



New York State Behavioral Risk Factor Surveillance System Brief

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual telephone survey of adults developed by the Centers for Disease Control and Prevention conducted in all 50 States, the District of Columbia, and several United States Territories. The New York Behavioral Risk Factor Surveillance System is administered by the New York State Department of Health to provide statewide and regional information on behaviors, risk factors, and use of preventive health services related to the leading causes of chronic and infectious diseases, disability, injury, and death.

Prediabetes

New York State Adults, 2021



Introduction

Prediabetes is a condition in which an individual's blood glucose levels are higher than normal but not high enough to be diagnosed as diabetes.¹ The Centers for Disease Control and Prevention estimates that 96 million (38.0%) United States adults have prediabetes, but most don't know it.² Without intervention, many people with prediabetes will develop type 2 diabetes within 5 years and are also at increased risk of developing heart disease and stroke.¹ Fortunately, lifestyle change programs aimed at increasing physical activity and reducing body weight by 5%-7% and certain pharmacological agents have been demonstrated to prevent or delay the development of type 2 diabetes in those living with prediabetes.^{3,4}

Early detection and treatment of prediabetes are critical. The American Diabetes Association recommends testing for prediabetes for all adults over age 35 and for younger adults with overweight or obesity who also have one or more risk factors such as hypertension, elevated blood cholesterol or family history of type 2 diabetes.⁵ Health care providers are encouraged to recommend participation in a National Diabetes Prevention Program lifestyle change program for their adult patients with prediabetes.

More information on testing for high blood sugar is available in the Brief Report "Testing for High Blood Sugar, New York State Adults, 2021".

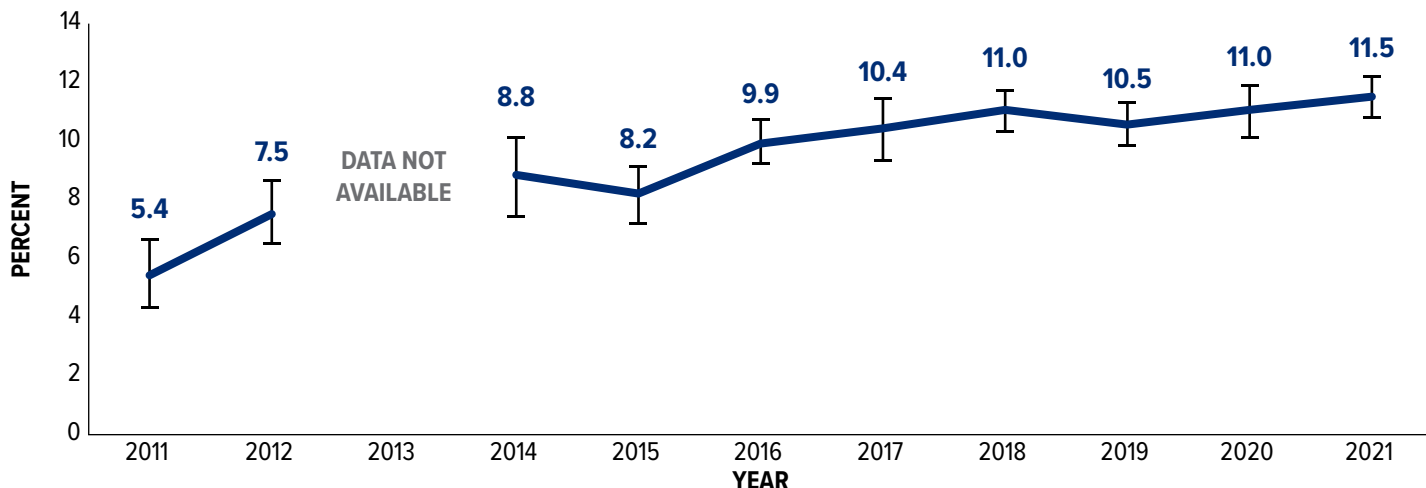
Health Equity

Many people with prediabetes experience inequities in health. Prediabetes is more common among Black non-Hispanic adults and adults living with disability. Social determinants of health such as lack of access to healthy food, lack of safe places for physical activity, and housing instability, especially when fueled by structural racism, contribute to disparities in the burden of prediabetes. The New York State Department of Health remains committed to advancing health equity by improving prediabetes detection and increasing access to and participation in National Diabetes Prevention Program lifestyle change programs so that those with prediabetes can achieve optimal health.

Key Findings

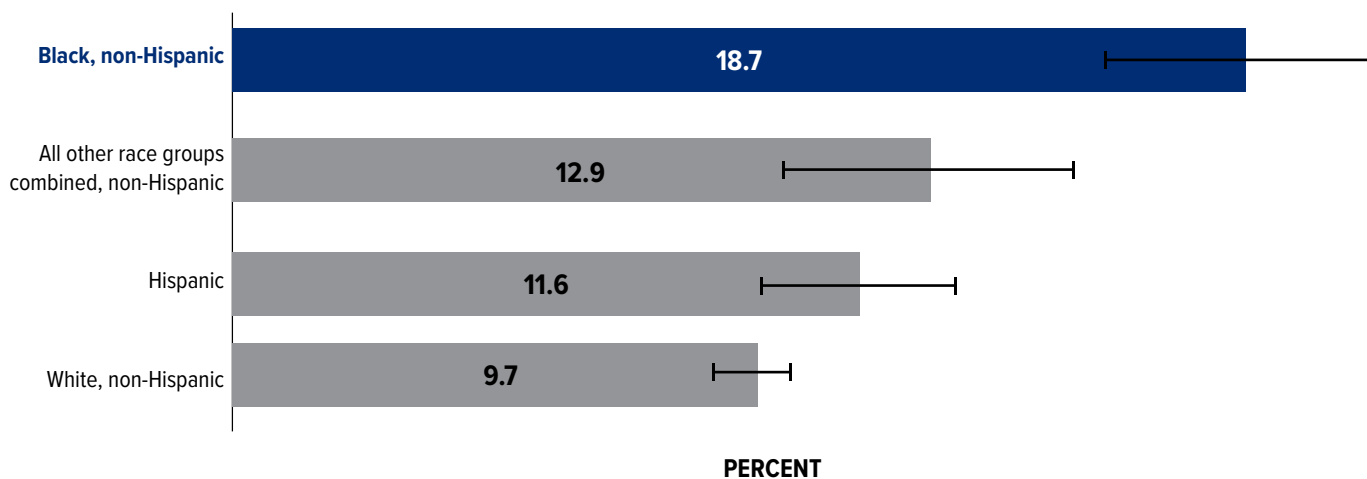
- An estimated 1.7 million adult New Yorkers have been diagnosed with prediabetes. In the past ten years, the prevalence of prediabetes has more than doubled from 5.4% (2011) to 11.5% (2021) (Figure 1).
- Social determinants of health contribute to disparities in prediabetes. Prediabetes is more prevalent among Black, non-Hispanic adults (18.7%) (Figure 2).
- Adults with obesity (20.2%) and those with overweight (11.6%) are more likely to have prediabetes compared to adults who have neither overweight nor obesity (5.8%) (Figure 3).
- The prevalence of prediabetes is higher among adults with history of cardiovascular disease (24.4%), high blood pressure (22.0%), or high cholesterol (21.4%) compared to those who have not been diagnosed with those conditions (Figure 3).
- Prediabetes is more common among adults living with disability than adults living without disability (17.0% vs. 10.0%).
- Prediabetes prevalence is more than three and a half times higher among adults who test for high blood sugar in the past 3 years compared to adults who do not (18.9% vs. 5.0%).

Figure 1. Percent of Diagnosed Prediabetes* Among New York State Adults, Behavioral Risk Factor Surveillance System 2011-2021



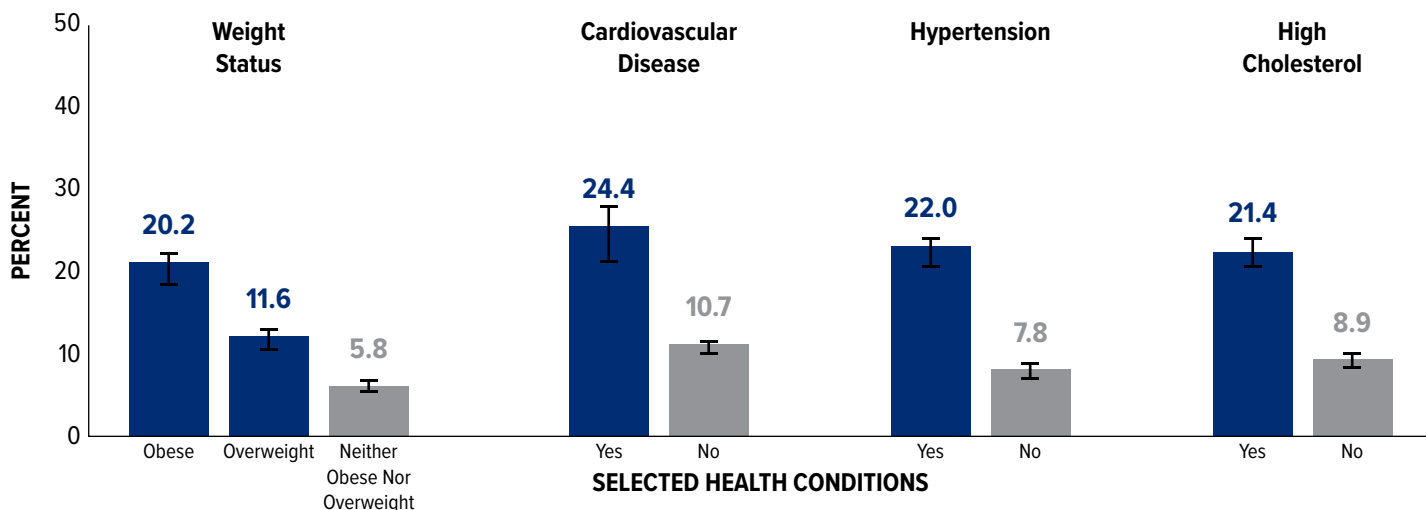
*Excludes reported gestational prediabetes. Error bars represent 95% Confidence Interval.

Figure 2. Percent of Diagnosed Prediabetes* Among New York State Adults by Race/Ethnicity, Behavioral Risk Factor Surveillance System 2021



*Excludes reported gestational prediabetes. Error bars represent 95% Confidence Interval.

Figure 3. Percent of Diagnosed Prediabetes* Among New York State Adults by Selected Health Conditions, Behavioral Risk Factor Surveillance System 2021



*Excludes reported gestational prediabetes. Error bars represent 95% Confidence Interval.

Table 1. Diagnosed Prediabetes^a Among New York State Adults, Behavioral Risk Factor Surveillance System 2021

	Prediabetes ^a	
	% ^b	95% CI ^b
New York State [n=39,095]	11.5	10.8 - 12.2
Sex		
Male	11.7	10.7 - 12.8
Female	11.3	10.4 - 12.2
Age (Years)		
18-24	5.0	3.3 - 6.8
25-34	5.3	4.0 - 6.6
35-44	7.5	6.1 - 8.9
45-54	14.2	12.3 - 16.1
55-64	19.7	17.6 - 21.8
65+	17.3	15.7 - 18.9
Race/ethnicity		
White, non-Hispanic	9.7	8.9 - 10.4
Black, non-Hispanic	18.7	16.2 - 21.2
Hispanic	11.6	9.8 - 13.4
Other race groups combined, non-Hispanic ^c	12.9	10.2 - 15.6
Annual household income		
Less than \$25,000	14.2	11.9 - 16.5
\$25,000-\$49,999	12.7	11.1 - 14.4
\$50,000 and greater	10.8	9.5 - 12.1
Missing ^d	10.5	9.1 - 11.8
Education attainment		
Less than high school	12.6	10.0 - 15.2
High school or GED	11.7	10.3 - 13.1
Some college	11.3	10.0 - 12.5
College graduate	11.3	10.3 - 12.3
Weight status		
Neither overweight nor obese	5.8	5.0 - 6.7
Overweight	11.6	10.4 - 12.8
Obese	20.2	18.3 - 22.0
Health care coverage type		
Private	10.4	9.4 - 11.3
Medicare	16.2	14.4 - 17.9
Medicaid	12.1	10.1 - 14.0
Other insurance ^e	12.5	9.0 - 15.9
No coverage	7.6	5.2 - 9.9
Disability status^f		
Yes	17.0	15.3 - 18.7
No	10.0	9.2 - 10.7
Region		
New York City	12.8	11.5 - 14.1
New York State exclusive of New York City	10.8	10.0 - 11.5

Notes: ^aExcludes reported gestational prediabetes. ^b% = Weighted percentage; CI = Confidence interval. ^cAll other race groups combined, non-Hispanic includes American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific Islander, or other race or multiracial. ^d“Missing” category included because more than 10% of the sample did not report income. ^eOther insurance includes Children’s Health Insurance Plan (CHIP), TRICARE, VA/Military, Indian Health Service, state sponsored health plan, or other government plan. ^fAll respondents who reported at least one type of disability (cognitive, mobility, vision, self-care, independent living, or deafness).

Table 2. Diagnosed Prediabetes^a Among New York State Adults by Selected Health Conditions, Behavioral Risk Factor Surveillance System 2021

	Prediabetes ^a	
	% ^b	95% CI ^b
New York State [n=39,095]	11.5	10.8 - 12.2
History of Cardiovascular Disease		
Yes	24.4	20.9 - 28.0
No	10.7	10.0 - 11.4
Hypertension		
Yes	22.0	20.3 - 23.6
No	7.8	7.1 - 8.5
High Cholesterol		
Yes	21.4	19.7 - 23.0
No	8.9	8.0 - 9.7
Testing for High Blood Sugar in the Past Three Years		
Yes	18.9	17.7 - 20.2
No	5.0	4.3 - 5.7

Notes: ^aExcludes reported gestational prediabetes. ^b% = Weighted percentage; CI = Confidence interval.



References

1. About Prediabetes and Type 2 Diabetes. Centers for Disease Control and Prevention. Last reviewed April 25, 2023. Accessed July 5, 2023. <https://www.cdc.gov/diabetes/prevention/about-prediabetes.html>.
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5. American Diabetes Association Professional Practice Committee. 2. Classification and Diagnosis of Diabetes: Standards of Medical Care in Diabetes – 2022. *Diabetes Care*. 2022;45(Supplement_1):S17–S38. Accessed July 5, 2023. <https://doi.org/10.2337/dc22-S002>.



Behavioral Risk Factor Surveillance System Questions

Prediabetes

1. Have you ever been told by a doctor or other health professional that you have prediabetes or borderline diabetes?

[If “Yes” and respondent is female, ask:]

2. Was this only when you were pregnant?

Note: These questions are only asked of those not responding “Yes” to having ever been diagnosed with diabetes.



Suggested Citation

(Wong, S. Austin, R. Millstein, S. Kaelin-Kee, J.). Prediabetes, New York State Adults, 2021. BRFSS Brief, No. 2024-02. Albany, NY: New York State Department of Health, Division of Chronic Disease Prevention, Bureau of Chronic Disease Evaluation and Research, January 2024.



Program Contributions

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