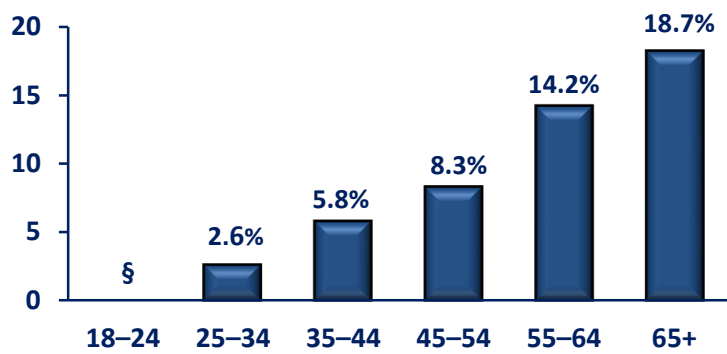




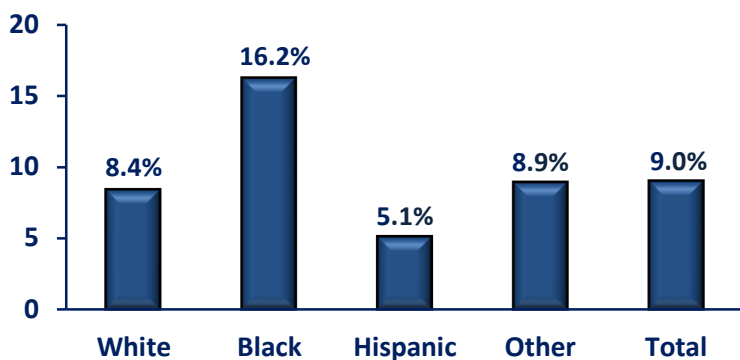
**DIABETES** is a group of diseases where people have high levels of blood glucose, or blood sugar, because of defects in insulin production, insulin action or both.\* It is a serious health issue that affects Indiana females across all ages and segments of the population. Estimates indicate that 9.0%<sup>1</sup> of women<sup>†</sup> in Indiana have been diagnosed with diabetes, and the risk increases with age [Fig. 1]. An additional 6.6%<sup>1</sup> of women in Indiana are estimated to have pre-diabetes.<sup>‡</sup> As Indiana's population ages and the prevalence of risk factors increase, the number of females with diabetes and its complications will likely grow.

Figure 1. Diabetes prevalence among women<sup>†</sup>, by age, Indiana, 2010<sup>1</sup>



In Indiana, diabetes is present at different rates among racial and ethnic communities [Fig. 2]. Estimates indicate that 8.4% of white women have been diagnosed with diabetes, compared to 16.2% of black women. Additionally, women who are Asian, black, Hispanic, Native American or Pacific Islander have a higher risk of developing gestational diabetes than white women.<sup>1</sup>

Figure 2. Diabetes prevalence among women<sup>†</sup>, by race/ethnicity, Indiana, 2010<sup>1</sup>



\*Unless specified otherwise, the term diabetes refers to both type 1 and type 2 diabetes, but not gestational diabetes.

†Refers to females ages 18 years and older.

‡Pre-diabetes is blood glucose levels higher than normal, but not high enough to be classified as clinical diabetes. Pre-diabetes is a risk factor for developing diabetes.

§Insufficient data to estimate prevalence of diabetes for this age group.

#Pre-eclampsia is a condition where a woman develops high blood pressure and protein in the urine during late second or third trimester of a pregnancy. Eclampsia is seizure disorder in pregnant women unrelated to pre-existing neurological conditions. Pre-eclampsia can lead to eclampsia.

## Diabetes and heart disease

- Heart disease is the leading cause of death among women with diabetes.<sup>2</sup>
- Women with diabetes have a 5–7 times higher risk for developing heart disease compared to women who do not have diabetes.<sup>3</sup>
- Women with diabetes are three times as likely to develop fatal coronary heart disease than women without diabetes.<sup>4</sup>
- Women who have diabetes and also smoke are three times as likely to develop heart disease than those with diabetes who do not smoke.<sup>5</sup>

## Gestational diabetes mellitus (GDM)

- GDM is condition where females develop high blood glucose levels during pregnancy. In 2008, 4.5% of Indiana births involved GDM.<sup>6</sup>
- While most females with GDM deliver healthy babies, children of females with GDM have higher rates of excessive birth weight, hypoglycemia, pre-term birth, and respiratory distress syndrome than children of females who did not have GDM.<sup>2</sup>
- Females with GDM have an increased risk of high blood pressure, pre-eclampsia, and eclampsia.<sup>#2</sup>
- While most return to normal blood sugar levels after delivery, females with GDM have a lifetime risk of developing type 2 diabetes that is over seven times higher than females with normal blood sugar levels during pregnancy.<sup>7</sup>

## Pre-existing diabetes and pregnancy

- Though most females with diabetes deliver healthy babies, poorly controlled diabetes prior to conception and during the first trimester of pregnancy can lead to miscarriages or major birth defects.<sup>2</sup>
- Additionally, poor blood glucose control during second or third trimesters can result in the negative birth outcomes listed previously for GDM.<sup>2</sup>



## Diabetes and polycystic ovarian syndrome (PCOS)<sup>8</sup>

- PCOS is a hormone disorder in females that can involve multiple systems within the body.
- Although the cause of PCOS is unknown, research indicates that insulin resistance can be associated with the syndrome.
- PCOS is the most common cause of female infertility, can cause irregular ovulation or menstrual cycles, and can lead to higher rates of miscarriage, gestational diabetes, pre-eclampsia, and prematurity.

## Diabetes and depression<sup>9</sup>

- In a study of over 65,000 women:
  - Those who were clinically depressed were 17% more likely to develop diabetes than those who were not depressed.
  - Those with diabetes were 29% more likely to develop clinical depression than individuals who did not have diabetes.

## Diabetes and eating disorders

- Females with type 1 diabetes are more than twice as likely to develop an eating disorder as females of comparable age who do not have diabetes.<sup>10</sup>

## TAKE ACTION: Steps you can take to prevent or manage diabetes

- Be tobacco free ([www.in.gov/quitline](http://www.in.gov/quitline))
- Control your blood pressure
- Maintain a [healthy weight](#)
- Eat a healthy diet
- Participate in regular [physical activity](#)
- Properly manage your diabetes with guidance from health care professionals
- Learn to recognize the onset of symptoms or physical changes due to diabetes
- Monitor any changes in health status when being treated or taking medications for other conditions
- If you have diabetes and are planning a pregnancy, consult a health care provider
- Get screened for undiagnosed type 2 diabetes at the first prenatal visit if you have risk factors for diabetes
- If you are pregnant and have not been previously diagnosed with diabetes, get screened for GDM at 24–28 weeks gestation
- If you had GDM during pregnancy:
  - Get screened for persistent diabetes at 6–12 weeks postpartum
  - Thereafter, get screened for diabetes or pre-diabetes at least every 3 years

## Community resources

- For a listing of diabetes programs by county, visit the [Indiana Diabetes Education and Support Program Directory](#) or call the [Indiana Family Helpline](#) (855-435-7178).
- [Diabetes Prevention Program \(DPP\)](#): a program that aids in prevention of type 2 diabetes for individuals who are considered pre-diabetic. Contact the “Y” (formerly YMCA) in Bloomington, Fort Wayne, and Indianapolis.
- [Diabetes Education Empowerment Program with Tobacco Cessation \(DEEP TC\)](#): helps people with diabetes develop the skills to better manage the disease (Offered in English and Spanish).
- [Living a Healthy Life](#): a 6-week workshop for people with chronic illnesses to help them gain self-confidence in their ability to manage their disease, control symptoms, and learn how health problems affect their lives.
- For mental health services, call the [Indiana Family Helpline](#) (855-435-7178) or visit the [Community Mental Health Services Locator](#).

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