

Analyze Macau City During Public Health Emergencies and Countermeasures

Liang Zheng^{1, a}, Yile Chen^{2, b}

¹Faculty of Humanities and Arts, Macau University of Science and Technology, Macau 99078, China;

²Faculty of Humanities and Arts, Macau University of Science and Technology, Macau 99078, China.

^azlanger@163.com, ^bchenyile1996@163.com

Abstract

Based on the current global pandemic pneumonia epidemic, this article discusses the urban governance measures of Macau against public health emergencies, and at the same time sorts out the status of various public health emergencies in the Macau SAR since the 19th century and their corresponding Epidemic prevention measures, analyze the reasons for the occurrence of public health emergencies in Macau, and finally summarize the experience of epidemic prevention in the Macau SAR, and put forward suggestions and references for urban epidemic prevention, which can be used for reference to continuously strengthen and optimize urban epidemic prevention measures.

Keywords

Macau, public health emergencies, new coronary pneumonia epidemic, urban governance measures.

1. Introduction

This year is the 20th year of Macau's return. However, before the return, modern Macau has been under the management of the Portuguese government for a long time. In the context of a high-density city, Macau has a land area of 32.8 square kilometers and a population of 672,000. The modern economy was mainly based on the export trade of fisheries and handicrafts, and heavily relied on foreign trade, with strong personnel mobility and a large foreign population. Therefore, under its special political, geographic and economic background, it is often damaged by public health emergencies, such as plague (also known as the Black Death), smallpox, cholera, meningitis, etc.

Looking back on history, Macau has adopted a variety of effective measures to respond to public health emergencies from modern to modern times, combining some of the experience of the Portuguese government and the customs of local residents, in terms of epidemic prevention, isolation, sanitation and psychological comfort for residents during the epidemic. It has its own unique strategy, which is worth thinking about and exploring its experience in the development of epidemic prevention in modern times.

2. Public Health Emergencies and Measures from the 19th Century to the Early 20th Century

Because Macau has been occupied by foreigners for a long time, the Chinese and Western populations are mixed, and at the same time, as an international trade port, it has frequent traffic and personnel contacts with the outside world. The risk of being affected by the global

epidemic is also higher. Therefore, it was frequently exposed to the epidemic from the 19th century to the early 20th century. As a result, we have accumulated a wealth of experience to deal with emergent public health events, as shown in Table 1. Macau's response to the epidemic during this period can be divided into the following six aspects.

2.1. Prevention in Advance

Macau launched epidemic prevention operations in the 19th century. The earliest record can be traced back to Pearson, a surgeon of the East India Company, who introduced vaccinia to Macau in 1805 and conducted a trial of vaccination. Since fewer people were vaccinated, and it has not been effectively promoted. It was not until 1903 that the smallpox vaccine was mature and put into use, and the medical staff began to be vaccinated, and in 1917 it was completely free. In addition, in terms of the cholera epidemic, the cholera vaccine was introduced in 1927, and it began to spread until 1938, which was fully free of charge, effectively preventing the spread of the cholera epidemic.

2.2. Improve the Hospital's Response Capacity

In terms of medical care, due to the frequent occurrence of cholera, the Army Hospital and Jinghu Hospital were established in 1871 and 1873 respectively, together with the local Hospital de S. Rafael (Hospital de S. Rafael, commonly known as the White Horse Hospital). A total of three hospitals have improved the ability of local hospitals to respond to sudden outbreaks. In addition, there are specialized hospitals, children's hospitals, and women's hospitals for different diseases, age and gender of patients. At the same time, temporary medical stations are set up to assist in treatment in areas prone to epidemics.

2.3. Isolate Patients in Time

As early as the early 19th century, the Macau government began to isolate leprosy patients, and continued to expand isolation hospitals as leprosy patients increased, such as the Baisarin Leprosy Hospital established on Xiao Hengqin Island in 1878, the Women's Hospital established on Taipa Island in 1881, The Jiua Leprosy Hospital established in Coloane in 1885, the Donna Maria Isolation Hospital established on the island in 1897, and the isolation Pengliao set up on the opposite side of Jinghu Hospital in consideration of the local Chinese's distrust of Western medicine.

In addition, a series of anti-epidemic regulations were issued in 1895. For example: limit the time for patients to visit relatives and friends and prohibit physical contact, regularly fumigating and disinfecting the living environment and clothing of the patient with sulfur and asphalt, and burying the patient in time and prohibiting morgue after death. These regulations had a significant effect on the isolation of patients, so that the number of patients suffering from the epidemic in Macau at that time remained at a low level.

2.4. Improve the Sanitation Environment

Most of the epidemics from the 19th century to the 20th century were caused by the health environment, such as plague, cholera, and smallpox. To this end, Macau promulgated a series of environmental improvement systems, such as the "Urban Improvement Report" in 1883, the "Epidemic Prevention Regulations" and the "Epidemic Prevention Regulations" in 1894, and the later improved "New Epidemic Prevention Regulations". A series of measures to improve the sanitation environment, such as streets, rebuilding old houses, building new toilets, cleaning houses, cleaning sewers and planting plants to improve climate and air. In addition, in response to the characteristics of different epidemics, corresponding environmental control measures have been made, such as installing rodent-proof siphons at sewers during the plague outbreak.

2.5. Pay Attention to Personal Hygiene

In addition to express regulations on environmental sanitation, Macau also has requirements on the personal hygiene of citizens. Before the outbreak of the plague in 1895, the Chinese often shared multi-storey houses (see Figure 1 below), the living space was very crowded, the civilians did not have toilets in their homes, and the citizens often defecate (see Figure 3 below). After the outbreak of the plague, Macau clearly stipulated that local citizens were prohibited from defecation, piled manure, and dried manure cakes. At the same time, in the toilet area, the use of manure pits is prohibited, and manure tanks are used instead, and carbolic acid and chlorinated lime are used for disinfection on a regular basis. In addition, clothing, quilts, and personal belongings after the death of the patient were also collected and burned to prevent the virus from being introduced into the market. Not only that, in 1923, the Chinese were also organized to set up a health brigade to regularly check the hygiene of residents' homes and courtyards, so that personal hygiene and environmental hygiene were further guaranteed.



Fig 1. Crowded space shared by Chinese



Fig 2. Fulong New Street with worrying sanitation



Fig 3. Citizens often urinate on the streets

Table 1. Public health events and epidemic prevention measures in Macau from the 19th century to the early 20th century

Epidemic time node	disease	situation	Epidemic prevention measures
1805	smallpox	Global smallpox epidemic spreads to Macau	British East India Company introduced cowpox to prevent smallpox at Ren Citang Hospital, and successively conducted vaccination trials
1850	cholera	The 81st Governor of Macau also died of illness	
1862		A black maid from Timor contracted cholera in Macau, causing a cholera outbreak, and a total of 420 people were sick	-
1871		Cholera continues to spread	Jinghu Hospital was established
1873			Earl Ren Army Hospital established
1878	Leprosy	62 patients in total	Establish Baishalin Leprosy Hospital (also known as Baishalan Leprosy Asylum or Xiaohengqin Island Leprosy Village) on Xiaohengqin Island, and transfer leprosy patients from Baimahang Hospital to this place, away from the main island of Macau
1881			Women's Leprosy Hospital established on Taipa Island
1882			Because male and female leprosy patients live together, the baby is born, the population increases, and the management is inconvenient, so it was decided to separate male and female leprosy patients.
1883		Leprosy continues to spread	The promulgated "City Improvement Report" proposes governance measures as follows: ① Broaden streets ② Rebuild old houses ③ New toilet ④ Clean up residence ⑤ Clean sewer ⑥ Plant plants to improve urban climate and air quality
1885			Coloane Island established Coloane Jiu'ao Leprosy Hospital, and transferred female leprosy patients from Xiaohengqin Island to it
1888	cholera	The "India" carrying the Portuguese army was infected while passing through Hong Kong and stopped at Macau's Gouhuan (the seaside road) for treatment. More than 500 cases of illness and about 30 deaths	① Temporary quarantine stations have been set up in Green Island, Taipa, and Gouhuan ② The vegetable garden and the mosque temple were changed to the cemetery ③ Build to ensure the safety of residents
1895	plague	Plague outbreak in Mad parish 1295 patient died	① Demolition of the disorganized and infected old neighborhoods (Tashi, Longtian Village, Wangsha and Xinqiao's reclaimed land, the crazy church area and the Banzhang church area), and build a clean new area ② Cleared the graveyard of Shagang ③ Establish a prevention system: a. Prohibit contact between relatives of patients and their bodies; b. Disinfect the homes of patients after they are discharged from the hospital; c. bury the patients in time for free after death to avoid long-term morgues. ④ Establish an isolation mechanism: a. Ships can land only after they pass the quarantine and are prohibited from landing at night; b. Wan Chai establishes a greenhouse to isolate patients; c. restricts the flow of people into high-endemic areas; d. establishes a maritime isolation area. ⑤ Improve the sanitation system: a. Centrally burn the clothes of the deceased; b. Use fumigation to disinfect the entire island ⑥ Improving the epidemic statistics system ⑦ Improve the sanitary environment: a. Fill the pit and change it into a dung tank, and regularly clean the dung tank with drugs; b. Add public toilets; c. Ban dung cakes (Lingnan villagers have the custom of sun dung cakes); d. Ban dung Seeding fields; e. Prohibition of unauthorized slaughter
1897	cholera	Cholera broke out again	① Establish Donna Maria Isolation Hospital ② Establish a medical statistics station to monitor Chinese patients ③ Disinfect the patient's excrement and home ④ Use Ye Ersen serum to treat bubonic plague
1898	plague	594 killed	① Set up an isolation room opposite to Jinghu Hospital ② The residents of Macau St. Paul used the statue of Nezha Temple in Shishan, Macau to build a Nezha Temple in order to drive away the plague god
1900		500 killed	-
1903	smallpox	Multiple medical staff were infected	Medical staff must be vaccinated against cowpox
1907	plague	1100 killed	-
1909		400 killed	Rodent-proof siphon is installed at the water pipe to effectively eradicate the plague in some areas
1911		The plague continues to spread	① To prevent the spread of the plague, take doctor visits and visits ② Vessels moored in various ports shall not land before disinfection
1917	smallpox	Smallpox outbreak	① All residents must be vaccinated against cowpox ② The Army Hospital provides free medical care for Macau residents
1918	meningitis	Meningitis outbreak	① Set up an isolation and treatment station for sick children in Majiao Shishan ② Yuyingtang mainly admits children ③ The central health station and relief team set up outpatient clinics to distribute medicines for free ④ The naval medical station of Ma Ge admits and treats marine residents ⑤ Develop measures to prevent meningitis

Epidemic time node	disease	situation	Epidemic prevention measures
1919 1923	plague	Plague broke out again	⑥ Large-scale cleaning of streets and sewer pipes Established the first male and female nurse school ① Establish a health brigade ② Regularly inspect hotels, restaurants, factories and theaters ③ Clean city streets regularly ④ Ask the homeowner to clean the yard ⑤ Repair the sewer pipe
1927	cholera	A total of 409 people fell ill and 320 died	Begin to cite cholera vaccine
1932		Cholera continues to spread	Opened a cholera vaccine health station
1937		615 sick	About 30,000 residents were vaccinated against cholera
1938		1059 people sick	About 100,000 residents were vaccinated against cholera
1942		As a result of the Anti-Japanese War, refugees from mainland China flooded into Macau, and a large number of corpses floated in the inland river along the border of Macau, leading to an outbreak of cholera	Restrictions on mainland Chinese residents from transiting through Macau

2.6. Stabilize the Mood of Citizens

Macau has experienced plagues for a long time in history. So in the Ruins of the Ruins of St. Paul's in Macau, which is also part of St. Paul's College of Macau, during the construction period, a bronze statue of Luís Gonzaga (Luís Gonzaga) was placed on the far right side of the second floor, because he died while rescuing plague patients. Therefore, Catholic believers believe that he can protect the citizens from the plague and eliminate the panic about the plague. In addition, Baogong Temple and Nezha Temple were built successively for the Chinese. The purpose was to pray to the gods to get rid of the plague and to soothe the public's panic about the plague to a certain extent.



Fig 4. The first historical photo of the plague in Macau on March 24, 1895

3. SARS Epidemic Situation and Measures in Macau

SARS broke out in Hong Kong on March 12, 2003, and Macau has been infected with zero during the same period. It was not until May 10 that the first imported case from Zhuhai was confirmed. The Macau authorities immediately quarantined all people who had contact with the sick, and the hospital refused to visit the sick. , Successfully prevented the virus from entering the community, with only one case, and it has never been included in any "blacklist" by the WHO. However, in order to control the spread of the SARS epidemic, the Macau Special Administrative Region also took many preventive measures at that time, such as:

- (1) From April 26, 2003, the area entering the casino will be subject to heat detection;
- (2) It was announced on April 28, 2003 that all persons entering Macau during the May 1st Golden Week must undergo a health entry declaration. At the same time, all port personnel entering Macau will be subject to a "hot check", and a daily notification mechanism of SARS will be established with Zhuhai;
- (3) From May 4 to May 5, 2003, Macau held a SARS prevention exercise and invited experts from the World Health Organization to give lectures on SARS in Macau;
- (4) On May 11, 2003, the first SARS case was confirmed. Immediately, the SARS response team in Macau was officially launched. The Director of the Macau Health Bureau issued a special announcement on the occurrence of SARS cases, and Australia and Zhuhai upgraded the real-time notification mechanism to strengthen communication on the SARS epidemic. , And purchase insurance for front-line medical staff in the fight against SARS;
- (5) On May 20, 2003, Macau implemented body temperature measurement in public places, and issued a CD-ROM for SARS prevention;
- (6) At the end of May 2003, Macau implemented health surveillance for people living outside for more than one month. At the same time, Guangdong, Hong Kong and Macau further expanded the communicable disease notification mechanism.
- (7) On June 14, 2003, the only SARS patient in Macau recovered and was discharged and the isolation ward was closed.

On the whole, Macau has controlled the SARS epidemic relatively well, with only one patient, and strict management is implemented whether it is from the community, public place or port of entry. Macau is adjacent to Zhongshan and Zhuhai, and many medical personnel in the two places are trained under the same system, and the relationship is very close. In addition, in 2003, compared with the present, the convenience of transportation and other aspects is still far from enough, which has a certain inhibitory effect on infectious diseases, and the notification mechanism between the two places is conducive to the timely transmission of the epidemic and is convenient for management and control.

4. The Situation and Measures of the Novel Coronavirus Pneumonia Epidemic in Macau

In early 2020, after the outbreak of the new coronavirus in Mainland China, the epidemic quickly swept the world. The first case occurred in Macau on January 22, and there has been a gradual increase in prevention and control efforts. Until the end of April, the epidemic was effectively controlled, and a total of 45 patients were discharged one after another. 3994 suspected cases have been ruled out, and finally achieved the proud score of 0 patients in the city. See Table 2 below for details.

Macau has taken the lead in achieving zero patients in the Guangdong-Hong Kong-Macau Greater Bay Area. As of the end of June, there have been no new imported cases for more than 70 consecutive days, thanks to Macau's efficient urban epidemic prevention and control measures. Looking back at Macau's epidemic prevention measures in the first half of 2020, there are mainly the following seven points:

4.1. Prevent Overseas Import Channels

After Macau confirmed a group of cases of new coronary pneumonia in Mainland China on December 31, 2019, on January 1, 2020, it began to implement a comprehensive temperature measurement of people arriving in Macau at the airport. As China's awareness of new coronary pneumonia continues to deepen, Macau's epidemic prevention measures have also been continuously improved. The "New Coronavirus Infection Response Coordination Center" was quickly established. After the first case was confirmed in Macau, the epidemic was completely

suspended. Tour groups and flight schedules in high-incidence areas. Since then, the community transmission of new crown pneumonia in Macau has continued to spread. Macau Customs has implemented 6-hour medical observation and 14-day medical isolation observation in low- and high-risk areas, respectively, which not only guarantees the passage needs of some people, but also effectively prevents them. Foreign import of the epidemic.

After the local epidemic has been effectively controlled, in order to ensure the travel needs of cross-border students and labor, the immigration policy has shown flexibility and relaxation. In addition, the "health code" and nucleic acid quarantine results of Guangdong and Macau have also achieved mutual recognition. There is also certain basic support for improving the strict prevention of entry and exit conditions.

4.2. Comprehensive Testing of Risk Groups

The full implementation of nucleic acid testing for COVID-19 can not only consolidate the results of epidemic prevention, but also reduce the risk of potential virus carriers spreading in the community, especially those who are at higher risk of COVID-19 transmission, such as students, faculty and staff, and staff of community service agencies, Fishermen, cross-border workers and residents. While the ability of nucleic acid testing continues to increase, Macau has continuously expanded the scope and number of testing, and implemented comprehensive nucleic acid testing for high-risk groups. For example, on April 27, after the promulgation of a phased resumption plan, 5,000 junior high schools in Macau And faculty members to conduct a comprehensive nucleic acid test of the new coronavirus pneumonia. Starting from May 7, it is estimated that approximately 15,000 cross-border students, laborers, and residents will undergo weekly routine testing.

4.3. Timely Report Epidemic Information

After Macau established the Novel Coronavirus Infection Response Coordination Center on January 21, the department held regular press conferences every day, using text, illustrations, photos, videos and animations on websites, TV, radio, and mainstream social platforms at home and abroad. The latest epidemic situation and response measures can be updated in the form of such as so that citizens can receive the epidemic situation as soon as possible, prevent and avoid travel in high-incidence areas in advance, and organize citizens to purchase masks and other epidemic prevention materials in a centralized manner to avoid running on medical supplies. Drive up prices.

4.4. Comprehensive Isolation of High-Risk Groups

After finding confirmed patients with new coronary pneumonia, timely conduct nucleic acid testing and 14-day medical quarantine for those who have close contact with them, and conduct comprehensive cleaning and disinfection of the activity places and homes of the patients and their close contacts, and cut off them. The source of the epidemic, reducing the risk of the epidemic spreading in the community.

4.5. Treat Confirmed Patients as Soon as Possible

The quarantine for entering Macau is very strict. At present, in addition to holding a 7-day nucleic acid test report and a green Macau health code, medical observations will be arranged for people entering from areas with high or medium-risk epidemics. Come to find and further determine whether there are confirmed patients.

4.6. Regular Disinfection in Specific Places

Macau is densely populated, and disinfection in public places is very cautious. In casinos, public cultural buildings, hotels, shopping malls, bus stations, schools, etc., disinfection is done every half an hour or an hour, and a certain distance is also controlled when eating.

Table 2 Macau's new crown pneumonia epidemic development and prevention and control measures

Time node of the coronavirus outbreak (2020)		Coronavirus Outbreak	Prevention and control measures
month	day		
1	1	No diagnosis	Passengers arriving at the airport need to take their body temperature
	2		Passengers arriving in Wuhan from the airport need to fill in a health declaration form
	4		Passengers at all ports and airports need to take their body temperature
	21		Established "Coronavirus Infection Response Coordination Center"
	22	Macau confirmed 1 case of new coronary pneumonia for the first time	① Wear a mask and measure body temperature in indoor public casinos ② Suspended tours between Wuhan and Macau
	23	The number of confirmed patients increased to 2	Cancellation of large-scale New Year celebrations
	24	No addition	① The start of school is postponed to February 10 ② The swimming pool, sports field and other facilities under the jurisdiction of the Sports Bureau are temporarily closed
	26	5 newly diagnosed patients	-
	27	7 newly diagnosed patients	① Hubei and visitors who have been to Hubei within 14 days need to submit a medical certificate ② Visitors who have been to Hubei within 14 days are prohibited from entering indoor public entertainment places ③ Speed up the time of port clearance ④ Track and isolate people in Hubei, Australia
	30	No addition	① Indefinitely postpone the opening of classes for middle, small, children and colleges ② Establish a special hotel for medical observation
	3	8 newly diagnosed patients	Wear a mask when taking public transportation
	4	10 newly diagnosed patients	① Suspend public casinos for half a month ② Suspension of passenger navigation services
	2	20	No addition
26			Tourists who have been to South Korea in the 14 days before entry are required to be under medical isolation for 14 days
29			Tourists who have traveled to Italy or Iran in the 14 days before entry are required to be under medical isolation for 14 days
5			Temporary Medical Observatory moved to the Arena
6			All confirmed patients accumulated as of the day before have recovered and discharged
7			Arrange special planes to transfer Macau residents stranded in Hubei back to Macau
13			Education and Youth Bureau announces plans to resume classes in stages
16		11 newly diagnosed patients	-
17		The number of confirmed patients increased to 13	① Visitors from countries and regions other than the Mainland, Hong Kong, and Taiwan need to be medically isolated and observed for 14 days ② Add a second hotel dedicated to medical observation
18		15 newly diagnosed patients	Except for residents of the Mainland, Hong Kong, Taiwan and foreign workers, all non-Macau citizens are not allowed to enter the country
3	19	The number of confirmed patients increased to 17	① Add a third hotel dedicated to medical observation ② The Education and Youth Bureau cancels the plan to resume classes in stages
	20	No addition	Add a fourth hotel dedicated to medical observation
	21	18 newly diagnosed patients	Add fifth and sixth hotels exclusively for medical observation
	22	The number of confirmed patients increased to 20	Add a seventh hotel dedicated to medical observation
	23	25 newly diagnosed patients	Add an eighth hotel dedicated to medical observation
	25	The number of confirmed patients increased to 30	① Add a ninth hotel dedicated to medical observation ② People from the Mainland, Hong Kong, and Taiwan who have traveled abroad within 14 days are prohibited from entering the country ③ People who have traveled to and from Hong Kong, Taiwan and other regions within 14 days need to be medically isolated and observed for 14 days ④ Stop transfer service at the airport
	26	33 newly diagnosed patients	Add a tenth hotel dedicated to medical observation
	27	The number of confirmed patients increased to 34	Adding the 11th hotel exclusively for medical observation
	28	The number of confirmed patients increased to 37	Added the 12th hotel dedicated to medical observation
	29	The number of confirmed patients increased to 38	The 18th patient is the first severe patient
	2	The number of confirmed patients increased to 41	Guangdong-Macau, Guangdong-Hong Kong-Macau two and three places license vehicles banned from entering Zhuhai
	5	The number of confirmed patients increased to 44	Shorten customs clearance time (10:00-20:00)
4	6	No addition	Shuttle bus suspension of Hong Kong-Zhuhai-Macau Bridge
	8	The number of confirmed patients increased to 45	-
	9	No addition	Adjust the medical arrangement on public holidays and maintain relevant medical services

Time node of the coronavirus outbreak (2020) month	day	Coronavirus Outbreak	Prevention and control measures
	10		Rehabilitated people in Hong Kong need medical isolation and observation for 14 days when returning to Australia
	11		The North Sampan Wharf is temporarily suspended, and the Inner Harbor South Sampan Wharf is used instead
	12		Certain persons entering Australia need to have a valid nucleic acid test report within 7 days
	19		Education and Youth Bureau announces phased resumption plan
	25		Non-higher education employees and cross-border students need to undergo nucleic acid testing
	29		Adjust the medical arrangement on public holidays and maintain relevant medical services
	3		Enable Macau health code, distinguish health status by three colors
	7		Macau residents living across borders will undergo regular nucleic acid testing
5	10		Mutual Recognition of Macau Health Code and Guangdong Yuekang Code
	17		The nucleic acid test report of inbound people takes effect after 24 hours
	19		All confirmed patients accumulated as of the day before have recovered and discharged
	11		Opening of applications for Macau residents to enter Zhuhai for medical observation without isolation
6	17		Those who have been to Beijing 14 days before entering the country need to be under medical isolation for 14 days

4.7. Vigorously Promote Epidemic Prevention Knowledge

During the epidemic, the Macau Special Administrative Region set up a special page of the Novel Coronavirus Infection Response Coordination Center to update the epidemic news, entry and exit quarantine measures, and mask sales information every day. A press conference on the epidemic was held at 5 pm every day to inform in real time. Citizens, the website has also updated the graphic package intimately to disseminate knowledge and information on epidemic prevention more efficiently.

5. Conclusion

The Macau government's ability to quickly grasp the current situation of the epidemic and flexibly promulgate and implement corresponding policies is related to Macau's four major epidemic prevention advantages:

- (1) The islands in Macau are small in size, which makes it easy to coordinate public functions such as medical care, public security, customs, and news;
- (2) The Macau government has a sufficient budget, which not only guarantees the economic ability to purchase a large number of epidemic prevention and medical supplies in a short period of time, but also has certain economic strength to stabilize the society during the period of public expenditure exemption, economic subsidies, and work-for-work suspension.
- (3) The Macau system has a certain degree of flexibility, with few administrative levels, fast processes, and rapid implementation of funding and personnel arrangements;
- (4) The local population of Macau is relatively small.

In the Guangdong-Hong Kong-Macau Greater Bay Area, Guangdong has a permanent population of 115 million (Statistical Bureau of Guangdong Province, 2019), a permanent population of 7.5 million in Hong Kong (Hong Kong Special Administrative Region Census and Statistics Department, 2019), and a permanent population of Macau of 679,000 (Macau Statistics and Census Bureau, 2019), Macau has a relatively small population and is easy to carry out general inspections and quarantine and epidemic prevention promotion. In the gradual restoration of the entry-exit policy for specific persons to and from Guangdong and Macau and the reporting, application, presentation, and submission of anti-epidemic measures for entry to Macau, we also have experience in tracking the floating population, and the relative epidemic information is more transparent and overall control. The effect is even more significant. I believe that under the persistence of the current countermeasures, Macau will soon enter economic recovery,

gradually resume customs clearance between the two places, and return to the daily routine of "tourist city".

References

- [1] Marilyn Laura Bowman. James Legge and the Chinese Classics: A brilliant Scot in the turmoil of colonial Hong Kong (FriesenPress, Canada 2016)
- [2] José da Conceição Afonso: The Trial Compilation of Macau Health History (Administration, Macau 2005), Vol 18, No.4, p1269-1302.
- [3] Lucio Augusto da Silva. Relatório sobre a epidemia de colera-morbus em Macau no anno de 1862 (Typographia Mercantil, Macau 1883)
- [4] Guo Weidong: The Plague of 1895: Public Epidemic Prevention in Macau (The Soul of China, Beijing 2014), Vol 05, p.28-30.
- [5] Wang Jingquan: The establishment and evolution of Macau Leprosy Hospital (Chinese Journal of Leprosy and Skin Diseases, Shandong 2018), Vol 04, p.4.