

# Press Release

**Embargoed Until 1 P.M. EST  
Thursday, September 30, 2021**

Contact: [CDC Media Relations](#)  
(404) 639-3286  
[Alison Hunt](#), FDA  
(202) 308-5496

## **Youth E-Cigarette Use Remains Serious Public Health Concern Amid COVID-19 Pandemic**

*Almost 85 Percent of the More Than 2 Million U.S. Middle and High School  
Students Who Used E-Cigarettes Used Flavored E-Cigarettes in 2021*

A study released today (attached) from the U.S. Food and Drug Administration and the U.S. Centers for Disease Control and Prevention (CDC) estimated that more than 2 million U.S. middle and high school students reported currently using e-cigarettes in 2021, with more than 8 in 10 of those youth using flavored e-cigarettes.

The report, published in the *Morbidity and Mortality Weekly Report*, was based on data from the 2021 National Youth Tobacco Survey (NYTS), a cross-sectional, self-administered survey of U.S. middle (grades 6–8) and high (grades 9–12) school students. The study assessed current (used on one or more of the past 30 days) e-cigarette use; frequency of use; and use by device type, flavors, and usual brand.

This NYTS—administered Jan. 18–May 21, 2021—was the first to be fully conducted amid the COVID-19 pandemic. Data were collected using an online survey to allow eligible students to participate in the classroom, at home or in some other place to account for various school settings during this time. Prior to the pandemic, the survey was conducted in person, inside the school classroom. Because of the changes in the way the survey was conducted this year, results of the 2021 NYTS cannot be compared to findings from previous surveys.

Nonetheless, the 2021 NYTS provides crucial information about youth use of e-cigarettes. Notably, when many students were in remote learning environments that might have affected their access to tobacco products, an estimated 11.3% (1.72 million) of high school students and an estimated 2.8% (320,000) of middle school students reported current e-cigarette use.

“These data highlight the fact that flavored e-cigarettes are still extremely popular with kids. And we are equally disturbed by the quarter of high school students who use e-cigarettes and say they vape every single day,” said Mitch Zeller, J.D., director of the FDA’s Center for Tobacco Products. “The FDA continues to take action against those who sell or target e-cigarettes and e-liquids to kids, as seen just this year by the denial of more than one million premarket

applications for flavored electronic nicotine delivery system products. It is critical that these products come off the market and out of the hands of our nation's youth.”

### **Other Key Findings**

- **Frequency of Use:** Among youth who currently used e-cigarettes, 43.6% of high school students and 17.2% of middle school students reported using e-cigarettes on 20 or more of the past 30 days. Also among current users, more than 1 in 4 (27.6%) high school students and about 1 in 12 (8.3%) middle school students who used e-cigarettes used them daily.
- **Device Type Use:** Among youth who currently used e-cigarettes, the most commonly used e-cigarette device type was disposables (53.7%), followed by prefilled or refillable pods or cartridges (28.7%), and tanks or mod systems (9.0%).
- **Flavor Use:** Among youth who currently used e-cigarettes, 84.7% used flavored e-cigarettes including 85.8% of high school and 79.2% of middle school users. Overall, the most commonly used flavor types were fruit; candy, desserts, or other sweets; mint; and menthol. (Note that these results refer to flavors other than tobacco.)
- **Brand Use:** Among high school students who currently used e-cigarettes, 26.1% reported their usual brand was Puff Bar, followed by Vuse (10.8%), SMOK (9.6%), JUUL (5.7%) and Suorin (2.3%). Among middle school students who currently used e-cigarettes, 30.3% reported their usual brand was Puff Bar, and 12.5% reported JUUL. Notably, 15.6% of high school users and 19.3% of middle school users reported not knowing the e-cigarette brand they usually used.

“This study shows that even during the COVID-19 pandemic, e-cigarette use among youth remains a serious public health concern,” said Karen Hacker, M.D., M.P.H., Director of CDC’s National Center for Chronic Disease Prevention and Health Promotion. “It’s critical we continue working together to protect young people from the risks associated with tobacco product use, including e-cigarettes. Our public health efforts include CDC’s [National and State Tobacco Control Program](#), and resources for educators, parents, and providers to warn youth about tobacco products and help them quit.”

### **Addressing Youth Tobacco Product Use**

Youth use of tobacco products—in any form, including electronic nicotine delivery systems (ENDS) like e-cigarettes—is unsafe. Such products contain nicotine, which is highly addictive and can harm the developing adolescent brain. Using nicotine in adolescence may also increase risk for future addiction to other drugs.

Ongoing efforts to address youth e-cigarette use is critical, including the FDA’s [significant progress](#) made on the unprecedented number of timely premarket applications received by the Sept. 9, 2020, court-ordered deadline for deemed new tobacco products, including e-cigarettes.

The agency has taken action on over 96% of the applications to date, including issuing marketing denial orders (MDO) for more than one million flavored ENDS products that are so popular with young people. The MDOs were issued for products whose applications lacked sufficient evidence that such products have a benefit to adult smokers to overcome the public health concern posed by the well-documented and considerable appeal of the products to youth. The

FDA is aware of a number of companies, such as Puff Bar, claiming their products contain only synthetic nicotine not sourced from tobacco, which may raise separate regulatory and legal issues that the agency is considering how best to address.

Since 2014, e-cigarettes have been the most commonly used tobacco product among U.S. youth. As the tobacco product landscape continues to evolve, the sustained implementation of comprehensive tobacco control and prevention strategies at the national, state, and local levels, coupled with FDA regulations, can prevent and reduce tobacco product initiation and use among youth.

Additional Resources:

- [Youth E-cigarette Use: Results from the National Youth Tobacco Survey](#)
- [Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults | CDC](#)
- [teen.smokefree.gov](http://teen.smokefree.gov)
- [CDC National and State Tobacco Control Program](#)

###

*The FDA, an agency within the U.S. Department of Health and Human Services, protects the public health by assuring the safety, effectiveness, and security of human and veterinary drugs, vaccines and other biological products for human use, and medical devices. The agency also is responsible for the safety and security of our nation's food supply, cosmetics, dietary supplements, products that give off electronic radiation, and for regulating tobacco products.*