Type 2 Diabetes in North Carolina

FACT SHEET

Community & Clinical Connections for Prevention & Health Branch | North Carolina DHHS | Division of Public Health

This fact sheet was produced with information from *North Carolina's Guide to Prevention and Management of Diabetes* and the Centers for Disease Control and Prevention. The guide is available for download at the hyperlink.

What is diabetes?

Diabetes is a chronic condition where the body has persistent high levels of glucose, called "blood sugar," resulting from defects in the production or action of insulin, a hormone that regulates blood sugar levels

- There are different types of diabetes, the most common are type 1, type 2, and diabetes during pregnancy (gestational diabetes).
- People with type 1, type 2, and gestational diabetes (diabetes during pregnancy), working together with their support network and health care team, can take steps to manage the disease and lower their risk of serious complications and premature death.

How many people have diabetes?

Diabetes statistics include both type 1 and type 2 diabetes. Approximately 90% to 95% of cases of diabetes are type 2.

Diabetes is the 8th leading cause of death in both the US and NC.[1,2]

In NC in 2022 diabetes was the primary cause of **3,836** **Deaths** (3.4% of all deaths) and a contributing cause to many more deaths.[2]

An estimated **38.4 million** people in the US have diabetes, and of these, about a **quarter (8.7 million)** are **unaware**.[1]

About **1 million** NC adults **(12.4%)** report having been diagnosed with diabetes.[3]

In 2022 in NC, diabetes was listed as the primary diagnosis for **24,304** hospital discharges.

Diabetes-related hospital visits totaled over **$1.1 billion** in charges.[4]

In 2022 NC Medicaid spent **$346 million** on **128,375** beneficiaries who had diabetes.[5]

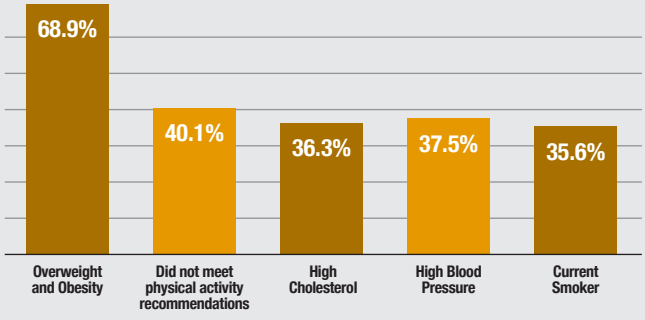
That's about $2,693 per beneficiary.

Over 50,000 NC adults are newly diagnosed in with diabetes each year.[6]

What are the risk factors for type 2 diabetes?

- Risk factors include: prediabetes, older age (45 years and older), a family history of type 2 diabetes (parent, brother or sister), race/ethnicity (Black/African American people, Hispanic people and other racial and ethnic minority groups), overweight/obesity, physical inactivity, high cholesterol, high blood pressure, and smoking.
- Men may develop type 2 diabetes at a lower weight than women and tend to store fat in their bellies, an additional risk for developing type 2 diabetes.
- Additional risk factors specific to women include: gestational diabetes (elevated blood sugar during pregnancy), giving birth to a baby who weighed more than 9 pounds, and having a history of polycystic ovary syndrome (a common condition characterized by irregular menstrual periods, excess hair growth and obesity).

Figure 1. Prevalence of modifiable risk factors for type 2 diabetes, North Carolina, 2023



Data Source: North Carolina State Center for Health Statistics, https://schs.dph.ncdhhs.gov/data/brfss/survey.htm. Accessed on April 17, 2025

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How can the risk of type 2 diabetes be reduced?

Maintaining a healthy weight: For overweight and obese adults, losing a modest amount of weight (5% to 7% of total body weight) through healthy eating and moderate physical activity, or with the guidance of a lifestyle coach such as with the CDC-recognized National Diabetes Prevention Program has been proven to be the most effective way of delaying or reducing the risk of progression from prediabetes to type 2 diabetes.[7]

Adopting healthy eating: There is not one prescribed diet or healthy eating pattern for people preventing or managing type 2 diabetes. A healthy eating pattern will include: fruits, vegetables, whole grains, fat-free or low-fat dairy products, lean meats, poultry, fish, beans, eggs, and nuts; and will limit saturated fats, sodium, and added sugars. Engaging with a registered dietician nutritionist (RD/RDN) can be extremely helpful for tailoring a healthy eating pattern.

Being more physically active: Aerobic activity (activity that increases heart rate, respiration rate, breathing, and causes muscle fatigue) at least three days per week, resistance training, and intentional stretching can improve insulin action. Anyone changing their physical activity routine should consult their health care provider.

Living tobacco free: Smoking increases the risk that a person will get type 2 diabetes and can make diabetes management more difficult. People with type 2 diabetes who use tobacco are more likely to have problems maintaining blood sugar and may require larger doses of insulin. For information about smoking and how to get help quitting please visit **quitlinenc.com** or call 1-800-QUIT-NOW.

Getting adequate sleep: Sleep is an essential function that restores and repairs body systems. Not getting enough sleep can contribute to insulin resistance, glucose intolerance, and metabolic syndrome. Most people need between 7 and 8 hours of sleep a day.

Preventing and/or managing high cholesterol and high blood pressure through lifestyle modification and medications if necessary.

How is type 2 diabetes diagnosed?

- Fasting blood glucose, oral glucose tolerance test, and hemoglobin A1C (HbA1c) are blood tests used to diagnose type 2 diabetes, as shown in Table 1.
- Testing for type 2 diabetes should begin for all individuals starting at 45 years old. People who are obese/overweight and have at least one other risk factor for type 2 diabetes should get tested prior to age 45.

Table 1: Diagnostic test criteria for diabetes

Test	Target Range	Prediabetes	Type 2 Diabetes
Fasting Blood Glucose (FBG)	99mg/dL or below	100-125 mg/dL	126 mg/dL or above
Oral Glucose Tolerance Test (OGTT)	140mg/dL or below	140-199 mg/dL	200 mg/dL or above
HbA1c	Below 5.7%	5.7%-6.4%	6.5% or above

Source: https://www.cdc.gov/diabetes/diabetes-testing/index.html

How is type 2 diabetes managed?

- Many people with type 2 diabetes can manage their blood sugar by following a healthy meal plan and exercise program, losing excess weight, taking oral medication and/or, in some cases, insulin.
- Many people with type 2 diabetes also need to take medications to manage their cholesterol and blood pressure.



- Time in Range (TIR) is an emerging tool for managing type 2 diabetes. This metric assesses overall glycemic management using continuous glucose sensor monitors and hybrid pump integrated systems.

- The American Diabetes Association recommends that all people with type 2 diabetes participate in Diabetes Self-Management Education and Support (DSMES)—a lifestyle change program that focuses on self-care behaviors such as healthy eating, being active, reducing risks, and monitoring blood sugar, activity, and eating habits. DSMES is a key step in improving health outcomes and quality of life for people with diabetes.
  - People with type 2 diabetes benefit from receiving DSMES when their diabetes is diagnosed and as needed thereafter.[8]
  - To obtain information about DSMES programs in North Carolina, visit **DiabetesManagementNC.com**.

What are the complications of type 2 diabetes?

Type 2 diabetes affects multiple areas of the body and can lead to serious complications including: heart disease and stroke, high blood pressure, hearing loss, blindness and other eye problems, kidney disease, nerve damage (e.g., impaired sensation or pain in the feet or hands, slow digestion of food in the stomach, erectile dysfunction), amputations (mainly of the lower limbs), dental disease (especially of the gums), excessively large babies, diabetic coma, increased susceptibility to pneumonia and influenza, and depression.

How can the risk for complications from type 2 diabetes be reduced?

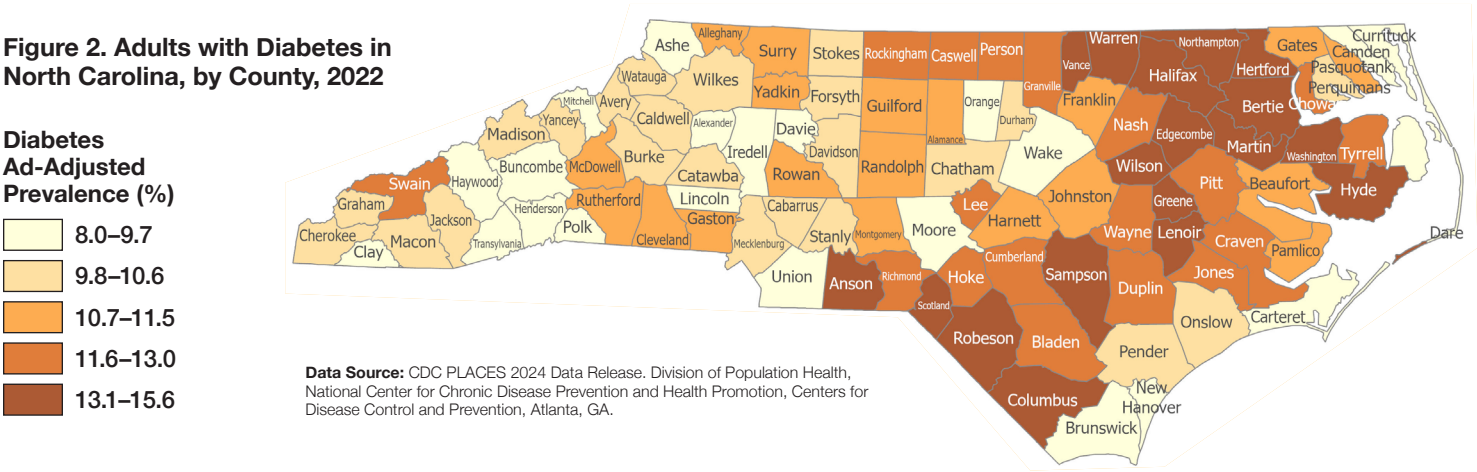
- Engagement in diabetes self-care — optimal management of blood sugar, blood pressure, blood cholesterol, and quitting smoking.
- Detection and treatment of diabetes related eye disease through annual comprehensive dilated eye exams .
- Comprehensive foot care including risk assessment, education, risk reduction therapy, adequate foot treatment, and referral to specialists.
- Early detection and treatment of diabetes related kidney disease.
- Vaccination against the flu and pneumonia.

Disparities, inequalities, and inequities in the burden of diabetes

Diabetes statistics include both type 1 and type 2 diabetes. Approximately 90% to 95% of cases of diabetes are type 2.

- Diabetes is the eighth leading cause of death among non-Hispanic White adults, the seventh leading cause of death for non-Hispanic American Indian adults and the fifth leading cause of death for non-Hispanic Black adults in North Carolina.[9]
- Non-Hispanic Black adults are more likely to have been diagnosed with diabetes compared to Non-Hispanic White adults in North Carolina (19.0% vs 11.4%).[3]
- Non-Hispanic Black North Carolinians (age-adjusted death rate = 74.3 per 100,000) as well as non-Hispanic American Indian and Alaska Native North Carolinians (age-adjusted death rate = 58.9 per 100,000) are more likely to die from diabetes related complications compared to non-Hispanic White North Carolinians (age-adjusted death rate = 34.7 per 100,000).[6]
- In the U.S., type 2 diabetes in children and adolescents is being diagnosed more frequently in racial and ethnic minority children than in non-Hispanic White children.[1]
- There is geographic variation in the burden of diabetes (prevalence, mortality rates and hospitalization rates). Figure 2 shows the age-adjusted prevalence of diabetes throughout North Carolina.

Figure 2. Adults with Diabetes in North Carolina, by County, 2022



Data Source: CDC PLACES 2024 Data Release. Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, GA.

REFERENCES

1. National Center for Chronic Disease Prevention and Health Promotion. (2024). *National Diabetes Statistics Report*. Centers for Disease Control and Prevention. Retrieved on April 16, 2025, from https://www.cdc.gov/diabetes/php/data-research/index.html.

2. North Carolina Division of Public Health State Center for Health Statistics. *SCHS: 2022 North Carolina Vital Statistics, Volume 2: Leading Causes of Death*. NC Department of Health and Human Services. Retrieved on April 16, 2025, from https://schs.dph.ncdhhs.gov/data/vital/lcd/2022.

3. North Carolina Division of Public Health State Center for Health Statistics. *2023 Behavioral Risk Factor Surveillance System (BRFSS)*. NC Department of Health and Human Services. Retrieved on March 20, 2025, from https://schs.dph.ncdhhs.gov/data/brfss/2023.

4. North Carolina Division of Public Health State Center for Health Statistics. (2024). *Inpatient Hospital Utilization and Charges by Principal Diagnosis*. Department of Health and Human Services. Data produced on request on January 31, 2024. ICD-10 codes: Diabetes Mellitus (E10-E11). Data includes only NC residents served in NC hospitals.

5. NC Medicaid Division of Health Benefits. (2024). *Medicaid Costs by Principal Diagnosis*. North Carolina Department of Health and Human Services. Data produced on request on March 20, 2024. ICD-10 codes: Diabetes Mellitus (E10-E11).

6. National Center for Chronic Disease Prevention and Health Promotion Division of Diabetes Translation. *United States Diabetes Surveillance System*. Centers for Disease Control and Prevention. Retrieved on March 20, 2025, from https://gis.cdc.gov/grasp/diabetes/diabetesatlas.html.

7. National Institute of Diabetes and Digestive and Kidney Diseases. *Preventing Type 2 Diabetes*. National Institutes of Health. Retrieved on April 16, 2025, from https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-type-2-diabetes.

8. American Diabetes Association Primary Care Advisory Group. (2024). 5. Facilitating positive health behaviors and well-being to improve health outcomes: Standards of Care in Diabetes–2024 abridged for primary care professionals. *Clin Diabetes. 42*: 193-195.

9. North Carolina Division of Public Health State Center for Health Statistics. *2022 Table B: Leading Causes of Death by Race North Carolina Residents*. NC Department of Health and Human Services. Retrieved on March 20, 2025, from https://schs.dph.ncdhhs.gov/data/vital/lcd/2022/docs/2022-TableB-LCDbyRace.pdf.

In addition to the above references this fact sheet was developed with heavy reliance on information from: The Centers for Disease Control and Prevention website: cdc.gov/diabetes/index.html and *North Carolina's Guide to Diabetes Prevention and Management, Third Edition* at https://www.diabetesnc.com/guide.

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This fact sheet was produced by the Community and Clinical Connections for Prevention and Health Branch, Chronic Disease and Injury Section, Division of Public Health, N.C. Department of Health and Human Services. If you have any questions about data used in this fact sheet or about heart and blood vessel disease prevention and management efforts in North Carolina, please email contact@communityclinicalconnections.com.

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