THE SECRET HISTORY OF THE SPANISH INFLUENZA IN CHINA
全球大流感在近代中國的真相：一段抗疫歷史與中西醫學的奮鬥

An authority on the history of transmissible diseases explains how traditional Chinese medicine and lifestyles may have limited the impact of the 1918 Spanish flu pandemic in China.

The 1918 Spanish flu was one of the deadliest pandemics the world has ever known. Naturally, it has been the subject of extensive historical epidemiological research, but very little of it comes from East Asian scholars, or addresses the unfolding of the pandemic in East Asian nations. With the coming of COVID-19, however, there has been renewed scholarly interest in filling these gaps.

Through historical documents, contemporary newspaper reports, and other records of daily life, author Pi Kuo-Li constructs a portrait of China's experience with the Spanish flu. Starting from the conceptual understanding of colds and flu in Chinese culture, the book moves on to trace the region by region evolution of the Spanish flu pandemic in China from 1918 to 1920. Differences between China and Western nations are discussed, including the treatment of the flu with traditional medicine, and the impact of Chinese material culture and lifestyle in limiting the severity of outbreaks. Finally, the case of Taiwan is introduced as another example of a region heavily influenced by Chinese culture, but in which traditional Chinese medicine and Western medicine were often used side-by-side to fight the outbreak.

Category: History

Publisher: China Times

Date: 2/2022

Rights contact:

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Pages: 476

Length: 240,000 characters

(approx. 156,000 words in English)

Looking back from the standpoint of our current COVID-19 pandemic, Pi engages in a dialogue with Western epidemiological histories of the 1918 flu, providing previously unavailable historical accounts of the pandemic in China and Taiwan, and enriching Western-dominated discussions of the subject with the perspective of East Asian medical scholarship.

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By Pi Kuo-Li
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1. Preface

There is no Classical Chinese word for "influenza". We reference the modern concept when identifying historical pandemics. Some in the West believe that the English Sweating Sickness (Sudor Anglicus) of 1485 was influenza. Infected soldiers experienced high fever, sore throat, headache, joint pain, and occasional abdominal pain and vomiting, followed invariably by the full-body stinking sweat for which the disease was named. In severe cases, the infected could die within a matter of hours. The intense perspiration is a very interesting symptom from a TCM perspective. Chinese medical treatises feature contains ample discussion of *fahan* (inducing perspiration), known to them as *fa biao* (surface perspiration), which was employed to treat cold symptoms. Even up to the beginning of the 20th century, it was very difficult to determine whether a patient was infected with the flu or with the common cold. Despite this, we can be quite certain that *ganmao,* the word for "cold" in Chinese, comes from traditional Chinese medicine.

There is evidence of much historical dialogue between global pandemics and pandemics in China. Putting Chinese pandemics into a global context makes clear that the period from the end of the Qing dynasty to the influenza outbreak of 1918 to 1919 evidenced a gradual integration of Chinese pandemics into the history of influenza outbreaks. As has been discussed, it has proven

very difficult for general historians to determine when influenza outbreaks have occurred historically, but it is possible for historians of disease. Thanks to the consistent efforts of scientists and doctors in documenting possible influenza outbreaks throughout history, we know that the earliest verifiable influenza outbreak was the Russian Flu Pandemic, which occurred around 1890. Such classification of disease outbreaks is evident in publications from the Republican Era in China. For example, the Paris Flu of 1414 is described in Republican Period sources as having infected 100,000 people, the 1892 pandemic is described as having infected half of the world's population, and we also see discussion of another wave of pandemics that took place in 1928, and then from 1931 to 1933. Moreover, these sources describe the main focus of this book, the Spanish Flu Pandemic of 1918 to 1920, as "a new infectious strand of influenza", and call it "the greatest infectious disease in modern history".

During the Republican Era, we already see theories that influenza originated from China. In 1934, a Chinese journal reported on a Reuters article that referenced a paper published in the London Journal of Medicine and which was written by a doctor whose name was transliterated into Chinese as *Daihuaiyi.* The article posited that influenza originated from the mud of the Yellow River Valley, and spread across Asia via trade routes, and that it was currently being spread via steamship. Global outbreaks of influenza in 1899 and 1918 also followed severe floods in the Yellow River. The author rather wildly hypothesized that river mud distributed over land via the flooding would turn to dust and be dispersed all over, and therefore, if the Yellow River was not dredged immediately, the entire world would be in danger. His conjectures underwent no scientific verification, and were full of Orientalist ideas about Asia as the origin of plague.

According to some current Western studies, Europe fell victim to several influenza outbreaks starting in the 19th century. The Industrial Revolution and its concomitant increase in urban population density as well as advances in transportation technology combined to create a new utopia for the spread of diseases that thrived in crowded environments. The most historically verifiable influenza outbreak based on available historical records from this time occurred from 1889 to 1892, and it is known as the first influenza pandemic for which we can estimate infection statistics, and was the first verifiable global influenza pandemic in history. Deaths at the time were in excess of one million people, with more than 50,000 deaths in California alone. As we come to understand more about the history of influenza, it becomes apparent that this "new" disease is actually an "old" disease, as it has appeared throughout history. Moreover, it was not until the end of the 19th century that influenza outbreaks were given the names of their place of origin. The so-called "Russian Flu" killed at least 250,000 people in Europe alone, with a global death toll exceeding this number by an astonishing amount. But the death toll from the "Russian Flu" is dwarfed in comparison by the influenza pandemic of 1918.

Did the "Russian Flu" make it to China? This is a question worth exploring. Before looking into the global pandemic of 1918, we can examine the potential historical progression and public response of the disease in this previous instance. This assessment will prove useful as an analytical tool and point of comparison for the rest of this book. In reality, there was no panic

among the Chinese people around this outbreak, and people sought explanations based on their understanding at the time.

2. The Term *Ganmao* (Cold)

Using our current understanding, *ganmao* refers simply to a common disease, but when the three-character prefix *liuxingxing* is added, the meaning changes and the new term comes to refer to an entirely different disease.

When we talk about the term *liuxingxing ganmao* (influenza), we must remember that it is a portmanteau of two words, each with a history in classical Chinese: *liuxingxing* (infectious), and *ganmao* (cold or flu). Using our contemporary understanding, *ganmao* is a common disease, but when we add the prefix *liuxingxing*, then the term comes to refer to an entirely different disease. *Liuxingxing ganmao* (influenza) is characterized by cyclicality, as well as by the characteristic of infectious spread at certain times and in certain places. I believe that the word *ganmao* has ancient Chinese roots, whereas *liuxingxing ganmao* is a totally new word that emerged after the turn of the 20th century. This does not mean that influenza did not exist in ancient China, but rather that in ancient Chinese society, it may have been known by terms now unfamiliar to us. A detailed exploration of this would not be useful here, as this would overcomplicate our overview of the history of the word. I hope that by reading this book readers will gradually gain an understanding of the origin and evolution of the Chinese term *liuxingxing ganmao*.

In "Introduction to the Six Elemental Causes of Disease", an essay from his work titled *Illuminating the Origins of Various Diseases,* the Qing physician Shen Jin'ao (1717-1776) writes:

> *Ganmao* comes from harm from the wind element. *Ganmao* is a pulmonary disease. It arises when there is a deficiency of elemental *Qi*, and a separation of tissue connections. The *Huangdi Neijing* (approx. 200 BCE) states: "*Yang* receives the empty maleficent harmful wind first." "Wind" here means the *Yang Qi* of the heavens, which when it resides within the body causes harm to *Wei* (*Wei Qi*, *Qi* that is generated from ingested food and drink and which flows outside of the confines of the circulatory system; contrasted with *Ying Qi*, *Qi* that flows within the circulatory system). The *Wei* takes on *Yang* qualities, and therefore it is said that "*Yang* receives [the harmful wind] first". *Wei* is *Qi*. The lungs control *Qi* and the spleen generates *Qi*. Therefore, although "harmful wind" is a disease of the lungs, it is also related to the spleen. The "harmful wind" depletes the spleen, which weakens the muscles. It depletes the lungs, which holds open the Dark Abode (*Xuan Fu*, refers the sweat glands, hair follicles, and skin pores), and this is how the ailments caused by the wind can enter the physiology. It is said that wind is the cause of hundreds of diseases that move around the body and frequently change. There is no space so small in the body that the wind element cannot enter. The twelve *Jing* (*Jing Mai*, twelve pathways

within the body that carry fluids and *Qi*, including major blood vessels), the fifteen *Luo* (fifteen smaller branch pathways, including smaller blood vessels), the five upper abdominal organs and the six lower abdominal organs can all be penetrated by the wind element and become diseased. When the wind penetrates the *Jing* or *Luo* pathways, it passes through the skin and hair follicles and then enters the muscles and lower abdominal organs. Or it can penetrate the mouth and nose, in which case it then enters the stomach and intestines. Or it can enter the bones, blood vessels, or joints. Furthermore, the fire element combines easily with the wind element, the wood element of the liver easily attracts the wind element, and the metal element of the lungs is at a high position which makes it susceptible to infection. Additionally, the crown of the head is susceptible to wind, the eyes are susceptible to wind, and the arms and legs become moist when penetrated by wind. The ancients said: "Avoid wind as one would avoid arrows." When wind penetrates the lungs, the resulting symptoms may be headache or fever, or the following light symptoms without headache or fever: nasal congestion along with runny nose with clear mucus, an aversion to wind and cold, loud voice, and hoarse voice. In severe cases, phlegm buildup may cause shortness of breath, lockjaw, coughing, and dry throat. Externally, we may notice perspiration and a floating, slow pulse.

Shen Jin'ao believed that *ganmao* was a pulmonary disease caused by external infection from windy *Qi*, which was traditionally called *Shang Feng* (harmful wind), passing through the skin and hair follicles (or through mouth and nose) into the muscles. Moreover, according to Dr. Shen, although *ganmao* was caused by wind blowing onto the body from the outside, it usually was not a severe illness, but if it persisted for some time, it could also cause the body to become weak. Dr. Shen's observation accords with the common understanding during the Republican period that *ganmao* could cause weakness. In another work titled *The Origins of Internal Ailments and External Infections*, Dr. Shen explained that "Compared to *ganmao,* febrile disease, fever, heat-induced disease, and dampness-induced disease are all much more severe, and must be treated according to their symptoms in order to quickly alleviate their ill effects." He explained that *ganmao* is merely a mild disease caused by external infection, and therefore different from more severe diseases such as febrile disease, fever, etc.

At that point, the term *ganmao fenghan* (cold wind *ganmao*), was in common use in Late Qing periodicals. It was not an ailment that instilled fear, but after infection, patients could experience decreased appetite and thirst, insomnia, mental disturbances, and palpitations among other late-onset symptoms. Because of this, patients needed to take some time to recover. How was it that *ganmao* could cause "palpitations"? At the time, people described "palpitation" as a state of depleted weakness caused by "lack of blood in the heart". Therefore, after falling ill it would be necessary to take proper care of oneself. The principle that extra care needed to be taken to address late-onset symptoms for *ganmao* and other "external" illnesses persisted all the way through the Republican Period. The proper medicines to treat various ailments such as those caused by "external infections", seasonal epidemics, and "cold wind *ganmao*" were frequently

published in periodicals in the Late Qing Period. For example, a reader named Liu Yinjiao from Jinling submitted an explanation of a medicine called *Taiyi puti wan* (Primordial enlightenment pill) to a periodical. He said that this medicine came from an esoteric family recipe and that he would send a copy of the recipe to Shanghai right away so that the periodical could publish it, and suggested that others keep the recipe in mind, so that it could be used in case of a disease outbreak. It was thought that this medicine could actually be used to treat many diseases including cholera, plague, cold wind *ganmao*, and a disease called "mountain mist miasma". We can see that at the time, this type of Chinese medicine, which was composed of multiple different ingredients, was used to treat many ailments, possibly including the flu or *ganmao*, and one did not usually find a Chinese medicine used exclusively for any one disease. A prescribed medicine would normally combine the treatment of multiple ailments at once. This combining of various medicinal herbs into one prescription is a characteristic of Chinese medicine: when different individual medical substances are combined together, the medicine will have wide-ranging efficacy, and can always be used to treat more than one illness. This is an important principle to understand when studying the history of Chinese medical prescriptions. Also, in the past, knowledge about prescriptions was passed down through periodicals or hand-written notes. After the Qing dynasty, knowledge began to be disseminated widely through new kinds of media and publications, which is a phenomenon worth our interest. Many kinds of disease-related knowledge became open to the public, and were no longer limited to medical books. There is, moreover, another phenomenon worthy of our attention: in the Late Qing, it became very common for officials to use *ganmao* as an excuse to take time off. But when we start talking about *ganmao* as an infectious disease or plague, its significance becomes completely different, and would not be used so casually as an excuse.

We see the first discussions of "external" diseases like *ganmao* and other non-severe illnesses alongside more serious infectious diseases such as malaria in advertisements for medicines. An 1881 advertisement for a pharmacy that sold both Chinese and Western medicine said that from summer to fall when the weather is hot "there is an explosion of *ganmao* infections." The advertisement uses the term *shixie* (seasonal affliction) to describe the ailment's speed and ferocity. This advertisement implies that the pharmacy's "emergency life-saving health tonic" was extremely effective. The pharmacy also sold a "disease-preventing powder", which the description in the advertisement indicates was some kind of disinfectant. The advertisement asserted that if you think that your home "has blocked up toilets and pipes, and garbage is piling up every day causing a build-up of filth and stewing up foul air, this is most suitable to causing illness" and that the powder was a best-seller in the West for many years, so all that you needed to do was spread this powder everywhere in your home and this would prevent sick *Qi* and all other kinds of bad *Qi*. It would seem that in the 1880s, the West already recognized a relationship between disinfection and disease prevention, while in China, disease was described as "bad *Qi*".

3. In Search of the Russian Flu in China

In May of 1889, an outbreak of influenza originating in the Russian empire was first recorded in the Central Asian city of Bukhara (in what is now Uzbekistan). Symptoms included high fever, perspiration, loss of appetite, nausea, and vomiting. It is generally believed that this disease spread quickly, arriving in China as well as the United States by the end of 1889 at the latest. Yet its spread within China deserves another look, as no one has yet noted that many of the theories about the Russian Flu in China rely on secondary Western sources. These sources arbitrarily state that China did have Russian Flu, with one source even averring that it "may have originated in Southern China". This is a totally uncredible theory. Examining the Chinese context after late August of 1888, we find evidence for only one outbreak of an infectious disease that caused vomiting, diarrhea, and cramps; many of the infected died within a day, and the disease was obviously cholera. A "throat disease outbreak" did occur in the city of Wuhu, Anhui province, and lasted until the winter of the next year. But since a sore throat alone does not indicate influenza, and the infected showed no other related symptoms, it was probably not influenza. We see the appearance of diseases classified as *shiyi* (seasonal disease) or *wenyi* (pestilence) every two or three years. The use of these broadly defined and common terms undoubtedly makes it even harder for historians to define these diseases accurately. If we look at sources from the beginning of 1889, we see that in Beijing there are instances of the spread of throat infections, headaches, as well as skin rash, none of which were isolated instances. However, these sources also mention a wide range of different treatments for these various *wenyi*. There are many reports from this time and while the sources do not describe every outbreak from any one place or time, there does not appear to have been any indication of a continuous or large-scale pandemic, so to claim that there was a pandemic at the time would be inaccurate. On February 23rd, a *shiyi* disease broke out in the Wei neighborhood and other neighborhoods in the city of Zhengzhou, Henan Province, but in the month before and in the month after this time, we see no reports of outbreaks in any other part of northern China. This confirms that this outbreak did not spread on a large scale across regions.

The main difference between published reports of disease outbreaks in the late Qing compared to the Republican Period was that many of the former focused on the deity worship practices performed by local officials to ameliorate *shiyi*, or on the miraculous effects of religious rituals enacted to counter the diseases. Obviously, it is difficult to determine whether an outbreak supposedly eradicated through deity worship and prayer could have been a genuine epidemic. This problem may not have a good answer, and drawing conclusions is basically a matter of how we interpret these historical records. A report from May 11th, 1889 mentions another outbreak of "throat disease outbreak" ostensibly caused by people ingesting "flower stamen oil", and details how local doctors provided treatments that effectively cured the disease. Many reports from the time use similar language, indicating that outbreaks like this one were fairly common and not considered unusual. The absence of alarm or report of widespread infection suggest that the disease was not Russian flu. A May 21st report from Wenzhou, Zhejiang Province, describes an

outbreak of a disease with symptoms resembling stroke, in which many of the infected, including siblings and children, died in around one day. Evidence of family transmission does resemble influenza, yet we find no other reports within a month of this one indicating wider spread. All we have from that time and place is a report from May 28th of an outbreak of scarlet fever in Shanghai. Thus we can conclude that the disease described in the Wenzhou report did not amount to a large-scale widespread influenza epidemic.

One report from June 4th, 1889, describes several beggars dying suddenly near the Laoye Temple in the Northeastern city of Yingkou, Liaoning Province. Locals identified *wenyi* as the cause. After examining reports from the surrounding areas, however, we find no instances of disease in neighboring provinces. The alarming phrase "sudden death" was sometimes used to describe instances of multiple deaths from an outbreak, and events such as this one was invariably labeled as "explosions of pestilence". On July 20th the police station in the English Concession in Shanghai reported a "daily smell" of sick residents coming from the concession. The newspaper used the phrase "foul vapors" to describe the Westerners' understanding of contagious disease, and it describes how the Westerners provided disinfectant spray to be used in the areas where sick people lived. Because the Chinese thought that spraying disinfectant everywhere was very strange, they wanted the Westerners to inform a Chinese official named Mr. Cai so that he could make an announcement in order to convince the people to follow such an order. A July 24th report from Anhui Province describes an outbreak of *shiyi* coinciding with abnormal weather, in which children and the elderly suffered from cough with bloody phlegm. "Doctors were helpless," the report noted, and urged everyone to be careful. A news story from Shanghai published the same day addressed the topic of epidemics. The head police officer from the English Concession vigorously advocated for the use of disinfectant spray, arguing that the practice was comparable in terms of its effect and significance to the Chinese practice of spraying realgar medicinal liquor during the Dragon Boat Festival. The story also particularly recommended spraying around toilets and bedrooms. However, this story specifically mentions the spread of a disease called *shayi*, which may have been cholera or scarlet fever, but was probably not influenza, as its symptoms did not include the bloody cough of the Anhui outbreak. There is no link between the two events, no outbreak with symptoms like those of the Anhui outbreak appears elsewhere, and the Anhui outbreak itself did not last more than one month. We may certainly argue that no incidence of major infectious disease disappears that quickly, especially the Russian flu for which we are searching.

On July 30th the newspaper *Shen Bao* reported *wenyi* outbreaks in Taiwan on boats and in rice paddies, but the report calls the diseases *zhongshu* (heatstroke) and *jisha* (a word for cholera); they were not influenza. Throughout the entire summer we see no reported instances of the spread of influenza. An August 26th report describes an epidemic in Yingkou, Liaoning Province, where the sounds of lamentation could be heard coming from the wilderness during the night, but little was written. Roughly concurrent documentation details an epidemic near Nanhu Lake in Jiaxing, Zhejiang Province, but its content is insufficient to tell us what kind of contagious disease it was. It was then reported that the aforementioned Yingkou outbreak had persisted

through September 17th – over two weeks – the first clear evidence of a connection between outbreak reports over time. It was reported that the death count from the outbreak kept rising and that the local emergency center helped provide medical care and medicine, as well as 500 coffins. Another outbreak is recorded on October 6th in Xiamen, Fujian Province. A severe drought persisted there through the Autumnal Equinox, and the disease contributed to over 100 deaths within a month. Other than the aforementioned Yingkou outbreak, there were few noteworthy reports for the entirety of 1889, let alone any large, cross-regional epidemics. Was the Yingkou outbreak the first wave of influenza to reach China? Without cross-regional spread, I find it unlikely. Moreover, given the limited spread of the outbreak, it would be unlikely for it to have started at the end of the summer and gone unreported into the winter. Based on this, we can conclude that the Yingkou outbreak had virtually no connection to the Russian Flu.

Chinese news media first documented the spread of influenza to London at the beginning of 1890, reporting more than 50,000 infections and a death toll beyond calculation. It was also reported that 38,000 people were infected in France. Newspapers at the time used the term *ganmao zheng* (*ganmao* disease) to refer to the Russian Flu, but this term had never before been used in China to describe any epidemic. *Ganmao* had historically referred to common minor illnesses for which medicine was not even necessary. From this point until after the 1918 epidemic, we notice a clear shift in the denotation of disease names, a phenomenon we'll discuss later. No notable epidemics occur between the winter of 1890 until the spring of that year; on April 22nd, we read of a disease outbreak in Yingkou, which caused the infected to groan loudly, but the disease did not spread widely, and was not usually fatal. A more significant outbreak occurred in Beijing on May 3rd, during a time of severely fluctuating temperatures, and presented symptoms that "began with bodily weakness, followed by soreness and sluggishness in the limbs, heavy-headedness, and fever, and the disease was transmitted very easily." Whole families were infected, and although those in prime physical condition were less susceptible, it was relatively difficult to treat the elderly and the weak effectively. It was also reported that pharmacies and doctors were extremely busy, made a lot of money in a short time, and that this illness actually could be treated. The descriptions of the symptoms and the infectivity of the disease make it relatively likely that this was influenza. This would accord with the inference of Alfred D. Crosby that Russian Flu arrived in Asia on a wide scale in the Spring of 1890. Unfortunately, I was not able to follow this epidemic to other regions or across spans of time, as the available materials were too scattered.

We do have one report of an epidemic in Jiangsu Province in early July, but details are exceedingly sparse. But around the same time, we see a report of an epidemic in the city of Yangzhou, Jiangsu Province, which details how the local authorities distributed medicine to people who came a great distance for it. It would appear that the epidemic had spread relatively widely. Having two separate reports from neighboring locales within a short time frame would fit the criteria for an epidemic. However, these reports contain few details and it is difficult to say whether this was influenza. Around the same time we also see a report of an epidemic in Yichang, Hubei Province, but details are also limited, so we cannot draw a strong connection. When we put

all of this together, the symptoms of the epidemic in Beijing and the Northeast really do resemble those of influenza, and offer some evidence from which to suggest say that this was the first instance of Russian Flu in China. Yet even if it were, that outbreak did not last very long, disappearing by July. Meanwhile, information on the southern epidemic in Jiangsu is too sparse to draw any conclusions that extend beyond speculation.

By August of 1890, we see reports from the English Concession in Shanghai of a sex worker who fell ill, was rushed to Renji Hospital for treatment, but then passed away, but reported details are again very limited. And around the same time, we see a report of someone in the French Concession who fell ill with *shiyi jisha* (seasonal gastrointestinal illness). It is impossible to say whether all instances of *shiyi* were gastrointestinal, but we can note for comparison a report that clearly states that the s*hiyi* in Shanghai was a rapid-onset gastrointestinal malady. This same disease, known as *bie (luo) sha* (we could roughly translate this as "shriveled snail gastroenteritis"), had spread widely two years prior in 1888, and was obviously cholera, not influenza. Primary symptoms from the 1890 outbreak – vomiting, diarrhea, emaciation, and dehydration – support this conclusion. The name *ziwusha* (midnight to noon gastroenteritis) caught on for this disease because patients would show symptoms starting during the *zishi* period (between 11pm and 1am), and then die twelve hours later during the *wushi* period (between 11am and 1pm). This epidemic was quite serious, raging all the way into September and spreading to many different districts. Publications describing the Western method for combating *huliela* (a Chinese phoneticization for "cholera") by cremating corpses further clarify the nature of this disease. According to studies, the period from 1883 to 1896 was the 5th historical instance of a significant cholera epidemic in China and from 1890 to 1891 Shanghai had a quite serious cholera epidemic, but during this time we see a cholera outbreak nearly every year in China, making the serious outbreak in Shanghai in 1890 none too surprising. From the summer to the fall of that year cholera was rampant, while no traces of influenza can be found in the historical record.

4. A South-to-North Pandemic

People continued to publish reflections on the devastation of the 1890 cholera outbreak even through the autumn. But while cholera was a very serious contagious disease at the time in China, influenza actually caused more death than cholera throughout the 19th century. An article from October 4th, 1890 states that 2000 people died from a disease outbreak in the city of Yichang, Hubei Province. We do not know what disease this was, but subsequent articles reported that this outbreak persisted until the beginning of November. We then see a November 22nd report of another outbreak in Yangzhou, Jiangsu Province, in which initially non-threatening symptoms including dizziness, nausea, and chills very quickly transformed into something worse. Patients who fell ill in the morning could be dead by the afternoon. The disease was highly contagious, often infecting at least 7 or 8 out of 10 members of a household. Many people also died suddenly,

something that commentators at the time said was very rare in those years. These two reports are very much worth our attention. Based on the symptoms, we can see it wasn't cholera; the historical rarity of sudden death further suggests it was also not bubonic plague, which was already well-known and feared. This outbreak very much resembles an influenza. It would appear then that the second wave (if we consider the previously mentioned outbreak to be the first) of influenza may have first emerged in Southern China. Another epidemic occurred at the end of 1890 in Xiamen, Fujian Province, purportedly affecting nine out of ten households and killing the infected in a day, but it is difficult to determine what disease this was.

With the cholera epidemic in full swing, other outbreaks did not receive much attention at the time, potentially leading to reports of epidemics of other diseases being ignored. One from late 1890 describes an imperial doctor in Beijing dying from *ganmao shiyi* (*ganmao* seasonal disease); less than a month later, another periodical reported on the death of Prince Zai Dun (1827-1890) from a disease also described as *ganmao shiyi* that caused an asthma attack. These were very likely instances of the same disease. Then a month after that, Princess Li Huang Gui (also known as Imperial Concubine Zhuang Jing, 1837-1890) was also infected with *shiyi*, and passed away despite treatment. Further reports from Beijing outlining an epidemic of *dongwen* (winter pestilence) warrant our attention. *Dongwen* may have been the terminology that city folk used to describe the same illness that afflicted the imperial family, and in later chapters I will show that some do believe that the traditional Chinese medical term *dongwen* actually refers to influenza. During the *dongwen* epidemic in Beijing, it was reported that coffin makers sold so many coffins that it caused a stock shortage due to lack of lumber. The outbreak did not begin to recede until the spring of 1891, and was followed closely by an outbreak of smallpox. In summary, the former batch of reports explicitly used the term *ganmao shiyi*, whereas the latter batch of reports used the term *dongwen* to describe the epidemic that lasted from the winter of 1890 until the spring of 1891. Yet another report from the beginning of 1891 describes a contagious *wenyi* with symptoms of "headache and dizziness, full body fever, and weak limbs," symptoms that conform with those of the common flu. Doctors at the time argued that too much rainfall caused a percolation of moist *Qi*, which rose from the ground as the weather warmed in spring to create a so-called *chou wu* (stinking smog) that month.

According to records, there actually was a stinking smog at that time, with a very disgusting smell. People rationalized the epidemic by explaining it as being caused by breathing in viscera. This is a very unique description, entirely different from descriptions given of other similar epidemics at the time. This unique description would suggest that the epidemic disease in question was also itself relatively unique. An epidemic was reported on February 5th in Shandong Province. Deaths occurred all over the place and symptoms were consistently described as "bleeding from the nose and mouth, followed by sudden death." Such a description actually does make sense. Some of those infected with the 1918 Spanish Flu did in fact experience nosebleeds, and when the disease progressed to its end stage, Acute Respiratory Distress Syndrome (ARDS) was common: patients' lungs would fill with blood, and the pulmonary alveoli (air sacs in the lungs) would rupture, and bleeding from the ears, nose, and mouth would be expected. Although

such symptoms were frequently reported during the global pandemic of 1918, we can only provide basic descriptions based on reported symptoms for this outbreak in China. But at least it is clear that this epidemic was relatively significant. By the spring, the Shandong epidemic spread to military barracks in Dengzhou, Shandong Province. The outbreak was reportedly severe and doctors there were at their wit's end. The Shandong epidemic lasted until around May of 1891. We then see a report that says that "after *dongwen* ended, it was followed by *chunwen* (spring pestilence)." *Chunwen* was in fact smallpox. If *dongwen* was in fact influenza, then by the spring the outbreak appears to have subsided. We can surmise that the epidemic that spread from the south to Beijing and Shandong and that lasted from the Fall of 1890 until the Spring of 1891 was the second wave of Russian Flu in China. Many regions in China experienced outbreaks in quick succession that were clearly not cholera or the bubonic plague. Few other diseases outside of influenza could have spread so widely across the country within a matter of months.

The influenza epidemic abated by June or July, and immediately gave way to a new outbreak of cholera. News media describing cholera outbreaks and disease prevention measures in both Japan and Thailand name the disease *huliela*, while Chinese media report the spread of a *jisha* epidemic domestically. The multitude of reports all describe cholera, not influenza. In October of 1891, an outbreak of so-called *diao jiao sha* (drooping foot gastroenteritis) occurs in Wenzhou, Zhejiang Province,[1] and in November there are reports from Fujian Province of some kind of acute vomitous disease, which probably was also cholera. And then in December we also see reports of an epidemic in the Nantai and Houzhou districts of Fuzhou, Fujian Province, with more than ten reported deaths each day. The locals paraded their local enshrined deities around town, and each household was asked to provide one volunteer to light a lantern or to beat a drum along the path of the parade. It was said that these ritual acts would "stimulate *Yang Qi* and dispel *Yin Qi*". Newspapers at the time had already started to criticize the use of prayers to eradicate disease as a practice "popularized by the ignorant". Starting in the first half of 1892, we see another epidemic outbreak in Beijing similar to the one of the previous year. The disease spread throughout Tongzhou and other outlying districts around the city, with the elderly being most severely impacted. This epidemic was called "The ten sicknesses and the nine crises", and patients mainly suffered from asthma, headache, and fever. It appears to have been influenza. Moreover, it was said that for elderly patients, even if they received excellent treatment, only "one in ten could be cured", indicating the severity of this disease. There are also reports from other regions describing outbreaks of *shiyi*, but these did not develop into widespread epidemics. It would appear, then, that in early 1892 only Beijing suffered from an epidemic and that the other reported incidents are were not significant enough to warrant our interest. We might be justified in saying that this was the third wave of influenza in China, but compared to the situation of the year prior, this wave was not nearly as significant.

Cholera appeared again in the summer of 1892, but from the fall to the winter of that year, there were no other outbreaks that warrant our interest. In general, if a *shiyi* did not surpass in

[1] Author's note: A colloquial term for cholera.

severity any of the devastating cholera outbreaks that frequently occurred in those years, it may not have been reported on; there were no significant influenza outbreaks reported around the end of the year. In 1893, we still see a news report about the Russian Flu, detailing how Russia had established women's organizations and doctor's organizations tasked with being on guard for the possibility of another *shiyi*. This report may have reflected events of the year prior, but at least in China, the beginning of 1893 was a relatively tranquil time as far as epidemics were concerned.

5. Summary

Before delving into the topic of the 1918 Spanish Flu pandemic in China in this book, we took a bird's eye view of the Russian Flu pandemic in the Late-Qing period, and formulated some conjectures as to the possible origins and spread of the disease in China. To make a preliminary comparison, China probably experienced three waves of influenza during the four years of the 1889-1892 pandemic. Only the second wave, however, which spread from the south to the north, represents a relatively obvious outbreak. The other two waves were comparatively scattered and localized, and we would require more historical evidence to further confirm them. Throughout the pandemic, we see very few published examples of treatment methods proposed by traditional Chinese doctors, or any other similar discussions. Because of this, we do not see any clear examples of new theories about disease or the possibility of new treatments. Discussions about treatments promoted by the Western medical community were also very scarce. At the time, the influence of Western medicine in China was limited to the few foreign concessions and some coastal cities. The Chinese authorities and the people had only a very crude understanding of the principles of modern disease prevention, and we see no sophisticated discussion of disease prevention in the face of a pandemic at the time. Nor had a clear name for it emerged; the word *liugan* (influenza) did not exist yet, the words *ganmao shiyi* (*ganmao* seasonal disease) and *dongwen* (winter pestilence) were used sporadically, but accounts using the words *shiyi* and *wenyi* were more common. We can see that the names for infectious diseases had not been fixed and that the search for the disease name *liugan* was ongoing. It should of course be added that, given the immense institutional knowledge as well as vast history of traditional Chinese medicine, seeking out any one stable disease name without any variants will always prove difficult. We would have to wait until after the scientific systematization of disease names in China before we see the traditional Chinese medical establishment possibly move towards the establishment of consistent standards for disease names based on their existing institutional knowledge. But this development would have to wait until after China came into more significant contact with western medicine.

The biggest difference between the Russian Flu pandemic and the pandemic that followed in 1918 is that in the first case although Chinese periodicals reported on a pandemic throughout Europe, the populace did not realize that the same disease had also crossed into their own borders.

This is totally different from the 1918 pandemic. This chapter's analysis gives us some basic insight into how people understood the word *ganmao* at the beginning of the modern era: people hadn't yet begun to place it in a global imaginary, or gained a deeper understanding. Moreover, our study further demonstrates that Chinese people maintained a traditional understanding of contagious diseases. Neither central nor local governments responded actively to the pandemic. They had not yet established an ambulance corps as we would see come about at beginning of the 20th century, and we rarely see any local mobilization from the trade community or from guilds. All that we do see from the time in this regard are the establishment of disaster relief centers by some philanthropists for the purpose of distributing medical care and medicine. Most reports discussing societal response recount the religious rituals performed by the people or by local officials, including prayer, divinations, and festivals in honor of local deities. Some claimed that so-called *wen gui* (pestilence ghosts) were everywhere, and so when a *shiyi* outbreak occurred, people would put up incantatory charms or seek out Daoist priests or shamans in order to exorcize these evil spirits and treat illness. These practices are vastly different from those used during the 1918 pandemic, and the reader is encouraged to draw their own comparisons.

Chapter 2 Pandemics and Societal Response: Comparing 1918 Flu Outbreaks in the Beijing-Tianjin and Shanghai-Shaoxing Regions

1. Preface

After the Russian Flu subsided and people returned to their daily routines, nobody could have predicted when and where the next big pandemic would start. The North China Herald newspaper reported on an investigation by a foreigner that posited there was an influenza outbreak in the Wuhu port area of Anhui Province in 1897. We see no reports from 1910, the year before the founding of the Republic of China, up until August of 1919, when we see newspaper reports discussing how the German people were worried about another influenza pandemic, and by that time the world was on the verge of a second large-scale influenza pandemic. This newspaper tended to report on epidemics in foreign countries such as England, Singapore, and Japan, but reports about epidemics in China were very rare. Even still, from the beginning of the Republican Period until 1918, we see very few reports of large-scale epidemics in the paper.

At the beginning of 1918, World War One had not yet ended. People's standard of living had declined, and medical and sanitation services were unable to manage the public health situation. Additionally, international transportation was developing far beyond that of previous eras. This situation fostered the unfavorable conditions under which a contagious disease could spread across national borders. To make things worse, soldiers fighting in the later stages of the

war were plagued by starvation and insufficient sleep, which contributed to the confluence of factors conducive to the spread of disease.

Influenza's signature ability to wreak havoc in different locales at the same time makes it difficult to determine where exactly the pandemic of 1918 began. The first major outbreak occurred in the early spring of that year, either on American military bases or in American military camps in France. Crowding in the military camps as well as on the boats that ferried soldiers all over the world, made it easy to ignore sporadic cases; overcrowded conditions in major American cities further opened the door to a major disease outbreak. However, because the first wave of the disease at this time was not serious, nobody paid much attention.

Western histories of the disease indicate that the second wave was entirely different from the first. After August 1918, we see the simultaneous emergence of several new disease hotspots, including in Africa, Europe, and in the American city of Boston, Massachusetts. According to estimates, from August until October, 20% of American soldiers fell ill, with 24,000 active service members dying from influenza and concomitant pneumonia. The third wave of the pandemic arose in the Spring of 1919. But what of the pandemic in China? Previous studies on the topic have tended to make assumptions based on piecemeal information, without providing a full picture of the history of the pandemic in China that details what happened in China during the pandemic, the reactions of the people, recollections in the aftermath of the pandemic, and post-pandemic daily life. In order to answer these questions more fully, this chapter will first address the reactions of the people to the emergence of influenza in China, then comb through the actual conditions that people faced as they dealt with it. To this end, in this chapter I will first focus on the pandemic in 1918. Then in the next chapter I will begin to address the pandemic in 1919 and 1920.