**Perspective** 

# **Tobacco Control Yields Clear Dividends for Health and Wealth**

**Kelley Lee** 

ver the past half century, one of the most familiar and effective arguments put forth by the tobacco industry to defend its business and minimise its regulation is that it generates net economic benefits to society. Put simply, industry advocates claim that taxation, profits, and employment associated with tobacco far outweigh any costs imposed on societies and in particular on health care systems. For decades, this argument has been trotted out in mantra-like fashion around the world whenever stronger tobacco control measures, such as higher taxation or market restrictions, are mooted. And by and large, governments have bought into the belief that tobacco control is simply unaffordable.

#### Closer Scrutiny of the Tobacco Balance Sheet

Beginning in the mid-1980s, public health researchers began to apply economic methods in an attempt to challenge industry claims. In his 1986 paper "Economics and Cigarettes", Thomas Schelling (winner of the 2005 Nobel Prize for economics) applied the economic concept of an "accounting framework", comprising such elements as lost lives, lost livelihoods, excise taxes, costs of regulating smoking behaviours, and medical costs, to assessing the economic impacts of tobacco production and consumption [1]. This early work encouraged a broader view of the real costs of smoking. Joy Townsend used microeconomics to support the adoption of pricing mechanisms to regulate tobacco use, showing, for example, that progressive increases in cigarette tax rates are powerful means of changing individual behaviour (namely reducing cigarette

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### **Linked Research Article**

This Perspective discusses the following new study published in *PLoS Medicine*:

Lightwood JM, Dinno A, Glantz SA (2008) Effect of the California Tobacco Control Program on personal health care expenditures. PLoS Med 5(8): e178. doi:10.1371/journal.pmed.0050178

Stanton Glantz and colleagues find that the California state tobacco control program is associated not only with reduced smoking, but with reductions in health care costs as well.

consumption) while generating extra government revenue [2]. Examining the macroeconomics of tobacco, Kenneth Warner and George Fulton highlighted the industry's strategy of inflating its accrued benefits, while downplaying certain economic activities (such as the services of health care workers and undertakers) that highlight the undesirable consequences of tobacco [3]. As part of the negotiation process for the Framework Convention on Tobacco Control (FCTC), economic analysis of tobacco was extended to the global level. Howard Barnum's 1994 study of the economic burden of the global trade in tobacco [4], later joined by the work of Frank Chaloupka, Prabhat Jha, and others [5], proved instrumental to garnering support for the FCTC, not only by further undermining industry claims of the net economic benefits from tobacco, but because of its support and publication by the World Bank. This shift in stance by the World Bank, better known in the past for funding rather than opposing tobacco production, provided the World Health Organization with a key political ally.

## **Tobacco Control as Sound Investment**

In the August 2008 issue of *PLoS Medicine*, Stanton Glantz and

colleagues add another dimension to this important body of work on the economics of tobacco by showing that investment in tobacco control programmes leads to substantial savings in health care expenditures [6]. This new evidence undermines another pillar of the industry's longstanding argument that tobacco control is a waste of public monies. On the contrary, the authors show that the US\$1.8 billion spent on California's tobacco control programme over 15 years (1989-2004) has yielded a 50-fold return (US\$86 billion) in reduced health care costs. As well as effectively reducing smoking—a significant public health goal in itself—the benefits of the programme include "substantial, rapid, and growing reductions in per capita state health care expenditures."

The authors point out that the nature of the programme's activities, alongside sustained levels of appropriate funding, was an important factor in its success. In California, tobacco control messages were targeted at the general population (as opposed to youth prevention), resulting in more immediate effects on cessation and associated morbidity. This finding

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**Abbreviations:** FCTC, Framework Convention on Tobacco Control

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**Provenance:** Commissioned; not externally peer reviewed



is important at a time when tobacco companies have aggressively promoted their own "youth smoking education and prevention" programmes worldwide, designed as flagships for corporate social responsibility initiatives and with dubious intent [7]. Moreover, a key focus of the California programme's work was changing social norms, particularly the raising of public support for smoke-free environments. Smoking has become increasingly socially unacceptable, strengthening behavioural change, compliance, and public self-regulation.

The relevance of these lessons—the need for increased and consistent public funding and broadly targeted activities-go far beyond California. In other US states, despite large sums of money derived from tobacco taxation and legal settlements, relatively little of these funds have been invested in tobacco control. This has been the case especially where pressures on public spending cause the diversion of funds elsewhere. Globally, the US\$1.8 billion spent in California on tobacco control, averaging US\$120 million annually or US\$3.29 per capita (based on California's 2006 population of around 36.5 million), dwarfs the budgets of most national tobacco control programmes. In a survey of 30 European countries, Joossens and Raw found that tobacco control programme budgets for 2006 ranged from €238,215 (US\$371,000) or US\$0.01 per capita for Romania, to €108,196,235 (US\$168.5 million) or US\$2.79 per capita for England [8]. The World Health Organization's 2008 Report on the Global Tobacco Epidemic similarly estimates that tobacco control is grossly underfunded, notably in low- and middle-income countries [9]. (One exception is Thailand, where the Thai Health Promotion Office, an autonomous state agency, is funded by 2% of alcohol and tobacco taxes,

amounting to around US\$35 million annually [10].) These are alarming statistics, given the rapid shift in the tobacco pandemic to the developing world, where 70% of the predicted 10 million annual tobacco deaths by 2030 will occur (see the figure on the underfunding of global tobacco control on page 57 of [9]).

As well as challenging industry claims that tobacco is a necessary economic evil, therefore, Glantz and colleagues raise questions about the spending priorities of governments on public health. As tobacco is the leading cause of premature death and disease, responsible for 5.4 million deaths each year [9], it is an anachronism that tobacco control programmes still remain among the most poorly funded. Donor agencies are equally culpable. While the FCTC pushed tobacco control far higher on national and global policy agendas than ever before, concrete commitments to implement the wide-ranging provisions of the treaty have been disappointingly lacklustre. Implementation, especially in low- and middle-income countries, remains handicapped by a lack of resources. As the tobacco industry itself has become fond of arguing, low- and middle-income countries have other priorities, such as HIV/ AIDS, tuberculosis, and malaria, which demand the immediate attention of policy makers. Most political systems remain more attuned to acute rather than longer-term needs, even if the latter eventually cause greater burdens of death and disease. Yet, as this new research by Glantz and colleagues shows, substantial returns are both immediate and long-term. The announcement in July of New York City mayor Michael Bloomberg's Global Initiative to Reduce Tobacco Use, which includes a combined commitment of US\$500 million to "help governments in developing

countries implement proven policies and increase funding for tobacco control" [11], is an important step in correcting the longstanding imbalance in costs and benefits from tobacco use. Funding of this magnitude, as Glantz and colleagues demonstrate, can be a sound investment that rapidly and significantly reduces health care expenditure and saves valuable human lives.

#### References

- 1. Schelling T (1986) Economics and cigarettes. Prev Med 15: 549-560.
- 2. Townsend J (1996) Price and consumption of tobacco. Br Med Bull 52: 132-142
- Warner K, Fulton G (1995) Importance of tobacco to a country's economy: An appraisal of the tobacco industry's economic argument. Tob Control 4: 180-183.
- Barnum H (1994) The economic burden of the global trade in tobacco. Tob Control 3: 358-361.
- Jha P, Chaloupka FC (1999) Curbing the epidemic: Governments and the economics of tobacco control. The World Bank. Available: http://wwwl.worldbank.org/tobacco/. Accessed 11 August 2008.
- Lightwood JM, Dinno A, Glantz SA (2008)
   Effect of the California Tobacco Control
   Program on personal health care expenditures.
   PLoS Med 5: e178. doi:10.1371/journal.
   pmed.0050178
- Landman, A, Ling PM, Glantz SA (2002)
   Tobacco industry youth smoking prevention programs: Protecting the industry and hurting tobacco control. Am J Public Health 92: 917-930.
- 8. Joossens L, Raw M (2007) Progress in tobacco control in 30 European countries, 2005 to 2007. Swiss Cancer League. Available: http://www.ensp.org/files/30\_european\_countries\_text\_final.pdf. Accessed 11 August 2008.
- World Health Organization (2008) Report on the global tobacco epidemic, 2008—The MPOWER package. Available: http://www. who.int/tobacco/mpower/mpower\_report\_ full\_2008.pdf. Accessed 11 August 2008.
- 10. Vateesatokit P (2003) Tailoring tobacco control efforts to the country: The example of Thailand. In: de Beyer J, Waverley Brigden L, editors. Tobacco control policy: Strategies, successes, and setbacks. Chapter 7. World Bank/International Development Research Centre. Available: http://www1.worldbank. org/tobacco/6countries.asp. Accessed 11 August 2008.
- 11. Bill & Melinda Gates Foundation (2008)
  Michael Bloomberg and Bill Gates Join
  to combat global tobacco epidemic.
  Available: http://www.gatesfoundation.
  org/GlobalHealth/Announcements/
  Announce-080723.htm?version=print. Accessed
  11 August 2008.