

Background on E-Cigarettes

Introduction of e-cigarettes

Electronic smoking devices, commonly referred to as electronic cigarettes or e-cigarettes, are battery-operated devices that may resemble cigarettes, although they do not contain tobacco leaf. People who use e-cigarettes inhale vaporized liquid nicotine extracted from tobacco and exhale the aerosol in a way that mimics smoking.

E-cigarettes were introduced to the United States market in 2007 and subsequently youth smoking rates increased, largely due to the availability of flavored e-cigarettes. According to a 2016 study by the California Department of Public Health, California Tobacco Program the use of electronic smoking devices (e-cigarettes, e-hookah, hookah pens, vape pens) has dramatically increased over the last few years. Nationally, 3.7% of adults currently use e-cigarettes, but in California the rate is 5.8%. The report also cited that nationally e-cigarettes prevalence rate among high school students is 13.4% and is considered as the most common tobacco product use; whereas the rate for California youth aged 12-17 years old is reported as even slightly higher at 13.7%.ⁱ Adults are more than twice as likely to smoke traditional cigarettes rather than use e-cigarettes, while teens are nearly twice as likely to use e-cigarettes rather than smoke combustible cigarettesⁱⁱ.

Rise of e-cigarette use among youth

In 2018, the U.S. Surgeon General declared youth vaping an epidemic, constituting a serious public health concern driven in part by the availability of "kid-friendly flavors." According to the California Healthy Kids Survey, the rate of e-cigarettes use ever among youth in San Luis Obispo County continues to rise—from 33% in 2015-2016 to 70% in 2017-2018.

According to the U.S. Food and Drug Administration and U.S. Centers for Disease Control and Prevention (CDC) National Youth Tobacco Survey (NYTS), the number of middle and high school students who reported being current users of tobacco products increased from 3.6 million to 4.9 million students between 2017 and 2018. This dramatic increase, which has erased past progress in reducing youth tobacco use, is directly attributable to a nationwide surge in e-cigarette use by adolescents. An additional 1.5 million youth used e-cigarettes in 2018 than in 2017, and among those e-cigarette users, the proportion who reported frequent (daily) use climbed substantially, from 20% in 2017 to 28% in 2018.ⁱⁱⁱ

Locally, youth are impacted by the sale of e-cigarettes. The unincorporated area of San Luis Obispo County has 61 tobacco retailers. Throughout the year, compliance checks are completed to ensure the tobacco retailers are complying with Tobacco Retail License requirements, including not selling products to individuals under the age of 21. In San Luis Obispo County, an average of 15% of retailers sell to the underage decoy during compliance checks.

Health effects of e-cigarettes

The widespread use of e-cigarettes has significant public health consequences. As stated by the Surgeon General, "Most e-cigarettes contain nicotine the addictive drug in regular cigarettes, cigars, and other tobacco products. Nicotine exposure during adolescence can harm the developing brain which continues to develop until about age 25. In addition to nicotine, the aerosol that users inhale

and exhale from e-cigarettes can potentially expose both themselves and bystanders to other harmful substances, including heavy metals, volatile organic compounds, and ultrafine particles that can be inhaled deeply into the lungs."

While there is some evidence that the use of e-cigarettes by adults may support smoking cessation under certain circumstances, a 2018 National Academy of Sciences, Engineering, and Medicine report concluded that there was moderate evidence that e-cigarette use in fact increases the frequency and intensity of cigarette smoking in the future.

A dominant health news story over the past several months is the emergence of a newly identified lung condition associated with smoking. The Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration (FDA), state and local health departments, and other clinical and public health partners are investigating a multistate outbreak of e-cigarette, or vaping, product use associated lung injury (EVALI). As of November 13, 2019, 2,172 cases of EVALI have been reported to CDC from 49 states (all except Alaska), the District of Columbia (DC), and 2 U.S. territories (Puerto Rico and U.S. Virgin Islands). Forty-two deaths have been confirmed in 24 states and DC, including four in California.^{iv}

In addition to the acute cases of lung injury that have been making headlines, there is a growing body of research concluding that there are significant health risks associated with e-cigarette use. For example, daily e-cigarette use is associated with increased odds of a heart attack. The American Lung Association has also warned that the inhalation of harmful chemicals through vaping may cause irreversible lung damage and chronic lung disease.

Federal regulation

On Aug. 8, 2016, the FDA deeming rule went into effect giving the agency's Center for Tobacco Products regulatory authority over all electronic smoking devices, including e-cigarettes, vapes, e-liquids, e-cigars, e-pipes, and e-hookahs. In July 2019, a U.S. District Court judge in Maryland issued an order requiring that manufacturers submit pre-market applications by May 12, 2020, for deemed tobacco products, including e-cigarette products, that were on the market as of Aug. 8, 2016. The FDA has up to a year after the submission to act.

State and local policy action

Jurisdictions in California have been working to address youth vaping by implementing policies. In 2010, Santa Clara County was the first jurisdiction in California to ban the sale of flavored tobacco products. Since then three policy routes for addressing youth vaping have emerged: 1) banning the sale of all flavored tobacco, 2) banning the sale of all flavored tobacco and e-cigarettes or 3) banning the sale of e-cigarettes.

Fifty jurisdictions in California have banned the sale of flavored tobacco products. Three of the fifty jurisdictions in California (San Francisco, Livermore, and Richmond) have banned the sale of e-cigarettes from their local retailers. Locally, the City of Morro Bay is considering a ban on flavored tobacco products and e-cigarettes^v and the City of Arroyo Grande is considering a ban on e-cigarettes.^{vi}

ⁱ California Tobacco Facts and Figures: Over 25 Years of Tobacco Control in California, California Department of Public Health, California Tobacco Program, October 2016.

ⁱⁱ Banning the Sale of Flavored Tobacco Products: Economic Impact Report, City and County of San Francisco, June 2017.

ⁱⁱⁱ <https://www.fda.gov/news-events/press-announcements/results-2018-national-youth-tobacco-survey-show-dramatic-increase-e-cigarette-use-among-youth-over>

^{iv} https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html

^v <https://www.morrobayca.gov/ArchiveCenter/ViewFile/Item/5183>

^{vi} https://www.arroyogrande.org/AgendaCenter/ViewFile/Agenda/_10222019-1177?html=true