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Marketing 'less harmful, low-tar' cigarettes is a key strategy of the industry to counter tobacco control in China

Gonghuan Yang

Correspondence to

Professor Gonghuan Yang,
Department of Epidemiology
and Statistics, Institute of Basic
Medical Science, Chinese
Academy of Medical Science,
5# Dong Dan San Tiao,
Beijing 100005, People's
Republic of China;
yanggghuan@vip.sina.com

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ABSTRACT

While the 'low-tar' scheme has been widely recognised as a misleading tactic used by the tobacco industry to deceive the public about the true risks of cigarette smoking, a similar campaign using the slogan of 'less harmful, low tar' was launched by the Chinese tobacco industry, that is, State Tobacco Monopoly Administration/China National Tobacco Corporation and began to gain traction during the last decade. Despite the fact that no sufficient research evidence supports the claims made by the industry that these cigarettes are safer, the Chinese tobacco industry has continued to promote them using various health claims. As a result, the production and sales of 'less harmful, low-tar' cigarettes have increased dramatically since 2000. Recently, a tobacco industry senior researcher, whose main research area is 'less harmful, low-tar' cigarettes, was elected as an Academician to the prestigious Chinese Academy of Engineering for his contribution to developing 'less harmful, low-tar' cigarettes. The tobacco researcher's election caused an outcry from the tobacco control community and the general public in China. This paper discusses the Chinese tobacco industry's 'less harmful, low-tar' initiatives and calls for the Chinese government to stop the execution of this deceptive strategy for tobacco marketing.

'LESS HARMFUL, LOW-TAR' STRATEGY IN CHINA

Since the early 1960s, faced with increasing concerns over health risks among smokers, the tobacco industry has developed low-tar cigarettes to encourage health-concerned smokers to switch brands instead of quitting.¹ Such deceptive tactics from the industry have been widely exposed, and it has been ruled in lawsuits that 'low-tar' cigarettes are perhaps the greatest fraud ever perpetrated on consumers in history.² The use of words such as 'low-tar', 'mild' and 'light' that contribute to consumer misconceptions about disease risks should be banned in advertising and on cigarette packaging.

However, despite the fact that these descriptive terms have been banned in many other countries as deceptive and misleading to consumers, 'less harmful, low tar' is today an important strategy for the tobacco industry in China. Annual meeting reports on tobacco and cigarettes since 2000 reveal that the State Tobacco Monopoly Administration (STMA), the government administrative body overseeing the tobacco industry, and the Chinese National Tobacco Corporation (CNTC), proposed to 'actively proceed with 'less harmful, low-tar' cigarettes'. They sought to improve the

sophistication of technical innovations as a strategy to turn smokers' health concerns into a business opportunity, and to reverse a sales decline. At the 2000 annual meeting of STMA, a report noted that the tobacco industry had experienced much hardship in 1999³ due to an over-supply of higher priced cigarettes and the saturation of the tobacco market. One key task of the STMA in 2000, therefore, was to promote its ability to compete while addressing the challenges of smoking's effects on health. Article 5 of the Law of the People's Republic of China on Tobacco Monopoly states that 'The State shall strengthen the scientific research and technical development of tobacco monopoly commodities, so as to improve the quality of tobacco products and reduce the content of tar and other hazardous ingredients in such products'.⁴ Based on this requirement, 'science-based development' and 'reducing tar of cigarettes' have been key work products in each year's STMA annual meeting report since 2000. In 2003, the STMA developed the Chinese Cigarette Science and Technology Development Outline⁵; in 2006 the STMA ordered manufacturers to reduce tar in cigarettes to an average of 12 mg by 2010.⁶ A report at the STMA annual meeting in 2010 noted that implementing the 'less harmful, low-tar' strategy would be the overall approach to improving competitiveness in China.⁷

At a forum on 'Developing Chinese-style Reduced Tar and Harm Cigarettes' held in Xiamen, Fujian province in 2004, the Deputy Director General of STMA, Zhang Baozhen, reiterated that the overall approach and strategic decisions in developing Chinese-style low-tar cigarettes with Chinese herbs mattered in the near future and to the overall fate of the Chinese tobacco industry. He encouraged all forum attendees to consider these links, saying, 'We need to study and reflect deeply (on) the relationships between reducing tar and harm, developing Chinese-style cigarettes, and the survival and development of the Chinese tobacco industry'.⁸

Following the strategies set forth in the STMA Scientific and Technologic Development Plan, four strategic programmes were launched: tobacco seedlings, cigarette flavouring, special processes, and reducing tar and harm. The STMA made significant investments in the latter every year. In 2009, 1.694 billion Yuan (a 27.4% increase over 2008)⁹ was spent on tobacco science and technology research. Some of this research focused on adding Chinese herbal and flavour materials to tobacco, then manufacturing cigarettes that purportedly tasted better



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and reduced risk.¹⁰ During 2001–2008, 987 scientific papers on Modified Risk Tobacco Products were published, 685 papers from tobacco institutes, 233 from affiliations between tobacco institutes and other institutes. The research on low tar/low risk was carried out by the tobacco industry or others subsidised by or affiliated with the Chinese tobacco industry.¹¹

VALIDITY OF 'LESS HARMFUL, LOW-TAR' RESEARCH CALLED INTO QUESTION

Most of the 'low-tar' and Chinese-style cigarette research studies were sponsored by STMA/CNTC or carried out by industry researchers. These studies evaluated the safety of cigarettes through either chemical analysis of tobacco smoke collected using the International Organisation for Standardisation (ISO)/the USA Federal Trade Commission (FTC) methods or toxicological studies of tobacco smoke in animal experiments unrelated to health effects. These studies, however, have not been conducted in humans using internationally recognised approaches to health risk evaluations, and they do not include observational studies or long-term clinical experiments in humans. None of these studies provided any evidence to demonstrate that use of 'less harmful, low-tar' cigarettes actually reduced health risks and addiction for consumers of the products compared with regular cigarettes.^{12–13} Meanwhile, findings from research conducted by independent researchers produced evidence in the opposite direction. Two recent studies compared the urine metabolites of nicotine and tobacco carcinogens in smokers who smoked regular cigarettes and those who smoked purportedly 'less harmful' cigarettes. These studies showed that the Chinese 'low-tar' and herbal cigarettes did not deliver lower levels of nicotine and carcinogens than regular cigarettes.^{14–15}

Even among tobacco industry researchers, no consensus exists on whether smoking low-tar cigarettes leads to harm reduction. A study conducted by an industry researcher determined the tar and carcinogens such as benzo(a)pyrene and nitrosamine of cigarette smoke across nine brands. The results indicated that the content of tar of cigarette smoke in each brand was not correlated with the levels of carcinogens, and the levels of benzo(a)pyrene and nitrosamine in some low-tar cigarettes were even higher than in cigarettes with regular tar levels.¹⁶

THE 'TOBACCO ACADEMICIAN'

One of the pioneer researchers on 'less harmful, low-tar' cigarettes in China is Xie Jianping, a senior tobacco researcher and the Deputy Director of the Zhengzhou Tobacco Research Institute, a research organisation directly affiliated with and supported by the CNTC. Mr Xie JP graduated from the Department of Chemistry of Nanjing Normal College, received the Bachelor of Science in 1982, then studied at the Institute of Tobacco Industry Science and was awarded the Master of Engineering in 1985.¹⁷

Xie's research on developing a hazard index for cigarettes and evaluating 'less harmful, low-tar' cigarettes was based on the outdated ISO/FTC method,¹⁸ which underestimated smokers' actual intake of toxins from low-tar cigarettes. Xie's evaluation of the safety of 'less harmful, low-tar' cigarettes also failed to assess their health impacts on humans. Instead, chemical analysis of the residual tobacco smoke on filters under the ISO/FTC method was used as the sole criterion. Xie insisted that 'This research method screened cigarette smoke toxic components with toxicity index ... If we set the risk index of cigarettes in China in 2008 at 10, then the risk indices in 2009 and

2010 are 9.7 and 9.3 respectively. The overall trend is clear—we are making progress in harm reduction'.¹⁹

Even though there is no substantial evidence demonstrating actual reduction in risk from 'less harmful, low-tar' cigarettes, researchers from the tobacco industry have won six national scientific awards in harm reduction during the last decade, including three awards related to research on low-tar cigarettes led by Xie Jianping: research on improving burley tobacco quality and its application in low-tar cigarettes (2003)²⁰; research on technologies that reduce toxic components in cigarette smoke (2004)²¹; and establishing a cigarette hazards evaluation and control system and its application (2010).²²

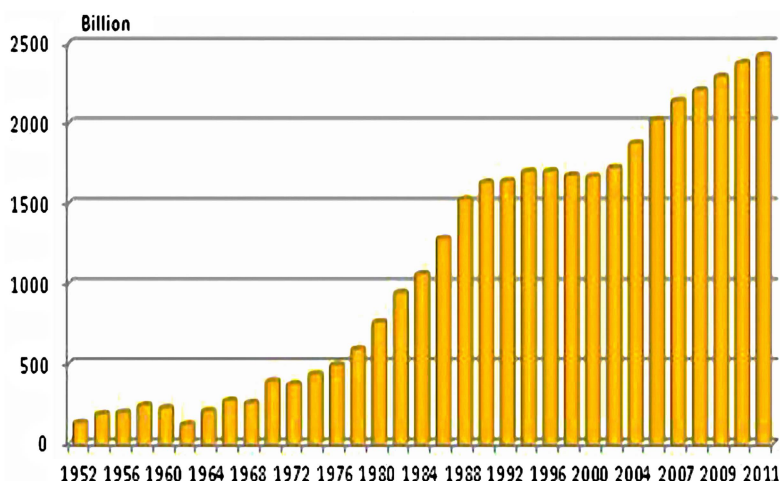
In December 2011, Xie was elected to the renowned Chinese Academy of Engineering (CAE) as an Academician, the highest honour for a scientist in China. During the past year, the controversy surrounding Xie's qualifications as a tobacco industry researcher and the validity of his scientific achievements has caused a public outcry and a frenzy of media attention.²³ Xie himself was dubbed by the media the 'Tobacco Academician'.²⁴ Concerns have been raised over the legitimacy of the review procedures for Xie's application to CAE. Although Xie's research was closely related to public health, he did not have the sponsorship of the Ministry of Health (MOH) for his application to CAE. In fact, all his sponsorship came from the STMA/CNTC. Many felt that because Xie's main scientific achievements were health related, there should be physicians or public health experts on his review committee. But in fact, Xie's qualifications were reviewed only by the members from the Division of Environment and Textile of the CAE, none of whom had medical or public health training. As the controversy surrounding Xie continued, the national scientific awards he received in the past were also called into question as the awards were sponsored solely by the STMA/CNTC without health experts' academic accreditation or recommendation from the MOH.²⁵

After being debated for half a year, in May, about 100 academicians of the CAE petitioned to review Xie's research achievements, and reconsidered his validation as a qualified academician.²⁶ The 11th Academician Congress of CAE took place on 11 June 2012, but New Academician Xie JP was not invited to attend, and his Academician qualification remained up for debate.²⁷ The news report pointed out: 'Xie's supporters in CAE believed that the Regulation of CAE must be stringently



Figure 1 Certification of National Scientific and Technological Progress Award with Bio-Reducing Technology of Cigarettes on the WU YE SHEN cigarettes website.

Figure 2 Cigarette products of Chinese Tobacco Industry, 1952–2011 (data source: Network of Industry in China, <http://www.chinair.org/data/D08/201007/01-46830.htm/>).



observed. The procedure of electing the New Academician has been completed, in their view; it cannot be changed arbitrarily'. At the time this paper was written, CAE was still considering this issue and had made no decision.

MARKETING OF 'LESS HARMFUL, LOW-TAR' CIGARETTES

Xie's awards become a marketing tool of the Chinese tobacco industry²⁸ (figure 1).

National cigarette sales had declined in the 1990s until the tobacco industry launched the 'less harmful, low-tar' strategy in 2000. Since then, the key tobacco industry economic and technological indicators have improved.²⁹ In 2009, overall tobacco production was recorded at 2.29015 trillion sticks (45.803 million boxes) and sales were at 2.28875 trillion sticks (45.775 million boxes), an increase of nearly 40% in tobacco production and sales compared with 2000 (figure 2).^{30 31} Production and sales of low-tar cigarettes have also recorded far more rapid growth than expected. During the first 10 months of 2011, low-tar cigarette production in China was 2.8947 million

boxes, an increase of 408%, and sales were at 2.8704 million boxes, an increase of 386% compared with the year before.³² 'Low-tar' cigarettes sales grew about 10 times as fast as those of all cigarette products.

MISCONCEPTIONS ABOUT 'LESS HARMFUL, LOW TAR' ARE STILL COMMON IN CHINA

In the 2010 *Global Adult Tobacco Survey* in China, participants were asked: 'Do you agree that low-tar cigarettes are less harmful than regular cigarettes?' The survey results indicated that 86% of respondents were not aware that 'low tar' did not mean 'less harmful', including 35.8% who were unaware and 50.2% who said that they were not sure.³³

The survey results also indicated that those with higher education tended to believe in the industry's claims about 'low tar'. Over 45% of the respondents with a college education and above agreed with the industry claims, unaware that low-tar cigarettes are as harmful to health as regular cigarettes (figure 3). A similar pattern was observed with occupation, and

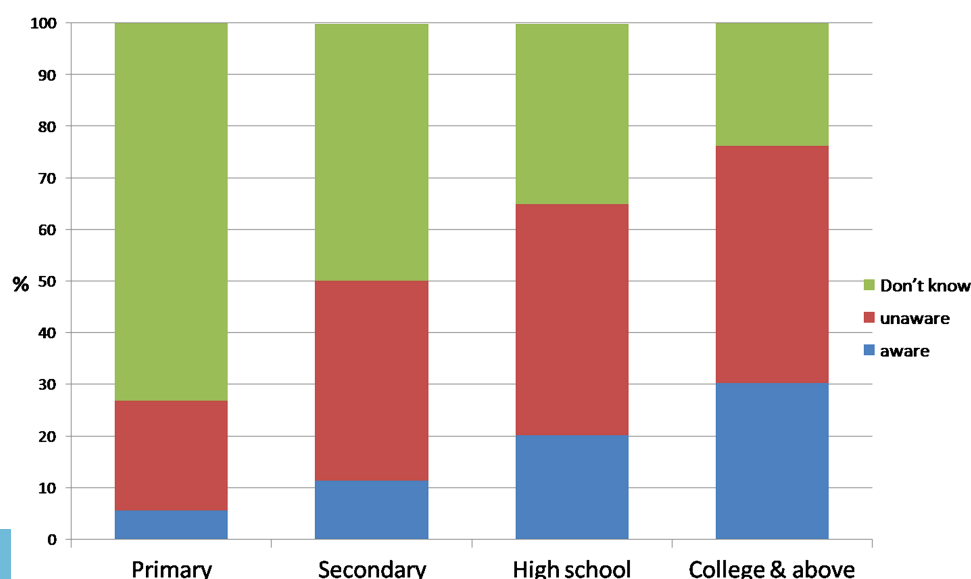


Figure 3 Awareness that low-tar cigarettes are as harmful to health as regular cigarettes by education.

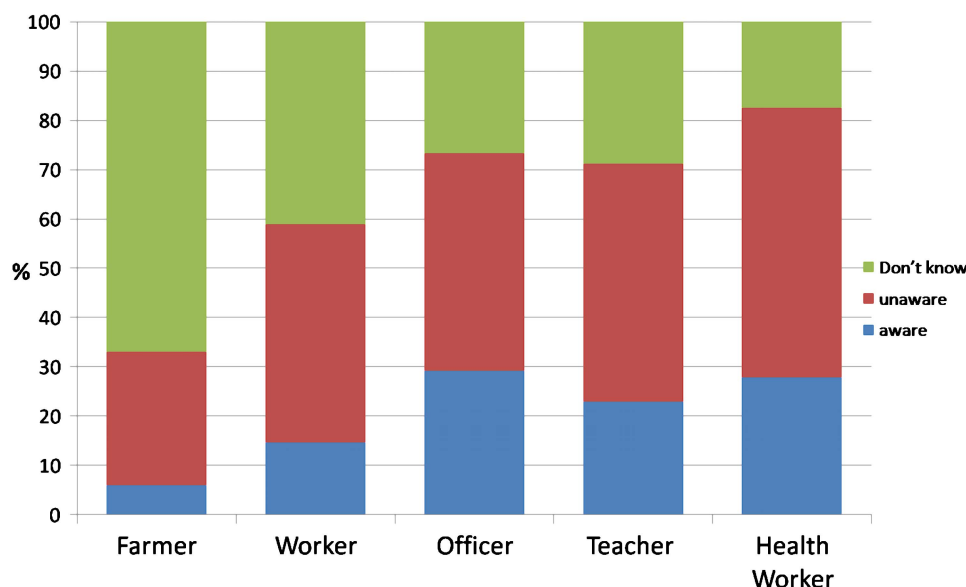


Figure 4 Awareness that low-tar cigarettes are as harmful to health as regular cigarettes by occupation.

the highest rate of misconception (54.7%) was observed among medical professionals (figure 4). This indicates that the 'less harmful, low-tar' tactic used by the tobacco industry to counter tobacco control has indeed paid off, and suggests the critical importance of challenging the industry's misinformation.

STMA promote 'less harmful, low tar' to counter implementation of the WHO Framework Convention on Tobacco Control (the WHO FCTC) which was adopted unanimously at the 56th World Health Assembly in 2003. The Chinese Government signed the FCTC on 8 November 2003 and the 17th session of the 10th National People's Congress ratified the WHO FCTC on 27 August 2005.³⁴ The FCTC became effective in China on 8 January 2006.

Since 2000, the STMA has paid more attention to the impact of the FCTC on the tobacco industry. The STMA approved research on the WHO FCTC and countermeasures to address its impacts on the Chinese tobacco industry.³⁵ The results were published in 2008.³⁶ and the publication was praised by STMA as a proactive initiative.³⁷

The FCTC's Article 11 calls for parties to prohibit the use of terms like 'low tar', 'light', 'ultra light' or 'mild'. The industry book suggested using blue or green colours to represent the

same meanings. Article 11 also requires the health warning to be approved by the competent national authority. The industry strategy book suggests that 'national authorities' should be the STMA.

Article 11 also calls on parties to ensure that each unit and package of tobacco products shall contain information on relevant constituents and emissions of tobacco products as defined by national authorities. Based on this requirement, the industry book recommends that the STMA/CNTC mark the content of tar, nicotine and carbon monoxide. The industry recommendation has become the domestic regulation on packaging and labelling of cigarette packages in the name of implementing the WHO FCTC in China³⁸ (figure 5).

One of the most critical tobacco control measures is to stop the involvement of tobacco companies in public health policies, as mandated by the WHO FCTC Article 5.3, which states: 'In setting and implementing their public health policies with respect to tobacco control, Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law'.³⁹ Because the industry (CNTC) and the government administrative agency (STMA) are virtually the same organisation, policies introduced

Figure 5 The visible figures of tar content are marked on the front of cigarette packs in China (source: collected and provided by the author).



by the STMA in the name of the Chinese government are often de facto anti-tobacco control strategies. This is perhaps the biggest challenge that tobacco control faces in China.

In 2008, the WHO China Office stated⁴⁰ 'In China 'reducing tar and harm' is publicised as (a) tobacco control achievement, but (it) is actually a big lie to mislead consumers by the industry'. The STMA/CNTC uses and abuses its national administrative power to adopt and implement its 'less harmful, low-tar' strategy.

POLICY RECOMMENDATIONS

To effectively implement Article 11 of the FCTC, the State Council should endow the State Food and Drug Administration (SFDA) with the power to regulate all tobacco products, including purported Modified Risk Tobacco Products (MRTPs). The authority to review and approve MRTPs before they are marketed should also be transferred to the SFDA. The State Administration for Industry and Commerce and General Administration of Quality Supervision, Inspection and Quarantine should address the misleading safety claims being made by STMA/CNTC. Also Article 5 of the Law of the People's Republic of China on Tobacco Monopoly should be revised, as it obviously conflicts with WHO FCTC. Finally, the government should support research to investigate the role of STMA/CNTC in disseminating safety and health claims about 'less harmful, low-tar' cigarettes. The Chinese government should not permit a replay of the 'less harmful, low-tar' deceptions that have already been exposed after costing millions of lives in other countries.

Key messages

- Previous studies have found that cigarettes marketed as 'low tar' are not less harmful and in many countries, tobacco companies are barred from using such deceptive descriptors. However, such marketing practices continue in China, where the state tobacco company and the state tobacco regulator operate in tandem.
- This paper describes the tactics used by the Chinese tobacco industry to increase cigarette sales by promoting low-tar and 'herbal' cigarettes as healthier alternatives to conventional cigarettes, sponsoring the nomination of an industry researcher on low-tar cigarettes for the renowned Chinese Academy of Engineering, and working to undermine provisions of the WHO FCTC.
- Given that research suggests that even health professionals believe the 'low-tar-less-harm' lie, challenging these industry claims is critical for tobacco control efforts in China.

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