



# Diabetes

U.S. Department of Health & Human Services • Public Health Service

December 18, 2002

## PROGRESS REVIEW



In the fifth of a series of assessments of Healthy People 2010, Assistant Secretary for Health Eve Slater chaired a focus area Progress Review on Diabetes. She was assisted by representatives of the National Institutes of Health and the Centers for Disease Control and Prevention, which share the agency lead for this focus area. (For information about this focus area, see the chapter text at [www.healthypeople.gov/document/html/volume1/05diabetes.htm](http://www.healthypeople.gov/document/html/volume1/05diabetes.htm).)

### Data Trends

In reporting on the latest data for objectives in the Diabetes focus area, National Center for Health Statistics (NCHS) Director Edward Sondik emphasized the enormous societal costs of diabetes. More than 200,000 diabetes-related deaths occur per year, and the total annual direct and indirect cost of the disease is estimated at about \$100 billion, including 25 percent of the funds expended for Medicare. In 2000, there were an estimated 17 million persons with diabetes in the United States, including 11.1 million diagnosed cases and 5.9 million undiagnosed. (For the meeting agenda, summary data tables, and charts, refer to the following NCHS Web site: [www.cdc.gov/nchs/about/otheract/hpdata2010/fa5/diabetes.htm](http://www.cdc.gov/nchs/about/otheract/hpdata2010/fa5/diabetes.htm).)

Diabetes focus area objectives that measure new and existing cases (i.e., incidence and prevalence) show a negative trend over the past decade. For the total population, the rate of diagnosed diabetes prevalence in 2000 was 45 cases per 1,000 standard population, compared with 40 cases in 1997 (Obj. 5-3). (All rates are age-adjusted.) During the period 1998-2000, a 3-year average of 5.8 new cases of diagnosed diabetes per 1,000 were reported for persons aged 18 to 84 years, and the incidence

of such cases increased for most population groups during that decade (Obj. 5-2).

Certain other status objectives have shown a positive trend. The death rate from cardiovascular disease (CVD) among the total population of people with type 1 or type 2 diabetes was 300 per 100,000 in 2000, compared with 332 in 1999, thus surpassing the 2010 target of 309 (Obj. 5-7). Lower extremity amputations in persons with diabetes occurred at an average rate of 4.8 per 1,000 for the total population during the period 1998-2000, compared with an average rate of 5.0 during the period 1997-1999 (Obj. 5-10).

In general, service and screening objectives are reflecting trends toward improvement. In 2001, 57 percent of persons with diabetes performed self-monitoring of blood glucose at least once daily, compared with 43 percent in 1998. The target of 60 percent (Obj. 5-17) was surpassed (at 62 percent) by American Indians/Alaska Natives and was within 5 percentage points of being reached by other racial/ethnic populations, except Hispanics (48 percent in 2001, compared with 36 percent in 1998). In 1999, 61 percent of the total population of persons with diagnosed diabetes

aged 18 years of age and older had an annual dilated eye examination, compared with 49 percent in 1998 (Obj. 5-13). The percentage of adults with diabetes who had an A1c test at least twice in the previous

year was 61 percent in 2001 (Obj. 5-12). However, 65 percent had an annual foot examination that year, down slightly from 68 percent in 1998 (Obj. 5-14).

---

## Salient Challenges and Current Strategies

---

- Because of the dynamics of an aging population, the societal costs of diabetes will become more severe, even if the increase in prevalence is halted.
- The dramatic rise in type 2 diabetes in the United States is largely a consequence of the ongoing increase in overweight and obesity.
- The burden of premature CVD will increase with the rising incidence of type 2 diabetes in younger populations. Projections of current trends forecast a total of some 883,000 CVD deaths in the United States annually by 2025.
- Among working-age adults, diabetes is the most common cause of blindness and severe vision impairment, 90 percent of which could probably be forestalled by secondary and tertiary prevention efforts.
- People with diabetes are also at increased risk for pregnancy complications, birth defects, high blood pressure, nervous system damage, dental disease, kidney disease, stroke, and flu and pneumonia-related deaths.
- Within the framework of the National Diabetes Education Program, the Department of Health and Human Services (HHS) “Small Steps, Big Rewards” activity conveys the message that modest weight loss coupled with moderate physical activity can reduce the risk of developing type 2 diabetes.
- The Diabetes Prevention Program has shown that lifestyle change and/or medication can dramatically reduce the development of diabetes. Modifying lifestyle can reduce by half the incidence of new cases among adults at high risk. New classes of insulin-sensitizing drugs have greatly improved therapy for type 2 diabetes and are under study for its prevention.
- Diabetes is one of the three principal concerns of the HHS Secretary’s prevention initiative and is a particular target of the President’s *HealthierUS* initiative to encourage Americans to make modest but effective improvements in physical activity and nutrition.

---

## Approaches for Consideration

---

Staff who took part in the discussions offered the following suggestions for strategies to bring about improvements:

- With the cost of treating diabetes likely to continue to rise in the foreseeable future, explore the feasibility of offering financial incentives for health care institutions and individuals to exert measures for prevention and control.
- Apply lessons learned by the Indian Health Service to achieve a more widespread and rigorous case management of diabetes.
- Seek to overcome barriers to screening for diabetes, including those related to reimbursement and individual motivation.

- Pursue additional research on environmental factors and viruses as possible triggers for the development of diabetes.
- Foster a greater understanding of diabetes among people who are responsible for preparing death certificates so that, when appropriate, they will more completely and accurately record diabetes as the cause of death or as a contributing factor.
- Ensure that uninsured and underinsured people are included in diabetes prevention programs and activities.
- To reduce disparities, intensify efforts to prevent development of diabetes in black and Mexican-American children in inner cities, among whom the risk for developing diabetes is particularly high.
- Encourage a more balanced apportionment of health care funds between acute care and preventive services.

**Contacts for information about  
*Healthy People 2010* focus area 5 – Diabetes:**

- Centers for Disease Control and Prevention—  
Frank Vinicor, fxv1@cdc.gov
- National Institutes of Health—  
Sanford Garfield, garfields@ep.niddk.nih.gov
- Office of Disease Prevention and Health Promotion  
(coordinator of the Progress Reviews)—  
Nancy Stanistic, nstanistic@osophs.dhhs.gov  
(liaison to the focus area 5 workgroup)



---

**Richard H. Carmona, M.D., M.P.H., F.A.C.S.**  
VADM, USPHS  
Surgeon General and Acting Assistant  
Secretary for Health