

# Predicting vaping uptake, vaping frequency and ongoing vaping among daily smokers using longitudinal data from the International Tobacco Control (ITC) Four Country Surveys

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## Abstract

**Aim:** To assess (1) how far smoking patterns, depression and smoking-related beliefs and intentions predict vaping uptake, current vaping and vaping frequency among daily smokers; and (2) how far the aforementioned predictors and baseline vaping frequency predict current vaping among those who reported ever vaped.

**Design:** Analysis of data from six waves of a longitudinal survey over 8 years. Longitudinal associations between predictors and outcomes were examined using multi-level models.

**Setting:** United Kingdom, United States, Canada and Australia.

**Participants:** A total of 6296 daily smokers (53% females) who contributed data to at least two consecutive survey waves.

**Measurements:** The outcome variables were vaping uptake, vaping frequency and current vaping at follow-up. The key predictor variables, measured in previous waves, were time to first cigarette, cigarettes smoked per day, depressive symptoms, intention to quit smoking, quitting self-efficacy and worry about adverse health effects of smoking.

**Findings:** Number of cigarettes smoked daily was associated with (1) subsequent vaping uptake [odds ratio (OR) = 1.69, 95% confidence interval (CI) = 1.19, 2.39 for 30+ cigarette per day; reference category: 0–10 cigarettes] and (2) a higher frequency of current vaping (OR = 1.97, 95% CI = 1.36, 2.85 for 30+ cigarettes). Intention to quit was associated with a higher frequency of current vaping (OR = 1.48, 95% CI = 1.21, 1.82). Among those who reported ever vaped, higher baseline vaping frequency (OR = 11.98, 95% CI = 6.00, 23.93 for daily vaping at baseline; reference category: vaped less than monthly) predicted current vaping.

**Conclusion:** Among daily smokers, amount smoked and intention to quit smoking appear to predict subsequent vaping uptake. Vaping frequency at baseline appears to predict current vaping at follow-up.

## Recommended Citation

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