

The following summarizes the 2011 and 2012 Behavioral Risk Factor Surveillance System (BRFSS) data on the prevalence of prediabetes and prediabetes testing among Connecticut adults.

What is prediabetes and who is affected?^{1,2,3}

- Prediabetes is a health condition in which a person's blood glucose or A1c levels are higher than normal but not high enough to be type 2 diabetes. People with prediabetes are more likely to develop type 2 diabetes, heart disease, and stroke.
- Many people with prediabetes do not know that they have the condition.
 - According to the Centers for Disease Control and Prevention (CDC), only 7 percent of people with prediabetes in the U.S. are aware of their condition. Similarly, only an estimated 6.7 percent of Connecticut adults (18+) report that a health care provider has told them that they have prediabetes.
 - In contrast, National Health and Nutrition Examination Survey data estimate that 79 million Americans (or 35 percent of U.S. adults aged 20 and older) have prediabetes. When the national percentage is applied to Connecticut's population, more than 930,000 Connecticut adults aged 20 years and older are estimated to have prediabetes.
- The rate of prediabetes increases with increasing age. For example, an estimated 3.6 percent of Connecticut adults 18 to 44 years of age report having prediabetes compared with an estimated 11.2 percent of those 65 years and older.
- The rate of prediabetes varies by socioeconomic position. The rates of prediabetes are higher among Connecticut adults with less than a high school education compared with adults who are college graduates (8.6% vs. 5.4%). Similarly, the rates of prediabetes are higher among Connecticut adults with annual household incomes less than \$25,000 compared to adults with annual household incomes of \$75,000 or more (8.0% vs. 5.7%).
- The rates of prediabetes among Connecticut adults do not vary significantly by other sociodemographic characteristics.

Who is more likely to develop prediabetes?²

- People with the following characteristics are more likely to develop prediabetes and type 2 diabetes:
 - 45 years of age or older.
 - Overweight.
 - Have a parent, sister, or brother with diabetes.
 - Family background is African American, Hispanic/Latino, American Indian, Asian American, or Pacific Islander.
 - Developed gestational diabetes, or gave birth to a baby weighing 9 pounds or more.
 - Physically active less than three times a week.

How is prediabetes diagnosed?⁴

- A fasting blood glucose, glucose tolerance, or hemoglobin A1C test can be used to diagnose prediabetes and diabetes.
- People whose test results indicate they have prediabetes should have their blood glucose levels checked again in six months to one year. People with blood glucose levels that are in the normal range should get tested every three years, or as recommended by a doctor.

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Are at-risk Connecticut adults being tested for diabetes?^{3,4}

- Despite the fact that early diagnosis and treatment of prediabetes may prevent type 2 diabetes and diabetes-related complications, many at-risk Connecticut adults are not being tested for diabetes (Table 1).

Table 1. Percentage of Connecticut adults (18+) without diagnosed diabetes reporting having been tested for diabetes in the past 3 years (2011 & 2012 BRFSS data)

Respondent Characteristics	Unweighted Total Number of Respondents*	Adults Tested in the Past 3 Years**		
		Unweighted Number	Weighted Number^	Weighted Percent^ (95% Confidence Interval)
All Connecticut Adults	12,919	7,853	2,624,019	56.1 (54.9-57.4)
Age (in years)				
18-44	3,873	1,884	987,693	45.1 (43.0-47.3)
45+	8,863	5,853	1,609,127	65.9 (64.6-67.2)
Race & Ethnicity†				
Non-Hispanic White (White)	10,222	6,291	1,948,055	57.4 (56.0-58.8)
Non-Hispanic Black or African American (Black)	916	568	227,749	56.7 (52.0-61.4)
Hispanic or Latino (Hispanic)	968	560	288,796	52.1 (47.7-56.5)
BMI Status‡				
Not Overweight or Obese	4,992	2,718	887,792	48.9 (46.9-51.0)
Overweight or Obese	7,246	4,721	1,597,996	61.1 (59.4-62.7)
Leisure Time Physical Activity§				
Active	9,926	6,090	2,015,347	56.4 (55.0-57.8)
No Activity	2,799	1,658	561,883	55.5 (52.7-58.3)
Health Care Coverage				
Has Health Care Coverage	11,709	7,372	2,411,800	59.2 (57.8-60.5)
No Health Care Coverage	1,171	466	204,390	35.6 (31.9-39.3)

*Numbers may not sum to total due to missing data; **Respondents without diagnosed diabetes who responded that they have had a test for high blood sugar or diabetes within the past three years. Percentages are not age-adjusted; ^Data are weighted to make the responses representative of the state's population; †Data for non-Hispanic Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaskan Native, other race, or multiracial adults are not reported due to the small number of respondents. ‡BMI = weight (kg) / height (m)²; Overweight or Obese equals BMI ≥ 25. §Participating in physical activity other than the respondent's regular job during the past month.

Diabetes/prediabetes testing among Connecticut adults

- **Age:** Adults 45 years of age and older are more likely to report having been tested for diabetes in the past 3 years compared with adults 18-44 year olds ($p < 0.001$).
- **Race and Ethnicity:** The difference in the rates among White, Black, and Hispanic adults did not reach statistical significance. Similarly, the differences in the age-adjusted rates (rates adjusted to take into account age differences among the racial and ethnic populations) do not reach statistical significance (White: 54.8%; Black: 57.8%; Hispanic: 55.7%). Connecticut-specific data for American

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Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander adults are not reported due to the small number of respondents.

- **BMI Status:** Adults who are overweight or obese are more likely to report having been tested for diabetes in the past 3 years compared with adults who are not overweight or obese ($p < 0.001$).
- **Leisure Time Physical Activity:** The rates of diabetes testing among Connecticut adults do not vary significantly by leisure time physical activity status.
- **Health Care Coverage:** Adults with health care coverage are more likely to report having been tested for diabetes in the past 3 years compared with adults without health care coverage ($p < 0.001$).

How can type 2 diabetes be prevented?

- Modest weight loss (5% to 7% of body weight) and regular physical activity (at least 150 minutes each week) can help prevent or delay type 2 diabetes in people with prediabetes.
- The National Diabetes Prevention Program helps participants improve their food choices, increase physical activity, and learn coping skills to maintain weight loss and healthy lifestyle changes through classes led by trained lifestyle coaches (www.cdc.gov/diabetes/prevention/index.htm).

What is BRFSS?

- BRFSS is a state-based system of health surveys sponsored by the Centers for Disease Control and Prevention (CDC). Respondents are randomly selected adults (aged 18 years or older who do not live in institutional settings) within randomly selected households.
- In 2011, BRFSS began including cell phone interviews and using a new weighting method. As a result, BRFSS data will better represent lower-income and minority populations, and populations with lower levels of formal education.
- For more information on BRFSS, visit www.cdc.gov/BRFSS or www.ct.gov/dph/brfss.

References

1. CDC. 2011. National Diabetes Fact Sheet, 2011. CDC, Atlanta, GA. Available at <http://apps.nccd.cdc.gov/DDTSTRS/>.
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3. Connecticut DPH. 2013. Connecticut BRFSS, 2011 and 2012 unpublished data. Connecticut DPH, Hartford, CT.
4. The Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. 2011. Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. Diabetes Care 34(Suppl. 1):S66–S68.