

## Tobacco, Lung Diseases and NCDs: A Reason to Dance, but the Rain is Still Falling

Nathan Grills

### **Tobacco, lung diseases and NCDs**

As the NCDs rain down, or even pour, and the forecast is for torrential rain, we can bask in the success of tobacco control in places like Australia. Unlike when I grew up, my children, and yours can dance without having to choke on tobacco smoke. So, tobacco control in Australia is a story about dancing in the rain! Rates in Australia have relentlessly decreased to an all-time low of less than 13%. It is conceivable that the huge tobacco-related epidemic might be relegated to a murky, tar-filled history book. That is reason to dance!

### **The rain: the fight of our life**

Tobacco is more effective at killing you than the most sophisticated weapon of mass destruction. If a terrorist organisation wanted to develop the most effective weapon of mass destruction, then what more effective agent could there be than tobacco smoking? It is cheap and easy to produce: 5.8 trillion cigarettes were produced last year, which represents 743 cigarettes for each man, woman and child in the world (or so brags the industry at <http://www.topcigarettesbrands.info/>). There are one billion daily smokers (>15

years old), including 820 million men (33% of all men) and 176 million women (7% of all women). Once exposed to the highly addictive nature of this agent, the user mostly continues until it kills them. It is, or at least was, concealed in highly attractive packets and papers to hide its true nature. It has an effective delivery mechanism whereby powerful entities with nearly unlimited resources can deliver the weapon to nearly anywhere in the world. And not only delivery, but these powerful entities can avoid or destroy countermeasures through legal, political and corporate means.

The weapon can penetrate an entire population of men, women and children. Cigarettes release around 4,000 chemicals, and 51 of them are known to be carcinogenic. Few body systems escape damage, and it kills at a rate of 50% of all who are afflicted, demonstrating its effectiveness as an agent of mass destruction by inflicting maximal damage on humanity. Globally, tobacco use is the second-leading cause of preventable death,<sup>1</sup> being responsible for more than 5 million deaths annually.<sup>2</sup> To give some perspective, this is the equivalent of one packed Airbus A380 jetliner going down every hour! And the news does not get any better for the coming century, where it is anticipated to kill 8 million per year by 2030. So, whereas tobacco use killed 'only' 100 million in the 20th century, if nothing changes it may be responsible for the deaths of 1 billion people in the 21st century.<sup>3</sup>

The present burden of tobacco deaths is equally shared between developed and developing countries.<sup>1</sup> However, while tobacco consumption and its impact is decreasing in high-income countries, the impact of tobacco usage is increasingly being felt in Low and Middle Income Countries (LMIC). For example, 84% of the world's smokers now reside in LMIC countries<sup>4</sup> and by 2030, 70% of tobacco-related deaths are predicted to occur in LMIC.<sup>4,5</sup>

Tobacco usage, and the diseases it causes, are not just a health issue but a significant development issue. The recent United Nations (UN) High Level Meeting on Noncommunicable Diseases

(NCDs) classified tobacco usage as a development issue on various levels: it promotes poverty, disadvantages women, damages the environment, is a major risk factor for infectious diseases and is the number one killer of men during their most productive age (18–44). The resultant UN declaration acknowledged that tobacco use as one of the most significant barriers to development.

So, in what areas of health does tobacco exert its maximal effects? Tobacco smoking is, of course, a major risk factor for respiratory diseases. Chronic lung disease, as has been highlighted earlier in this book, causes significant morbidity and mortality and about 7% of global deaths, including from asthma and chronic obstructive pulmonary disease (COPD). Smoking is responsible for a massive 90% of all lung cancers and 90% of COPD. However, tobacco's greatest effect on mortality is outside the lungs. In terms of burden of disease, tobacco kills many more people through causing cardiovascular disease than it does through lung cancer, as the landmark Doll and Hill study revealed.<sup>7</sup> We now know that worldwide 10% of cardiovascular disease, the commonest cause of death, is due to smoking. Doll's final study, published not long before he died, showed that smoking caused over half of all deaths among his cohort of smokers due to lung cancer, COPD, or ischemic heart disease. On average, non-smokers lived an average of 10 years longer than smokers.<sup>8</sup>

### **Something to dance about?**

Tobacco control has been the greatest lifesaver in the past half century in developed countries.

Like most people over 30 years old, I grew up with tobacco smoke in my face. I knew the major Australian tobacco brand-names well due to my passion for cricket and sport. The Benson and Hedges World Series Cricket was my favourite event in the sports calendar. On train trips across Europe and overseas flights with my family, I remember choking on tobacco smoke. I was asthmatic and every puff of smoke I inhaled made me wheezy.

How crazy it now seems that we would allow someone to light up on a plane! In less than a generation in Australia, my son now lives with virtually no exposure to cigarette advertising or smoke — he can fly on a plane without smoking someone else's pack of cigarettes and will never admire and covet the bright colours and logos of tobacco brands spilled over sporting grounds

Over the past 100 years there have been a number of examples of successful responses to pandemics and global health emergencies. Probably foremost in our minds is the successful elimination of smallpox through vaccination, or the high profile treatment campaigns in the cause of diseases such as HIV. But perhaps the greatest threat to human health emerging in the 20th century was tobacco usage. And perhaps the greatest response to a pandemic in the last 50 years has been tobacco control. With a comprehensive and globally coordinated tobacco control movement, total world consumption of tobacco has stopped increasing and levelled off. There is a decline in the prevalence of tobacco use in most high income countries, and this combined with a slowing increase has in turn averted millions of premature deaths: an estimated half a million in Australia and eight million in the United States. Australia has seen tobacco usage rates drop from 45% of males in 1977 to just 12.8% in 2013.<sup>9</sup>

In Australia, this was a story of significant social transformation and probably represents our greatest public health success story! Tobacco control has saved more lives than any other intervention in Australia over the last 50 years. The Victorian story deserves a book or movie every bit as much as the story of eradication of smallpox did. One such book, *Victoria's Tobacco Act: The Untold Story*,<sup>10</sup> tells the story of Victoria's Tobacco Act, which set a global precedent for an independent Health Promotion Foundation with secure hypothecated funding. The foundation has underpinned most of the effective tobacco control activities in Victoria ever since. The journey in Australia was one of outstanding public health leadership by people like Nigel Gray, effective

research by those such as Hill, political manoeuvring and public health advocacy by the likes of Daube, Moodie and Chapman, and larrikinism such as the BUGA-UP campaign (Billboard Utilising Graffitists Against Unhealthy Promotions).<sup>11</sup>

But, are current smokers in Australia drowning in the rain? They are paying massive taxes, are likely to die 10–15 years early, are increasingly shunned as smoking becomes denormalised, and they are banished to a cold road to smoke. Those who still smoke are more likely to be poor, uneducated, Indigenous and recent migrants. Therefore, there has been some debate around the ethics of demonising already marginalised groups and imposing regressive taxes. However, there can be little doubt that they will be socially, economically and physically better off if these negative impacts do indeed help them quit. So, a better response to the ethical concerns about demonisation and economic impact is to provide supports to help them quit in response to potential impositions. This has been the case in places like Australia where free and targeted cessation assistance has been made available. Campaigns such as smoke-free prisons, universities and hospitals have provided specific information and support to help smokers quit.

Doll, and others, have determined that if the smoker quits at age 50, the risk of premature death is cut in half, while if a young smoker quits by age 30 years old then they nearly eliminate the risk altogether.<sup>8</sup> So, if the rain puts their cigarettes out then there is cause to dance in the rain!

### **So, what's on the dance card? Or, different reasons to dance**

After decades of fighting tobacco we have a very good idea of what works to decrease youth uptake, encourage adult quitting and protect others against second-hand smoke. Researchers have explored how smoking prevalence has varied as we have introduced various effective interventions in Australia. Obviously, it is difficult

to control for confounders and correlate interventions with prevalence changes. However, Wakefield et al. took the data from the Roy Morgan Research Company further and analysed monthly smoking prevalence up to 2006. They then merged costliness of tobacco with the amount of mass media exposure over the same period. They found that half of the decrease in prevalence could be accounted for by taxation changes and mass media.<sup>12,13</sup> This was continued into 2011 and also showed the impact of smokefree workplaces and bans in clubs, restaurants and other public venues.<sup>14</sup>

In addition to increasing the cost of cigarettes, mass media and smokefree workplaces banning all forms of advertising have been extensively demonstrated to be effective in decreasing the prevalence of smoking prevalence in Australia.

### **Effective policy interventions**

Let's look in more detail at the policy interventions that have been shown to be most effective in fighting tobacco in Australia and elsewhere.

#### ***Increases in real tobacco price or excise***

Tax increases have been the silver bullet of tobacco control both in Australia and also in LMICs. Even though such policies represent a regressive tax (whereby the poor pay relatively more as they smoke more) it represents a socially progressive policy by benefitting those from lower socio-economic status (SES) who tend to have a higher price elasticity. Put simply, if you hike the price, more people from low SES will stop than those from higher SES. Siahpush found that for every dollar increase in tobacco price, prevalence of smoking declined more in lower income smokers (2.6%) than in medium income (0.3%) or high income smokers (0.2%).<sup>15</sup>

#### ***Banning advertising and marketing of cigarettes***

There is vast evidence, both from within the companies and from the tobacco control research community, that banning advertising and marketing of cigarettes is a key part of fighting tobacco. The

evidence shows that this cannot be partial, or tobacco companies move their adverts to other forms of media and positioning.

There is a typical progression for this approach, as was the case in Australia with phasing out of:

- electronic advertising (1973–1976)
- billboards (late 1980s)
- print advertising (early 1990s)
- promotional items (branded t-shirts) (1990s)
- tobacco sponsorship restrictions (1980s)
- point of sale advertising (early 2000s)
- cigarette pack displays (late 2000s).

### *Televised mass media campaigns*

Mass media campaigns have been shown to reduce smoking uptake and prevalence among youth and promote quitting among adults. Mass media campaigns are highly cost effective, a fact that tobacco companies knew for many years and historically poured billions of dollars into mass media advertising.<sup>16,17</sup>

Australia has been a world leader in televised mass media campaigns, and since 1997 has had the National Tobacco Campaign, a large part of which has been mass media campaigns. This has been continued with increasing sophistication and market research, more recently focusing on impacts on dependents and building self-efficacy to quit.

### *Smoke-free areas*

Smoke-free areas are very effective in reducing tobacco usage and have played a role in Australia's steep decline in tobacco usage. In addition to decreasing passive smoking, there is ample evidence that going smoke-free increases quit rates and reduces the amount smoked. The strength of smoke-free policies are that they rely on the justification that it is injurious to someone else, which is true of course. By your smoking you impose on my right to clear air and health. Therefore, it appeals to both libertarians and proponents of regulatory tobacco control, although a legitimate justification for

smoke-free policies is how the intended ‘unintended consequences’ of denormalising smoking probably has a greater impact on tobacco usage.

In Australia, we have effectively eliminated smoking from pubs, hotels, clubs, hospitals, and more recently in universities and prisons. This now needs to be fully rolled out to beaches, parks and other public spaces. In effect, this leaves smokers with few places to smoke when in public and at work and so encourages quitting thoughts and actions. These restrictions add another reason to the myriad of legitimate reasons why a smoker wants to quit. And if done well, smoke-free policies can act as a prompt for action for those who have wanted to stop for many years: ‘It’s too difficult to be a smoker at work now ... this is my time to do it!’

### **The endgame for tobacco: some new dances?**

The tobacco endgame is socially desirable, technically feasible, and could become politically practical. *Lancet* 2015<sup>18</sup>

There have been dramatic decreases in smoking rates, but how do we finish the job? Only 12.8% of adults smoke daily and 90% regret having ever started or want to give it up.<sup>19</sup> How do we decrease this prevalence towards 0%? The low prevalence and widespread community support for tobacco control allows us to increasingly expose the absurd situation whereby we have a legal consumer product that kills half of its long-term users. The more radical ideas are no longer off the table. Ideas that would have been seen as draconian 20 years ago are now a possibility in developed countries. In New Zealand, for example, the public were receptive to radical ideas, and 50% even supported an outright ban in 10 years.<sup>20</sup>

A number of events have been held to try to operationalise the concept of the ‘endgame for tobacco’. In 2013, the Public Health Foundation of India, in partnership with the University of Melbourne, convened the International Conference on Public Health Priorities in the 21st Century: The Endgame for Tobacco in

New Delhi. Six hundred delegates from 52 countries expanded the narrative around the tobacco endgame. The conference declaration outlined the endgame as a reduction in consumption and availability of tobacco to minimal levels through full, effective and accelerated implementation of all policy measures recommended under the WHO-FCTC, and adopting new strategies.<sup>21</sup>

The ‘end game’ scenario has different definitions, but basically it is about strategies to reduce consumption and availability of tobacco to minimal levels. The minimum level has been defined as somewhere in the vicinity of 2–5% tobacco use prevalence within a population. The rationale for defining the endgame as 2–5% is because it is thought to represent a ‘tipping point of de-normalisation, at which point countries are enabled to further completely eliminate all forms of tobacco consumption’.<sup>21</sup>

### **Stop the rain: the tobacco usage end game**

We know what works in tobacco control. Therefore, any novel or radical endgame strategies need to be undertaken in parallel with a comprehensive implementation of existing evidence-based interventions. This involves increasingly aggressive and comprehensive implementation of the provisions in the Framework Convention on Tobacco Control and, in particular, the following.

#### ***Remove all opportunities for advertising: less advertising, larger warnings!***

Ending all forms of advertising and promotion involves removing brands and logos and advertisements from packages and, in many countries, removing point-of-sale advertisements. In 2006, internal tobacco industry documents stated that in the face of aggressive advertising bans ‘... what we will increasingly see is the pack being viewed as a total opportunity for communications’.<sup>22</sup> Now Australia, with Ireland and the United Kingdom set to follow, have shut down this communication tool! In Australia, with the passing into law of plain packaging of tobacco products in 2012, tobacco

advertising has pretty much been blacked out. Basically, plain packaging requires removal of all branding (colours, imagery and logos) from packages of all types of tobacco products, permitting manufacturers to print only the brand name in a mandated size, font and place on the pack, in addition to the graphic and textual health warnings. The branding is replaced with larger and impactful graphic health warnings. Plain packaging aims to:

1. reduce the appeal of tobacco products
2. increase the effectiveness of health warnings
3. reduce the ability of retail packaging of tobacco products to mislead consumers about the harms.

There is a growing body of evidence that plain packaging decreases the appeal of smoking, increases the impact of graphic warnings and is even decreasing levels of cigarette consumption.<sup>23-26</sup>

### ***Maintain strict advertising bans***

Advertising bans need to be maintained, especially as we respond to the ever-evolving and growing world of internet and the rapidly evolving social media platforms and international products being promoted and sold on the internet. Electronic cigarettes represent a back door for tobacco companies to vicariously promote tobacco use, and ultimately to re-normalise smoking. Up until this point, Australia has banned the sale, use, possession and advertising of E-cigarettes, but not so in the United Kingdom.

Tobacco advertising is back! Advertising for E-cigarettes is remarkably unimaginative but highly effective. Tobacco companies know what sells: sex, image, aspiration, leisure and fast cars. You actually have to look pretty closely to see that they are not advertising tobacco smoking. Tobacco control advocates should be scared! Meanwhile, the confusion between tobacco control advocates as to the utility or otherwise of E-cigarettes provides a smoke (or vapour) cover for the tobacco companies to continue to promote their poisons.

Other tobacco company strategies have included brand stretching (brand extension) whereby a tobacco industry uses the same brand, same colour, same design and same logo on a new product range such as cosmetic products or a clothing range. The advertising restriction is on the tobacco and not on the non-tobacco product. So, the company advertises a non-tobacco product and effectively the tobacco product as well. Yadav, a public health lawyer, comments that in India you would not find the advertised cosmetic on the shelves and if you ask for that product you get the tobacco version and not the non-tobacco one! A company will typically 'paint the whole town in that colour and you see that people are always reminded of the brand of tobacco that they are using'.<sup>27</sup>

***Promote complete bans on smoking in workplaces and public areas***

We need to eliminate exposure to second-hand smoke in public places. An effective endgame tool is progressively to impose smoking bans in public spaces, rightly justified by eliminating exposure to second-hand smoke. And these need to be complete! It has been hard to get tobacco usage out of settings where it was seen as 'cultural' or even institutionalised: universities, prisons, the military, and mental health institutions. However, this is now happening in Victoria, which is smoke-free in universities, hospitals and prisons.

In the military, things have changed from the time of World War I when you were given tobacco as a treat or as part of rations. However, even when I was out at sea serving with the Navy in 1996, smoking was what you did. You also had access to cheap and tax-free tobacco, given the foreign stopovers in Asia.

However, state governments in Australia have been patchy in rolling out smoking bans. Over the last five years the Victorian government has been dragging its feet. Although all enclosed workplaces, including restaurants, cafes, licensed premises and

shopping centres, are smoke-free, outdoor eating areas and cafes with one side open have been exempt, as has high roller rooms in casinos in Melbourne and Sydney. Another option at the local level is to rely on local councils to impose such restrictions. Under Australian tobacco laws, councils can designate smoke-free areas under local law, which prohibits the smoking of tobacco in prescribed smoke-free areas. For example, the Melbourne City Council has led the way with the introduction of the smoke-free Parkville precinct; and more recently some cafe strips of the CBD have been identified as some smoke-free zones. Other Victorian councils, such as Brighton City Council, are considering making beaches and outdoor eating strips smoke free.

### ***Making smoking unaffordable***

In promoting the endgame, tobacco products need to be made significantly more expensive, which is most easily done through taxation. As described above, serial increases in tobacco excise in Australia mean that the cost of one cigarette has increased from about 20 cents each (accounting for CPI) in 1985 to nearly \$1 each in 2015.<sup>28</sup> There has been a program of excise increases, including a 12.5% a year increase in each year over 2013, 2014, 2015 and 2016. Eventually, the aim would be to make tobacco usage an unsustainable or unaffordable habit, except for the very rich. In contrast, other jurisdictions have inadequately utilised this policy tool. In India there is minimal taxation on beedis, or rolled cigarettes, with the cost of one stick being only about 1 rupee (or 2 cents, AUD)!

### **Radical approaches towards the endgame**

In addition to ramping up existing evidence-based approaches, what are some of the more radical approaches that might accelerate the endgame? There is now space for going beyond the accepted approach of incremental policy advances. The current opposition to smoking and low rates of usage do enable radical solutions to address an unacceptable situation of selling poison.

***Progressively raising the age limit***

Another approach involves progressively increasing the age of sale and consumption. Hawaii has recently increased the legal age to 21 years old and arguing that nine out of ten smokers start before the age of 21.<sup>29</sup> Researchers have found that raising the minimum age to buy tobacco products to 21 years old would significantly reduce smoking and tobacco-related illnesses in the country and that a majority of U.S. adults support raising the legal age to 21.<sup>18</sup>

***Smoke-free generation***

Another way of raising the age limit over time has been proposed in a bill in Tasmania, introduced by independent MP Ivan Dean. This would ban the sale of tobacco products to anyone born after the year 2000 and so in effect from 2018, the minimum legal age to purchase or be sold tobacco would rise every year. Singapore is also considering a similar law. Amazingly, in a survey by the Cancer Council, 87.9 % of Tasmanians support this intervention. To protect against industry claims, and I quote: 'ANZACS fought for the freedom' that is now threatened by 'Soviet style limiting of freedoms' exemptions could be granted through a system of smoker licensing.

***Smoker licensing***

Chapman advocates that the next big step is a smoker's licence that would operate in similar ways that we limit access to prescribed drugs.<sup>30</sup> A 'smart card' could be purchased on condition of tested understanding of risks and agreed consumer-determined consumption limits. Financial incentives, such as receiving back the equivalent to the license, would be provided for permanent license surrender before the age of 45.<sup>30</sup> Is this merely a utopian brainchild of passionate tobacco control advocates like Chapman? It is actually not so crazy, given that we allow regulation of less dangerous drugs like blood pressure medications, through GPs and special authority

scripts. Alternatively, to not require a license for a drug that kills 10,000 Australians each year should be labelled crazy!

***Reduction of nicotine to non-addicting level (US) — taking the acid out of the rain!***

Some major national and international tobacco control organisations have promoted reducing nicotine content of cigarettes to non-addictive levels. It is argued that with low, or no, nicotine, tobacco smoking will be less attractive and quitting made easier. It would be anticipated that large numbers of smokers who wish they weren't smokers could more easily stop, and that new smokers would be less likely to be addicted and so a phase would not become a lifelong habit that will most likely kill them.<sup>31</sup>

***Legal avenues***

'Tobacco products liability litigation is perhaps the most promising and potentially effective means of controlling the sale and use of tobacco.'<sup>32</sup> Legal endgame strategies make intuitive sense. How can a company that makes a product that kills up to half of long-term users, not have criminal or civil liability? In the past they could deny knowledge of harms but now the evidence is incontrovertible. This strategy is encouraged under article 19 of the FCTC but has largely been unexercised:

(1) For the purpose of tobacco control, the Parties shall consider taking legislative action or promoting their existing laws, where necessary, to deal with criminal and civil liability, including compensation where appropriate.

There have been very few criminal cases but in North America civil liability actions have been brought against the tobacco industry to seek damages for medical, social and other costs related to tobacco use. In 2009, in Canada, a class action was brought against three tobacco companies on behalf of Quebec smokers. In the June 2015 ruling, the Canadian court ordered the companies to pay \$12 billion for damages, the largest award for damages in Canadian

history.<sup>33</sup> Similarly, in July 2014 a Florida (US) jury granted US \$23.6 billion in punitive damages to the state. And in 1998 American tobacco firms agreed to pay US states a total of \$200 billion (the largest civil litigation suit in history). It is frightening to see that companies can foot a \$200 billion bill and their business is still viable! This area of legal and criminal cases requires further work as an endgame strategy and has not been successfully utilised in Australia. In Australia's best known case, the Supreme Court awarded Rolah McCabe \$700,000 damages against British American tobacco. However, this was overturned by the Appeals Court. In India, where a charter of human rights exists, cases are being brought against such companies on the grounds of denying or removing a person's right to health. Reeve and Gostin, in their chapter in this book, outline other legal avenues.

### **The global endgame: Helping other LMICs countries along the way?**

To achieve the endgame globally, countries like Australia with their long and distinguished tobacco control movements, need to work closely with less advanced countries. Countries like China, India and Indonesia (numbers 1,2,3 on the dais for numbers of smokers) represent a massive emerging market for tobacco companies. In India alone, 5,500 children start using tobacco each day, half of whom will die prematurely from their habit if they continue.

However, as in Australia, do we have to be patient and accept small incremental changes over a 40-year period? Or, given the huge cost of tobacco damage facing LMICs, and given that we know the dangers, we know what works, and we have an international backing (FCTC), can LMICS progress more rapidly? I believe the answer is yes and that countries like Australia who have all but controlled the epidemic, can play a role in working alongside LMICS to support tobacco control efforts in LMICS.

Along these lines, the Nossal Institute of Global Health (University of Melbourne) convened the Australia-India Institute

(AII) taskforce on tobacco control. Through the taskforce, Australia — being the world leader in introducing plain packaging — is now providing technical and research assistance to support India.<sup>34</sup> The work of the expert taskforce, including Moodie, Liberman, Daube, Chapman, Wakefield, Reddy, Arora, and Yadav, has led to a private member's Plain Packaging Bill being introduced to the Parliament of India. In contradiction to previous theories that promoted incremental change in tobacco control, the taskforce provided a theoretical basis and justification for leapfrogging to implementation of Plain Packaging legislation. Another example is the McCabe Centre for Law and Cancer, which helps to support countries to defend their public health laws from large tobacco companies who bring pariah legal cases against a country's tobacco control interventions. These powerful companies, whose profit is often higher than the GDP of the country whom they are supporting litigation against, need outside legal support.

## **Conclusion**

The rain (reign) of tobacco has caused an epidemic that rivals any other in the last 50 years in scale and impact. However, there is a reason to dance as in many countries we have been able to control the epidemic through strategic evidence based policies and interventions. We now know what works! Now is the time to consider strategies to promote the endgame for this dangerous poison that kills up to half of long time users. However, in many countries, particularly LMICs, the epidemic of tobacco-related deaths continues unabated. Countries who are closing in on the endgame and the international public health community need to work with such countries to protect them from the scourge of tobacco.

## **Acknowledgements**

Thank you to Professor David Hill and Nicole Hughes for their helpful comments reviewing this chapter.

## Endnotes

- 1 KM Esson and SR Leeder, *The Millennium Development Goals and Tobacco Control: An opportunity for global partnership*, Geneva, World Health Organization, 2004.
- 2 S Lim et al., 'A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010', *The Lancet*, vol. 380, no. 9859, 2013, pp. 2224–2260.
- 3 World Health Organization, *WHO Report on the Global Tobacco Epidemic, 2008: the MPOWER package*, Geneva, WHO, 2008.
- 4 GE Guindon and D Boisclair, 'Past, current and future trends in tobacco use' (Economics of Tobacco Control Paper No 6: Health, Nutrition and Population discussion paper), Washington D.C., World Bank, 2003.
- 5 BW Stewart and P Kleihues, *World Cancer Report*, IARC Press, 2003.
- 6 World Health Organisation, *WHO Report on the Global Tobacco Epidemic, 2008: the MPOWER package*, Geneva, WHO, 2008.
- 7 R Doll and A Bradford Hill, 'The mortality of doctors in relation to their smoking habits: A preliminary report', *British Medical Journal*, vol. 328, 1954, pp. 1529–1533.
- 8 R Doll et al., Mortality in relation to smoking: 50 years' observations on male British doctors, *British Medical Journal*, vol. 328, 2004, p. 1519.
- 9 Australian Institute of Health and Welfare, *National Drug Strategy Household Survey detailed report* (Drug Statistics Series no. 28. Cat. No. PHE 183), Canberra, AIHW, 2014.
- 10 Retrieved from [http://www.cancervic.org.au/media/media-releases/2007\\_media\\_releases/november\\_2007/vic\\_tobacco\\_act\\_87.html](http://www.cancervic.org.au/media/media-releases/2007_media_releases/november_2007/vic_tobacco_act_87.html)
- 11 S Chapman, 'Civil disobedience and tobacco control: the case of BUGA UP (Billboard Utilising Graffitists Against Unhealthy Promotions)', *Tobacco Control*, vol. 5, no. 3, 1996, pp. 179–185.
- 12 A Wakefield et al., 'Impact of tobacco control policies and mass media campaigns on monthly adult smoking prevalence', *American Journal of Public Health*, vol. 98, no. 8, 2008, p. 1443.
- 13 M Sims et al., 'Effectiveness of tobacco control television advertising in changing tobacco use in England: a population-based cross-sectional study', *Addiction*, vol. 109, no. 6, 2014, pp. 986–994.
- 14 MA Wakefield et al., 'Time series analysis of the impact of tobacco control policies on smoking prevalence among Australian adults, 2001–2011', *Bulletin of the World Health Organization*, vol. 92, 2014, pp. 413–422.
- 15 M Siahpush et al., 'Taxation reduces social disparities in adult smoking prevalence', *American Journal of Preventive Medicine*, vol. 36, no. 4, 2009, pp. 285–291.

- 16 S Durkin et al., 'Mass media campaigns to promote smoking cessation among adults: an integrative review', *Tobacco Control*, vol. 21, no. 3, 2012, pp. 127–138.
- 17 National Cancer Institute, 'Part 4 — Tobacco control and media interventions', *Monograph 19: the role of the media in promoting and reducing tobacco use*, Bethesda, Maryland, US Department of Health and Human Services, National Institutes of Health, National Cancer Institute, 2008, pp. 429–546.
- 18 R Beaglehole et al., 'Series: A tobacco-free world: a call to action to phase out the sale of tobacco products by 2040', *The Lancet*, vol. 385, pp. 2015, 1011–1018.
- 19 GT Fong et al., 'The near-universal experience of regret among smokers in four countries: Findings from the International Tobacco Control Policy Evaluation Survey', *Nicotine & Tobacco Research*, vol. 6, 2004, pp. 341–351.
- 20 R Edwards et al., 'Support for a tobacco endgame and increased regulation of the tobacco industry among New Zealand smokers: results from a National Survey', *Tobacco Control*, vol. 22, 2013, e86–e93.
- 21 International Conference on Public Health Priorities in the 21st Century: The Endgame for Tobacco 2013, retrieved from <http://www.endgameconference2013.in/>
- 22 B Freeman et al., *The case for the plain packaging of tobacco products*, San Francisco, University of California, 2007.
- 23 MA Wakefield et al., 'Introduction effects of the Australian Plain Packaging policy on adult smokers: a cross-sectional study', *BMJ*, vol. 3, no. 7, 2013, e003175.
- 24 S Durkin et al., 'Short-term changes in quitting-related cognitions and behaviours after the implementation of plain packaging with larger health warnings', *Tobacco Control*, vol. 24, 2015, pp. ii26–ii32.
- 25 S Dunlop et al., 'Impact of Australia's introduction of tobacco plain packs on adult smokers' pack-related perceptions and responses', *BMJ Open*, vol. 4, 2014, e005836.
- 26 C Moodie et al., 'Young women smokers' response to using plain cigarette packaging: qualitative findings from a naturalistic study', *BMC Public Health*, vol. 14, 2014, p. 812.
- 27 AYadav, 'Tobacco plain packaging and the law', D Carrick (presenter), Radio National Law Report, 2015.
- 28 The Cancer Council, 'The price of tobacco products in Australia 2015', retrieved from <http://www.tobaccoinustralia.org.au/13-3-the-price-of-tobacco-products-in-australia>
- 29 Reuters, 'Hawaii becomes first U.S. state to raise smoking age to 21', retrieved from <http://www.reuters.com/article/2015/06/20/us-usa-hawaii-tobacco-idUSKBN0P006V20150620>
- 30 S Chapman, 'The case for a smoker's license', *PLoS Med*, vol. 9, no. 11, 2012, e1001342.

- 31 NL Benowitz and JE Henningfield, 'Reducing the nicotine content to make cigarettes less addictive', *Tobacco Control*, vol. 22, suppl. 1, 2013, pp. i14–i17.
- 32 G Kelder and R Daynard, 'The role of litigation in the effective control of the sale and use of tobacco', *Stanford Law & Policy Review*, vol. 8, 1997 pp. 63–87.
- 33 BBC News, 'Tobacco firms to pay billions in damages in Canada 2015', retrieved from <http://www.bbc.com/news/world-us-canada-32969338>
- 34 A Yadav, 'India: New warnings to cover 85% of packs', *Tobacco Control*, vol. 24, no. 1, 2015, p. 3.