

OREGON HEALTH TRENDS

Center for Health Statistics (503) 731-4354
 STATE OF OREGON • HEALTH DIVISION • DEPARTMENT OF HUMAN RESOURCES

SERIES NO. 44
DECEMBER
1995

FATAL BEHAVIOR

Why Oregonians Die Prematurely

In 1993, 27,596 Oregonians died. Death certificate data indicated that most of these deaths were due to heart disease (7,652 deaths), malignant neoplasms (6,622), cerebrovascular disease (2,202), chronic obstructive pulmonary disease (1,595), and unintentional injuries (1,185). However, these categories are indicative of the primary pathophysiological conditions at the time of death rather than their root causes.¹

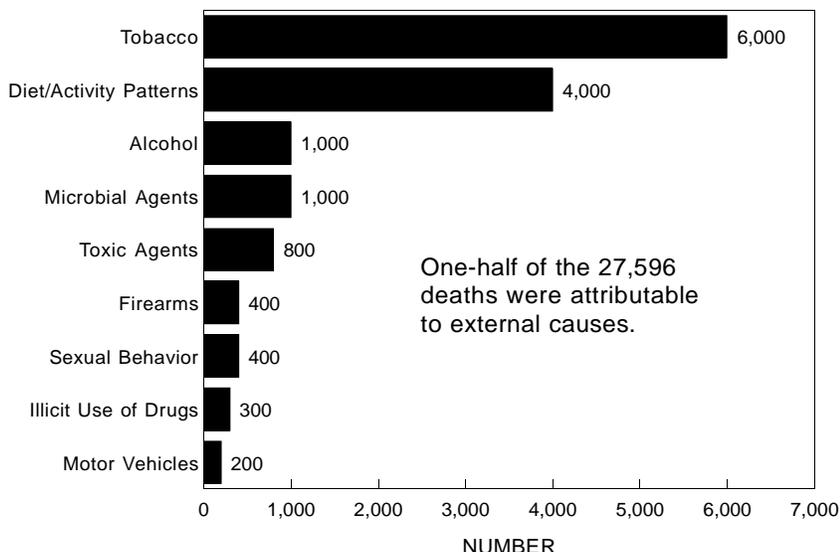
In 1993, McGinnis and Foege published a review entitled "The Actual Causes of Death in the United States."¹ It identified and quantified the major external factors that contribute to death: tobacco, diet/activity patterns, alcohol,

microbial agents, toxic agents, firearms, sexual behavior, illicit use of drugs, and motor vehicles. Using a similar methodology, this newsletter presents the "actual" causes of death of Oregonians. It also briefly describes some of our residents' risky behavior.²

McGinnis and Foege noted that "because most diseases or injuries are multifactorial in nature, a key challenge is sorting out the relative contributions of the various factors. For heart disease, well established external risk factors include tobacco use, elevated serum cholesterol levels, hypertension, obesity, and decreased physical activity; for various cancers, such risk factors include tobacco use, dietary

Tobacco is the leading cause of premature death, claiming 16 Oregonians every day.

ACTUAL CAUSES OF DEATH OF OREGONIANS, 1993



LUNG CANCER AND COPD DEATH RATES BY YEAR AND GENDER			
Lung Cancer			
	Male	Female	Total
1970	56.4	11.4	33.5
1980	69.9	22.4	48.3
1990	81.2	48.1	64.3
1993	80.0	55.7	67.7
COPD			
	Male	Female	Total
1970	39.9	10.4	24.9
1980	43.3	20.1	31.5
1990	52.4	34.4	45.8
1993	57.8	47.4	52.5
Rates per 100,000 population.			

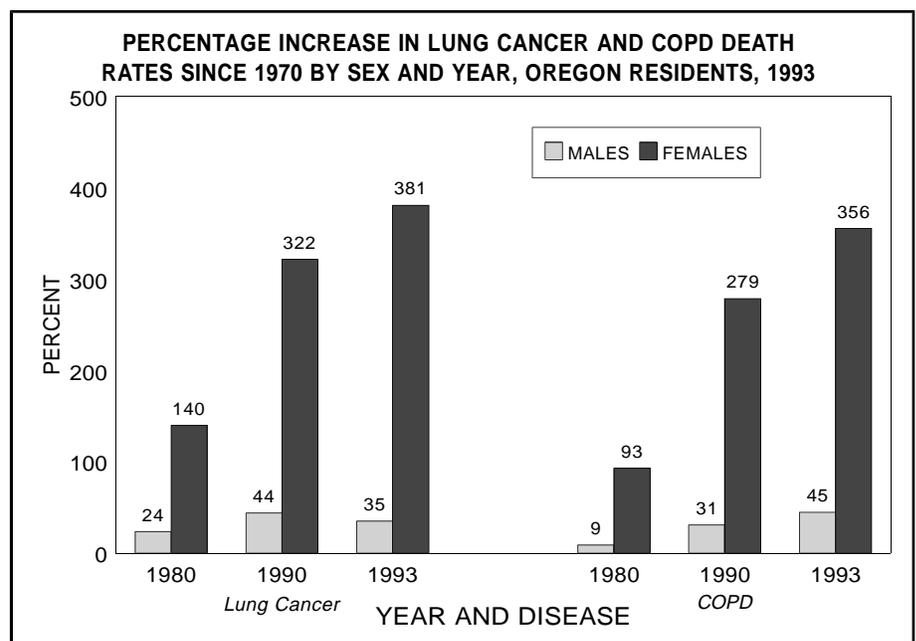
patterns, certain infectious agents, and environmental or occupational exposure to carcinogenic agents. Even motor vehicle injuries can be associated with multiple factors, including alcohol use, failure to use passenger protection systems, poor roadway design, and inadequate law enforcement. These factors may act independently of each other, the risks being additive according to the effect of each, or they may act synergistically, the interaction of factors presenting a greater total risk than the sum of their individual effects.”

One-half of all resident deaths were attributable to potentially preventable causes, causes often rooted in personal behavior. Although the figures presented here should be considered approximations, they provide a sense of the relative impact of various factors on the health of Oregonians.³ The rank order of the factors leading to the deaths of Oregonians is the same as the overall ranking for the U.S., except that illicit use of drugs ranks higher than motor vehicles.

Tobacco

The most important cause of premature death among Oregonians is cigarette smoking; six thousand deaths were due to smoking. (See page nine for methodology.) Tobacco contributes substantially to deaths from cancer (especially cancers of the lung, esophagus, oral cavity, pancreas, kidney, and bladder). Other tobacco-linked diseases include coronary artery disease, stroke, hypertension, chronic obstructive pulmonary disease and pneumonia. Infants die from *in utero* exposure to tobacco combustion products while Oregonians of all ages die from fires started by careless smokers.^{4 5}

Cigarette smoking became increasingly prevalent early in the twentieth century; two decades later the epidemic of smoking-caused deaths began. Even now, despite the often fatal consequences of smoking, at least 22 percent of Oregonians continue to smoke and death rates from smoking-caused diseases continue to climb. In recent decades, the increase in lung



cancer and chronic obstructive pulmonary disease deaths has been greatest among women.⁶

Concomitant with this human cost of smoking is the economic cost. During 1993, the price tag for treating Oregonians with smoking-attributable diseases combined with the cost of lost productivity totaled no less than an estimated \$895.8 million⁷—costs that could be eliminated if Oregonians did not smoke cigarettes and little of which is paid by smokers.⁸ Included in the total is \$266.2 million in direct health care costs, \$96.3 million in indirect morbidity costs, and \$533.3 million in indirect mortality costs. By comparison, the Oregon Department of Revenue collected \$80.5 million in cigarette taxes. For additional information on tobacco and Oregonians, see *Oregon Health Trends*, numbers 38 and 40.

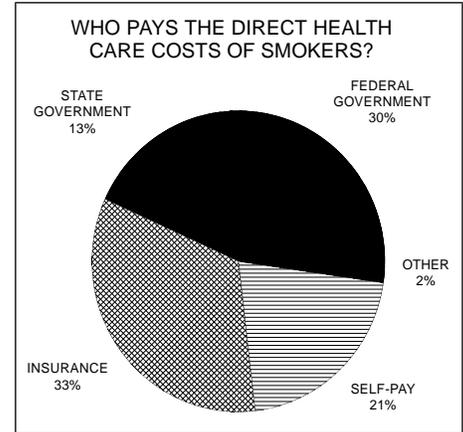
Diet and Activity Patterns

An estimated 4,000 Oregonians died prematurely as a consequence of a poor diet and/or sedentary

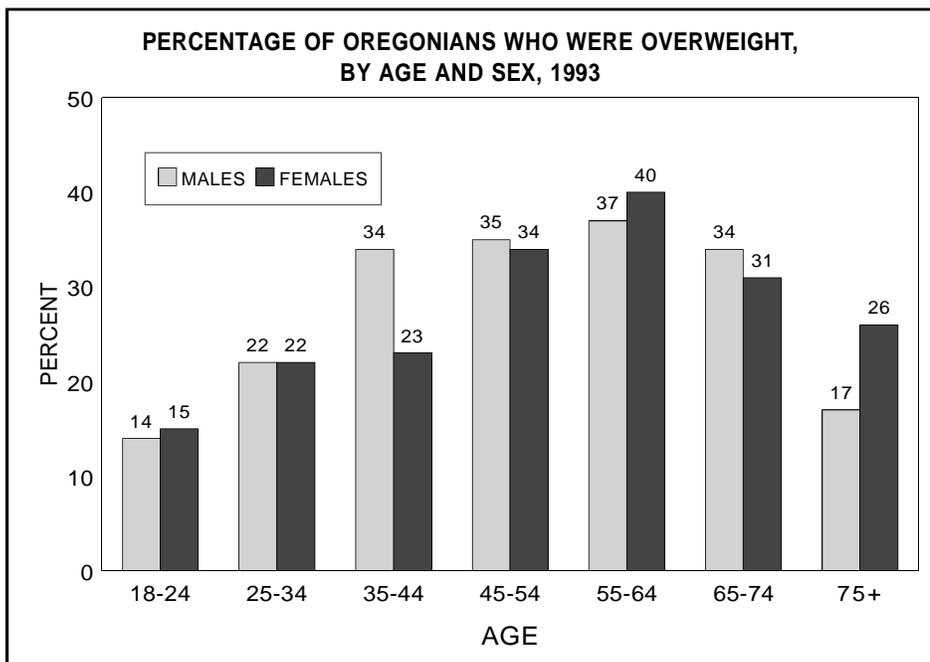
lifestyle. This is the second most common cause, leading to one in seven deaths. It is also one of the most difficult to quantify. Dietary factors are associated with coronary artery disease, stroke, hypertension, cancers (colon, breast, and prostate) and diabetes. Both heart disease and colon cancer have been linked to physical inactivity. Half of all Type II diabetes is estimated to be preventable with obesity control.⁹ Doll and Peto estimated that 35 percent of all cancer deaths are attributable to diet.¹⁰

In Oregon, the temporal death rate patterns for these diseases are discordant. While the rates for some have been on long-term downward trends, others are rising sharply. For example, coronary artery disease death rates fell 36 percent during 1970-1993 but during 1985-1993, after changing little in the previous years, the diabetes death rate rose 79 percent.

More than one in four Oregonians is overweight, 27 percent of women and 29 percent of men.¹¹ Obesity is most common among: 55-64 year-olds (38%), the divorced



Every hour and a half an Oregonian dies as a result of cigarette smoking.



(30%), those with a household income less than \$10,000 annually (34%), the unemployed (34%), and those with a grade school education only (32%).¹²

Diets high in fruits and vegetables are associated with a variety of health benefits including a decreased risk of many types of cancer. In Oregon only one-fifth (21%) of the population consumed fruits and vegetables at least five times per day; 17 percent of males compared to 25 percent of females did so.¹³ The lowest consumption was among: 18-24 year-olds (14%), those with a grade school education only (17%), and those in \$10,000-14,999 annual income households (16%).

One-half (48%) of Oregonians led a sedentary lifestyle.^{13 14} This behavior was seen most often among: men (50%), 55-64 year-olds (52%), \$10,000-14,999 households (54%), the retired (51%), and those with no more than a grade school education (61%).

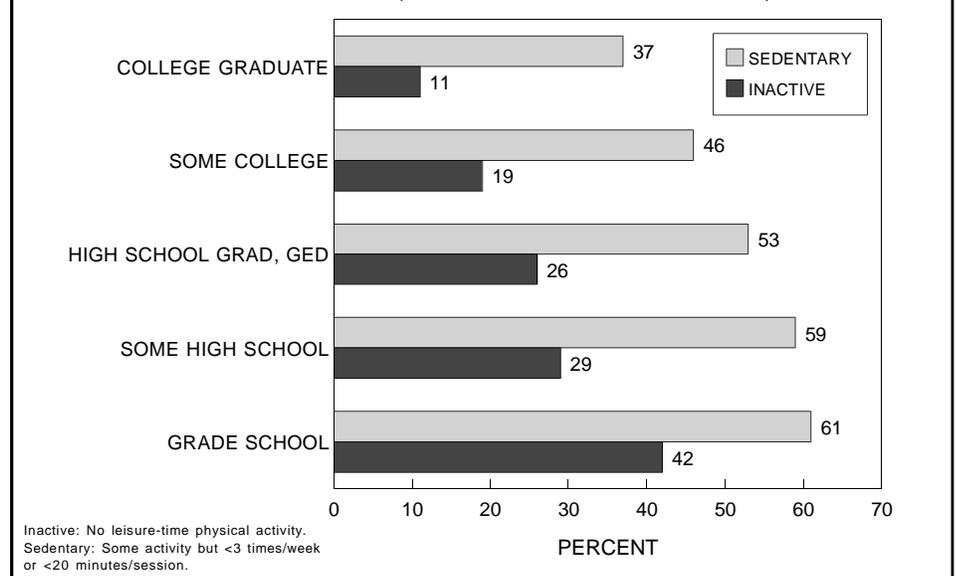
Alcohol

Alcohol misuse resulted in the deaths of an estimated 1,000 Oregonians. Deaths of males outnumbered females two to one. Motor vehicle crashes, liver cirrhosis, cancers, cerebrovascular diseases, and suicide were most common. Nationally, an estimated 15 percent of years of potential life lost before age 65 is attributable to alcohol use.¹ However, the impact of alcohol extends far beyond the mortality tables. An estimated 18 million Americans suffer from alcohol dependence while an estimated 76 million have been affected by abuse at some time.^{15 16 17}

Fifteen percent of Oregonians admitted to being binge drinkers, 23 percent of men and 7 percent of women.¹⁸ Binge drinking was reported most often by: 18-24 year-olds (31%), the separated but not divorced (32%), those in \$25,000-34,999 households (20%), students (31%), and those with some college or a technical school education (17%). This behavior has obvious consequences when combined with driving.

One-half of Oregonians are sedentary.

PERCENTAGE OF OREGONIANS WHO WERE INACTIVE OR WHO LED A SEDENTARY LIFESTYLE, BY EDUCATIONAL ATTAINMENT, 1994



Four percent of respondents said they drank 60 or more drinks per month. As with binge drinking, men (8%) were far more likely be chronic alcohol abusers than were women (1%). Other at-risk groups were: 18-24 year-olds (8%), never married persons (10%), persons in house-holds with \$20,000-24,999 annual income (6%), and persons out-of-work (12%).

Microbial Agents

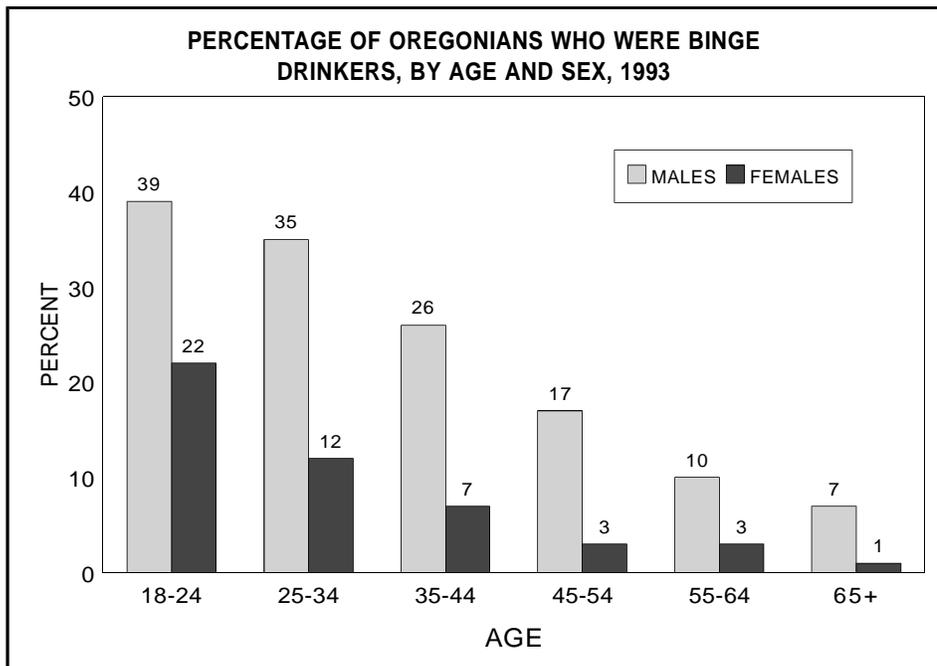
Infectious diseases, although no longer the leading cause of death, still lead to many fatalities, particularly among the elderly. In 1993, infectious agents caused the deaths of 1,000 Oregonians; pneumonia was most common. (Deaths due to AIDS and certain other infectious agents are not included here; see page 7.) Nationally, the major contributors to deaths in this category are pneumococcal pneumonia, nosocomial infections (in acute and chronic care facilities), Legionellosis, and group A streptococcal infections.¹ An estimated 740 million symptomatic infections occur annually in the United States.

Pneumonia and influenza vaccinations are recommended for persons 65 or older and those with certain chronic conditions - but only one-third (35%) of Oregonians 65 or older have ever been immunized for pneumonia while about half (56%) have had flu shots within the last year.

Toxic Agents

Because measurement techniques and the recognition of the health effects of toxic agents are still evolving, the estimate of 800 deaths included here may be the most uncertain. Toxic agents may pose a threat to human health as occupational hazards, environmental pollutants, contaminants of food and water supplies, and components of commercial products. They can contribute to disorders that are potentially lethal, including cancer and diseases of the heart, lungs, liver, kidneys, bladder, and neurological system.¹ National estimates of the total cancer deaths caused each year by synthetic chemicals in the environment or occupational settings range upward from about 30,000.^{10 19} An

Misuse of alcohol led to the deaths of an estimated 1,000 Oregonians.



estimated 9,000 die from asbestos exposure.²⁰ Occupational exposures alone cause an estimated 1-3 percent of all cardiovascular, chronic respiratory, renal, and neurological disease deaths as well as all pneumoconioses.²¹

own at least one of each type. Gun ownership is highest in households with both men and women present (54%) and lowest in female only households (19%). Firearms were present in 46 percent of male-only households. Gun ownership was highest among respondents who: were 55-64 years-old (57%), reported a household income over \$25,000 (56%), were self-employed or homemakers (56%), or were high school graduates only (58%).

Guns are present in one-half of all households: Every day, on average, at least one Oregonian is shot to death.

Firearms

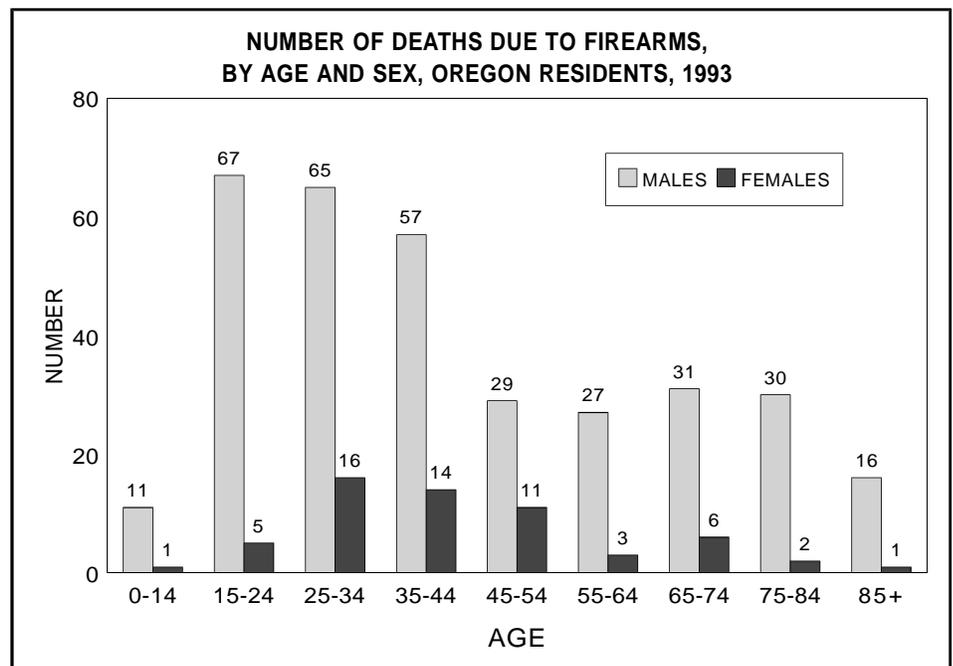
On average, more than one Oregonian a day was killed with a gun during 1993. Gunshot wounds resulted in 400 fatalities. Almost two-thirds (63%) were caused by handguns. Homicide accounted for 21 percent of the deaths but most were suicides (71%). Firearms kept in the home for protection have been found to be several times more likely to kill a family member than an intruder.²² The risk of suicide among adolescents is nearly three times greater in homes where a gun is kept.^{23 24}

Guns are present in 49 percent of all Oregon households and most of these have both handguns and rifles (including shotguns).²⁵ Four percent of households own handguns only, 19 percent own rifles only, and 25 percent

In Oregon households where both guns and children are present, only 30 percent of the guns are stored unloaded and locked.

Sexual Behavior

Unprotected sexual intercourse led to 400 deaths. The vast majority of these resulted from HIV infections, but also included were certain deaths resulting from cervical cancer, sexually transmitted hepatitis B, and excess infant deaths resulting from unintended pregnancies. Every year 12 million Americans, two-thirds of whom



are under 25 years of age, are newly infected with a sexually transmitted disease.²⁶ Unprotected sexual intercourse now represents one of the most important rapidly increasing causes of death; the increase is driven largely by AIDS deaths.

Illicit Use of Drugs

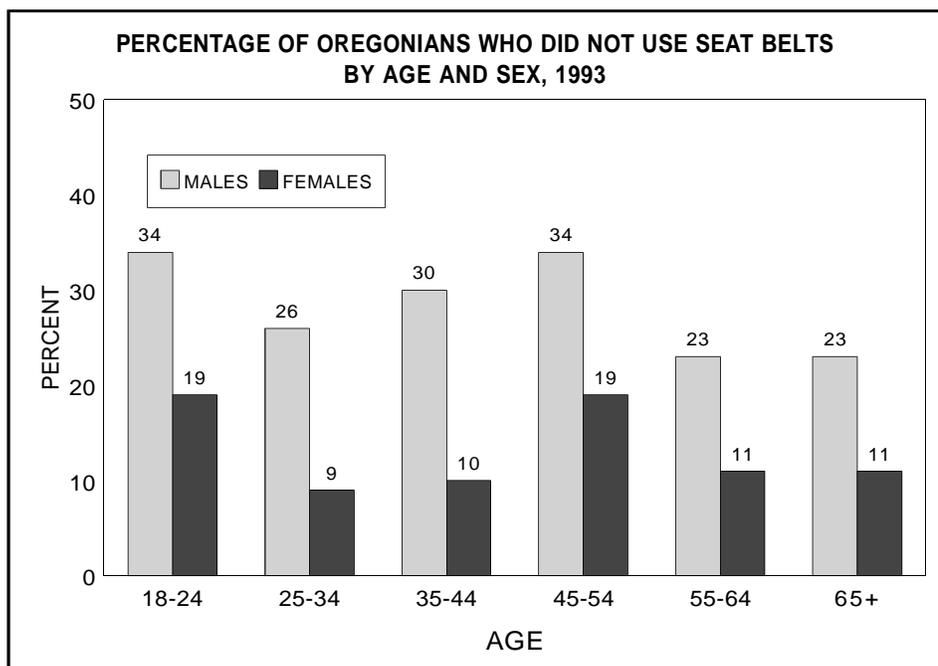
An estimated 300 deaths resulted from the illicit use of drugs (both legal and illegal). Unintentional overdoses were most common. Also included here are suicides, motor vehicle accidents attributable to drug use, and deaths due to hepatitis B and HIV infections. It is estimated that 3 million people in the U.S. have serious drug problems.²⁷ Moreover, an estimated one in five women nationwide are thought to use illegal drugs during pregnancy, putting both themselves and their infants at risk.²⁸

Motor Vehicles

Two hundred Oregonians died in motor vehicle crashes that were estimated to not be alcohol- or drug-related. (Included are deaths of pedestrians.) The odds of surviving a crash are several times greater when vehicle occupants are protected. Lap and shoulder belts have been shown to reduce the risk of death by about 45 percent to 65 percent, and of serious injury by 40 percent to 55 percent.^{29 30} In frontal crashes, airbags can reduce fatalities by 30 percent and serious injuries by 35 percent while child passenger restraints can reduce fatalities by 50 percent to 90 percent.²⁷ Use of motorcycle helmets can reduce fatalities by 30 percent and serious head injuries by 75 percent.³¹

One-fifth (20%) of Oregonians said they did not always use a seat belt, 28 percent of men and 13 percent of women. This, despite the Oregon seat belt law. Those most likely to be in this risk group were: 18-24 years old (27%), separated but not divorced (29%), in

HIV accounts for three-fourths of the deaths due to sexual behavior.



households with an annual income of \$20,000-24,999, self-employed (26%), and high school drop-outs (27%).

Conclusions

Twenty percent of Oregonians do not always use seatbelts.

As they have throughout human history, societal and behavioral changes continue to have a dramatic effect on mortality patterns. While it is obvious that reductions in premature mortality necessarily result in increases of equal magnitude later from other causes, it is equally apparent that there is still much room for improvement in both the quantity and quality of life.

Thousands of Oregonians die annually as a consequence of their own behavior. In 1993, national health care costs reached an estimated \$900 billion - or \$14,000 for each family of four if equally allocated across the population.³² Most expenditures were directed towards the treatment of the conditions listed on the death certificates. Only an estimated five percent was invested in prevention.³³ Without addressing the need to change behaviors and access to health care—especially for low income citizens—the human and economic costs will continue to increase.

ENDNOTES

- 1 McGinnis JM, Foege WH. The actual causes of death in the United States. *JAMA* 1993;270:2207-2212.
- 2 The Behavioral Risk Factor Survey (BRFS) is a random digit-dialed telephone survey of Oregonians 18 or older conducted by the Oregon Health Division in cooperation with the federal Centers for Disease Control. Unless otherwise noted, data is from the 1993 survey of 2,968 residents.
- 3 The discussion herein is drawn largely from McGinnis and Foege.

- 4 Hopkins D. Tobacco and Oregonians: A Legacy of Illness and Death. Oregon Department of Human Resources. Oregon Health Division. Center for Health Statistics. Portland, Oregon. 1992.
- 5 Hopkins D. Tobacco, Oregonians, and Health. Oregon Health Trends, Number 40. Oregon Department of Human Resources. Oregon Health Division. Center for Health Statistics. Portland, Oregon. 1995.
- 6 Oregon Center for Health Statistics. Oregon Vital Statistics Annual Report, 1993, Volume 2. Oregon Department of Human Resources. Portland, Oregon. 1995.
- 7 These Oregon-specific estimates were calculated with SAMMEC II, software developed by the federal Centers for Disease Control.
- 8 Centers for Disease Control. Medical expenditures attributable to cigarette smoking - United States, 1993. *MMWR*. 1994;43:469-472.
- 9 Herman WH, Teutsch SM, Geissm LS. Diabetes mellitus. *Am J Prev Med*. 1987;3(suppl):72-82.
- 10 Doll R, Peto R. The Causes of Cancer: Quantitative Estimates of Avoidable Risks of Cancer in the United States Today. New York, NY: Oxford University Press; 1981.
- 11 Respondent at or above 120 percent of ideal weight. Ideal weight is defined as the mid-value of a median frame person from the 1959 Metropolitan height-weight tables.
- 12 In many cases, persons unemployed more than a year are more apt to engage in risky behavior than those unemployed less than a year but the sample size for the former is too small to provide reliable prevalence figures. Therefore, data for this group is not included here. References to the unemployed mean persons out-of-work less than one year.
- 13 From the 1994 BRFS of 2,844 Oregonians.
- 14 Less than 20 minutes/session, and/or less than three times/week of activity during the past month.
- 15 National Center for Health Statistics. Health, US, 1992. US DHHS Pub. No.

- 93-1232. Hyattsville, MD. 1993.
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- 18 Consuming five or more drinks on one or more occasions during the previous month.
- 19 Perera FP, Rail DP, Weinstein IB. Carcinogenesis mechanisms: the debate continues. *Science*. 1991;252:903-904.
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- 22 Webster DW, Chaulk CP, Teret SP, Wintemute GJ. Reducing firearm injuries. *Issues Sci Technol*. 1991;7:73-79.
- 23 Sloan JH, Rivara FP, Reay DT, Ferris JAJ, Path MRC, Kellermann AL. Firearm regulations and rates of suicide: a comparison of two metropolitan areas. *N Engl J Med*. 1990;322:369-373.
- 24 Brent DA, Perper JA, Goldstein CE, et al. Risk factors for adolescent suicide: a comparison of adolescent suicide victims with suicidal inpatients. *Arch Gen Psychiatry*. 1988;45:581-588.
- 25 Based on the responses of 6,333 Oregonians during the 1992-93 BRFS.
- 26 Division of STD/HIV Prevention. Sexually Transmitted Disease Surveillance, 1990. Atlanta, GA: Centers for Disease Control; US Dept of Health and Human Services. 1991.
- 27 Alcohol, Drug Abuse, and Mental Health Administration. Drug Abuse and Drug Abuse Research: The Third Triennial Report to Congress From the Secretary, Department of Health and Human Services. Washington, DC. 1991.
- 28 The National Commission to Prevent Infant Mortality. Troubling Trends Persist: Shortchanging America's Next Generation. Washington, DC: US Environmental Protection Agency; The National Commission to Prevent Infant Mortality. 1992.
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- 30 Campbell BJ. Safety belt injury reduction related to crash severity and front seated position. *J Trauma*. 1987;27:733-739.
- 31 US Preventive Services Task Force. Guide to Clinical Preventive Services: An Assessment of the Effectiveness of 169 Interventions. Baltimore, MD:Williams & Wilkins. 1989.
- 32 Burner ST, Waldo DR, McCusick DR. National health expenditures through 2030. *Health Care Finac Rev*. 1992;14:1-15.
- 33 Centers for Disease Control. Estimated national spending on prevention - United States, 1988. *MMWR*. 1992;41:529-531.

Principal author: David Hopkins

METHODOLOGY

The estimates of actual causes were made by constructing a table quantifying the contributions of leading factors using actual counts, generally accepted estimates, and calculated estimates that were developed by summing various individual estimates and correcting to avoid double counting.¹ As McGinnis and Foege noted, "The limitations in the data should be underscored both with respect to deficiencies in the primary databases (e.g., the paucity of data on the role of drugs in motor vehicle fatalities or on long-term exposure levels of populations to various toxic agents) and to disparate approaches used in the studies reviewed to arrive at estimates of the contribution of a factor to a particular health outcome." For the factors of greatest complexity and uncertainty (diet and activity patterns and toxic agents), a conservative approach was taken by choosing the lower boundaries of the various estimates.¹

Estimates of the actual causes of death for Oregonians were made in a manner largely consistent with the McGinnis-Foege methodology. Specifically, the Oregon estimates were made as follows:

1. Tobacco. "Smoking-attributable Mortality, Morbidity and Economic Costs" (SAMMEC) software distributed by the Centers for Disease Control (CDC) was used to make the estimate. The figure also includes the number of passive smoking deaths, an estimate based on the national ratio of passive smoking deaths to the total for smokers, infants, and fire victims. For a summary of SAMMEC methodology, see the CHS publication *Tobacco and Oregonians: A Legacy of Illness and Death*.

2. Diet and Activity Patterns. The overall percent (14) from the McGinnis-Foege study was applied to the total number of deaths of Oregonians. The estimate for deaths resulting from diet/activity patterns was based on about two dozen studies.

3. Alcohol. The estimate was made using the CDC's "Alcohol-related Disease Impact" (ARDI) software. For a summary of ARDI methodology, see the CHS publication *Alcohol and Drugs in Oregon, 1989*.

4. Microbial Agents. The number of deaths due to infectious diseases were tabulated. Included were meningitis and encephalitis, pneumonia and influenza, and other infectious and parasitic diseases. Pneumonia and tuberculosis deaths estimated to be attributable to tobacco and alcohol use were excluded. Also excluded were deaths resulting from HIV and other sexually-transmitted diseases. Included were liver cancer and cirrhosis deaths estimated to result from hepatitis B that were not due to illicit use of drugs or sexual behavior.

5. Toxic Agents. The overall percent (3) from the McGinnis-Foege study was applied to the total number of deaths of Oregonians.

6. Firearms. The number of deaths due to gunshot wounds was tabulated from death certificates.

7. Sexual Behavior. The Oregon figure is based on the McGinnis-Foege estimate of national ratios of deaths resulting from unprotected sexual intercourse. These ratios were applied to Oregon data for infant deaths linked to unintended pregnancies, cervical cancer, and diseases related to sexually-acquired hepatitis B. Also included are Oregon counts of HIV deaths resulting from sexual transmission.

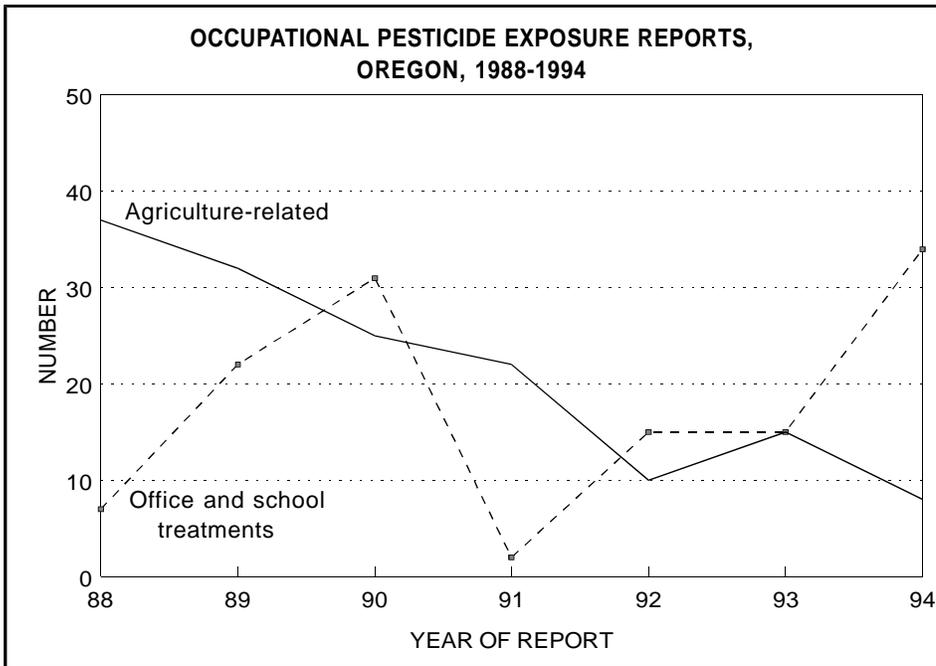
8. Illicit Drugs. The Oregon figure was estimated by applying the McGinnis-Foege proportion of motor vehicle deaths and hepatitis B deaths that were drug-related to Oregon data. Also included were state counts of deaths resulting from drug-related transmission of HIV and overdoses and mental disorders resulting from drug use.

9. Motor vehicles. The number was calculated from counts of state death certificates, less those deaths estimated to have resulted from alcohol or drug use.

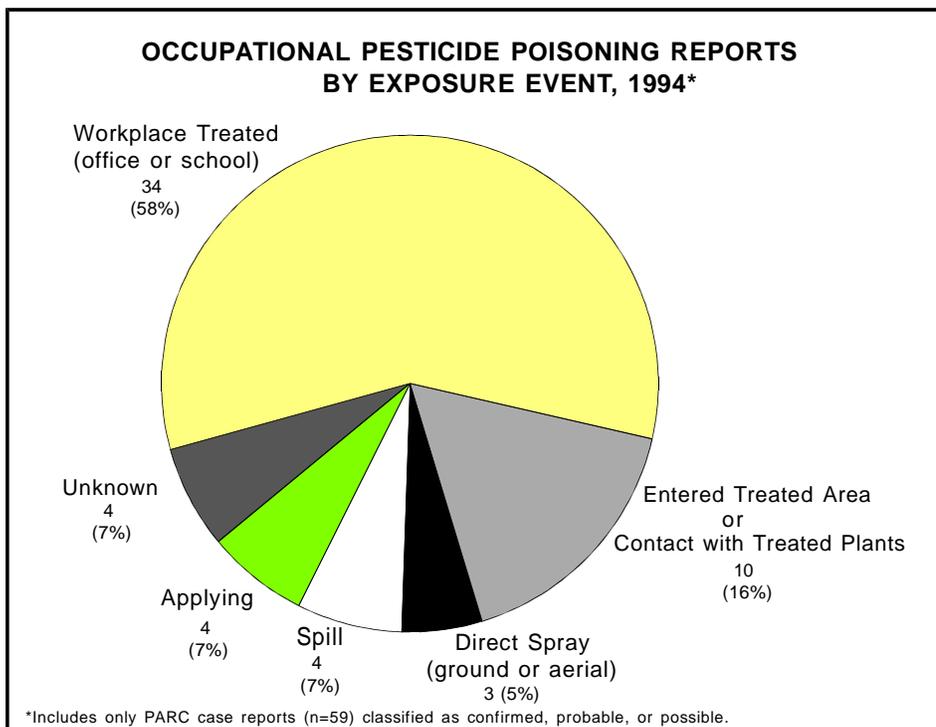
Pesticides: a Hidden Office Hazard?!

Interior pesticide applications to offices and schools have become the most common source of illness reports to Oregon's Pesticide Analytical and Response Center (PARC). Program staff, who are housed at the Oregon Health Division, investigate reports of illness related to the use of pesticides and make recommendations to prevent problems in the future.

Farm workers and others who frequently work with or around pesticides have been the target of regulation and training. Over the past seven years in Oregon there has been a decrease in exposure reports from agricultural and nursery workers. However, reports from office and school employees have increased since 1991. Although the number of exposure incidents has been small, large numbers of people can be affected.



The concentration of employees in public facilities can increase the impact of pesticide applications. In one incident, a commercial pest control operator treated an office with an insecticide after the close of business. The building was not ventilated before workers returned. The next day 16 employees complained of symptoms including headache, dizziness, throat irritation and nausea, most of which resolved upon leaving the treated area. On Oregon Health Division recommendation, fans were used to air out the building that afternoon and no further symptoms were reported.



Employee concerns may increase if response is delayed or perceived as insufficient. After a crack and crevice treatment at a school, limited clean-up was done by staff. The following day some students and staff reported an odor and at least one person who helped clean-up experienced minor symptoms. Fairly widespread health complaints were noted a week later and discussions began about their possible relation to the use of a pesticide. The school was closed, cleaned and reopened. Continued symptoms were reported and the facility was closed again before outside assistance was sought.

In this case the combination of using a high odor pesticide and the onset of what was probably a viral illness in the school raised concerns among the staff. If

*Includes only PARC case reports (n=59) classified as confirmed, probable, or possible.

professional investigation and risk communication had begun early on, it might have been possible to avoid closing the school.

In 1994, almost 60 percent of occupational pesticide poisoning reports occurred after the workplace was treated to control insects. The relationship between the illness and the exposure event could not be confirmed in any of these cases and generally symptoms were not severe. Contributing factors in such events commonly include not informing workers about the chemical treatment, and the employees perceived lack of control over their environment.

In addition to keeping people informed about pesticide use, there are other ways to limit potential problems. Low odor and less toxic products should be used in public areas--especially with sensitive populations such as children and seniors. Scheduling applications after hours on a Friday and ensuring adequate ventilation can reduce odors and the potential for exposure. If concerns are raised, an outside, professional perspective may provide needed objectivity.

For information about pests and pest control, contact your county OSU Extension Service Agent. The National Pesticide Telecommunications Network at (800) 858-7378 can help with product data, including health and environmental effects. In case of illness that may be related to pesticides, see a health care provider. Other contacts include the Oregon Poison Center at (800) 452-7165, your county health department, or the Oregon Health Division at (503) 731-4025.

Principal Author: Catherine Thomsen

LEAD IN THE NORTHWEST FORGING COMMUNITY SOLUTIONS

A conference addressing lead related issues, will be held in Portland Oregon at the Lloyd Center Red Lion on December 14th and 15th, 1995. The goal of the conference is to bring together individuals whose lives and professions are directly impacted by the presence of lead in housing stock where children reside.

Topics to be covered include:

- Recommendations of the National Lead Task Force and how they might impact local communities
- The impact of Title X legislation (in particular on realtors, contractors, landlords, etc.)
- Lead and legislation
- How lead affects the body
- Lead and nutrition
- Sources of lead other than dust, soil, and lead-based paint
- What to do when a child is lead poisoned
- Building community programs to deal with lead related issues.

Many of the workshop presenters will be present for an evening session on the first day of the conference. This session will be open to the general public and there will be no charge. This evening session will conclude with round table discussions which are designed to give people an opportunity to explore a particular issue or program in more detail. Richard Stapleton, Chief of the USEPA Region II Public Affairs Office, parent of a lead poisoned child, and author of *Lead is a Silent Hazard* will be one of the featured presenters.

The conference is being sponsored by the Oregon Health Division, the Oregon Childhood Lead Poisoning Prevention Program (OCLPPP), USEPA Region X, the Oregon Multifamily Housing Council, the National Lead Information Center, and the Multnomah County (Oregon) Health Department.

To obtain more information about the conference, please contact the Oregon Childhood Lead Poisoning Prevention Program at (503) 248-5240.

MOST FREQUENTLY USED BABY NAMES, OREGON OCCURRENCE, 1994					
RANK	BOYS	COUNT	RANK	GIRLS	COUNT
1	Tyler	472	1	Jessica	355
2	Jacob	461	2	Ashley	348
3	Austin	433	3	Emily	316
4	Michael	380	4	Samantha	248
5	Joshua	347	5	Sarah	233
6	Brandon	341	6	Hannah	232
7	Andrew	335	7	Megan	215
8	Christopher	315	8	Elizabeth	199
9	Nicholas	306	9	Amanda	196
10	Cody	293	10	Nicole	190
11	Ryan	290	11	Taylor	189
12	Matthew	288	12	Kayla	184
12	Zachary	288	13	Rachel	156
14	Kyle	278	14	Brittany	152
15	Daniel	269	15	Jennifer	133
16	Alexander	258	16	Stephanie	126
17	Justin	255	17	Alyssa	124
18	David	247	18	Rebecca	122
19	Joseph	241	19	Brianna	120
20	Jordan	232	20	Sierra	116
TOTAL 1994 OREGON BIRTHS: 43,591					



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