

ASHES, Vol. 20(11) - Disposable e-cigarettes and their association with later e-cigarette use patterns

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E-cigarette use is a prevalent [public health problem](#) among adolescents. [Disposable e-cigarettes](#), in particular, are especially [popular](#) and [appealing](#) to youth as they typically come in colorful packaging, are available in a variety of sweet flavors, and are easier to conceal than non-disposable devices. Also, users don't have to recharge them or buy more refills/replacement pods, so they are cheaper and more convenient. As a result, teens who use disposable devices to vape might vape more often and more intensely than teens who use non-disposable devices. This week, ASHES reviews a [study by Dae-Hee Han and colleagues](#) that examined this possibility among youth in southern California.

What was the research question?

Is disposable e-cigarette use associated with subsequent frequency and intensity of e-cigarette use among youth and young adults?

What did the researchers do?

The researchers assessed participants aged 14 - 24 years from two [longitudinal](#) study cohorts in southern California. In a baseline interview, participants [self-reported](#) past 30-day use of e-cigarette device types (disposable or non-disposable). At both baseline and an 8-month follow-up interview, participants self-reported on current/continued e-cigarette use (whether or not they were still using e-cigarettes at the time of the interview), e-cigarette use frequency (number of days within the past 30 days that they used e-cigarettes), and intensity (number of times per day that they usually used e-cigarettes). The researchers used [logistic regression](#) to estimate the likelihood of subsequent e-cigarette use at follow-up.

What did they find?

Just over two-thirds (69%) of participants reported ever using disposable e-cigarettes compared to 31% who only used non-disposable e-cigarettes. At baseline, participants who used disposable devices reported using e-cigarettes for a greater number of days and times per day compared to participants who used

non-disposable devices.

Baseline use of disposable e-cigarettes predicted continued e-cigarette use at follow-up (see Figure). Disposable e-cigarette use was also associated with a greater number of days used and times per day used at follow-up.

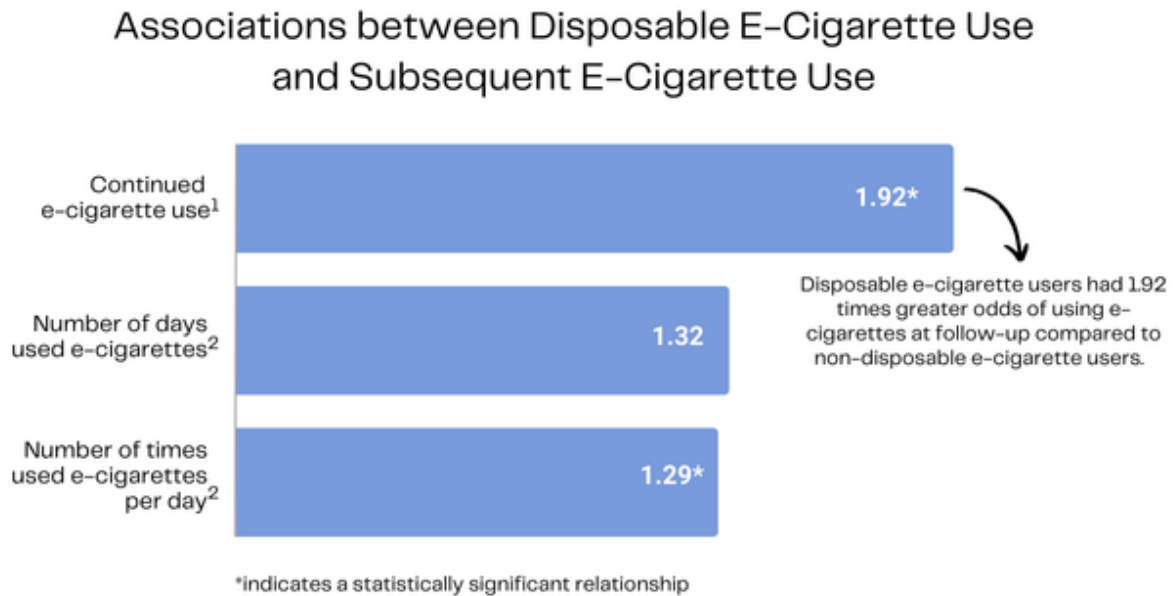


Figure. Adjusted [odds ratios](#)¹ and [incident rate ratios](#)² of e-cigarette use at follow-up. Asterisks mark effects that were [statistically significant](#). Click image to enlarge.

Why do these findings matter?

These findings confirm the popularity of disposable e-cigarettes among youth and young adults. Moreover, younger people who use disposable e-cigarettes are more likely to continue using e-cigarettes and use them more frequently compared to those who use non-disposable e-cigarettes. This is important to address because [youth vaping](#) is associated with an increased risk of mental health problems and has negative impacts on brain development. This suggests the need to implement more comprehensive e-cigarette regulations such as restricting flavors and the marketing and sales of disposable devices.

Every study has limitations. What are the limitations in this study?

This study only used self-report measures, so the results might be affected by biases such as [recall](#) and [social desirability](#). All participants in this study were from southern California, so the results might not [carry over](#) to other regions and

countries.

For more information:

[SmokeFree](#) offers tools and tips for quitting and maintaining abstinence from smoking tobacco. The Centers for Disease Control and Prevention also provides [research and tips](#) about cigarettes and how to quit. For additional self-help tools, please visit the BASIS [Addiction Resources](#) page.

— Annette Siu
