

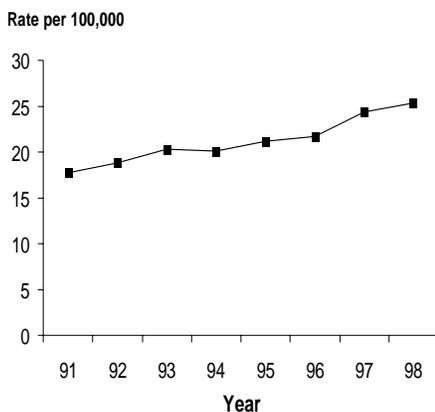
## THE RISE OF DIABETES IN OREGON

**D**IABETES IS BECOMING an increasingly common health problem in Oregon. Over the past 10 years, Oregon, like the rest of the United States, has seen the number of persons living with diabetes and the deaths due to diabetes increase. In 1997, almost 32,000 diabetes-related hospitalizations cost Oregonians an estimated \$298 million. In this *CD Summary*, we review current data on diabetes among Oregonians, and address specific diabetes concerns among the elderly.

### DIABETES DEATHS

Since 1991, the diabetes death rate has steadily increased to the current rate of 25.2 per 100,000 persons annually (see figure below). This increase has occurred across all age groups and both sexes. In 1998, diabetes was the 7<sup>th</sup> leading cause of death among Oregonians, with 870 deaths directly attributed to the disease, and mentioned as a contributing cause of death in an additional 1,935 deaths. In addition, the number of diabetes deaths for Oregonians may be under-reported on the death certificate because many people die of complications of diabetes, such as heart disease, rather than diabetes itself.

### Mortality From Diabetes, Oregon 1991-1998



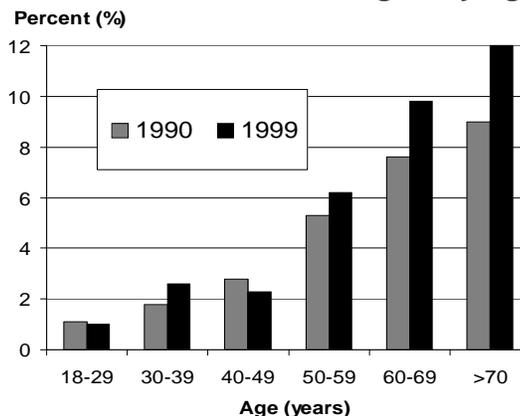
### DIABETES PREVALENCE

A recent report on diabetes trends in the United States has shown a 33% increase in the prevalence of diabetes from 4.9% in 1990 to 6.5% in 1998.<sup>1</sup> According to data from the Behavioral Risk Factor Surveillance System (BRFSS), a similar increase in the prevalence of diagnosed diabetes has occurred in Oregon. Over the same time period, the percentage of Oregonians who reported having diabetes rose from 3.8% in 1990 to 4.7% in 1999—an increase of 24%. Currently, 115,000 Oregon adults have been told they have diabetes; as many as another 64,000 may have undiagnosed diabetes since many cases go undetected for several years.<sup>2</sup>

### RISK FACTORS

So why the increase in diabetes? One of the strongest risk factors for developing type 2 diabetes is obesity.<sup>3</sup> Adult Oregonians with diabetes are more likely to be obese (46%) than those without diabetes (18%). As described in a recent *CD Summary* issue (November 23, 1999; Vol. 48, No. 25), the percentage of obese Oregonians increased dramatically during the '90's, from 12% in 1993 to 18% in 1998. The full effect of this continuing obesity epidemic on the prevalence of diabetes may not be seen for years, because of the delay between the development of obesity and the onset of diabetes. Thus, we expect the prevalence of diabetes to increase even more in the future.

### Diabetes Prevalence in Oregon, by Age



The prevalence in diabetes increases with increasing age (see figure above). Close to 11% of Oregonians over the age of 65 years have been diagnosed with the disease. However, for both the United States and Oregon, the largest increase in diabetes prevalence has occurred in individuals in their 30's. From 1990 to 1999 the diabetes prevalence for Oregonians aged 30-39 years went up 44%. This surprisingly large increase in diagnosed diabetes among younger Oregonians is alarming.

Many Oregonians with diabetes report other conditions or chronic disease risk factors, such as smoking, high blood pressure, and elevated cholesterol that increase the risk of diabetes complications. According to data from the 1999 BRFSS, in comparison to Oregonians without diabetes, adult Oregonians with diabetes are more likely to have high blood pressure (49% vs. 22%), and have elevated cholesterol (47% vs. 29%). Although Oregonians with diabetes are less likely to smoke than Oregonians without diabetes, 15% continue to be current smokers.

The CD Summary (ISSN 0744-7035) is published biweekly, free of charge, by the Oregon Health Division, (Dept. of Human Services). 800 NE Oregon St., Portland, Oregon 97232  
 Periodicals postage paid at Portland, Oregon.  
**Postmaster**—send address changes to:  
 CD Summary, 800 NE Oregon St., Suite 730, Portland, OR 97232

**CD SUMMARY**

September 12, 2000  
 Vol. 49, No. 19

PERIODICALS  
 POSTAGE  
**PAID**  
 Portland, Oregon



If you need this material in an alternate format, call us at 503/731-4024.

**RECEIPT OF PREVENTIVE SERVICES**

Once diagnosed, receiving appropriate preventive services can delay the onset of diabetes complications. Population-based guidelines for diabetes mellitus have been established in Oregon to monitor the quality of medical care provided to patients with diabetes (<http://www.ohd.hr.state.or.us/diabetes/pubs.htm>). Between 1997 and 1999 the percent of patients with diabetes receiving each of 10 preventive services mostly increased (see table below). Nonetheless, the low percentage of patients actually receiving some of the recommended services is still of great concern.

**ELDERLY PATIENTS**

While occurring in all age groups, the prevalence of diabetes is highest among the elderly. Elderly people with diabetes may have specific medical, pharmaceutical, visual, psychosocial, cultural, religious, nutritional, financial, and transportation issues that need to be factored into their treatment plan. For example, target blood glucose values for

older adults with diabetes may vary depending on their overall health status, and self-care skills and abilities. Self-monitoring of blood glucose, may be so impacted by changes in visual acuity and fine motor skills that the older person must depend on a family member or care giver to test his/her own blood glucose. Communicating treatment and self-management goals to these formal or informal care givers can create additional challenges for health care providers.<sup>4</sup>

Senior and Disabled Services Division, Department of Human Services has a new resource service for care givers. Providers can refer care givers to the toll-free line, 866/218-7218 for more information.

**FINAL NOTE**

As this overview suggests, diabetes is a serious, increasingly common and costly health problem for Oregonians. Both the proportion of the population older than 65 years of age, and the proportion of people who are over-

weight have steadily increased, and affected the population burden of diabetes in Oregon. Furthermore, diabetes required lifelong care that is crucial to disease management. All patients need to be aware of the importance of eating a good diet and getting an appropriate amount of exercise to prevent diabetes. In addition, patients with diabetes need to receive the recommended diabetes preventive services in a consistent and timely manner to prevent complications.

**REFERENCES**

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4. Position Statement, American Association of Diabetes Educators. Special Considerations for the Education and Management of Older Adults with Diabetes. *The Diabetes Educator* 2000; 26:37-39

Receipt of Recommended Diabetes Preventive Services

Recommended Service	1997 Percent (weighted)	1999 Percent (weighted)	Percent Difference 1997 vs. 1999
Regular foot exams	47%	67%	43%
Formal education (within 5 years)	42%	62%	48%
Taking aspirin if indicated	35%	49%	40%
Pneumonia vaccine (ever)	42%	59%	40%
HbA1c tested (annual)*	26%	34%	31%
Flu shot (annual)	57%	61%	79%
Cholesterol monitoring (annual)	75%	77%	39%
Blood pressure check (semiannual)	94%	94%	0%
Dilated eye exam (annual)	68%	68%	0%
Tobacco assessment**	77%	75%	-3%

\* The percentage for HbA1c testing may be an underestimate because only those respondents who had ever heard of glycosylated hemoglobin were asked if they had been tested.

\*\* Percentages are among current smokers only.

**TV DOCUMENTARY TO AIR**

In Oregon, increasing numbers of aging baby boomers are juggling working and parenting with care giving for their elderly parents. Together with Senior and Disabled Services, Oregon Public Broadcasting will air a special two-hour production called "Growing Up and Growing Old: Caring for Our Parents" on October 11 from 8-10 PM, and on October 15 from 1-3 PM PM on OPB channels around the state.