Number 2026-07

New York State Behavioral Risk Factor Surveillance System Brief

The Behavioral Risk Factor Surveillance System 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.

Air Conditioning Use

New York State Adults, 2018

Introduction

Average temperatures in New York State have increased by 2.6°F since 1901. In that same timeframe, the number of extreme heat days (days above 90°F) and heat waves (multiple days of extreme heat) have increased and are projected to continue to increase in frequency.[1] Exposure to heat is associated with increased emergency department visits and hospitalizations for various adverse health outcomes, as well as mortality.[2] Extreme heat exposure can cause heat-related illnesses, like heat stroke and heat exhaustion, and make chronic illnesses like heart disease, diabetes, asthma, renal failure, and chronic obstructive pulmonary disease worse.[3] One way to lower the risk of health impacts from exposure to heat is the use of air conditioning.[4-7] The percentage of households that have air conditioning in New York State is currently unknown.

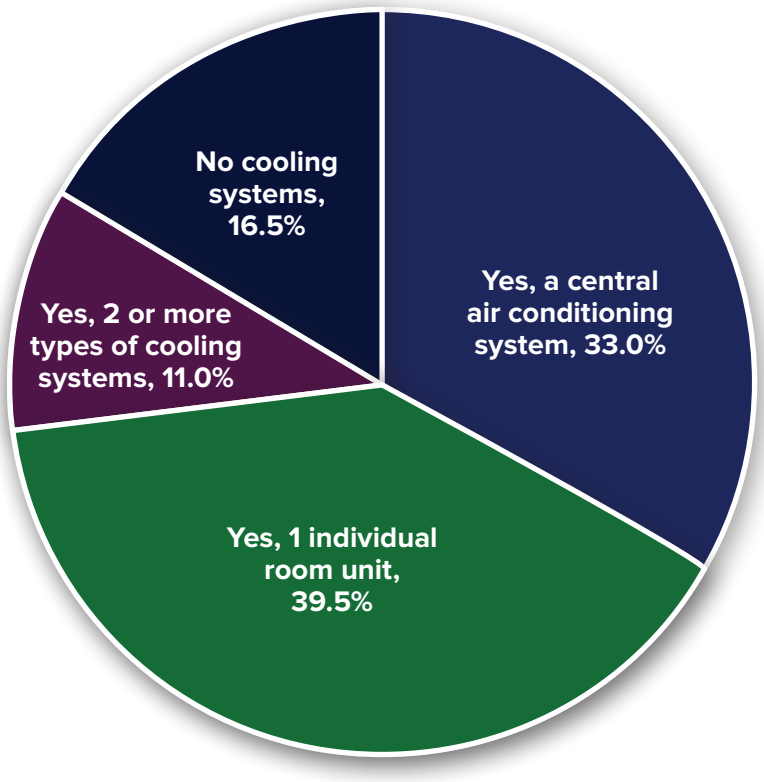
Health Equity

Access to air conditioning can vary by income, employment and housing making it a health equity issue. This means preventable harm disproportionately affects underserved populations and can result in additional vulnerability to certain groups that may already be at higher risk, including people over 65, outdoor workers, pregnant people, people of color, and children.[3,8] New York State currently has two programs that assist households in accessing air conditioning. The Office of Temporary and Disability Assistance (OTDA) Cooling Assistance Benefit provides a free air conditioner (or fan) to people with low-income who are eligible. The DOH Essential Plan Cooling Program offers a free air conditioner to people with qualifying medical conditions who are covered by the NY State of Health Essential Plan for health insurance. The 2025-2030 New York State Prevention Agenda encourages further access to cooling centers by measuring and promoting additional cooling centers in higher vulnerability areas.

Key Findings

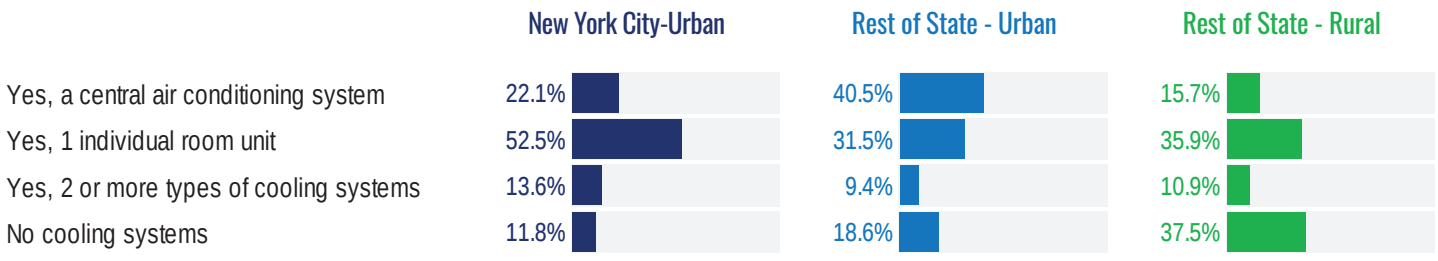
- In New York State 16.5% of adults reported they did not have air conditioning in their home.
- In New York City and urban areas in the rest of the State, the percent of adults reporting no air conditioning was 11.8% and 18.6%, respectively. The percent of adults from rural areas reporting no air conditioning was 37.5%.
- The percent of no household air conditioning was higher among those with lower income, who were unemployed, those using public insurance benefits, and among non-Hispanic Black adults.
- Among adults who had air conditioning, 22.2% did not use it due to cost or air conditioning not working.

Figure 1. Percent of air conditioning among New York State adults, Behavioral Risk Factor Surveillance System, 2018



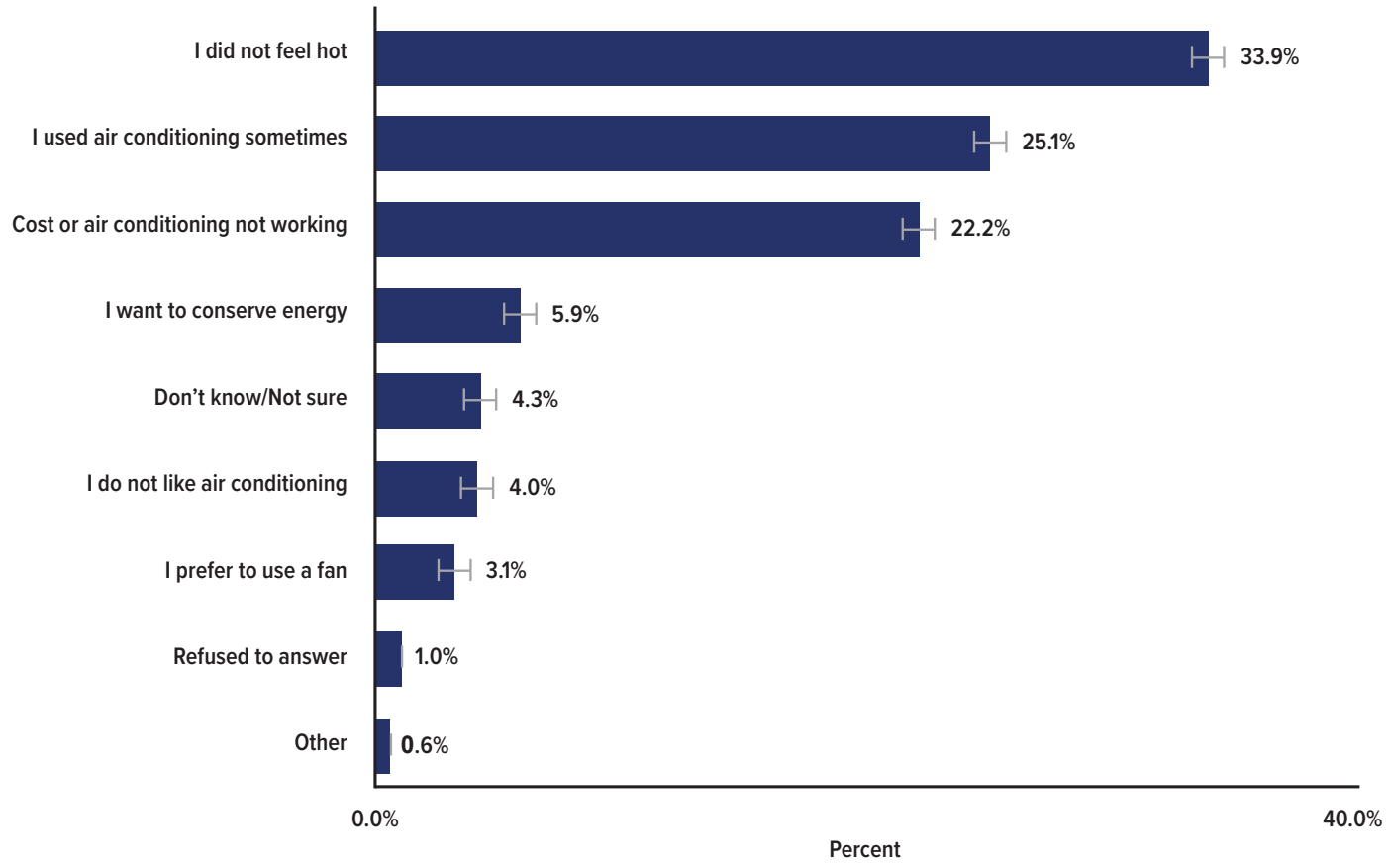
Note: % = weighted percentage

Figure 2. Percent of air conditioning by region among New York State adults, Behavioral Risk Factor Surveillance System, 2018



Note: % = weighted percentage

Figure 3. Reasons for not using air conditioning among New York State adults who have it, Behavioral Risk Factor Surveillance System, 2018



Note: In the original survey, respondents who answered with a response other than the options given were recorded as "other". There were 1888 respondents categorized as "other", and 1840 were re-categorized into existing categories. The option "The electricity bill would be too high" was re-named "Cost or air conditioning not working" to include answers that cited money or a broken air conditioning unit or system.

Table 1. Percent of respondents without air conditioning by select demographic groups in New York State, Behavioral Risk Factor Surveillance System, 2018

	New York State [n=11,897] % (95% CI) [b]	New York City-Urban[a] [n=2,109] % (95% CI) [b]	Rest of State-Urban[a] [n=8,235] % (95% CI) [b]	Rest of State-Rural[a] [n=1,553] % (95% CI) [b]
Age Group				
18–24	13.9 (10.0-17.8)	8.9 (4.1-13.8)	17.8 (12.0-23.7)	15.7 (0.0-31.7)[h]
25–34	17.8 (14.3-21.2)	15.6 (10.1-21.1)	18.7 (14.3-23.2)	41.5 (27.7-55.3)[h]
35–44	15.2 (11.9-18.5)	11.7 (7.1-16.2)	17.5 (12.7-22.3)	37.0 (20.3-53.6)[h]
45–54	14.4 (11.9-16.8)	10.1 (6.0-14.2)	15.9 (12.7-19.0)	34.3 (25.3-43.3)
55–64	17.8 (14.8-20.8)	11.6 (7.2-16.1)	19.8 (15.9-23.7)	37.8 (29.6-46.1)
65+	18.8 (16.5-21.1)	11.1 (7.3-14.9)	20.8 (17.9-23.7)	42.4 (35.2-49.6)
Race/Ethnicity				
Black, non-Hispanic	21.7 (17.6-25.9)	19.2 (14.5-23.9)	25.5 (17.7-33.3)	§
Hispanic	13.6 (10.2-17.0)	8.0 (4.9-11.0)	23.0 (15.6-30.4)	§
White, non-Hispanic	10.6 (15.0-17.8)	8.4 (5.0-11.8)	17.6 (15.9-19.2)	37.4 (32.8-41.9)
All other race groups combined, non-Hispanic[c]	16.1 (11.8-20.4)	16.3 (10.3-22.4)	15.3 (9.5-21.2)	§
Sex				
Female	16.1 (14.3-17.8)	11.3 (8.4-14.1)	18.1 (15.8-20.3)	40.0 (34.0-46.0)
Male	16.7 (15.0-18.5)	12.1 (9.4-14.8)	18.9 (16.6-21.2)	35.3 (28.3-42.4)
Household Income				
<$25,000	26.7 (23.2-30.1)	18.1 (13.1-23.0)	33.9 (28.8-38.9)	42.4 (34.0-50.7)
$25,000-$49,999	20.0 (16.7-23.2)	10.0 (6.3-13.8)	25.1 (20.4-29.8)	47.2 (37.6-56.9)
>$50,000	10.1 (8.9-11.4)	6.3 (4.0-8.7)	11.3 (9.6-13.0)	26.0 (20.2-31.9)
Missing[d]	18.3 (15.2-21.4)	15.0 (10.2-19.8)	20.0 (15.9-24.1)	41.1 (26.1-56.1)[h]
Disability				
Yes[e]	21.6 (18.5-24.7)	15.6 (9.7-21.8)	23.5 (19.7-27.3)	34.9 (25.8-43.9)
No	15.2 (13.9-16.6)	11.1 (9.0-13.1)	17.2 (15.4-19.0)	38.6 (33.3-43.9)
Employment Status				
Employed	15.1 (13.6-16.7)	11.0 (8.6-13.5)	17.0 (14.9-19.1)	37.3 (31.6-42.9)
Unemployed	19.7 (14.5-25.0)	12.0 (5.1-18.8)	25.6 (17.8-33.5)	43.2 (11.0-75.4)[h]
Not in labor force	18.3 (16.1-20.5)	12.9 (9.2-16.6)	20.3 (17.6-23.1)	36.8 (30.3-43.4)
Health Care Coverage Type				
Private	12.4 (10.9-13.9)	8.7 (6.2-11.2)	13.7 (11.9-15.6)	30.3 (24.3-36.3)
Medicare[f]	19.2 (16.3-22.2)	11.5 (6.5-16.5)	21.1 (17.4-24.9)	42.3 (33.5-51.1)
Medicaid	20.8 (17.0-24.5)	15.3 (10.1-20.5)	26.7 (21.1-32.3)	37.7 (24.6-50.9)[h]
Other Insurance[g]	23.2 (16.7-29.6)	26.4 (12.5-40.4)[h]	20.0 (13.3-26.9)	46.8 (31.1-62.6)[h]
No Coverage	§	§	§	§

Notes: [a] Based on county of residence and the 2013 National Center for Health Statistics' Urban–Rural Classification Scheme for Counties. [b] % = weighted percentage; CI = confidence interval; When comparing estimates, the 95% confidence interval (95% CI) provides the statistical range containing the true population percentage with a 95% probability. Although a 95% confidence interval is not a test of statistical significance, categories whose 95% confidence intervals do not overlap can be considered significantly different. [c] All other race groups combined, non-Hispanic includes American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and other race. [d] Missing category included because more than 10% of the sample did not report income. [e] All respondents who reported at least one type of disability (cognitive, mobility, vision, selfcare, independent living or deafness).[f] Medicare includes Medigap. [g] Other includes Children's Health Insurance Program (CHIP),TRICARE, VA/Military, and Indian Health Services, State sponsored health plan, and other government programs. [h] Estimates that have a confidence interval with a half-width of greater than 10, or when the relative standard error (RSE) is greater than 30% are unstable and should be used with caution. [§] Estimates are suppressed when there are less than 50 observations in the denominator or less than six observations in the numerator.

References

1. Lamie C, Bader D, Graziano K, et al. New York State Climate Impacts Assessment Chapter 02: New York State's Changing Climate. Annals of the New York Academy of Sciences. 2024;1542(1):91-145. doi:10.1111/nyas.15240
2. Crimmins AR, Avery CW, Easterling DR, Kunkel KE, Stewart BC, Maycock TK. Fifth National Climate Assessment. USGCRP. 2023;15: 696-717
3. Barnes J, Sheffield P, Graber N, et al. New York state climate impacts assessment chapter 07: Human Health and Safety. Annals of the New York Academy of Sciences. 2024;1542(1), 385–445. https://doi.org/10.1111/nyas.15244
4. Ito K, Lane K, Olson C. Equitable access to air conditioning: A city health department's perspective on preventing heat-related deaths. Epidemiology. 2018;29(6):749-52.
5. Ostro B, Rauch S, Green R, Malig B, Basu R. The effect of temperature and use of air conditioning on hospitalizations. American Journal of Epidemiology. 2010;172(9):1053-61.
6. Sera F, Hashizume M, Honda Y, Lavigne E, Schwartz J, Zanobetti A, et al. Air conditioning and heat-related mortality: A multi-country longitudinal study. Epidemiology. 2020;31(6):779-87.
7. Richard L, Kosatsky T, Renouf A. Correlates of hot day air-conditioning use among middle-aged and older adults with chronic heart and lung diseases: The role of health beliefs and cues to action. Health Education Research. 2011;26(1):77-88.
8. EPA. 2021. Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts. U.S. Environmental Protection Agency, EPA 430-R-21-003.

Behavioral Risk Factor Surveillance System Survey Questions

1. Do you have air conditioning?
   a. Yes, a central air conditioning system
   b. Yes, 1 individual room unit
   c. Yes, 2 or more types of cooling systems
   d. No
   e. Don't know/Not sure
2. If you have air conditioning but did not use it all or most of the time, what were your most important reasons for not using it?
   a. I did not feel hot
   b. The electricity bill would be too high
   c. I want to conserve energy
   d. I don't like air conditioning
   e. I used air conditioning sometimes
   f. I prefer to use a fan
   g. Other
   h. Don't know/Not sure

Suggested Citation

Trim K, Hsu, W, Muscatiello, N. Air Conditioning Use, New York State Behavioral Risk Factor Surveillance System Brief., No. 2026-07. Albany, NY: New York State Department of Health, Center for Environmental Health, July 2026.

Program Contributions

New York State Department of Health

Bureau of Chronic Disease Evaluation and Research

Center for Environmental Health

Contact Information

Contact us by

Phone: (518) 473-0673

Email: BRFSS@health.ny.gov

Visit: health.ny.gov

NEW YORK STATE | Department of Health