

OVERVIEW

Health Indicator: Diabetes

Diabetes is characterized by high levels of blood sugar resulting from defects in insulin production, action, or both. Two types of diabetes are the most common. Type 1 diabetes develops when the body's immune system destroys the cells that regulate blood sugar. This form, for which prevention is not known, accounts for 5% to 10% of all cases. Type 2 diabetes begins as insulin resistance, a disorder in which the cells do not use insulin properly, and accounts for 90% to 95% of all cases. Type 2 diabetes can be prevented; it is associated with obesity and physical inactivity among other things. Diabetes disproportionately affects those age 65 and older, those with low incomes, and some racial and ethnic groups. However, type 2 diabetes is increasingly being diagnosed in children and adolescents.⁴³

Diabetes is known as the "hidden" disease since diabetes is undiagnosed in an estimated 5 million people nationally.⁴⁴ Even with many cases going undiagnosed, diabetes prevalence in the U.S. continues to increase substantially. In Colorado, the prevalence has increased by 48% from 1990 to 2000, and it continues to increase. Diabetes can lead to serious complications such as cardiovascular disease, kidney disease, blindness, nerve damage (and resulting amputation), skin damage and depression.

However, people with diabetes can control the disease and lower risk of complications through adherence to a



medical regimen, diet and exercise. Moderate weight loss and exercise can prevent or delay type 2 diabetes among adults. In persons at risk of developing type 2 diabetes, research has demonstrated that weight loss prevented the onset of diabetes more than twice as much as did medication, and that weight loss through lifestyle intervention was four times as cost effective compared to taking medication.⁴⁵

COST \$

One out of every 10 health care dollars spent in the United States is spent on diabetes and its complications. The total annual cost of diabetes in 2002 was estimated to be \$132 billion. Of this, direct medical expenses were \$92 billion, \$23.2 billion for diabetes care, \$24.6 billion for chronic diabetes-related complications, and \$44.1 billion for excess prevalence of general medical conditions. Indirect costs resulting from lost workdays, restricted activity days, mortality, and permanent disability due to diabetes totaled \$40.8 billion. The per capita annual cost of health care for people with diabetes was \$13,243 in 2002. In contrast, health care costs for people without diabetes amounted to \$2,560 in 2002.⁴⁶

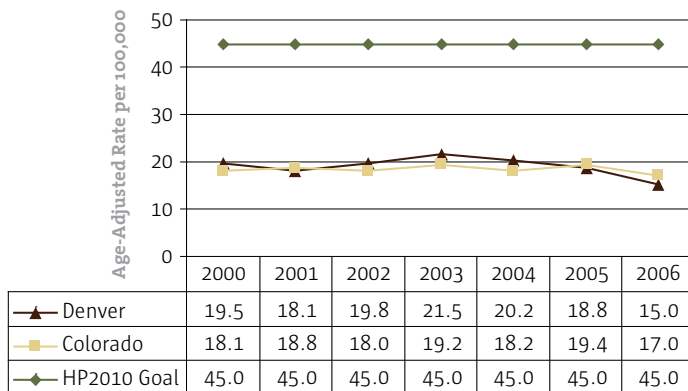
Health Indicator: Diabetes

DID YOU KNOW?



- Early diagnosis and aggressive treatment of diabetes can improve health outcomes. Approximately one-third of people who have diabetes do not know they have it, and studies show that it may go undiagnosed for 10 or more years.⁴⁸
- Colorado vital records indicate that diabetes causes the loss of 112 to 126 years of productive life to age 65 for every 100,000 Colorado residents each year.⁴⁸

Diabetes Deaths, 2000-2006

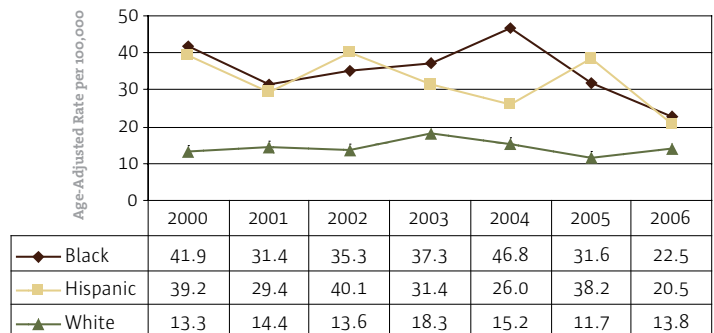


In Denver and Colorado, diabetes deaths have met and surpassed the HP 2010 Goal by more than half. Diabetes deaths are those for which diabetes is reported as the underlying cause of death. However, diabetes is associated with premature deaths from other causes, such as renal failure and coronary heart disease. If diabetes was consistently reported as the underlying cause of death, it is estimated that the mortality rates would be much higher (between 45 to 120 per 100,000 population).⁴⁹

Vital Statistics, Colorado Department of Public Health and Environment

In Denver, there is a clear racial/ethnic disparity among diabetes deaths. Similarly, in Colorado, the number of diabetes cases are double and quadruple for non-Hispanic Black and Hispanic people, respectively, as compared to non-Hispanic Whites. Additionally, rates of Hispanics seeking preventive health services related to diabetes care, such as attending a diabetes education class, are lower as compared to non-Hispanic Whites.⁵⁰

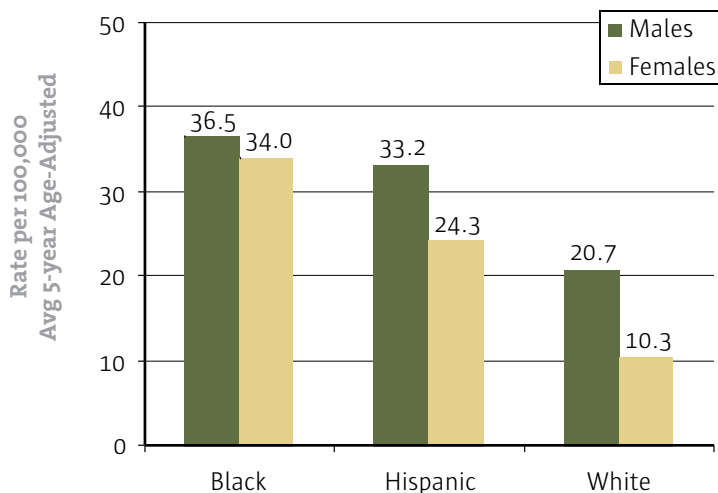
Diabetes Deaths by Race/Ethnicity, Denver, 2000-2006



Vital Statistics, Colorado Department of Public Health and Environment

Health Indicator: Diabetes

Diabetes Deaths by Race/Ethnicity and Sex, Denver, 2000-2006



Vital Statistics, Colorado Department of Public Health and Environment

Racial/ethnic data reflect national trends in that non-Hispanic Black and Hispanic populations, among other minority groups, have a greater burden of diabetes. The main reasons for this increased burden of disease are due to a greater number of cases, more complications of diabetes, and inadequate access to proper diabetes prevention and control programs, as compared to the non-Hispanic White population.

CALL TO ACTION

- Increase awareness of signs and symptoms associated with diabetes among those at highest risk for the disease through culturally-appropriate public awareness campaigns.
- Increase coverage and availability of screening for diabetes, interventions to prevent diabetes and treatment of diabetes.
- Prevent overweight and obesity and, therefore, diabetes through a healthy lifestyle. (See Physical Activity and Overweight and Obesity sections page 15.)