## Death, disease, and tobacco

Throughout history, humanity has been blighted by epidemics of communicable diseases that medical science and public policy have, to varying degrees, been able to control. Sanitation, immunisation, mosquito nets, and antimicrobial agents are examples of developments that have helped to generate substantial reductions in incidence of and mortality from cholera, dysentery, smallpox, measles, HIV, tuberculosis, and many other infectious diseases. Similar success is now urgently required to halt the global spread of non-communicable diseases that have dominated health in high-income countries for the past century, and are now emerging as major disease burdens in low-income and middle-income countries.1 This is especially true of the epidemics of lung cancer, chronic obstructive pulmonary disease (COPD), cardiovascular disease, and other disorders that are caused by tobacco smoking.

A new report in The Lancet using data from the Global Burden of Disease Study adds quantitative detail to an already extensive international literature on the health impact of the global tobacco epidemic by providing comprehensive estimates of death and disability caused by smoking at the country level.2 The findings are sobering. In 2015, smoking caused more than one in ten deaths worldwide, killing more than 6 million people with a global loss of nearly 150 million disability-adjusted life-years.2 Smoking prevalence and consequent morbidity and mortality are now falling in most (but not all) rich countries, but future mortality in low-income and middle-income countries is likely to be huge. Worldwide, one in four men, and a total of 933 million people, are estimated to be current daily smokers,<sup>2</sup> and 80% of these smokers live in low-income and middle-income countries.3 Half of these, or half a billion people alive today, can be expected to be killed prematurely by their smoking unless they quit.3 At present, smoking prevalence is still low in countries with a low socio-demographic index,24 but, on past experience in richer countries, it is only a matter of time before men and then women in all countries take up smoking, and in due course die from lung cancer, COPD, and other diseases caused by smoking, as has happened in the richer world.<sup>5</sup> Even though the prevalence of smoking is decreasing in many low-income and



middle-income countries, including many of those with the most smokers (eg, China and India), population growth means that the number of smokers, and hence the burden of harm from smoking, continues to rise.<sup>2,4</sup>

Responsibility for this global health disaster lies mainly with the transnational tobacco companies, which clearly hold the value of human life in very different regard to most of the rest of humanity. For example, the latest annual report from British American Tobacco (BAT),6 historically the most global of today's five transnational companies,7 details with apparent pride their geographical diversity, strong earnings and market share growth, market leadership in more than 55 countries, and manufacturing facilities in 42 of them.<sup>6</sup> In 2016, BAT sold 665 billion cigarettes, making £5.2 billion in profit; and recorded rising profits across most of the world.6 Countering the heft and influence of commercial behemoths such as this demands human resources, governance, expertise, and financial backing that few rich countries have yet to fully establish, let alone those countries at the lower end of the development spectrum. The WHO Framework Convention Alliance provides detailed guidance to support implementation of a growing range of effective tobacco control policies, including taxation, advertising bans, smoke-free policies, and protection against the vested interests of the tobacco industry,8 but, in most parts of the world, translating this guidance into effective legislation has a long way to go.9 Like in many

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rich countries, tobacco control legislation too often becomes mired in procedure and delayed or otherwise undermined by tobacco industry misrepresentation of science, fearmongering over tax revenue and illicit supply, corporate social responsibility activities, offers of help drafting tobacco laws, threatened or real legal action, and, in some countries, economic dependence on tobacco growing, and conflicts of interest. 10-14

The persistence of smoking in the countries first affected by the tobacco epidemic2 reflects decades of failure first to recognise smoking as a health problem, and second to take decisive action to implement the policies currently promoted by the WHO Framework Convention on Tobacco Control, but articulated long ago in the Royal College of Physicians' report of 1962.15 Today, the smoking epidemic is being exported from the rich world to low-income and middle-income countries, slipping under the radar while apparently more immediate priorities occupy and absorb scarce available human and financial resources. The epidemic of tobacco deaths will progress inexorably throughout the world until and unless tobacco control is recognised as an immediate priority for development, investment, and research. Rich-world experience also teaches that where the tobacco industry leads and succeeds today, so the alcohol and food industries follow tomorrow. 16

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I declare no competing interests.

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- GBD 2015 DALYs and HALE Collaborators. Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. The Lancet, 2016; 388: 1603–58.
- 2 GBD 2015 Tobacco Collaborators. Smoking prevalence and attributable disease burden in 195 countries and territories, 1990–2015: a systematic analysis from the Global Burden of Disease Study 2015. Lancet 2017; published online April 5. http://dx.doi.org/10.1016/S0140-6736(17)30819-X.
- 3 WHO. Tobacco fact sheet. Geneva: World Health Organization, 2016. http://www.who.int/mediacentre/factsheets/fs339/en/ (accessed Feb 3, 2017).
- 4 Ng M, Freeman MK, Fleming TD, et al. Smoking prevalence and cigarette consumption in 187 countries, 1980–2012. JAMA 2014; 311: 183–92.
- 5 Lopez AD, Collishaw NE, Piha T. A descriptive model of the cigarette epidemic in developed countries. Tob Control 1994; 3: 242–47.
- 6 British American Tobacco. Delivering today, investing in tomorrow. Annual report 2016. 2017. http://www.bat.com/group/sites/uk\_9d9kcy. nsf/vwPagesWebLive/DO9DCL3B/SFILE/medMDAKAJCS.pdf?openelement (accessed March 31, 2017).
- 7 Callard C. Follow the money: how the billions of dollars that flow from smokers in poor nations to companies in rich nations greatly exceed funding for global tobacco control and what might be done about it. Tob Control 2010; 19: 285–90.
- 8 WHO. Framework Convention on Tobacco Control Adopted Guidelines. Geneva: World Health Organization, 2017. http://www.who.int/fctc/treaty\_instruments/adopted/en/ (accessed Feb 1, 2017).
- 9 WHO. WHO report on the global tobacco epidemic, 2015. Raising taxes on tobacco. Geneva: World Health Organization, 2015. http://apps.who.int/iris/bitstream/10665/178574/1/9789240694606\_eng.pdf?ua=1&ua=1 (accessed Feb 3, 2017).
- Balwicki Ł, Stokłosa M, Balwicka-Szczyrba M, Tomczak W. Tobacco industry interference with tobacco control policies in Poland: legal aspects and industry practices. Tob Control 2016; 25: 521–26.
- 11 Crosbie E, Sebrie EM, Glantz SA. Tobacco industry success in Costa Rica: the importance of FCTC article 5.3. *Salud Publica Mex* 2012; **54:** 28–38.
- 12 Lencucha R, Drope J, Labonte R, Zulu R, Goma F. Investment incentives and the implementation of the Framework Convention on Tobacco Control: evidence from Zambia. Tob Control 2016; 25: 483–87.
- 13 Tam J, van Walbeek C. Tobacco control in Namibia: the importance of government capacity, media coverage and industry interference. Tob Control 2014; 23: 518–23.
- 14 Rao NV, Bhojani U, Shekar P, Daddi S. Conflicts of interest in tobacco control in India: an exploratory study. Tob Control 2016; 25: 715-18.
- Royal College of Physicians. Smoking and health. A report on smoking in relation to lung cancer and other diseases. London: Royal College of Physicians, 1962. https://www.rcplondon.ac.uk/projects/outputs/ smoking-and-health-1962 (accessed Feb 3, 2017).
- Moodie R, Stuckler D, Monteiro C, et al. Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries. Lancet 2013; 381: 670-79.