# Review of: "Youth Patterns of Use of Electronic Nicotine Delivery Systems (ENDS) Use, Population Assessment of Tobacco and Health (PATH) Waves 4 – 5.5"

Ron Borland[1]

1 University of Melbourne

This is an interesting paper, but is problematic in my view for what it does not include, rather than for anything seriously wrong with what is presented (lesser issues with current content below).

What is lacking:

It would be useful to at least further describe the sample in terms of extent of use and concurrent smoking. Perhaps a crosstabulation of vaping (daily or close to, occasional, and not at all, and smoking with a similar categorization. It would be acceptable to only report frequencies and %s for the relevant vaping at all groups.

Given that the numbers of close to or daily users is likely quite low, I suggest analysing by two groups: Exclusive vapers and concurrent users in addition to the overall analyses. Adding the concurrent use group to Figure 1 would be extremely useful, thus subtracting this from the other two and making the remaining group exclusive users.

Other comments

Methods

More information on the characteristics of the samples and on extent of resurveying is needed. At least a reference to an accessible published source demonstrating equivalence by age etc is necessary.

Results

Para under Table 1. Typo in last sentence "likey"

Presenting data on what I presume are estimated population estimates is inappropriate, at least without making this clear and providing population estimates of the overall vaping and smoking rates. I think it would be preferable to describe in terms of absolute changes in the prevalence of the patterns, is with the Wave percentage of use as the denominator.

I found Figure 3 took a bit of working out. And wonder if it would be better organized in terms of the actual percentages of the population who fit each category, this would have a an x axis only going up to 1-3 percent, but it would show the absolute as well as relative changes. This would mean most W5 bars were higher than W5.5 bars Alternatively, some more explanation that each set of bars in each of the 3 graphs adds to 100% of that type of flavor.

Discussion. The first sentence should be rephrased to say the data suggest. Given the different mode of surveying a case needs to be made that this did not produce the result. OR, at least a caution here.

The second sentence is wrong. It was more like 5 fold as the overall prevalence halves. It was a 10fold increase in relative percentages.

More generally, the Discussion is riddled with statements that appear to be about absolute changes in prevalence but are in fact relative. In my view, they should all be absolute (and the results represented in ways that make this clearer. What should be of interest is in what forms of use have increased, or in this case most likely to have declined. Actual use of fruit flavoured vapes actually declined overall but use of disposables increased and this became the main source of fruit flavors. . That is, the ban on fruit for non-disposables appears to have shifted use towards disposables, or perhaps resulted in non disposable users being more likely to stop using. Without analysing the longitudinal component of this study to look at transitions it is not possible to differentiate.

However, if the authors want to maintain the focus on relative changes, they need to continually remind the reader this is the case (absolute change is what most people expect, or at least this reviewer does)