Extended Commentary

A failure of leadership? Why Northern Ireland must introduce a total ban on workplace smoking

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The decision by Shaun Woodward, Northern Ireland's Minister for Health, Social Services, and Public Safety to opt for only a partial ban on smoking in public places has been greeted with widespread incredulity. Smoking kills about 3,000 people in Northern Ireland every year, nearly as many as died in all the years of "the troubles", and his decision flew in the face of a widespread public consultation in which 91% of over 70,000 people responding supported a complete ban.1 Ironically, as policymakers from all over the world have travelled to the Republic of Ireland where they can see, and are increasingly copying, the successful ban introduced there, the Minister seems unaware of what has been achieved a short drive across the border. There is, however, a glimmer of hope, as the Minister has stated that there will be a further period of reflection that could lead to a total ban. Given the wealth of experience of the benefits of such bans, why any more reflection should now be needed seems a mystery. In fairness, however, it must be conceded that it is easy to become confused given the torrent of misinformation emanating from the tobacco industry and its associates.

Our knowledge about second-hand smoking and how best to tackle it has increased greatly in recent years, largely as a result of a series of American court rulings that forced the tobacco industry place many of its internal documents in the public domain.² This has revealed the enormous scale of deception that the industry has been involved in for decades. For example, in 1994 the chief executives of seven of the largest tobacco companies testified to the US Congress that nicotine was not addictive even though their own internal documents clearly showed that it was.³ We now know how, for years, the tobacco companies were manipulating the

content of cigarettes to increase the nicotine kick to speed the onset of addiction among new smokers. We also know how, since at least 1977, industry executives from different companies would meet, often in secret, to discuss ways of keeping alive the illusion that there was genuine scientific controversy about whether tobacco was harmful. These tactics, coupled with even more unsavoury activities, including complicity in smuggling, mean that the credibility of the tobacco industry is in shreds. As a consequence, the industry has increasingly resorted to the use of other organisations, especially in the hospitality industry, to make its case for it, often with the support of generous funding.

So what are the arguments being used by the tobacco industry and those speaking on its behalf? The first is that the risks of second hand smoke have been exaggerated. Here it is necessary to step back and review the nature of the evidence. The early research showing the harm caused by second hand smoke was conducted on non-smoking wives of smoking men. The argument was that this represented a group who, although not actively smoking, was exposed to the smoke of others at home.

Although groundbreaking research at the time, these studies are, of course, subject to certain limitations, which the industry worked hard to exploit. A key objective was to attempt to show that non-smoking

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wives of smokers were in some way different from the rest of the population. They also sought to identify anything else that these women might be exposed to that would explain their increased risk of disease. The effort they went to was immense, although hardly surprising given how much they had to lose. When the International Agency for Research on Cancer produced what many people regard as the definitive study on the harm caused by second-hand smoke,⁷ the industry spent \$4 million in a campaign to undermine it. ⁸

The main limitation of these studies was that they assessed exposure to second-hand smoke indirectly, asking about whether people lived with smokers but not measuring what they were exposed to. In fact, this was likely to under-estimate any effect. However this weakness has now been overcome in a recent study that measured levels of cotinine, a by-product of nicotine, that gives a much more accurate measure of exposure. This showed that the danger was far greater than had been suspected, with those exposed most to other people's smoke having a 60% increase in the risk of a heart attack, after other risk factors had been taken into account.9

Other research sheds light on the mechanisms underlying these risks. We have recently revealed the existence of a testing plant in Cologne that is owned by Philip Morris, but managed through a complex web of relationships that have concealed its links to the parent company. 10 In this plant, studies on animals found that sidestream smoke, such as that from smouldering cigarettes in ashtrays, is about four times as harmful as directly inhaled smoke. The explanation is the lower combustion temperature, leading to production of volatile organochlorines, compared with smoke produced when the smoker is sucking air through the cigarette. This is analogous to the situation in which burning garden waste creates dangerous dioxins while burning the same waste in a high temperature incinerator is much safer. Thus it is apparent that second hand smoke is much more dangerous than had previously been assumed.

A second argument is that the problem of secondhand smoke can be solved by ventilation. Much of the evidence they produce is their own research, from studies almost guaranteed to give the results they want. In contrast, independent studies show that it requires fans blowing with the force of a wind tunnel to reduce exposure to safe levels.¹¹ It is important to recall that, although ventilation may remove the smell of smoke, about 90% of the harmful components of tobacco smoke, such as cyanide and carbon monoxide, are odourless. In contrast, smoking bans do make a difference to air quality. Preliminary results from research undertaken in Dublin pubs has found a reduction of 45% in the level of carbon monoxide in the breath of non-smoking bar staff since the ban was introduced, with a 36% fall among ex-smoking bar staff. 12 Another study of the ambient air in Dublin bars found a reduction of 88% in particulate material under 2.5µm and a reduction of 53% in material under 10um.¹³ This particulate material is increasingly recognised as being very harmful to health.¹⁴ Not surprisingly, the tobacco industry has worked hard to reduce the smell of environmental tobacco smoke to encourage the idea that ventilation works. 15 The contrast between the speed with which authorities act when alerted to risks of exposure to asbestos contrasts with the complacency that allows bar workers to remain exposed to this noxious combination of toxins.

A third argument is that smoking bans in bars and restaurants will lose money, and so increase unemployment. Again this is nonsense. The majority of people are already non-smokers and many avoid bars precisely because they are so smoky. In New York, in the nine months after the smoking ban was introduced, sales tax receipts on food and drink increased by 12% and the hospitality industry took on several thousand new employees.¹⁶ In Ireland there has been a long term downward trend in pub sales that predates the ban, but in the months after smoking was banned, the percentage of the Irish people who had visited a pub in the preceding weeks increased. 17 By the end of 2004, eight months after the Irish ban was implemented, the number of workers in the hospitality industry was 0.6% higher than it had been in 2002.¹⁷ Contrary to the predictions of the hospitality industry, the number of tourists visiting Ireland increased by 3.2% between 2003 and 2004.17

So why do so many people believe the opposite? A comprehensive review of research on the economic effects of smoking bans found 97 studies of this subject. 18 Every one of the 37 studies that found a fall in sales had been funded by the tobacco industry or was written by consultants known to have industry links. Few of these studies had appeared in a scientific journal. None of the 60 independent studies found an adverse economic impact.

Finally, the industry argues that a partial ban will be more acceptable, as it protects both the health of non-smokers and the rights of smokers. All sorts of combinations have been proposed, none of which have any merit. A major problem is that of enforcement. When, as in Ireland and many other countries, a government implements a clear and unambiguous policy, then it is essentially selfenforcing. In Ireland, compliance with the ban rapidly reached 94%. Polls have found that 93% of people think the ban is a good idea (80% of smokers), 96% think the law has been successful (89% of smokers), and 98% believe that workplaces are now healthier (94% of smokers). 17 Ouite simply. there is no argument. On the other hand, poorly thought out policies such as that being proposed in England, permitting smoking in bars where food is served, lead to endless and probably insoluble arguments about what constitutes food. Furthermore, the English proposal will widen health inequalities as it is those bars in the poorest areas that are least likely to serve food.¹⁹ The industry also suggests having demarcated smoking areas although, given the evidence reviewed above about the limitations of ventilation, as many commentators have noted, this is the equivalent of having a urinating area in a swimming pool.

The Minister may have tactical reasons for delaying the introduction of a comprehensive smoking ban that he has not shared with the people of Northern Ireland. However, given both the overwhelming support for a ban, and the weight of scientific evidence in its favour, one can only hope that this is a very temporary delay. When I was a child growing up in Belfast I remember the signs prohibiting spitting on Belfast buses. Those have gone and, in time, there will be no need for similar signs saying "no smoking". The tobacco industry and its associates will, of course, argue against effective action, to which we should simply reply "why on earth should we believe anything you say?"

REFERENCES

- Smoking ban plans are announced. BBC News. UK edition. 2005 Jun 28. Available from: http://news.bbc. co.uk/1/hi/northern_ ireland (accessed 5 July 2005).
- 2. Glantz SA, Slade J, Bero LA, Haunauer P, Barnes DE. The cigarette papers. Berkeley CA: University of California Press, 1996.
- 3. Hurt RD, Robertson CR. Prying open the door to the tobacco industry's secrets about nicotine: the Minnesota Tobacco Trial. JAMA 1998; **280(13):** 1173-81.
- 4. Francey N, Chapman S. "Operation Berkshire": the international tobacco companies' conspiracy. *BMJ* 2000; **321(7257):** 371-4.

- 5. Collin J, LeGresley E, MacKenzie R, Lawrence S, Lee K. Complicity in contraband: British American Tobacco and cigarette smuggling in Asia. *Tob Control* 2004; 13 Suppl 2: ii104-11.
- 6. Dearlove JV, Bialous SA, Glantz SA. Tobacco industry manipulation of the hospitality industry to maintain smoking in public places. *Tob Control* 2002; 11: 94-104.
- 7. Boffetta P, Agudo A, Ahrens W, Benhamou E, Benhamou S, Darby SC, *et al.* Multicenter case-control study of exposure to environmental tobacco smoke and lung cancer in Europe. *J Natl Cancer Inst* 1998; **90(19):** 1440-50.
- 8. Ong EK, Glantz SA. Tobacco industry efforts subverting International Agency for Research on Cancer's second-hand smoke study. *Lancet* 2000; **355(9211)**: 1253-9.
- 9. Whincup PH, Gilg JA, Emberson JR, Jarvis MJ, Feyerabend C, Bryant A, *et al.* Passive smoking and risk of coronary heart disease and stroke: prospective study with cotinine measurement. *BMJ* 2004; **329**(7459): 200-5.
- 10. Diethelm PA, Rielle JC, McKee M. The whole truth and nothing but the truth? The research that Philip Morris did not want you to see. *Lancet* 2005; **366(9479):** 86-92.
- 11. Drope J, Bialous SA, Glantz SA. Tobacco industry efforts to present ventilation as an alternative to smoke-free environments in North America. *Tob Control* 2004; 13 Suppl 1: i41-7.
- 12. Agnew M, Goodman PG, Clancy L. Evaluation of the lung function of barworkers in Dublin, pre and post the introduction of a workplace ban on smoking in Ireland. Dublin: Scientific Symposium "The health effects of smoke-free workplaces in Ireland", March 2005.
- 13. McCaffrey M, Goodman PG, Clancy L. Particulate pollution levels in Dublin pubs pre and post the introduction of a workplace ban on smoking in Ireland. Dublin: Scientific Symposium "The Health Effects of Smoke-free Workplaces in Ireland", March 2005.
- 14. Kappos AD, Bruckmann P, Eikmann T, Englert N, Heinrich U, Hoppe P, et al. Health effects of particles in ambient air. *Int J Hyg Environ Health* 2004; **207(4)**: 399-407.
- 15. Connolly GN, Wayne GD, Lymperis D, Doherty MC. How cigarette additives are used to mask environmental tobacco smoke. *Tob Control* 2000; **9(3)**: 283-91.
- 16. Stark M. Commissioner of the New York City Department of Finance. Letter to the Editor published in The New York Times, January 4 2004.
- Office of Tobacco Control. Smoke-free workplaces in Ireland: A one year review. Clane: Office of Tobacco Control, 2005. Available from: http://www.otc.ie/Uploads/1_Year_Report_FA.pdf
- 18. Scollo M, Lal A, Hyland A, Glantz S. Review of the quality of studies on the economic effects of smoke-free policies on the hospitality industry. *Tob Control* 2003; 12: 13-20.
- 19. Kmietowicz Z. More pubs will escape smoking ban than UK government has claimed. *BMJ* 2005; **330(7500)**: 1105.