

Device type, nicotine concentration and nicotine formulation were **NOT ASSOCIATED** with cigarette quit behavior 7-12 months later for U.S. adults smoking cigarettes and using ENDS 5+ days/week.

Smoking and Quitting Behaviors Among U.S. Adults Who Frequently Use ENDS

Background

The heterogenous ENDS market poses challenges to understand which device and liquid characteristics might be appropriate regulatory targets to maximize the ability to help people stop using cigarettes. Here we examine the associations between quitting behaviors and characteristics of ENDS devices and liquids.

Methods

- Study of U.S. adults (21+) using ENDS 5+ days/week who completed at least two consecutive waves of the Vaping and Patterns of E-Cigarette Use Research (VAPER) Study
 - Wave 3 (Sept.-Nov. 2021) and Wave 4 (July-Sept. 2022) (n=716)
 - Wave 4 and Wave 5 (Feb.-April 2023) (n=804)
- Participants indicated their most used ENDS device and liquid; cigarette (cig) & ENDS dependence; number of years using cigs & ENDS; other tobacco product use; reasons for continuing to use ENDS
- Quitting cigarettes: smoking cigs at Wave 3 or 4, and no longer smoking at subsequent Wave
- Post-stratification survey weights applied; weighted n’s reported
- Rao-Scott Chi-Square test used for categorical variables; independent t-test used for continuous variables

Results

- 126 (10.5%) participants no longer smoked at follow-up
- Not Associated Factors
 - device type
 - nicotine formulation
 - nicotine concentration
 - reasons for continuing ENDS use
 - years of ENDS use
- Associated Factors
 - fewer total years of smoking cigs (mean 17.8 v 22.0)
 - fewer cigs smoked per day (mean 3.1 v 6.7)
 - lower cig dependence (mean 0.9 v 1.7 on PROMIS nicotine dependence scale)
 - higher ENDS dependence (2.3 v 2.1 on E-cigarette dependence scale)
 - less likely to use a 3rd tobacco product (20.1% v 63.9%)

Conclusions

- ENDS device and liquid characteristics were not associated with no longer smoking at follow-up; however, significant associations were seen with factors known to be associated with quitting
- Limitations might include: lack of power; follow-up too short to detect significant associations with device and liquid characteristics; only 17.2% used cigarettes 5+ days/week
- Device and liquid characteristics may be unimportant because people can self-dose based on addiction level
- Findings may differ among those using ENDS <5 days/week



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Tobacco industry	E-cigarette & nicotine product industry	Pharma industry
NO	NO	NO
NO	NO	NO

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Learn more about the Vaping and Patterns of E-cigarette Use Research (VAPER) Study

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