



Press Release

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U.S. E-cigarette Sales Climbed during 2020-2022

Increases in number of brands, and sales of disposable devices and flavors popular among youth

A [study](#) released today found that overall e-cigarette monthly unit sales increased by 46.6 percent—from 15.5 million units in January of 2020, to 22.7 million units in December of 2022. During this study period, the number of brands increased by 46.2 percent, from 184 to 269 brands. Prefilled devices decreased, while disposable devices increased; and sales of youth-appelling flavors—such as fruit, candy, and desserts—increased.

The study also reported the top-selling brands. During December 2022, the five top-selling e-cigarette brands were Vuse, JUUL, Elf Bar, NJOY and Breeze Smoke, respectively, with Elf Bar emerging as the top-selling disposable brand in the United States. Elf Bar (now marketed as EBDESIGN) was the top disposable brand reported among a sample of youth (aged 16–19) in the United States in August 2022, and was responsible for driving recent, sharp increases in e-cigarette use among youth (aged 16-19) in England.

“The dramatic spikes in youth e-cigarette use back in 2017 and 2018, primarily driven by JUUL, showed us how quickly e-cigarette sales and use patterns can change,” said Deirdre Lawrence Kittner, PhD, MPH, director of CDC’s Office on Smoking and Health. “Retail sales data are key to providing real-time information on the rapidly changing e-cigarette landscape, which is essential to reducing youth tobacco use.”

Retail sales data from Information Resources, Inc., which included Universal Product Code sales from brick-and-mortar retailers only, were analyzed by CDC, CDC Foundation, and Truth Initiative. The data do not include purchase age or sales data from tobacco-specialty stores, including vape shops and internet retailers.

Device Type

This study’s findings also show that during the study period, sales of prefilled e-cigarettes decreased from 75.2 percent to 48.0 percent, while the share of disposable e-cigarettes increased from 24.7 percent to 51.8 percent. These changes followed the Food and Drug Administration’s (FDA) January 2020 announcement prioritizing enforcement against prefilled cartridges in flavors other than tobacco and menthol.

“The surge in total e-cigarette sales during 2020-2022 was driven by non-tobacco flavored e-cigarette sales, such as menthol, which dominates the prefilled cartridge market, and fruit and candy flavors, which lead the disposable e-cigarette market. [Data](#) from the 2022 National Youth Tobacco Survey also highlight the popularity of these flavored e-cigarettes among U.S. middle and high school students,” said Fatma Romeh Ali, PhD, MA, a Health Economist at the CDC Foundation and lead author of the study.

While total unit sales increased during the study period, they decreased 12.3 percent from May 2022 through December 2022. This development likely reflects multiple factors, including local and state restrictions on flavored tobacco product sales, FDA regulatory actions, potential COVID-19–associated supply chain disruptions, inflation, and a recent proliferation of large format disposable e-cigarettes that may permit higher nicotine consumption per unit.



Flavored Tobacco Products

The study showed that menthol-flavored e-cigarette sales remained stable and unit shares of tobacco-flavored and mint-flavored products decreased from 28.4 percent to 20.1 percent and from 10.1 percent to 5.9 percent, respectively. Shares of other flavor sales, which include fruit, clove/spice, candy/sweets and chocolate, however, increased from 29.2 percent to 41.3 percent.

“The tobacco industry is well aware that flavors appeal to and attract kids, and that young people are uniquely vulnerable to nicotine addiction,” said Robin Koval, CEO and President, Truth Initiative. “While we are encouraged by FDA’s recent actions to curb unlawful marketing of flavored e-cigarettes, we all must work with even greater urgency to protect our nation’s youth from all flavored e-cigarettes, including disposables.”

What more can be done

E-cigarette products, related policies, and use patterns change rapidly. Youth use of tobacco in any form, including e-cigarettes, is unsafe. Additionally, tobacco product use remains the leading cause of preventable disease, disability, and death in the United States. To reduce the use of tobacco products, it is essential that commercial tobacco control strategies reach all population groups equitably.

These strategies include comprehensive restrictions on the sale of all flavored tobacco products, including e-cigarettes, menthol cigarettes, and flavored cigars, in all jurisdictions; coupled with longstanding evidence-based youth prevention strategies, such as price increases and comprehensive smokefree policies that prohibit use of both e-cigarettes and smoked tobacco products indoors.

Retail sales data can help inform strategies to prevent youth accessing and using e-cigarettes. As of December 31, 2022, seven states (California, Maryland, Massachusetts, New Jersey, New York, Rhode Island, and Utah) and 378 jurisdictions, including counties, cities, towns, and villages, have some type of restriction on flavored e-cigarette sales in place.

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