

Multiple streams approach to tobacco control policymaking in the capital city of the world's largest tobacco consuming country

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Abstract

The aim of this study was to analyse the policymaking process of Beijing tobacco control regulations based on a multiple streams framework to provide a reference for other cities, at the national level and for the international community to promote the development of tobacco control policy. Twenty-one documents related to tobacco control in Beijing were collected, nine informants were interviewed and the interview data were analysed by a thematic framework method. It was found that indicators, feedback and a focus event in the problem stream drew the attention of policymakers and the society for tobacco control. In 2011, Ying Songnian, a representative of the Beijing Municipal People's Congress, put forward tobacco control legislation, which was just in time for the legislative reform of the Congress. The proposal was studied by the Congress, and a strategy of 'social co-governance' was founded. In the political stream, the government actively promoted tobacco control and social organizations extensively participated in it. In 2013, the General Office of the Central Committee of the Chinese Communist Party and the General Office of the State Council issued a notice on matters related to leading cadres taking the lead in banning smoking in public places, which opened a policy window for decision-makers who were hesitant. The issue of tobacco control was successfully put on the policy agenda and contributed to the introduction of the Beijing Municipal Regulations on Smoking Control. Development of the factors in problem stream, policy stream and political stream promoted the setting up of the tobacco control policy agenda in Beijing. It is suggested that more cities should learn from the experience of Beijing, seize the opportunity of the ideological change of the ruling party, actively identify the problems, mobilize and advocate for representatives and introduce the concept of 'social co-governance' to promote tobacco control legislation.

Keywords: Tobacco control, multiple streams framework, policy agenda

Key messages

- Indicators, feedback and a focus event in the problem stream drew the attention of policymakers and society to tobacco control.
- In the policy stream, Ying Songnian put forward tobacco control legislation in time for the legislative reform of the Beijing Municipal People's Congress. The strategy of 'social co-governance' was founded to resolve tough and controversial issues in the policy development.
- In the political stream, the government actively promoted tobacco control and social organizations extensively participated in it.
- In 2013, the General Office of the Central Committee and the General Office of the State Council issued a notice on matters related to leading cadres taking the lead in banning smoking in public places, which opened a policy window for decision-makers who were hesitant.

Introduction

The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing >8 million people a year around the world (Institute of Health Metrics, 2019). In 2003, the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) was adopted by the World Health Assembly. The FCTC is an evidence-based treaty to reduce the prevalence of tobacco use and the exposure to tobacco smoke in its parties. To help countries implement the FCTC, the WHO further developed the monitor, protect, offer, warn, enforce and raise (MPOWER) technical package. As of 2021, 75% of countries and 5.3 billion people are protected by at least one MPOWER measure. Globally, smoking prevalence among people aged >15 years has fallen from 22.7 to 17.5% (World Health Organization, 2021). Studies exploring the politics of tobacco control policymaking are abundant in high-income countries (Paul, 2007; Craig *et al.*, 2010; Schwartz and Johnson, 2010; Currie and Clancy, 2011; Mamudu *et al.*, 2014; Weishaar *et al.*, 2016), whereas

evidence from low-and middle-income countries (LMICs) is limited (Nakkash *et al.*, 2018; Udokanma *et al.*, 2021). It is critical to find evidence from LMICs as the tobacco market is growing in LMICs and powerful economic forces created by the production and sale of cigarettes have hindered progress towards tobacco control (Bump and Reich, 2013). This has made LMICs more vulnerable to the tobacco epidemic and therefore they should be the focus of tobacco control from a global perspective.

Conceptual framework

The multiple streams framework (MSF) is the most common among the policy analysis frameworks in tobacco control research. Other frameworks include the advocacy coalition framework, the policy triangle theory and the punctuated equilibrium theory (Arabloo *et al.*, 2018). John Kingdon's MSF (Kingdon, 2014) illustrated government's policymaking process were under conditions of ambiguity. It suggested that issues are shifted to the government's formal agenda when policy entrepreneurs take advantage of agenda setting opportunities known as 'policy windows'. Policy windows emerge when three separate streams—the problem stream, the policy stream and the politics stream—converge. For a condition to be a problem, people must become convinced that something should be done to change it. Thus, indicators assess the magnitude of the condition and focusing events draw attention to the condition and/or provide feedback about the operation of an existing programme that could be used to justify whether the condition could be defined as a problem or not. The policy stream concerns the process by which proposals are generated, debated, redrafted and accepted for serious consideration. Much of this process takes place in policy communities which consist of specialists in each policy areas. Criteria including technical feasibility, value acceptability and anticipation of future constraints are used by policy entrepreneurs—people who are willing to invest resources of various kinds in hopes of a future return in the form of policies they favour—to select feasible proposals. The politics stream floats along according to its own dynamic and is considered as independent from problem and policy streams. It is composed of such factors as swings of national mood, election results, changes of administration, changes of ideological or partisan distributions in Congress, and interest group pressure campaigns. Policy entrepreneurs are crucial to the coupling at the open policy window, because they attach solutions to problems, overcome constraints by redrafting proposals and take advantage of politically propitious events.

China's context

China is the world's largest consumer of tobacco, with an estimated consumption larger than the next 39 highest tobacco consuming countries combined (Hoffman *et al.*, 2019). There were >300 million smokers with a smoking prevalence of 26.6% (50.5% among males and 2.1% among females) in 2018 (Chinese Center for Disease Control and Prevention, 2018). China signed the FCTC in 2003 and ratified it in 2006, but limited progress has been made to date (Sun *et al.*, 2022). At the national level, there is no smoking ban in public places, though progress has been made in banning tobacco advertisement (The 14th meeting of the standing committee of the 12th National People's Congress, 2015), strengthening cigarette package warnings (State tobacco monopoly bureau, General

Administration of Quality Supervision, and Inspection and Quarantine of the People's Republic of China, 2016) and raising tobacco tax (Ministry of Finance and State Administration of Taxation, 2015). The State Tobacco Monopoly Administration (STMA) and China National Tobacco Company (CNTC) have full control over tobacco production, sale and import-export business, which are thought to be hindrances to the effective implementation of the FCTC in the country (Lv *et al.*, 2011). At the subnational level, only 24 cities in China have enacted smoke-free directives, including the capital city Beijing. Understanding the policymaking process of the Chinese city that has implemented smoke-free legislation may help other cities move towards tobacco control and the experience might also be applied at a national level to other LMICs.

Beijing's context

In 2008, Beijing initiated a smoking ban in 11 types of public places for the smoke-free Olympics (People's Government of Beijing Municipality, 2008). Seven years later in June 2015, Beijing enforced the Beijing Municipal Tobacco Control Regulation (BMTCR) (Standing Committee of 14th People's Congress in Beijing municipal, 2014). The latter is one of the strongest tobacco control policies and is the most in line with the WHO framework in the country (Mackay, 2016), including monitoring of tobacco use through surveys, a smoking ban in all indoor and four outdoor public places, a ban on advertisement, promotion and sponsorship of tobacco and the establishment of a cessation support system and media campaign. The 2015 policy has been confirmed to contribute to reductions in cigarette consumption (Zheng *et al.*, 2021) and smoking prevalence (Chang *et al.*, 2019), as well as bringing significant health benefits with regard to cardiovascular morbidity (Zheng *et al.*, 2020; Wu *et al.*, 2021). Therefore, it is of great importance to understand the policymaking process of the 2015 policy and learn from the Beijing experience how to develop tobacco control policies in other cities, at the national level and throughout the tobacco economy.

Aims

This study aimed to analyse the policymaking process of the BMTCR using the MSF to identify the key strategies and learn by experience how to promote tobacco control policies on a larger scale.

Materials and methods

The study employed a case study approach that triangulated primary and secondary data.

Primary data included interviews with key stakeholders who were involved in the policy making process. Between September 2020 and November 2021, purposive and snow-ball sampling were employed to identify key stakeholders. In total, 11 stakeholders were identified from sampling, 9 of whom accepted our interview invitations. The 9 informants interviewed included representatives from Beijing's Committee of Patriotic Health Campaign (BCPHC), the Standing Committee of the Beijing Municipal People's Congress (SCBMPC), Beijing Tobacco Control Association (BTCA), Chinese Association on Tobacco Control (CATC), Tobacco Control Office of the Chinese Center for Disease Control (TCOCCDC), Chinese University of Political Science and Law (CUPSL), the WHO and the International Union Against

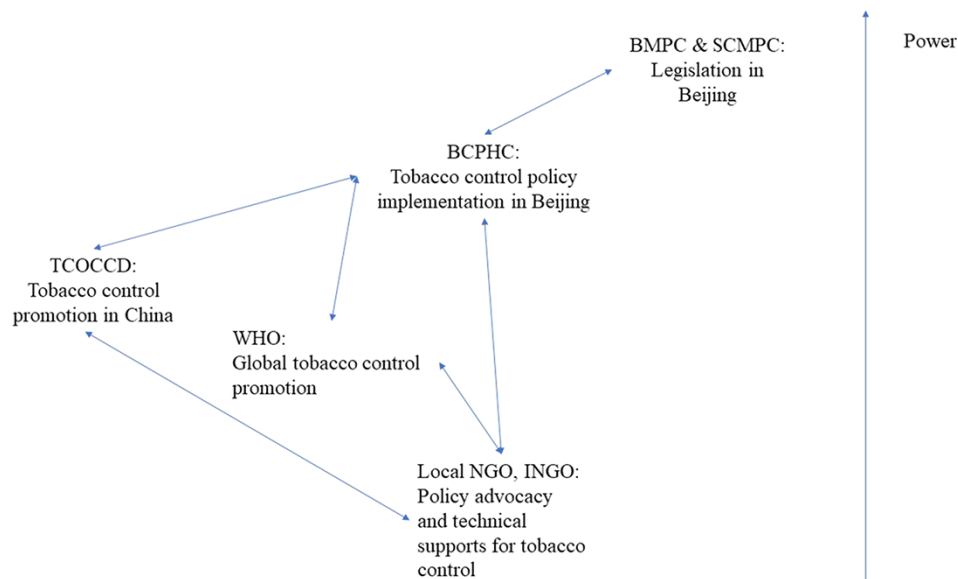


Figure 1. Actors map

Tuberculosis and Lung Disease (IUATLD) and one independent lawyer who participated in agenda setting and policy formulation as deputy of the Beijing Municipal People's Congress (BMPC). Institutional relationships between the agencies are described in Figure 1. Snowball sampling was stopped when no further stakeholder was identified by the interviewees. Interview questions included: How did tobacco control draw attention from the government? How were policy proposals employed? Were there political factors that had an impact on the policymaking process? All interviews were conducted for ~30–60 min in Chinese by a researcher trained in qualitative methodology either face-to-face or through an online meeting app. All interviews were recorded. Recorded interviews were transcribed and notes were converted into textual form.

Secondary data were retrieved from the search of archival documents from the SCBMPC, technical reports from BCPHC, CATC, BTCA and the WHO, news reports from the media through the largest search engine in China, Baidu. Search terms used included: *Běi Jīng Shì Kòng Zhì Xī Yān Tiáo Lì*, *Běi Jīng Shì Kòng Yān Tiáo Lì*, *Běi Jīng Shì Jìn Yān*. This study used a modified population, intervention, comparison, outcome and time (PICOT) format to summarize the inclusion criteria of documents reviewed by replacing the comparison with the setting. The inclusion criteria of documents reviewed are as follows.

- (1) Population: Beijing's residents.
- (2) Intervention: Beijing Tobacco Control Regulation.
- (3) Setting: Beijing, People's Republic of China.
- (4) Outcome: policy discussion documents, newspaper articles
- (5) Time period: 2008–2015.

Exclusion criteria were structured using the same format.

- (1) Population: non-permanent residents in Beijing.
- (2) Intervention: tobacco control regulation at national level or in other cities.
- (3) Setting: not in Beijing, People's Republic of China.

- (4) Outcome: not policy discussion documents or newspaper articles.
- (5) Time period: out of the time frame 2008–2015.

In total, 21 documents were reviewed. Both primary and secondary data were analysed using thematic coding (Richard, 1998) and the MSF with Nvivo 11. Triangulation was applied using a matrix to identify points of convergence between the different data sources (documents and interviews).

Results

Problem stream

By January 2011, 5 years after the ratification of the FCTC, China should have banned smoking in all indoor public places, indoor workplaces and public transportation. However, according to an evaluation report- *Tobacco Control and the Future of China*, published by the Chinese Centre for Disease Control and Prevention, there was no smoking ban at the national level and China only achieved a score of 37.3 (out of a total of 100) and was ranked at the bottom among the FCTC contracting parties (Li, 2011). So was a sense of urgency towards tobacco control spread among the deputies of BMPC (Li and Huang, 2011).

Though Beijing was the lead in tobacco control in China, with the first smoking ban throughout the country issued in 1995 (Standing Committee of the Beijing Municipal People's Congress, 1995) and the first smoke-free Olympics in 2008 (People's Government of Beijing Municipality, 2008), there were certain gaps between the FCTC and Beijing's previous smoking ban (noted by the presentative from the BCPHC). Furthermore, no fine was issued as a result of the 1995 smoking ban and smoking rebounded after the 2008 Olympics (noted by the representatives from the BCPHC and the BTCA). The smoking ban in 1995 authorized no-smoking public places to set up tobacco control supervisors in their respective units. However, soon after this, a higher law—the Administrative Punishment Law—was issued which requires that all administrative punishment for violations of law

should be issued by administrative civil servants. Civil servants in China refers to personnel appointed by the State in a manner prescribed by law, working in State organs at the central and local levels, exercising state administrative power and performing state official duties in accordance with the law. Therefore, tobacco control supervisors selected from public places were not authorized with the power to issue punishment for violations of the smoking ban. In summary, feedback from the implementation of previous policies indicated the need for a more comprehensive, feasible tobacco control policy in Beijing.

But these two steps, in fact, Beijing's tobacco control did not meet the requirements of the WHO FCTC, which requires comprehensive smoke-free in all indoor public place... And people considered tobacco control (policies) were not well implemented in Beijing (noted by the BCPHC).

There was a smoking ban in public places in 1995, but it didn't issue a single fine... Why did it fail? Under that policy, tobacco control supervisors could issue the fine. But soon after this, China issued a higher law—the Administrative Punishment Law which requires all administrative punishment for violations of law should be issued by administrative civil servants. Therefore, the smoking ban was aborted, not implemented. After the smoke-free Olympics, it (smoking) was back to previous level. At that time, the stadiums were all non-smoking, but soon after the Olympics, it went back (noted by the BTCA).

Change in a widely respected indicator was another way to make tobacco control a problem that need to be solved. The incidence of lung cancer increased from 40.29/100,000 in 2001 to 62.68/100,000 in 2010, with an average annual growth rate of 2.4% in Beijing (People's Government of Beijing Municipality, 2008). According to the Surgeon General's report, smoking is the primary risk factor for lung cancer (U.S. Department of Health and Human Services, 2014). In 2011, smoking prevalence in Beijing was 54.9% among males and 3.0% among females (People's Government of Beijing Municipality, 2011). Therefore, tobacco control drew attention from the health department.

Another focusing event was the famous snooker player Ronnie O'Sullivan walking into the press room with a cigarette in his mouth on 30 March 2012 when he lost a game in Beijing. In response to journalists' questions on his behaviour, he said: 'In England, smoking is banned in indoor places. But at here, I think it is more casual here'. These words triggered a flurry of media criticism (China News Net, 2012; Sohu Sports, 2012; Xin Hua Net, 2012) (noted by the representatives from the BCPHC).

In fact, there was an event (which contributed to attracted attention from policymaker on tobacco control) in which O'Sullivan smoked a cigarette at a press conference in Beijing. Journalists asked him why did you smoke in this place? He says this is not allowed in the UK, but in Beijing it should be free and unregulated (noted by the BCPHC).

Policy stream

In 2011, Professor Songnian Ying from China University of Political Science and Law, who was also a deputy of the BMPC, raised a proposal on the formulation of BMTCR at the BMPC. Professor Ying advised that tobacco control should be regulated by law to provide a safeguard for effective implementation of tobacco control through clarifying the

subjects of liability and the scope of tobacco control (Li and Huang, 2011). Coinciding with the legislative reform of the BMPC, BMTCR was listed as the first pre-plan research act in 2011 (noted by SCBMPC). Representatives from the BMPC, government departments, academic institutions and social organizations worked together in the design of the law. Both Chinese and international experts in tobacco control gathered in Beijing (noted by CATC and the IUATLD) and played an important role in the policy formulation process which guaranteed the full compliance of the policy proposal to the WHO FCTC (noted by SCBMPC).

All the experts were in Beijing, both the international and domestic (noted by the CATC).

International organizations and national tobacco control agencies (are all located in Beijing). Beijing has a special location, national, Beijing, international experts (were) gathered there (noted by the IUATLD).

Including why some measures were discussed repeatedly, why we can quickly return to the correct track, experts guaranteed it (Beijing Municipal Tobacco Control Regulation) could meet the requirements of the WHO FCTC (noted by the SCBMPC).

Policy debates mainly revolved around the scope of non-smoking places, especially in the Beijing Capital Airport, single offices in workplaces and guest rooms in hotels (noted by the CUPSL). From the perspective of the Beijing Capital Airport, tourists need to stay in the airport for several hours waiting for the flights so it would be difficult for smokers if there were no smoking rooms in terminals. The BCPHC worked with the Beijing Capital Airport Patriotic Health Campaign Committee (BCAPHCC) to persuade the leaders of Beijing Capital Airport who finally agreed to close all 38 smoking rooms in the airport and set up smoking areas outside the terminals (noted by the BCPHC).

(The policy debate) was the scope of tobacco control, including Beijing (Capital) Airport, they did not advocate a comprehensive smoke-free at first, and even proposed to build a smoking room (noted by the CUPSL).

For example, at the Capital Airport, to cancel all 38 smoking rooms, was very difficult. If you think about it, if a person enters the security check, he can't go out for a long time if he misses some flight inside. You know that a smoker is very uncomfortable at first. After being uncomfortable, he will do a lot of drastic things. So, if you want to cancel its smoking room, the airport will not agree, and that would need to do a lot of work. Later, the airport said that 'it would be okay, (but you should) allow us to set up a smoking area outside the airport, we would renovate the airport, you give me a buffer time of three years'. And then we discussed it, we could not give three years. We went to the airport six times alone, and we communicated with them repeatedly. It should be said that the BCAPHCC has also played an important role (noted by the BCPHC).

One version of the drafted Beijing tobacco control regulations allowed smoking in single offices at workplaces and smoking guest rooms at hotels (noted by the CUPSL). Experts participating in the policy discussion insisted Beijing should meet the smoke-free standards as proposed by the WHO FCTC so no exception should be allowed in terms of the scope of the smoking ban (noted by the BCPHC and an independent lawyer). The WHO representative in China, Dr Bernhard Schwartlander, said allowing smoking in single-person offices

would be a big mistake in his letter to the SCBMPC (WEI, 2014).

Some individual... also advocate single offices in the government (building), and also outside the government (building) should not be included in tobacco control scope(noted by the CUPSL).

Another policy debate was the tobacco control in shared workplaces, that was, some people in society were saying, wasn't this a privilege for leading cadres to smoke in office? When the Legislative Affairs Committee of the Standing Committee of the National People's Congress deliberated, I also objectively introduced this concern in society about this article as well as the scientific proofs that allowing smoking room in workplace cannot eliminate the harm of second-hand smoke(noted by the independent lawyer).

There was a draft, guest rooms in hotels were allowed to smoke... Later, during the discussion, experts immediately came to me, saying that if you do this, it will be a violation of the framework convention (FCTC) and it is going to make historic mistakes(noted by the BCPHC).

During the policy research, most concerns surrounded the feasibility of implementing such a high-level smoking ban until the social co-governance approach was found. It was deemed a technically feasible way to establish a whole-society mechanism that includes contributions from all actors from the society, including the government executing administrative power, social units taking responsibility for first line banning of smoking in public places, citizens being law-abiding and responsible for complaints on illegal smoking, social organizations and media playing roles in tobacco control campaigns and supervisions. The social co-governance approach makes the scope of tobacco control in all public indoor places (to be in compliance with the FCTC) practicable as it clarifies the responsibilities of all actors and bridges the human resources gap of law enforcement (noted by the SCBMPC).

Just as it was, Beijing people's Congress reform legislation provided an opportunity, some major events can carry out pre-plan research(noted by the SCBMPC).

We have also found a breakthrough point, namely, the social-co governance. In this way, the problem of the lack of human resources in law enforcement could be solved by integrating the scope of our commitments with the FCTC. So, in this way, we can say we are in line with the FCTC and could implement the regulation well(noted by the SCBMPC).

Politics stream

From the ratification of the FCTC onward, society and the media had been advocating for the implementation of the FCTC (noted by the BCPHC). Especially after the smoke-free Olympics, public opinion was asking for smoke-free law in Beijing as the heritage of the smoke-free Olympics (China Youth Daily, 2008; Guang Ming Daily, 2008; Jiang Nan City Daily, 2008).

It has been several years since the approval of FCTC in China, but nothing happened. Of course, the media, society was in calling for this (tobacco control)(noted by the BCPHC).

Inside the government, the Legislative Affairs Office, the SCBMPC, the Beijing Municipal Health Commission and the BCPHC formulated a tobacco control alliance with high inputs into the formulation of BMTCR (noted by the SCBMPC). In 1996, the first law was issued and the BCPHC

was given responsibility for tobacco control in Beijing; so the directors of BCPHC have been pro-tobacco control since 1996, as has the BMHC which is the higher-level institution of BCPHC (noted by the BCPHC). The vice director of SCBMPC during 2013 to 2017 was the organizer of the Beijing 2008 Olympics and is pro-tobacco control as honorary president of BTCA (Li, 2022). The director of SCBMPC played a crucial role in 2015 tobacco control legislation and introduced the social co-governance concept to the legislation research (noted by the SCBMPC).

The Legislative Affairs Office, the National People's Congress, the BCPHC and the Beijing Municipal Health Commission formulated a team. Everyone was very positive to push this thing (tobacco control), therefore it can go more smoothly(noted by the SCBMPC).

(For) BCPHC, tobacco control is a tradition, and the (first) regulation was formulated in 1996, and the BCPHC was clearly defined be responsible for tobacco control regulation implementation(noted by the BCPHC).

Director (of SCBMPC) at that time, is a very pioneering and innovative leader, so he also recognized the concept of co-governance and introduced it into the legislation(noted by the SCBMPC).

More important was that there was no turnover in core government positions relevant to tobacco control in Beijing since 2014, which safeguarded the sustainability of the policymaking process (noted by the BCPHC).

There was no turnover in core positions inside the government. Otherwise, we had to persuade the new personnel for tobacco control. And he or she might have different ideas(noted by the BCPHC).

The CNTC had not noticed the impact of smoke-free law on tobacco consumption until the Beijing regulation was implemented, so they did not hinder or disturb the legislation process. Instead, as one of the coordination agencies of tobacco control, they asked the TCOCCDC to advance the progress on a smoking ban in public places (noted by the TCOCCDC).

Firstly, because at that time smoke-free law was relatively advanced, and before that, it was almost only Shanghai (adopted the smoke-free law). Secondly, it (CNTC) didn't realize that smoking bans in public places would have such a big impact on their cigarette sales... because they didn't realize it before, and they always said 'we all felt that China was slow in fulfilling the contract, you can do the ban on smoking in public places'. So we actually didn't have much resistance to the legislation in Beijing at that time (noted by the TCOCCDC).

Organized political forces were referred to as interest groups or stakeholders in Kingdon's original model. In our study, we found that there were civil society organizations and that the media actively participated in advocating tobacco control, so we included these two approaches in the politics stream. The WHO and civil society organizations including BTCA and Tobacco-Free Kids Action Fund provided technical and financial assistance as well as policy advocacy for the development of a smoke-free policy in Beijing.

The world health organization and other international organizations and social organizations promote tobacco control legislation through expert supports and funds support, as well as policy advocacy(noted by the BCPHC).

In order to promote the legislation, we communicated with relevant departments of the government many times through

mails and meetings to encourage the government to legislate a smoking ban conforms to the FCTC... The WHO also speak through media to deliver evidence on why we need a smoke-free law and harms of smoking to the public and policy makers(noted by the WHO).

The media were invited to participate in the legislative process to report the progress and challenges in key aspects of the legislation to support the compliance of the law to the FCTC. In addition, the media also played a role as the leading actor of the tobacco control campaign.

Media on the one hand, through publicity to build strong tobacco control atmosphere, on the other hand, it worked on public reporting of discussed legislation, speak for on key issues. Therefore, media played a role of supervision by public opinion(noted by the BCPHC).

For each discussion of the legislation, media was all involved in, and report on key issues (with support to a comprehensive tobacco control policy). The media played an important role... Through the media propaganda, tobacco control atmosphere at that time was quite strong... (For example), media publicly support the smoking ban on leaders' offices(noted by the BCPHC).

Policy windows

In 2013, the General Office of the Central Committee of the Chinese Communist Party and the General Office of the State Council issued a notice on matters related to leading cadres taking the lead in banning smoking in public places, which indicated the ruling party's ideology change on tobacco control. This opened a policy window for decision-makers with focus on and feasible proposals for tobacco control, but they were still hesitant.

After the research of legislation of tobacco control, we had been hesitated for nearly a year's time and looking for a breakthrough. In 2013, the State Council and the Central Committee of Chinese Communist Party together issued a notice that ask leading cadres taking the lead in banning smoking in public places. And the President Xi Jinping also spoke for tobacco control in 2014... As the state put emphasis on this (tobacco control), Beijing as the national capital need to make up her mind for tobacco control legislation. Therefore, we conducted argumentations for the legislation approval in 2013 and started to draft the law in 2014(noted by the SCBMPC).

Pre-conditioning of society

Beijing is the capital city of China and is also an international metropolitan city. The city has always been the national model of social governance. In 2014, President Xi Jinping inspected the work of Beijing and pointed out, 'It is necessary to clarify the strategic positioning of the city and strive to build Beijing into a world-class harmonious and livable city'. Therefore, Beijing should play a leading role in tobacco control as it is an important component of social governance. In addition, Beijing initiated a Healthy Beijinger—10 Year Action Plan in 2009 which included tobacco control as one key objective. Since then, residents in Beijing have started to pay more attention to health and are more likely to pursue a healthy lifestyle, which provides ideal pre-conditions for tobacco control.

Beijing's new positioning—harmonious and livable, this is a positioning given by the central government to the capital

of Beijing. This requires us to take a step ahead of other cities(noted by the BCPHC).

As the capital and an international metropolis, Beijing should take the lead (in tobacco control)(noted by the SCBMPC).

Beijing launched a 10 year Action Plan for Healthy Beijinger soon after the Olympics. At that moment, (we) can feel that residents were very concerned about health. You know that what factor are preventable and can impact health... It is tobacco control. So, tobacco control was put on the agenda while we were making the 10 year action plan(noted by the BCPHC).

Beijinger's concerns for health and the city's civilization has reached to this level. The people of Beijing are more concerned about tobacco control(noted by the TCOCCDC).

Discussion

This study employed the MSF to analyse the policy agenda for setting tobacco control in the country with the world's largest tobacco consumption. A literature review and in-depth interviews were used to collect data and thematic coding was used to analyse the data. We found that indicators, feedback and focus events in the problem stream drew the attention of policymakers and society to tobacco control. In the policy stream, Ying Songnian put forward tobacco control legislation when the BMPC was ready for legislative reform. The case was therefore under study by the Congress and stakeholders in this area. The strategy of 'social co-governance' was found to resolve tough and controversial issues in the policy development. In the political stream, the government actively promoted tobacco control and social organizations extensively participated in it. In 2013, the General Office of the Central Committee of the Chinese Communist Party and the General Office of the State Council issued a notice on matters related to leading cadres taking the lead in banning smoking in public places, which opened a policy window for decision-makers who were hesitant. The issue of tobacco control was successfully put on the policy agenda and contributed to the introduction of the Beijing Municipal Regulations on Smoking Control. Through the whole process, the media was actively enrolled in and played an important role. Though mainstream media is controlled by the Chinese Communist Party, the power of the media in China still fits the general roles proposed by the international community. The media in China serve as an information disseminator, social mobilizer and problem warner (Zhao, 2007). Consistent with the MSF, the convergence of these three streams was a necessary condition for the tobacco control policy in Beijing. In order to promote tobacco control legislation in other cities of China, framing smoking prevalence and second-hand exposure as a problem by the media was essential to attract attention from the whole of society including decision makers. Seizing the opportunity of major events like the Olympics, the World Expo and the Asian Games was another strategy to put forward tobacco control policy as Beijing, Shanghai and Hangzhou did. For the policy stream, evidence-based policy strategies should be made through the research group of the People's Congress or the government at local level to find feasible proposals for tobacco control regulation. Beijing's social co-governance approach provides a valuable model for mobilizing resources from the whole society and implementing

tobacco control regulations in the context of a global city with a population of nearly 20 million. With regard to the political stream, in China, another policy window was opened as the Healthy China Initiative (2019–2030) set targets to have 30% of the population protected by comprehensive smoke-free laws by 2022 and to have 80% of population covered by comprehensive smoke-free laws by 2030(6). Other cities in China might want to seize this opportunity to promote tobacco control policy legislation. However, as Beijing's tobacco control regulation was implemented, cigarette consumption declined in Beijing, which triggered the CNTC to notice the great impact of smoke-free policy on cigarette sales. Therefore, the CNTC started to hinder the progress on smoke-free legislation in cities following in the steps of Beijing.

In various research, the MSF has been used in the context of China (Zhu, 2008; Chun and Krishna, 2012; Zhou and Feng, 2014). In Zhu's study, he proposed the technical infeasibility model that argued that Chinese policy entrepreneurs in the third sector may successfully promote change by submitting a policy proposal based on a radical suggestion that is politically acceptable yet technically infeasible (Zhu, 2008). Whereas, for our study, we found that policy entrepreneurs in and outside government worked together to introduce a technically feasible and politically acceptable policy. Policy entrepreneurs in our study included Professor Ying Songnian who raised the proposal of tobacco control in Beijing in 2011, decision makers in the BCPHC and the SCBMPC, and experts from CATC, TCCOCD, the WHO, the Tobacco Free Kids Initiative and the BTCA. Until a technically feasible proposal comes from policy entrepreneurs there can be no substantial progress in the policy stream. In our case, it was social co-governance that played the role of a technically feasible solution to the tobacco control issue. We agree with Zhu's opinion that political acceptability was essential for promoting tobacco control policy, as representatives from the government indicated they were hesitant until the Communist Party in 2013 indicated a change of ideology on tobacco control by the Party.

Our study further confirmed findings from Turkey (Hoe *et al.*, 2016), Lebanon (Nakkash *et al.*, 2018) and Nigeria (Udokanma *et al.*, 2021) that the convergence of problem, policy and politics streams is a crucial factor in agenda setting for tobacco control legislation in LMICs. While China's socio-political environment was more stable compared with Lebanon and Nigeria, the government paid more attention to health and therefore, played a positive role in tobacco control legislation. Pre-conditioning of the society in Beijing was a unique factor that promoted the legislation due to Beijing's international orientation, residents' high attention to health matters following the smoke-free Olympics and the long-term tobacco control tradition dating from 1996.

The current study was the first to explore how policy entrepreneurs manage to move tobacco control onto the policy agenda in the country with the largest tobacco consumption in the world. By using the MSF, it clearly described the development of the three streams as well as policy windows opened when the three streams joined together. It also explored the feasibility of applying MSF in an autocratic LMIC. However, there were some limitations to the current study. Recall biases existed in the current study as it was a retrospective study recalling memories dating from 2011. However, these should not be severe biases as stakeholders kept records on important historical events and shared those

with our research group. Due to time constraints, we did not involve many stakeholders in this issue. Instead, we use purposive and snowball sampling to select interviewees and stopped snowballing as the information reached saturation.

Future study might want to explore facilitators and barriers in the implementation of Beijing tobacco control regulation and the agenda setting of tobacco control policies in other cities in China to find general strategies for promoting smoke-free legislation. Multiple lenses might also be applied to provide further perspective to understand the policy process using punctuated equilibrium theory or an advocacy coalition framework.

Conclusion

The development of the factors of problem stream, policy stream and political stream promoted the setting of the tobacco control policy agenda in Beijing. It is suggested that more cities should learn from the experience of Beijing, seize the opportunity of the ideological change of the ruling party, actively identify the problems, mobilize and advocate representatives and introduce the concept of 'social co-governance' to promote the legislation of tobacco control.

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Author contributions

Y.Z. and C.C. contributed to the study design and had full access to all the data in the study. Y.Z., Y.S. and Y.J. collected data and conducted data analysis and interpretation. Y.Z. drafted the article. All the authors contributed to critical revision of the article and reviewed and approved the final manuscript.

Reflexivity statement

The authors are all female and span multiple levels of seniority. In the group of authors there is a professor, two associate professor and one assistant professor. All authors' experience is in China with expertise in health policy, health promotion and health education.

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