

Rethinking governance of public health emergencies aboard international cruise ships in the post-COVID era

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CITATION

Li K. (2024). Rethinking governance of public health emergencies aboard international cruise ships in the post-COVID era. *Journal of Infrastructure, Policy and Development*. 8(9): 7162. <https://doi.org/10.24294/jipd.v8i9.7162>

ARTICLE INFO

Received: 14 June 2024

Accepted: 22 July 2024

Available online: 4 September 2024

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Abstract: The COVID-19 outbreak on international cruise ships during the early stages of the pandemic has exposed deficiencies in the governance of public health emergencies within the framework of existing international law. These deficiencies encompass various aspects, including the shortcomings of the system of flag state jurisdiction, the vague definition and reasonableness of governments' "additional health measures" as stipulated in the International Health Regulations (IHR) of 2005, the role of World Health Organization (WHO) in the protection of the fundamental rights of passengers and crew members during epidemic outbreaks on cruise ships, the application of the *free pratique* rule under the international health law, and other challenges that have not been adequately addressed in current international law. In the post-COVID era, it is essential to revisit these core issues of international law and reassess the allocation of responsibilities among all evolving actors to foster effective multilateral cooperation in epidemic control. This paper adopts the "Diamond Princess" incident as a case study, examining how such public health emergencies pose challenges to international laws, particularly when they occur within the context of a cruise ship. The paper argues that cooperation on global health emergencies will continue to be a challenge until responsibility is more clearly allocated among stakeholders. Additionally, the paper formulates three principles for enhancing governmental cooperation, namely the fairness principle, the nationality principle, and the principle of common but differentiated responsibilities. It is advisable to carefully consider these key principles when reevaluating the international laws on public health emergencies in the post-COVID era.

Keywords: public health emergencies; responsibilities; disease control; international cruise ships; global health governance

1. Introduction

Infectious diseases are the biggest threat to public health. According to the 2018 annual report on the implementation of International Health Regulations (2005) (IHR 2005), from January to December 2017, 72 per cent of recorded public health events are attributed to infectious diseases (WHO, 2018). On 2 February 2020, Japanese authorities invoked the Quarantine Act (Japanese law translation, 1951) to quarantine the 'Diamond Princess', a British-registered cruise ship on her way back to Yokohama Port after 14 days at sea. This was in response to the information that a Hong Kong passenger who had disembarked from the cruise had been confirmed as infected with the coronavirus (hereinafter referred to as COVID-19). However, the effectiveness of this measure has been questioned. By 20 February, Ministry of Health, Labour and

Welfare of Japan reported that 253 coronavirus cases had been identified aboard the 'Diamond Princess'. (MHLW report, 2020). According to the WHO, more than half of the COVID-19 cases outside China on that date were among the passengers and crew on the 'Diamond Princess' cruise ship (Belam, 2020). In addition, other cruise ships, such as the 'Westerdam', were turned away from the ports of many countries due to on-board sickness. These incidents have led to controversy over the responsibilities of coastal states for public safety emergencies on cruise ships.

It is essential to acknowledge the substantial contribution of cruise tourism to global economic development (UNWTO and IMO, 2020). Nonetheless, as nations grappled with the economic ramifications of the pandemic and prepared to recommence cruise ship operations, the insights gained from the 'Diamond Princess' crisis underscore the necessity for the cruise industry to meticulously oversee health protocols, ensuring a safe, secure, and uninterrupted experience for passengers and crew members, as well as the well-being of the populations residing in the destination port States of these cruise vessels.

Public safety emergencies on cruise ships have the following distinctive features. First, their occurrence during international health emergencies is highly probable. Transportation modes such as cruise ships and airplanes may make stops in many countries and the passengers are highly mobile and may have travelled in multiple countries. If there is an outbreak of a viral disease in one country, cruise ships and airplanes may become the main vectors for the transnational movement of the virus. Hence, it is not surprising to find infected passengers on board such transportation modes. Second, once introduced into such spaces, viruses spread widely and are uncontrollable. Given the enclosed environment of a cruise ship and the fact that most on-board activities are group activities, an infected passenger may spread the infectious disease throughout the ship. In addition, the limited space and medical resources on cruise ships make it difficult to properly handle mass infection events, which may cause uncontrollable transmission of the virus. Third, it is quite likely that public safety emergencies will reveal a management vacuum. As most cruises operate on the high seas, a cruise ship with an on-board public safety emergency may become a 'hot potato', as coastal states may refuse docking to a cruise ship with an outbreak on the grounds of national security. Thus, cruise ships are a special and important part of the global governance of public health emergencies, and raise complicated legal issues related to the conflict and coordination of international health law, the law of the sea, maritime law, diplomatic law etc. By examining the public health emergency that occurred on the 'Diamond Princess', this paper reveals how public health emergencies aboard cruise ships challenge traditional international laws.

Specifically, this paper examines how well existing international laws protect passengers and crew members aboard cruise ships from the perspectives of various responsible parties. First, it argues that public health emergencies on cruise ships should not solely be governed by flag states, which may have no genuine link with the cruise ships. Both the principle of fairness and the need for efficiency suggest that home port states should exercise primary jurisdiction over public health emergencies aboard cruise ships. Second, this paper discusses the issues related to home ports' core capacity building and implementation of emergency measures as outlined by the provisions of IHR 2005. Third, it addresses the coastal states' obligation of free

pratique and salvage under international health laws and admiralty laws, respectively, and analyses the application of consular protection to cruise ship passengers. Finally, in response to the lack of a mechanism for enforcing the shared responsibility for PHEIC outlined in IHR 2005, this paper discusses the responsibility of coastal states regarding public health emergencies on board cruise ships, and offers three principles for consideration: the fairness principle, the nationality principle and the principle of common but differentiated responsibility.

2. Challenge to the rules on the jurisdiction of flag states over cruise ships at sea

2.1. Jurisdiction of flag states and the lack of genuine links

The principle of flag states jurisdiction was established by the United Nations Convention on the Law of the Sea (UNCLOS). Paragraph 1 in Article 92 of UNCLOS provides that ‘ships shall sail under the flag of one State only and, save in exceptional cases expressly provided for in international treaties or in this Convention, shall be subject to its exclusive jurisdiction on the high seas. A ship may not change its flag during a voyage or while in a port of call, save in the case of a real transfer of ownership or change of registry’.(UNCLOS, 1982) Since the ‘Diamond Princess’ flies the flag of the United Kingdom (Equasis-Ship folder, n.d.), Japan’s media argued that, under international law, the UK, as the flag state, had jurisdiction over the cruise ship and was responsible for implementing measures to prevent the spread of infectious disease. Consequently, Japan was not obliged to admit the ‘Diamond Princess’ to its ports (Japanese Economic News, 2020).

The principle of flag states jurisdiction originates from the early days of shipping when the owner and the ship shared the same nationality. It means the flag state of a ship had jurisdiction over the ship when it was on the high seas; in another word, the flag state extended its national jurisdiction to the ship, which was considered a floating territory of the flag state. However, recognising a ship as a ‘floating territory’ is a serious challenge to modern laws of the sea (Awni Behnam, 2003). The application of a state’s territorial laws to a ship will inevitably result in overlapping jurisdictions when a ship sails in the territorial seas or territorial waters of another country.

More importantly, as flags of convenience have become ubiquitous, the principle of flag state jurisdiction has been increasingly criticised, given the lack of a genuine link between ships and their flag states. A flag of convenience is the flag of a country that a ship is registered in because of that country’s loose registration policies. Today, a ship’s owner frequently has a different nationality than the ship. For example, the flag state of the ‘Diamond Princess’ is the UK, but her owner, Fairline Shipping Intl Corp, which operates Carnival Cruises Corporation & PLC, is an American company. Furthermore, her home port is Yokohama, Japan, and most of her routes are between Japan and South Korea, far from her flag state, the UK. No country will actively respond to ships its nationals have hardly boarded or are geographically far apart. The lack of a genuine link may undermine the legitimacy and effectiveness of a flag state’s jurisdiction over a cruise ship.

2.2. Jurisdiction of flag states and the doctrine of ‘most significant contacts’

The doctrine of most significant contacts is a key principle in private international law. It allows a judge to determine the governing law by analyzing factors related to the legal relationship and applying the law of the place with the most significant connections to the case. This approach balances individual justice with the rights and obligations of the parties, moving beyond rigid statutory conflict laws to a more flexible, fair interpretation. In the US case *Babcock v Jackson*, involving a car accident during a trip from New York to Ontario, Judge Fuld ruled that New York had a closer connection to the case than Ontario, emphasizing that strict application of traditional conflict of laws could lead to unjust outcomes.

The doctrine of the most significant contacts has been used to weaken ships’ connections to their flag states. For example, in *Chartered Mercantile Bank of India, London, and China v The Netherlands India Steam Navigation Company Limited* a British company (the defendant) had merged with a Dutch company and thus gained ownership of a vessel flying the flag of the Netherlands. In that case, the British judge did not take the flag state as the vessel’s nationality, but pointed to the genuine link between the vessel and Britain, i.e. the beneficial and liable owner and operator of the vessel was a British company. Hence, the judge decided that the subject vessel had British nationality. Similarly, in the *Fantome* case in 2002, although the vessel in question was flying the flag of the Republic of Guinea, the ship owner and its main office were in the United States. Hence, the United States Court of Appeals held that the subject vessel had a genuine link with the United States (Symonides, 2004).

The ‘Diamond Princess’ case has further underscored the problems with flag state jurisdictions. As the flag state of that ship, the United Kingdom was far away from the ship’s East Asian routes, and thus could not effectively handle a public safety emergency. As flags of convenience are ubiquitous, the problem of determining jurisdiction over ships requires further discussion, i.e. should the law adhere to the traditional one-size-fits-all rules granting jurisdiction to flag states or should the doctrine of most significant contacts be introduced under private international law, giving jurisdiction to the countries of the ships’ owners and operators.

2.3. Jurisdictional obligations of the home port state

Cruise ships typically depart from a home port, serve multiple ports of call, and return to the home port. The ‘Diamond Princess’ was returning to its home port in Yokohama, Japan, during the COVID-19 outbreak. Given that Yokohama was the nearest and home port, it was the most suitable location for handling the emergency.

The home port, being the departure and destination point, the operator's main business location, and where most contracts are made, has contractual obligations to accept the ship. Additionally, as it is often in the passengers’ country of residence, it must protect its citizens during onboard emergencies.

Private international law supports that the home port has the ‘most significant contacts’ with the cruise ship. This is reflected in international conventions like the Athens Convention 2002 and the Rotterdam Rules, which emphasize connections beyond just the flag state. The home port holds a stronger link with the cruise ship due

to its role in the cruise contract, operations, and business activities compared to other ports. Article 2 of the Athens Convention 2002 specifies that the connecting factors necessary for the application of the Convention include not only the flag state and the state in which the contract of carriage has been made, but also the state where the place of departure or destination is located. Article 5 of the ‘General Scope of Application’ of the latest United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (the Rotterdam Rules, UN, A/RES/63/122), which has not yet come into force, states that the Convention applies to a contract of carriage as long as any one of the place of receipt, the port of loading, the place of delivery or the port of discharging is located in a contracting state. In addition, Paragraph 2 of Article 5 expressly provides that this Convention applies without regard to the nationality of the vessel or of any other interested parties, which directly negates the standing of the flag state as a connecting factor.

The home port is also the direct economic beneficiary of the cruise industry. The home port of a cruise ship, which is also the operating base of the cruise line, attracts a large number of cruise tourists and has comprehensive service functions and a high concentration of urban cruise-related industries (Ministry of Transport of the People’s Republic of China, 2015). At present, the global standard for defining a home port is either the annual number of passengers (more than 100,000 people) or the annual profits (more than 400 million US dollars). In 2003, cruise tourism in the United States generated 6.6 billion US dollars of spending, created 39,062 jobs and paid salaries amounting to 1.7 billion US dollars. The income of a home port is 10 to 14 times that of a port of call (Hao, 2008). Home ports have a more direct economic connection with cruise ships and the cruise industry than other ports. Thus, home ports should not only provide maintenance and repair services for cruise ships, they should also provide stronger support for crisis prevention and management, including more comprehensive and effective public health services. This would enhance the credibility and appeal of the cruise lines and the home ports. Thus, it is in the interests of both the cruise operator and the home port to put cruise ships under the jurisdiction of the home port.

Thus, convenience, legal obligations, and economic interests all point to the home port state having jurisdiction over onboard public safety emergencies. It is recommended that international health regulations be amended to explicitly include the home port’s responsibilities for public safety, passenger protection, and crisis management, promoting effective international cooperation.

3. Home ports’ responsibilities under international health law

As the home port of the ‘Diamond Princess’, Yokohama, Japan finally allowed the ship to enter the port. However, the measures subsequently adopted by the Japanese authorities have been criticised due to the rapid increase in the number of confirmed infections and deaths on board. This also sparked debate on how to evaluate the reasonableness of ‘additional measures’ taken by authorities and on the core capacities of cruises’ home ports.

3.1. Reasonability of the quarantine measure

COVID-19 was classified by the Japanese government as an infectious disease, as stipulated in Article 34 of the Quarantine Act which can be enacted if ‘there is a risk of pathogens thereof entering Japan or significant harm to the lives and health of the people’ (Cabinet Order No. 28 of 2020). Accordingly, the Japanese government detained the ‘Diamond Princess’, and quarantined it under Article 16(1) of the Act. (Ken-eki hō Act, 1951). It seems that the Japanese government’s detention and quarantine of the ships were consistent with its laws, and an exercise of its sovereignty. However, these actions do not discharge Japan’s obligations under international health law to take the necessary measures to protect the passengers’ human rights.

The requirement to protect human rights is not only a basic principle of IHR 2005 (Article 3, IHR 2005),¹ but there are substantial provisions in Article 3² and Article 43 (IHR 2005). Article 43, addressing ‘additional health measures,’ grants parties the authority to implement necessary health measures in response to specific public health emergencies of international concern. However, it stipulates that these measures ‘shall not be more restrictive of international traffic or more invasive or intrusive to individuals than reasonably available alternatives that would achieve the appropriate level of health protection’ (Article 43.1, IHR 2005).

When the ‘Diamond Princess’ arrived in port, Japanese authorities placed the entire cruise ship under a 14-day quarantine. However, this quarantine measure did not control the epidemic, but rather increased the transmission of the infectious disease on the ship. By 21 February, the number of confirmed COVID-19 cases on board the ‘Diamond Princess’ had increased from the initial 10 to 253. (MHLW report, 2020). There is reason to believe that this outcome was caused by improper quarantine measures. The enclosed cabins with a shared air conditioning system resulted in the continuous transmission of the virus on the cruise ship and aggravated the mass infection of the passengers and crewmembers. These conditions were inconsistent with the guidelines in the Handbook for Management of Public Health Events on Board Ships for the isolation and treatment of affected persons, which lists requirements for isolation, including ‘isolation room (to) have independent ventilation and/or negative pressure’ (WHO, 2016). Only some cabins on the ‘Diamond Princess’ had independent balconies and most of the cabins had no windows, which clearly did not satisfy the requirements for independent ventilation. Hence, the cruise ship was not suitable for long-term isolation. The National Institute of Infectious Diseases (NIID) of Japan released ‘Field Briefing: Diamond Princess COVID-19 Cases’ on 19 February 2020, pointing out that the passengers on the cruise ship had not been entirely isolated, as it was not possible to isolate all the individuals aboard (NIID, 2020). For example, some crew had to perform essential duties for the functioning of the cruise ship. Therefore, the cruise ship lacked the capacity to implement measures for isolation, epidemic prevention and quarantine. There were no scientific grounds for isolating the passengers on the ship for 14 days without considering their specific situation. In fact, these quarantine measures caused more passengers to be infected. It is unclear whether the Japanese authorities’ decision to invoke the strictest and most restrictive quarantine measures available in the Quarantine Act of Japan was consistent with the rationality requirement for additional quarantine measures discussed in

Article 43 of IHR 2005. Furthermore, the Japanese authorities' decision to transfer confirmed cases to designated facilities on land for treatment while leaving other passengers (including those who have not been tested and those who had been tested and shown to not be infected) on the cruise ship, could be considered discriminatory and unfair treatment of the passengers who were not infected.

The basic rights of passengers and crew on cruise ships are also covered by international conventions and industry rules. The International Labour Organization's (ILO) Maritime Labour Convention (2006) stipulates that flag states must ensure that all seafarers on ships flying their flag have adequate health protection and access to prompt and adequate medical care whilst working on board. The Convention also requires port states to ensure that seafarers on board ships in their territory who are in need of immediate medical care have access to medical facilities on shore. (ILO, 2006). These provisions are highlighted in the Circular Letter issued by International Maritime Organization (IMO) to all IMO member states after the outbreak of COVID-19 (IMO, 2020). The Cruise Industry Passenger Bill of Rights, issued by the Cruise Lines International Association, lists 10 rights of passengers, including 'the right to have available on-board ships operating beyond rivers or coastal waters full-time, professional emergency medical attention, as needed until shore side medical care becomes available'. However, during the pandemic, there have been media reports of travellers being quarantined and detained because they were on board 'Diamond Princess' (Julia Belluz, 2020), and the WHO does not have a mandate to investigate whether particular measures constitute violations of relevant provisions in the IHR 2005. The 'Diamond Princess' event demonstrates that the WHO does not have effective mechanisms for monitoring whether human rights are being respected during the implementation of IHR 2005. Moreover, due to the lack of enforcement mechanisms, IHR 2005 provides few formal channels outside of regular diplomatic channels for protecting the rights of travellers' who are subjected to isolation or quarantine. Nevertheless, IHR 2005 gives the WHO the right to consult with state parties about possible violations of human rights provisions in IHR 2005. Active use of the right to consult is viewed as crucial for increasing public acceptance of IHR 2005 (WHO, 2011).

3.2. Standards and assessments of ports' core capacities

Unlike the older version of IHR (IHR, 1969), which had the aim of detecting, reducing or eliminating infection sources (WHO, 1983) and thus preventing dissemination, IHR 2005 stresses (1) the importance of communication and cooperation in the global governance of disease reporting and responses and (2) the prevention of unnecessary intervention in travel and trade, and respect individual human rights (WHO, 2018). IHR 2005 outlines the obligations of every member state to develop their core capacities for disease surveillance and response, as detailed in Annex 1. The core capacity requirements for designated ports are classified into five areas: 'appropriate medical service', 'adequate staff, equipment and premises', 'access to equipment and personnel for the transport of ill travellers to an appropriate medical facility', 'trained personnel for the inspection of conveyances' and 'safe environment for travellers using point of entry facilities' (IHR 2005, ANNEX 1).

According to the latest ‘Annual Report on the Implementation of the International Health Regulations (2005)’ (WHO, 2018), the WHO received positive responses from the member states on the development of their core capacities. As of 6 March 2018, 158 (81 percent) of the 196 states parties had submitted the questionnaire sent by the WHO in June 2017 for the self-assessment of core capacities. In 2017, Japan’s rating on the 13 core capacity indicators was 100 per cent (WHO, 2018). Yokohama Port is the home port of the ‘Diamond Princess’ and is on the IHR List of Authorized ports to issue Ship Sanitation Certificates (WHO). It means the port has the capacity to provide public health services for the ‘Diamond Princes’, including the provision of quarantine premises, as required by under IHR 2005, and can rapidly and effectively mobilise medical resources.

After the ‘Diamond Princess’ docked at Yokohama Port, the Japanese Ministry of Health, Labour and Welfare explained that Japan did not have an isolation facility that could accommodate 3,700 people. According to the report of “Sina Finance”, the largest hotel in Tokyo could only accommodate 1,400 people and Kanagawa, where Yokohama Port is located, has a limited number of medical facilities (Xu, 2020). Therefore, isolation aboard was the most feasible solution. However, it was not possible to test 3700 passengers and crewmembers on board in a short period of time due to the limited testing capacity (300/day) in Japan, which resulted in a quarantine period of 14 days (China Daily, 2020). In contrast, the Health Department of Hong Kong Special Administrative Region’s quarantine of the ‘World Dream’ cruise ship lasted only 4 days (New Beijing News, 2020). Although the Japanese quarantine measures can be rationalized as the result of objective factors such as the limited number of medical facilities near Yokohama and the low availability of tests in Japan, the crisis raises questions about the existing standards for core capacity building and the methods for evaluating them. The WHO developed a joint external evaluation (JEE) procedure to diminish the subjectivity inherent in the self-assessment of IHR core capacities, which is an important step towards greater transparency and accountability in the assessment of IHR core capacities. (WHO, 2005). The realization of core capacities, however, depends on the willingness of countries to comply and the availability of substantial funding. As the WHO highlighted in its 2018 Annual Report, ‘significant gaps in the core capacities persist in several countries’.

The differences in countries’ natural endowments limit the possibility or practical effectiveness of a unified standard for the core capacities of each country. A standard that can be reached by most countries will be the minimum standard for precautions against public safety emergencies. Currently, the ambiguity of the language used to describe standards, such as ‘adequate premises’ or ‘appropriate medical facility’, allows countries more flexibility in their core capacity building and explains the significant differences in countries’ responses to the outbreak of COVID-19. Using the principle of ‘common but differentiated responsibilities’ (CBDR), which is common in international environmental law, to refine the evaluation of core capacity standards of ports may improve the enforceability of these standards. Being authorised by the WHO to issue ship sanitation certificates provides huge economic benefits to ports (Wenhai, 2011). To satisfy the WHO’s minimum requirements for such certification, a port must invest in public sanitary facilities; once it obtains a higher level of sanitary and safe certification, more high-quality cruise ships may adopt it as

their home port. Using such market forces to decentralise public sanitation investment in ports, rather than solely relying on government investment, may not only strengthen the government's willingness to invest in public sanitation capacity building, but also facilitate the sustainable and healthy development of the cruise industry.

4. Coastal states' responsibility under international health law and admiralty law

4.1. The free pratique rule under international health law

To protect the normal flow of international traffic and international trade and diminish the damages caused by international public emergencies, IHR 2005 sets the *free pratique* rule. This regulation is consistent with the purpose of IHR 2005, which is stated in Article 2 (IHE, 2005). The core purpose of the *free pratique* rule, which is to protect the normal operation of international trade and transportation, is also reflected in the Convention on Facilitation of International Maritime Traffic (FAL Convention). Although IHR 2005 makes it clear that the *free pratique* rule does not exclude member states' rights to implement 'additional health measures' in response to specific public health risks or public health emergencies of international concern, Article 43 of IHR 2005 lists limitations on such measures, including reasonability, scientific principle and 'health rationale base' (IHR, 2005). However, these limitations have been ignored in practice.

4.1.1. Reasonability

According to Article 43(1) of IHR 2005, reasonable additional health measures 'shall not be more restrictive of international traffic and not more invasive or intrusive to persons than reasonably available alternatives that would achieve the appropriate level of health protection'. Du Ming stated that by applying the weighing and balancing test frequently quoted in WTO jurisprudence, the reasonability of an additional health measure is assessed on a case-by-case basis and must consider multiple factors, such as diseases' infectiousness, proportion of cases detected, required resources etc (Ming, 2016). In general, compared with measures such as isolation, communication and entry screening, quarantine has been proven to be ineffective to prevent the infectious diseases. The pandemic spread of SARS and the influenza A (H1N1) pdm09 virus to many countries in 2004 and 2009, respectively, demonstrated that 'the sensitivity and specificity of influenza screening are low' (Selvey et al., 2015). After the outbreak of the influenza (H1N1) pandemic in 2009, the WHO's Director-General stated that 'given the widespread presence of the virus, containment of the outbreak is not feasible. The current focus should be on mitigation measures' (WHO, 2011). Based on a careful comparison of different measures, Selvey and colleagues found that focusing on early identification and treatment of cases at risk of becoming severe, social distancing measures applied at the community level, infection control measures, vaccination, and in some cases antiviral prophylaxis, can be more reasonable and effective measures than border screening (Selvey et al., 2015).

4.1.2. Evidence-based risk assessment

Articles 43(2) and 43(3) of IHR 2005 also stipulate that additional health measures must be based on 'evidence-based risk assessment'. The member states are

required to make decisions using the ‘available scientific evidence of a risk to human health’ and to provide the WHO with a public health rationale and the relevant scientific information used to make the decision. However, this requirement is sometimes ignored. According to the WHO 2018 report, during the 2017 Ebola outbreak, there were two instances in which state parties adopted additional measures in relation to the public health events that significantly interfered with international traffic. The report also noted that during the outbreak of the influenza (H1N1) pandemic in 2009, no country that implemented additional measures complied with their obligations under Article 43 to proactively inform the WHO and provide a rationale for such measures. (Tencent News, 2020). It has been argued that member states ignore the requirements outlined in IHR 2005 for imposing additional measures because IHR 2005 lacks enforce mechanisms, and members do not face penalties or other legal consequence for breaching the agreement.

IHR 2005 has the potential to improve the coordination of international responses to public health crises and minimise restrictive measures at borders. The WHO has suggested increasing transparency to avoid overly restrictive measures, and to ensure that countries implementing additional measures are identified on the EIS (Event Information Site), that the public-health rationale for such measures is placed on the EIS and, if no rationale has been provided, that the EIS note on what date this information was requested. The EIS could also include clarification as to whether or not WHO has requested the country to reconsider the application of such additional measures. In the absence of sanctions for IHR non-compliance, this increased transparency would mitigate concerns about the adoption of measures that significantly interfere with international traffic. (WHO, 2011). The ineffectiveness of this measure, however, has been demonstrated by the COVID-19 pandemic.

4.2. Salvage obligation of coastal states under admiralty law

The most effective measure for epidemic control was to allow the cruise ship to dock in a port. Both public health issues and environmental issues flow and spread across national borders and must be handled jointly by all countries. In fact, this question of the admittance to ports of ships in distress has been raised in the issue of salvage operations for maritime casualty that might result in major environmental pollution. Article 11 of the International Convention on Salvage, 1989 obligates the party states to, whenever regulating or deciding upon matters relating to salvage operations such as admittance to ports of vessels in distress, take into account the need for cooperation among interested parties and to ensure the efficient and successful performance of salvage operations. However, Article 9 of the Convention also expressly provides that the coastal state has the right to interfere with the salvage operations if maritime casualty may reasonably be expected to result in major harmful consequences. According to the Convention, the coastal states have the right to interpret ‘reasonable expectation’, which gives the rights of final decision on the admittance to ports of vessels in distress to the coastal states.

To prevent a beggar-thy-neighbour stance by the coastal states who might refuse admittance to port of vessels that threaten their environment, the International Maritime Organization (IMO) established the Maritime Safety Committee (MSC) in

2000 and in 2003 adopted two resolutions on places of refuge for ships in distress. Specifically, the Guidelines on Places of Refuge for Ships in Need of Assistance and the Maritime Assistance Services (MAS) provide guidance for coastal states wanting to establish regulations on places of refuge for ships. The Guidelines expressly provide that ‘when permission to access a place of refuge is requested, there is no obligation for the coastal State to grant it, but the coastal State should weigh all the factors and risks in a balanced manner and give shelter whenever reasonably possible’. As the Guidelines are soft international law, they are not binding on coastal states. Therefore, under the Guidelines, the admittance to ports of vessels in distress, where lives are not at risk, are subject to the coastal states’ authority.

The reason for this lack of clarity lies in the contradiction between national sovereignty and the requirements of environmental protection. National sovereignty plays an important role in preventing external forces from interfering in the internal affairs of a state, and sovereignty can be a reason to reject requests for international environmental protections and a barrier to the formation of coordinated, international actions to protect the environment. Shao Shaping and Yu Minyou argued that although sovereignty has a positive effect on national independence, it can be a negative factor in environmental actions (Shao et al., 2002). Granting vessels in distress refuge within a coastal state’s territorial waters may enable prompt salvage operations that prevent environmental pollution and significant economic loss. This is of obvious benefit to the global marine environment. However, in the current international community, the principle of national sovereignty is still the foundation of international laws. A country will not sacrifice its own interests for the sake of the global interest (Mu, 2008). In fact, under these complex political and environmental conditions, coastal states are generally unwilling to grant damaged vessels permission to access places of refuge under their control.

In short, this section explores the responsibilities of coastal states under international health and admiralty law, highlighting the intersection of public safety and maritime operations. Under International Health Regulations (IHR) 2005, the free pratique rule aims to maintain international trade and transport flow while allowing member states to implement additional health measures. However, practical limitations and non-compliance with evidence-based requirements often undermine the rule's effectiveness. Enhancing transparency and adherence to the IHR guidelines is crucial to ensure that additional measures do not unjustly restrict international traffic.

In terms of admiralty law, coastal states have obligations under the International Convention on Salvage (1989) to facilitate salvage operations while balancing environmental and safety concerns. The establishment of guidelines by the International Maritime Organization (IMO) provides a framework for handling ships in distress but does not compel action. The tension between national sovereignty and global environmental protection remains a significant barrier to effective and coordinated responses. Addressing these challenges requires a nuanced approach that respects both national interests and international obligations.

5. The consular protection regime and the management of public safety crises on cruise ships

The act of sending chartered airplanes to evacuate their citizens from the 'Diamond Princess' was conducted under the principle of consular protection, and was an exercise of countries' jurisdiction over their citizens. From 9 February, the beginning of the quarantine period of the 'Diamond Princess', the US Embassy in Tokyo kept in close communication with the Japanese government and Carnival Cruise Lines, and the US Centres for Disease Control and Prevention (CDC) monitored the situation on the ship, sending emails and other information to the American passengers every day. The US CDC also sent epidemiologists and medical personnel to Japan and released Guidelines for the management of the on-board epidemic (CDCP, 2020). On 17 February 2020, the US authorities sent two airplanes to evacuate around 300 American citizens from the 'Diamond Princess'. (CBS news, 2020). Later, the governments of Canada, Australia, the Philippines and Italy also sent chartered airplanes to evacuate their citizens. Among them, Australia evacuated around 200 of its citizens, the Philippines around 500 and Italy 35 (Reuters, 2020). These evacuations helped to relieve pressure on Japan's efforts to control the epidemic. Transferring the passengers to places with adequate medical resources for medical observation and treatment better protected the passengers' rights to health than leaving them quarantined in enclosed cabins. The evacuations by several countries also raised questions about the existing consular protection mechanism.

At present, in addition to bilateral consular protection agreements, relevant provisions on consular protection are provided in the Vienna Convention on Consular Relations (VCCR). However, no specific provisions under the Convention guiding the role of consular protection by the sending state in response to an emergency such as the 'Diamond Princess' public health emergency. In the absence of a consular protection mechanism for overseas emergencies, countries relied on one-on-one communication between countries. This not only uses more time and man power, it also might mean the best time for helping the foreign nationals is missed. Taking the 'Diamond Princess' event as an example, it took 12 days from the implementation of the quarantine for the US to evacuate the first group of its nationals, and many US citizens were infected during this period. However, sending a civilian ship or aircraft to the internal waters or territorial seas and airspace of the receiving state without permission would have constituted an infringement upon the receiving state's sovereignty.

The 'Diamond Princess' event highlights the lack of consular protection of overseas citizens under the existing consular protection mechanism. The VCCR places major emphasis on the protection of state rights and the provisions on consular functions are therefore mainly for defining the scope of consular privileges and immunities. However, given the new developments in the concept of sovereignty, consular protection has become more than a right but also an obligation of the state. In the Responsibility to Protect, a report issued in 2001 by the International Commission on Intervention and State Sovereignty of Canada, sovereignty was interpreted as being dependent on state authorities accepting responsibility for the safety and lives of their citizens and the promotion of their welfare (ICISS, 2001).

With the introduction of the concepts of ‘responsibility’ and ‘humanism’ into the concept of ‘sovereignty’, it is necessary to re-examine a state’s obligation to protect overseas citizens and to establish both new consular protection remedies and a state responsibility mechanism. In the case of overseas emergencies, provisions must be established for a precaution mechanism, emergency response mechanism, implementation requirements and standard procedures.

A sound international cooperation mechanism for consular protection may facilitate the coordination of countries’ responses to public emergencies like the outbreak of COVID-19. Article 8 of the VCCR provides that ‘upon appropriate notification to the receiving State, a consular post of the sending State may, unless the receiving State objects, exercise consular functions in the receiving State on behalf of a third State’. This lays the foundation for the establishment of an international cooperation mechanism for consular protection. Such cooperation has been exercised in the evacuations of the nationals of sending states in war zones, like the 78 nationals of other countries evacuated from Libya with the assistance of the UK. The establishment of an international cooperation mechanism for overseas emergencies based on the VCCR might alleviate the shortage of resources in emergencies, achieve effective integration of limited resources and enable the rational deployment of the resources for consular protection.

6. Allocation of states’ responsibility in a PHEIC

The revisions to IHR 2005 demonstrate a new understanding of global shared responsibility for certain core public health competencies that are necessary to limit the transnational spread of infectious diseases (Clare, 2016). David Heymann, former Assistant Director General of the WHO, suggested that there is a ‘shared responsibility for improving international public health security’ (DL Heymann, 2006). Under IHR 2005, all member states are expected to collaborate with each other to develop, strength and maintain required public health capacities (IHR, 2005). The concept of ‘shared responsibility’ incorporates all member states and relevant stakeholders such as international organisations, NGOs, private entities and many more, into the framework of global health governance, but the realisation of shared responsibility requires the enforceability of IHR 2005 (Clare, 2016). The outbreak of COVID-19 on the ‘Diamond Princess’ exposed the fragile enforcement mechanism of IHR 2005. As Gostin and Friedman highlighted, ‘the IHR do not allocate responsibility’. (LO Gostin and EA Friedman, 2013) Without a clear allocation of responsibility, it is difficult to realise shared responsibility in transnational health threats. It can be further complicated when the public health emergencies occur on cruise ships, which are subject to not only international health law but also other international laws like admiralty law and the law of the sea. States may face different obligations under different international laws during the same event. As the WHO has highlighted, ‘the greatest challenge for States Parties has been to coordinate the new requirements on emergency preparedness stemming from the many international agreements in force, such as those in the transport, maritime and aviation sectors’ (WHO, 2011).

The outbreak on the ‘Diamond Princess’ raises the question of how coastal countries can share responsibility to diminish the spread of infectious disease and

protect the health rights of passengers and crew when public health emergencies occur on board cruise ships. Developing a more coherent responsibility framework for all stakeholders is challenging, and this paper focus only on the allocation of responsibility at the state level. It offers three principles that may inform any new approach.

First principle: Fairness principle. The fairness principle requires a distribution of benefits and burdens that maintains the balance of interests among the parties. Given the benefits granted to home ports by the cruise industry, it is consistent with the fairness principle that home ports bear the liability for admitting distressed cruise ships and taking reasonable measures for the prevention of the spread of an epidemic. They thus share the responsibilities and risks for public safety on cruise ships. In addition, the fairness principle should be applied to the allocation of the disposal costs of public safety emergencies, including quarantine fees, isolation expenses and the expenditures for the passengers' and crewmembers' medical treatment, accommodation and travel. In the case of the 'Diamond Princess', which has the home port of Yokohama, under the Quarantine Act of Japan, the testing and medical fees arising from the PHEIC were covered by the national public health insurance. However, as a cruise ship often involves a large number of passengers and crewmembers, the assumption that all of the testing and medical fees must be borne by the home port state may affect the willingness of some countries to accept a cruise ship during a public health emergency. In addition, the responsibility for mass public safety and infection control may place an extra burden on the home port in addition to its responsibility to ensure national public health security. During the 'Diamond Princess' event, the shortage of the required medical resources in Japan prolonged the testing period for passengers and crewmembers. In such cases, based on the fairness principle, the countries of the owner, flag state and other calling ports of the cruise ship should share the responsibility for providing medical resources and should share the epidemic prevention expenses.

Second principle: Nationality principle. Based on the social contract theory, sovereign states have a responsibility to safeguard and protect the health of their populations, and to take any steps necessary to ensure the health security of their citizens. This includes providing access to essential goods and services required for health. (Gostin and Friedman, 2013) The consular protection regime also provides that sovereign states have obligations to provide consular protection to their citizens overseas. Therefore, in the case of a public health emergency on a cruise ship, when the country of the home port of the cruise ship is not capable of providing comprehensive medical services to the passengers, the home countries of the passengers should take measures such as sending chartered airplanes to evacuate passengers, which both ensures the right to health of their nationals and alleviates pressure on the country of the home port. However, when applying the nationality principle, the passengers' own wishes must be taken into account. In addition, unlike the passengers, crewmembers have labour obligations under their employment contracts with the cruise ship. Hence, although their own countries may provide assistance during public health emergencies, the cruise operator shall be liable for the rights and interests of the crewmembers and the rescue of the passengers should be carried out as per the overall plan of the country of the cruise operator.

Third principle: principle of common but differentiated responsibilities. This principle has been developed in international environment law. Specifically, it is established in the United Nations Framework Convention on Climate Change 1992. In view of the differences in countries' economic development and ability to cope with climate change, developed and developing countries may bear 'common but differentiated responsibilities' for reducing emissions of greenhouse gases. This principle is the legal basis for facilitating international cooperation, and it establishes and improves developing countries' ability to implement international environment law and to jointly address global environmental problems. Both public health issues and environmental problems are similar, i.e. they both involve 'common responsibilities' and 'differentiated responsibilities'. It is a common responsibility of all countries to ensure public health security and prevent the spread of epidemics. However, due to various levels of economic development, there are differences among the countries in terms of medical services and resources, emergency response measures and the ability to allocate resources and personnel during public health emergencies. Although IHR 2005 has a unified standard for the core capacities of state parties, the measures taken by various countries in response to COVID-19 outbreaks on cruise ships and the outcomes of these measures were diverse. The event illustrated the defects in the objectiveness and enforceability of the core capacity requirement under IHR 2005. Using the principle of 'common but differentiated' responsibilities, the standards for building core capacities should be further refined. Under the overall direction of the WHO, the population, social environment, economic development level and capacity for the prevention of public health risks should be comprehensively considered in the determination of the different responsibilities of countries in public health emergencies and the responsibilities of developed countries in providing funds, technologies and training to developing countries to support their core public health capacities building and the fulfilment of their responsibilities in the case of public health emergencies. Regarding the application of the "principle of common but differentiated responsibilities" from environmental law to the field of international health law, it is reflected in the "Article by Article Compilation of Proposed Amendments.

To the International Health Regulations (2005) submitted by States Parties in the context of Decision WHA75(9)" (Document A/WGIHR/1/5). Specifically, Article 3 "Principles" Clause 1, clearly states: "The implementation of these Regulations shall be based on the principles of equity, inclusivity, coherence, and in accordance with their common but differentiated responsibilities of the States Parties, taking into consideration their social and economic development." This illustrates that in summarizing the experiences from the COVID-19 pandemic, "principle of common but differentiated responsibilities" will play an important role in the future understanding and implementation of the International Health Regulations (2005).

7. Conclusion

In its Review Committee report of 2009, the WHO noted that international collaboration is critical to prevent the spread of infectious disease, but it is difficult to achieve given the conflict between national sovereignty and global cooperation (WHO,

2011). Although IHR 2005 aims to establish a shared responsibility framework that develops the core capacities of every member state, previous PHEICs have shown the enforcement mechanism is fragile. As mass travel and transport is inevitable, and the transmission of infectious disease within vehicles causes high rates of infections over short periods, further work is needed to articulate the allocation of responsibility in public health emergencies. Without a more clearly delineated allocation of responsibility among stakeholders (including home port state, passengers' home state, other coastal states etc.), cooperation during global health emergencies will continue to be an on-going challenge.

Although international cooperation is crucial in addressing public health crises on public transportation such as cruise ships, achieving such cooperation entails certain limitations on national sovereignty. This paper argues that the globalization of infectious diseases challenges the sovereignty system and requires port states to seek a balance between the principle of sovereignty and the protection of human rights. Based on the experiences and lessons learned from the COVID-19 pandemic, we further suggest:

Firstly, the home port of a cruise ship should bear the responsibilities of admission and proactive assistance for cruise ships affected by an epidemic. From the perspectives of international private law, contract law, and economics, the home port state is the country most closely connected to the performance of the cruise tourism contract and is also the beneficiary of the cruise economy. After a public safety incident occurs on a cruise ship, the home port should accept the docking of the cruise ship and is obligated to allow and actively repatriate foreign passengers and crew members. Compensation for issues arising from the epidemic on board should be governed by the laws of the home port state. The courts of the home port state are the most convenient forum for such matters. Secondly, the core capability building for cruise homeports should adhere to the "Common but Differentiated Responsibilities" principle. This involves refining and categorizing the evaluation criteria for port core capabilities to enhance their implement ability. While meeting the minimum requirements set by the WHO for port health core capacities, ports that invest more in public health measures can obtain higher levels of health safety certification. This, in turn, attracts higher-quality and premium cruise lines to choose them as their homeport. By using market-driven approaches to distribute the costs of public health across ports, cruise operators, and consumers, it not only strengthens the government's willingness to invest in public health capability building but also supports the sustainable and healthy development of the cruise industry.

Third, countries may consider establishing regional maritime public health emergency cooperation agreements. Neighbouring countries should sign regional maritime public health emergency cooperation treaties, which clearly define the rights and obligations of each party. This includes responsibilities for port core capacity building under the IHR 2005, monitoring and reporting public health security incidents in their respective maritime areas of responsibility, and sharing and supporting relevant medical technologies and resources. Joint exercises should be conducted to improve emergency response efficiency for maritime public safety incidents. Additionally, a special maritime public health emergency fund could be established based on the treaty to support and compensate for public expenditures incurred by the

parties in cooperating to address maritime public health emergencies. The fund should primarily cover costs related to public safety emergencies but may also be used for rescue technology development, equipment updates, and personnel training.

In the face of a public health crisis, international cooperation often encounters a “prisoner's dilemma” This means that while cooperation between two countries would yield better outcomes for both compared to a situation where neither cooperates, the party choosing to cooperate cannot ensure that the other party will also choose to cooperate. This is because international cooperation involves constraints on national sovereignty. Only when a country is focused on long-term benefits is it willing to sacrifice immediate gains in favor of cooperation. Therefore, in the post-pandemic era, it is crucial to summarize solutions to public health crises involving public transportation such as cruise ships. In this context, the cruise port should assume primary responsibility for personnel treatment and repatriation. Other countries should also actively cooperate based on the principles of fairness and nationality to collectively resolve public health crises.

Conflict of interest: The author declares no conflict of interest.

Notes

1. IHR 2005, art 3.
2. Article 32 of IHR 2005 ‘Treatment of Travellers’ stipulates that in implementing health measures under these regulations, ‘States Parties shall treat travellers with respect for their dignity, human rights and fundamental freedoms and minimise any discomfort or distress associated with such measures, including by... (c) providing or arranging for adequate food and water, appropriate accommodation and clothing... and other appropriate assistance for travellers who are quarantined, isolated or subject to medical examinations or other procedures for public health purposes’.

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