

Effects of reduced-risk nicotine-delivery products on smoking prevalence and cigarette sales: an observational study

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Primary conflict of interest:

Peter Hajek has provided consultancy to and received research funding from Pfizer.

Lion Shahab has received honoraria for talks, an unrestricted research grant and travel expenses to attend meetings and workshops from Pfizer and an honorarium to sit on an advisory panel from Johnson&Johnson, both pharmaceutical companies that make smoking-cessation products. He has acted as paid reviewer for grant-awarding bodies and as a paid consultant for health-care companies. Other research has been funded by the government, a community-interested company (National Centre for Smoking Cessation) and charitable sources.

David Sweanor has received travel expenses for conferences to the Tobacco Harm Reduction – Challenges and Opportunities in the 21st Century conference (Tbilisi) and The Global Forum on Nicotine conference (Warsaw). He is an unpaid member on committees for pedestrian and cyclist issues and civil liberties. He is Chair of the advisory board of the Centre for Health Law, Policy and Ethics at the University of Ottawa, an adjunct law professor at the same university, on a global advisory committee for the Boston University School of Public Health, and belongs to/advises/funds groups working on a wide range of topics (e.g. nicotine, public health, transportation policy, homelessness, active transportation: all unpaid).

All other authors have no conflicts to disclose.

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Plain language summary

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Alternative nicotine-delivery products are now available which are much less hazardous than cigarettes. These include electronic cigarettes (which contain no tobacco), Swedish snus (oral tobacco with low levels of cancer-causing chemicals) and heated tobacco products.

There is concern that these products attract young people to smoking and discourage smokers from quitting (i.e. increase smoking), but it is also possible that they help smokers quit and steer young people who find nicotine attractive away from smoking, or that they have no effect on smoking.

To clarify which of these end results is likely, we looked at data on smoking and on the use of these alternative products over time, and also compared data on smoking from countries that have similar tobacco control history, but that either allow (i.e. United Kingdom and United States of America) or ban the sale of electronic cigarettes (i.e. Australia).

As the sale of heated tobacco products increased in Japan, sales of cigarettes seem to have gone down, suggesting that this product is competing with cigarettes rather than encouraging their use.

We also found that the drop in smoking may have been slower in Australia than in the United Kingdom. For young people and those on low income specifically, the reduction in smoking was slower in Australia than in both the United Kingdom and United States of America. Allowing alternative nicotine products to be sold seems to have been linked with lowered rather than increased rates of smoking.

Our findings, however, are uncertain because only limited data were available. Clearer conclusions will become possible as more data on the use and especially on the sales of alternative nicotine products are collected.

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