
The 1894 Bubonic Plague and Its Contribution to the Hong Kong's Modern Day Public Health System

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The 1894 bubonic plague outbreak in Hong Kong prompted significant reforms in the public health system. In this essay I discussed how poor sanitary conditions and overcrowding contributed to the rapid spread of the disease as well as government responses, such as establishing temporary hospitals, quarantine camps, and evicting residents from unfit buildings. However, these measures caused unrest among the Chinese population. Negotiations led to the continuation of the Tung Wah Hospital under Western supervision. The discovery of the plague's cause prompted further inquiries and the development of medications and vaccines. Reforms introduced Western medical treatment, trained locals as doctors and nurses, and implemented stricter hygiene regulations and urban planning. As a side note, the outbreak also contributed positively by spurring the acceptance of Western medicine and improved sanitary conditions, assisting in shaping the modern public health system in Hong Kong.

Introduction

The bubonic plague of 1894 was the first major outbreak encountered by the Hong Kong government. By July 1894, 2 months after the discovery of the first patient in Hong Kong, the death toll rose to 2442, accounting for over 10% of the total population.¹ The first and deadliest epidemic Hong Kong has ever encountered was widely spreaded in the Taipingshan Street settlement as shown in Figure 1, making this

¹ E.R. Pryor, "The Great Plague of Hong Kong", *Journal of the Royal Asiatic Society Hong Kong*, 63, 15.
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photo a symbolic icon of the plague. In this essay, the significance of the epidemic towards the reformation of the modern public health system will be discussed.



Figure 1 – Hong Kong shophouses²

Taipingshan and the first generation shophouses, or *Tong Lau* (c. 1870)

Sanitary condition before 1894

Since the founding of Hong Kong, the colonial government had very little control and intervention over the livelihood of the Chinese locals. For instance, there were no governmental organisations responsible for medical and health service, colonial surgeons were the only persons who were in-charge of related policies and affairs between 1842 to 1877. Although the Sanitary Board was established in 1883, it was solely responsible for managing and enforcing environmental hygiene regulations.³

In 1882, British engineer Sir Osbert Chadwick was sent to Hong Kong to inspect the overall sanitary condition, in which he after inspection completed a report that provided his recommendations for improvements. According to Chadwick's evaluations,

² Photo: copyright-free image courtesy of the National Archives, UK.

³ Y. H. Law, *Xianggang xiyi fazhanshi [History of Western Medical Services in Hong Kong]*, Chunghwa Books, 39-40, 1.

Chinese-style shophouses (Figure 1), or *Tong Lau*, were very cramped and unhygienic due to the extensive number of dwellers in small areas of land. Chadwick also pointed out that poor ventilation as well as undesirable practices, for instance rearing livestock at home, further deteriorated the environmental hygiene.⁴

Moreover, Chadwick highlighted that fresh water supplies and sewage systems were very disorganized, which later accelerated the spread of the bubonic plague. During the early 1880s, much of Hong Kong Island's water supply relied on street hydrants, at which the supply was unstable and very likely to be contaminated. Meanwhile, the sewage system was rather undeveloped, causing rainwater and wastewater in nullahs and public sewers to overflow during rainy seasons, releasing an unbearable odour and speeded up the spread of diseases.⁵

Although improvements in the overall sanitary of Hong Kong were observed between 1883 and the early 1890s, Chinese settlements remained overcrowded, which inevitably led to the rapid spread of the bubonic plague.⁶

The Bubonic Plague of 1894

The bubonic plague was first discovered in Canton in March 1894, and was believed to be transmitted to Hong Kong by massive crowds of people returning from the neighbouring Kwangtung Province after the Ching Ming Festival.

The first confirmed patient in the colony was a man named "Ah Hung", diagnosed by Dr. James A. Lowson on 8th May 1894 in the Government Civil Hospital.⁷ On 10th May, Hong Kong was declared as an infected port, in which Chinese locals were prohibited to depart the territory, while several temporary hospitals were put into service along with the establishment of a quarantine camp on the medical ship "Hygeia".⁸ Meanwhile, the Shropshire Light Infantry Regiment of the Hong Kong garrison was

⁴ Chadwick, O., *Mr Chadwick's report on the Sanitary Situation of Hong Kong*.

⁵ *Ibid.*

⁶ Y. H. Law, *Xianggang xiyi fazhanshi [History of Western Medical Services in Hong Kong]*, 107-139.

⁷ Y. H. Law, *Xianggang xiyi fazhanshi [History of Western Medical Services in Hong Kong]*.

⁸ Pryor, *The Great Plague of Hong Kong*.

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ordered to conduct house-to-house disinfection around the Taipingshan Street Settlement, as more and more patients diagnosed were settlers in this region.⁹ The Regiment and other law enforcement officers that took part in the campaign were authorised to evict occupants from buildings that were judged unsuitable for habitation.¹⁰ Besides the above immediate remedies, the the government was also urged by the Colonial Office in London to shut down the Tung Wah Hospital, which provided Chinese medical services to the locals,¹¹ due to the lack of scientific evidence to support the effectiveness of Chinese medicine.

However, the sudden government intervention sparked widespread discontent among the Chinese. First of all, many measures taken by the government were in conflict with traditional Chinese customs. As aforementioned, government officials were authorised to evict occupants from buildings, including women and children. However, women were not supposed to linger on the streets according to traditional Chinese virtues. Therefore, rumours about Westerners entering Chinese houses with unspeakable desires on children and women residents quickly spread out in the settlements.¹² Moreover, corpses of deceased patients must be buried immediately after disinfecting their coffins with slaked lime, which violated Chinese customs of organising solemn funerals and carefully-chosen burial grounds for the deceased.¹³

Secondly, the Western scientific approach in handling the plague was being questioned and distrusted. Before the outbreak, most locals were heavily reliant on Chinese medical services. The decision to close down the Tung Wah Hospital and to provide compulsory Western treatments were not welcomed, as locals were sceptical of Western medical staff and medicine due to rumours about British doctors scooping

⁹ Unknown author, *Shropshire Regiment "Whitewash Brigade" emptying items from Chinese homes in Taipingshan, Hong Kong, and burning them on the street as an epidemic control measure during the 1894 plague outbreak*, University of Cambridge.

¹⁰ R. J. Collins, *The black death: Hong Kong 1894*, Hong Kong Museum of Medical Sciences, lecture, April 24, 1999.

¹¹ G. B. Endacott, *A History of Hong Kong*, Hong Kong Oxford University Press, 220.

¹² Pryor, *The Great Plague of Hong Kong*.

¹³ Hong Kong Government, *No. 148 Hong Kong Annual Report for 1894*, CO129/265, 211-236.

children's eyes and organs for pharmaceutical purposes.¹⁴ Furthermore, the Chinese believed that the plague was a punishment by the divine powers and expected the government to organise religious ceremonies to combat the epidemic, similar to that in mainland China.¹⁵ Apparently, the Hong Kong government did not believe in their hypothesis regarding the plague, and decided to carry forward with a scientific approach.

The divergence between public expectations and the actual handling of the epidemic resulted in public discontent, leading to riots and anti-government sentiment within the Chinese settlements.¹⁶ Under immense public pressure, the government was forced to negotiate with the chairman of the Tung Wah Hospital, Lau Wai Chuen, who represented the Chinese community. Finally, the Tung Wah Hospital was allowed to continue operating under the supervision of Western doctors, while most disease prevention measures, such as burial requirements and restrictions on leaving the colony, were lifted.¹⁷

The plague eventually died down in October 1894, with a death toll of around 2000 victims.¹⁸

Significance of the Plague

In June 1894, several international experts arrived in Hong Kong to investigate the plague, including Kitasato Shibasaburo (1853-1931) from Japan and Alexandre Yersin (1863-1943) from France. They gathered corpses for dissection and discovered the causative agent of the plague — *Yersinia pestis*, a new species of bacteria transmitted by fleas and rodents which was later named after Yersin.¹⁹ The discovery was groundbreaking because it revealed the bacteria that caused bubonic plagues throughout the centuries, in particular to the Black Death that killed millions during the 14th

¹⁴ P. T. Lee, *Colonialism versus Nationalism: The Plague of Hong Kong in 1894*, *The Journal of Northeast Asian History*, 115, 10.

¹⁵ Benedict, *Bubonic Plague in the Nineteenth - Century China*, 110-113.

¹⁶ Pryor, *The Great Plague of Hong Kong*.

¹⁷ Y. H. Law, *Xianggang xiyi fazhanshi [History of Western Medical Services in Hong Kong]*.

¹⁸ *Ibid.*

¹⁹ *Ibid.*

century.²⁰ It laid the foundations to the invention of medications and vaccines that helped to end the spread of plague around the world today.

In the following year, the government launched a series of inquiries into the plague, which had deep and significant effects on Hong Kong's modern public health system as it prompted the government to exercise a higher degree of intervention on local medical and environmental hygiene policies.

First of all, a reformation was conducted in Tung Wah Hospital, introducing Western medical treatment and management into the hospital. After the epidemic, the Hong Kong government appointed the first local Western doctor, Dr Chung Boon-chor to station and monitor the daily operation of the hospital,²¹ as well as to provide an alternative for patients to receive Western treatment. The government also started to recruit and train locals as doctors and nurses. On one hand, it promoted general acceptance of Western medicine among the Chinese community; on the other hand, the number of medical staff working in the colony increased. Over the next 25 years, the number of patients receiving Western treatment gradually increased and surpassed that of the Chinese. Hongkongers gradually gained more understanding and laid trust in Western medicine and treatment, which laid the foundations for the modern Westernised public health system. Therefore, the plague of 1894 was a turning point where the Hong Kong government ceased its unspoken non-intervention policies on medical and health services for the locals.

Moverover, the deadly plague raised the awareness of the sanitary conditions in Hong Kong, and prompted the government to legislate stricter laws on environmental hygiene. After the outbreak, the government received a letter from the Hong Kong General Chamber of Commerce, demanding the government to impose stricter hygiene regulations to safeguard Hong Kong's image as a favourable trading port.²² Although

²⁰ CDC, Plague.

²¹ Ibid.

²² Hong Kong Government, Hong Kong – *Papers Respecting the Reconstitution of the Sanitary Board Hong Kong General Chamber of Commerce*, October 19, 1894.

the Chamber's recommendation to abolish the Sanitary Board due to its failure in preventing the plague was not being accepted, many other recommendations provided by the Chamber were taken, such as quarantine orders ought to be enforced in order to protect Hong Kong's business environment. Besides, the overcrowdedness and undesirable hygiene in the Taipingshan Street settlement (Figure 1) had speeded up the spread of the disease. As a result, the government decided to demolish the entire community as a once-and-for-all preventive measure, and underwent better urban planning that ensured adequate spacings, uncontaminated fresh water supplies and organised sewage systems.²³ In 1902, Sir William Simpson, a Scottish specialist in tropical medicine, inspected the sanitary situation in Hong Kong and proposed that stricter enforcements of preventive measures have to be implemented.²⁴ Eventually, many of his recommendations were taken into consideration when enacting the *Public Health and Building Ordinance, 1903*, which regulated sanitary conditions as well as building designs and constructions in Chinese settlements.²⁵

All in all, the deadly bubonic plague raised the awareness of the Hong Kong colonial government on public health issues, in order to safeguard Hong Kong's image as an international trading hub. Therefore, the government would have seen more proactive participation in the medical system in the future. At the same time, the plague had offered the general public to gain a more in depth understanding in Western medicine which gradually gained their acceptance, effectively reducing fatalities in various kinds of diseases and surgical operations.

Conclusion

As the first major outbreak of diseases Hong Kong has ever faced, it triggered the government to reform the entire medical system and impose stricter hygiene regulations. Therefore, the bubonic plague of 1894 is undeniably one of the most important historical events in Hong Kong history. As mentioned above, the spread of the plague was facilitated by the densely populated Taipingshan Street settlement shown

²³ K.C. Yip, *A Documentary History of Public Health in Hong Kong*, Project Muse, 52-53, 1.

²⁴ Pryor, *The Great Plague of Hong Kong*, 67.

²⁵ *Ibid*, 68.

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in Figure 1, which makes the photo an iconic symbol of the plague. The photo serves not only as a reminder to Hongkongers of the importance of public hygiene and the significance of urban planning, but also as a milestone in the development of today's medical system, which helps us combat COVID-19.

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