## Chapter 7 G.7 A Study on the Public Health Emergency Response Mechanisms of Chinese Cruise Ports



Fangyuan Lyu

Public health emergencies refer to natural disasters, accidents, public health events, and social security events that take place all out of a sudden and do or are likely to do serious harm to society, and thus need emergency responses. As a key point on the cruise service chain, the cruise port is easy to see all kinds of emergencies (such as natural disasters, accidents, public health emergencies, and social security events). Cruise port emergencies are events that take place within the operational areas of cruise ports, lead to or are likely to lead to personal injury, property damage, or inability to maintain normal operation of the ports, and call for emergency treatment, personnel evacuation, or rescue and emergency transport support. Cruise port emergencies are featured with latency, burstiness, destructiveness, continuity, and complexity. Probing into the reasons and solutions to cruise port emergencies is key for controlling the emergency risk and lowering the loss. After the National Health Commission announced to include COVID-19 on the list of category B infectious diseases and took the response measures for category A infectious diseases on January 20, 2020, the pandemic became a public health emergency that impacted the operation of cruise ports.

# **Overview of Theories on Public Health Emergency at Cruise Ports**

### Types of Public Health Emergencies

Public health emergencies mainly include the discovery of quarantinable diseases or category A infectious diseases, the large-scale outbreak and spread of categories B

Current Chinese Economic Report Series, https://doi.org/10.1007/978-981-19-9414-2\_7

F. Lyu (🖂)

Shanghai Maritime University, Shanghai, China

<sup>©</sup> The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd. 2023 107 H. Wang et al. (eds.), *Report on the Development of Cruise Industry in China (2021)*,

and C infectious diseases, the occurrence or spread of emerging infectious diseases in or to China, or the coming back of infectious diseases once announced to be eradicated by the nation; foodborne infections reported in cruise port areas; nuclear, biological, and chemical emergencies at home or abroad that might endanger cruise port areas; other public health emergencies identified by the National Health Commission that demand response.

#### Levels of Public Health Emergencies

Public health emergencies fall into serious (first-level), relatively serious (secondlevel), and general (third-level) public health emergencies by nature, the extent of harm, and coverage. Serious (first-level) public health emergencies: Tourists and port staff are infected with quarantinable diseases or infectious diseases announced by the General Administration of Quality Supervision, Inspection and Quarantine for close attention and have led to death; food poisoning events at the ports where more than ten people are poisoned or some people are poisoned to death; nuclear, biological, and chemical emergencies where terrorism cannot be ruled out; other serious public health emergencies identified by the National Health Commission.

Relatively serious (second-level) public health emergencies: Tourists and port staff are infected with quarantinable diseases or infectious diseases announced by the General Administration of Quality Supervision, Inspection and Quarantine for close attention but haven't led to death; posts, public areas, transportation, goods, containers, luggage, parcels, etc., are infected with quarantinable diseases or infectious diseases announced by the General Administration of Quality Supervision, Inspection and Quarantine for close attention; food poisoning events at the ports where 5–9 people are poisoned; medical vectors are intercepted and tested positive for the pathogen; other public health events that could cause serious impact.

General (third-level) public health emergencies: Posts, public areas, and inbound and outbound personnel, transportation, goods, containers, luggage, parcels, etc., are contaminated with other pathogens; food poisoning events where less than five people are poisoned; nuclear, biological, and chemical emergencies where terrorism can be ruled out; other public health events that could cause relatively serious impact.

Reporting of foreign-related and sensitive events and events that might deteriorate should be strengthened, and their response level should be lifted.

# **Response Procedures for Public Health Emergencies at Cruise Ports**

### Management of Inbound and Outbound Personnel at Cruise Ports

When the State Council, the General Administration of Customs, the health administrative departments, and other government agencies issue the relevant announcements or notices, efforts should be made to identify the countries or regions needing close attention according to the announcements or notices, and manage inbound and outbound personnel, especially those from or passing the countries or regions needing close attention during the specific period (including medium- and highrisk domestic areas) and those with the relevant symptoms. During the COVID-19 response period, if staff members of cruise companies and port operators need to get on board or off their ships, such companies and operators should make work plans and submit them to the office of the COVID-19 response leading group for approval and going through the necessary formalities. Cruise companies and travel agencies are responsible for collecting and screening information of tourists from the countries or regions needing close attention (including ID number and the information of tour group members whose passports are obtained from the places needing close attention, who join tour groups in such places and who set off or need to pass such places), and identify and discourage people needing close attention from going abroad. During the ticket selling or boarding formality processing, cruise operators should suspend such selling or processing if they find the outbound personnel with the infectious disease symptoms needing close attention or from the medium- or high-risk domestic areas. Cruise companies should take effective measures to stem the spread of the pandemic. During the COVID-19 response, only tourists with the valid nucleic acid test certificate (within seven days), green health code, green big data card, or effective health certificate for international travel and with normal body temperature could get on board cruise ships with their tickets. If port operators, border inspection stations, and other competent departments find the outbound personnel with infectious disease symptoms needing close attention or from domestic areas with medium or high risk of COVID-19 during the exit formality processing, they should discourage such personnel from getting on board and report to the superior immediately.

Where it is found through cruise companies' screening or tourists' reporting that someone on the inbound personnel list is from or has passed the areas needing close attention or is with fever, diarrhea, vomiting, and other infectious disease symptoms, the cruise companies should immediately notice such person and his or her close contacts (expanding to the secondary close contacts for suspected infections) to wait in the specific area on board and report to the emergency response command. The customs office is to conduct the quarantine and screening according to the control order. According to the relevant pandemic control regulations, to get off the ship and enter Shanghai, crew members should pass the customs quarantine and be tested negative for COVID-19. And the customs office should notify the border inspection department on this, and the latter is to process the disembarkation and entry formalities to allow such members to disembark and enter Shanghai. Crew members found with the relevant symptoms or conditions needing close attention should be immediately reported to the emergency response command and rejected for disembarkation or entry. To tourists, the latest regulations should apply.

#### **Detection and Reporting**

Port operators or staff (including work staff, cruise companies, shipping agencies, etc., of cruise ports) finding or knowing from reporting personnel with infectious disease symptoms (such as fever, cough, expectoration, chest pain, anhelation, and breathing difficulties) should lose no time in notifying the nearest customs officer and take emergency response measures that they are capable of (including but not limited to wearing disposable surgery masks, quarantining the suspected infections and setting alert limits). After receiving such reporting, customs officers should immediately organize screening to identify people with infectious disease symptoms, suspected infections, confirmed infections, or asymptomatic carriers and their close contacts, and report to local customs leaders for further reporting to the emergency response command. The command is to notify the relevant agencies and departments for a joint response.

# Treatment of Suspected Infections of Major Infectious Diseases and Their Close Contacts

Efforts should be made to identify suspected infections according to the national standards and screen their close contacts based on the types of infectious diseases. People identified by the customs departments as with symptoms, suspected infections, confirmed infections, or asymptomatic carriers of infectious diseases needing close attention should be rejected for entry and reported to the emergency response command and should be transferred by a special ambulance of the local health committee (negative pressure ambulances should be used for respiratory infections) to a designated hospital. Close contacts are subject to information reporting and centralized quarantine and medical observation organized by the local health committee. The handover process should be recorded in a detailed way. People from areas with medium and high COVID-19 risks should be rejected for entry, reported to the emergency response command, and handed over to the local health committee for management according to the response requirements. If tourists with infectious

disease symptoms not under enforcement insist on boarding despite the discouragement, they should be required to sign a notification and reported by the customs to their cruise operators for treatment.

Cruise operators should strengthen the inspection during the voyage and monitor all people onboard for infectious disease symptoms. They should timely report people with fever, diarrhea, vomiting, and other infectious disease symptoms (if any). Medical centers onboard should conduct a classified diagnosis to patients and wear masks and other protective equipment when treating patients with fever and other infectious disease symptoms. When finding people with the symptoms, suspected infections, confirmed infections, or asymptomatic carriers of infectious diseases, they should immediately take quarantine measures, identify the contaminated areas, strictly limit people from entering such areas, and promptly report to local customs. Entering cruises are subject to quarantine by the customs according to the response order. If a public health emergency is identified, it should be immediately reported to the emergency response command. The command is to determine the treatment plans, screen out the close contacts, and issue the orders on whether the people planning to get off could now disembark and where to go for quarantine, considering the specific condition. If finding people with the symptoms, suspected infections, confirmed infections, or asymptomatic carriers of infectious diseases at the entry corridor, the local customs should promptly notify cruise ports and companies to suspend the boarding, disembarkation, and luggage handling, and report to the emergency response command. Anyone identified as with diseases and forbidden to enter should be quarantined according to the relevant regulations. For people with other diseases, the local customs should contact the local health committee to arrange a special ambulance to transfer them to the designated hospital. Before being transferred, the patients should be reported by the local customs to the border inspection station for entry formality processing. Those judged as forbidden to enter should be escorted by the customs back to the ship. The ship operator should ensure their quarantine. Those judged by the border inspection station as allowed to enter should enter after their entry formalities are done and through the specified transfer route.

#### Cruise Ports and Cruise Quarantine

People with infectious disease symptoms, suspected infections, confirmed infections, or asymptomatic carriers and their close contacts should be quarantined strictly following the response requirements, and the port areas, environment, and luggage contaminated should be disinfected. People with infectious disease symptoms, suspected infections, confirmed infections, or asymptomatic carriers and their close contacts, if quarantined on board, should be quarantined individually, and the medical center, compartment, and public area should be disinfected regularly. For the transfer of those with infectious disease symptoms, suspected infections, confirmed infections, or asymptomatic carriers and their close contacts, special ambulances should be used (negative pressure ambulances should be used for respiratory infections), and their companions should be sent separately for accompanying. The ambulance and areas that might be contaminated should be disinfected by the local health committee. Local customs department is responsible for the disinfection of the medical screening room, fast testing room, negative pressure quarantine area, and goods within the customs site. Cruise ports are responsible for the disinfection of the public area of cruise ports and the luggage of confirmed infections and their close contacts under the instruction of the customs, and timely dispose of the medical waste. The technical training for the relevant staff should be strengthened to ensure a prompt, efficient, and scientific response to public health emergencies.

### **Establishing Joint Public Health Emergency Response Mechanisms for Cruise Ports**

#### Setting up the Port Emergency Response Command

The emergency response command serves as a coordinating agency for unified command of the emergency response to public health emergencies at cruise ports. It's responsible for launching and terminating the emergency response plans, organizing, coordinating, and mobilizing each of the departments concerned to participate in the public health emergency response, establishing joint response mechanisms, organizing the specialized experts for technical and strategic supports, ensuring the supply of the goods for such response, closing and controlling the contaminated area according to law, managing the food and water source, unifying the information reporting, timely releasing the relevant information, offering positive guidance on public opinions, announcing to close or re-open the port, etc. It's necessary to set up the office of emergency response command for communication between the superior and the subordinate, coordinate the departments concerned, maintain effective communication, realize effective cooperation, organize the materials and human resources needed for public health emergency response, and coordinate to prepare the centralized medical observation site.

#### Specifying Responsibilities of All Departments of Cruise Ports

The customs department is mainly responsible for the quarantine and inspection of coming and leaving cruises, persons, and luggage; monitoring and warning, and site treatment, control, and handover of public health emergencies; guiding cruise ports on the disinfection of port areas, other environment, and luggage that might be contaminated (Table 7.1).

The information of people identified during the quarantine as with the infectious disease symptoms, suspected infections, confirmed infections, or asymptomatic

S/N	Responsibilities	
1	Announcing to launch and terminate the emergency response plans	
2	Organizing, coordinating, and mobilizing each of the departments concerned to participate in the public health emergency response, and establishing joint response mechanisms	
3	Organizing the specialized experts for technical and strategic supports	
4	Ensuring the supply of the goods for the public health emergency response	
5	Closing and controlling the contaminated area according to law and managing the food and water source	
6	Unifying the information reporting, timely releasing the relevant information, and offering positive guidance on public opinions	
7	Announcing to close or re-open the port	

 Table 7.1
 Responsibilities of the public health emergency response command of cruise ports

carriers and their close contacts, and people from areas with medium COVID-19 risk (including name, ID number, etc.) should be reported to the emergency response command, which is to organize the local health committee and other relevant departments for tracing and screening. The border inspection station is responsible for processing the entry formalities for tourists and crew members; inquiring and providing the entry-exit information of tourists and crew members according to the requirements of the emergency response command and the approval of the superior; sharing the identity information (including name, gender, date of birth, nationality, entry-exit certificate number), and time and ports of entry and exit of tourists who have traveled to high-risk countries (regions), to support the competent departments to trace and screen inbound and outbound personnel. The maritime department is responsible for maintaining the order of cruises berthing at and leaving the terminal and the order of shipping lanes; accepting the rescue application from crew members needing urgent rescue, timely reporting to the health, customs, and border inspection agencies, and organizing the rescue based on the conditions; carrying out the distant inspection of cruise auxiliary operation boats allowed by the health quarantine department and urging them to take response measures; coordinating port companies and cruise operators to take measures to ensure the shipping lane safety during the berthing of cruises (Table 7.2).

# Specifying the Responsibilities of the Local Governments of Cruise Ports

Local health departments of cruise ports should make effective efforts in guaranteeing medical pandemic response supplies, domestic pandemic prevention, emergent transfer, and medical treatment; supporting the health information reporting and sharing; offering on-site first aid and medical aid to people getting sick due to public health emergencies; arranging special ambulances to transfer patients in urgent need

S/N	Departments	Related responsibilities
1	Emergency Response Command	Coordinating and establishing a joint response mechanism
2	News Department	Instructing and organizing the collection and study of public opinions, media communication, caliber coordination, and information release
3	Customs Department	Quarantine and inspection of inbound and outbound cruises, personnel and luggage, monitoring and warning of public health emergencies, site treatment, control, and handover
4	Border Inspection Station	Processing entry-exit formalities for tourists and crew members
5	Maritime Department	Maintaining the order of cruises berthing at and leaving the terminal and the order of shipping lanes
6	Health Department	Guaranteeing medical pandemic response supplies, domestic pandemic prevention, emergent transfer, medical treatment, etc.
7	Police Department	Identifying and controlling people needing close attention through identify screening, etc.
8	Commerce Department	Coordinating to ensure the general pandemic response goods for public health emergencies
9	Transport Department	Deploying the vehicles for transferring tourists and crew members
10	Emergency Management Department	Assisting the emergency response command in command of emergency rescue and coordinating the professional emergency response team for rescue if necessary
11	Culture and Tourism Department	Educating and pacifying travel agencies and tourists, settling tourist disputes, and cooperating with the establishment of the centralized medical observation sites
	The ecological environment department	Monitoring the possible environmental contamination on the site and offering advice on contaminant treatment
12	Cruise Port	Ensuring facilities and equipment on the site and their normal operation
13	Cruise Companies and Shipping Agencies	Making the cruise OPRP (pandemic response plan) and ensuring the effective implementation

 Table 7.2
 Concerned departments of cruise port public health emergencies and their responsibilities

of such transfer to the designated hospital; arranging a further medical screening, epidemiological investigation, and quarantine for people with the infectious disease symptoms, suspected infections, confirmed infections, or asymptomatic carriers and their close contacts; timely reporting the test results, diagnosis results, and quarantine tracing results to the emergency response command. Through identity screening, the police department is responsible for identifying and controlling the focused groups, and inquiring and providing personal data of tourists and crew members as required by the emergency response command; keeping the site in good order, directing traffic and providing police services; assisting in the enforcement of entities or individuals that reject to cooperate in public health emergencies; assisting in the lockdown of pandemic source areas and infection source forced quarantine based on the certificate information provided by the competent department and the identity information of people who have traveled to countries (regions) with high pandemic risk; opening up "green channels" timely for urgent rescue to ensure smooth passing of vehicles and personnel for responding public health emergencies. Other relevant departments should work together to ensure the supply of general pandemic response goods for public health emergencies, arrange vehicles to transfer tourists and crew members, assist the emergency response command in urgent rescue, and coordinate professional rescue teams for rescue if necessary.

#### Specifying the Responsibilities of Market Players

Cruise ports are responsible for the normal operation of their port equipment and facilities; the management of and pandemic response requirement promotion to people entering and exiting the ports, getting on and off the cruise ships, and the port staff; assistance in organizing the on-site treatment and control, port order maintenance, and entrance and exit closure or opening. Cruise ports should deploy human resources and materials for the site, support to transfer and quarantine people with infectious disease symptoms, suspected infections, confirmed infections, or asymptomatic carriers and their close contacts, and cooperate with the customs by providing medical aid; disinfect the port areas, environment, and luggage that might be contaminated; provide personal data to the competent departments, arrange accommodation and meals for people quarantined, etc. Cruise companies and shipping agencies should lay down the cruise OPRP complying with Chinese pandemic response requirements and ensure its effective implementation; take public health emergency response measures strictly following the requirements of the Chinese government; instruct tourists to correctly fill in their personal health information in the previous 24 h before entering on the mobile reporting app of the customs; provide tourists and crew members with the realtime locating equipment for close contact identification, and timely and accurately report the information and treatment results of people with the infectious disease symptoms, suspected infections, confirmed infections or asymptomatic carriers and their close contacts, as well as those from medium- and high-risk areas onboard. Cruise companies should timely and accurately report the information of tourists

and crew members in full and in the specified format. Those companies should keep their tourists and staff on board and getting on and off in good order.

### **Bibliography**

- Wang H (EIC) (2014) Green book of cruise industry: annual report on China's cruise industry (2014). Social Sciences Academic Press, Beijing
- Wang H (EIC) (2015) Green book of cruise industry: annual report on China's cruise industry (2015). Social Sciences Academic Press, Beijing
- Wang H (EIC) (2016) Green book of cruise industry: annual report on China's cruise industry (2016). Social Sciences Academic Press, Beijing
- Wang H (EIC) (2017) Green book of cruise industry: annual report on China's cruise industry (2017). Social Sciences Academic Press, Beijing
- Wang H (EIC) (2018) Green book of cruise industry: annual report on China's cruise industry (2018). Social Sciences Academic Press, Beijing
- Wang H (EIC) (2019) Green book of cruise industry: annual report on China's cruise industry (2019). Social Sciences Academic Press, Beijing
- Wang H (EIC) (2020) Green book of cruise industry: annual report on China's cruise industry (2020). Social Sciences Academic Press, Beijing