

Associations between nicotine vaping uptake and cigarette smoking cessation vary by smokers' plans to quit: Longitudinal findings from the International Tobacco Control (ITC) Four Country Smoking and Vaping Surveys

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Abstract

Background and aims: Most population studies that evaluate the relationship between nicotine vaping and cigarette cessation focus on limited segments of the smoker population. We evaluated vaping uptake and smoking cessation considering differences in smokers' plans to quit.

Design: Longitudinal ITC Four Country Smoking and Vaping Surveys conducted in 2016, 2018, and 2020.

Setting: US, Canada, England, Australia.

Participants: Adult daily cigarette smokers who had not vaped in the past 6 months at baseline and had participated in two or more consecutive waves of the ITC Four Country Smoking and Vaping Surveys ($n=2,815$).

Measurements: Plans to quit cigarette smoking at baseline (within 6 months, beyond 6 months, not planning to quit) and at follow-up (within 6 months versus not within 6 months); cigarette smoking cessation at follow-up (smoking less than monthly [including complete cessation] versus daily/weekly/monthly smoking); inter-wave vaping uptake (none, only nondaily vaping, any daily vaping). Generalized estimating equations were used to evaluate whether inter-wave vaping uptake was associated with smoking cessation at follow-up, and with planning to quit at follow-up, each stratified by plans to quit smoking at baseline.

Findings: Overall, 12.7% of smokers quit smoking. Smokers not initially planning to quit within 6 months experienced higher odds of smoking cessation when they took up daily vaping (32.4%) versus no vaping (6.8%; adjusted odds ratio [AOR]=8.58, 95% confidence interval [CI]:5.06-14.54). Among smokers planning to quit, smoking cessation rates were similar between those who did and did not take up daily vaping (25.1% vs. 16.8%; AOR=1.91, 95%CI:0.91-4.00), though we could not account for potential use of cessation aids. Daily vaping uptake was associated with planning to quit smoking at follow-up among those initially not planning to quit (AOR=6.32, 95%CI:4.17-9.59).

Conclusions: Uptake of nicotine vaping appears to be strongly associated with cigarette smoking cessation among smokers with no initial plans to quit smoking. Excluding smokers not planning to quit from studies on vaping and smoking cessation may underestimate potential benefit of daily vaping for daily smokers.

Recommended Citation

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