

# 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"

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Potential competing interests: No potential competing interests to declare.

This paper is an informative addition to the previous work by the authors. The power of this study clearly lays in the large sample size and follow-up period of 2 years. Statistical methodology is comprehensibly described and sound. I am glad to see that the evaluation included reduction in CPD. In addition, addressing switchers with a mental health condition is an important aspect, that needs to be considered in nicotine/tobacco use behavior in more detail in this research area as it is known that people with depressive episodes or schizophrenia have substantially lower quit rates applying the traditional treatments like NRT / counseling etc. This study confirms that fact, proving that more needs to be done for this group of people!

My suggestions / comments:

For 40% of the cohort depression or anxiety was reported. This seems to be a higher proportion compared to the general population. Can you comment on that?

While the reduction was evaluated as % from baseline, the absolute amount of CPD can still be very high depending on the Baseline consumption. Did you compare your findings correlating against absolute CPD instead of % reduction? Would this have a substantial impact on the outcome? I recommend to include these data into Table 2.

A lot more data/observations could be evaluated based on this data et. In my view, an interesting aspect could be to have a closer look into the use pattern in the dual use group. Subcategorization by CPD /and/or vaping/d could give more detailed information about the trajectories.

Missing biochemical verification of use was discussed as a limitation. Although this is well compensated by the large sample size and common practice in large observational studies, it still would be desirable to improve the quality of the data. Clearly, bioanalysis for all 18000+ subjects at in average 5 time points are not practicable in such a setting. Therefore, I suggest to monitor compliance in a subset of the population to determine the compliance rate. This rate can be taken into account to determine the overall uncertainty for the statistical analysis in a time- and cost-efficient manner.



All in all, in my view, this is an excellent study design to follow-up on the cessation efficacy of alternative products in adult people who smoke and could be used as a blueprint for other products as well. Product categories like e-cigarettes or heated tobacco products in general could be monitored regarding switch and smoking quit rates in the same manner.