BRFSS Brief

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual statewide telephone survey of adults developed by the Centers for Disease Control and Prevention and administered by the New York State Department of Health. The BRFSS is designed to provide information on behaviors, risk factors, and utilization of preventive services related to the leading causes of chronic and infectious diseases, disability, injury, and death among the noninstitutionalized, civilian population aged 18 years and older.

Diabetes
New York State Adults, 2019

Introduction and Key Findings

Diabetes is a chronic disease in which blood sugar (glucose) levels are above normal. Normally, cells in the body access the energy stored in glucose, a form of sugar created from the digestion of food, through a chemical process involving the hormone insulin. In people with diabetes, this process is impaired. In persons with type 1 diabetes, the pancreas fails to produce insulin, and in those with type 2 diabetes, the cells of the body become resistant to insulin.[1] Type 2 diabetes accounts for about 90% to 95% of all diagnosed cases of diabetes, and type 1 diabetes accounts for about 5%.[2] Both type 1 and type 2 diabetes are characterized by high blood sugar or hyperglycemia. Over time, high blood sugar damages nerves and blood vessels, leading to complications such as heart disease, stroke, blindness, kidney disease, and amputations. Other complications of diabetes may include increased susceptibility to other diseases, loss of mobility with aging, depression and problems during pregnancy.[3]

The risk factors for type 2 diabetes include behavioral and lifestyle characteristics, sedentary behavior, eating habits and the management of other chronic conditions that can be modified, and family history, age, race and ethnicity that cannot be modified. Diabetes is not only common, it is also a very costly disease. Medical expenditures for people with diagnosed diabetes are more than double those for people without diabetes.[4]

Key Findings

An estimated 1.6 million adult New Yorkers (10.5%) have diagnosed diabetes. The prevalence of diabetes is significantly higher among Black, non-Hispanic adults (14.7%) than White, non-Hispanic adults (8.4%). Adults with obesity are significantly more likely to report being diagnosed with diabetes (18.7%) compared to adults with overweight (11.5%) or with neither overweight nor obesity (4.4%). Diabetes is more prevalent among adults receiving Medicare (21.1%) or Medicaid (13.6%) than among those with private insurance (7.3%) and is more common among older adults, adults with lower household incomes and educational attainment, and adults living with a disability.

BRFSS questions

Diagnosed diabetes
1. Have you ever been told by a doctor that you have diabetes?

   [If "yes" and respondent is female, ask:]
2. Was this only when you were pregnant?

Gestational (pregnancy-related) diabetes, prediabetes, and borderline diabetes were not counted as diabetes cases in the calculation of prevalence estimates.
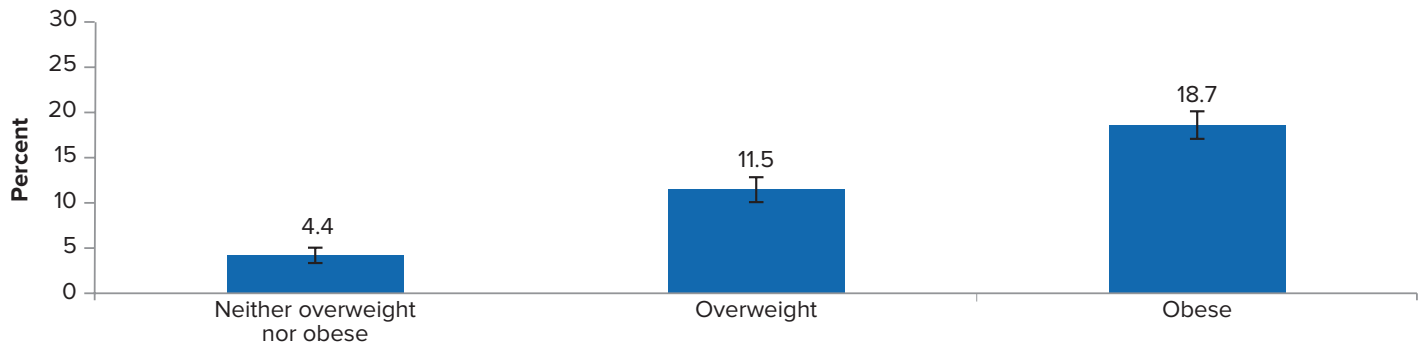
Figure 1. Diabetes* among US and New York State adults, BRFSS 2019

*Does not include reported gestational diabetes, prediabetes, or borderline diabetes.

**Median percent; includes data from all 50 states and the District of Columbia.
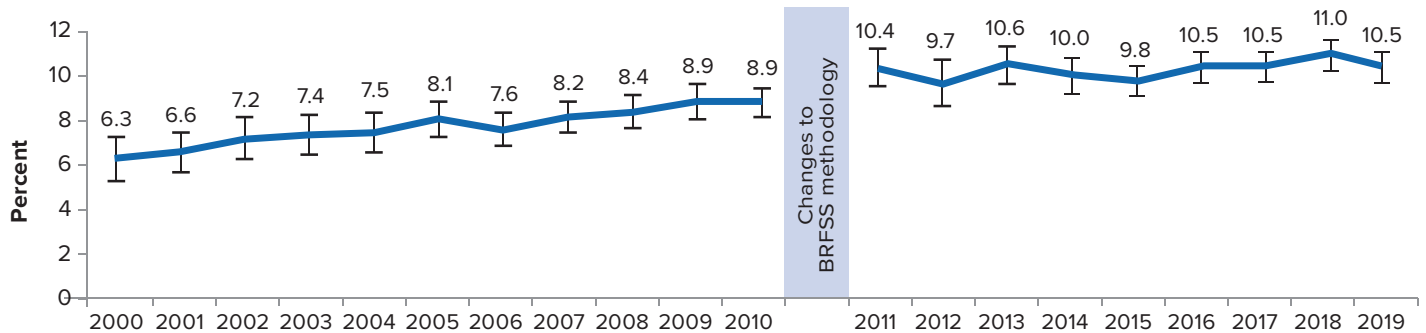
Figure 2. Diabetes* among New York State adults, by Body Mass Index (BMI) category, BRFSS 2019

*Does not include reported gestational diabetes, prediabetes, or borderline diabetes.

Note: Error bars represent 95% confidence intervals.

Figure 3. Diabetes* among New York State adults by BRFSS survey year, 2000-2019**

*Does not include reported gestational diabetes, prediabetes, or borderline diabetes.

**Data from 2011-2017 are not comparable to prior years because of changes to the BRFSS methods in 2011. See the following link for more information on these changes: https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6122a3.htm?s_cid=mm6122a3_w

Note: Error bars represent 95% confidence intervals.

Diabetes[a] Among New York State Adults: 2019 BRFSS

	%[b]	95% CI[b]
Total New York State (NYS) [n=14,232]	10.5	9.8 - 11.2
Sex		
Male	10.7	9.7 - 11.8
Female	10.3	9.3 - 11.3
Age (years)		
18-24	1.9	0.3 - 3.4
25-34	1.2	0.6 - 1.9
35-44	4.9	3.6 - 6.3
45-54	11.8	9.8 - 13.7
55-64	16.2	14.0 - 18.4
65+	22.5	20.5 - 24.5
Race/ethnicity		
White, non-Hispanic	8.4	7.7 - 9.1
Black, non-Hispanic	14.7	12.4 - 17.1
Hispanic	12.8	10.9 - 14.7
Other, non-Hispanic	12.0	8.7 - 15.4
Annual household income		
<$25,000	16.1	14.1 - 18.1
$25,000-$49,999	12.2	10.2 - 14.1
$50,000 and greater	6.3	5.6 - 7.1
Missing[c]	12.4	10.5 - 14.2
Educational attainment		
Less than high school	19.0	15.9 - 22.1
High school or GED	11.7	10.3 - 13.1
Some post-high school	10.5	9.1 - 11.9
College graduate	6.2	5.5 - 7.0
Body Mass Index (BMI) category		
Neither overweight nor obese	4.4	3.5 - 5.3
Overweight	11.5	10.1 - 13.0
Obese	18.7	17.0 - 20.4
Health care coverage type		
Private	7.3	6.3 - 8.2
Medicare	21.1	19.0 - 23.2
Medicaid	13.6	11.2 - 16.0
Other insurance[d]	11.7	8.5 - 14.9
Not insured	8.5	6.2 - 10.8
Disability status[e]		
Yes	21.7	19.7 - 23.7
No	6.7	6.0 - 7.4
Region		
New York City (NYC)	11.1	9.8 - 12.4
NYS exclusive of NYC	10.1	9.3 - 10.9

[a] Does not include reported gestational diabetes, prediabetes, or borderline diabetes.

[b] % = weighted percentage; CI = confidence interval.

[c] "Missing" category included because more than 10% of the sample did not report income.

[d] Includes TRICARE, VA/Military, and Indian Health Services.

[e] All respondents who reported at least one type of disability (cognitive, mobility, vision, self-care, independent living or deafness).

References

1. National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health. Diabetes Overview: What is Diabetes? Available at: https://www.niddk.nih.gov/health-information/diabetes/overview/what-is-diabetes. Accessed June 17, 2021.

2. Centers for Disease Control and Prevention. Type 2 Diabetes. Available at https://www.cdc.gov/diabetes/basics/type2.html. Accessed June 17, 2021.

3. National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health. Diabetes Overview: Preventing Diabetes Problems. Available at: https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems. Accessed June 17, 2021.

4. American Diabetes Association. Economic Costs of Diabetes in the U.S. in 2017. Diabetes Care 2018;41(5):917-928. Available from https://care.diabetesjournals.org/content/41/5/917. Accessed June 17, 2021

Program Contributions

New York State Department of Health
Bureau of Chronic Disease Evaluation and Research
Bureau of Community Chronic Disease Prevention

Order Information

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