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.2
- There is increasing evidence that the use of e-cigarettes 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 e-cigarettes 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 levels of toxicants than combustible tobacco cigarettes, but the evidence suggests that e-cigarettes are not without adverse biological effects; however, they are likely to pose less risk than continuing to smoke cigarettes.6 More recently an analysis of adults in the PATH study from 2013-2019, found exclusive e-cigarette users had no higher cardiovascular disease risk than non-users, and dual-users of e-cigarettes and cigarettes had significantly higher cardiovascular disease risk similar to that of exclusive cigarette users.9 However, in adolescent e-cigarette users, there is increasing evidence of heart and vascular changes that increase the risk of cardiovascular disease.10 Therefore, the cardiovascular health impacts of longer term use of e-cigarettes remains unknown.

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.11 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.11 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.11
- The American Heart Association advocates for further investigation of the safety of ENDS and the elimination of all flavors, including menthol, by the FDA.11

Fast Facts:

1. In 2022, 14.1% (2.14 million) of high school students and 3.3% (380,000) of middle school students reported being current e-cigarette users.1 In adults, an estimated 3.7% (9.1 million) regularly use e-cigarettes, with highest use in 18-24 year-olds.5
2. Almost 85% of youth e-cigarette users use flavored e-cigarettes, with 69% of them reporting fruit flavors as the most preferred flavor.7
3. Between February 2020 and October 2022, there was a 39.3% increase in e-cigarette sales and a 55.4% increase in flavored e-cigarette sales.8
Policy At A Glance: E-Cigarettes

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 increase from 10.7% to 61.8% among prefilled-e-cigarettes between 2019 and 2020. In the 2022 NYTS survey, 26.6% of adolescent current e-cigarette users reported using menthol flavored e-cigarettes.

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.

References: