

# Characteristics of nicotine vaping products used by participants in the 2016 ITC Four Country Smoking and Vaping Survey

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## Abstract

**BACKGROUND AND AIMS:** The regulatory environment for nicotine vaping products (NVPs) varies widely across countries and this will likely affect the devices used, nicotine content, and usage and hence the ability of NVPs to substitute for cigarettes. We aimed to describe the types of NVPs used by current vapers in four countries with varying regulatory and enforcement approaches toward the marketing and sale of NVPs.

**METHODS:** Data are from Wave 1 (July-November 2016) of the ITC Four Country Smoking and Vaping Survey (4CV1), conducted among a cohort of current and former smokers, and current NVP users (n=5,147 adults;  $\geq 18$  years) in Australia (AU), Canada (CA), England (EN), and the United States (US) reporting either current daily, weekly, or occasional NVP use. Devices were described by type, brand, voltage variability, and refill capacity. Refill solutions were described by flavour and nicotine content. Descriptive statistics and bivariate analyses were conducted on the overall sample and stratified by country. A multinomial logistic regression examined factors associated with device preference across the whole sample.

**RESULTS:** The types of NVPs used differed by pattern of use and country. Exclusive, daily vapers were more likely to use refillable pen-shaped devices (OR=10.0) or refillable box-shaped devices (OR=5.4) than disposable cigalike devices, when compared with other (non-daily/dual) users. Nearly all respondents reported using flavoured NVPs, fruit (28%) being the most common flavour. Refillable devices were the most popular: Refillable box-shaped devices were more commonly reported by vapers in AU (36.8%) and US (31.4%), whereas in EN (47.4%) and CA (29.7%), vapers more often reported using refillable pen-style devices. Most users also reported that their products contained nicotine, even in CA (87.8%) and AU, (91.2%) where vaping products containing nicotine were technically illegal.

**CONCLUSIONS:** In Australia, Canada, England, and the United States in 2016, refillable nicotine vaping products (NVP) were the most common type of NVP used by daily vapers. Most daily vapers reported using flavoured e-liquids/refills (with variance across countries) and most reported using products that contain nicotine, even where vaping products with nicotine were banned.

## Recommended Citation

O'Connor, R.J., Fix, B.V., McNeill, A., Goniewicz, M., Bansal-Travers, M., Heckman, B.W., Cummings, K.M., Hitchman, S.C., Borland, R., Hammond, D., Levy, D., Gravelly, S., Fong, G.T. (2019). Characteristics of nicotine vaping products used by participants in the 2016 ITC Four Country Smoking and Vaping Survey. *Addiction*, [Published online, doi:10.1111/add.14571].

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