

## When a tax increase fails as a tobacco control policy: the ITC China project evaluation of the 2009 cigarette tax increase in China

China ratified the WHO Framework Convention on Tobacco Control (the WHO FCTC) in 2006 and thus has the obligation to increase the prices and taxes of cigarettes. In May 2009, China raised cigarette excise taxes, which was cited by a Chinese government official as a measure of FCTC implementation.<sup>1</sup> Researchers noticed that cigarette retail prices in China did not change after the 2009 tax adjustment; however, their conclusion was based on observations but not survey data.<sup>2</sup>

We used the International Tobacco Control Survey (the ITC survey) data to examine trends in cigarette prices in China after the 2009 tax adjustment. The ITC survey is a prospective survey of tobacco use. Its overall objective is to measure the effects of key tobacco control policies. In China, the first three waves of the ITC survey were conducted in six cities: Beijing, Shenyang, Shanghai, Changsha, Guangzhou and Yinchuan. In each city, 800 smokers and 200 non-smokers were surveyed.<sup>3</sup> To date, three waves of the ITC China survey have been conducted: wave 1 (April to August 2006), wave 2 (October 2007 to January 2008) and wave 3 (May to October 2009). In July 2010, a short phone survey was conducted among the wave 3 respondents to examine changes in cigarette prices. During each survey, smokers were asked about the brand and cost of cigarettes they bought last time. Typical brands of cigarettes were bought by the study team via test purchases from three typical cigarette stores in each city during each survey, and the retail prices of those cigarettes were recorded. Two indicators were used to examine trends in cigarette prices in the six ITC China cities: (1) the average self-reported cost of 18 top brands of cigarette in the six cities (the top three brands in each city) from 2007 to 2010 (wave 2, wave 3 and the phone survey); and (2) the average retail prices (Yuan/pack) of 18 cig-

rette brands that have been purchased in all the retail store surveys from 2007 to 2010.

As shown in the table 1, both indicators remained almost unchanged during the study period. After adjusting for inflation,<sup>4</sup> both indicators decreased from 2007 to 2010. That is, the nominal prices of cigarettes did not change after the tax adjustment and the real prices of cigarettes in China decreased from 2007 to 2010.

Theoretically, if an increase in the cigarette excise tax is not transferred to cigarette retail prices, then cigarette consumption will not decrease. Thus, the 2009 cigarette excise tax adjustment cannot be considered as a measure of FCTC implementation at this time. China is home to one-third of the world's smokers. One of the major reasons for the high smoking prevalence in the nation is the low price of cigarettes.<sup>2</sup> China needs to make further progress to increase tobacco prices, as the WHO FCTC has been in effect in China for more than 5 years.

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## Western Australian smokers strongly support regulations on the use of chemicals and additives in cigarettes

In Australia, almost any ingredient is permitted in tobacco products,<sup>1</sup> which is a situation aptly described by Dr Nigel Gray as 'regulatory anarchy'.<sup>2</sup>

When smokers are informed that ingredients such as cocoa, coffee, peppermint, sugars and other sweeteners are added to most manufactured cigarettes<sup>3</sup> and not just 'niche' flavoured varieties, many express amusement and surprise, or become shocked and angered.<sup>4</sup> Most smokers have little or no notion that these seemingly harmless ingredients can play a deadly role by maximizing addiction, increasing the palatability of cigarettes, reducing the smell of

**Table 1** Prices of cigarettes in six cities in China from 2007 to 2010

	2007	2009	2010
Average self-reported cost of 18 top brands of cigarettes (Yuan/pack)	7.80	7.79	7.83
Real prices (in 2007 Yuan)	7.80	7.44	7.30
Average retail prices of 18 cigarette brands that were purchased in all the three retail store surveys (Yuan/pack)	6.26	6.40	6.28
Real prices (in 2007 Yuan)	6.26	6.12	5.85

(1) In total, we purchased 280 packs of cigarettes (28 brands×10 packs) in 2007, 928 packs in 2009 and 713 packs in 2010.

(2) Numbers of smokers who completed each wave of the International Tobacco Control China surveys were: 4627 in wave 2 (2007), 4410 in wave 3 (2009) and 1190 in the phone survey (2010).

## Research letters

**Table 1** Smokers' attitudes towards the use and disclosure of chemicals and additives in cigarettes

	Strongly in favour %	In favour %	No opinion %	Against %	Strongly against %	Total %
Governments should regulate the type of chemicals and additives used in the manufacturing of cigarettes	74	15	8	2	2	100
Governments should ban the use of chemicals and additives that mask the bitter taste of cigarette smoke	68	12	10	6	5	100
Tobacco companies should provide more information to consumers about what is in cigarettes and cigarette smoke	66	13	14	6	2	100
Tobacco companies should provide information to consumers about the effects on smokers of the chemicals and additives in cigarettes and cigarette smoke	62	22	10	4	2	100

secondhand smoke and making it harder for smokers to quit.<sup>1 3 5</sup>

The current voluntary agreement for the disclosure of the ingredients of cigarettes,<sup>6</sup> negotiated between the Commonwealth of Australia Department of Health and Ageing and three major Australian tobacco companies in 2000, provides a website listing the ingredients in Australian cigarettes. Focus groups with smokers suggest that this method of disclosure of ingredients and additives is ineffective in communicating such information.<sup>7</sup>

In 2009, Cancer Council Western Australia's 'Make Smoking History' campaign focused on these seemingly innocuous cigarette ingredients. The campaign, which was broadcast state-wide in September and October 2009, included the 'Sugar Sugar' television advertisement and the 'Deceptively Delicious' press advertisement.<sup>8</sup> The advertising highlighted that while ingredients such as sugar and honey can mask the bitter taste of tobacco, the damage smoking can do cannot be hidden.

A post-campaign evaluation survey was conducted between 19 and 30 October 2009 using computer assisted telephone interviewing. Random digit dialling from the Western Australian residential white pages was used to achieve a sample of 200 Western Australian adult smokers and recent quitters aged 25–54 years. The sample consisted of 70% Perth metropolitan and 30% regional Western Australian residents, with equal representation of men and women in each location. Following the completion of post-campaign survey questions, respondents were presented with the four statements on cigarette additives listed in table 1, and asked to indicate their level of support for each statement.

The vast majority of smokers were in favour of government regulations on the

type of chemicals and additives used in the manufacture of cigarettes (89%), and 80% were in favour of banning the use of chemical and additives that mask the bitter taste of cigarette smoke. There was strong support for tobacco companies providing information about the contents in cigarettes and cigarette smoke (79%), and the effects the chemicals and additives in cigarettes and cigarette smoke have on smokers (84%). Only 11% of smokers or less were opposed to each of these four statements.

The 'Sugar Sugar' campaign achieved a very high level of awareness (83%). The data appear to suggest that those aware of the campaign were more favourable towards each of the statements. However, due to the small sample size, the difference between those aware and unaware of the campaign was significant for one statement only: 'governments should regulate the type of chemicals and additives used in the manufacturing of cigarettes' (91.0% vs 77.2%,  $p=0.02$ ).

Tobacco companies are highly unlikely to modify their products to reduce the addictive nature of cigarettes.<sup>5</sup> Hence regulation is required to end the use of additives that create the perception that tobacco smoke is milder, easier to inhale and more palatable, which would ultimately make cigarettes less acceptable to smokers.<sup>9</sup>

This survey reinforces the findings of the Commonwealth Department of Health and Ageing research on disclosure of cigarette ingredients,<sup>7</sup> and demonstrates strong support among smokers for increased regulation and disclosure on the ingredients permitted in cigarettes. It also highlights the importance of educating smokers about the use of additives in cigarettes and canvassing consumer opinions to lobby for these important regulations.

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