

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual telephone survey of adults developed by the Centers for Disease Control and Prevention and conducted in all 50 states, the District of Columbia, and several US Territories. The New York BRFSS 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.

Electronic Cigarette Use

New York State Adults, 2020

Introduction and Key Findings

Electronic cigarettes (e-cigarettes) are battery-powered devices that heat a solution of liquid nicotine, flavorings, and other chemicals creating an aerosol users inhale into their lungs. E-cigarettes are known by many different names including e-cigs, vapes, vapor products, vape pens, e-hookahs, tank systems, and electronic nicotine delivery systems (or ENDS). Using an e-cigarette is sometimes called vaping. E-cigarettes are not approved for smoking cessation by the Food and Drug Administration (FDA) and their usefulness as a cessation aid is unproven. E-cigarettes have evolved from purely nicotine delivery systems into high-tech, customizable devices that can deliver a range of other non-nicotine substances. With or without nicotine, vaping is not hazard-free and e-cigarette aerosol is not simply water vapor; the aerosol may contain heavy metals, volatile organic compounds, ultrafine particles, and other toxins.¹ In addition, e-cigarette use can undermine social norms about tobacco and increase the risk of youth and young adults using combustible tobacco cigarettes.²

The long-term health risks of e-cigarettes will not be known for decades. Nicotine is a highly addictive chemical. Exposure to nicotine during adolescence can cause addiction and can harm adolescent brain development which continues into the early to mid-20s.² The dramatic increase in e-cigarette use among youth and the e-cigarette or vaping product use-associated lung injury (EVALI) outbreak in 2019 prompted policy action on e-cigarettes at the national and statewide levels. In 2020, the FDA restricted flavors in cartridge-based e-cigarettes to just menthol and tobacco, but the policy does not apply to disposable e-cigarettes and other types of vaping devices.³ New York State (NYS) also passed legislation in 2020 that restricted licensed tobacco retailers to sell e-cigarette products only if they are tobacco-flavored or unflavored. E-cigarettes are included in New York's Clean Indoor Air Act, which prohibits their use everywhere that smoking tobacco products are prohibited, including workplaces, bars, and restaurants.⁴

The NYS Department of Health is committed to reducing the burden of all tobacco product use, including e-cigarettes, and addressing tobacco-related disparities to advance health equity. Addressing the youth vaping epidemic is a priority of NYS and includes comprehensive evidence-based, policy-driven, and cost-effective strategies. The NYS 2019-2024 Prevention Agenda's Prevent Chronic Diseases Action Plan sets an objective to decrease the prevalence of vaping product use among young adults aged 18-24 to 7.0% by 2024.⁵

Key Findings

The prevalence of e-cigarette use among adults in NYS in 2020 is 4.1% (Figure 1). Statewide, e-cigarette use rates are highest among young adults who are 18-24 years of age (10.6%), adults who are current cigarette smokers (10.2%), adults reporting frequent mental distress (6.9%), adults 25-34 years of age (6.4%), adults who are former cigarette smokers (6.0%), and adults enrolled in Medicaid (5.9%). (Table 1). Statistically significant differences in e-cigarette use were observed by smoking status, health care coverage, presence or absence of frequent mental distress, age group, and sex (Figure 2).

BRFSS Questions 2020

- Have you ever used an e-cigarette or other electronic vaping product, even just one time, in your entire life?
- Do you now use e-cigarettes or other electronic vaping products every day, some days, or not at all?

Current e-cigarette use is defined as an adult over the age of 18 years who answered 'yes' to ever using an e-cigarette or other electronic vaping product and who also now uses e-cigarettes or other electronic vaping products every day or some days.

Figure 1. Prevalence of Current E-cigarette Use among Adults in NYS, BRFSS 2016 – 2020

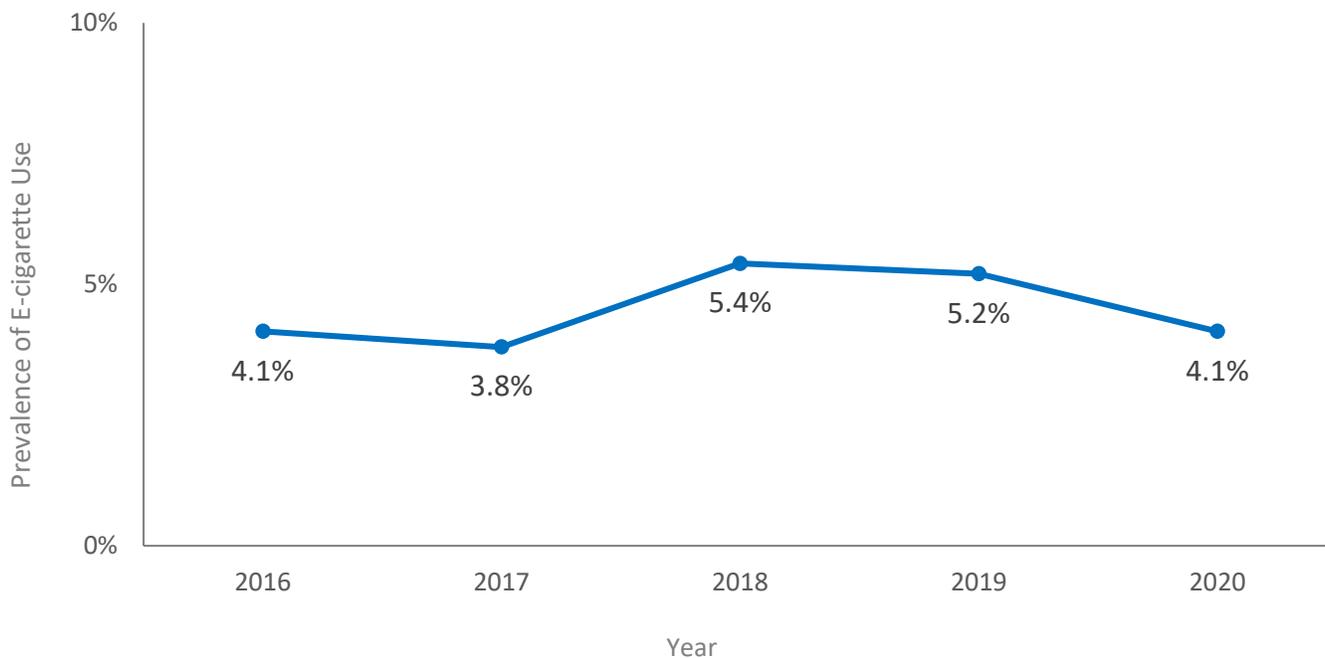


Figure 2. Percent of Current E-Cigarette Use among Adults 18 Years of Age and Older by Select Demographic Indicators, NYS BRFSS 2020

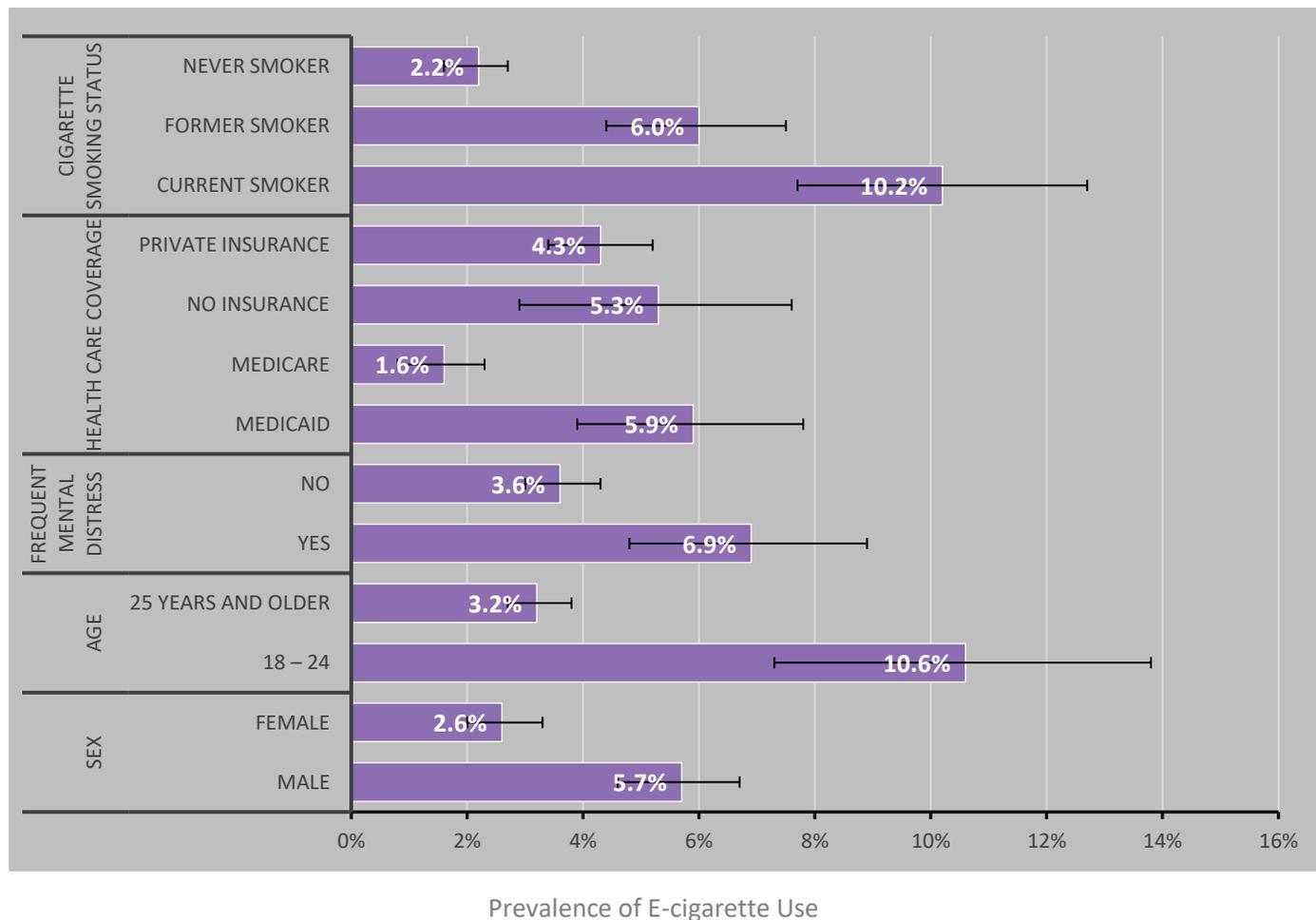


Table 1. Prevalence of Current E-cigarette Use by Demographic Groups in NYS, BRFSS 2020

	Percent ^a	95% CI ^b	Estimated Population Size ^c
Total New York State	4.1	[3.5,4.7]	577,000
Region			
New York City	3.7	[2.8,4.6]	200,000
NYS excluding NYC	4.3	[3.5,5.1]	377,000
Sex			
Male	5.7	[4.6,6.7]	381,000
Female	2.6	[2.0,3.3]	196,000
Race and Ethnicity			
White, Non-Hispanic	4.6	[3.8,5.4]	361,000
Black, Non-Hispanic	3.7	[1.7,5.7]	70,000
Other Race or Multiracial, Non-Hispanic	3.9	[2.0,5.8]	61,000
Hispanic	3.0	[1.8,4.2]	77,000
Age			
18 – 24	10.6	[7.3,13.8]	173,000
25 - 34	6.4	[4.6,8.2]	159,000
35 – 44	4.1	[2.8,5.4]	88,000
45 – 54	3.3	[2.1,4.6]	71,000
55 - 64	2.1	[1.0,3.1]	47,000
65+	1.1	[0.6,1.6]	34,000
Education			
Less than High School (H.S.)	2.8	[1.2,4.4]	51,000
H.S. or GED	4.7	[3.3,6.1]	173,000
Some College or Technical School	5.3	[4.0,6.6]	199,000
College Graduate	3.2	[2.4,4.0]	154,000
Annual Household Income			
Less than \$25,000	4.3	[3.0,5.7]	119,000
\$25,000 - 34,999	5.0	[2.3,7.7]	50,000
\$35,000 - 49,999	4.5	[2.7,6.2]	57,000
\$50,000 - 74,999	3.4	[1.9,4.9]	51,000
More than \$75,000	4.0	[2.9,5.1]	180,000
Employment Status			
Employed/Self-Employed	4.6	[3.8,5.5]	346,000
Not in Labor Force	2.9	[2.0,3.8]	146,000
Unemployed	5.5	[2.9,8.1]	81,000
Frequent Mental Distress ^d			
Yes	6.9	[4.8,8.9]	121,000
No	3.6	[3.0,4.3]	439,000
Disability Status ^e			
Yes	4.2	[3.0,5.4]	135,000
No	4.1	[3.4,4.8]	442,000
Health Care Coverage – Type			
Medicaid	5.9	[3.9,7.8]	117,000
Medicare	1.6	[0.8,2.3]	38,000
No Insurance	5.3	[2.9,7.6]	78,000
Private Insurance	4.3	[3.4,5.2]	307,000
Other	*	*	*
Cigarette Smoking Status			
Current Smoker	10.2	[7.7,12.7]	170,000
Former Smoker	6.0	[4.4,7.5]	191,000
Never Smoker	2.2	[1.6,2.7]	201,000

a Percentages are weighted to population characteristics. b Confidence Interval. c An estimated population size based on weighted frequencies from BRFSS. d Frequent mental distress is defined as yes if respondents report problems with stress, depression, or emotions on at least 14 of the previous 30 days (formerly referred to as poor mental health). e Disability status is defined as yes if respondents report having at least one type of disability (cognitive, independent living, self-care, mobility, vision, or hearing). * Data unavailable/estimates unstable.

References

1. Centers for Disease Control and Prevention. About Electronic Cigarettes (E-Cigarettes). 2022. Retrieved from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html [Accessed 2022 June 21]
2. Centers for Disease Control and Prevention. Quick Facts on the Risks of E-Cigarettes for Kids, Teens, and Young Adults. 2022. Retrieved from https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html [Accessed 2022 June 21]
3. Food and Drug Administration. FDA News Release. FDA Finalizes Enforcement Policy on Unauthorized Flavored Cartridge-based E-cigarettes that Appeal to Children, Including Fruit and Mint. January 02, 2020. Retrieved from: <https://www.fda.gov/news-events/press-announcements/fda-finalizes-enforcement-policy-unauthorized-flavored-cartridge-based-e-cigarettes-appeal-children> [Accessed 2022 June 21].
4. New York State Department of Health. Clean Indoor Air Act. New York State Public Health Law Article 13-E - Regulation of Smoking and Vaping In Certain Public Areas. Update October 2017. Retrieved from https://www.health.ny.gov/prevention/tobacco_control/clean_indoor_air_act/ [Accessed 2022 June 27].
5. New York State Department of Health. Prevention Agenda 2019-2024: Prevent Chronic Diseases Action Plan. Retrieved from https://health.ny.gov/prevention/prevention_agenda/2019-2024/chr.htm#FA3 [Accessed 2022 June 27].

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