POLICY AT-A-GLANCE





E-Cigarettes and Public Health

Background

- The advent of electronic cigarettes (e-cigarettes) and the dramatic rise of their use especially in adolescents and young adults continues to be of significant concern. E-cigarettes have been the most popular tobacco product for youth and adolescents in the United States since 2014 and attract youth to different avenues for nicotine addiction.^{1,2}
- There is evidence that the use of ecigarettes may catalyze transition to the use of combustible tobacco products or recreational drugs, particularly in young adults.^{3,4}
- The long-term health effects of ecigarettes and the net public health effect associated with their use remain unclear. A 2018 review of the latest research on e-cigarettes found that e-cigarette aerosol contains fewer numbers and lower

Fast Facts:

- 1. In 2023, 10% (1.56 million) of high school students and 4.6% (550,000) of middle school students reported being current e-cigarette users.² In 2021, adults regularly using e-cigarettes was estimated to be 4.5% (11.1 million) regularly use e-cigarettes, with highest use in 18-24 year-olds.⁵
- 2. More than 89% of youth who use e-cigarette use flavored e-cigarettes, with 63.4% of them reporting fruit flavors as the most preferred flavor.²
- 3. Between February 2020 and September 2023, there was a 46.1% increase in total e-cigarette sales and a 63.6% increase in flavored e-cigarette sales.⁸

levels of toxicants than combustible tobacco cigarettes, but the evidence suggests that e-cigarettes are not without adverse biological effects; however, they may pose less risk than continuing to smoke cigarettes. However, a recent meta-analysis of 107 studies, found no significant difference in the odds of developing cardiovascular disease, stroke, or metabolic dysfunction for adults who smoke only e-cigarettes versus those who smoke only cigarettes. Additionally, dual-use of e-cigarettes and cigarettes is associated with higher odds of developing cardiovascular disease, stroke, or metabolic disease. Furthermore, in adolescent e-cigarette users, there is increasing evidence of heart and vascular changes that increase the risk of cardiovascular disease.

The American Heart Association's Position

- The American Heart Association supports further research to develop novel cessation products that can be approved by the FDA's Center for Drug and Evaluation Research. 10 According to the 2016 National Academics of Science, Engineering, and Medicine report there is not substantial evidence to support that e-cigarettes serve as an effective cessation aid in comparison to other FDA approved smoking cessation treatments. 8
- The American Heart Association supports the development of strong regulation at the federal, state, and local levels to protect against youth access and initiation, re-initiation by former smokers, and initiation by those who have never smoked. 10 These regulations should address issues such as marketing and advertising, elimination of all flavors regardless of the electronic nicotine delivery system (ENDS), and retailer compliance in not selling to minors. 10
- The American Heart Association advocates for further investigation of the safety of ENDS and the elimination of all flavors, including menthol, by the FDA.¹⁰

FDA Policy for Flavored ENDS: In January 2020, the FDA issued a new policy that removed some flavored prefilled pod- or cartridge-based e-cigarettes from the market. The policy was developed in response to the dramatic increase in youth e-cigarette use and increased appeal of "sweet, fruity, and minty" flavorings. The FDA policy prohibited the sale of flavored cartridge-based ENDS. However, the policy did not apply to menthol- or tobacco-flavored cartridge-based ENDS, and any flavored disposable e-cigarettes, or e-liquids used in refillable open tank systems. Menthol continues to be one of the most common flavor additives used for e-cigarette products with a reported dollar sales increase of 68.7% between 2020 and 2023, which is partly due to increase in larger disposable e-cigarettes that "allow for thousands of puffs". In the 2023 NYTS survey, 20.1% and 27.8% of adolescent current e-cigarette users reported using menthol or mint flavored e-cigarettes, respectively. When adolescents who currently use e-cigarettes were asked if they used flavored e-cigarettes that had names or descriptions that included the word "ice" or "iced", almost 60% reported they had.²

For more information and resources from the American Heart Association's policy research department on tobacco please visit: https://www.heart.org/en/about-us/policy-research.

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