What Really Helps People Quit Smoking

Whether people try to quit smoking depends heavily on public health policies in their respective countries – whether they are successful, however, depends primarily on their personal environment and behavior. This was the finding of researchers from the German Cancer Research Center (DKFZ) in an international study.

The researchers analyzed data from over 50,000 smokers from 29 countries across 5 continents and combined this with information on national tobacco control measures from the World Health Organization (WHO). Using machine learning, they were able to identify key factors influencing attempts to quit smoking and their success.

Policy provides the impetus...

The results clearly show that strict tobacco prevention laws—such as smoking bans, warning labels, or higher tobacco taxes—increase the likelihood that people will even attempt to quit smoking. "Policy measures provide the decisive impetus," says study lead Titus Brinker. "Countries with comprehensive tobacco control measures record more attempts to quit smoking than countries that have implemented fewer tobacco control measures."

...but success depends on individual factors

Whether a person succeeds in quitting smoking, however, is usually determined by their personal environment. It is particularly important whether other people in their household smoke. Those surrounded by smokers have significantly lower chances of quitting permanently. In addition, individual factors such as the severity of nicotine dependence play a major role: Those who reach for a cigarette early after waking up, or who smoke heavily, have a harder time quitting successfully.

The study makes it clear that successful tobacco prevention requires a two-pronged approach:

- consistent tobacco control measures that motivate people to quit
- targeted support for individual smokers, particularly consideration from other smokers in their social environment

Tobacco use causes more than seven million deaths worldwide each year and is one of the greatest preventable health risks. "But successfully quitting smoking is not just a matter of willpower. It is strongly influenced by one's social environment, living conditions, and the political framework of one's home country, says Christoph Wies, the study's first author. Titus Brinker adds: "Our findings are intended to help make future measures more effective and thus enable more people to quit smoking permanently."

Publication:

Wies C, Al Ssabbagh M, Elango V, Schiavone S, Anderson CL, Theilmann M, Geldsetzer P, Hoe C, Winkler V, Brinker TJ. Tobacco control policies predict quit attempts, but household smoking predicts cessation success across 29 countries. Tobacco Control. 2026, DOI: 10.1136/tc-2025-059403
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Further information

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