

The Economic Factors that Determine Smoking Abstinence: A Survival and Mediation Analysis

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Abstract

Background: Higher taxes stimulate quit attempts and higher rates of smoking abstinence. Additionally, taxes on tobacco cigarettes and e-cigarettes (ECs) may influence consumers' perceptions of the relative costs of these products. Understanding the relationship between cigarette and EC taxes, cost perceptions, and smoking abstinence is therefore crucial.

Methods: This study utilized longitudinal data from the US arm of the 2016–2020 International Tobacco Control Four Country Smoking and Vaping (ITC 4CV) Surveys and implemented a survival analysis to explore the impact of cigarette and EC taxes on smoking abstinence. A mediation analysis was also performed to test whether the effects of taxes are influenced by individuals' perceptions about the relative cost differences between ECs and cigarettes.

Results: A 10 % increase in cigarette taxes was associated with an 11.1 % increase in smoking abstinence. EC taxes were not associated with smoking abstinence among the overall sample. However, higher EC taxes were associated with greater odds of smoking abstinence among individuals over 40 and lower odds of smoking abstinence among individuals under 40. Relative cost perception did not mediate the effect of taxes on smoking abstinence. Additionally, the odds of quitting were higher among individuals in the high-income group and those who used ECs daily, and lower among individuals in older age groups.

Conclusions: Cigarette taxes have a direct impact on smoking abstinence, independent of cost perceptions. To enhance cessation rates, policymakers should implement targeted strategies such as increasing access to cessation programs, providing financial incentives for quitting, and tailoring tax policies to better support older individuals and those with lower incomes.

Recommended Citation

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