



ISSUE BRIEF

Women and Diabetes

KEY FACTS

30.3
million

People in the U.S. have diabetes.¹

23.8%

Of Americans with diabetes are undiagnosed.²

\$327
billion

Estimated cost of diagnosed diabetes in 2017.³

1 in 16

Women hospitalized for childbirth has diabetes.⁴

Diabetes is a disease that occurs when high levels of blood glucose (sugar) are detected in the body. Over time, having high blood glucose levels can place individuals at risk for other serious or life-threatening health problems. The three primary types of diabetes are:

Type 1 diabetes

Type 1 diabetes is an autoimmune disease that results when the body does not make insulin. Type 1 is the most common form of childhood diabetes, although it can occur at any age. Having a family member with type 1 diabetes increases the likelihood of development. Experts believe type 1 diabetes is caused by genes and factors in the environment, such as viruses, that may trigger the disease.⁵

Type 2 diabetes

Type 2 diabetes, is the most common type of diabetes, and is caused by insulin resistance —impacted by lifestyle factors leading to excess body weight and various genetic factors. African American, Hispanic, and Native Hawaiian/Pacific Islander women are all twice as likely as White Women to develop type 2 diabetes.⁶ All women are more likely to develop type 2 diabetes if they are age 45 or older, have a family history of diabetes, are diagnosed with prediabetes, had gestational diabetes when pregnant (see below), or gave birth to a baby weighing 9 or more pounds.⁷

Gestational diabetes

Gestational diabetes is first recognized or diagnosed during pregnancy. Although it can be managed by health care providers, gestational diabetes is associated with high rates of complicated births and maternal intensive care utilization, hypoglycemia, jaundice, and excessive birth weight in newborns (macrosomia).⁸ Women with pre-existing diabetes are more than twice as likely as women without diabetes to have a cesarean section birth.⁹ Although gestational diabetes often subsides after pregnancy, about half of all women who have gestational diabetes develop type 2 diabetes later in life.¹⁰ Women with a gestational diabetes-affected pregnancy are recommended to get an oral glucose tolerance test, 4-12 weeks postpartum for early detection of type 2 diabetes. If results are normal, women should be tested regularly every 1-3 years.¹¹

The rate of diabetes and prediabetes in women continues to rise annually.¹² In 2015, 11.7 million women in the United States aged 18 years or older were diagnosed with diabetes; and an estimated 39 million American women were diagnosed with prediabetes.¹³ The burden of diabetes in women is unique and can affect both mothers and their unborn children. Therefore, it is necessary to understand how diabetes affects women differently than men.

Women with diabetes are at increased risks for¹⁴:

- Heart disease – and poor heart attack outcomes, including nerve damage
- Depression
- Blindness
- Difficulty getting pregnant
- Difficulty during pregnancy—possible health effects for mother and baby
- Repeated urinary and vaginal infections

Diabetes-related maternal hospitalization stays accounted for about 6.5 percent of all maternal stays—5.4 percent of all maternal stays involved gestational diabetes and 1.1 percent involved existing diabetes complication pregnancy.¹⁵

Emerging evidence associates diabetes with a higher risk of additional comorbidities such as cognitive impairment, incontinence, fracture risk, cancer risk and prognosis, depression, and adverse pregnancy outcomes such as excessive birth weight (macrosomia) and birth defects.¹⁶⁻¹⁷

Women can take steps to reduce the risk of developing type 2 diabetes. Research has shown that following lifestyle modifications can prevent, or at least delay the onset of type 2 diabetes among people at risk of diabetes.

Women can reduce the risk of developing type 2 diabetes by¹⁸:

- Eating fewer high fat and high calorie foods.
- Losing at least 5% - 7% of body weight, if overweight or obese
- Being physically active for 150 minutes every week.

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HRSA's Focus on Diabetes

HRSA is dedicated to improving diabetes care.

- The HRSA-supported Women's Preventive Services Guidelines **recommend screening for gestational diabetes** in women between 24-28 weeks of pregnancy and at the first prenatal visit for women at high risk for diabetes. Additionally, **performance measures in HRSA's Bureau of Primary Health Care (BPHC) require health centers to report on patients' blood glucose (sugar) levels. In 2016 approximately 2.3 million health center patients had diabetes. Of those patients, ~730,000 had their hemoglobin A1C levels > 7 percent, indicating a need for improved blood sugar control. The American Diabetes Association recommends A1C levels to be no more than 7 percent for uncontrolled diabetes.**
- HRSA grantees, including the Association of Asian Pacific Community Health Organizations (AAPCHO) and the Migrant Clinicians Network (MCN), have developed tools to improve diabetes care and treatment. AAPCHO developed the *Health Information Gateway: Diabetes Database*,¹⁹ which **provides information for physicians, advocates, health educators, as well as patients and their families in a variety of Asian and Pacific Islander languages.** Similarly, MCN developed the *MCN Diabetes Online Toolkit* to **provide diabetes information for migrants and other mobile individuals.**²⁰
- HRSA has hosted multiple webinars disseminating critical information on diabetes. In 2017, BPHC hosted "What To Do When Diabetes Affects Your Mood," a **webinar focused on the intersection of depression and diabetes.** In 2015, HRSA's Office of Regional Operations (ORO) hosted "Clinic Waiting Room Diabetes Education Video Project," to increase the awareness of problems in rural critical access hospitals. The video serves as a **tool to improve diabetes education in people with low health literacy.**

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