

Development and Reflection on Urban Modernisation in Jinan under the Perspective of Public Health (1929-1945)

Huanlu Yang

School of History and Culture, Shandong Normal University, Jinan, Shandong, 250358, China

ABSTRACT

During the period 1929-1945, Jinan made great progress in public health, including water control, road sanitation, and air pollution control, and at the same time actively carried out public health propaganda and education. The development of public health in Jinan was autonomous, different from the direct transplantation of the Western system in some cities, which combined its own reality and formed the characteristics of the unity of provincial and municipal health administrative institutions. However, the lack of industrialisation and the shortage of funds have limited its further development. This paper will explore the modernisation of public health in modern Jinan to provide a perspective for understanding the development of urban public health.

KEYWORDS

Public health; Jinan; Independent port opening; Modernisation; Reflection

1 Introduction

After the establishment of the municipal government in 1929, the institutional construction and management mechanism of public health in Jinan tended to be standardised and legalised^[1]. During this period, Jinan achieved more significant results in water management, road sanitation management and air pollution management, and formed a more complete institutional system and laws and regulations.

2 Water supply and drainage management

After the opening of Jinan, modern industry began to develop, and a large number of factories were established one after another. However, due to the lack of long-term planning and the lack of scientific rationality in the urban design at that time, many factories were set up around the springs, lakes, and riverbanks, and their wastewater was directly discharged into the river without treatment, resulting in increasingly serious water pollution problems. The Municipal Monthly Magazine published Jinan commercial port tap water plan outline records that, Jinan residents "washing filth also in the river, and health is greatly impeded, the residents of commercial ports, are wells to draw water, unclean, especially ". Therefore, during this period, the Municipal Public Security Bureau stipulated that all public and private springs and wells were set up with platform fences or well covers, and "signs prohibiting the dumping of filth and washing of clothes in the springs. Near the wells, it was forbidden to build toilets", "and sent technicians to check and disinfect the water quality of the springs from time to time". According to the 1938 Jinan Cleaning Management Rules in the Jinan Archives collection, which strictly stipulated that "no dumping, discarding or discharging of dirt in roads, rivers or rainwater ditches... no dumping or accumulation of dirty water outside of dirty water, dirty pools and buckets of stagnant water... no dumping or discharging of faeces and drowning in public ditches..." and 11 other prohibitions on keeping indoor and outdoor areas clean, and a pattern of progressively heavier penalties for violators of these rules.

According to the Jinan commercial port tap water plan outline records, Jinan commercial district "high terrain, the source of the bitter water, not as the city has a sweet spring everywhere can be applied. Therefore, the residents of the commercial port, for drinks, long felt the hardship". In this context, the provincial government will be the commercial port area of the construction of water supply system as a top priority. 1934 spring, the government authorities allocated the first batch of funds 6,000 yuan, and the formation of a special preparatory committee led by the mayor of the mayor of Wen Chenglie, fully responsible for water supply project planning and implementation of the work. By 1936, Baotu water treatment plant as the core, radiating Xiguan and commercial areas of the water supply network has been basically completed and put into use. In December of the same year, Jinan City, the first tap water plant Baotu Spring water plant was completed official water supply. Although it is Jinan City's tap water plant, but by the provincial government first allocated funds, but also from the side of the development of public health in Jinan at the same time by the provincial and municipal authorities.

The topography of the northern part of Jinan City is flat, and because of its abundant spring water resources, it can easily converge into a vast swampy area. The water was normally channelled and drained through the Xiaoqing River, but

in practice the water in the swamps was very difficult to pump out, especially during the rainy season, when the northern part of Jinan and the villages outside the city were often faced with the problem of stagnant water that was difficult to drain, which not only led to a deterioration in the sanitary conditions of the town, but also provided a breeding ground for malaria, which was a serious danger to public health. In addition, poor drainage often made Jinan's roads impassable, and the Declaration once reported that Jinan's poor municipal administration was extremely dissatisfied with the expatriates. The Jinan heavy rain as a disaster, the road was washed away, traffic inconvenience, outsiders and tsks have a lot of words, the consuls had to the maintenance of the question, the maintenance of the financial difficulties at a time, really can not do municipal.

Jinan City Government was officially established in 1929, the city Public Works Bureau began planning the city's sewerage system improvement work. Specifically, in the Jingyi Road (Weifu Road to Pavilion Street section) and road stone bridge street construction of brick arch drainage ditch, respectively, to guide the east of Weifu Road, the area north of Jingqi Road and Jingqi Road south of the area of the water discharged into the West Wei Trench. After the reconstruction, the efficiency of sewage discharge and rainwater evacuation of Jinan urban drainage system was significantly improved ^[2].

3 Road sanitation and air pollution control

Street sanitation was one of the earliest endeavours in Jinan's public health sector, with a government department dedicated to it before 1929. After the establishment of the municipal government, its institutional structure was further improved, and more detailed regulations were introduced to improve road sanitation in Jinan.

In May 1929, the Jinan Road Cleaning Brigade was formed by merging the road cleaning brigades in Jinan with those in the Shangbu area, and after the official establishment of the municipal government in July of the same year, the Brigade was placed under the jurisdiction of the Municipal Public Security Bureau. Since then, the Bureau of Public Security has taken strict measures to rectify the problem of dumping rubbish and children defecating on the roadside in the streets and alleys, etc. In April 1933, the clean-up brigades were set up in various districts, and in 1936, in view of the expanding boundaries of the commercial area, the increasing number of houses, and the increasing population, the clean-up brigade of the commercial area was not sufficient for the distribution of rubbish, and the brigade was increased by 2 team leaders, 28 team drivers, and 10 rubbish trucks and 4 mule and horse carts. 10, 4 mule and horse carts ^[3].

At the same time, the authorities have also issued a series of regulations, such as the Cleaning and Prohibition Measures, Several Measures for Summer Sanitation in Jinan, Draft Measures for Tidying Up the Streets of the City, etc., which stipulate that the main streets of the city shall be sprinkled with water and dust regularly on a daily basis. At the same time, the introduction of the streets and alleys to clear the approach to four, the requirements of the merchants, households at least once a day to clean in front of the door; the city and commercial port should be completed before 8:00 a.m. or after 8:00 p.m. cleaning, townships should be completed before 7:00 a.m.; rubbish must be dumped into the nearby rubbish bins or designated locations, by the clean road team unified cleaning; no clean road team areas, by the Square Lulu long, the neighbourhood of long organisation of households clean up on their own, the district Public Security Bureau and the District Public Security Bureau is responsible for inspections and supervision.

The opening of ports and commerce greatly promoted the development of urban industry and commerce, Jinan soon formed a forest of foreign banks, foreign goods filled the situation, the national machine industry also gradually developed, the establishment of a large number of factories and modern industrial enterprises. Unlike traditional handicrafts, most of these enterprises used steam-powered machinery and equipment, which increased productivity and efficiency, but also inevitably brought about the problem of air pollution, generating a large amount of toxic exhaust gases that endangered the city's public health environment. In this regard, the authorities issued in March 1929, factory health twelve clearly put forward "to factory site suitable, to air circulation, to clean"; also stipulates that "if the factory is located in the vicinity of the city or the city, by the smoke meat discharged from the coal dust, so that the air is unclean, from the ditch discharge of dirty water, but also pollute the public. The dirty water, but also the risk of contamination of public drinking water, for public health, a great nuisance, so it is advisable to choose from the city farther away from the traffic convenience of the open place of construction".

4 Publicity and education on public health

After the establishment of the basic public health programme, the authorities also began to pay attention to publicity and education for the public, in an effort to raise the public's awareness of public health. Since September 1929, the municipal authorities have required the public to clean up twice a year in accordance with the Hygiene Regulations on Dirt Sweeping promulgated by the Ministry of Health of the National Government. Since then, the authorities also held several cleanliness campaigns. On 20 May 1931, the municipal government held a mobilisation meeting at the People's

Stadium, calling for the city to carry out a spring cleanliness campaign, with more than 5,000 attendees^[4]. In January 1941, the Cleanliness Office of the Jinan Municipal Public Office formally took over the work of the road-cleaning team, and in the spring of the same year, the Jinan Municipal Public Office, together with the Provincial Capital Police Department, jointly promoted a week-long In the spring of the same year, the Jinan Municipal Office and the provincial capital police department jointly promoted a week-long cleanliness and hygiene campaign weekly action, According to the Jinan Municipal Gazette, "those who are clean, issued a clean certificate posted in front of the door; those who are unclean in the review, with the department of the penalty of the defence". 1945 January, the Japanese pseudo-municipal government issued a hygiene improvement order, requesting the administrative units at all levels and the public to focus on the city's rubbish clean-up action from 8 to 9 January. To ensure the effectiveness of the remediation, the authorities simultaneously issued detailed cleaning specifications and acceptance standards, and organised a special spring hygiene inspection on the 25th of the same month to assess the effectiveness of cleaning in each area. For those units or individuals who met the standards during the inspection, they would be issued with a certificate of acceptance, which they were required to post in a conspicuous position at the entrance^[5].

In addition, in February 1932, a health committee was set up in Jinan, with the core objective of spreading health knowledge. In addition, with the assistance of missionary physicians, Jinan also set up a public health propaganda area, which, through the use of various charts, models, and actual cases, provided insights into the main causes of disease transmission in China, and borrowed data comparisons to elucidate the importance and necessity of preventive work for infectious diseases^[6].

5 Reflecting on the development of public health in Jinan

Although Jinan's public health has made rapid progress since the opening of the port, especially after the establishment of the municipal government in 1929, there are still some objective problems that limit the further development of public health, the biggest of which are the low level of industrialisation and financial difficulties.

The progress of public health is largely dependent on the level of municipal construction, which requires not only the support of advanced technology, updated equipment and the introduction of talents, but also a solid financial guarantee. However, according to the statistics of 1934, the total industrial capital of Jinan was 10,839,024,000 yuan, and the output value was 31,576,120,000 yuan, compared with the commercial capital and output value of 52,097,600 yuan and 91,352,500 yuan, respectively, with the industrial output value accounting for only 42.06 per cent of the commercial output value. This data reveals the relative weakness of Jinan's urban production function, especially the modern machine industrial production function, which leads to the lack of adequate urban industrial support for municipal construction in key areas such as technology, capital and equipment, which in turn limits the sustained development of the public health service and tends to bring it to a standstill. On the other hand, the lack of construction funds triggered by the insufficient level of urban economic development has forced many construction projects and plans to be shelved or postponed due to funding gaps. A case in point is the construction of the urban water supply system in Jinan, which was repeatedly delayed due to financial difficulties until 1931, when the water supply company was built under government-business co-operation.

Looking back on the development of public health in Jinan, its most important feature is that it goes hand in hand with the history of the opening of Jinan's own port, and it can even be said that the opening of the port in 1904 is a prerequisite for the development of public health in Jinan. Since the Sino-Japanese War, the foreign powers in China's leased territories and treaty ports seriously undermined the sovereignty of the country, in the face of imperialist aggression, the opening of ports has become a basic state policy of the late Qing Dynasty. Jinan autonomous port is the local officials in Shandong, "phase dimension phase system" and "observation gain" policy under the influence of the practice, the opening of the port of all kinds of regulations and planning, including the development of public health undertakings, are under the guidance of these two policies introduced. For example, before the opening of Jinan, the authorities took into account the many problems of drainage in the old city, and drew on Qingdao's experience in municipal management, reserving ditches and culverts in advance for drainage and sewage, and raising funds at a later stage, determined to renovate the roads and drainage systems in Jinan.

The "autonomous" nature of Jinan has also had a profound impact on the development of public health, meaning that it was developed and regulated by the Chinese according to local conditions after absorbing Western concepts of public health. This means that Jinan's public health was developed by the Chinese themselves after absorbing Western public health concepts and formulating regulations in accordance with local conditions. Instead of directly transplanting Western public health systems and management mechanisms and forcibly injecting modernisation into the traditional society as in the case of Shanghai and Qingdao, Jinan's public health programme to a certain extent mitigated the conceptual impact of Western medical treatments and preventive measures on the people, and made it possible for the people to more smoothly accept the concepts of public health as well as the various governance measures. In addition,

both inside and outside the commercial port were governed according to a uniform standard, and the development of the whole city was consistent. The development of municipal construction directly promoted the establishment of the public health system, and further promoted the city of Jinan to move towards modernisation.

6 Conclusions

The development of public health in China was driven by external forces, i.e. the Western critique of environmental health in China after the Opium War, the spread of public health concepts by missionaries and the initial establishment of the public health system by rentiers; and by internal reforms, i.e. the setting up of governmental health-related institutions and the enactment of laws after the late Qing Dynasty, which pushed forward the process of public health civilisation in modern China. . As a traditional inland city, Jinan was neither an early open port city nor far from being a political centre, and the start of its public health was more a result of the transmutation of its own internal factors, the strengthening of nationalist aspirations, the advancement of the city's modernisation, and the quest for state-wide sanitary modernity, as Li Zhongping puts it. It is also for this reason that the study of public health and urban modernisation in Jinan, to a certain extent, equally reflects the development and change of social civilisation in modern China.

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