

Home Smoking and Vaping Policies Among US Adults: Results from the Population Assessment of Tobacco and Health (PATH) Study, Wave 3

Dongmei Li¹, Hangchuan Shi¹, Zidian Xie¹, Irfan Rahman², Scott McIntosh³, Maansi Bansal-Travers⁴, Jonathan P Winickoff^{5,6}, Jeremy E Drehmers⁵, Deborah J Ossip³

¹Clinical and Translational Science Institute, University of Rochester Medical Center, Rochester, NY, USA; ²Department of Environmental Medicine, University of Rochester Medical Center, Rochester, NY, USA; ³Department of Public Health Sciences, University of Rochester Medical Center, Rochester, NY, USA; ⁴Department of Health Behavior, Roswell Park Comprehensive Cancer Center, Buffalo, NY, USA; ⁵Massachusetts General Hospital for Children, Boston, MA, USA; ⁶Harvard Medical School, Boston, MA, USA

Introduction

- ❖ Prevalence of secondhand exposure to e-cigarette aerosol has increased in the U.S. along with increases in vaping rates.
- ❖ Toxicants in e-cigarette aerosol include nicotine, carbonyls, ultrafine particulates, heavy metals and volatile organic compounds, which are associated with cardiovascular disease and carcinogenesis.
- ❖ The public perceptions of harms associated with secondhand exposure to e-cigarette aerosol are low.
- ❖ Few studies have examined home policies that prohibit vaping, or have compared differences in vaping policies for smokers, vapers, and dual users.

Methods

- ❖ The study was conducted using the nationally representative, cross-sectional PATH Wave 3 data collected from October 19, 2015 to October 23, 2016 on 28,148 adults (18 years and older).
- ❖ Predictor variable is current smoking and vaping status, which has six levels: dual users, current smokers, current vapers who were ex-smokers, current vapers who never smoked, ex-smokers, and never-users.
- ❖ Outcome variables are smoke-free and vape-free home policies and each outcome variable has two levels: not allowed and allowed at home.
- ❖ Covariates include age, sex, marital status, race/ethnicity, education level, income level, insurance status, currently lived with a smoker, and currently lived with a vaper, frequency of smoking in life time, and frequency of vaping in life time.
- ❖ Weighted multivariable logistic regression models were used for data analyses. Linear contrasts were conducted to examine the moderation effects of age, sex, marital status, living with a smoker and living with a vaper on the association of current smoking and vaping status with smoke-free and vape-free home policies.

Results

Table 1: Weighted prevalence of smoke-free and vape-free home policies across current vaping and smoking status estimated from PATH wave 3 adults.

Variables	Dual users (n=606)	Current smokers (n=6104)	Current vapers (ex-smokers) (n=412)	Current vapers (never smoked) (n=104)	Ex-smokers (n=6335)	Never users (n=8728)
Home rule on combustible tobacco product use*						
It is not allowed anywhere or at any time inside my home	62.16 (60.33, 64.03)	55.53 (54.98, 56.09)	83.59 (82.55, 84.64)	83.56 (81.18, 85.97)	91.41 (91.20, 91.63)	91.64 (91.20, 92.08)
Home rule on e-cigarettes and other electronic nicotine products use*						
It is not allowed anywhere or at any time inside my home	25.33 (22.72, 28.25)	54.23 (53.70, 54.78)	21.23 (18.19, 24.77)	55.68 (50.15, 61.79)	86.42 (86.24, 86.60)	89.57 (89.18, 89.96)

Note: * means $P < 0.0001$ for comparing the weighted prevalence of smoke-free and vape-free home policies across different vaping and smoking status.

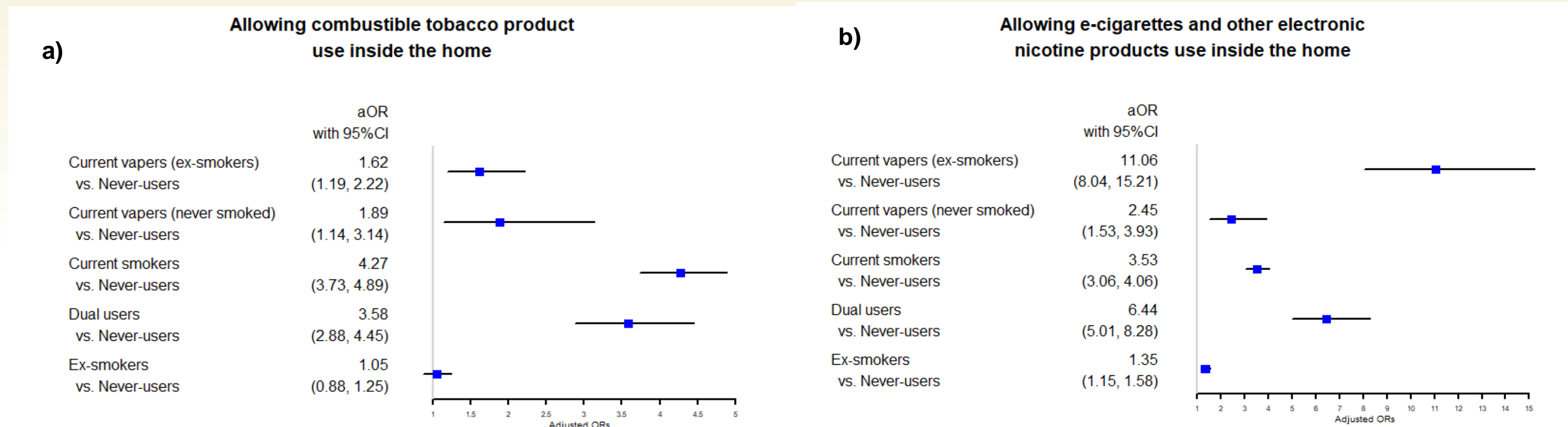


Figure 1: Adjusted odds ratio of a) allowing combustible tobacco product use and b) vaping inside the home.

Discussion

- ❖ All vaping groups (including dual users) were more likely to allow vaping than smoking inside the home.
- ❖ Dual users were more likely to have a rule prohibiting smoking inside the home than they were to have a rule not allowing vaping inside the home.
- ❖ Current smokers were more likely to allow smoking inside home than current vapers who were ex-smokers or had never smoked.
- ❖ Current vapers, current smokers, and dual users were more likely to allow smoking inside the home than never-users.
- ❖ Current vapers, current smokers, dual users, and ex-smokers were more likely to allow vaping inside the home than never-users.
- ❖ Dual users who were young, female, married, not living with a smoker or vaper were more likely to allow both smoking and vaping inside home compared to never-users.

Conclusion

- ❖ The discrepancies between home smoking and vaping policies among vapers, between vapers and smokers, and among dual users suggest that vapers may be switching to/using ecigs with the intent of harm reduction. Though, these results show people who prohibit smoking in their homes are more tolerant in allowing e-cigarette use in their homes, thus increasing the risk others are exposed to potentially harmful e-cigarette aerosol.
- ❖ The current study provides a separate rationale for caution in the promotion of e-cigarettes for harm reduction relative to the risk exposures to others in the home.

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