

Electronic nicotine delivery systems (ENDS) flavors and devices used by adults before and after the 2020 US FDA ENDS enforcement priority: Findings from the 2018 and 2020 US ITC Smoking and Vaping Surveys

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Abstract

Background: In February 2020, the US Food and Drug Administration (FDA) prioritised enforcement efforts against flavoured prefilled cartridge/pod electronic nicotine delivery systems (ENDS), with the exception of tobacco and menthol. This study examined changes between preprioritization enforcement (2018) and early postenforcement (February-June 2020) among adults on: ENDS flavours and devices used most often; location of last purchase of fruit/other-flavoured cartridges (covered under the enforcement priority); and smoking and vaping.

Methods: Prevalence estimates came from 1608 adult frequent (\geq weekly) ENDS users (current smokers (n=1072), ex-smokers (n=536)) who participated in the 2018 and/or 2020 US ITC Smoking and Vaping Surveys. Transitions between flavours/devices and changes in smoking/vaping were assessed among baseline respondents who were followed up in 2020 (n=360). Respondents self-reported the ENDS device (disposable, cartridge/pod or tank) and the flavor that they used most often: (1) tobacco flavors (tobacco/tobacco-menthol mix) or unflavored; (2) menthol/mint; (3) fruit/other flavors.

Results: Compared to 2018, in the first 5 months of the 2020 enforcement priority, there were significant increases in the prevalence of fruit/other-flavoured cartridges (7.9% to 12.4%, $p=0.026$) and menthol/mint cartridges (7.1% to 13.0%, $p<0.01$) and decreases in tobacco-flavoured tanks (15.5% to 10.0%, $p=0.002$) and fruit/other-flavoured tanks (38.7% to 33.6%, $p=0.038$). Fewer than 10% of adults used disposables in 2018 and 2020. Among the cohort sample, the most pronounced transitions between flavours/devices occurred among those who used flavoured cartridges covered under the enforcement priority (54.6% switched to a flavour and/or device excluded from enforcement). There was an increase in purchasing fruit/other-flavoured cartridges online and a decrease in retail locations except for vape shops. Overall, there were few changes in smoking and vaping behaviours.

Conclusions: Between 2018 and the early phase of the FDA's 2020 enforcement priority, prevalence of menthol/mint and fruit/other-flavoured cartridges increased among adults. Half of vapers using cartridge flavours covered in the enforcement switched to other flavours and/or devices that were exempt, with the exception of disposables. The extent to which more comprehensive restrictions may be problematic for adults who prefer a range of ENDS flavours remains uncertain.

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