

What are the elements of the tobacco endgame?

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ABSTRACT

The available literature on tobacco endgames tends to be limited to discussing means, targets and difficulties. This article offers additional ideas on the key elements of endgame strategies and the circumstances in which these are likely to be adopted and implemented. We suggest such strategies will include explicit plans, will define the nature of 'the end of tobacco use/sale' and have target dates within 20 years. The likely circumstances for endgame strategy development include low (probably under 15% adult smoking) prevalence and/or rapid prevalence reductions, wide support and strong political leadership. Even with some or all these circumstances, opposition from business, internal government forces and international factors may influence results.

DEFINITION

So as to provide a starting point for defining the tobacco 'endgame', we suggest it encapsulates both a process and a goal. In the context of health and tobacco, the former is: 'the final stage of the process of ending tobacco use'.

ENDGAME THINKING TO DATE

Researchers and policymakers have proposed endgame ideas for over a decade.^{1–7} One of the more sceptical comments (about phasing out cigarettes) has been that it would only be feasible: 'if smoking rates are below 5% and if the country's borders can be easily controlled.'⁸

Despite such scepticism, recent examples of government endgame thinking include the Finnish government's adoption of the objective of ending 'the use of tobacco products in Finland'⁹ and the Bhutanese law of 2004 aiming to end the *sale* of tobacco (but not the import and use).^{10 11} The US government has issued a report with a 'vision of a society free from tobacco-related death and disease', although the most optimistic outcome of the strategies would still be a smoking prevalence of 12% by 2020.¹² The New Zealand government has adopted the aspirational goal of 'reducing smoking prevalence and tobacco availability to minimal levels, thereby making New Zealand essentially a smoke-free nation by 2025'¹³ (the sale of smokeless tobacco is already banned in New Zealand). Such aspirations rely on hard won 'fundamental shifts in social norms'.¹⁴

These and other scenarios suggest that an endgame for tobacco might encompass one or more of the following: targets (eg, zero or close to zero prevalence of tobacco use), complete (or close to) ending of commercial sale of tobacco^{1 4 6} and tobacco use being fully denormalised in society, with virtually nil exposure of children to tobacco use.

SOME ELEMENTS OF ENDGAME STRATEGIES

The following elements attempt to define 'real' endgame strategies, as opposed to purely aspirational ideas. We visualise endgame strategies as a process of both planning and implementation. The process includes questions such as: how do we reach the endgame goal within the planned time period and what other things can be done now or within the planned period to help achieve the goal?

We suggest that effective government endgame strategies will have the elements of:

1. Having an explicit government intention and plan to achieve close to zero prevalence of tobacco use.
2. A clearly stated government 'end' target date within a maximum of two decades.

We suggest that a likely additional element will be mechanisms to ensure the continued and augmented availability of non-tobacco (pharmaceutical) nicotine.^{6 15–20} This will help deal with the political and ethical concerns about tobacco users needing nicotine, without creating a further significant problem of long-term nicotine use.²¹

As a component of having a clear plan, there is a further likely element—that government thinking has moved from an ad-hoc and incremental approach to tobacco, to the encompassing comprehensive planning that is marked by the endgames for other public health risks (smallpox, polio and hazardous products such as leaded petrol). As with them, there is likely to be international cooperation involved.^{22–24}

CIRCUMSTANCES FAVOURING ENDGAME STRATEGIES

Endgames are most likely to be implemented in jurisdictions with 'low' prevalence and/or relatively rapid reductions in prevalence. The financial advisors Citigroup recently suggested a range of different scenarios for the tobacco industry.²⁵ We think that the Citigroup Scenario C is likely, where a low smoking prevalence prompts a public and political 'tipping point, as (smoking) becomes increasingly unacceptable and hence easier to regulate against'.²⁵

Even without low prevalence and/or relatively rapid reductions in prevalence, effective endgame strategy adoption could occur where there is wide public understanding and support across social, ethnic and other groups of the need for an end to tobacco use. This includes the availability of survey data and other evidence of this understanding and support (eg,^{26–31}) and good communication of this evidence to policymakers. However, we note that many factors, including opposition from vested interests, may make change difficult to achieve even with overwhelming public support.^{32–34} Such factors include the prevalence of use of different smoked and smokeless tobacco products and the

relative political strengths of the tobacco companies, the tobacco control community and different parts of government. The 2010 New South Wales (Australia) legislation, banning political donations from tobacco entities, signals one direction for solutions to overcoming political opposition from the tobacco companies.³⁵

The level at which tobacco use prevalence is low enough to stimulate real endgame planning will differ with context. We suggest that less than 15% adult tobacco use will provide situations where it is sufficiently non-normal for governments to plan for a predicted end to tobacco use. The prevalence should probably be low enough so that the questions of: (1) *what* tobacco-free scenario is desired (eg, what prevalence, no smoking or no tobacco products at all) and (2) how a society will reach that aim, are not academic or merely aspirational, but are discussed as realistic goals by government politicians (ie, they are on political agendas).^{36–37} Some jurisdictions have or are likely to soon achieve a tobacco use prevalence of less than 15% (eg, California, Canada, Sweden)^{38–40} and thus may be close to the conditions for government endgame planning. Citigroup predicts that smoking will end in Sweden in 2028 and in Australia in 2030.⁴¹

Besides 'low' prevalence, it may also help if the jurisdiction has experienced a rapid decrease in prevalence. For instance, policymakers in Canada, a country with a tobacco use decrease from 30% to 18% during 1994 to 2008, respectively, may be well placed to envisage an endgame scenario.^{42–43}

Strong and visionary political leadership matters too. Examples of the effect of such leadership include Uruguay, where key politicians (eg, Vázquez and Muñoz) strongly supported comprehensive tobacco control⁴⁴ and prevalence dropped from 32% in 2006 to 25% in 2009.^{45–46} Political leadership also helped in the prevalence drop in New York City, from 22% in 2002 to 16% in 2008.⁴⁷ Such leadership could be instrumental in initiating an effective endgame strategy.

DISCUSSION

Tobacco endgame strategies represent a paradigm shift in tobacco control. In the more usual incremental approach to tobacco control, government aims are modest, and the ultimate aim is often poorly articulated. Slow progress (less than 1% absolute prevalence change a year) is far from acceptable for the readily preventable disaster that is the tobacco epidemic.

The implications of an endgame and the goals adopted may vary according to circumstances and context. For example, the effect of the option of ending commercial sales but allowing tobacco growing for personal use would vary greatly by jurisdiction (eg, due to climatic factors). There will be greater challenges in achieving endgame goals for jurisdictions with porous borders and ineffective border controls.⁶

The meaning of 'minimal' or 'close to zero' prevalence is and will be debated and will vary with context. Achieving a very low tobacco use prevalence, say 0.5% or less for *any* ethnic and social group in a society, could remove any normality within a society. However, some might argue that even this is insufficient, as this prevalence would still kill many. We note that even burdens of less than 50 readily preventable deaths a year in a jurisdiction can prompt strong government action, as well as public alarm or concern.^{48–50}

For those who feel that relatively 'free market' economies are unlikely to effectively end the use of a widely used consumer product, many 'free market' jurisdictions have done so for a number of other hazardous commodities such as leaded petrol, various pesticides and drugs, and asbestos.^{51–54} For a number of

these, there have been similar endgames, sharing the same elements of deliberate and detailed government planning, stated government intention and a target date. Such phased-out products have not been addictive (as is nicotine), but they usually shared the position of being supported by commercial vested interests.

A cautionary note to the quest for effective endgame strategy adoption at the *national* level is that tobacco policy, as for other areas, will increasingly be determined at an international level.^{55–57} So the balance of factors for endgames may improve if there is a strengthened Framework Convention on Tobacco Control or it may decline if there is a further increase in the relative power of international businesses over governments.

CONCLUSIONS

Tobacco endgame strategies are likely to need clear goals, plans and timetables, with sustained commitment at the government level. We look forward to fuller theories of *how* to achieve an endgame (ie, what measures are needed to get to zero prevalence), what will facilitate the adoption and implementation of an endgame (a political theory) and ideas on how to test them.

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REFERENCES

1. **Gerace T.** The toxic-tobacco law: "appropriate remedial action". *J Public Health Policy* 1999;**20**:394–407.
2. **Daynard RA.** Doing the unthinkable (and saving millions of lives). *Tob Control* 2009;**18**:2–3.
3. **Laugesen M,** Glover M, Fraser T, *et al.* Four policies to end the sale of cigarettes and smoking tobacco in New Zealand by 2020. *N Z Med J* 2010;**123**(1314):55–65.
4. **Enzi M.** *Enzi Introduces Bill to Wipe out Tobacco in America in a Generation.* Washington: US Senate, 2007. http://enzi.senate.gov/public/index.cfm?FuseAction=NewsRoom.NewsReleases&ContentRecord_id=E04EB904-802A-23AD-4157-DD5D44E9D647 (accessed 28 Feb 2011).
5. **Kho D,** Chiam Y, Ng P, *et al.* Phasing-out tobacco: proposal to deny access to tobacco for those born from 2000. *Tob Control* 2010;**19**:355–60.
6. **Thomson G,** Wilson N, Blakely T, *et al.* Ending appreciable tobacco use in a nation: using a sinking lid on supply. *Tob Control* 2010;**19**:431–5.
7. **Beaglehole R,** Bonita R, Horton R, *et al.* Priority actions for the non-communicable disease crisis. *Lancet* 2011;**377**:1438–47.
8. **Joossens L.** Theoretically an option, but an enforcement nightmare. *Tob Control* 2009;**18**:5.
9. **Ministry of Social Affairs and Health.** *The Aim of the Tobacco Act is to Put an End to Smoking in Finland [Finnish Government Media Release].* Helsinki: Ministry of Social Affairs and Health, 2010. <http://www.stm.fi/en/pressreleases/pressrelease/view/1522179> (accessed 8 Nov 2010).
10. **Givel M.** *Tobacco Use Policymaking and Administration in Bhutan.* Norman: The University of Oklahoma, 2009. http://works.bepress.com/cgi/viewcontent.cgi?article=1018&context=michael_givel (accessed 8 Nov 2011).
11. **Givel M.** History of Bhutan's prohibition of cigarettes: implications for neo-prohibitionists and their critics. *Int J Drug Policy* 2011;**22**:306–10.
12. **US Department of Health and Human Services.** *Ending the Tobacco Epidemic: A Tobacco Control Strategic Action Plan for the U.S.* Department of Health and Human Services. Washington DC: US Department of Health and Human Services, 2010. <http://www.hhs.gov/ash/initiatives/tobacco/tobaccostrategicplan2010.pdf> (accessed 8 Nov 2011).
13. **New Zealand Government.** *Government Response to the Report of the Māori Affairs Committee on its Inquiry into the Tobacco Industry in Aotearoa and the Consequences of Tobacco Use for Māori (Final Response).* Wellington: New Zealand

- Parliament, 2011. http://www.parliament.nz/en-NZ/PB/Presented/Papers/8/6/0/49DBHOH_PAP21175_1-Government-Final-Response-to-Report-of-the-M-ori.htm.
14. **Koh HK**, Joossens LX, Connolly GN. Making smoking history worldwide. *N Engl J Med* 2007;**356**:1496–8.
 15. **Gray N**, Henningfield JE, Benowitz NL, *et al*. Toward a comprehensive long term nicotine policy. *Tob Control* 2005;**14**:161–5.
 16. **Reed MB**, Anderson CM, Vaughn JV, *et al*. The effect of over-the-counter sales of the nicotine patch and nicotine gum on smoking cessation in California. *Cancer Epidemiol Biomarkers Prev* 2005;**14**:2131–6.
 17. **Foley KL**, Sutfin EL. Availability of tobacco cessation services in free clinics. *N C Med J* 2008;**69**:270–4.
 18. **Sweanor DT**. Policy options to reduce tobacco-caused mortality. *J Addict Dis* 1999;**18**:1–11.
 19. **Le Houezec J**, McNeill A, Britton J. Tobacco, nicotine and harm reduction. *Drug Alcohol Rev* 2011;**30**:119–23.
 20. **Britton J**, McNeill A. Why Britain needs a nicotine regulation authority. *BMJ* 2001;**322**:1077–8.
 21. **Shiffman S**, Sweeney CT. Ten years after the Rx-to-OTC switch of nicotine replacement therapy: what have we learned about the benefits and risks of non-prescription availability? *Health Policy* 2008;**86**:17–26.
 22. **Centers for Disease Control and Prevention**. Vaccine preventable deaths and the Global Immunization Vision and Strategy, 2006-2015. *MMWR Morb Mortal Wkly Rep* 2006;**55**:511–15.
 23. **Arita I**, Nakane M. Road map for polio eradication—establishing the link with Millennium Development Goal no. 4 for child survival. *Jpn J Infect Dis* 2008;**61**:169–74.
 24. **Henderson DA**. Eradication: lessons from the past. *Bull World Health Organ* 1998;**76**(Suppl 2):17–21.
 25. **Fletcher N**. *Imperial Tobacco and BAT Fall as Citi Says Smoking Could Disappear by 2050*. London: Guardian, 2011.
 26. **Edwards R**, Wilson N, Thomson G, *et al*. Majority support by Maori and non-Maori smokers for many aspects of increased tobacco control regulation: national survey data. *N Z Med J* 2009;**122**(1307):115–18.
 27. **Edwards R**, Wilson N, Weerasekera D, *et al*. Pacific peoples' views on major tobacco control interventions: National survey data from New Zealand. [Poster Presentation POS3-17], in *SRNT, 15th Annual Meeting 24–27 February 2010*. Baltimore, Maryland, USA, 2010. <http://www.wnmeds.ac.nz/academic/dph/research/HIRP/Tobacco/posters/Edwards%20et%20al%20-%20Pacific%20views%20on%20smoking.pdf>.
 28. **Thomson G**, Wilson N, Edwards R. Kiwi support for the end of tobacco sales: New Zealand governments lag behind public support for advanced tobacco control policies. *N Z Med J* 2010;**123**(1308):106–11.
 29. **Trappitt R**, Li J, Newcombe R. Public support for the End Game: HSC's Health and Lifestyles Survey. *Health Sponsorship Council. Tobacco-free Aotearoa Conference 2010*. Auckland. <http://www.smokefree.co.nz/conference2010/ppts-tobacco/103.pdf> (accessed 10 Nov 2010).
 30. **Shahab L**, West R. Public support in England for a total ban on the sale of tobacco products. *Tob Control* 2010;**19**:143–7.
 31. **Zogby International**. *A Federal Ban on Cigarettes? Nationwide Survey of 1,200 Registered Voters. Zogby International for Drug Policy Alliance*. New York: Utika, 2006. <http://www.drugpolicy.org/docUploads/DPAZogbyTobaccoPoll2006.pdf> (accessed 30 Jun 2011).
 32. **Dur A**, Bievre D. The question of interest group influence. *J Publ Pol* 2007;**27**:1–2.
 33. **Shapiro S**, Steinzor R, Shudtz M. *Regulatory Dysfunction: How Insufficient Resources, Outdated Laws, and Political Interference Cripple the 'Protector Agencies'*. College Park: University of Maryland, 2009. http://digitalcommons.law.umaryland.edu/fac_pubs/878/ (accessed 30 Jun 2011).
 34. **Lohmann S**. An information rationale for the power of special interests. *Am Polit Sci Rev* 1998;**92**:809–27.
 35. **New South Wales Parliament**. *Election Funding and Disclosures Amendment Act 2010 No 95*. Sydney: New South Wales Parliament, 2010. <http://www.legislation.nsw.gov.au/fragview/inforce/act+95+2010+whole+0+Y?tocnav=y> (accessed 30 Jun 2011).
 36. **Sato H**. Policy and politics of smoking control in Japan. *Soc Sci Med* 1999;**49**:581–600.
 37. **Sato H**. Agenda setting for smoking control in Japan, 1945-1990: influence of the mass media on national health policy making. *J Health Commun* 2003;**8**:23–40.
 38. **Reid J**, Hammond D. *Tobacco Use in Canada: Patterns and Trends: 2009 edition*. Waterloo: University of Waterloo, 2011. http://www.tobaccoreport.ca/adu_sic_sp.html (accessed 8 Feb 2011).
 39. **Bogdanovica I**, Godfrey F, McNeill A, *et al*. Smoking prevalence in the European Union: a comparison of national and transnational prevalence survey methods and results. *Tob Control* 2011;**20**:e4.
 40. **California Department of Public Health**. *Adult Smoking Prevalence*. Sacramento: California Department of Public Health, 2010. http://www.cdph.ca.gov/programs/tobacco/Documents/CTCPAdultSmoking_10.pdf (accessed 8 Feb 2011).
 41. **Cooper R**. *The Year Smoking Will Die Out Around the World The Telegraph*. London, 2011.
 42. **Health Canada**. *A Framework for Action*. Ottawa: Health Canada, 2007. <http://www.hc-sc.gc.ca/hc-ps/pubs/tobac-tabac/ffa-ca/introduction-eng.php> (accessed 10 Feb 2011).
 43. **Health Canada**. *Federal Tobacco Control Strategy*. Ottawa: Health Canada, 2009. <http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/about-appropos/role/federal/strateg-eng.php> (accessed 8 Feb 2011).
 44. **World Health Organization**. *List of World No Tobacco Day Awardees*. Geneva: World Health Organization, 2006. <http://www.who.int/tobacco/communications/events/wntd/2006/awards/en/index.html> (accessed 23 Feb 2011).
 45. **World Health Organization**. *World Health Statistics 2010: Table 5 Risk Factors (2006 Smoking Data)*. Geneva: World Health Organization, 2010. http://www.who.int/gho/database/WHS2010_Part2.xls (accessed 17 Feb 2011).
 46. **National Institute of Statistics**. *Global Adult Tobacco Survey Fact Sheet Uruguay 2009*. Geneva: World Health organization, 2010. http://www.who.int/entity/tobacco/surveillance/fact_sheet_of_gats_uruguay_2010.pdf (accessed 17 Feb 2011).
 47. **Frieden T**. National public health institutes and health systems strengthening. In: *IANPHI Annual Meeting*, 2010. Atlanta. http://www.ianphi.org/uploads/file/TFrieden_Opening%20Session.pdf (accessed 17 Feb 2011).
 48. **Freeman B**, Chapman S, Storey P. Banning smoking in cars carrying children: an analytical history of a public health advocacy campaign. *Aust N Z J Public Health* 2008;**32**:60–5.
 49. **Stout NA**, Linn HI. Occupational injury prevention research: progress and priorities. *Inj Prev* 2002;**8**(Suppl 4):IV9–14.
 50. **Barone M**. 23 years later, L'Ambiance losses still sting. *Connecticut Post*. Bridgeport, 2010. <http://www.ctpost.com/news/article/23-years-later-L-Ambiance-losses-still-sting-460387.php> (accessed 23 Feb 2011).
 51. **Schulberg F**. United States export of products banned for domestic use. *Harvard Int Law J* 1979;**20**:331–84.
 52. **Smith C**. Pesticide exports from U.S. ports, 1997–2000. *Int J Occup Environ Health* 2001;**7**:266–74.
 53. **Landrigan P**. The worldwide problem of lead in petrol. *Bull World Health Organ* 2002;**80**:768.
 54. **Birnbaum LS**, Schroeder JC, Tilson HA. A repeat call for the banning of asbestos. *Environ Health Perspect* 2010;**118**:A280–1.
 55. **Holden C**, Lee K, Gilmore A, *et al*. Trade policy, health, and corporate influence: British American tobacco and China's accession to the World Trade Organization. *Int J Health Serv* 2010;**40**:421–41.
 56. **Faunce TA**, Townsend R. The Trans-Pacific Partnership Agreement: challenges for Australian health and medicine policies. *Med J Aust* 2011;**194**:83–6.
 57. **Hippert C**. Multinational corporations, the politics of the world economy, and their effects on women's health in the developing world: a review. *Health Care Women Int* 2002;**23**:861–9.