

## PREVENTIVE CARE FOR OREGONIANS WITH DIABETES

**M**ORE THAN 100,000 adult Oregonians (4%-5%) report having been diagnosed with diabetes,<sup>1</sup> and another 60,000 (3%)<sup>2</sup> likely have undiagnosed disease. Regular preventive care reduces the risk of developing long-term complications, such as lower extremity amputation, retinopathy, end-stage renal disease, heart disease, and stroke. Several national and state studies indicate that many people with diabetes do not receive adequate preventive care, however. In Oregon, most major health plans and many provider groups have endorsed comprehensive population-based guidelines that can be used to evaluate diabetes-related preventive care. These guidelines were described in a previous volume of this series (*CD Summary*; May 27, 1997; Vol. 46, No. 11). To assess the level of preventive care received by adult Oregonians with diabetes, we used data collected in a comprehensive statewide survey of health attitudes and practices. These findings highlight holes in the diabetes safety net.

In August 1997, 6199 Oregon residents, selected through random-digit dialing, were interviewed about their health status, tobacco use, health

screening activities, and other health-related topics. The 350 respondents who reported that they had been told by a doctor that they had diabetes were asked an additional set of items, including attitudes about diabetes, the frequency of office visits for diabetes in the past year, and receipt of procedures and services recommended in the population-based diabetes guidelines.

### FREQUENCY OF PROVIDER VISITS

Participants were asked, "How many times in the last year have you seen a doctor, nurse, or other health professional for your diabetes?" We defined "routine care" as at least 2 visits per year. Over three-fourths (76%) of Oregonians with diabetes reported getting routine care. However, 9% reported that they had not seen anyone about their diabetes in the past year, and 12% reported only a single visit (3% were unknown) (see figure).

### FACTORS ASSOCIATED WITH LACK OF ROUTINE CARE

People who did not receive routine care were less likely to be on insulin, and less likely to be concerned about long-term complications than those who received routine care. In addition, the survey suggests that people who did not receive routine care were more likely to report that they were in "excellent" health and that they lacked health insurance. Specifically, having 0-1 visits was reported by:

- 25% of those not taking insulin vs. 14% taking insulin
- 45% of those "a little" or "not at all" concerned about long-term consequences of diabetes vs. 22% of those who were "somewhat concerned" vs. 12% of those who were "very concerned."
- 29% of those in "excellent" health vs. 19% in "fair or poor" health

- 36% of uninsured persons vs. 20% of those with insurance

The likelihood of getting routine care did not vary appreciably by age, sex, or belief that long-term complications are preventable.

### MEETING THE DIABETES GUIDELINES

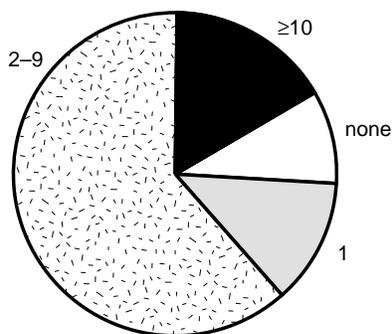
The population-based diabetes guidelines include 11 procedures or preventive services, some to be conducted at least semiannually (foot exam, blood pressure check), annually (HbA<sub>1c</sub>, dental and eye exams, cholesterol check, influenza immunization, education), or as indicated (pneumococcal vaccine, aspirin prophylaxis, tobacco assessment). We could examine all but tobacco assessment. Oregon patients in the survey received an average of 5.5 of the recommended procedures and services (see table).

These data are based on patient self-report, and it is likely that some responses contain errors.\* Nonetheless, there is a good concordance between these self-reported data and Medicare risk HMO data from chart reviews as reported by the Oregon Medical Professional Review Organization (OMPRO) for measures such as eye examinations and pneumococcal vaccine.<sup>3</sup> For most other measures, patients report *higher* frequencies of preventive care than are recorded in data based on chart reviews. Therefore, these survey data may overestimate how often these guidelines are met (HbA<sub>1c</sub> testing excepted).

### IMPROVING DIABETES CARE

Diabetes literally threatens both life and limb. While many diabetic patients in Oregon receive good preventive care, this preliminary survey supports findings from elsewhere that a sub-

Frequency of Medical Visits for Diabetes Care in Past Year Among Persons with Self-Reported Diabetes



\*unlike responses that might have come from physicians.

stantial proportion do not get adequate medical care—either because they don't come in for care or because they don't get all the recommended services when they do come in. Physicians should educate their patients about the gravity of this diagnosis. Successful management of diabetes will depend on establishing a working partnership between the patient and the physician. The challenge now is to motivate both doctors and patients by building the systems and supports (including financial) necessary to deliver all needed preventive care.

**REFERENCES**

1. The prevalence is estimated from annual Behavioral Risk Factor Surveillance System (BRFSS) surveys and the present survey conducted among Oregonians in 1996 and 1997.
2. Harris MI, Flegal KM, Cowie CC, et al. Prevalence of diabetes, impaired fasting glucose, and impaired glucose tolerance in U.S. adults. *Diabetes Care* 1998;21:518-524.
3. The Oregon Diabetes Project: Baseline Data for Quality Improvement. 1997. OMPRO: Portland, Oregon (published report).

**New Glucagon Rules**

**F**OR MANY YEARS, Oregon law (ORS 400.800-830) has allowed lay persons to administer epinephrine injections to individuals experiencing anaphylaxis. During the last legislative session, the epinephrine statute was amended to allow lay persons to administer glucagon to individuals experiencing severe hypoglycemia. This situation is most likely to arise in the school setting for children with diabetes. Unlike the treatment of anaphylaxis where epinephrine can be administered to any child experiencing a reaction, glucagon

can only be given to children with diabetes for whom a prescription has been written.

The Oregon Health Division has written administrative rules and developed a protocol to train emergency glucagon providers. The training program must be conducted by a licensed health care professional and requires that the emergency glucagon provider recognize the symptoms of hypoglycemia and know how to administer an injection. Copies of the rules and training protocol can be obtained by calling the Oregon Health Division at (503) 731-4008.

**Oregon Diabetes Coalition**

**T**HE FIRST MEETING of a statewide diabetes coalition was held on June 25, 1998, with over 100 people attending. The purpose of the Coalition is to define areas of concern that will become the focus of a statewide plan for improving the health and quality of life for people with diabetes.

Sub-committees will focus on Health Care Systems, Community Education, Policy Development, and Patient Education and Support. A second coalition meeting is tentatively planned for October 1998. For more information, call Linda Dreyer, Diabetes Program Coordinator, Oregon Health Division, (503) 731-3321.

**Receipt of Recommended Services**

Procedure or Service	Number of routine visits in the past year			
	Total	0-1	2-9	≥10
Mean number of procedures and services	5.5	4.1	5.8	6.4
	Percent receiving procedure or service			
Foot exam (each routine visit)	50	16	61	75
Blood pressure check (semiannual)	94	79	98	100
HbA <sub>1c</sub> monitoring (≥1 per year)	27	24	29	33
Cholesterol monitoring (annual)	85	73	87	93
Flu shot (annual)	53	45	56	52
Dilated eye exam (annual)	70	53	75	80
Dental exam (annual)	65	60	68	66
Formal diabetes education (annual)	26	8	28	41
Pneumococcal vaccine	42	29	47	43
Aspirin prophylaxis	47	42	45	64
Tobacco use assessment*	67	36	73	87

\* Percentages are among current smokers only. This measure was excluded from the computation of mean number of procedures and services received. The diabetes guidelines recommend assessing tobacco use among persons under age 25 and for current and past smokers.