

Findings from 2010 Global Adult Tobacco Survey: Implementation of MPOWER Policy in China¹

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Objective To assess the implementation of five key tobacco control policies in China: protection from second-hand smoke (SHS); offering help to quit; health warnings regarding tobacco use; the enforcement of bans on tobacco advertising, promotion, and sponsorship; and increasing tobacco taxes and prices. **Methods** Using 2010 Global Adults Tobacco Survey in China (GATS-China), 10 indicators are used to assess the implementation of five key tobacco control policies of MPOWER in China. **Results** Overall, 63.3% and 72.7% of adults noticed people smoking indoor workplaces and public places, respectively. Approximately 60% of smokers were not asked about their smoking habits and approximately 67% were not advised to quit on their visit to a health worker. Sixty percent of adults noticed health warning messages on cigarette packaging and in the media in the last 30 days, 63.6% stated that they would not consider quitting. Twenty percent of respondents noticed tobacco advertising, promotion, and/or sponsorship activities in the 30 days prior to the survey. Among them, 76.3% noticed the direct advertising and 50% noticed from TV programs. Although purchasing price of one pack of cigarettes ranged from 1 to 200 RMB, 50% of current smokers (about 150 million) spent 5 RMB or less on one pack of cigarette. The expenditure on 100 packets of cigarettes represents 2% of 2009 GDP per capita. **Conclusion** The average score for the implementation of the 5 policies of MPOWER in China is 37.3 points, indicating tobacco control policies in China is poor and there is a large gaps from the FCTC requirements.

Key Words: Tobacco control; Implementation of FCTC; MPOWER policies China

BACKGROUND

The harmful effects on people's health of tobacco use and secondhand smoke have been undisputedly established, based on strong scientific evidences. The pandemic of the tobacco use is a global problem with serious consequences for public health^[1]. The international community holds grave concern about the devastating consequences that tobacco consumption and secondhand smoke exposure have on people's health, their societies, economy, and the global environment^[2]. The World Health Organization (WHO) has led efforts to establish the Framework Convention on Tobacco Control (FCTC)^[3]. The FCTC has been approved and implemented in 168 countries and is currently the most widely recognized and influential treaty.

The FCTC was signed by the Chinese Government in 2003 and ratified by the Standing Committee of the National People's Congress in 2005^[4]. The FCTC became effective in China on 9 January 2006; 9 January

2011 will mark the fifth anniversary of its enactment in China. In the last 5 years, the relevant government authorities have paid certain attention to tobacco control practice, allowing which to be transferred to government commitment, making tobacco control well accepted by the Chinese society. However, there is still a considerable gap between the overall implementation efforts and the FCTC requirements, as is seen in that: despite increases in tobacco control funding, it still very poor compared with the requirements of tobacco control; despite much efforts done on tobacco control so far, the counter activities of the tobacco-related interest group much more made unbridled attacks and cancelled out the effects of tobacco control. So some experts commented that tobacco control measures in China are a "failure"^[5]. In this article, we assessed the enforcement of the MPOWER policy package^[1] proposed by WHO and based on the principles of the FCTC using quantitative indicators.

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METHODS

The MPOWER package of policies includes: 1) the monitoring of tobacco use and prevention policies; 2) protecting people from tobacco smoke; 3) offering a help to quit smoke use; 4) Warning about the dangers of tobacco; 5) the enforcement of banning tobacco advertising, promotion, and sponsorship; and 6) Raising taxes and price of tobacco products. The data used are sourced from GATS China 2010. For sampling strategies and survey samples, data collecting see the GATS China Report^[6].

The measurement indicators regarding actual policy enforcement are listed in Table 1. The 10 measurement indicators were sourced from the GATS questionnaire^[7]. For example, the respondents were asked, "Which of the following best describes the indoor smoking policy where you work? Smoking is allowed anywhere; smoking is allowed in some indoor areas; smoking is not allowed in any indoor areas; or there is no policy"; and "Did anyone smoke inside your workplace during the past 30 days?" in order to survey the proportion of having completely banning smoking in the indoor working places and its implement in practice.

TABLE 1

Measurement Indicators for the Implementation of Tobacco Control Measures

Policy	Corresponding Indicators
Protect People from Tobacco Smoke	Percentage of Smoking at Their Indoor Working Places in past 30 Days
	Percentage of Smoking in the Indoor Public Places in past 30 days
Offer Help to Quit Tobacco Use	Percentage of Respondents Reporting Being Advised to Quit When Seeing Doctors during the past 12 Months
	Percentage of Smokers Attempted to Quit without any Cessation Aids in past 12 Months
Warn about the Dangers of Tobacco	Percentage of Respondents Notices information on the Dangers of Smoking and Tobacco Control
	Percentage of Respondents Thought about Quitting after Seeing the Health Warnings on Cigarette packages
Enforce Bans on Tobacco Advertising, Promotion and Sponsorship	Percentage of Respondents Noticed Tobacco Marketing during the past 30 Days
	Percentage of Respondents Noticed Tobacco Marketing on TV Programs during the past 30 Days
Raise Taxes on Tobacco	Maximum Expenditure to Buy a Pack of Cigarettes Paid by 50% Smokers
	Expenditure of 100 Packs of Cigarettes as a Percentage of 2009 GDP per Capita

MAIN FINDINGS

Implement Laws and Regulations on Prevention of Exposure to Tobacco Smoke

China has not any laws or regulations at the national level on banning smoking in public places and workplaces. The legal and regulatory codes on banning smoking in indoor public or working places are mostly local or departmental. Here we still measure the implement of the local law or regulation.

1. Policy of banning smoking and its implement in the indoor workplaces

The survey results showed that 31% of respondents reported that smoking is not allowed in any indoor areas. However, 63.3% of respondents noticed others smoking in these places, and 25.5% noticed smoking in areas even where smoking was banned completely.

There were not the policies of banning smoking in the indoor working places over half of hospital and school, about 80% other indoor working places based on reporting by respondents with different occupations.

Policy cannot be selected by individual so there was no difference by educational level and areas.

In practice, the percentages of smoking in the indoor workplaces of the hospitals and schools were 55.4% and 54.8% reported by health workers and teachers, respectively. The proportions of smoking in the indoor work places in the other working places were higher, over 75%, even close 90 percent in the famer' indoor working places.

However, in places with a complete smoking ban, 25.5% of respondents reported seeing someone smoking, which were obviously lower than those with policies of banning smoking in partial places or without any policy (Fig. 1). These results show a reverse linear correlation between the areas with total smoking bans and the percentage of smoking occurring there. The linear function is $y = -0.7598x + 85.799$, with the correlation coefficient is 0.82. So the policy with completely banning smoking in the indoor working places is benefit for prevention of SHS exposure. In the other hand, the implement of policy on banning smoking in the working places is still need to be improved.

2. SHS exposure in the indoor public places

To enable us to better understand the levels of exposure to second-hand smoke (SHS) in indoor public places, the question “Did you noticed that anyone smoke inside?” was asked to visitors to government buildings, hospitals, schools, and other public places during the last 30 days. Our results revealed that 72.7% of visitors noticed that people smoking in the indoor public places.

Smoking in the indoor public areas was very serious, smoking in the restraint reported by 88.5% visitors, smoking in the government building reported by 58.4% visitors (Fig. 2).

Offering Helps Smokers to Quit

In order to assess the implement of policy of offering help smokers to quit, all current smokers (with and without previous attempts to quit smoking) and former smokers who had quit in the past 12 months were asked whether their health care provider had enquired whether they were smoking, and advise they to quit. The quitter were asked what methods

they used to quit. The results are shown that only 40 percent of smokers were asked about their smoking habits and 33% were advised to quit when they visited to health care facilities. 90 percent of quitter who had given up smoking in the last 12 months did not use any cessation aids; predictably, smoking relapse percentages were high (Table 2).

The smokers aged less than 44 years old received cessation advice from health professionals was lower, only 22 percent. This result may be explained by the fact that young people generally visit the doctor for less serious issues and their health professional may not have been aware of the need to encourage them to quit.

It is of some interest to note that there is no difference on the proportion of advice to quit from health workers among the geographic location, also between urban and rural areas. These results indicate that the awareness of health professionals regarding provision of cessation advice and associated services is very low. In addition, it appears that awareness of offering to quit service providing cessation among health professional spontaneously is not increasing with development of economy, which needs policy.

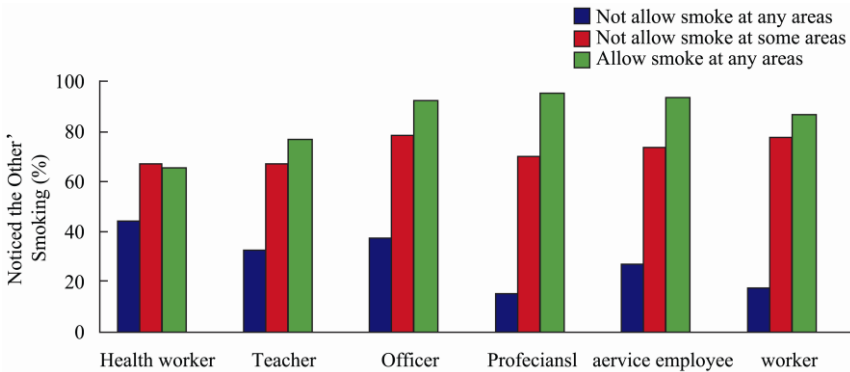


FIG. 1. Exposure of SHS in working places with the different policies, China, 2010.

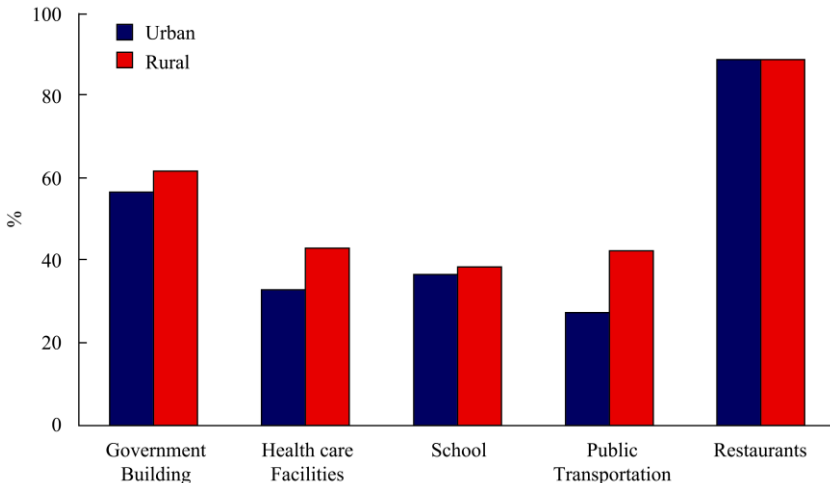


FIG. 2. Exposure of SHS in public places, 2010.

TABLE 2

Cessation Aids Used by Health Worker and Cessation Methods Used by Quitters (China 2010)

	Health Worker Ask if Smoking (Smokers Visiting Doctors)	Health Worker Advise to Quit (Smokers Visiting Doctors)	Proportion of Quitters without any Quitting Aids
Quitters in the last 12 Months	45.8%	43.6%	91.4%
Currents Smokers Trying to Quit in past 12 Months	47.3%	43.3%	91.9%
Subtotal	46.9%	43.4%	91.8%
Current Smokers not Trying to Quit in past 12 Months	39.2%	31.5%	—
Total	40.8%	33.9%	

Health Warnings Regarding the Dangers of Tobacco Use

The implementation of health communications on the dangers of smoking were measured by asking respondents if they had noticed information concerning either the dangers of smoking or encouraging quitting in list places in the last 30 days. The impact of health warnings on cigarette packets in China, which is internationally recognized as the most effective strategy of warning health hazards of smoking, were measured by asking, "Have warning labels on cigarette packets led you to consider quitting in the last 30 days?"

The GATS results show that in the previous 30 days, over 40 percent of adults had not seen the messages about the dangers of tobacco use or encouraging smokers to quit, via the media or in public places, such as newspapers, magazines, radio, television, billboards, building walls, public transport, and cinema, internet.

There are five major channels in China for the public to access these messages, including television (seen by 45.4%), newspapers and magazines (21.8%), billboards (20.5%), public transportation (20.3%), and public walls (18.8%). In addition, 16.5% of people aged 15-24 years old saw such information on the Internet.

During the previous 30 days, 69.0% of urban residents had seen such messages, which was higher than in rural areas at 51.9%.

Owing to health warnings in the cigarettes package only are "Smoking is harmful for your health" and "Quitting is benefit for your health", despite 86.7% of current smokers having seen a warning label on a cigarette pack in the previous 30 days, 63.6% of those did not consider quitting smoking after seeing the warning label, which almost is not effective.

Enforcement of Bans on Tobacco Advertising, Promotion, and Sponsorship

1. Percentage of population affected by tobacco advertising, promotion, and sponsorship

During the previous 30 days, 19.6% of adults

reported that they had noticed tobacco advertising, promotions and sponsorship through the media or in public places. The proportion of noticing tobacco advertisement is 76.3%, much higher than promotion and sponsorship, which are 20.2% and 25.5% respectively. 24.2% of urban residents reported that they had seen tobacco advertisements or promotions, compared to 15.7% among the rural residents. Young people especially males aged 15-24 years old had much higher proportion for noticing advertisement, promotion and sponsorship. The proportion among young urban men is 39.1% (Fig. 3).

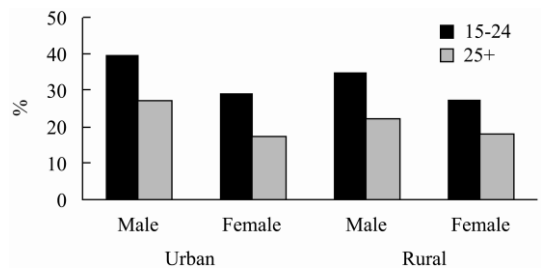


FIG. 3. Proportion of different Chinese noticed tobacco marketing, 2010.

2. Diversified ways for tobacco advertisement, promotion and sponsorship

Respondents to the survey noticed the following tobacco marketing methods: direct advertising 76.3%; sponsorship 25.5%; and promotional work 20.2% (answer for question is multiple choice).

The 49.8 percent of adults noticed form of marketing was direct cigarette advertisements on television, followed by roadside billboards and advertisements in stores. Young people aged 15-24 were the group most likely to notice Internet cigarette advertisements (16.5%); within this group, urban young men scored the highest (Fig. 4).

Among people who noticing tobacco marketing, 46.5% noticed single sales, followed by clothing or other items with a cigarette brand name or logo. The third was free gifts or special discount offers on other products when buying cigarettes. Single sale was the most common promotion way, especially in rural area

and among young people aged 15-24 years old. The proportions are 51.0% and 64.6% respectively. In east and central regions of China, more people noticed free gifts for tobacco promotion.

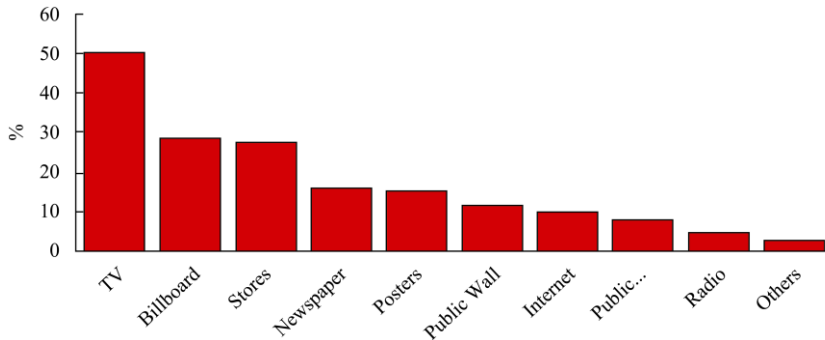


FIG. 4. Approach & means of tobacco advertisement, China, 2010.

Raise taxes and prices on tobacco product

Increasing the tobacco sales tax has proven to be an effective measure for tobacco control. In GATS China survey, respondents were asked whether the cigarettes they smoked during the last 30 days were purchased by themselves or came from other sources; those who purchased cigarettes by themselves were asked how much they spent in the most recent purchase and how many cigarettes were bought. Cigarette prices in China varied greatly, ranging from 1-2 Yuan to hundreds of Yuan. Previous research indicated distribution of cigarette prices in China was skewed. Therefore in this report, the median amount spent was used to reflect cigarette costs more accurately. Because of complex tax systems in different countries, GATS uses the amount spent on 100 packs of manufactured cigarettes as a percentage of GDP per capita to assess whether the cost of tobacco was high enough to discourage tobacco consumption.

1. Cost of purchasing cigarettes

The survey result shows that 92.7% of current smokers buy cigarettes for themselves. Calculation of the average price for Chinese individual smoker to buy one pack of cigarettes in past 30 days shows a skewed distribution of price, from RMB 1.00 Yuan at the lowest to RMB 200 Yuan at the highest, but 50% of current smokers spent RMB 5.0 Yuan (~US\$0.74) or less on 20 manufactured cigarettes (one pack).

China has a complex tax system in relation to cigarette prices. In order to better understand the survey results and make the results measurable with the current cigarettes pricing system of China, the retail price corresponding to the transfer price in terms of the cigarettes of Types One, Two, Three, Four, and Five classified based on transfer prices is calculated using: the difference between the wholesale price and transfer price after tax

89% of respondents who noticed tobacco sponsorship saw it in sport or sporting event, followed by music, theatre, art, or fashion events. There is no difference between regions.

adjustment in 2009 (a) and the difference between the retail price and wholesale price (b). Since the retail prices for Type Three cigarettes range from RMB 4.2 Yuan per pack to RMB 10.1 Yuan per pack, and smokers buying this type represent a half of the smoking population in China, Type Three cigarettes are further divided into 3 sub-types, as shown in Table 3. According to Table 3, the most of smokers suspended cigarettes with low prices.

The expenditure on 100 packets of cigarettes represents 2% of 2009 GDP per capita^[8], evidence that further price adjustments should be made to cigarettes in China.

CONCLUSION AND DISCUSSION

Based on FCTC, WHO introduced a series of proven policies to reverse the tobacco epidemic—the MPOWER package. The impacts of implement of the 5 policies are , summarized in the Table 4. Table 4 shows that implementation of each policy is almost week, the average score of the five policies was 37.3 points, which indicated that the performance of tobacco control efforts and FCTC implementation in China is very poor, and a significant gap exists from the FCTC requirements.

WHO have reached similar conclusions in their assessment of China's smoking policies. China's ranking in the implementation of successful tobacco control measures and FCTC compliance is in the bottom 20%, as shown in Figures 5, 6, and 7. This ranking is disappointing for a country of China's size and development status.

Findings from GATS survey are very clear that while China signed the FCTC, its implementation is lukewarm or even negative given the control of the tobacco industry on tobacco control.

January 9th, 2011 will be the fifth anniversary of the FCTC's enactment and implementation in China. Why implementation of FCTC in China is so ineffective in past 5 years? The legal and regulatory codes have basically remained unchanged since China began to implement the FCTC. Financial and human resources of tobacco control is not abundance^[9], the capacity of tobacco control is not strong^[10], Serious absence of government's responsibility is the fundamental reason for inadequate effectiveness of tobacco control. The situation may be traced to the fact that China Tobacco Monopoly, which runs tobacco production and sale in China, has

become the responsible agency de facto for the FCTC implementation mechanism, which turns tobacco control practice into a showcase and whose conduct is in opposition to the objectives of tobacco control and violates China's essential goals in socioeconomic development. They abused the public powers to promote tobacco production and sale, counteracted development and enforcement of relevant policies and laws related to FCTC implementation, and openly conducting efforts and activities against tobacco control and FCTC implementation such as marketing of tobacco brands in building "tobacco hope primary school" as philanthropic

TABLE 3

Cigarette Type and Consumption Rates (China 2010)

Types of Cigarettes	Critical Value of the Transfer Price	Critical Value of the Retail Price	Retail Price Range	Number of Smokers	Percentage	Cumulative Number of Smokers	Cumulative Percentage
	(Yuan)	(Yuan)	(Yuan)	(In Millions)	(%)	(In Millions)	(%)
Type V	1.65	2.178	(1, 2.178)	22.4	8.0	22.4	8.0
Type IV	3	4.125	[2.178,4.125)	63.1	22.6	85.4	30.6
Type III-1	3.636	5	[4.125,5]	60.1	21.5	145.5	52.1
Type III-2	5	7.1875	(5,7.1875]	31.1	11.2	176.6	63.3
Type III-1	7	10.0625	(7.1875,10.0625)	52.7	18.9	229.4	82.1
Type II	10	14.835	[10.0625,14.835)	19.9	7.1	249.3	89.3
Type I	>= 10	>= 14.835	[14.835, 200)	29.9	10.7	279.2	100.0

TABLE 4

FCTC Implementation Status in China

Tobacco Control Measures	Indicators Used in this Survey	Measurable Results	Score for Policy Implementation*
Protect People from SHS	Percentage of Smoking at Their Indoor Working Places in past 30 Days	63.3%	26.7
	Percentage of Smoking in the Indoor Public Places in past 30 Days	72.7%	27.3
Offer Help for Cessation	Percentage of Respondents Reporting Being Advised to Quit When Seeing doctors During the past 12 Months	33.9%	33.9
	Percentage of Smokers Attempted to Quit without any Cessation Aids in past 12 Months	91.8%	8.2
Warn about the Dangers of Tobacco	Percentage of Respondents Notices Information on the Dangers of Smoking and Tobacco Control	59.8%	59.8
	Percentage of Respondents Thought about Quitting after Seeing the Health Warnings on the Cigarette Packages	36.4%	36.4
Enforce Bans on Tobacco Advertising, Promotion & Sponsorship	Percentage of Respondents Noticed Tobacco Marketing during the past 30 Days	19.6%	80.4
	Percentage of Respondents Noticed Tobacco Marketing on TV Programs during the past 30 Days	49.8%	50.2
Increase Tobacco Taxes & Prices	Maximum Expenditure to Buy a Pack of Cigarettes Paid by 50% Smokers	RMB5.00	20
	Expenditure of 100 Packs of Cigarettes as a Percentage of 2009 GDP Per Capita	2.0%	20
Average Score			37.3

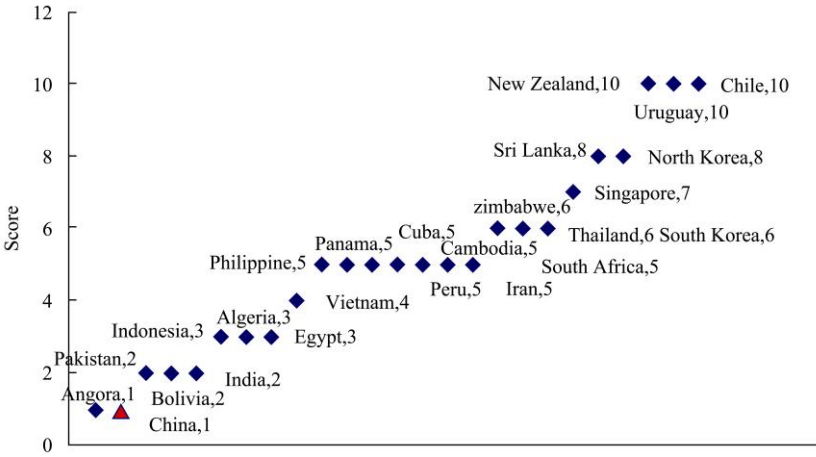


FIG. 5. International scores for the implementation of smoke-free regulations.

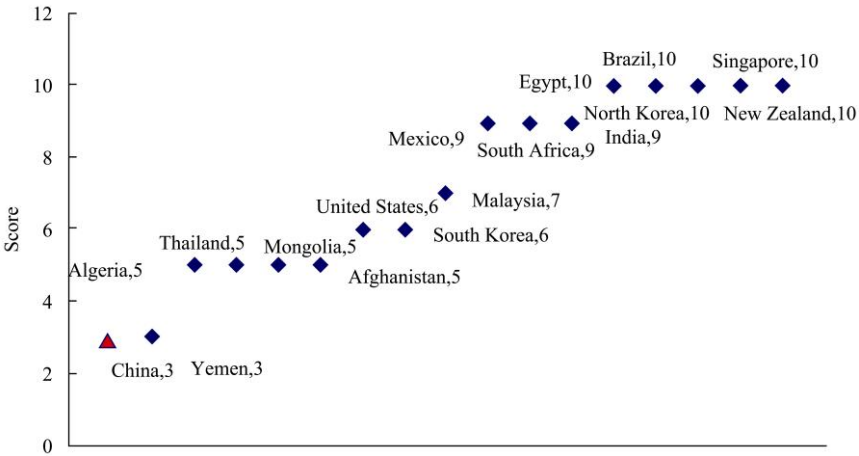


FIG. 6. international scores for the implementation of bans on direct advertising of tobacco, 2008.

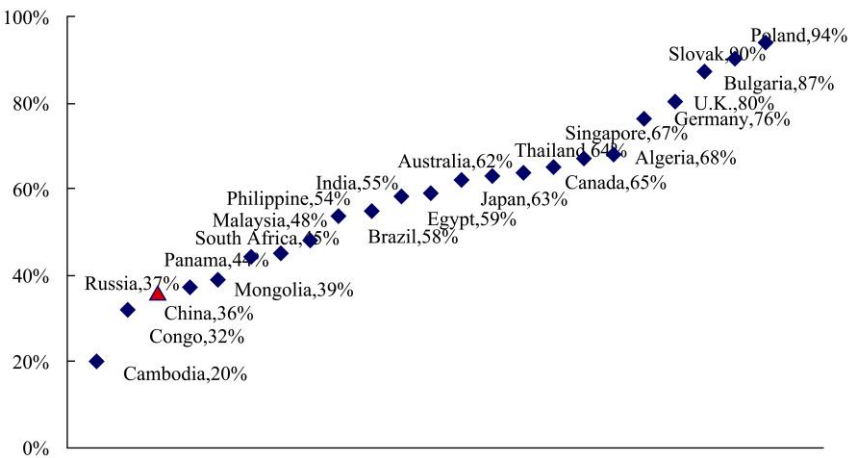


FIG. 7. Tobacco tax percentages, 2009.

names, and so on. In fact they act against tobacco control named tobacco control, seriously violate the essential objectives in China’s socioeconomic development.

The pandemic tobacco use is necessarily to cause the severe health consequence, which has become the “Top Killer” of the health of Chinese population. After 2000, the mortality and morbidity

of the main chronic diseases, such as lung cancer, stroke, coronary heart diseases and etc have been increasing quickly^[11].

In order to avoid the disastrous results, the government should make major decisions and strategic planning for comprehensive tobacco control. In order to protect the current and future generations from tobacco consumption and exposure to tobacco smoke, tobacco control in China must be successful, will not fail!

To ban tobacco advertisement is only current law in minimum of POWER requirement. However, there are still so many people seeing the advertisement.

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