Reviewer’s report

Title: The Association between Alcohol, Marijuana, Illegal Drug Use and Current Use of E-cigarette Among Youth and Young Adults in Canada: Results from Canadian Tobacco, Alcohol and Drugs Survey 2017

Version: 0 Date: 25 Jul 2019

Reviewer: Jane Witbrodt

Reviewer's report:

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PUBH-D-19-02613

The Association between Alcohol, Marijuana, Illegal Drug Use and Current Use of E-cigarette Among Youth and Young Adults in Canada: Results from Canadian Tobacco, Alcohol and Drugs Survey 2017 Vrati Mehra; Asvini Keethakumar, B.Sc; Yvonne M Bohr; Peri Abdullah; Hala Tamim BMC Public Health

This manuscript is a secondary data analysis that uses data from the 2017 version of the Canadian Tobacco Alcohol and Drugs Survey. The objective of this paper is to assess the prevalence and characteristics associated with e-cigarette use among youth and young adults in Canada, with a specific focus on its association with illicit drugs, marijuana and alcohol. This is an interesting use of existing data. My comments (minor) are as follows.

Introduction: This section is well written. The background and significance text supports the objective of the paper. Citations are relevant and current. Some spacing and punctuation needs to be corrected and consistent with BMC PH requirements. (Line 17): Should "with" be "within"?

Methods: Outcome and predictor variables are described. Both bivariate logistic regression (unadjusted) and multivariate (adjusted) regression models were conducted. Regarding the sentence, "Population weights were applied to each calculated estimate and bootstrapping was performed to adjust for the complex sampling methodology." - This needs a citation.
Results: (Lines 15-18 page 7): percentages displayed do not match what is shown in Tables. (Page 8): Percentages here are to two decimal places rather than one decimal place like most other percentages.

Discussion: This section supports the analysis (results) without being redundant and draws valid conclusions. (Line 18, page 9): The sentence is missing a preposition. (Page 11): Children living in smoking households are exposed to secondhand smoke - could this, too, increase their chances of uptake of e-cigarette?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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