

Smoking bans in prisons

Smoking is a major global health issue accounting for more than 8 million deaths each year, with most occurring in low-income and middle-income countries (LMICs).¹ Although progress has been made in many countries, the decline in smoking incidence is slowest in LMICs and, within countries, in the most socioeconomically deprived groups. People who are incarcerated are often among the most disadvantaged groups and thus, smoking remains a considerable public health issue in prisons. More than 14.5 million smokers are incarcerated in prisons annually, where smoking rates remain up to 63 times higher than rates in the community.² Smoking-associated non-communicable diseases are an important, and often underrecognised, health issue in prisons, with cardiovascular disease a leading cause of morbidity and death in prisons in many countries.^{3,4} The incidence of smoking among prison staff is also high, and both people who are incarcerated and staff potentially face considerable exposure to second-hand smoke and thus banning smoking in prisons has the potential to have a positive effect on the health of individuals who live and work in this environment. However, it is important to assess such bans, not simply to determine their effectiveness, but also to examine the unintended consequences that a major public health intervention might have in these unique settings.

In *The Lancet Public Health*, Emily Tweed and colleagues⁵ present data from the Tobacco in Prisons (TIPs) study, a comprehensive study using natural experimental methodology to assess the impact of the introduction of the smoke-free prisons policy implemented by the Scottish Government in November, 2018. This policy introduced a total ban on smoking in prisons across Scotland. In this study, the authors present the results of an interrupted time-series analysis of medication dispensing data from 14 Scottish prisons during the study period. The authors analysed three time periods: pre-announcement, anticipatory, and post-implementation. A large increase in nicotine replacement therapy dispensing was observed after implementation of the ban (2109 items per 1000 people in custody per fortnight, 95% CI 1701 to 2516; 42% relative increase); a reassuring finding suggesting that smokers who were in custody received pharmaceutical support to

address their addiction. A decrease in dispensing rate for medications for smoking-related illnesses such as respiratory and cardiovascular diseases was also observed (-646 items per 1000 people in custody per fortnight, 95% CI -1111 to -181; 9% relative decrease). Changes in dispensing rates of antidepressant medications were particularly interesting: no significant changes in dispensing rates were observed after policy announcement or implementation. The authors described antidepressant use as a crude indicator of mental wellbeing, but nonetheless this is an important aspect of wellbeing in this setting that deserves scrutiny.

The study has many strengths including the use of robust prescribing data, the size (data for >31 million items), and the interrupted time-series analysis design, which enabled underlying patterns and seasonal effects to be taken into account. However, the authors were unable to fully explore an important possible adverse consequence of the ban: increased use of illicit drugs. The authors assessed benzodiazepine use, a prescription drug likely to be diverted for illicit use in prisons, and found no change in prescribing following the ban. Unfortunately, no comparable data on opiate substitution therapy were available, which also has the potential for diversion. People who are incarcerated might substitute one addiction (eg, smoking) for another, highlighting the need for further research to explore the impact of this smoke-free policy on all illicit drug use, not just diversion of prescribed medications.

The TIPs is an important study with implications beyond Scotland, informing the development and refinement of effective smoking bans in prisons in other countries. Findings from the TIPs have contributed to a breadth of evidence, assessing other impacts of smoking bans such as air quality.⁶ However, key questions remain. It will be important to assess the impact of the ban on the use of illicit substances but also to examine the impact on outcomes such as the incidence of violence, suicide, and self-harm within prisons. Another important issue is whether smoking cessation can be sustained on return to the community; research to date has indicated that relapse rates are high once people who are incarcerated are released and there is an urgent need to develop effective post-incarceration



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interventions to support abstinence.⁷⁻⁹ Such findings do not support the notion that bans are futile, but instead highlight the need to ensure appropriate support on release, incorporating the complexity of the many cultural, psychological, and social functions that smoking serves.

The burden of smoking-associated diseases remains highest in LMICs where millions of smokers are incarcerated and where regulation of smoking is suboptimum because of political lobbying and marketing by tobacco companies.¹ This issue poses particular challenges for the development of appropriate bans that should align both with national smoke-free legislation and with the state's duty of care to people who are incarcerated, whose right to health should not be compromised by their imprisonment.¹⁰ Relevant health and prison authorities should carefully consider what would constitute an effective smoking ban in their prisons, learning from studies such as the TIPs, while ensuring robust and comprehensive local evaluation.

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