

US nicotine vaping product (NVP) SimSmoke: The effect of vaping and tobacco control policies on smoking prevalence and smoking-attributable deaths

Levy, D., Sanchez-Romero, L.M., Travis, N., Yuan, Z., Li, Y., Jeon, J., Tam, J., Meza, R., & Skolnick, S.

Abstract

The public health impact of nicotine vaping products (NVPs) is subject to a complex set of uncertain transitions between NVP and cigarette use. Instead, we apply an indirect method to gauge the impact of NVP use on smoking prevalence and smoking-attributable deaths (SADs) using the well-established *SimSmoke* tobacco control policy simulation model. Upon validating the model before NVPs were more widely used, we project a No-NVP (i.e., in the absence of NVPs) while controlling for the impact of cigarette-oriented policies. The net impact of NVPs on smoking prevalence is inferred by comparing the projected No-NVP smoking trends to corresponding trends from two US national surveys. Using the TUS-CPS estimates for the period 2012–2018, we estimate that adult smoking prevalence declined in relative terms by 9.7% (95% CI: 7.5–11.7%) for males and 10.7% (95% CI: 9.1–13.0%) for females. Compared to NHIS, smoking prevalence declined by 10.7% (95% CI: 6.8–14.6%) for males and 11.3% (95% CI: 7.4–15.6%) for females. These impacts were confined mainly to ages 18–44. Vaping-related reductions in smoking prevalence were projected to avert nearly 0.4 million SADs between 2012 and 2052. Our analysis indicates that NVP use is associated with substantial reductions in US smoking prevalence among younger adults.

Recommended Citation

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