



NYS BRFSS 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 US Territories. The New York BRFSS is administered by the New York State (NYS) Department of Health (DOH) 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.

High Cholesterol

New York State Adults, 2021



Introduction

More than 1 in 3 Americans have high total blood cholesterol, a condition where the blood contains too many lipids (fats).¹ Elevated blood cholesterol levels (greater than 200 mg per dL) are a major modifiable risk factor for cardiovascular disease (CVD), including heart attack and stroke. Lowering elevated blood cholesterol through proven lifestyle changes and/or cholesterol-lowering medications can reduce the risk for CVD. Lifestyle modification activities which include adhering to a heart healthy diet, getting regular exercise, avoiding all tobacco products, maintaining a healthy weight, and consuming alcohol in moderation, if at all, are critical to health promotion and cardiovascular risk reduction.²

Blood cholesterol goals are now based on an individual's risk factors for CVD. In addition to high cholesterol, other modifiable risk factors for CVD include uncontrolled hypertension, diabetes, physical inactivity, smoking, being overweight or obese, and drinking alcohol in excess. Non-modifiable risk factors include race and ethnicity, family history of high cholesterol and early onset of CVD, and increased age. Working with a health care provider to identify risk factors, getting cholesterol levels checked, and developing a personalized plan to lower risk are key steps to preventing CVD.^{2,3}

Health Equity

The NYSDOH acknowledges that social, economic, and environmental inequities result in adverse health outcomes and can have a greater impact than individual choices. Social determinants of health including low educational attainment and poverty contribute to disparities in the burden of high cholesterol. Despite being less likely to have their cholesterol checked within the past five years, those with lower educational attainment and annual household income of less than \$25,000 are more likely to be diagnosed with high cholesterol.

Key Findings

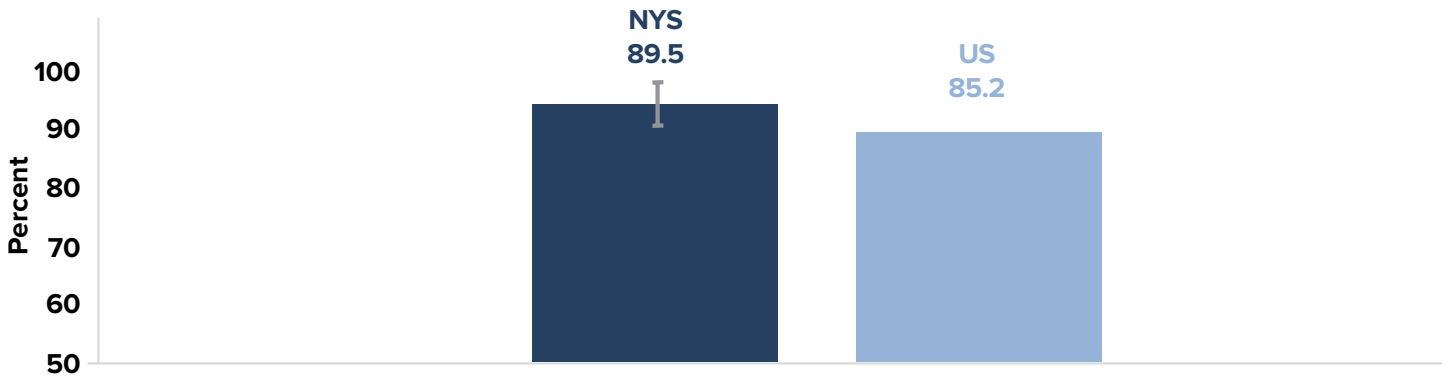
- Over 4.8 million adults in New York State reported being told by a health professional they have high cholesterol levels (36.2%).
- The prevalence of high cholesterol among adults with obesity (42.3%) is significantly higher than adults who have neither obesity nor overweight (30.1%).
- Adults with diabetes have a significantly higher rate (62.7%) of elevated cholesterol compared to adults without diabetes (32.2%). Adults who have been diagnosed with high blood pressure are more than twice as likely to have high cholesterol as those without high blood pressure (55.5% vs. 26.3%).
- High cholesterol is significantly more prevalent among adults living with disability (46.6%) compared to adults without disability (32.9%).
- Almost ninety percent of adults reported having their cholesterol checked within the past five years. Rates for having cholesterol checked within the past five years are highest among adults living with diabetes (97.1%), over 65 years of age (97.0%), diagnosed with high blood pressure (96.7%), and enrolled in Medicare (96.0%).
- Adults with less than a high school education and adults with annual household income less than \$25,000 are less likely to be checked for high cholesterol (82.6% and 86.1%), but more likely to be diagnosed with it (41.5% and 39.7%).



Department
of Health

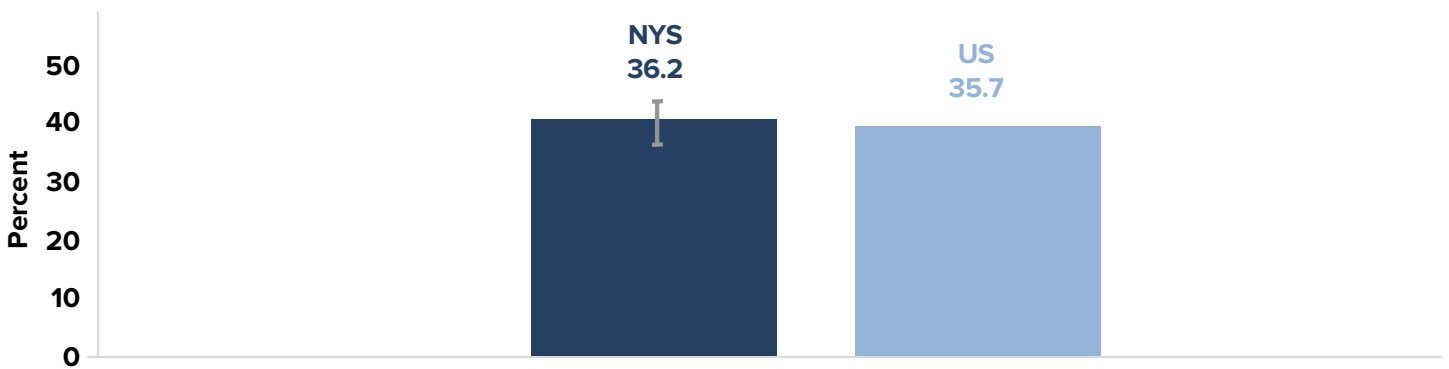


Figure 1. Cholesterol checked within the past 5 years among NYS* and US* adults, BRFSS 2021



* US data is the median from 50 states and District of Columbia and excludes error bars. NYS error bars represent 95% Confidence Interval.

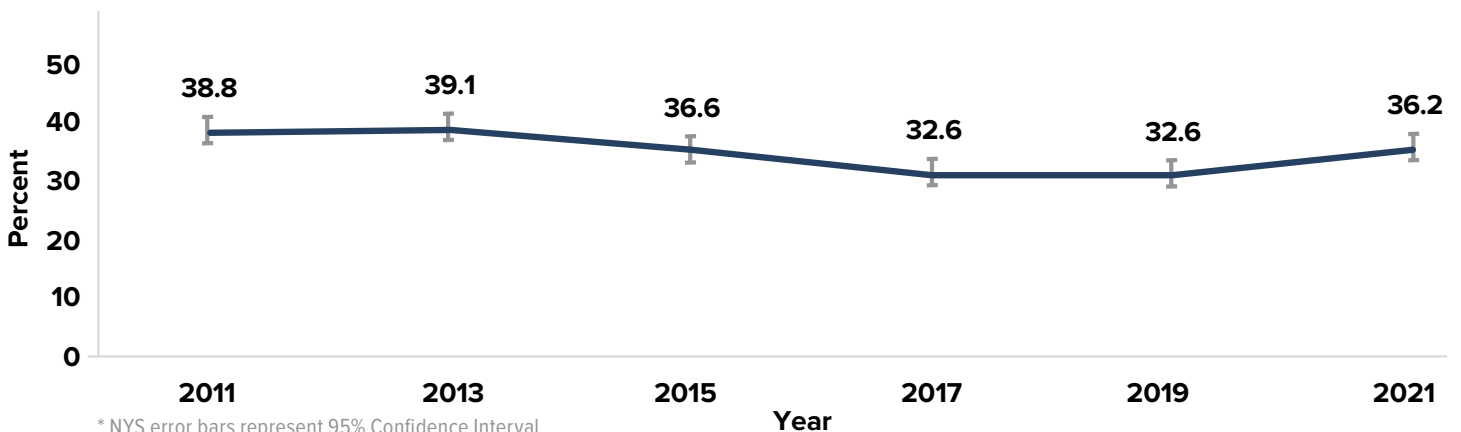
Figure 2. Percent of NYS* and US* adults with high cholesterol, BRFSS 2021**



* US data is the median from 50 states and District of Columbia and excludes error bars. NYS error bars represent 95% Confidence Interval.

** Includes respondents who were ever told by a doctor, nurse, or other health professional that their blood cholesterol was high.

Figure 3. Percent of NYS* adults with high cholesterol, BRFSS 2011-2021*****



* NYS error bars represent 95% Confidence Interval.

** Includes respondents who were ever told by a doctor, nurse, or other health professional that their blood cholesterol was high.

*** Data unavailable in 2012, 2014, 2016, 2018, and 2020.

Table 1. Blood Cholesterol Among New York State Adults, 2021 BRFSS

	Diagnosed High Cholesterol ^a		Checked Within Past 5 Years ^b	
	% ^c	95% CI ^c	% ^c	95% CI ^c
New York State (NYS) [n = 39,095]	36.2	35.2–37.1	89.5	88.9–90.1
Sex				
Male	37.7	36.4–39.1	87.3	86.4–88.2
Female	34.8	33.5–36.0	91.6	90.8–92.4
Age (Years)				
18–24	15.8	12.6–19.0	70.3	67.0–73.7
25–34	17.1	15.1–19.1	80.9	79.0–82.9
35–44	24.1	22.0–26.3	87.1	85.6–88.7
45–54	36.2	33.9–38.4	93.3	92.2–94.4
55–64	49.2	47.1–51.4	95.8	94.9–96.7
65+	52.1	50.4–53.9	97.0	96.2–97.8
Race/Ethnicity				
White, non-Hispanic	38.2	37.1–39.3	89.9	89.1–90.7
Black, non-Hispanic	33.2	30.6–35.7	90.4	88.7–92.0
Hispanic	33.0	30.7–35.2	87.3	85.8–88.9
All other race groups combined, non-Hispanic ^d	36.2	32.6–39.9	89.9	88.1–91.8
Annual Household Income				
<\$25,000	39.7	37.1–42.3	86.1	84.4–87.9
\$25,000–\$49,999	37.4	35.3–39.6	89.6	88.3–90.9
\$50,000 and greater	34.8	32.9–36.7	91.0	89.7–92.2
Missing ^e	36.6	34.7–38.6	87.1	85.7–88.6
Educational Attainment				
Less than high school	41.5	38.3–44.8	82.6	80.3–85.0
High school or GED	35.5	33.7–37.4	87.8	86.5–89.1
Some college	35.5	33.7–37.4	89.1	87.9–90.4
College graduate	35.7	34.3–37.1	93.5	92.7–94.2
Disability^f				
Yes	46.6	44.6–48.5	90.2	89.0–91.4
No	32.9	31.8–33.9	89.4	88.7–90.1
Health Care Coverage				
Private	32.3	31.0–33.7	91.2	90.4–92.1
Medicare	50.1	48.2–52.0	96.0	95.3–96.8
Medicaid	33.0	30.3–35.7	85.7	83.6–87.9
Other insurance ^g	35.2	32.3–38.1	90.5	88.8–92.3
No coverage	24.6	20.5–28.7	65.6	61.8–69.4
Weight Status				
Neither overweight nor obese	30.1	28.4–31.8	87.5	86.3–88.7
Overweight	39.4	37.7–41.1	90.4	89.4–91.5
Obese	42.3	40.5–44.1	91.6	90.5–92.7
Hypertension				
Yes	55.5	54.0–57.1	96.7	96.2–97.3
No	26.3	25.2–27.3	86.2	85.3–87.0
Diabetes				
Yes	62.7	60.0–65.3	97.1	96.0–98.2
No	32.2	31.3–33.1	88.5	87.8–89.1
Region				
New York City (NYC)	35.3	33.7–36.9	90.6	89.6–91.5
NYS exclusive of NYC	36.8	35.7–37.9	88.7	87.9–89.5

^a Respondents who were ever told by a doctor, nurse, or other health professional that their blood cholesterol was high.

^b Respondents who reported they had their cholesterol checked within the past five years.

^c % = Weighted Percentage; CI = Confidence Interval.

^d All other race groups, non-Hispanic includes American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific Islander, other race or multiracial.

^e “Missing” category included because more than 10% of the sample did not report income.

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

^g Other insurance includes Children’s Health Insurance Plan (CHIP), TRICARE, VA/Military, Indian Health Service, state sponsored health plan, or other government plan.



References

1. Tsao CW, Aday AW, Almarzooq ZI, Anderson CAM, Arora P, Avery CL, et al. on behalf of the American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. Heart Disease and Stroke Statistics — 2023 Update: A Report From the American Heart Association. *Circulation*. 2023;147:e93–e621. <https://doi.org/10.1161/CIR.0000000000001123>
2. Prevent and Manage High Cholesterol. Centers for Disease Control and Prevention. Updated March 20, 2023. Accessed August 15, 2023. <https://www.cdc.gov/cholesterol/prevention-management.htm>
3. Stone NJ, Robinson JG, Lichtenstein AH, Merz CNB, Blum CB, Eckel RH et al. 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *Circulation*. 2014; 129:S1-S45. <https://doi.org/10.1161/01.cir.0000437738.63853.7a>



BRFSS Questions

High Cholesterol

1. Blood cholesterol is a fatty substance found in the blood. About how long has it been since you last had your blood cholesterol checked?
2. Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high?



Suggested Citation

(Wong, S. Austin, R. Wyrick, T. Foglietta, A). High Cholesterol, New York State Adults, 2021. BRFSS Brief, No. 2023-09. Albany, NY: New York State Department of Health, Division of Chronic Disease Prevention, Bureau of Chronic Disease Evaluation and Research, October 2023.



Program Contributions

New York State Department of Health

Bureau of Chronic Disease Evaluation and Research

Bureau of Community Chronic Disease Prevention



Contact Information

Contact us by

phone (518) 473-0673

email BRFSS@health.ny.gov

Visit us at www.health.ny.gov



Department of Health