

Second-hand tobacco exposure in children: evidence for action



Tobacco is one of the leading risk factors for disease burden and death in the world. This burden is related to both tobacco consumption and second-hand exposure. Children are particularly exposed; in 2019, it was estimated that passive smoking was responsible for 50 000 deaths and 4 500 000 disability-adjusted life-years among children younger than 14 years.¹

Over the last two decades, especially following WHO's Framework Convention on Tobacco Control in 2003, comprehensive tobacco control policies (including smoking bans) have been promoted internationally and implemented in many countries worldwide. These policies have proven to be effective in reducing smoking prevalence.² In addition, these policies are associated with substantial benefits for children's health.³ The burden of second-hand exposure decreased by 80% among children younger than 14 years between 1990 and 2019.¹

In this context, the question arises of exposures that have received little or no consideration in these national strategies, which are mainly focused on indoor public spaces and workplaces. Such environments include outdoor areas (eg, parks), semi-private places (eg, community buildings), and private places (eg, cars). Numerous national and local initiatives have been implemented to reduce these exposures;⁴ however, they are still substantial.^{5,6} Data on their effectiveness are needed to support their implementation.

Evaluating the effects of these strategies on children's health is the focus of the systematic review and meta-analysis by Márta Radó and colleagues in *The Lancet Public Health*.⁷ This research is particularly important because these measures can be challenging to implement, given that they rely on individual and collective behaviours, and that their social acceptability can be low.⁸

This study is even more relevant currently as the COVID-19 pandemic and associated safety measures have probably led to an increase in tobacco consumption and domestic exposure.⁹ Additionally, children have been among the main collateral victims of the crisis.¹⁰

On the basis of seven studies considered to be of sufficient quality, Radó and colleagues showed that

smoke-free policies were associated with a reduction in tobacco smoke exposure in cars (n=5 studies) and on school grounds (n=1), and that a comprehensive smoke-free policy was associated with a decrease in child hospital attendance for respiratory tract infections (n=1). These results are important and emphasise the value of such measures. Communities and states should be encouraged to continue their efforts to reduce children's exposure to tobacco smoke.

Nevertheless, Radó and colleagues' study also shows that the available data are scarce and of heterogeneous quality, and present a low level of evidence. Thus, a strengthening of evaluative research in this area is clearly needed. We need methodologically robust studies, such as comparative, quasi-experimental, or even experimental studies with valid measures of exposure and health outcomes. Furthermore, from a public health perspective, it is crucial to have a global measure of total exposure to tobacco smoke across all environments rather than specific measures (eg, in cars). It cannot be ruled out that there could be some adverse effects of such policies; for example, the displacement of smoking from public to private places, such as inside the home, which would be harmful to children.¹¹ To date, there is scarce and conflicting evidence on this topic.

Results from well conducted studies would be useful to implement smoke-free policies, to improve the social acceptability of these measures, and to support changes in collective and individual behaviour.

I declare no competing interests.

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