

OREGON HEALTH TRENDS

Center for Health Statistics (503) 731-4354

STATE OF OREGON • HEALTH DIVISION • DEPARTMENT OF HUMAN RESOURCES

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ORAL CANCER: *Deadly to Ignore*

Cancers of the oral cavity (lip, tongue, salivary glands, and other sites in the mouth) and pharynx account for about 3% of the cancers diagnosed in the United States each year. About 30,000 new cases are diagnosed and over 8,000 people die from the disease each year (1). The 1990-1994 mortality rate for oral cancers was 2.5 per 100,000, ranking Oregon 37th among the states. Overall, the five-year survival rate for oral cancer is about 53%; however, minorities are much less likely than whites to survive after a diagnosis of oral cancer. Black males fare worse than any other group; only about 28% will survive five years after a diagnosis of oral cancer (3). Oral cancers are more likely to occur in men than in women and most often are diagnosed in people over the age of 40.

Early Detection

The oral cavity is an easily accessible part of the body, and examinations for oral cancers can increase the likelihood of detecting these life-threatening cancers. However, most oral cancers are not detected at an early stage, when treatment is most effective. Although dentists are most likely to perform an oral cancer examination, all primary health care providers, including physicians, nurses, and dental hygienists, should perform regular oral cancer examinations for patients who have been identified at high risk for oral cancer (4,5).

Prevention

Primary prevention strategies may offer the best opportunity for reducing oral cancer deaths and disease. Health care providers should counsel patients about the use of tobacco and alcohol, high risk behaviors that increase the likelihood of developing oral cancer (4,5). The use of tobacco is a contributing factor in at least 75% of all oral cancers (4,6,7). Cigarettes have been established as a direct cause of oral cancer. There is strong evidence that snuff can cause oral cancer, and chewing tobacco increases the risk of tissue changes in the mouth that can lead to oral cancer. Among cigar and pipe smokers, oral cancer mortality

SIGNS AND SYMPTOMS OF ORAL CANCER

- A mouth sore that fails to heal or that bleeds easily.
- A white or red patch in the mouth that will not go away.
- A lump, thickening, or soreness in the mouth, throat, or tongue.
- Difficulty chewing or swallowing food.

Inside:
Alzheimer's Disease
Parkinson's Disease

Survival rates for oral cancer are among the lowest of the major cancers.

Snuff and chewing tobacco are not safe substitutes for smoking cigarettes.

rates are similar to or higher than among cigarette smokers.

Avoidance of risk behaviors such as smoking, spit tobacco use, and excessive alcohol drinking are critical in preventing oral cancers.

The deadly combination of “heavy drinking” and “heavy smoking” greatly increases the risk of developing oral cancer.

All forms of alcohol in excess (including beer, wine and liquor) can increase the risk of developing oral cancer (4,7).

Risk Behaviors

Data from the 1995 Behavioral Risk Factor Surveillance System (BRFSS), an on-going telephone survey of the adult population, were analyzed for this report. The results indicate that significant numbers of the population of Oregon are at risk of developing oral cancer because of risk behaviors including tobacco and alcohol use:

- 507,162 adults in Oregon are cigarette smokers.
- 82,441 men use smokeless tobacco.
- 132,189 Oregon adults smoke cigarettes and use alcohol in combination.
- 41,081 adults at high risk for oral cancer because of cigarette and alcohol use had no dental or medical visit in the past year.
- In 1996, 379 cases of oral cancer were reported to the Oregon Cancer Registry. More than twice as many males (259) were reported to the registry as females (120).

Tobacco

Among the adult population, 21.9% smoke cigarettes, compared to 22% nationwide in 1995. Of those adults currently smoking 15.9% smoke 25 or more cigarettes each day. Adults ages 25-34 have the highest smoking rates in Oregon whereas as a slightly older group, 35-44 year-olds have the highest median rate of smoking for the United States.

In 1995, 3.6% of the adult male population reported the use of smokeless tobacco.

Alcohol

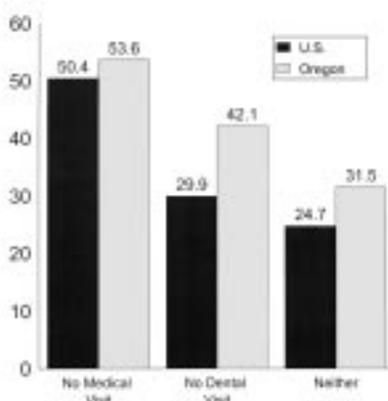
About 14.4% of adults in Oregon engaged in “risky drinking behaviors”—consuming more than 60 drinks per month or consuming more than five drinks on at least one occasion during the month. Younger adults were more likely to report risky drinking behaviors than older adults.

In Oregon, about 5.7% of adults are at increased risk of oral cancer because of combined alcohol and tobacco use, compared to 5% nationwide.

Health Care Utilization

For adults at highest risk for oral cancer, access to health services is an important opportunity for early detection. According to data from the 1995 BRFSS, in 1995, 63.7% of adults

Health Care Utilization Among Risky Drinkers and Smokers
Oregon and the United States, 1995



Behavioral Risk Factor Surveillance System

reported that they had a routine medical doctor visit during the past year, and 70.8% reported a dental visit. However, there was under-utilization among those at highest risk for oral cancer--smokers who engage in risky drinking behavior. In Oregon, 53.6% of those adults had not had a routine medical doctor visit within the past year, compared to 50% nationwide. About 42.1% had not seen a dentist within the past year, and 31.5% had not had a routine medical visit or dental visit.

The two main reasons that Oregonians gave for not visiting a dentist within the last 12 months were "no reason to go" (42.5%) [this was a predominant reason for seniors with all their natural teeth removed] and cost (30.5%). As age rose the "no reason" category increased from 21.4% to 83% for those 65 and over. This fact should reinforce among medical doctors

who treat older populations the need to provide screening for oral cancers, as 76 % of those 65 and older who haven't seen their dentist *have* seen their doctor within the last 12 months. Although 56% of the general population has dental insurance, only 25 percent of seniors have dental insurance coverage.

Prevention

In August 1996, the Centers for Disease Control and Prevention, in collaboration with other organizations, held a Conference concerning prevention of Oral and Pharyngeal Cancer. They recommended more public education so people would know that an examination for oral cancer exists and that they can and should request one routinely from a variety of health care providers. The public also needs to know the signs and

symptoms of oral cancer, the risk factors for the disease, and ways to reduce risk. This is particularly important for high-risk groups of tobacco and alcohol users."

The recommended strategies for patient education include:

- counseling patients that snuff and chewing tobacco are not safe substitutions for smoking cigarettes.
- avoidance of risk behaviors such as smoking, spit tobacco use, and excessive alcohol drinking are critical in preventing oral cancers.(9)

The data in this fact sheet come from the Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a continuous telephone survey system supported in part by the Centers for Disease Control and Prevention and administered by the Oregon Health Division. The system is designed to provide information on behaviors and risk factors for chronic and infectious diseases and other health conditions among the adult population. The data for this report have been weighted to reflect the adult population of the state. Data for this newsletter were analyzed by the Division of Oral Health in the National Center for Chronic Disease Prevention and Health Promotion of the Centers for Disease Control and Prevention. Editorial support for this newsletter was provided through a cooperative agreement with the Council of State and Territorial Epidemiologists. Additional Oregon data and program information was provided by the Oregon Center for Health Statistics and the Center for Health Promotion and Chronic Disease Prevention.

REFERENCES

1. American Cancer Society. Cancer Facts and Figures, 1997. Atlanta, GA: American Cancer Society, 1997.
2. Howe HL and Lehnerr M. (eds). Cancer in North America, 1989-1993, Volume One: Incidence. Sacramento, CA: North American Association of Central Cancer Registries, April 1997.
3. Ries LAG, Kosary CL, Hankey BF, et al. (eds). SEER Cancer Statistics Review, 1973-1994, National Cancer Institute. NIH Pub. No. 97-2789. Bethesda, MD, 1997.
4. Centers for Disease Control and Prevention. Oral Cancer Background Papers. National Strategic Planning Conference for the Prevention and Control of Oral and Pharyngeal Cancer.
5. US Preventive Services Task Force. Screening for Oral Cancer. In Guide to Clinical Preventive Services, 2nd Ed. Baltimore, MD: Williams and Wilkins, 1996.
6. US Department of Health and Human Services. Reducing the Health Consequences of Smoking. DHHS Publication No. (CDC) 89-8411, 1989.
7. Silverman, S. Oral Cancer, 3rd Edition. Atlanta, GA: American Cancer Society, 1990.
8. National Center for Health Statistics. Healthy People 2000 Review, 1995-96. Hyattsville, MD: Public Health Service, 1996.
9. Proceedings: National Strategic Planning Conference for the Prevention and Control of Oral and Pharyngeal Cancer, August 7-9, 1996. CDC: Atlanta, GA.

ALZHEIMER'S PARKINSON'S DISEASE

This article focuses on two debilitating diseases that are affecting a growing number of Oregonians: Alzheimer's disease and Parkinson's disease. Both are the subject of intense research efforts, but as of now too often prove fatal. As our population ages, an increasing number of people will be at risk from these disorders. This article provides a brief overview of what is known about Alzheimer's and Parkinson's disease, including historical mortality trends, risk factors, and the demographic characteristics of the decedents.

Alzheimer's Disease

Oregon has the third highest Alzheimer's disease death rate in the nation.¹ Although the death rate for this disease has risen markedly nationwide since 1979, the magnitude of the increase has been larger in Oregon (Figure 1).² The following briefly describes the nature of Alzheimer's disease³

and the demographic characteristics of people dying from the disease.

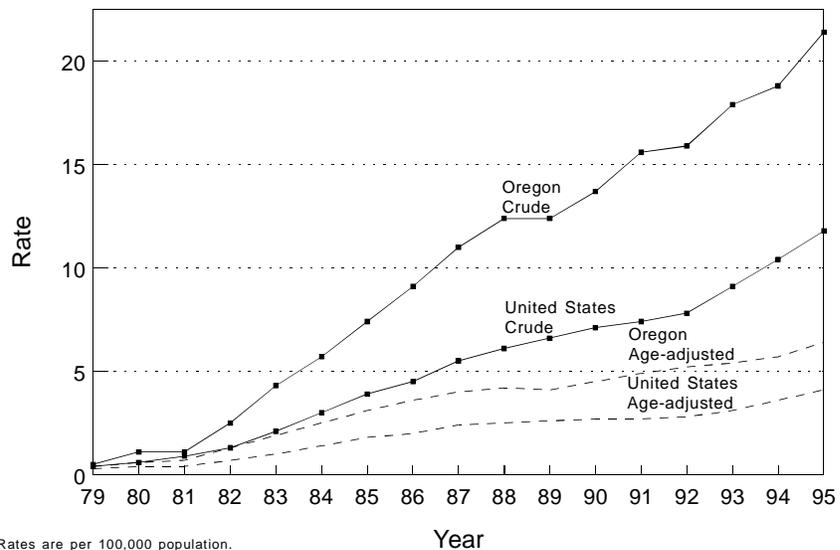
WHAT IS ALZHEIMER'S DISEASE?

Alzheimer's disease was first described in 1906 by the German neurologist Alois Alzheimer. The disease is characterized by the

Oregon's Alzheimer's disease age-adjusted death rate is 56% higher than the nation's.

Oregon's Alzheimer's disease age-adjusted death rate is almost four times higher than that of New York's, the state with the lowest rate, 6.4 vs. 1.7.

Figure 1. Crude and Age-adjusted Death Rates for Alzheimer's Disease, Oregon and the U.S., 1979-95



Rates are per 100,000 population.
Adjusted rates are standardized to the 1940 U.S. population.

destruction of brain cells resulting in a decline in mental functions that affects memory, language, motor skills, abstract thinking, sensory function, ability to recognize objects, and behavior. Anatomical changes include diffuse atrophy throughout the cerebral cortex with attendant, highly distinctive pathological changes including plaques and neurofibrillary tangles. The plaques are microscopic lesions made up of fragmented axon terminals and dendrites enveloping a core of beta-amyloid protein. Neurofibrillary tangles are intracellular clumps or knots of neurofibrils within individual diseased neurons.

The principal cognitive feature of the disease is usually progressive memory impairment. In the early stages of the disease, the person may forget small things, like a doctor's appointment or people's names. As the disease progresses, recall of re-

mote well-learned material may appear to be preserved, but new information cannot be adequately incorporated into memory. Later stages are marked by disorientation and confusion; personality changes are commonly reported and range from progressive passivity to marked agitation. In some cases, personality changes may predate cognitive abnormality. Depressive symptoms are present in up to 40 percent of the victims, and psychosis occurs in 25 percent. Ultimately, as brain function decreases, the ability to talk, move, and to provide self-care is eventually lost.

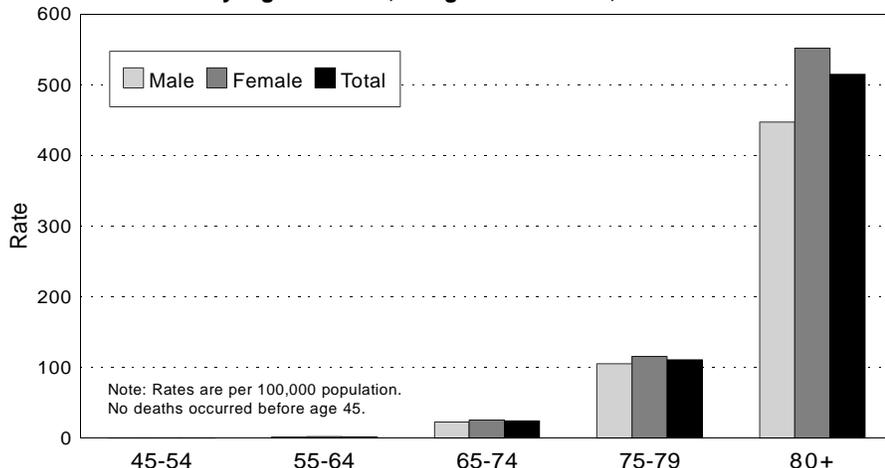
WHO DOES ALZHEIMER'S DISEASE AFFECT?

Although the disease can occur in people in their 30s, more often it affects those 65 and older. The prevalence increases dramatically with age, from about 3 percent of people ages 65-74 to 19 percent of those 75-84 to 47 percent of those 85 or older. At least four million Americans are

Nationally, Alzheimer's disease death rates are highest in the northern states; eight of the ten states with the highest death rates are located north of the 42nd parallel.

The risk is greatest among elderly females.

Figure 2. Age-specific Alzheimer's Disease Death Rates, by Age and Sex, Oregon Residents, 1996



	45-54	55-64	65-74	75-79	80+
Male	0.5	1.6	22.6	105.1	447.5
Female	0.5	2.3	25.8	115.6	551.9
Total	0.5	2.0	24.4	111.1	515.1

Table 1. Crude and Age-adjusted Alzheimer's Disease Death Rates ¹ by County of Residence, 1986-95			
County	Deaths	Rates ²	
		Age- adjusted ³	Crude
Oregon	4,345	4.9	15.0
Baker	24	3.5	15.4
Benton	83	5.8	11.7
Clackamas	356	5.0	12.5
Clatsop	65	5.6	19.3
Columbia	40	3.6	10.5
Coos	135	6.0	22.2
Crook	15	3.3	10.3
Curry	35	3.9	18.2
Deschutes	80	4.1	10.2
Douglas	152	5.0	16.0
Gilliam	2	4.0	11.4
Grant	5	2.3	6.3
Harney	6	3.8	8.5
Hood River	40	7.4	23.2
Jackson	284	5.6	18.9
Jefferson	7	2.4	5.0
Josephine	243	8.7	37.6
Klamath	120	6.8	20.6
Lake	1	0.5	1.4
Lane	496	6.0	17.4
Lincoln	54	3.4	13.6
Linn	164	5.5	17.7
Malheur	23	2.8	8.5
Marion	288	3.5	12.3
Morrow	11	5.8	13.4
Multnomah	871	4.5	14.7
Polk	70	4.3	13.7
Sherman	0	0.0	0.0
Tillamook	55	7.0	25.0
Umatilla	80	4.3	13.2
Union	32	4.2	13.4
Wallowa	13	5.2	18.3
Wasco	35	3.9	16.0
Washington	362	4.7	11.3
Wheeler	0	0.0	0.0
Yamhill	98	4.9	14.6

1. Rates per 100,000 population.
 2. Rates based on fewer than 20 events are considered unreliable.
 3. Adjusted to the U.S. 1940 standard million.

estimated to have Alzheimer's, and with increasing life spans and population, the number is expected to increase to nearly 15 million over the next fifty years. Already, the financial burden arising from the disease is about \$100 billion annually in the U.S.; this includes the cost of care and lost productivity. But beyond the economic costs, the human toll of Alzheimer's immense, from the victims to caregivers to society as a whole.

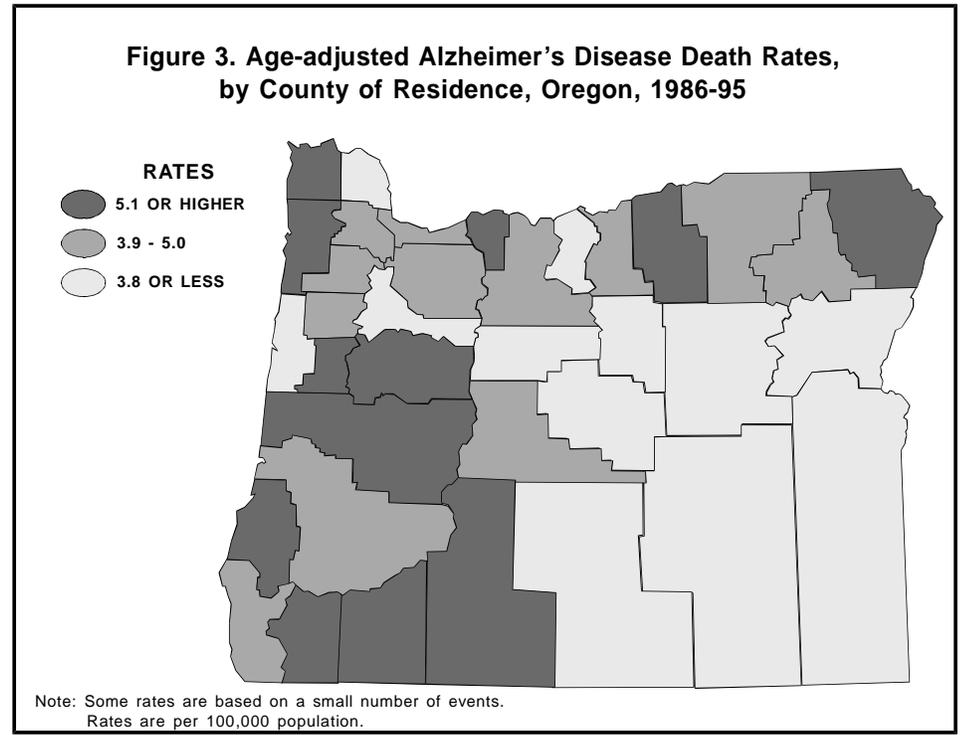
WHAT CAUSES ALZHEIMER'S DISEASE?

The underlying cause(s) of this disorder remains unclear this time. However, a number of risk factors have been identified including: age, female gender, genetic predisposition, certain circulatory disorders, head injuries, deficiencies of antioxidant nutrients, family history of Down syndrome, and environmental factors. Other factors have been

found to be associated with a lower risk of Alzheimer's disease, for example, more frequent use of nonsteroidal anti-inflammatory drugs and estrogen replacement therapy (among postmenopausal women). However, the possible role of these factors in the development of the disease is currently uncertain.

WHAT DO THE OREGON DATA SHOW?

An Increasing Number of Deaths. Since 1993, more than 500 Oregonians have died annually from Alzheimer's disease. Part of this increase is attributable to the aging of the population, but even after controlling for this trend by calculating age-adjusted death rates, the rates have risen inexorably for many years.⁴ Since 1979, the state's crude death rate has increased 43-fold while the age-adjusted death rate increased 16-fold.⁵ By



comparison, rates for the United States have increased 30-fold and 14-fold, respectively. During 1996, Alzheimer's caused the deaths of 743 Oregonians and contributed to the deaths of another 536.

The degree to which the increase in Alzheimer's mortality is partially an artifact of improved reporting is uncertain, but as diagnostic procedures have evolved, so too has the likelihood that more accurate diagnoses have contributed to the apparent increase in Alzheimer's-caused deaths. Even so, physicians have continued to attribute deaths to "senility" and other senile dementias; the age-adjusted death rate for these causes rose more than three-fold during 1979-95.

Sex. Oregon females were twice as likely to die of Alzheimer's disease than were males; their death rate was 30.8 per 100,000 population compared to 15.5 for males. The overall rate was 23.3.

Age. Alzheimer's deaths rarely occur before age 55. However, by age 65, the death rate begins to rise sharply with advancing age. Oregonians 80 or older were more than 20 times as likely to die of the disease than were 65- to 74-year-olds (Figure 2).

County of Residence. Of the 12 counties with the highest Alzheimer's disease age-adjusted death rates during 1986-95, eight were west of the Cascade Range.⁶ Great Basin and adjacent counties were notable for their low death rates.

Figure 3 shows the counties sorted into three equal groups by rate. The highest death rate was recorded for Josephine County; it was 78 percent above the state's rate (Table 1). Alzheimer's disease death rates were at least one-third higher than the state's rate in three other counties as well: Hood River (51% higher), Tillamook (43%), and Klamath (39%).

WHAT TREATMENT IS AVAILABLE?

Until recently, nothing seemed to slow the inexorable decline caused by Alzheimer's disease. However, during the 1990s two drugs have been licensed by the FDA for treatment of the disorder: Aricept and Cognex. These medications do not stop or reverse the progression of Alzheimer's disease, but they do slow the decline in cognitive functioning. Many other treatments are in development.

RESOURCES

Alzheimer's Association National Office	
	1-800-272-3900
Oregon Chapters	
Portland	503-413-7115
Salem	503-371-7728
Corvallis	541-752-1012
Eugene	541-345-8392

*Oregonians Dying from
Alzheimer's Disease*
1979: 15
1996: 743

ENDNOTES

1. For the ten-year period 1986-95, Oregon had the highest rate in the nation. In 1995 it ranked third behind Montana and Maine. (The most recent comparative national data are for 1995.)
2. In this article, reference to Alzheimer's disease (ICD-9 331.0) includes Alzheimer's dementia (ICD-9 290.1).
3. Much of the information (excluding Oregon data) was drawn from four internet sites: <http://www.health-center.com/english/brain/dementia/default.htm>, <http://csa.sara.nl/alzintro.html>, <http://www.ohioalzcenter.org/facts.htm>, and <http://www.alzheimers.com/>
4. Unless otherwise stated, temporal and geographic comparisons are based on data from the Center for Disease Control and Prevention's WONDER system (<http://wonder.cdc.gov>); rates are adjusted to the 1940 U.S. standard million; the most recent available data are for 1995. All other death data are from the Health Division's mortality files.
5. Age-adjusted death rates control for variation in the age distribution over time and between different geographic entities. For example, Oregon's population is slightly older than the nation's, so its crude death rate could reasonably be expected to be higher. The age-adjusted rate allows for comparison of entities as if the population structures were identical. Any differences in the rates are a consequence of factors other than age.
6. Of Oregon's 36 counties, 18 are located west of the Cascade Range.

Parkinson's Disease

Oregon's Parkinson's disease age-adjusted death rate is 63% higher than the nation's.

Oregon has the highest Parkinson's disease death rate in the nation. Although the death rate for this disease has risen markedly nationwide since 1979, the magnitude of the increase has been larger in Oregon (Figure 1). The following briefly describes the nature of the disease¹ and the demographic characteristics of people dying from Parkinson's disease.

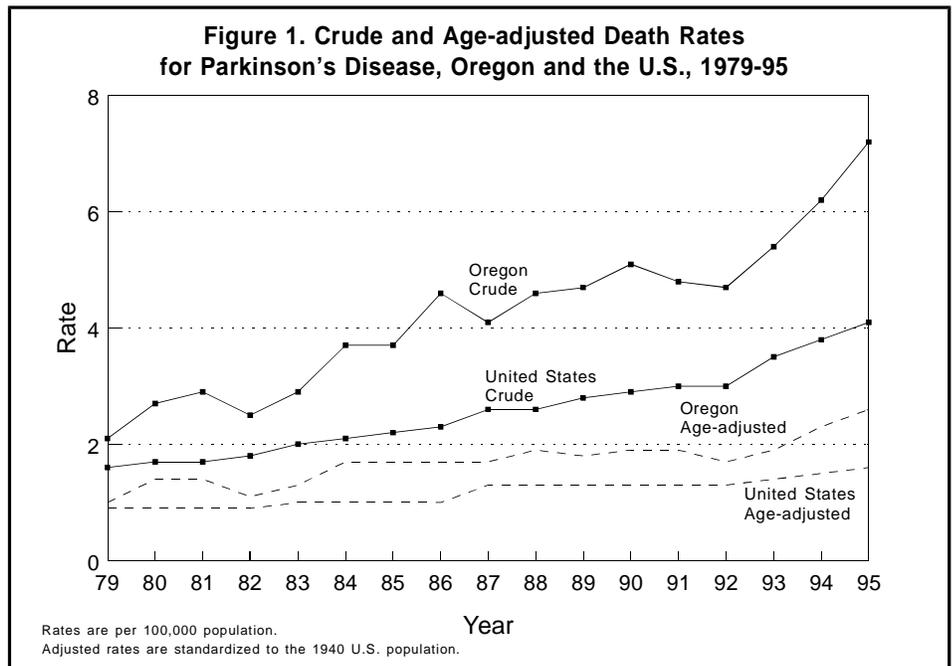
WHAT IS PARKINSON'S DISEASE?

First described by James Parkinson in 1817, Parkinson's disease is a chronic progressive disease of the nervous system characterized by the deterioration of neurons (a type of cell found in the brain). Neurons produce dopamine, a chemical "messenger" that helps the nervous system control muscle activity. When these neurons are destroyed,

dopamine is not produced at the normal rate, and the resulting abnormally low supply of dopamine causes Parkinson's symptoms to appear. These include: stiffness, tremor, fixity of expression, slowness and poverty of movement, a shuffling gait, difficulty with balance, and difficulty walking. Secondary symptoms of Parkinson's disease may include: depression, senility, postural deformity, and difficulty in speaking. Typically, the disease progresses very slowly.

WHO DOES PARKINSON'S DISEASE AFFECT?

Most commonly diagnosed are people over the age of 60, but about 10 percent are diagnosed before age 50. Nationally, 1.5 million Americans are thought to have the illness, with another 50,000 people being diagnosed annually.



WHAT CAUSES PARKINSON'S DISEASE?

The underlying cause of this disorder remains unclear this time. There may be multiple causes that share a final common pathway resulting in Parkinsonian symptoms. Some known causes include certain designer drugs (e.g., MTMP), and an outbreak of a flu-like infection during the first two decades of this century. Areas under investigation include: the environment, toxins, infectious disease, accelerated aging, and genetic predisposition.

WHAT DO THE OREGON DATA SHOW?

An Increasing Number of Deaths. Since 1995, more than 200 Oregonians have died annually from Parkinson's disease. Part of this increase is attributable to the aging of the population, but even after controlling for this trend by calculating age-adjusted death rates, the death

rates have risen inexorably for many years.² Since 1979, the state's crude death rate has increased 243 percent while the age-adjusted death rate increased 160 percent.³ By comparison, rates for the United States have increased 156 percent and 78 percent, respectively.

Sex. Oregon males are 71 percent more likely to die from Parkinson's disease than are females; their death rate was 9.4 per 100,000 population, compared to 5.5 for females (Table 1).

Age. Parkinsonism deaths rarely occur before age 55. However, by age 65, the death rate rises sharply, particularly among males.

County of Residence. Although Parkinson's disease age-adjusted death rates during 1986-95, were more often lower for counties east of the Cascade Range⁴ (Figure 2), the highest death rate was for Wasco

Nationally, Parkinson's disease death rates are highest in the Pacific Northwest, Rocky Mountain states, and New England.

Table 1.
Age-specific Parkinson's Disease Death Rates, by Age and Sex, Oregon Residents, 1979 and 1996¹

AGE	1979			1996		
	Male	Female	Total	Male	Female	Total
<45 ²	0.0	0.0	0.0	0.0	0.0	0.0
45-54 ²	0.0	0.8	0.4	0.5	0.0	0.2
55-54 ²	0.0	0.8	0.4	2.5	0.8	1.6
65-74	8.9	7.4	8.1	22.6	4.7	12.8
75+	38.6	35.3	36.6	155.2	66.2	100.3
TOTAL	1.9	2.5	2.2	9.4	5.5	7.4

1. Rates are per 100,000 population.
2. Rates for these age groups are based on a very small number of events and should be used with caution.

Number of Oregonians Dying from Parkinson's Disease
1979: 55
1996: 232

**Table 2.
Crude and Adjusted Parkinson's Disease Death Rates by County of Residence, 1986-95**

County	Deaths	Rates ²	
		Age-adjusted ³	Crude
Oregon	1,482	1.9	5.1
Baker	8	1.3	5.1
Benton	31	2.2	4.4
Clackamas	147	2.3	5.2
Clatsop	12	1.2	3.6
Columbia	10	1.1	2.6
Coos	26	1.5	4.3
Crook	6	2.0	4.1
Curry	16	2.1	8.3
Deschutes	35	1.7	4.4
Douglas	48	1.9	5.0
Gilliam	1	1.1	5.7
Grant	4	1.2	5.0
Harney	2	0.8	2.8
Hood River	12	2.2	7.0
Jackson	72	1.6	4.8
Jefferson	4	1.1	2.8
Josephine	46	1.9	7.1
Klamath	30	2.1	5.1
Lake	4	1.7	5.5
Lane	172	2.6	6.0
Lincoln	14	0.9	3.5
Linn	49	1.8	5.3
Malheur	13	1.5	4.8
Marion	105	1.8	4.5
Morrow	3	1.8	3.7
Multnomah	344	2.1	5.8
Polk	22	1.5	4.3
Sherman	0	0.0	0.0
Tillamook	11	1.4	5.0
Umatilla	17	1.3	2.8
Union	16	2.1	6.7
Wallowa	3	1.2	4.2
Wasco	23	3.0	10.5
Washington	141	2.1	4.4
Wheeler	0	0.0	0.0
Yamhill	35	2.4	5.2

1. Rates per 100,000 population.
 2. Rates based on fewer than 20 events are considered unreliable.
 3. Adjusted to the U.S. 1940 standard million.

County; it was 58 percent above the state's rate (Table 2).⁴ Parkinson's disease death rates were at least 25 percent higher than the state's rate in two other counties as well: Lane (37% higher), and Yamhill (26%).

WHAT TREATMENT IS AVAILABLE?

Although there is currently no cure for Parkinson's disease, there are a number of palliative treatments available, including anticholinergics, amantadine, L-dopa, dopamine agonists, and catechol-O-methyltransferase inhibitors. There is also increasing potential for neurosurgical intervention.⁵ Areas of recent research include the role of tau proteins, use of Sertoli cells (from the testes), adrenal medullary transplants, fetal tissue transplants and gene therapy.

ENDNOTES

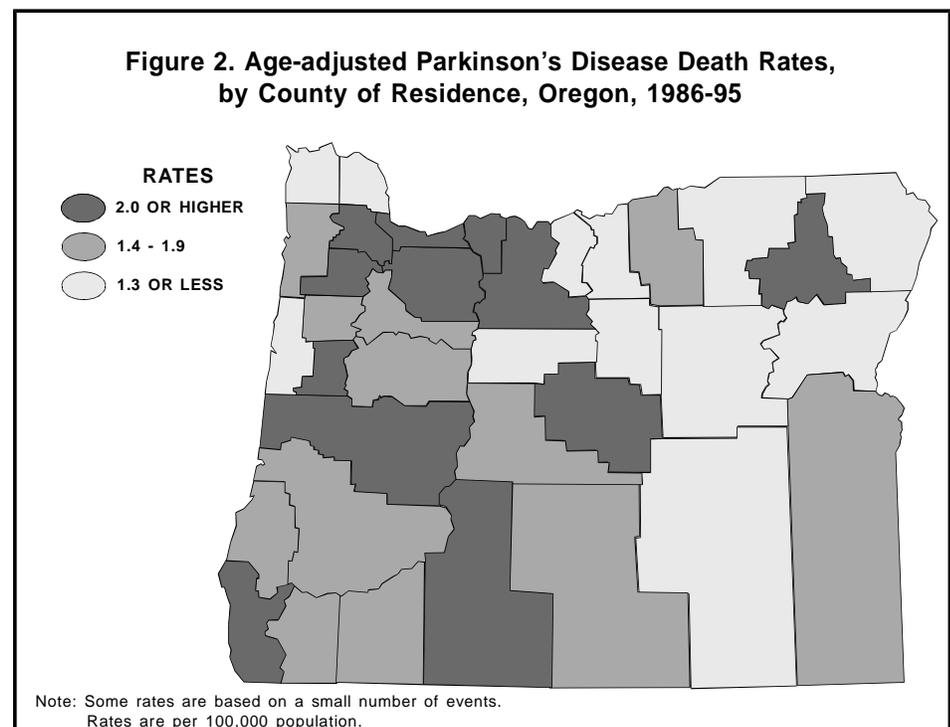
- 1 Much of the information (excluding Oregon data) was drawn from two internet sites: <http://neuro-chief-e.mgh.harvard.edu/kinsonsweb/Main/IntroPD/Intro.html>, and <http://healthguide.com/PD/whatispd.htm>.
- 2 Unless otherwise stated, over-time and geographic comparisons are based on data from the Center for Disease Control and Prevention's WONDER system (<http://wonder.cdc.gov>). Rates are adjusted to the 1940 U.S. standard million; the most recent available data are for 1995. All other death data are from the Health Division's mortality files.
- 3 Age-adjusted death rates control for changes in the age distribution over time, and between different geographic entities. For example, Oregon's population is slightly older than the nation's, so its crude death rate could reasonably be expected to be higher. The age-adjusted rate allows for comparison of entities as if the population structures were identical. Any differences in the rates are a consequence of factors other than age.
- 4 Of Oregon's 36 counties, 18 are located west of the Cascade Range.
- 5 Plafer JR. Parkinson's disease. *Postgrad Med J*; 1997; 73:257-84.

RESOURCES

National Parkinson Foundation 1-800-327-4545

National Parkinson's Disease Foundation 1-800-457-6676

Willamette/Columbia Parkinson Society 503-692-3192



It Comes for Us All

The table below is a **preliminary** tabulation of the deaths of Oregon residents during 1997. The number of deaths among Oregonians declined last year by 222 to 28,678. Most notable was the decline in the number of residents dying from AIDS; the number fell by almost two-thirds, from 223 to 80. Notable continuing

trends were the increasing diabetes and Alzheimer's disease death rates; for a decade or more, both have shown nearly inexorable increases, with a near doubling of rates for both diseases since 1987. At the same time, the total Oregon death rate has shown relatively little change (<1%).

Leading Causes of Death, by Age, Oregon Residents, 1997 (Preliminary)											
Cause	Total	< 1	1-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
TOTAL	28,678	255	151	352	468	963	1,686	2,528	5,380	8,886	8,008
Heart Disease	7,454	2	5	5	32	123	333	584	1,285	2,534	2,551
Cancer	6,756	1	18	14	55	184	535	1,001	1,921	2,086	941
Cerebrovascular Disease	2,568	3	-	2	7	25	58	90	346	913	1,124
COPD	1,630	-	1	2	5	5	37	130	459	674	317
Unintended Injury	1,296	8	64	194	160	211	164	70	95	151	179
Pneumonia & Flu	917	5	1	2	4	13	16	30	96	287	463
Diabetes	805	-	-	2	8	12	59	85	202	277	160
Alzheimer's Disease/Dementia	714	-	-	-	-	1	-	5	42	249	417
Suicide	533	-	7	60	84	107	105	55	47	53	15
Other Diseases of the Arteries	363	-	-	2	2	2	13	38	78	139	89
Alcoholic Diseases	359	-	-	2	10	52	86	94	77	35	3
Arteriosclerosis	234	-	-	-	-	-	-	9	30	72	123
Hypertension	221	-	-	-	-	1	6	13	31	77	93
Parkinson's Disease	213	-	-	-	-	-	-	2	29	105	77
Nephritis/Nephrosis	186	1	-	-	2	6	7	13	27	62	68
Congenital Anomalies	170	66	11	7	7	9	8	11	14	26	12
Homicide	131	2	13	24	28	30	15	10	6	2	-
Septicemia	109	1	-	-	1	4	6	9	25	37	26
Perinatal Conditions	102	99	2	1	-	-	-	-	-	-	-
AIDS	80	-	-	2	21	32	18	5	2	-	-
Other	3,837	68	29	33	42	146	220	274	568	1,107	1,350

The Way of All Flesh

Everybody dies eventually, but the timing and causes of death vary. These differences reflect changes in sanitation, behaviors, history, social structures, medical knowledge, the availability of health care, and everything else.

Below are rankings of the causes of death from different eras, localities, and ethnicities; can you match them with the following? Choose from:

- A. London, 1632
- B. Boston, 1810-20
- C. Oregon, 1904-06
- D. Oregon, 1940
- E. Oregon, 1970
- F. Oregon Hispanics, 1997

1.

1. Heart disease
2. Cancer
3. Nephritis
4. Intracranial lesions
5. Accidents
6. Pneumonia
7. Tuberculosis
8. Diabetes
9. Premature birth
10. Suicide

2.

1. Consumption
2. Infantile Disease
3. Typhus Fever
4. Pneumonia
5. Old age
6. Convulsions
7. Dropsy
8. Sudden Death
9. Dysentery
10. Fever

3.

1. Unintentional injuries
2. Heart disease
3. Cancer
4. Perinatal conditions
5. Cerebrovascular disease
6. Homicide
7. Diabetes
8. Congenital anomalies
9. Pneumonia & Influenza
10. Suicide

4.

1. Chrisomes and infants
2. Consumption
3. Fever
4. Aged
5. Flocks and small pox
6. Teeth
7. Abortive and stillborn
8. Bloody flux and scowring
9. Dropsie and swelling
10. Convulsion

5.

1. Heart disease
2. Cancer
3. Cerebrovascular disease
4. Accidents
5. Influenza & pneumonia
6. Bronchitis, emphysema
7. Arteriosclerosis
8. Diabetes
9. Suicide
10. Cirrhosis of the liver

6.

1. Tuberculosis
2. Heart disease
3. Accidents
4. Pneumonia
5. Cancer
6. Senility
7. Diarrhea and enteritis
8. Bright's disease
9. Cerebral congestion/hemorrhage
10. Congenital debility

Answers: 1. D, 2. B, 3. F, 4. A, 5. E, 6. C



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Health Division
 Oregon Department of Human Resources
 800 NE Oregon Street, Suite 225
 P.O. Box 14050
 Portland, Oregon 97214-0050

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