



FLAVORED E-CIGARETTES HOOK KIDS

In recent years, tobacco companies have significantly stepped up the introduction and marketing of flavored non-cigarette tobacco products, especially e-cigarettes. These products are widely available and popular with kids. Flavored e-cigarettes are undermining the nation's overall efforts to reduce youth tobacco use and putting a new generation of kids at risk of nicotine addiction and the serious health harms that result from tobacco use.

Electronic Cigarettes Are the Most Popular Tobacco Product Among Youth

Given the dramatic growth in the availability and marketing of e-cigarettes, it is no surprise that e-cigarettes have been the most commonly used tobacco product among youth since 2014. In December 2018, the Surgeon General issued an advisory on e-cigarette use among youth, declaring the growing problem an epidemic.¹

- Among high school students, e-cigarette use increased from 1.5% in 2011 to 20.8% in 2018, including a 78% increase from 2017 to 2018. More than 3.6 million middle and high school students were current e-cigarette users in 2018.² Nationally, about one-third of all e-cigarette users are youth.³
- According to the CDC, "The rise in e-cigarette use during 2017-2018 is likely because of the recent popularity of e-cigarettes shaped like a USB flash drive, such as [JUUL](#); these products can be used discreetly, have a high nicotine content, and come in flavors that appeal to youths."⁴ JUUL e-cigarettes make up about three-quarters of the e-cigarette market share.⁵

E-Cigarettes are Widely Available in Kid-Friendly Flavors

Internal tobacco industry documents show that tobacco companies have a long history of using flavors to reduce the harshness of their products to make them more appealing to new users, almost all of whom are under age 18.⁶ In recent years, there has been an explosion of sweet-flavored tobacco products, especially e-cigarettes. As of 2017, researchers had identified more than 15,500 unique e-cigarette flavors available online.⁷ An earlier study of e-cigarette flavors found that among the more than 400 brands available online in 2014, 84% offered fruit flavors and 80% offered candy and dessert flavors.⁸ In addition to the more traditional candy and fruit flavors like mango and mint, e-liquids are also being sold in such kid-friendly options as cotton candy and gummy bear. These products are widely available through convenience stores, other retail outlets and online retailers.

News stories across the country have documented the popularity of flavored e-cigarettes like JUUL across the country. According to one high school student, "It [JUUL] spread like wildfire for two reasons...the first reason is the flashy flavors like crème brulee. The flavors are responsible for bringing the kids in, the nicotine keeps them."⁹



Flavored E-Cigarettes Are Popular Among Youth

Flavors play a major role in youth initiation and continued use of e-cigarettes. Flavors mask the taste of tobacco and make it easier for new users to initiate tobacco use. In addition, many youth perceive flavored tobacco products to be less harmful.¹⁰ The 2016 Surgeon General Report on e-cigarettes concluded that flavors are among the most commonly cited reasons for using e-cigarettes among youth and young adults.¹¹

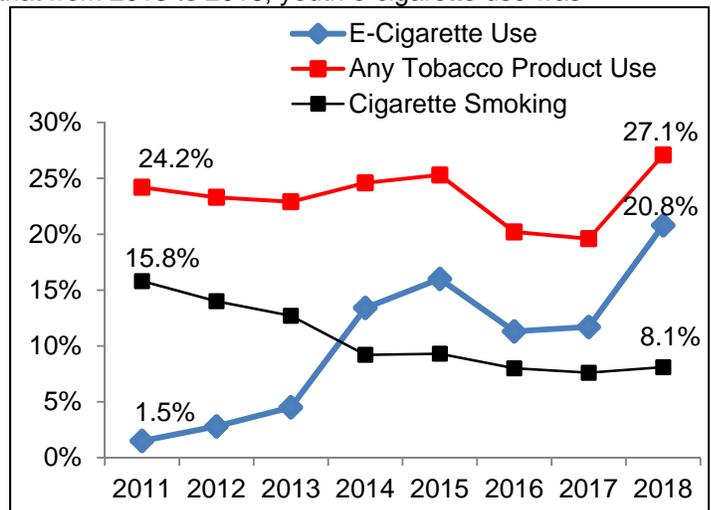
- Data from the 2016-2017 wave of the government’s Population Assessment of Tobacco and Health (PATH) study found that 70.3% say they use e-cigarettes “because they come in flavors I like.”¹²
- The PATH study also found that found that 97% of current youth e-cigarette users had used a flavored e-cigarette in the past month.¹³
- More than half (51.2%) of high school e-cigarette users use menthol or mint flavored e-cigarettes.¹⁴

E-Cigarette Use Increases Risk for Smoking

Flavored tobacco products play a key role in enticing new users, particularly kids, to a lifetime of addiction. There is growing concern that use of e-cigarettes may function as a gateway to the use of more dangerous, combustible tobacco products.

- A 2018 report by the National Academies of Science, Engineering and Medicine (NASEM) concluded that, “There is substantial evidence that e-cigarette use increases risk of ever using combustible tobacco cigarettes among youth and young adults.”¹⁵
- A nationally representative analysis found that from 2013 to 2016, youth e-cigarette use was associated with more than four times the odds of trying cigarettes and nearly three times the odds of current cigarette use. The researchers estimate that this translates to over 43,000 current youth cigarette smokers who might not have become smokers without e-cigarettes.¹⁶

The increase in e-cigarette use is undermining progress in reducing overall use in tobacco use—the recent increase in youth e-cigarette use led to a 38 percent increase in use of any tobacco product among high school students (from 19.6 percent in 2017 to 27.1 percent in 2018).¹⁷



Health Effects of Flavored E-Cigarettes

Flavored e-cigarettes contain nicotine, the highly addictive chemical that makes it so easy to get hooked on tobacco products and so hard to quit. According to the Surgeon General, “The use of products containing nicotine in any form among youth, including in e-cigarettes, is unsafe.”¹⁸ Flavorings in e-cigarettes can also pose additional health hazards. According to the Surgeon General, “while some of the flavorings used in e-cigarettes are generally recognized as safe for ingestion as food, the health effects of their inhalation are generally unknown” and noted that some of the flavorings found in e-cigarettes have been shown to cause serious lung disease when inhaled.¹⁹ An article in the *Journal of the American Medical Association* raised concerns that the chemical flavorings found in some e-cigarettes and e-liquids could cause respiratory damage when the e-cigarette aerosol is inhaled deeply into the lungs.²⁰

- ¹ Office of the Surgeon General, "Surgeon General's Advisory on E-Cigarette Use Among Youth," December 18, 2018, <https://e-cigarettes.surgeongeneral.gov/documents/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018.pdf>.
- ² CDC, "Use of Electronic Cigarettes and Any Tobacco Product Among Middle and High School Students—United States, 2011-2018," *Morbidity and Mortality Weekly Report (MMWR)*, 67(45): 1276-1277. https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w. Current use defined as any use in the past month.
- ³ Nationwide, there are 10.52 million e-cigarette users. According to the CDC, 3.62 million middle and high school students were current e-cigarette users in 2018 and 6.9 million adults were current e-cigarette users in 2017. **Youth:** CDC, "Use of Electronic Cigarettes and Any Tobacco Product Among Middle and High School Students—United States, 2011-2018," *MMWR*, 67(45): 1276-1277. https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w. Current use defined as any use in the past month. **Adults:** CDC, "Tobacco Product Use Among Adults – United States, 2017," *MMWR*, 67(44): 1225. https://www.cdc.gov/mmwr/volumes/67/wr/mm6744a2.htm?s_cid=mm6744a2_e. Current use defined as using every day or some days.
- ⁴ Centers for Disease Control and Prevention (CDC), "Use of Electronic Cigarettes and Any Tobacco Product Among Middle and High School Students—United States, 2011-2018," *Morbidity and Mortality Weekly Report (MMWR)*, 67(45):1276-1277. https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w. Current use defined as any use in the past month.
- ⁵ Nielsen Total US xAOC/Convenience Database & Wells Fargo Securities, LLC, in Wells Fargo Securities, Nielsen Tobacco All Channel Data Through 4/20, April 30, 2019
- ⁶ HHS, *Preventing Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General*, 2012, <http://www.cdc.gov/Features/YouthTobaccoUse/>.
- ⁷ Zhu, S-H, et al., "Evolution of Electronic Cigarette Brands from 2013-2014 to 2016-2017: Analysis of Brand Websites," *Journal of Medical Internet Research*, 20(3), published online March 12, 2018.
- ⁸ Zhu, S-H, et al., "Four Hundred and Sixty Brands of E-cigarettes and Counting: Implications for Product Regulation," *Tobacco Control*, 23(Suppl 3):iii3-iii9, 2014.
- ⁹ Ramanathan, L, "We killed the cigarette. What we got in return is mango-flavored nicotine in 'party mode.'" August 8, 2018, https://www.washingtonpost.com/lifestyle/style/we-killed-the-cigarette-what-we-got-in-return-is-mango-flavored-nicotine-in-party-mode/2018/08/08/bf4db3a8-8b8a-11e8-8aea-86e88ae760d8_story.html?noredirect=on&utm_term=.2a6418f461f3.
- ¹⁰ Huang, L.-L., et al., "Impact of Non-menthol Flavours in Tobacco Products on Perceptions and Use Among Youth, Young Adults and Adults: A Systematic Review," *Tobacco Control*, 26(6):709-719, 2017. Kowitz, S.D., et al., "Perceptions and Experiences With Flavored Non-Menthol Tobacco Products: A Systematic Review of Qualitative Studies," *International Journal of Environmental Research and Public Health*, 14(4):338, 2017. Pepper, JK, et al., "Adolescents' interest in trying flavoured e-cigarettes," *Tobacco Control*, 25: ii62-ii66, published online September 15, 2016. Dai, H, et al., "Flavored electronic cigarette use and smoking among youth," *Pediatrics*, 138(6): November 2016.
- ¹¹ HHS, *E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ¹² FDA, "Modifications to Compliance Policy for Certain Deemed Products: Guidance for Industry, Draft Guidance," March 13, 2019, <https://www.fda.gov/downloads/TobaccoProducts/Labeling/RulesRegulationsGuidance/UCM633281.pdf>.
- ¹³ FDA, "Modifications to Compliance Policy for Certain Deemed Products: Guidance for Industry, Draft Guidance," March 13, 2019, <https://www.fda.gov/downloads/TobaccoProducts/Labeling/RulesRegulationsGuidance/UCM633281.pdf>.
- ¹⁴ CDC, "Use of Electronic Cigarettes and Any Tobacco Product Among Middle and High School Students—United States, 2011-2018," *MMWR*, 67(45): 1276-1277. https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w. Current use defined as any use in the past month.
- ¹⁵ National Academies of Sciences, Engineering, and Medicine. 2018. *Public health consequences of e-cigarettes*. Washington, DC: The National Academies Press. <http://nationalacademies.org/hmd/Reports/2018/public-health-consequences-of-e-cigarettes.aspx>.
- ¹⁶ Berry, KM, et al., "Association of Electronic Cigarette Use with Subsequent Initiation of Tobacco Cigarettes in US Youths," *JAMA Network Open*, 2(2), published online February 1, 2019.
- ¹⁷ Centers for Disease Control and Prevention (CDC), "Use of Electronic Cigarettes and Any Tobacco Product Among Middle and High School Students—United States, 2011-2018," *Morbidity and Mortality Weekly Report (MMWR)*, 67(45): 1276-1277. https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w. Current use defined as any use in the past month.
- ¹⁸ HHS, *E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ¹⁹ HHS, *E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
- ²⁰ Barrington-Trimis, JL, Samet, JM, & McConnell, R, "Flavorings in Electronic Cigarettes: An Unrecognized Respiratory Health Hazard?" *The Journal of the American Medical Association*, doi:10.1001/jama.2014.14830, published online November 10, 2014.