



Diabetes in Idaho Behavioral Risk Factor Surveillance System Report 2004

Idaho Department of Health and Welfare
Division of Health
Bureau of Community and Environmental Health
Diabetes Prevention and Control Program



EXECUTIVE SUMMARY

Diabetes in Idaho continues to steadily increase. From 1997 to 2004, the prevalence of diabetes in Idaho has gone from 4.0% to 6.2%. It is estimated 90,000 Idaho adults have diabetes but only 63,000 have actually been diagnosed. Nationally, 20.8 million adults and children have diabetes (14.6 million diagnosed and 6.2 million undiagnosed). Many complications are caused by diabetes (heart disease and stroke, high blood pressure, blindness, kidney disease, nervous system disease, amputations, dental disease, and complications of pregnancy) resulting in diabetes being the sixth leading cause of death among Idaho adults.

The increasing prevalence of diabetes can be prevented or reduced. Risk factors for developing diabetes include a sedentary lifestyle, overweight and obesity, poor eating habits, smoking, blood pressure, and cholesterol. Participation in a diabetes self-management education course increases the likelihood people with diabetes will receive the American Diabetes Association's recommended standards of preventive care. Addressing these modifiable risk factors can significantly contribute to reducing the prevalence of diabetes in Idaho.

In addition to health complications, diabetes is also a costly disease. It is estimated diabetes cost the United States \$92 billion dollars in medical costs and \$40 billion in indirect costs (disability, work loss, premature mortality) in 2002. The economic cost of diabetes complications can be prevented or significantly reduced by improving self-monitoring of blood glucose, increasing the proportion of people with diabetes who receive a recommended hemoglobin A1c test, annual influenza and pneumonia vaccinations, annual dilated eye exams, foot exams, and dental care. Diabetes education is an effective tool to prevent both the disease and its complications.

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INTRODUCTION

Purpose

The purpose of this comprehensive report is to provide the Idaho Diabetes Prevention and Control Program (DPCP) partners with a summary of the prevalence, effects, care levels, and risk factors associated with diabetes in the State of Idaho. This document supports efforts to reduce the burden of diabetes in the state, aids strategic planning efforts, and provides a means of increasing awareness and improving levels of care. Additionally, this report provides a benchmark for future program evaluation activities.

Diabetes Overview

Diabetes mellitus is characterized by hyperglycemia (elevated blood glucose) resulting from defects in insulin secretion, insulin action, or both. People with diabetes are at greater risk for developing other health complications including cardiovascular disease, kidney disease, blindness, and lower limb amputations.

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Most diabetes cases fall into two categories:

- Type 1, formerly called insulin-dependent diabetes or juvenile-onset diabetes, usually begins during childhood or adolescence and requires the use of insulin. About 5% to 10% of diabetes cases are type 1.
- Type 2, formerly called non-insulin-dependent diabetes or adult-onset diabetes, usually develops in adults who are overweight, physically inactive, or have a family history of diabetes, and is characterized by insulin resistance and relative insulin deficiency. Prevalence of type 2 diabetes is greater in certain ethnic and racial groups such as Hispanics, Native Americans, African Americans, and Asian-Pacific Islanders.

Diabetes poses a significant public health challenge for the United States. Some 800,000 new cases are diagnosed each year or 2,200 cases per day.¹ The number of people with diabetes has increased steadily over the past decade. Presently, 14.6 million children and adults in the U.S. have been diagnosed with diabetes while another 6.2 million people are estimated to have the disease but are undiagnosed.¹ In addition to the health problems caused by diabetes, it is also a costly disease. Estimates of the attributable costs of diabetes are around \$132 billion (\$92 billion direct; \$40 billion indirect).¹

Idaho Diabetes Prevalence

It is estimated 90,000 adult residents of Idaho have diabetes, but only 63,000 have actually been diagnosed.² The disease is especially prevalent among those 65 years of age or older (15.9%).³ Overall, the prevalence of diabetes among Idaho adults has increased 32% since 1994, from 4.2% to 6.2% in 2004.³

NATIONAL DIABETES TRENDS

Personal Behaviors

Obesity, improper nutrition (including increased ingestion of fats and processed foods) and lack of physical activity are occurring in individuals as young as 15. These behaviors may explain the increased diagnosis of type 2 diabetes in teenagers.⁴

Demographics

Diabetes is most common in people over the age of 60 years. Racial and ethnic groups are at a higher risk for diabetes. Because of the rising levels of obesity and physical inactivity in the U.S. population, the number of people with diabetes is expected to continue to increase into the first few decades of the 21st century.⁴

Ascertainment

Known as the hidden disease, diabetes is undiagnosed in an estimated 6.2 million people. Due to improved surveillance and data-recording systems, much of the missing data (i.e. complications associated with diabetes on death certificates, hospital discharge forms, emergency department paperwork and other documents) is now being captured.⁴

Limitations in Programs to Change Behaviors

Scientific evidence indicates secondary and tertiary prevention programs (i.e. dilated eye exams, foot exams and self-management education) are effective in reducing the complications of diabetes. Yet, changing the behaviors of people with diabetes, health care providers, or other individuals or organizations involved in diabetes health care is difficult. More effective interventions will need to be developed and implemented to improve the practice of diabetes care.⁴

Disparities

Gaps exist among racial and ethnic groups in the rate of diabetes and its associated complications in the United States. Certain racial, ethnic and socioeconomic communities suffer disproportionately compared to Caucasians.⁴

Prevention

Studies show an estimated 41 million adults in the United States have pre-diabetes.⁵ Pre-diabetes is a condition that raises the risk of developing type 2 diabetes, heart disease and stroke. Lifestyle changes in diet and exercise and losing weight can prevent or delay the disease. According to the national Diabetes Prevention Program (DPP) clinical trial, participants who made lifestyle changes reduced their risk of getting type 2 diabetes by 58%.⁵

HEALTHY PEOPLE 2010 DIABETES OBJECTIVES⁶

Healthy People 2010 (HP 2010) is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats. HP 2010 provides a framework for prevention for the United States.

The Idaho Diabetes Prevention and Control Program (DPCP) uses HP 2010 diabetes objectives to establish program benchmarks and measure progress toward preventing complications and reducing the burden of diabetes in Idaho. The objectives in bold are those being addressed by the DPCP.

- 5-1. Increase the proportion of persons with diabetes who receive formal diabetes education to 60%.**
- 5-2. Prevent diabetes. Target: 3.8 million new cases of diabetes per 1,000 population per year, aged 18-84 years.
- 5-3. Reduce the overall rate of diabetes that is clinically diagnosed. Target: 25 overall new cases per 1,000 population.
- 5-4. Increase the proportion of adults with diabetes whose condition has been diagnosed to 78%.
- 5-5. Reduce the diabetes death rate to 46 deaths per 1,000 population.
- 5-6. Reduce diabetes-related deaths among persons with diabetes to 7.8 per 1,000 persons with diabetes.
- 5-7. Reduce deaths from cardiovascular disease in persons with diabetes to 299 deaths per 100,000 persons with diabetes.
- 5-8. (Developmental) Decrease the proportion of pregnant women with gestational diabetes.
- 5-9. **(Developmental) Reduce the frequency of foot ulcers in persons with diabetes.**
- 5-10. Reduce the rate of lower extremity amputations in persons with diabetes to 2.9 lower extremity amputations per 1,000 persons with diabetes per year.
- 5-11. Increase the proportion of persons with diabetes who obtain an annual urinary microalbumin measurement to 14%.
- 5-12. Increase the proportion of adults with diabetes who have a glycosylated hemoglobin measurement at least once a year to 65%.**
- 5-13. Increase the proportion of adults with diabetes who have an annual dilated eye examination to 76%.**
- 5-14. Increase the proportion of adults with diabetes who have at least an annual foot examination to 91%.**
- 5-15. Increase the proportion of persons with diabetes who have at least an annual dental examination to 71%.**
- 5-16. Increase the proportion of adults with diabetes who take aspirin at least 15 times per month to 30%.
- 5-17. Increase the proportion of adults with diabetes who perform self-blood-glucose-monitoring at least once daily to 61%.**

