

Tobacco is a global paediatric concern

Harry A Lando,^a Bethany J Hipple,^b Myra Muramoto,^c Jonathan D Klein,^d Alexander V Prokhorov,^e Deborah J Ossip^d & Jonathan P Winickoff^b

Tobacco has major adverse consequences for children. Despite its devastating consequences, in countries facing immediate issues of poverty, lack of access to potable water and infectious diseases, tobacco is often viewed as a lower priority health threat. In this editorial, we consider specific areas of harm and suggest some strategies for combating tobacco harm to children.

Tobacco use is a global problem; worldwide there are almost 1 billion male and 250 million female smokers. Every day an estimated 82 000 to 99 000 young people start smoking; many are children under the age of 10 and most reside in low- or middle-income countries.¹ Globally, tobacco is marketed to children; the tobacco industry recognizes that new smokers must be recruited to replace those who quit or die from tobacco-related diseases.^{2,3} Current projections indicate that the number of smokers globally will increase to 1.6 billion over the next 25 years.¹ While the dangers of tobacco consumption and second-hand smoke have been widely recognized, children are also harmed in less apparent ways; through hunger and malnutrition when scarce resources are diverted to tobacco purchases rather than food, exploitation of children as workers in tobacco farming, and by death and injury resulting from fires caused by cigarettes.

Short-term adverse health consequences of active smoking have been demonstrated in children, in addition to the known consequences of continued use into adulthood. Children are also harmed by involuntary exposure to other people smoking; rates of such exposure are high. The Global Youth Tobacco Survey is a school-based survey conducted in 137 countries using a standard method for constructing the sample, selecting schools and classes, and processing data. Results indicate that almost half of the children who had never smoked were

exposed to second-hand smoke both at home (46.8%) and outside the home (47.8%).⁴

Children are exposed to tobacco promotion and marketing at early ages; cigarette marketing and promotion are endemic throughout the world.² There is strong evidence that tobacco industry imagery and advertising cause tobacco use and dependence in children.³ Depiction of smoking in movies has been a particularly pernicious influence.⁵ Although most of the research on media influences has been conducted in a few high-income countries, distribution of free cigarettes and widespread awareness of tobacco advertisements has been demonstrated among children in Africa.^{6,7}

Tobacco consumption is a major cause of illness and death. When primary breadwinners die or are too ill to work due to smoking-related diseases, entire families can be thrown into poverty. In addition, smoking prevalence tends to be highest among those with the lowest levels of education and income. If family income that is already inadequate is diverted from meeting basic needs, including food, to purchasing tobacco, this can have a devastating impact upon children.⁸ Furthermore, poor children in developing countries are frequently employed in tobacco farming to provide essential family income. These children commonly suffer exploitation through long hours and very low wages, denial of educational opportunities and exposure to toxic pesticides.⁸ Although tobacco growing is not the only form of agricultural production with harmful exposures, pesticides used in tobacco farming, including aldicarb, chlorpyrifos, and 1,3-dichloropropene, are especially toxic and can lead to chronic health problems especially when used without protective equipment.^{9,10} Children are also vulnerable to green tobacco sickness from nicotine absorbed

through the skin from handling wet tobacco leaves.¹¹

Tobacco exposure is a serious and increasing global paediatric issue. Child health-care delivery organizations have new opportunities for improving tobacco control interventions.¹² In March 2009, at the 14th World Conference on Tobacco or Health held in Mumbai, India, the American Academy of Paediatrics and the International Paediatric Association launched an international initiative to promote involvement of child health clinicians worldwide as actors and opinion leaders in tobacco control. It aims to call attention to the harm that tobacco causes to children, disseminate best practices to reduce exposure of children to tobacco and second-hand smoke, and train clinicians in advocacy for policy change and effective methods of counselling parents regarding these issues.

The American Academy of Paediatrics and the International Paediatric Association are strongly committed to working with other partners to combat the global paediatric tobacco epidemic. We are dedicated to advocating for increased resources and priority for tobacco control, especially relating to children, and we call upon others to join us in this effort. Global tobacco use, exposure and production are major public health crises for children and threaten progress towards the United Nations Millennium Development Goals of eradicating extreme poverty and hunger and achieving universal primary education. It's also a moral crisis when governments and other stakeholders idly stand by. Recognizing tobacco as a paediatric problem is one key step towards focusing efforts to extinguish this global public health disaster. ■

Acknowledgements and references

Available at: <http://www.who.int/bulletin/volumes/88/1/09-069583/en/index.html>

^a Division of Epidemiology and Community Health, University of Minnesota, 1300 South Second Street (Suite 300), Minneapolis, MN, 55454-1015, United States of America (USA).

^b Center for Child and Adolescent Health Policy, Massachusetts General Hospital for Children, Boston, MA, USA.

^c University of Arizona, Tucson, AZ, USA.

^d University of Rochester, Rochester, NY, USA.

^e MD Anderson Cancer Center, University of Texas, Houston, TX, USA.

Correspondence to Harry A Lando (e-mail: lando001@umn.edu).

Acknowledgements

The authors are all members of the American Academy of Pediatrics Tobacco Consortium. Bethany J Hipple, Jonathan D Klein and Jonathan P Winickoff are members of The American Academy of Pediatrics' Julius B Richmond Center of Excellence.

References

- Mackay J, Eriksen M, Shafey O. *The tobacco atlas*. 2nd edn. Atlanta, GA: American Cancer Society; 2006.
- National Cancer Institute. *The role of the media in promoting and reducing tobacco use* [Tobacco control, monograph no. 19, NIH Pub. No. 07-6242]. Bethesda, MD: US Department of Health and Human Services, National Institutes of Health, National Cancer Institute; 2008.
- DiFranza JR, Wellman RJ, Sargent JD, Weitzman M, Hipple BJ, Winickoff JP. Tobacco promotion and the initiation of tobacco use: assessing the evidence for causality. *Pediatrics* 2006;117:e1237-48. PMID:16740823 doi:10.1542/peds.2005-1817
- Warren CW, Jones NR, Peruga A, Chauvin J, Baptiste J, Costa de Silva V, et al. Centers for Disease Control and Prevention (CDC). Global youth tobacco surveillance, 2000-2007. *MMWR Surveill Summ* 2008;57:1-28 Available from: <http://www.usfa.fema.gov/inside-usfa/nfdc/pubs/tfrs.shtml> [accessed on 1 December 2009]. PMID:18219269
- Wellman RJ, Sugarman DB, DiFranza JR, Winickoff JP. The extent to which tobacco marketing and tobacco use in films contribute to children's use of tobacco: a meta-analysis. *Arch Pediatr Adolesc Med* 2006;160:1285-96. PMID:17146027 doi:10.1001/archpedi.160.12.1285
- Maassen IT, Kremers SP, Mudde AN, Joof BM. Smoking initiation among Gambian adolescents: social cognitive influences and the effect of cigarette sampling. *Health Educ Res* 2004;19:551-60 Epub 20 May 2004. PMID:15155587 doi:10.1093/her/cyg077
- Aström AN, Ogwell EA. Use of tobacco in Kenya: sources of information, beliefs and attitudes toward tobacco control measures among primary school students. *J Adolesc Health* 2004;35:234-7. PMID:15313506
- Efroymsen D, Hammond R. *Tobacco and poverty: a vicious circle*. Geneva: World Health Organization; 2004.
- Salvi RM, Lara DR, Ghisolfi ES, Portela LV, Dias RD, Souza DO. Neuropsychiatric evaluation in subjects chronically exposed to organophosphate pesticides. *Toxicol Sci* 2003;72:267-71. PMID:12660361 doi:10.1093/toxsci/kg034
- Van Minh H, Giang KB, Bich NN, Huong NT. Tobacco faring in rural Vietnam: questionable economic gain but evident health risks. *BMC Public Health* 2009;9:24. doi:10.1186/1471-2458-9-24 PMID:19152708
- McKnight RH, Spiller HA. Green tobacco sickness in children and adolescents. *Public Health Rep* 2005;120:602-5. PMID:16350329
- Prokhorov AV, Winickoff JP, Ahluwalia JS, Ossip-Klein D, Tanski S, Lando H, et al. Tobacco Consortium, American Academy of Pediatrics Center for Child Health Research. Youth tobacco use: a global perspective for child health care clinicians. *Pediatrics* 2006;118:e890-903. PMID:16950972