

**Introduction:** Electronic nicotine delivery system (ENDS) products have been associated with cigarette smoking cessation in randomized trials and some observational studies, but the impact on flavors is less clear. This study examines the effects of flavored ENDS on cigarette smoking cessation.

### Methods:

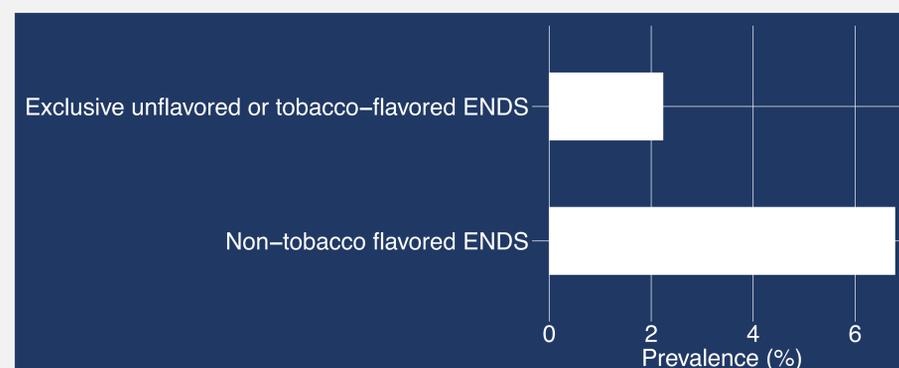
**Data:** Population Assessment of Tobacco and Health (PATH) Study Waves 3-6 (2016-2021): 6,568 established cigarette smokers aged 25+. **Analysis:** Discrete-time survival models to examine the association between flavored ENDS use and smoking cessation. **ENDS use categorization:** Time-varying covariate lagged by one wave with the following groupings:

- 1) Never regular or Non-current ENDS use,
- 2) Exclusive regular unflavored or tobacco-flavored ENDS use
- 3) Regular non-tobacco flavored ENDS use

**Cessation outcome:** Smokers who reported not currently smoking every day or some days and having completely quit cigarette smoking were classified as having quit. **Covariates:** Baseline sociodemographic (SD) including age, sex, race/ethnicity, and education, along with tobacco dependence score (TDS), and menthol cigarette smoking.

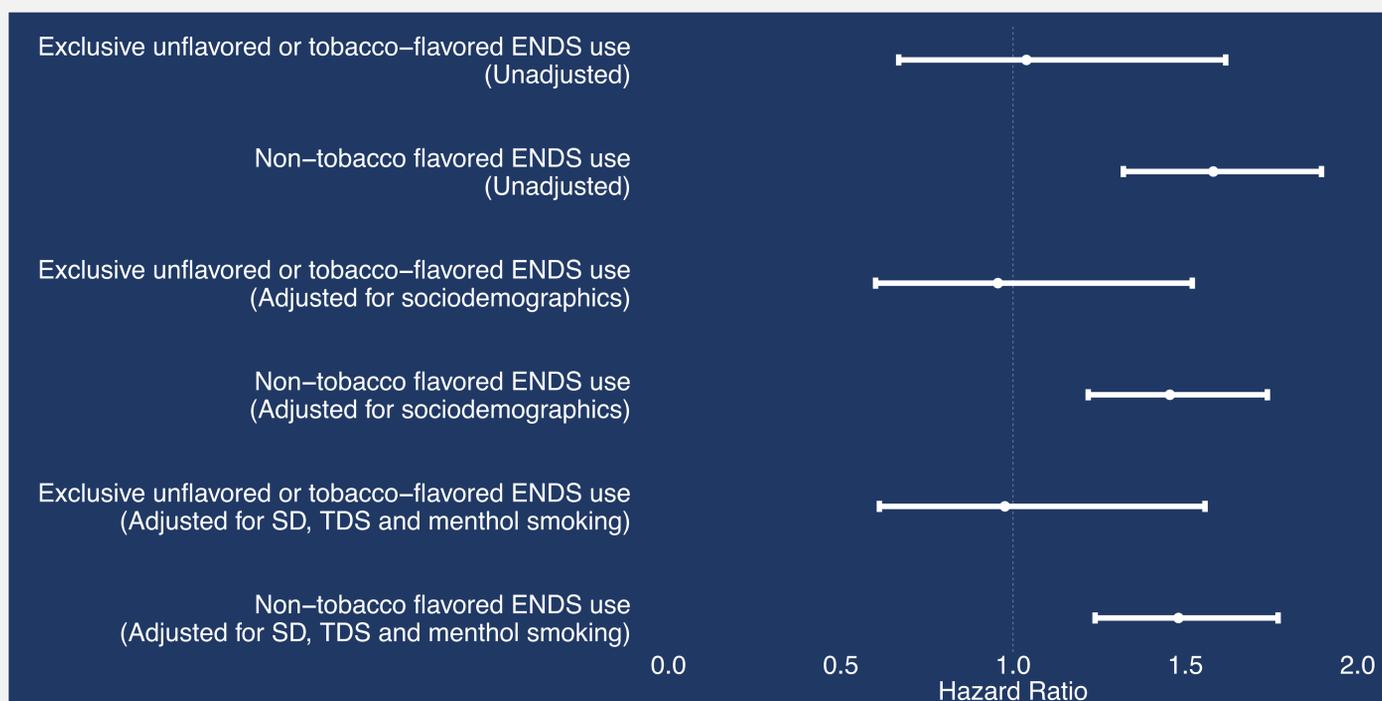
## Results

### Prevalence of ENDS use among established smokers at Wave 3



Note: Never regular ENDS use = 91%

### Hazard Ratios Predicting Smoking Cessation among ENDS Users.



- Out of 6,568 established smokers surveyed at Wave 3, 1,481 (22.5%) reported quitting by Wave 6. Approximately 77% of ENDS users reported using non-tobacco flavored ENDS.
- Non-tobacco flavored ENDS use was significantly associated with an increased likelihood of smoking cessation (adjusted hazard ratio [aHR] **1.48, 95% CI 1.24-1.77**), but exclusive unflavored or tobacco-flavored ENDS use was not (aHR 0.98, 95% CI 0.61-1.56). When considering more frequent use (10+ days in the past 30 days) and the reason for using ENDS is to quit smoking cigarettes, the aHRs increased for both non-tobacco flavored (aHR 1.54, 95% CI 1.18-2.03) and exclusive unflavored or tobacco-flavored ENDS use (aHR 1.28, 95% CI 0.69-2.38).

**Flavored ENDS might help some people who smoke quit. This should be considered against the risk of ENDS use among youth to inform ENDS policies and regulations.**

