

At A Glance 2016

Diabetes

Working to Reverse the US Epidemic



The rate of new cases of diagnosed diabetes in the United States has begun to fall, but the numbers are still very high. More than 29 million Americans are living with diabetes, and 86 million are living with prediabetes, a serious health condition that increases a person's risk of type 2 diabetes and other chronic diseases.

The Centers for Disease Control and Prevention (CDC) is working to reverse the US diabetes epidemic by tracking disease trends, focusing

on prevention, identifying effective treatments, and improving medical care.

Public Health Problem

People with diabetes either don't make enough insulin (type 1 diabetes) or can't use insulin properly (type 2 diabetes). Insulin allows blood sugar (glucose) to enter cells, where it can be used for energy. When the body doesn't have enough insulin or can't use it effectively, blood sugar builds up in the blood. High blood sugar levels can lead to heart disease, stroke, blindness, kidney failure, and amputation of toes, feet, or legs.

Type 2 diabetes accounts for about 90% to 95% of all diagnosed cases of diabetes, and type 1 diabetes accounts for about 5%. The health and economic costs for both are enormous:

- ◆ Diabetes was the seventh leading cause of death in the United States in 2013 (and may be underreported).
- ◆ Diabetes is the leading cause of kidney failure, lower-limb amputations, and adult-onset blindness.
- ◆ More than 20% of health care spending is for people with diagnosed diabetes.

People who have one or more of the following risk factors should talk to their doctor about getting their blood sugar tested:

- ◆ Being overweight.
- ◆ Being 45 years or older.

Fast Facts

- ◆ More than 29 million US adults have diabetes, and 25% of them don't know it.
- ◆ About 86 million US adults—more than a third—have prediabetes, and 90% of them don't know it.
- ◆ People with prediabetes who take part in a structured lifestyle change program can cut their risk of developing type 2 diabetes by as much as 58%.
- ◆ CDC focuses its prevention and support efforts on populations that are most affected by diabetes to make sure they get the best education and treatment.



- ▶ Having a family history of type 2 diabetes.
- ◆ Being physically active less than 3 times a week.
- ◆ Ever having gestational diabetes or giving birth to a baby who weighed more than 9 pounds.

Race and ethnicity are also factors: African Americans, Hispanics and Latinos, American Indians, Pacific Islanders, and some Asian Americans are at higher risk than whites.

Diabetes Complications

Diabetes complications and related conditions include the following:

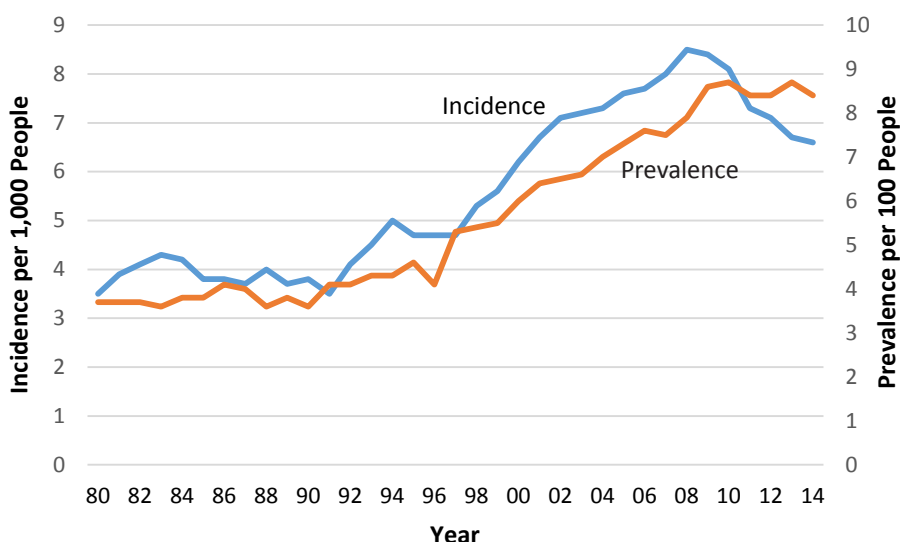
- ◆ **Heart disease and stroke:** People with diabetes are twice as likely to have heart disease or a stroke as people without diabetes—and at an earlier age.
- ◆ **Blindness and other eye problems:** Diabetic retinopathy (damage to blood vessels in the retina), cataracts (clouding of the lens), and glaucoma (increase in fluid pressure in the eye) can all result in vision loss.
- ◆ **Kidney disease:** High blood sugar levels can damage the kidneys long before a person has symptoms. Kidney damage can cause chronic kidney disease, which can lead to kidney failure.
- ◆ **Amputations:** Diabetes damages blood vessels and nerves, particularly in the feet, and can lead to serious, hard-to-treat infections. Amputation is sometimes necessary to stop the spread of infection.

Gestational diabetes is diagnosed during pregnancy and can cause serious complications for mothers or their babies. These complications

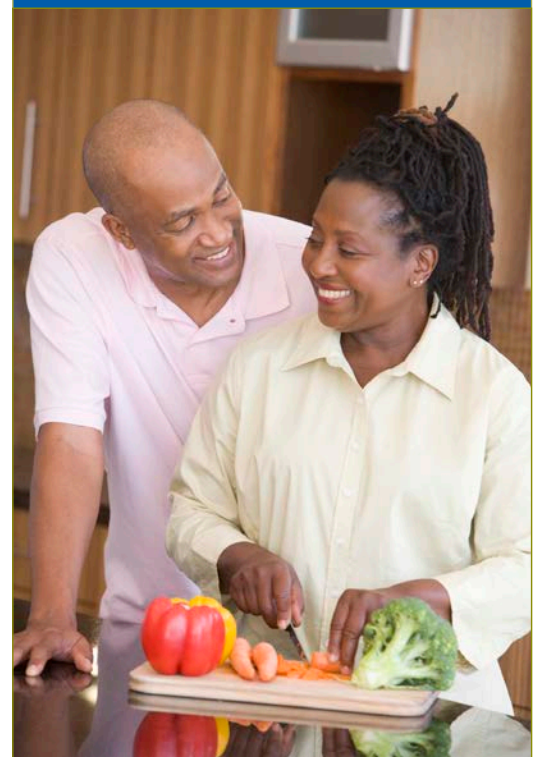
“The good news is we know what works: The National Diabetes Prevention Program can help prevent or delay type 2 diabetes in those at high risk.”

*Ann Albright, PhD, RDN
Director of CDC's Division of
Diabetes Translation*

Trends in Incidence and Prevalence of Diagnosed Diabetes Among Adults Aged 20-79, United States, 1980-2014



Source: National Diabetes Surveillance System, 2016.



include preeclampsia (pregnancy-induced high blood pressure), birth-related trauma, and birth defects. Women with gestational diabetes also have a higher risk of developing type 2 diabetes later in life.

Up to 25% of US adults who have diabetes don't know that they have it or that they could be developing serious complications.

Diabetes Management

People with type 1 diabetes need to take insulin for life to survive. For people with type 2 diabetes, healthy eating, regular physical activity, and medicines to lower blood sugar can help prevent or delay complications. Both groups need to work closely with their health care team to receive diabetes education, regular checkups, and ongoing support to self-manage their health.

Prediabetes: Opportunity for Change

More than a third of American adults—around 86 million—have prediabetes, and 90% of them don't know it. With prediabetes, blood sugar levels are higher than normal, but not high enough yet to be diagnosed as diabetes. People with prediabetes have an increased risk of type 2 diabetes, heart disease, and stroke. Structured lifestyle change programs such as the CDC-led [National Diabetes Prevention Program](#) (National DPP) can help people with prediabetes cut this risk sharply.

CDC's Response

The National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) works in four key areas or domains: epidemiology and surveillance, environmental approaches, health care system interventions, and community programs linked to clinical services. This comprehensive approach supports healthy choices and behaviors, makes healthier options more available, and helps Americans better manage their health.

CDC works with partners—state health departments, other federal agencies, medical providers, and community organizations—to identify people with prediabetes, prevent type 2 diabetes and its complications, and improve the health of all people with diabetes. The agency focuses on populations that are most affected to make sure they receive the best education and treatment. With \$196 million in FY 2016 funding, CDC's Division of Diabetes Translation supports these efforts in three of NCCDPHP's four domains: epidemiology and surveillance, health care system interventions, and community programs linked to clinical services.

Epidemiology and Surveillance

CDC's Division of Diabetes Translation collects the following data on diabetes risk behaviors, risk factors, care practices, complications,

**Without major changes,
as many as 1 in 3
US adults could have
diabetes by 2050.**

To help reverse the trend,
people with prediabetes can:



Take part in a CDC-recognized
lifestyle change program.



Learn how to make lasting
changes like eating healthy
food, increasing physical
activity, and losing weight.



**Lower their risk for
type 2 diabetes.**



and deaths to help guide public health policy and measure progress toward diabetes goals:

- ◆ The US Diabetes Surveillance System measures the incidence and prevalence of diabetes and its complications at county, state, and national levels to support diabetes prevention and control efforts.
- ◆ The Chronic Kidney Disease Surveillance Project tracks progress on prevention goals for kidney disease and guides prevention and management efforts.
- ◆ The Natural Experiments for Translation in Diabetes (Next-D) Study evaluates existing data to determine whether diabetes prevention and control interventions are effective under real-life conditions.
- ◆ The SEARCH for Diabetes in Youth study uses a network of diabetes registries to collect data on populations that are racially, ethnically, socioeconomically, and geographically diverse. The goal is to understand trends in diabetes incidence among US children and young adults, as well as risk factors, quality of life, and complications.

Health Care System Interventions

CDC collaborates with state and local health departments and health care systems to identify patients with prediabetes and refer them to CDC-recognized diabetes prevention programs. CDC and the American Medical Association (AMA) developed a toolkit that health care providers can use to screen, test, and refer patients at high risk to programs in their communities or online. These efforts provide a necessary link to proven prediabetes interventions.

Community Programs Linked to Clinical Services

The National DPP helps people who are at risk of type 2 diabetes prevent or delay the disease. Led by a trained coach, participants learn to make healthy lifestyle changes that can cut their risk by as much as 58%. Based on strong evidence of the program's success, Medicare is undergoing the rule-making process that would expand its benefits to include the National DPP.

CDC supports efforts nationwide to prevent type 2 diabetes and diabetes complications. Through a federal grant, all 50 states and the District of Columbia receive funds for prevention efforts; 14 states and large city health departments are funded by a complementary grant. CDC also supports Good Health and Wellness in Indian Country, an initiative to improve health and ease health disparities.

In 2016, CDC partnered with the American Diabetes Association, AMA, and the Ad Council to launch public service announcements (PSAs) as part of the first national prediabetes awareness campaign. PSAs in English and Spanish are reaching millions of people who may be at risk and encouraging them to take a short test at DoIHavePrediabetes.org. The campaign has sharply increased the number of people at risk of prediabetes who have learned their status.

Future Directions

Identifying and connecting with people at high risk of type 2 diabetes is critical to preventing it. For people with diabetes, better health management can increase lifespan and enhance quality of life. CDC will continue to:

- ◆ Promote proven methods for reducing the risk of type 2 diabetes, such as participation in CDC-recognized lifestyle change programs that are part of the National DPP.
- ◆ Track key risk factors and behaviors to guide public health policy and measure the success of health initiatives.
- ◆ Help people with diabetes manage their chronic conditions over a longer lifespan.
- ◆ Partner with organizations to create and expand health promotion programs and to increase the reach of these programs across US communities.



For more information, contact

Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention
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[Division of Diabetes Translation](#)

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