

COVID-19 and tobacco products use among US adults, 2021 National Health Interview Survey

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Abstract

Objective: A nationally representative sample of US adults was used to examine the prevalence of COVID-19 cases, testing, symptoms, and vaccine uptake, and associations with tobacco product use. **Methods:** Data came from the 2021 National Health Interview Survey. The 2021 Sample Adult component included 29,482 participants with a response rate of 50.9%. We investigated COVID-19-related outcomes by tobacco product use status and reported national estimates. Multivariable regression models were performed accounting for demographics (e.g., age, sex, poverty level), serious psychological distress, disability, and chronic health condition. **Results:** In our regression analyses, odds of self-reported COVID-19 infection were significantly lower for combustible tobacco product users (vs. non-users; Adjusted Odds ratio [AOR]=0.73; 95% confidence interval [CI]=0.62-0.85). Combustible tobacco users also were less likely to report ever testing for COVID-19 (AOR=0.88; 95% CI=0.79-0.98), ever testing positive for COVID-19 (AOR =0.66; 95% CI=0.56-0.77), and ever receiving COVID-19 vaccine (AOR=0.58; 95% CI=0.51-0.66) compared to their non-user peers. Compared to non-users, users of any type of tobacco who contracted COVID-19 had higher odds of losing smell (AOR=1.36; 95%CI=1.04-1.77), which was more pronounced among exclusive e-cigarette users. The odds of receiving vaccine were lower for all current exclusive tobacco product users compared to non-users (AORs= 0.40 to 0.70). **Conclusions:** Continued monitoring of tobacco product use amid the COVID-19 pandemic is crucial to inform public health policies and programs. In addition, efforts to promote COVID-19 vaccination, especially among tobacco product users, are warranted.

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