

# Research on Hengqin Model of Ecological Protection and Enterprise Compliance Development in Tobacco Control Cities

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**Objectives:** Analyze the situation of tobacco control in Chinese cities and the development of Hengqin enterprises and the implementation of national tobacco control policies, to provide the theoretical reference for tobacco control, ecological protection and enterprise compliance development in Hengqin city.

**Methods:** Make statistics on the tobacco control policies and the effects of Chinese cities, and analyze the behavioral role of enterprises in the ecological construction of tobacco control cities.

**Results:** Although most cities support indoor smoking prohibition in various public places, the awareness rate of smoking prohibition regulations in public places is low. Relevant departments need to take more targeted publicity and education measures to increase the awareness rate and implementation effect of tobacco control policies and regulations, which is not only conducive to the ecological environment protection of tobacco control cities, but also conducive to the compliance development of enterprises.

**Conclusion:** It is necessary that the healthy development of ecological protection in Chinese cities be combined with tobacco control policies, laws and regulations; Enterprises shall play an important guiding role, with the full participation of stakeholders at the planning level, to optimize the design of tobacco control policies; The implementation level shall strengthen the protection of minors and play the role of various policy tools.

**Keywords:** Tobacco Control City; Ecological Protection; Enterprise Compliance; Hengqin Model

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## 1. Introduction

"Smoking is harmful to health!" This is not only a simple slogan, but also a cruel fact. According to the data provided by the World Health Organization, 7 million people in the world die from tobacco every year, including 890,000 non-smokers who die from long-term exposure to second-hand smoke.<sup>1</sup> In China alone, 1 million people die from tobacco every year, and more than 700 million people are

exposed to second-hand smoke every day, resulting in about 100,000 non-smokers who die from long-term exposure to second-hand smoke.<sup>2</sup>

However, with the development of economy and society, tobacco control has become a continuous and long process, the social identity value and social atmosphere shall be changed gradually, and then the smoking behavior in the crowd shall be

changed based on continuous tobacco control publicity and health education.

The *Framework Convention on Tobacco Control* (hereinafter referred to as the *Convention*) is the first international public health treaty with legal effect reached under the auspices of the World Health Organization, which is also the first worldwide multilateral agreement on tobacco control. With the purpose of protecting public health, it is committed to providing a framework of implementing tobacco control measures for each contracting party, to reduce the use of tobacco and the range of "second-hand smoke" exposure, protect contemporary and future generations from the adverse effects of tobacco on social economy and human health, and promote the construction of ecological environment of cities in various countries. China signed the *Convention* formulated by the World Health Organization in 2005 and promised to formulate and implement public health policies for tobacco control. The tobacco control action is one of 15 major special actions in the *Healthy China Action (2019-2030)* in 2019. Then the *Healthy China 2030" Planning Outline* further emphasized the comprehensive promotion of tobacco control compliance, increased tobacco control efforts, and improved the effectiveness of tobacco control by the use of laws and other means.<sup>3</sup> More than 10 years have passed, the task of tobacco control and urban ecological protection in China is still very arduous.

## 2. METHODS

### 2.1 Source of research materials

As of May 2021, the tobacco control policies have been searched through the websites of the people's governments of 53 cities with local legislative power. The

inclusion criteria are the latest local government rules and regulations on smoking control in public places approved by the Standing Committee of the Municipal People's Congress. Rules, regulations, local management implementation measures or schemes that have been repealed after the update shall be excluded.

### 2.2 Research methods

Analyze the policy characteristics from the two dimensions of policy form and content while taking the policy data as the research object, Policy form, classification the legal effect of the policy. For policy content, the content analysis method is used to analyze the tobacco control policy, and the policy texts such as policy planning and design level, policy implementation level and tobacco control scope are classified and transformed into analysis units for statistical analysis.

### 2.3 Content classification and data statistics

Manual classification is carried out according to "Region - policy design - specific regulations". Use Excel to input data, classify and summarize the data according to the analysis unit for further quantitative statistics.

## 3. RESULT

### 3.1 Basic situation of local tobacco control policies

As of June 2020, 42 of the 53 cities with local legislative power have legislated on smoking control and accounting for 79.2%, of which 26 (49%) cities have legislated on smoking control or revised relevant laws and regulations after China ratified the *Framework Convention on Tobacco Control* in 2005; The tobacco control policies of 49 (92.5%) cities are independent rules/regulations specifically

aimed at smoking control, and the tobacco control policies of 4 cities are covered in the urban civilization promotion/health regulations; 21(39.6%) are local government regulations and 24 (45.2%) are local regulations.

### 3.2 Text content analysis of tobacco control policies in representative cities

Analysis on the content of tobacco control policies in 24 cities that have legislated or revised laws and regulations after China ratified the *Convention* in 2005.

The main principles of tobacco control policies include government leadership, unit responsibility, individual self-discipline, public participation, social supervision, comprehensive governance, etc. The results show that among the 24 cities, 63.6% follow the principle of unit

responsibility, 52.8% are government leadership, 44.3% are public participation, 34.1% are social supervision, and the comprehensive governance and individual self-discipline are 16.9% and 14.3% respectively.

Generally speaking, tobacco control policy is not only the requirement of implementing China's *Constitution* and national planning, but also an important content of deepening medical reform in China. The legislative purposes of tobacco control, including: reduce the harm caused by smoking, accounting for 83.1%; protect public health, accounting for 85.6%; improve urban civilization level, accounting for 67.5%; create an acceptable public environment, accounting for 62.1%. As shown in Table 1.

Table 1 Distribution table of city tobacco control policy principles and goals

City (Year)	Policy principles						Policy goals			
	Individual self-discipline	Social supervision	Government-leadership	Public participation	Unit responsible	Comprehensive treatment	Improve urban civilization level	Protect public health	Create an acceptable public environment	Reduce the harm of smoking
Wuhan(2020)	√	√	√		√	√	√	√	√	√
Zhengzhou(2020)		√		√	√		√	√		
Hangzhou(2019)	√	√	√		√	√		√	√	√
Shenzhen(2019)		√	√	√			√	√	√	√
Xi'an(2018)			√	√	√		√	√	√	√
Shanghai(2017)	√		√	√	√	√	√	√	√	√
Ningbo(2017)						√	√			

Haikou(2016)		√	√	√	√	√		√	√	
Fuzhou(2015)		√	√	√	√		√	√	√	√
Beijing(2015)	√	√	√		√	√	√	√	√	√
Nanning(2014)			√	√		√		√	√	√
Changchun(2014)		√	√	√	√			√		√
Xining(2014)	√	√		√	√	√		√	√	√
Tsingtao(2013)								√	√	√
Tangshan(2013)	√	√	√	√	√		√	√		√
Lanzhou(2013)			√	√	√		√	√	√	√
Anshan(2012)			√	√	√	√	√	√		√
Tianjin(2012)		√		√	√		√	√		√
Harbin(2011)		√			√		√	√		√
Guangzhou(2010)			√		√	√	√	√	√	√
Shijiazhuang(2010)		√			√			√	√	√
Luoyang(2010)			√					√	√	√
Lhasa(2009)		√	√	√	√	√				√
Yinchuan(2008)		√		√	√		√	√		√

(Data from Statistics Bureau of Zhuhai)

The policy-making subjects of tobacco control policy are all local people's governments, in which health campaign committees at different levels in 12 (50%) cities and health authorities in 14 (58.3%) cities are also policy subjects. They are responsible for policy implementation, regulation and evaluation. Only 10 of 24

cities (41.6%) clearly defined the objects of the tobacco control policy, that is, the smoking issue that is to be addressed by tobacco control policy. Three cities included inhalation/exhalation of e-cigarettes in smoking.

Tobacco control measures in the 24 cities in the sample are primarily regulatory

policies, including: smoking is banned in indoor public places, workplaces (including elevator cars) and inside public transportation, accounting for 100%; smoking is banned in public places and outdoor areas of workplaces, accounting for 62.5%; state organs, public institutions, people's organizations and their main principals and other staff members shall take the lead in tobacco ban, accounting for 41.6%; obligations perform by

operators and administrators of non-smoking places; accounting for 79.1%; sale of tobacco products or e-cigarettes to minors is prohibited, accounting for 37.8%; publishing advertisements for tobacco and conducting tobacco promotion or titling sponsorship activities are prohibited, accounting for 54.1%; using financial funds to purchase tobacco products is prohibited, accounting for 25%. As shown in Table 2.

Table 2: Summary table of tobacco control policy tools classification

	Regulatory	Economical	Informational		Regulatory	Economical	Informational
1. Behavioral strategy				2. Supervision and management			
1.1 The sale of tobacco products or e-cigarettes to minors is prohibited	9(37.5)			2.1 Establish a joint conference system for tobacco control work	5(20.8)		
1.2 Smoking is banned in public places and outdoor areas of workplaces	15(62.5)			2.2 Education departments	17(70.8)		
1.3 The obligations to be performed by	19(79.1)			2.3 Culture and tourism departments	15(62.5)		

operators and administrators of non-smoking places							
1.4 Using financial funds to purchase tobacco products is prohibited	4(16.7)			2.4 Urban management departments	19(79.2)		
1.5 Smoking areas can be set in the outdoor areas of public places where smoking is not banned	4(25)			2.5 Transportation departments	14(58.3)		
1.6 Anyone has the right to request and complain report			10(41.6)	2.6 Public security organs	16(66.7)		
1.7 Smoking is banned in indoor public places, workplaces (including elevator	24(100.0)			2.7 Market inspection and management department, commercial department and other department	15(62.5)		

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cars) and inside public transportation				s			
1.8 Publishing advertisements for tobacco and conducting tobacco promotion or titling sponsorship activities are prohibited	13(54.1)			2.8 Operating units of urban rail transit	18(75)		
1.9 State organs, public institutions, people's organizations and their main principals and other staff members shall take the lead	10(41.6)			2.9 City and district health authorities entrust third-party organizations or institutions to monitor and evaluate			8(33.3)
1.10 Medical and health institutions provide simple smoking cessation services			14(58.1)	2.10 Civil aviation and railway management departments	18(75.0)		

for smokers							
1.11 Medical and health institutions establish smoking cessation clinics			12(50)	2.11 Health authorities	18(75.0)		
1.12 Tobacco control publicity and education by Labor Union, Communist Youth League, Women's Federation, Association for Science and Technology and other organizations			11(45.8)	2.12 Sport departments	15(62.5)		
1.13 Tobacco control publicity by government and other departments			20(83.3)	3. Legal liabilities			
1.14 Health			23(95.8)	3.1 People that	18(66.7)		



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authorities formulate tobacco control publicity and education program				obstructing the law enforcement of regulatory authorities or disrupting social order			
1.15 Education authorities will incorporate tobacco control education into education and teaching contents			18(70.8)	3.2 Operators and administrators of non-smoking places fail to perform their obligations		20(83.3)	
1.16 Encourage conducting technology research and development of tobacco control		4(16.6)		3.3 Tobacco products operators		9(37.5)	
1.17 Media units give play to public opinion guiding and supervisory roles			19(79.2)	3.4 Personal violation		24(100.0)	

				3.5 State organs and their staff members	18(75.0)		
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(Data from Statistics Bureau of Zhuhai)

Meanwhile, in these 24 cities' tobacco control laws, more than 65% of laws/regulations specify the public places where functional departments are responsible for tobacco control, including departments of education, public security, urban management, transportation, urban rail transit, market surveillance, culture and tourism, sport, civil aviation and railway, and health, and other departments. However, in the aspect of joint management of departments, only tobacco control laws in cities such as Wuhan, Shenzhen and Xi'an require the establishment of a joint conference system for tobacco control work. One-third of the tobacco control policies allow health departments to entrust third-party organizations or institutions to carry out monitoring and evaluation. In addition, the policies and regulations for individuals, operators/managers of smoke-free places and tobacco products operators are mainly economic policy tools, and individual smoking behaviors are restricted and corrected by fines. 83.3% of the tobacco control policies clearly defined the punishment of the operators and managers of smoke-free of smoke-free places failed to fulfill their obligations, and 37.5% of the tobacco control policies emphasized the legal responsibility of the tobacco products operators. Three-quarters of the tobacco control policies have formulated regulatory policies for personnel who hinder law enforcement or disrupt social order by law enforcement and administrative departments and

departments who fail to perform their tobacco control duties according to law.

#### 4. DISCUSSION

##### 4.1 Analysis of tobacco control in Hengqin enterprises

According to the *2019-2020 implementation effect evaluation report of the "regulations on smoking control in Zhuhai Special Economic Zone"* (hereinafter referred to as the *Report*) released by the Zhuhai Chronic Disease Prevention and Control Center of China, 89.1% of the public very much support a total ban on smoking indoors, the highest support rate in five years. In the evaluation of tobacco control effect in 19 types of places, the satisfaction degree to schools is the highest. In addition, in a survey of 1179 smoke-free places in Zhuhai (Hengqin), China, 20.2% of the places had illegal smoking or cigarette butts and smoke smell, which is the lowest in the past five years. In the evaluation of tobacco control effect in 19 kinds of places, the most ideal place was school (77.0%), and the least ideal place was bar and dance hall (66.9%). In the survey of 1179 non-smoking places, 20.2% of the places have illegal smoking or cigarette butts and smoke smell, the proportion decreased from 23.2% in 2017, which is the lowest in five years. Among the 19 types of places, 52.9% of internet cafes and game halls had illegal smoking or the smell of cigarette butts, with the most serious situation, followed by bars (43.8%). However, compared with previous years, the

situation of smoke butts, smoke smell or illegal smoking in data places has decreased year by year. Compared with 2017, illegal smoking or smoke butts, smoke smell in bars, dance halls and government agencies/street offices decreased significantly, by 34.3%, 30.8% and 47.1% respectively.<sup>4</sup> In addition, as the "supplement" of traditional cigarettes, the e-cigarette industry is still in the "three noes" state, that is, no product standards, no quality supervision and no safety assessment, many problems need to be solved urgently.<sup>5</sup> Moreover, although most e-cigarette brands have posted "no sale to minors" notices, but the sales process does not ask the consumer's age, but usually by the consumer's clothing and appearance to judge. It can be seen from this that smoking in public places such as restaurants (especially Chinese restaurants), entertainment and port is still continuous, which reflects the overall weak awareness of tobacco control in Zhuhai (Hengqin) society.<sup>6</sup>

It can be seen from this that if the smoking ban at the government level is a visible "hard measures", then the smoking ban measures taken by enterprises as the micro-main body of society are invisible "soft measures". The "soft measures" of enterprises play an important role in the regional and terminal levels where the government's "hard measures" can not reach.<sup>7</sup> Therefore, enterprises have become one of the important links in the ecological environment protection of tobacco control cities.

## 5. SUGGEST

### 5.1 Enterprises need to improve their own social attributes

To promote the enterprise's tobacco control action and promote the enterprise's

compliance development needs to rely on the enterprise to improve its own social attributes. For example, for the life insurance companies represented by Japan life insurance company, whose own interests are linked to the health status of customers, the comprehensive ban on smoking in the workplace of the enterprise is to show and convey a new concept of health to customers. Since August 2016, the company has launched the "smoke-free wednesday" campaign, through holding staff smoking cessation seminars and smoking cessation assistance by professional doctors. The company achieved a total smoking ban in all offices in August 2017, and the company started with health management to promote the new value of "insured health" to customers.<sup>8</sup> In addition to life insurance companies in the health industry, traditional manufacturing enterprises are also actively implementing tobacco control policies, which can be represented by China Chang'an Automobile Company. The company first established a smokeless factory construction base in Chongqing.<sup>9</sup> The first smoke-free factory established by China Chang'an Automobile Company not only helped to improve the physical quality and tobacco control awareness of employees, but also made the base the first batch of smoke-free enterprise demonstration units in Chongqing, thus enhancing the popularity of the enterprise. It can be seen that enterprises need to improve their social attributes, which is very important for the development of urban tobacco control, ecological and environmental protection, and the healthy and compliant development of enterprises.

### **5.2 Tobacco control signs in public places of enterprises shall be set effectively**

Enterprises can not only set up smoking ban signs in eye-catching positions such as lobbies, corridors, restaurant entrances, room tables and office areas, but also set up eye-catching signs in the details of garbage can covers. For example, companies can skillfully use watermelon carving and flower pot placement to make tobacco control signs and slogans.<sup>10</sup> Effective tobacco control measures are both compliant and beneficial to the development of enterprises, that is, smoke-free environment not only saves enterprises a large amount of cost of cleaning the smell of smoke in space, but also is an effective publicity for the enterprise image. Therefore, it is very important to put up effective tobacco control signs in public places of enterprises.

### **5.3 The government and relevant departments should improve the awareness rate of employees on smoking ban regulations in public places**

It is the key step to effectively implement laws and regulations to make employees know laws and regulations and obtain employees "support through health education measures. Therefore, the government and relevant departments shall hold various forms of publicity activities, especially for different enterprises and people with different education levels, in order to improve the awareness of tobacco control regulations and raise the awareness of smokers not to smoke in public places where smoking is prohibited.

### **5.4 Enterprises shall strengthen the protection of minors**

Enterprises shall strengthen the protection of minors, which requires them to give full

play to the social attributes of enterprises to promote the implementation of the measures of "protecting minors" put forward in the "healthy China" action. Enterprises shall actively reduce the exposure of minors to tobacco products in accordance with the relevant provisions of the national tobacco control regulations to ensure the healthy growth of minors.

### **5.5 The government shall supervise and urge the design of warning signs for tobacco control products of tobacco enterprises**

The "smoking is harmful to health" logo on the product packaging of cigarette enterprises can not play a good warning role, mainly because these cigarette packaging is very fancy and good-looking, attractive, and then cover up the harm of tobacco.<sup>11</sup> Therefore, the relevant departments of the Chinese government should urge the tobacco industry to print warning words and publicity pictures on the outer packaging of products to improve the publicity effect, and stipulate that the area should exceed 50% and the minimum should not be less than 30%. Meanwhile, propaganda pictures such as burnt yellow teeth and broken lung organs can be printed on the outer package of the cigarette, and health prompts and the like can be printed, so as to highlight the visual impact and publicize and guide smokers to stay away from tobacco.<sup>12</sup>

## **6. CONCLUSIONS**

In conclusion, the ecological environment protection of tobacco control cities has a close relationship with the compliance development of enterprises. Although tobacco control is a continuous and long process, we should gradually change the social identity value and social atmosphere on the basis of continuous tobacco control

publicity and health education, and then change their smoking behavior in the population. It can be seen that the completion of urban tobacco control task is inseparable from the guidance of the government and the support of enterprises. In other words, the government can provide specific direction guidance for urban ecological environment protection in terms of policy formulation, policy publicity and behavior guidance, support and urge relevant enterprises to standardize on the road of tobacco control; At the same time, for the construction of the tobacco control city and ecological environment protection, relevant enterprises should strengthen the publicity of tobacco control from their own social attributes, improve the awareness of protecting minors, and then contribute to the construction of tobacco control and ecological environment in the city.

#### **Conflict of Interest Disclosure Statement**

The authors have no conflicts of interest, financial or otherwise.

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#### **AUTHOR DECLARATION**

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