

The Burden of Diabetes in North Carolina 2010

Diabetes is increasing in North Carolina

- The diabetes prevalence among North Carolina adults (18+) has more than doubled from 4.5 percent in 1995 to 9.6 percent in 2009 ¹.
- Nationally, North Carolina ranked 13th highest in adult diabetes prevalence.
- The risk factors for diabetes and its complications include overweight/obesity, physical inactivity, unhealthy diet, Prediabetes and Gestational Diabetes.
- Most people develop **Prediabetes** (blood glucose levels are higher than normal but not high enough to be diagnosed as diabetes), before they develop type 2 diabetes. Lifestyle changes help to prevent or delay type 2 diabetes.
- **Gestational Diabetes** occurs in some pregnant women who never had diabetes before but have high glucose levels in pregnancy. While gestational diabetes usually goes away after delivery, 20-50 percent of women develop type 2 diabetes in next 5-10 years.

Table 1. Diabetes among adults in North Carolina, 2009 (BRFSS)

Diabetes	Prevalence Rate	Weighted Number
Diagnosed Diabetes	9.6%	674,000
Undiagnosed Diabetes ²	2.1%	147,000
Prediabetes	7.1%	451,000
Gestational Diabetes ³ (2008)	10.8%	13,000

Diabetes disparities are increasing in North Carolina

- Diabetes prevalence was highest among African Americans (15.6 percent), followed by Native Americans (11.7 percent) in 2009 (Table 2).
- Diabetes prevalence was three times higher among adults with less than \$15,000 household income than people who earned \$75,000 or more.
- While diabetes ranked as the seventh leading cause of death in the state in 2008, it was the fourth leading cause among African Americans.
- In 2004-2008, the diabetes death rate among African Americans was 163.8 per 100,000 population, compared to 80.2 among whites ⁴.

Diabetes is a serious disease in North Carolina

- People with diabetes suffer from diabetes-related complications including cardiovascular disease, blindness, lower extremity amputations and renal disease.
- In 2007, diabetes contributed to 37,596 hospitalizations. There were 2,608 lower extremity amputations among people with diabetes ⁵.
- In 2004-2008, diabetes contributed to 11,049 deaths in the state (primary diagnosis).

Diabetes is a costly disease in North Carolina

- The total cost of diabetes was 5.3 billion in 2006. This includes excess medical costs of \$3.6 billion due to diabetes, and lost productivity valued at \$1.7 billion ⁶.

Table 3. Diabetes Prevalence by selected Counties and Regions, NC, 2009 BRFSS

COUNTY	Rate (%)	C.I. (95%)
Alamance	10.6	7.5-14.7
Buncombe	7.2	4.9-10.3
Cabarrus	10.5	7.0-15.6
Catawba	8.0	5.5-11.5
Cumberland	13.7	10.4-17.9
Davidson	9.9	7.4-13.3
Durham	10.2	7.3-14.1
Forsyth	8.7	6.1-12.3
Gaston	10.1	7.0-14.3
Guilford	9.5	7.0-12.7
Iredell	5.9	4.2- 8.1
Johnston	8.1	5.6-11.5
Mecklenburg	6.2	4.6- 8.4
New Hanover	12.4	9.3-16.3
Onslow	9.8	7.1-13.2
Orange	5.1	3.3- 8.0
Pitt	7.6	5.3-10.6
Randolph	7.6	4.9-11.5
Robeson	10.0	7.3-13.5
Rowan	11.3	8.4-15.0
Union	7.1	4.6-10.8
Wake	5.2	3.7- 7.3
Wayne	13.0	9.7-17.3
NC REGIONS		
Eastern NC	12.7	10.8-14.9
Piedmont	8.2	7.4- 9.1
Western NC	9.0	7.9-10.3

Note: C.I. Confidence Interval

Table 2. Demographic Characteristics for adults with diagnosed diabetes, North Carolina, 2009 BRFSS

Demographic Characteristic	Prevalence Rate (%)	Weighted Number
Total	9.6	674,000
Gender		
Male	9.2	309,000
Female	10.0	365,000
Race/Ethnicity		
White	8.4	419,000
African American	15.6	208,000
Native American	14.2	14,000
Hispanic	6.1	11,000
Education		
Less than H.S.	15.3	147,000
H.S. or G.E.D.	11.7	239,000
Some post-H.S.	9.0	163,000
College Graduate	5.5	122,000
Age		
18-44	2.9	101,000
45-64	13.6	320,000
65+	21.4	250,000
Household Income		
< \$15,000	14.6	98,000
\$15,000-24,999	11.5	120,000
\$25,000-34,999	10.0	66,000
\$35,000-49,999	9.8	81,000
\$50,000-74,999	8.7	86,000
\$75,000+	4.9	85,000
Disability Status		
Yes	18.5	367,000
No	6.3	279,000

Note: Numbers do not add to total due to rounding.

Data sources: ¹ BRFSS 2009, North Carolina State Center for Health Statistics, DHHS ² Based on the National Health and Nutrition Examination Survey (NHANES) survey (U.S. CDC) ³ North Carolina Pregnancy Risk Assessment Monitoring System (NC PRAMS), SCHS, DHHS, (among women of fertile age) ⁴ NC Death Certificates data, Vital Statistics, NC State Center for Health Statistics, DHHS ⁵ NC Hospital Discharge data, NC State Center for Health Statistics, DHHS * Small numbers ⁶ American Diabetes Association Cost Calculator