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, 2014

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 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, dental 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]

National data indicate that up to half of the U.S. population has some type of hyperglycemic condition.[4] Projections based on national trends suggest that 1 in 3 Americans will develop diabetes in their lifetime.[2] The risk factors for Type 2 diabetes include both characteristics that cannot be modified, including race, ethnicity, family history and age, and behavioral and lifestyle characteristics that can be modified, including sedentary behavior, eating habits and the management of other chronic conditions. 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.[2,5]

Key Findings

An estimated 1.6 million adult New Yorkers (10.0%) have been diagnosed with diabetes. The prevalence of diabetes is significantly higher among non-Hispanic black adults (14.2%) than among non-Hispanic white adults (8.7%). Adults who are obese are significantly more likely to report being diagnosed with diabetes (19.8%) compared to adults who are overweight (9.0%) or neither overweight nor obese (4.6%). Diabetes is more prevalent among adults with Medicare (20.6%) and Medicaid (12.1%) than among those with private insurance coverage (6.6%). Diabetes is also more common among older adults, adults with lower household incomes and educational attainment, and among adults 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.
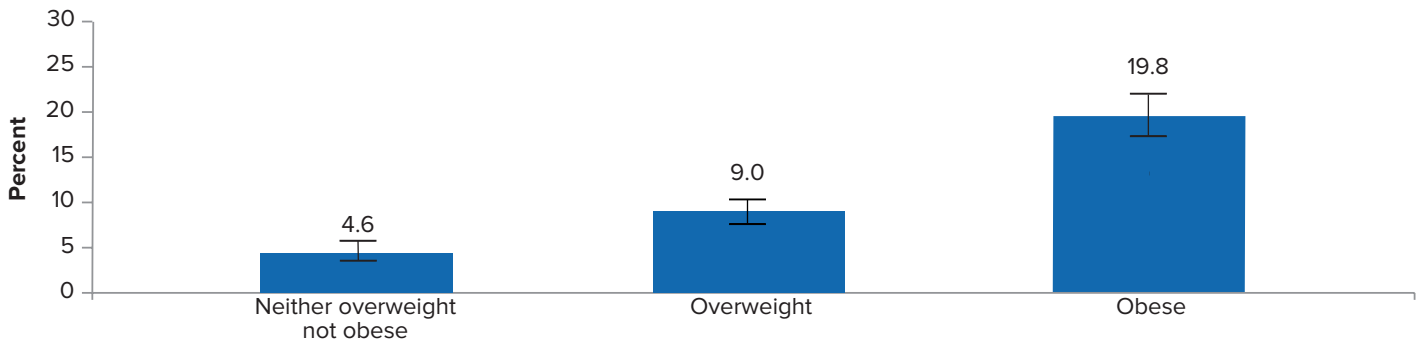
Figure 1. Diabetes* among US and New York State adults, BRFSS 2014
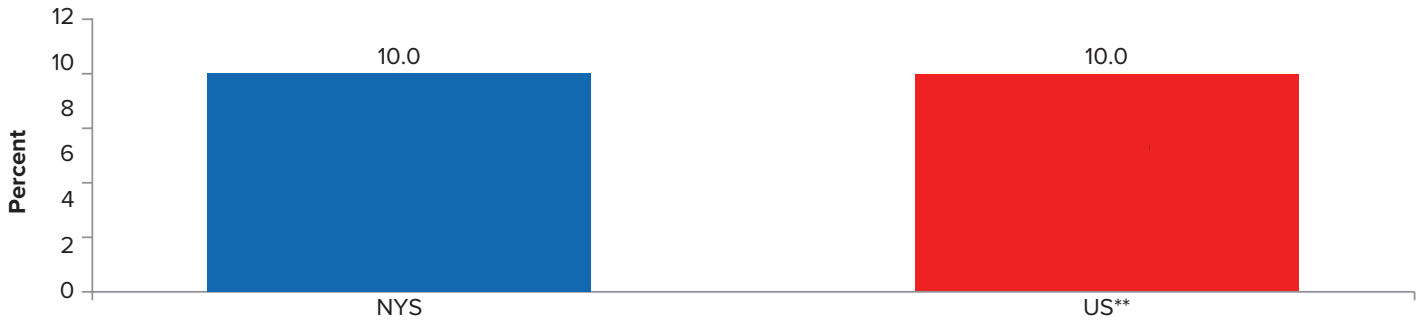
*Does not include reported gestational diabetes, prediabetes, or borderline diabetes.

**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 2014

*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, 2000-2014**
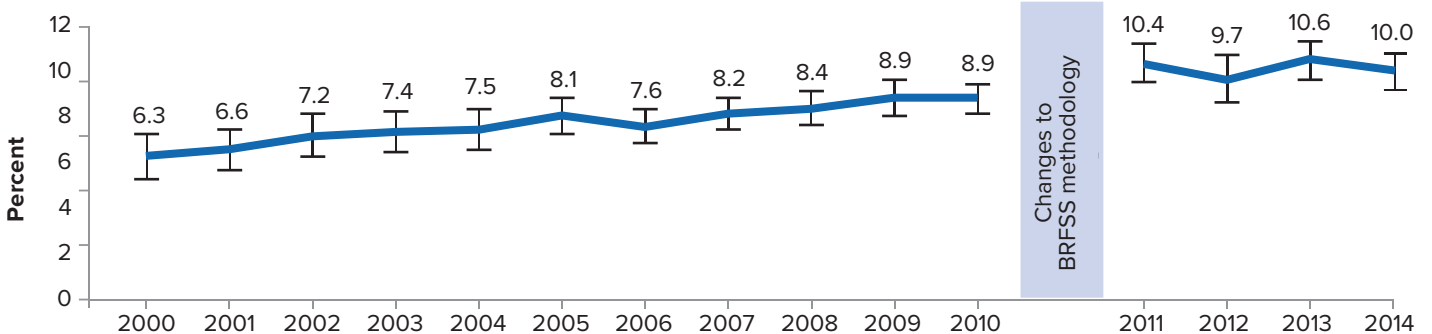
* Does not include reported gestational diabetes, prediabetes, or borderline diabetes.

** Data from 2011-2014 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: http://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: 2014 BRFSS

	%[b]	95% CI[b]
Total New York State (NYS) [n=6,865]]	10.0	9.2-10.9
Sex		
Male	10.6	9.3-12.0
Female	9.5	8.4-10.6
Age (years)		
18-24	0.7	0.0-1.6
25-34	2.8	1.4-4.2
35-44	4.1	2.5-5.7
45-54	10.8	8.7-13.0
55-64	15.8	13.3-18.3
≥65	22.7	20.3-25.1
Race/ethnicity		
White, non-Hispanic	8.7	7.7-9.6
Black, non-Hispanic	14.2	11.5-16.9
Hispanic	11.2	8.8-13.6
Other, non-Hispanic	8.9	5.9-12.0
Annual household income		
<$15,000	16.4	13.0-19.7
$15,000-$24,999	13.4	11.1-15.8
$25,000-$34,999	12.3	8.8-15.8
$35,000-$49,999	10.9	8.2-13.6
$50,000-$74,999	8.6	6.5-10.8
≥$75,000	5.4	4.2-6.5
Missing[c]	9.7	7.5-11.8
Educational attainment		
Less than high school	15.5	12.2-18.7
High school or GED	12.4	10.6-14.3
Some post-high school	9.3	7.8-10.8
College graduate	6.0	5.1-6.8
Body Mass Index (BMI) category		
Neither overweight nor obese	4.6	3.6-5.6
Overweight	9.0	7.5-10.4
Obese	19.8	17.5-22.0
Health care coverage type		
Private	6.6	5.7-7.6
Medicare	20.6	17.9-23.2
Medicaid	12.1	9.1-15.1
Other insurance[d]	14.7	9.6-19.7
Not insured	8.6	5.9-11.4
Disability status[e]		
Yes	22.6	20.0-25.3
No	6.7	5.8-7.5
Region		
New York City (NYC)	10.4	9.0-11.8
NYS exclusive of NYC	9.8	8.7-10.8

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, self-care, independent living, vision, or mobility).

References

1. National Institute of Diabetes and Kidney Diseases, National Institutes of Health. Diagnosis of Diabetes, National Diabetes Clearinghouse. Available at: http://diabetes.niddk.nih.gov/dm/pubs/diagnosis. Accessed October 3, 2016.

2. Centers for Disease Control and Prevention. Diabetes: Successes and Opportunities for Population-Based Prevention and Control: At a Glance, 2016. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2016. Available at: http://www.cdc.gov/chronicdisease/resources/publications/aag/pdf/2016/diabetes-aag.pdf

3. National Institute of Diabetes and Kidney Diseases, National Institutes of Health. Causes of Diabetes, National Diabetes Clearinghouse. Available at: http://diabetes.niddk.nih.gov/dm/pubs/causes/. Accessed October 3, 2016

4. Menke A, Casagrande S, Geiss L, Cowie CC. Prevalence of and Trends in Diabetes Among Adults in the United States, 1988-2012. JAMA. 2015: 314(10):1021-29. Available at: http://jama.jamanetwork.com/article.aspx?articleid=2434682 Accessed October 3, 2016

5. Centers for Disease Control and Prevention. Diabetes Report Card 2014. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2015. Available at: http://www.cdc.gov/diabetes/pdfs/library/diabetesreportcard2014.pdf

Program Contributions

New York State Department of Health
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Bureau of Community Chronic Disease Prevention

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