

COMMENT

Every child deserves a smoke-free home

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Despite global efforts to reduce smoking prevalence, half of children worldwide continue to be exposed to secondhand smoke (SHS).¹ In the United States (U.S.), 37.6% of adolescents report indoor exposure in the last 30 days.² Given that >4000 chemicals have been identified in tobacco smoke, the World Health Organization (WHO) has concluded that there is no safe level of exposure to SHS.^{1,3} Exposure of a pregnant individual to SHS is associated with harm to the fetus, reduced birth weight, and preterm birth; and exposure of the infant increases the risk of sudden infant death syndrome.^{3–5} Childhood exposure to SHS is associated with increased risk of asthma prevalence and severity, middle ear disease, learning and behavioral problems, severity of respiratory illnesses, preclinical atherosclerosis, and childhood cancers.^{3–5} Consequentially, there continues to be an estimated 65,000 childhood deaths globally per year due to SHS.¹

Prior research established a link between maternal cigarette use during pregnancy and increased risk of obesity for her children, and additional research suggested increased risk of obesity in childhood with SHS exposure.⁴ In this issue, Miyamura et al. add to research linking SHS exposure to childhood obesity. Importantly, they expand on this evidence to show that cessation of SHS exposure at home during early adolescence may reduce the risk of obesity, especially in males. Given the proven adverse health consequences of obesity,⁶ their study reinforces the importance of reduction of childhood exposure to SHS.

Laws that prohibit smoking in public spaces (smoke-free air laws) are a proven intervention to protect the health of non-smokers. These regulations are recommended by WHO and are becoming increasingly adopted worldwide.³ As adoption of these laws increase, the home is becoming the primary source for SHS exposure in children, with most of that exposure coming from parents who smoke.⁵ Although overall prevalence of home exposure is decreasing globally, one-third of adolescents still report SHS exposure at home within the last 7 days.⁷ In the U.S., children in low-income households are significantly more likely to have SHS exposure than those in higher-income households, exacerbating health disparities.⁵ Therefore, it is critical to promote evidence-based clinical practices and equitable health policies that reduce childhood exposure to SHS at home.

COUNSELLING AND TREATMENT TO PROMOTE SMOKE-FREE HOMES

Although there is a reluctance for government to step in and legislate smoking in private homes, parents are increasingly making their own rules regarding smoking policy for their households. The only rule that

has been found to effectively protect nonsmokers is making the home completely smoke-free.⁵ Healthcare providers caring for children and their parents should encourage them to adopt a 100% smoke-free home rule at every encounter, especially during preventative well visits.^{3,4} A meta-analysis of interventions showed some success of programs that were specifically directed at parents and used the motivation of improving the health outcomes in their children to affect change.⁸ As an example, when children present with conditions related to SHS exposures, such as asthma, healthcare providers should use the opportunity to discuss the health benefits of a smoke-free home.⁴ A recent survey reported by Jenssen et al. confirmed parent's interest in smoking cessation counseling that emphasized the health of their child, with messages regarding impacts on general health, respiratory health, and cancer rated as most important.⁹

SMOKE-FREE AIR LAWS IN MULTI-UNIT HOUSING

If parents do make the decision to have a smoke-free home to protect the health of their children, that decision can be undermined by the actions of neighbors if they live in multi-unit housing as smoke infiltrates through shared ventilation systems. In the US, an estimated 80 million people live in multi-unit housing, and approximately 28 million of those are exposed to SHS from neighboring units or shared spaces in their building.¹⁰ In separate studies, between 28 and 46% of surveyed residents of smoke-free homes in multi-unit housing reported SHS incursion into their unit, and in another study passive nicotine monitors detected nicotine in 89% of nonsmoking homes in low-income multi-unit buildings.⁴ In July 2018, the U.S. Department of Housing and Urban Development required that all Public Housing Agencies (PHA) adopt and implement smoke-free policies. This ruling, however, does not extend to state-funded PHAs, other forms of subsidized housing, or privately owned housing.¹¹ As of July 2022, 76 municipalities in the U.S. had enacted laws prohibiting smoking in private units of rental multi-unit housing and 69 had laws that include owner-occupied units.¹² Notably, all these municipalities are in the state of California. These policies have encountered pushback by some smokers; however, ethicists have concluded that the loss of autonomy for these smokers is outweighed by the harm reduction to nonsmokers, especially to children.¹¹

SMOKE-FREE AIR LAWS IN PUBLIC PLACES

Since no amount of exposure to SHS is considered safe, it is important that children who live in smoke-free homes are also

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protected from SHS when they are in shared public spaces. As the “Protect” component of its MPOWER measures to prevent tobacco use, WHO recommends bans on smoking in indoor public spaces, including public transport, bars, restaurants, and workplaces.³ The WHO *Report on the Global Tobacco Epidemic, 2021* stated that 1.8 billion people living in 67 countries were protected by laws completely banning smoking in public places and workplaces.¹³ In the U.S., only 62% of the population is covered by laws prohibiting smoking in the workplace, bars, and restaurants.¹⁴ In addition to reduction of SHS exposure by non-smokers, smoke-free air laws have the added benefit of helping individuals quit smoking and reducing tobacco consumption by those who do smoke.¹⁴ Therefore, advocacy for smoke-free air laws which make it easier for parents to quit means that children will have less SHS exposure both inside and outside the home.

In addition to legislation around public spaces, there is a growing movement to ban smoking while in the car with a child. If one cigarette is smoked in a closed car, fine respirable particle levels exceed levels found in smoky bars.¹⁵ Only nine U.S. states currently have legislation prohibiting smoking in personal vehicles.¹⁵

ELIMINATION OF LEGISLATION THAT PREEMPTS LOCAL TOBACCO CONTROL

Historically in the U.S. and in other countries, smoke-free air laws have been enacted at the local level prior to regional or national levels.³ In the U.S., the tobacco industry advocates for state preemption to both reverse local tobacco control laws and prevent future expansion.¹⁶ In 2021, there were 31 states that had laws preempting local tobacco control,¹⁷ despite broad consensus among public health experts that it adversely impacts tobacco control efforts. Recognizing the importance of these laws to public health, HealthyPeople 2030 set a target of zero states with local tobacco control preemption policies.¹⁷

INCLUDE EMERGING PRODUCTS IN EDUCATION AND POLICY

The WHO *Report on the Global Tobacco Epidemic, 2021* highlighted the importance of incorporating electronic nicotine delivery systems (ENDS) and electronic non-nicotine delivery systems (ENNDS), such as electronic cigarettes, heated tobacco products, cannabis vapes, and “wellness” vapes, into existing tobacco control policies. It states, “As cigarette sales have fallen, tobacco companies have been aggressively marketing new products—like e-cigarettes and heated-tobacco products—and lobby governments to limit their regulation. Their goal is simple: to hook another generation on nicotine. We cannot let this happen.”¹³ These products produce aerosols that have been shown to contain nicotine, heavy metals, carcinogens, and other toxins;¹⁸ however, they are not currently included in most smoke-free air laws. This is an issue as 35% of U.S. adolescents report indoor secondhand aerosol exposure in the last 30 days.² At the time of the report, only 30 countries reported banning the use ENDS/ENNDS in indoor public spaces, compared to 67 countries with cigarette use bans.¹³ In the U.S., 17 states have passed comprehensive smoke-free air laws that include ENDS.¹⁹ Given that current young adult parents were adolescents when these products first became popular, it is important that healthcare providers include ENDS/ENNDS when discussing the importance of smoke-free home policies.¹⁸

CONCLUSION

With the acknowledgement that every child deserves a smoke-free home comes the responsibility to enact policies and procedures to reinforce that goal. Although we have many effective policies to reduce exposure to children, we have a long

way to go in implementation of these policies in the U.S. and worldwide. Healthcare providers must routinely counsel parents to promote smoke-free homes. Laws implementing 100% smoke-free policies should be expanded to cover all multi-unit housing buildings worldwide, so that parents who do implement smoke-free homes are not undermined by the habits of their neighbors. Protection from SHS should extend to all public places, including workplaces, bars, and restaurants, as smoke-free air laws both reduce direct SHS exposure and make it easier for parents to quit smoking. To counter the tobacco industry’s efforts to undermine the above laws, it is important to eliminate state preemption of local tobacco control. Finally, we must keep an eye on emerging ENDS/ENNDS that threaten to undermine our current progress and aggressively enforce measures to counteract the initiation and use of these products. For U.S. advocacy on this topic, the American Academy of Pediatrics has updated its tobacco control advocacy toolkit, (www.aap.org/tobaccoadvocacy).

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ETHICS APPROVAL AND CONSENT TO PARTICIPATE

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