

Review of: "Switching Away From Smoking and Reduction in Cigarette Consumption among US Adult Purchasers of the JUUL System across 24 Months Including Diverse Subpopulations Disproportionately Affected by Cigarette Smoking"

Erin A. Vogel¹

¹ University of Oklahoma Health Sciences Center

Potential competing interests: No potential competing interests to declare.

This observational study examined prevalence and correlates of cigarette cessation/switching to electronic nicotine delivery systems (ENDS) and cigarette reduction among U.S. adults who smoke and who purchased JUUL starter packs. Rates of nicotine cessation/switching to ENDS were high, including among most populations experiencing tobacco-related disparities. However, adults with physical and mental health conditions were substantially less likely than their peers to switch.

These results are important for understanding the public health impact of ENDS in the U.S. Concern over the youth vaping epidemic is absolutely warranted, but understanding the potential benefits of ENDS to adults who smoke is an important part of the equation too. Although there are major limitations to the study design (which the manuscript acknowledges), understanding prevalence and correlates of switching is important. My biggest concern is that the analyses appear to be complete case analyses, and participants lost to follow-up may be less likely to have switched. Specific suggestions, questions, and comments are:

Major Concerns

1. Methods: A previous publication is cited to describe details of attrition, but some details are needed in this paper to help readers contextualize results. Attrition is a major limitation with this type of study design, especially if those who remained in the study were more likely to successfully switch. What were some baseline correlates of attrition?
2. Methods: How were participants informed of the study? Was an ad included in the starter kit packaging, or did they receive an email after providing their contact information? How was the study described to potential participants? I am wondering how representative study participants were of adult JUUL Starter Kit purchasers (with the understanding that they are likely not representative of adults who use ENDS).
3. Methods: I'm curious about the decision to include complete cessation of nicotine use in the definition of "switching" as an outcome measure. Participants reporting no past-month smoking were considered to have "switched" regardless of whether they were using ENDS. The outcome measure is further broken down into 4 groups, which is helpful, but the term "switched" doesn't seem accurate for those who were not using ENDS.

4. Results: The high rates of switching to ENDS and/or quitting nicotine entirely are very promising. However, it's plausible that those who had success with JUUL were more enthusiastic about it and therefore more likely to keep participating. Sensitivity analyses treating "missing as smoking" would be informative.

Minor Concerns

1. Results: "members of sexual minorities" is awkward wording-- should be "members of sexual minority populations" or more succinctly, just "sexual minorities" or "sexual minority individuals."
2. Discussion: How generalizable might results be to other (non-JUUL) ENDS products? This is mentioned briefly in the limitations, but JUUL does have some distinct characteristics that might differentiate it from other ENDS products. This is worth a mention in the Discussion.