Commentary

Protecting People from Tobacco Smoke in China: Current Status and Challenges

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Over the past two years, many people have encountered difficulties because of the advent of coronavirus disease 2019 (COVID-19). The COVID-19 pandemic has unleashed many concerns, such as social isolation and loneliness, drastic changes to lifestyles, uncertainty for the future, and financial pressure. Some people reported smoking more than usual to reduce stress or loneliness (*1*), which made more people vulnerable to be exposed to second-hand tobacco smoke (SHS). As we know there is no safe level of exposure to SHS, and even brief exposure can cause harm (*2*). Under this circumstance, it is quite meaningful to reiterate the topic of protecting people from the harms of SHS.

To help countries fulfill the promise of the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC), WHO has established MPOWER, a package of the six most important and effective tobacco control policies: Monitoring Tobacco Use and Prevention Policies (M), Protecting People from Tobacco Smoke (P), Offering Help to Quit Tobacco Use (O), Warning about the Dangers of Tobacco (W), Enforcing Bans on Tobacco Advertising, Promotion and Sponsorship (E), and Raising Taxes on Tobacco (R). China ratified the WHO FCTC in 2005. It has been more than 16 years since the FCTC came into force in 2006. But China still has a huge population exposed to SHS with an estimation of 702 million people on the basis of the 68.1% SHS prevalence in 2018 (*3*).According to the WHO report of 2021, in China, P received the lowest grade, compared to the other five strategies (*4*–*5*). Therefore, this article will analyze the current status and challenges for P in China.

SHS REMAINING A SERIOUS ISSUE IN CHINA

The WHO FCTC requires each Party to provide a completely smoke-free environment in indoor workplaces, public transport, indoor public places, and other public places (*6*). While in China, the indoor environment remains a serious issue.

In 2010, 740 million (72.4%) non-smokers were exposed to SHS in public places in China (*7*–*8*). In 2018, the prevalence decreased slightly to 68.1% (*3*), but the total exposed population was still more than 700 million. In 2018, 50.9% reported exposure to SHS occurring at indoor workplaces and 44.9% at home. The worst exposure indoor public places were internet cafes (89.3%), nightclubs & bars (87.5%), and restaurants (73.3%).

SHS CAUSES SERIOUS HEALTH PROBLEMS

The scientific evidence of the harm of SHS has been conclusively established since 1986 (*9*), which was a key year with the US Surgeon General's report. Numerous evidence leaves no doubt that exposure to SHS contributes to a range of serious and often fatal diseases in non-smokers, including lung cancer, cardiovascular and other chronic diseases, and sudden infant death syndrome, etc. The WHO report of 2009 showed that SHS was estimated to cause about 600,000 premature deaths per year worldwide (*10*). The Global Burden of Diseases (GBD) 2019 study estimated the number had doubled, reaching 1.304 million (*11*). Of all deaths attributable to SHS, most occurred among children and women (*10*).

In China, enormous population exposure to SHS caused a huge burden of disease. Gan Q et al. reported that SHS caused around 22,200 deaths from lung cancer and 33,800 deaths from ischemic heart disease (IHD) in 2002 (*12*). According to the GBD 2019 results, the largest number of deaths attributed to SHS was observed in China, with the number increasing from 382,000 in 2010 to 416,000 in 2019. In 2019, the death number attributable to SHS in China accounted for 31.9% of the world's deaths (*13*).

The good news is that smoke-free laws could reduce exposure to SHS; 100% smoke-free environments are

the only proven way to adequately protect the health of people from the harmful effects of SHS. Smoke-free policies decreased exposure to SHS by 80%–90% in high-exposure settings (*10*). In addition, scientific evidence has firmly established that an immediate reduction in heart attacks and respiratory problems would be gained by the 100% smoke-free policy implementation. Among them, acute myocardial infarction (AMI) is the most sensitive disease to the smoke-free policy (*14*).

VARIOUS MILESTONES RELATED TO CONTROL OF SHS IN CHINA

Tobacco control in China has been conducted for more than 40 years, which could be traced to the late 1970s. The notice on *Health Education on the Harm Caused by Smoking and Control* jointly issued by Ministry of Health (MOH) and other three ministries in 1979. During the period between 1988 and 1998, a series of campaigns for smoke-free hospitals, smoke-free schools, and smoke-free public transport were carried out. Meanwhile, health promotion actions on banning smoking in indoor public places were conducted in some cities supported by international assistance, such as the WHO and World Bank. In addition, China held the 10th World Conference on Tobacco or Health with the theme "tobacco: the continuous spread of plague" in 1997, which was a great move. Notably, months before this conference, China implemented a national policy that banned smoking in public transport and its waiting areas, including in civil airports and civil aircrafts (*15*).

In 2003, China actively joined the WHO FCTC as the 77th party member, and the FCTC came into force in China in 2006. In 2007, the State Council approved the establishment of the WHO FCTC implementation coordination mechanism with the State Tobacco Monopoly Administration (STMA) as the leading group, which violated Article 5.3 of WHO FCTC. In 2018, the FCTC implementation coordination mechanism was re-organized with the National Health Commission (NHC) as a chair, which indicated big progress.

After 2016, the Post-FCTC era, China also conducted more tobacco control initiatives supported by the Chinese government and international assistance, including creating a smoke-free medical and health system nationwide, holding a "Smoke-Free Olympics" in 2008 and a "Smoke-Free World Expo" in 2010, enacting local legislations on smoke-free in indoor public places, etc. In order to meet the Article 5.1 of WHO FCTC requirements, the China Tobacco Control Action Plan (2012–2015) was released in 2012. But unfortunately, by the end of 2015, the goals of the Plan had not been achieved. In addition, currently the plan is only a national tobacco control plan without a follow-up. One encouraging step undertaken by the Chinese government is the adoption of tobacco control in the Healthy China 2030 Strategy set by the Political Bureau of the Central Committee of the Chinese Communist Party in 2016. On tobacco control, the Healthy China Action Plan (2019–2030) includes two targets: 1) the smoking prevalence of people aged over 15 years old lower than 24.5% and 20% by the year 2022 and 2030, respectively; and 2) 30% and 80% of population protected by 100% smoking bans by 2022 and 2030, respectively (*16*).

STILL NO COMPREHENSIVE NATIONAL SMOKE-FREE LAW IN PLACE

According to the Article 8 of the WHO FCTC requirement, each Party shall enact a comprehensive national smoke-free law in place. The WHO report of 2021 showed that 67 countries got Grade Ⅰ for P where the smoking bans were at best-practice level (*4*). Among them, 72% countries were middle- or low-income countries. However, China received the worst grade (Grade Ⅳ) for this strategy (Grade Ⅳ means there is complete absence of national ban or up to two public places completely smoke-free across the country).

After implementing the WHO FCTC for 16 years, China still has not met its obligations and has no comprehensive national smoke-free law in place. On November 24, 2014, a long-awaited draft national tobacco control guideline was released by China's State Council, aiming to reduce the harms of tobacco smoke and protect public health. This is the first time that the Chinese government has considered state-level legislation on tobacco control. This draft was supposed to finish seeking advice, opinions, and comments from the public by the end of 2014 (*7*). But unfortunately, the draft is still stuck in that stage and has not progressed further (*17*).

The Chinese people look forward to the 100% national smoke-free regulations. Based on the national survey in 2018, the support for a ban on smoke-free in

public places was quite high. More than 90% people supported a ban on smoking in indoor workplaces and indoor public places. For restaurants and bars/nightclubs, the proportions were a little bit lower, at 80% and 60%, respectively. Even smokers also showed high support (*3*).

SMOKE-FREE LEGISLATION AT THE SUBNATIONAL LEVEL

Currently, there are now 1.8 billion people (a quarter of the world's population) living in 67 countries (34%) covered by the best-practice smoke-free laws worldwide (*4*).

In China, although there is no comprehensive national smoke-free law in place, smoke-free momentum continues to grow at the subnational level. At present, more than 20 cities have taken promising steps to enact laws or regulations meeting the WHO FCTC requirements, including Beijing, Shanghai, Shenzhen, Qingdao, Lanzhou, Changchun, Zhangjiakou, Qinhuangdao, Xining, Wuhan, Xi'an, Yangquan, Xinyang, Zhoukou, Putian, Chenzhou, etc. Notably, in 2021, Beijing, the capital city of China, upgraded the comprehensive smoke-free law according to the amended Minors Protection Law. The newly smoke-free law of Beijing reiterated the youth protection from SHS (*18*). As for the target in the Healthy China Action Plan — 30% of population protected by complete smoking bans by 2022 — some provinces have achieved a level of success, including Beijing (100%), Shanghai (100%), Qinghai (41.7%), Shaanxi (32.8%), and Henan (69.6%), etc. (*19*).

In China, some other cities also have amended or enacted bans of smoking in public places, but unfortunately, those cities could not be regarded as smoke-free cities due to lack of clear requirement items on complete smoke-free indoor public places, indoor workplaces, and public transportation, or due to permitting the set-up smoking areas in hotels, bars, restaurants, or places of amusement, etc. An example is Chongqing.

Chongqing is one of four municipalities directly administrated under the Central Government, with the largest land area and largest population. In September 2020, Chongqing passed the *Smoke-Free Law in Public Places in Chongqing*, which permits to set up smoking areas in indoor areas of restaurants, hotels, and places of amusement (*20*). This law with such a low-level loophole lags far behind laws from the above 20 cities. As one of the most important central cities in China, the law of Chongqing sets a negative example for other provinces and counters the good momentum on tobacco control in China.

In brief, in China, only 195 million people (13.8% of the population) are protected from the smoke-free environment, which shows a huge gap to the Healthy China Action Plan (2019–2030) targets (*19*).

CURRENT STATUS OF POLICY ENFORCEMENT IN CHINA

Smoking prevalence is declining in cities that have comprehensive smoke-free laws. Beijing and Shanghai municipalities started to enforce the comprehensive smoke-free law in 2015 and in 2017, respectively. The smoking prevalence rate declined from 23.4% in 2014 to 20.3% in 2019 in Beijing (*21*), and from 23.3% in 2014 to 19.9% in 2018 in Shanghai (*22*–*23*), respectively. In 2014, a year after the 100% smoke-free law enforcement in Qingdao, the SHS prevalence in public places, workplaces, and homes was 42.39%, 26.62%, and 40.53%, respectively, which was much lower than the national level in 2015 (*24*). After the 100% law enforcement in Lanzhou, significant effectiveness has been achieved. The smoking prevalence rate decreased 8.8% in the past decade, while the SHS prevalence decreased from 44.2% to 21.3% in indoor workplaces from 2013 to 2020 (*25*).

For some cities with partial smoke-free laws, the effectiveness of tobacco control is still lacking. For example, in Tianjin Municipality, after the law was implemented in 2012 (*26*), the smoking prevalence and SHS decreased 1% and 3.3%, respectively, compared to the year 2010. When using the incidence or mortality rates of AMI and stroke, the smoke-free law implementation evaluation for Tianjin showed that immediate post-legislation reductions in mortality were not statistically significant (*27*).

As only a few cities are implementing 100% smoke-free laws, the process of implementing the FCTC is very slow. Yang et al. evaluated the FCTC implementation in China by using the policy performance indicators in 2011. The results showed that China only scored 37.3 out of a possible 100 (*28*). Globally, between 2007 and 2019, smoking prevalence rate decreased from an average of 22.7% to 17.5% (*4*), showing a relative reduction of 23% over 12 years. The relative reduction of the current smoking prevalence rate and SHS prevalence between 2010 and 2018 in

China was only 5.3% and 4.3% for the past eight years, respectively. Therefore, if the smoking prevalence rate reaches the goal of Healthy China 2030 as we anticipate, one of most effective ways is to adequately implement the existing subnational comprehensive smoke-free law.

CONCLUSION AND RECOMMENDATIONS

Implementing a 100% smoke-free environment is the most effective strategy to reduce tobacco smoke exposure to safe levels in indoor environments and to provide an acceptable level of protection from the dangers of SHS exposure. China urgently needs national smoke-free legislation, which is not only the obligation of WHO FCTC implementation, but also the obligation to protect the population's health and wellbeing. The Chinese people also look forward to the 100% national smoke-free regulations.

However, tobacco control in China has remained particularly difficult because of interference by the tobacco industry. Therefore, there is a long way to go to enact national smoke-free legislation. Under this situation, policymakers should consider ensuring the successful implementation of the existing subnational comprehensive smoke-free law, which also could effectively protect the Chinese population from SHS exposure. Once those laws are adequately enforced, the benefits would be shown, such as fresher air and an immediate reduction in heart attacks and respiratory problems. Therefore, it is critical to evaluate the effectiveness of the policy implementation by disseminating it, which is important to raise awareness among decisionmakers and public health advocates about the necessity for smoke-free environments to protect their health and their broad acceptance and endorsement. Therefore, we call for conducting monitoring and evaluation at subnational level regularly and disseminating it rapidly. This would accelerate the national smoke-free legislation process.

The phased goal of the end of 2022, proposed by Healthy China Action Plan (2019–2030), is not waiting for us, and targets of 2030 are what we are heading for. A tobacco-free world is crucially dependent on more rapid progress in China.

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