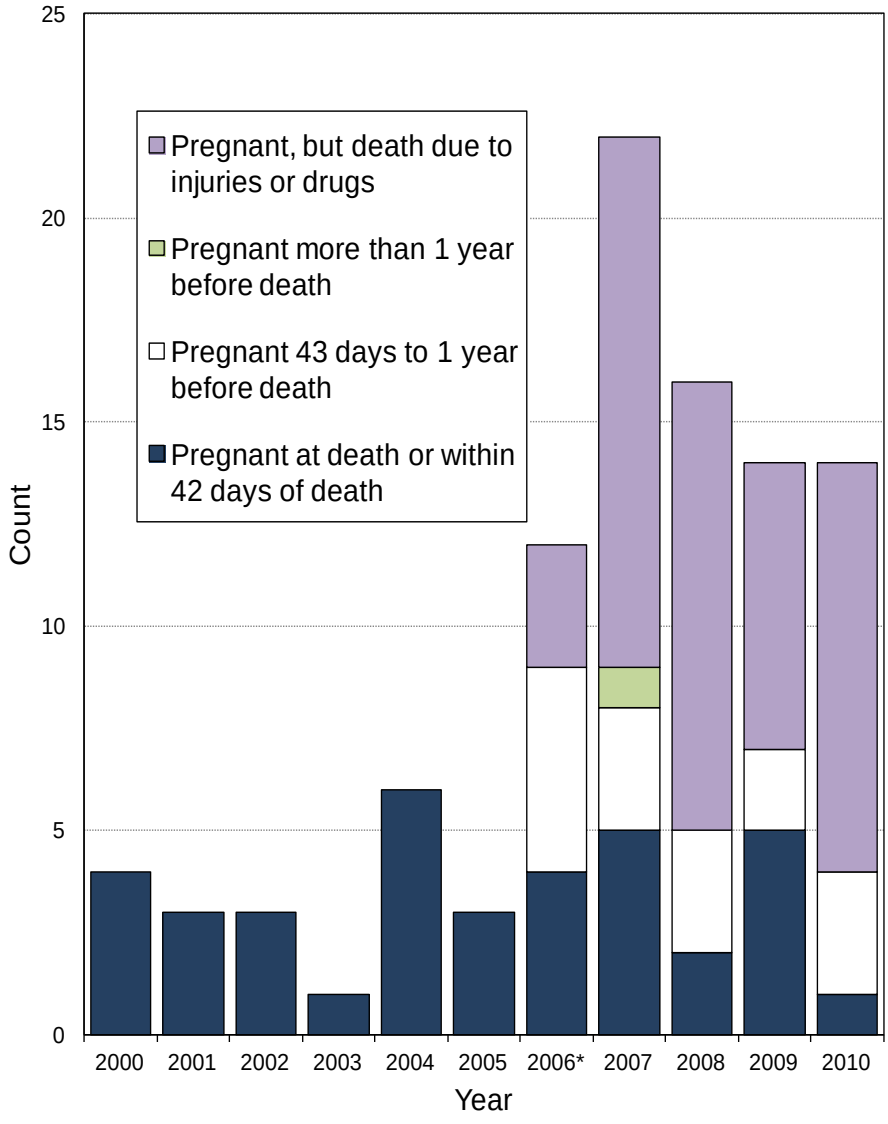
In 2010, there were 9,396 veteran deaths. Of these, 392 were women and 9,004 were men. Due to the small number of female veterans in Oregon, the terms "non-veterans" and "veterans" refer only to males, age 18 and older throughout this section of the report. Table 6-22 contains cause of death information for veterans versus non-veterans. Male veteran population figures for rate calculation were obtained from the United States Department of Veteran Affairs, VetPop 2010 State Data Tables8 and are shown in Appendix A, Table A-3.

The death rate for veterans in 2010 was over five times higher than the rate for non-veterans (2,918.2 per 100,000 population versus 567.9). However, much of this difference

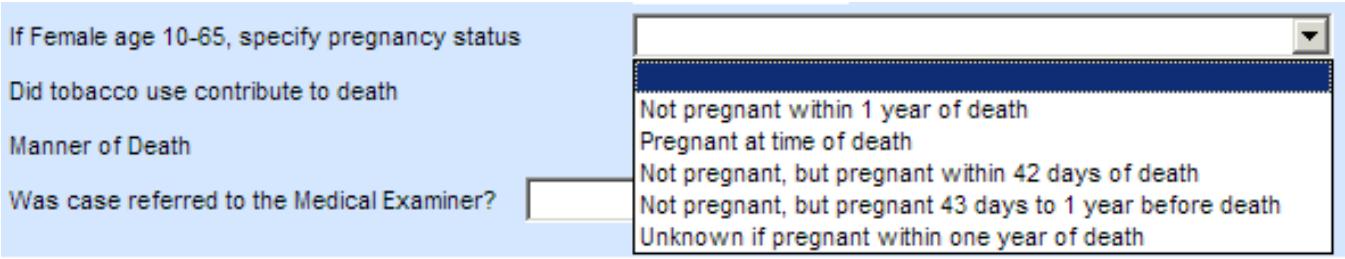
is due to the larger number of veterans in the older age groups. In the youngest age groups (18 to 34 years and 35 to 54 years), the ratios of veteran deaths to non-veteran deaths are 1:14 and 1:4, respectively. The ratio of veteran deaths to non-veteran deaths in the 55 to 74 year age group is nearly 1:1 (with slightly more non-veteran deaths than veteran deaths). In the oldest age group (age 75 and older), veteran deaths outnumber non-veteran deaths by a ratio of nearly 3:1. [Table 6-22].

The age-specific death rates were statistically significantly higher for veterans than for non-veterans in three of the

Figure 6-22.
Number of deaths with pregnancy indicated, Oregon residents, 2000-2010



*In 2006, Oregon modified the reporting of maternal deaths. For all female decedents ages 10 to 60 years, the medical certifier must indicate whether the decedent was pregnant at death, within 42 days of death, or within one year of death.



age groups shown in Table 6-22: ages 35–54 (470.8 versus 302.7), ages 55–74 (1,798.0 versus 1,123.7), and ages 75 and up (8,669.7 versus 7,841.3). The rates were not statistically significantly different for veterans ages 18–34.

The top two causes of both veteran and non-veteran deaths in 2010 were cancer and heart disease. The third most often cited cause of death for veterans was chronic lower respiratory disease (CLRD). For non-veterans the third most cited cause was unintentional injuries [Table 6-22]. Because there are more veteran deaths than non-veteran deaths in the oldest age group, veteran death rates for causes seen primarily in older persons tend to be higher for veterans than for non-veterans (for instance, CLRD).

Suicide is the fourth leading cause of death for non-veterans and the 10th leading cause of death for veterans. The percentage of veteran deaths attributed to suicide is lower than the same for non-veterans (1.6 percent versus 5.7 %). However, this masks an overall veteran suicide rate that was 1.5 times higher than that for non-veterans (47.3 versus 32.6). The suicide rate for veterans is higher than the rate for non-veterans in all age groups, except for those ages 75 and older. The difference in rates is greatest among those ages 18 to 34 where the veteran suicide rate is 2.5 times higher than the rate for non-veterans (55.0 versus 22.4). [Table 6-22].

Deaths due to military operations

The Oregon vital statistics data files do not include deaths of Oregon residents who died in military operations outside the United States. Death records of military personnel are registered with the U.S. Department of Defense and are not forwarded to the decedent's state of residence. However, these deaths (with the decedent's name, date of death, home city, age, and sex) are posted weekly on the Department of Defense's website (see source in table). They are presented here in tabular form for Oregon residents for 2002–2010. In 2010, five Oregon resident deaths were due to military operations.

Table J - Oregon resident military deaths in Operation Iraqi Freedom, Operation Enduring Freedom, and Operation New Dawn, 2002-2010

County	2002 to 2005	2006	2007	2008	2009	2010	Characteristics	
Benton	2	-	2	-	-	-	**Sex**	
Clackamas	-	3	1	-	1	1	Male	93
Clatsop	1	-	1	-	-	-	Female	1
Columbia	-	-	1	-	-	-	Total	94
Coos	1	-	2	1	-	-		
Deschutes	-	1	1	2	-	-		
Douglas	2	1	-	1	1	1		
Hood River	-	1	-	-	-	1		
Jackson	1	-	1	1	-		**Age**	
Jefferson	-	1	-	-	-	-	<20	4
Josephine	-	-	1	-	-	-	20-24	51
Klamath	2	-	1	-	-	-	25-29	19
Lane	-	-	1	1	-	-	30+	20
Lincoln	2	-	2	-	-	-	Total	94
Linn	4	-	-	1	-	1		
Malheur	-	-	1	-	-	-		
Marion	-	2	1	-	-	-		
Multnomah	12	3	1	-	-	-		
Polk	2	-	1	-	1	1	**Race**	
Umatilla	4	-	-	-	-	-	White	80
Union	1	-	-	-	-	-	Black	1
Wasco	-	1	-	-	-	-	Hawaiian	2
Washington	5	2	2	1	1	-	Asian	2
Yamhill	1		-	-	-	-	Hispanic	8
N.S.	1	-	-	-	1	-	Multiple	1
Total	41	15	20	8	5	5	Total	94

Source: https://www.dmdc.osd.mil/dcas/pages/casualties.xhtml

Endnotes

1. State vital records offices within the United States maintain an interstate exchange agreement such that when a resident of a state dies outside of his or her home state, a copy of the death certificate, or electronic equivalent, is provided to the vital records office of the decedent's residence state. This exchange is highly dependent on the forwarding state of death's capacity to provide those files to Oregon.
2. The rates were electronically compared back to 1990 death files.
3. These data are from the federal Centers for Disease Control and Prevention's (CDC) WONDER online database (*http://wonder.cdc.gov/mortSQL.html*). The most recent year for which final mortality data are available was 2009 at the time of compilation of this report. Oregon mortality data from the WONDER database may vary slightly from Oregon data presented elsewhere within this annual report due to different file closure dates, different population estimate methodologies, out-of-state reporting by other states to CDC/NCHS and incorporation of Oregon's physician query results.
4. 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 in sections; and, modification 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 final comparability ratios described in Appendix B. Final comparability ratios have been applied to data in tables 6-3, 6-13, 6-15, 6-50, and 6-54.
5. Statewide records of cause of death were first collected in 1908.

6. "Unintentional injuries" is preferred to the term "accidents" by the public health community.
7. Neither chronic liver disease and cirrhosis nor nephritis were discussed as leading causes in the narrative section, although they would be ranked as the ninth and 12th leading causes of death under the NCHS rubric. Most of these deaths were counted under alcohol-induced deaths in the narrative section.
8. Male veteran population estimates for calculating crude death rates were obtained from the United States Department of Veteran Affairs, VetPop 2010 State Data Tables: *http://www1.va.gov/VETDATA/docs/Demographics/1l.xls. Accessed on April 2, 2012.*