

Commentary on Sims *et al.* (2012): A timely response to the impact of smoke-free public places on the most exposed children

It is now well established that legislation prohibiting smoking in public places is effective in reducing second-hand smoke (SHS) exposure [1–3]. Nonetheless, in the face of arguments that introducing smoke-free public places would increase smoking in the home, Sims *et al.* [4] provide timely evidence that smoke-free legislation does not displace adult smoking to the home, but rather reduces SHS exposure among most at risk children, i.e. those with smoking parents or living in homes allowing smoking. These findings dispute the arguments and inform health advocates and policymakers about the unintended health benefits of protecting non-smokers, especially children exposed to second-hand smoke in the home [5]. Given that the main source of SHS exposure among children is domestic [6,7], the reported declines reflect changing social norms around smoking [8], perhaps derived from voluntary family-based restrictions by adults to promote health in children [6].

Children are particularly vulnerable to SHS exposure, as even modest levels of exposure have been associated with respiratory abnormalities and other adverse health effects [9,10]. As adolescents observe smoking in the domestic setting, they tend more towards seeing smoking as normal adult behaviour, and attribute favourable outcome expectations over time with repeated exposure [8,11]. Research has shown that adolescent adoption of smoking is related to perceptions of significant others, such as parental smoking behaviour, as well as societal norms of smoking [12,13]. In an environment where a non-smoking directive, e.g. smoke-free homes or cars, is enacted children will possibly perceive smoking as a socially unacceptable behaviour, and may be less likely to take up smoking [14]. However, despite reported declines in SHS exposure by the authors, the high levels of children's exposure in England (approximately half living in homes allowing smoking and a third with smoking parents) may send an unequivocal message to youths that smoking is still a normative behaviour, and might sensitize them to start smoking.

Sims *et al.*'s work therefore underlines the importance of continuing to undertake interventions and legislated policies to make smoke-free environments, especially in homes and cars, the societal norm. Such efforts should include community-level campaigns and programmes to raise awareness of the damaging effects of SHS exposure and support adults, particularly those living in smoking homes, to enforce smoke-free policies voluntarily in their homes and cars. The balance of evidence from several studies suggests strongly that the primary objective of

reducing second-hand smoke exposure has been achieved, particularly among non-smokers in workplaces and the hospitality industry [15–17]. Nonetheless, to the extent that smoking in domestic settings remains evident in several jurisdictions [1], there is the need to encourage governments to enact policies that will make smoke-free homes the accepted norm.

Further research is therefore required to inform future smoke-free policy development by exploring how these voluntary and legislated policies are implemented, and how they work to impact upon young children living in smoking and non-smoking households. Finally, as studies on the long-term effect of smoke-free policies on children's second-hand smoke exposure are mixed, more research is needed to examine population-level changes in SHS exposure in the long term among these groups, as well as whether there are any significant changes in their health after enactment of smoke-free legislation.

Declaration of interests

None.

Keywords Children, legislation, second-hand smoke, smoke-free, smoking norms, youth smoking.

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