INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

Circular Letter No.4204/Add.3
2 March 2020

To: All IMO Member States
United Nations and specialized agencies
Intergovernmental organizations
Non-governmental organizations in consultative status with IMO

Subject: **Operational considerations for managing COVID-19 cases/outbreak on board ships**

The Secretary-General of IMO has received the attached guidance on "Operational considerations for managing COVID-19 cases/outbreak on board ships" prepared by WHO.

Member States and international organizations are encouraged to disseminate the guidance to all parties concerned as widely as possible.

***

SUSTAINABLE SHIPPING FOR A SUSTAINABLE PLANET

ANNEX

Operational considerations for managing COVID-19 cases and outbreaks on board ships

Interim guidance
24 February 2020

World Health Organization

Introduction

This document has been prepared based on current evidence about the transmission of 2019 coronavirus (previously named 2019-nCoV, now designated COVID-19) disease – that is, human-to-human transmission via respiratory droplets or direct contact with an infected individual.

It is recommended that this guidance be used with the World Health Organization (WHO) *Handbook for management of public health events on board ships* (*1*).

The target audience for this document is any authority involved in the public health response to a COVID-19 public health event on board a ship, including International Health Regulations (IHR) National Focal Points (NFPs), port health authorities, and local, provincial and national health surveillance and response systems, as well as port operators and ship operators.

Outbreak management plan for COVID-19 disease

Passenger ships sailing on an international voyage are advised to develop a written plan for disease outbreak management that covers the definitions of a suspected case of COVID-19 disease, the definition of close contacts and an isolation plan. The outbreak management plan should include descriptions of the following:

- the location or locations where suspected cases will be isolated individually until disembarkation and transfer to a healthcare facility;
- how the necessary communications between departments (for example, medical, housekeeping, laundry, room service) about persons in isolation will be managed;
- the clinical management of suspected cases while they remain on board;
- cleaning and disinfection procedures for potentially contaminated areas, including the isolation cabins or areas;
- how close contacts of the suspected case will be managed;
- procedures to collect Passenger/Crew Locator Forms (PLF);
- how food service and utensils, waste management services and laundry will be provided to the isolated travellers.

Staff on board should have knowledge of the outbreak management plan and should implement it as required.

Prior to boarding

Pre-boarding information

Passengers and crew members should receive information in accordance with WHO's advice for international traffic in relation to the outbreak of COVID-19 disease. This advice and guidance is available at https://www.who.int/health-topics/coronavirus.

Pre-disembarkation information

Until the termination of the COVID-19 public health emergency of international concern is declared, it is recommended that all passengers and crew members complete their PLF, and this should be kept on board for at least 1 month after their disembarkation. Information in the completed PLF should be provided upon request to health authorities to facilitate contact tracing if a confirmed case is detected after disembarkation or after the voyage has ended.

Pre-boarding screening

Until the termination of the COVID-19 outbreak, passenger ships on an international voyage are advised to provide passengers with general information on COVID-19 disease and preventive measures and to implement pre-boarding screening with the purpose of deferring or rescheduling the boarding of any traveller identified through a questionnaire (Annex 1) as being a close contact of someone with COVID-19 disease to ensure proper management by port health authorities.

A contact is a person involved in any of the following:

- providing direct care to a patient with COVID-19 disease, visiting patients or staying in the same environment as a COVID-19 patient;
- working in close proximity to or sharing a cabin or room with a patient with COVID-19 disease;
- traveling with a COVID-19 patient in any kind of conveyance;
- living in the same household as a patient with COVID-19 disease within 14 days after the patient's onset of symptoms (*2*).

Education

Ship owners should provide guidance to the crew about how to recognize the signs and symptoms of COVID-19 disease.

Crew should be reminded of the procedures that are to be followed when a passenger or a crew member on board displays signs and symptoms indicative of acute respiratory disease.

Country-specific guidance for crew members about prevention measures may be available, such as that at https://www.cdc.gov/quarantine/maritime/recommendations-for-ships.html (*3*).

Additional guidance is available in WHO's interim guidance about home care for patients with suspected COVID-19 infection who have mild symptoms and how to manage their contacts (*4*) and about the use of medical masks (*5*).

Healthcare staff on board ships should be informed and updated about the outbreak of COVID-19 disease and any new evidence and guidance available for healthcare staff. WHO's updated information is available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance.

Managing a suspected case on board a ship

Definition of a suspected case

A suspected case is:

A. a patient with severe acute respiratory infection (that is, fever and cough requiring admission to hospital) AND with no other aetiology that fully explains the clinical presentation AND a history of travel to or residence in China or in another country with established community transmission[1] of COVID-19 disease during the 14 days prior to symptom onset

OR

B. a patient with any acute respiratory illness AND at least one of the following during the 14 days prior to symptom onset: (a) contact with a confirmed or probable case of COVID-19 disease or (b) working in or visiting a healthcare facility where patients with confirmed or probable COVID-19 disease were being treated.

Activating the outbreak management plan

If it is determined that there is a suspected case of COVID-19 disease on board, the outbreak management plan should be activated. The suspected case should be immediately instructed to wear a medical mask, follow cough etiquette and practice hand hygiene; the suspected case should be isolated in a predefined isolation ward, cabin, room or quarters, with the door closed. Infection control measures should be applied in accordance with WHO guidance (*2, 6*). The disembarkation and transfer of the suspected case to an onshore healthcare facility for further assessment and laboratory testing should be arranged as soon as possible in cooperation with the health authorities at the port.

In addition to the medical personnel providing health care, all persons entering the isolation area should be appropriately trained prior to entering that area, should apply standard precautions and contact and droplet precautions as described in WHO's guidance for infection control (*6*).

Obligations of ship owners

In accordance with the IHR (2005), the master of the ship must immediately inform the port health authority at the next port of call about any suspected case of COVID-19 disease (*7*). For ships on an international voyage, the Maritime Declaration of Health should be completed and sent to the port authority in accordance with local requirements at the port of call.

Ship owners must facilitate the use of health measures and provide all relevant public health information requested by the health authority at the port. Ship operators shall provide to the port health authorities all essential information (that is, PLFs, the crew list,[2] and the passenger

[1] Widespread community transmission is defined as being "evidenced by the inability to relate confirmed cases through a chain of transmission or by increasing positive tests through routine screening of sentinel samples (i.e., samples unconnected to any known chain of transmission).

[2] See the Convention on Facilitation of International Maritime Traffic FAL form 5 at http://www.imo.org/en/OurWork/Facilitation/FormsCertificates/Pages/Default.aspx, accessed 24 February 2020.

list[3]) to conduct contact tracing when a confirmed case of COVID-19 disease has been identified on board or when a traveller who has been on board and possibly was exposed during the voyage is diagnosed as a confirmed case after the end of the voyage.

Disembarkation of suspected cases

During the disembarkation of suspected cases, every effort should be made to minimize the exposure of other persons and environmental contamination. Suspected cases should be provided with a surgical mask to minimize the risk of transmission. Staff involved in transporting suspected cases should apply infection control practices by following WHO's guidance (*5*, 6). These practices are summarized below.

- When loading patients into the ambulance, transport staff, including medical staff, should routinely perform hand hygiene and wear a medical mask, eye protection (goggles or a face shield), a long-sleeved gown and gloves.
- Personal protective equipment (PPE) should be changed after loading each patient and disposed of appropriately in containers with a lid and in accordance with national regulations for disposing of infectious waste.
- The driver of the ambulance must remain separate from the cases (keeping at least 1 m distance). No PPE is required if distance can be maintained or a physical separation exists. If drivers must also help load the patients into the ambulance, they should follow the PPE recommendations in the previous point.
- Transport vehicles must have as high a volume of air exchange as possible (for example, by opening the windows).
- Transport staff should frequently clean their hands with an alcohol-based hand rub or soap and water and ensure that they clean their hands before putting on PPE and after removing it.
- Ambulances and transport vehicles should be cleaned and disinfected, with particular attention paid to the areas in contact with the suspected case. Cleaning should be done with regular household soap or detergent first and then, after rinsing, regular household disinfectant containing 0.5% sodium hypochlorite (that is, equivalent to 5000 ppm or 1 part bleach to 9 parts water) should be applied.

Notification and reporting requirements for WHO State Parties

The authority at the port must inform immediately its IHR NFP if a suspected case of COVID-19 disease has been identified. When the laboratory testing has been completed and if the suspected case is positive for the virus that causes COVID-19 disease, then the IHR NFP shall inform WHO.

The IHR NFP will pay attention to IHR Article 43 that concerns additional health measures, which states that State Parties implementing any additional health measure that significantly interferes with international traffic (such as refusal of entry or departure of international travellers and/or ships, or their delay for more than 24 hours) shall provide to WHO the public health rationale for and relevant scientific information about it.

[3] See the Convention on Facilitation of International Maritime Traffic FAL form 6 at http://www.imo.org/en/OurWork/Facilitation/FormsCertificates/Pages/Default.aspx, accessed 24 February 2020.

Managing contacts

In order to avoid delays in implementing health measures, contact tracing should begin immediately after a suspected case has been identified on board without waiting for laboratory results. Every effort should be made to minimize the exposure of other travellers to and on-board environmental exposures of the suspected case, and close contacts must be separated from other travellers as soon as possible.

All persons on board should be assessed for their risk of exposure and classified either as a close contact with a high risk of exposure or as having a low risk of exposure.

Definition of close contacts on board a ship (high-risk exposure)

A person is considered to have had a high-risk exposure if they meet one of the following criteria:

- they stayed in the same cabin as a suspected or confirmed COVID-19 case;
- they had close contact (that is, they were within 1 m of) or were in a closed environment with a suspected or confirmed COVID-19 case –
    - for passengers, this may include participating in common activities on board the ship or while ashore, being a member of a group travelling together, dining at the same table;
    - for crew members, this includes the activities described above, as applicable, as well as working in the same area of the ship as the suspected or confirmed COVID-19 case, for example, cabin stewards who cleaned the cabin or restaurant staff who delivered food to the cabin, as well as gym trainers who provided close instruction to the case;
- they are a healthcare worker or another person who provided care for a suspected or confirmed COVID-19 case.

Follow-up with close contacts

If a large outbreak occurs as a result of ongoing transmission on board the ship, both crew members and passengers should be assessed to determine whether they were exposed to the suspected or confirmed case. If it is difficult to identify the close contacts and if widespread transmission is identified, then all travellers (that is, passengers and crew) on board the ship could be considered close contacts who have had a high-risk exposure.

Until the laboratory result for the suspected case is available, all travellers who fulfil the definition of a close contact should be asked to complete the PLF (Annex 2) and remain on board the ship in their cabins or, preferably, at a specially designated onshore facility (if feasible and when the ship is at the turnaround port where the embarkation or disembarkation of passengers or discharge or loading of cargo and stores takes place), in accordance with instructions received from the port health authorities.

If the laboratory result is positive, then all close contacts should be quarantined in specially designated onshore facilities and not allowed to travel internationally, unless this has been arranged following WHO's advice for repatriation, which also discusses quarantine measures (*8*). Persons in quarantine who had close contact with a confirmed case should immediately inform health services if they develop any symptom within 14 days of their last contact with the confirmed case. If no symptoms appear within 14 days of their last exposure, the contact is no longer considered to be at risk of developing COVID-19 disease (*9*). The implementation of these specific precautions may be modified depending on the risk assessments for individual cases and their contacts as conducted by the public health authorities.

If the laboratory result is positive, then all other travellers who do not fulfil the definition of a close contact will be considered as having had a low-risk exposure; they should be requested to complete the PLF with their contact details and the locations where they will be staying for the following 14 days. The implementation of these precautions may be modified depending on the risk assessments conducted by the public health authorities. Further instructions may be given by the health authorities. Travellers considered to have had a low-risk exposure should be provided with information and advice about (*9*):

- the symptoms of COVID-19 disease and how it can be transmitted;
- the need to self-monitor for COVID-19 symptoms for 14 days from their last exposure to the confirmed case, including fever of any grade, cough or difficulty breathing;
- the need to immediately self-isolate and contact health services if any symptom appears within the 14 days. If no symptoms appear within 14 days of their last exposure, the traveller is no longer considered to be at risk of developing COVID-19 disease.

WHO's guidance about quarantine measures can be found on the web pages about COVID-19 (https://www.who.int/health-topics/coronavirus).

Measures on board the ship

In the event that the affected ship calls at a port other than the turnaround port, the port health authority should conduct a risk assessment and may decide in consultation with the ship's owner to end the cruise. The ship should be inspected according to Article 27 of the IHR (2005), which discusses affected conveyances, and then health measures (such as cleaning and disinfection) should be applied based on the findings of the inspection. Detailed guidance from WHO is available in the *Handbook for inspection of ships and issuance of ship sanitation certificates* (*10*). For more details about the inspection, see the section on environmental investigation in this document. Infectious waste should be disposed of in accordance with the port authority's procedures. Health measures implemented on the ship should be noted in the Ship Sanitation Certificate.

The next voyage can start after thorough cleaning and disinfection have been completed. Active surveillance should take place on board the ship for the following 14 days. Additionally, the ship's owner could explore the possibility of starting the next voyage with a new crew on board, if this is feasible.

Cleaning and disinfection

In accordance with WHO's guidance about infection prevention and control during health care when COVID-19 infection is suspected (*6*), medical facilities, cabins and quarters occupied by patients and close contacts of a confirmed case with COVID-19 disease should be cleaned and disinfected daily, and cleaning and disinfection should be carried out after they have disembarked. The remainder of the ship should also be cleaned and disinfected, particularly when an outbreak occurs.

Detailed information about cleaning and disinfecting cabins can be found in WHO's interim guidance about home care for patients with suspected COVID-19 infection and how to manage their contacts (*4*).

Laundry, food service utensils and waste from the cabins of suspected cases and their contacts should be handled as if infectious and according to the outbreak management plan provided on board for other infectious diseases (for example, for norovirus gastroenteritis).

It is essential that the ship remains at the port for the time required to thoroughly clean and disinfect it.

A ship that is considered to have been affected shall cease to be regarded as such when the port health authority is satisfied with the health measures undertaken and when there are no conditions on board that could constitute a public health risk (7).

Outbreak investigation

Efforts to control the COVID-19 epidemic focus on containing the disease and preventing new cases. On board ships it is essential to identify the most likely mode or modes of transmission and the initial source or sources of the outbreak. Because the outbreak may have international ramifications, on large ships, including cruise ships that carry nationals from many countries or areas, the outbreak investigation requires coordinated efforts .

Article 6 of IHR (2005) provides that a State Party shall communicate to WHO all timely, accurate and sufficiently detailed public health information available to it about the notified event (such as case definitions, laboratory results, source and type of the risk, number of cases and deaths, conditions affecting the spread of the disease, and the health measures employed) and report, when necessary, the difficulties faced in responding to the public health emergency of international concern and the support needed (7).

Epidemiological investigation

The field investigation team should take all necessary precautions and use PPE appropriately to avoid becoming infected.

For close contacts, the analyses should consider the following risk factors, where applicable: who shared cabins, their companions, groups travelling together, and their participation in onshore activities; the restaurants and bars they attended, seating arrangements at meals based on reservation lists, buffet service seating locations (schematics); participation in on-board events or in the ship's public areas (such as the gym, theatre, cinema, casino, spa, recreational water facilities); the deck of the cabin where the cases and contacts stayed; and the fire zone and air handling units. Records to be reviewed and considered in the investigation are the ship manifest, the ship schematics, cabin reservation lists, activities reservation lists, records of vomiting incidence, accidental faecal release records for pools, dining reservation lists, medical logs of passengers and crew with gastrointestinal issues, cabin plans, the cabin stewards assigned to each cabin and their shifts, and any records about the demographic characteristics of the travellers. The minimum data requirements that should be collected are included in the Public Health Passenger/Crew Locator Form (Annex 2).

Environmental investigation

A focused inspection should be conducted to assess whether the isolation procedures and other measures on board the ship were applied properly, sufficient PPE supplies were available and staff were trained in the use of PPE. Housekeeping, cleaning and disinfection procedures (such as protocols, products, concentrations, contact times, use of PPE, mixing processes) and the frequency of cleaning and disinfection (especially of areas that are frequently touched) should be checked during the inspection. The focused inspection should also determine whether any crew might have been working while symptomatic, including food handlers, housekeeping staff and spa staff.

If feasible, samples from environmental surfaces and materials could be collected and sent to a laboratory for testing both before and after the cleaning and disinfection procedures are completed. Staff should be trained to use PPE to avoid becoming infected. The following

environmental samples could be collected: surface swabs from cabins where cases stayed, frequently touched surfaces in public areas, and food preparation areas, including pantries close to the cabins of affected travellers; air from cabins where cases stayed and medical rooms where cases were isolated; air from the sewage treatment unit exhaust and engine exhaust; air ducts; air filters in the air handling units of the cabin; and sewage and recreational water buffer tanks.

Acknowledgements

WHO gratefully acknowledges the contributions of the WHO Collaborating Centre For The International Health Regulations: Points Of Entry at the University of Thessaly, Greece, for its help in developing this document.

References

1. Handbook for management of public health events on board ships. Geneva: World Health Organization; 2016 (https://apps.who.int/iris/bitstream/handle/10665/205796/9789241549462_eng.pdf, accessed 24 February 2020).
2. Global surveillance for human infection with novel coronavirus (2019-nCoV): interim guidance, 31 January 2020. Geneva: World Health Organization; 2020 (WHO/2019-nCoV/SurveillanceGuidance/2020.3; https://apps.who.int/iris/handle/10665/330857, accessed 24 February 2020).
3. Interim guidance for ships on managing suspected coronavirus disease 2019. Atlanta (GA): Centers for Disease Control and Prevention; 2020 (https://www.cdc.gov/quarantine/maritime/recommendations-for-ships.html, accessed 24 February 2020).
4. Home care for patients with suspected novel coronavirus (nCoV) infection presenting with mild symptoms, and management of their contacts: interim guidance, 4 February 2020. Geneva: World Health Organization; 2020 (WHO/nCov/IPC HomeCare/2020.2; https://apps.who.int/iris/handle/10665/331133, accessed 24 February 2020).
5. Advice on the use of masks in the community, during home care and in health care settings in the context of the novel coronavirus (2019-nCoV) outbreak: interim guidance, 29 January 2020. Geneva: World Health Organization; 2020 (WHO/nCov/IPC_Masks/2020.1, accessed 24 February 2020)
6. Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected: interim guidance, 25 January 2020. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/handle/10665/330674, accessed 24 February 2020).
7. International health regulations (2005), third edition. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/246107/1/9789241580496-eng.pdf, accessed 24 February 2020).
8. Key considerations for repatriation and quarantine of travellers in relation to the outbreak of novel coronavirus 2019-nCoV 2020 [updated 11 February 202013/2/2020]. Geneva: World Health Organization; 2020 (https://www.who.int/ith/Repatriation_Quarantine_nCoV-key-considerations_HQ-final11Feb.pdf, accessed 24 February 2020).
9. Public health management of persons having had contact with novel coronavirus cases in the European Union. Stockholm: European Centre for Disease Prevention and Control; 2020 (https://www.ecdc.europa.eu/en/publications-data/public-health-management-persons-having-had-contact-novel-coronavirus-cases, accessed 24 February 2020).
10. International Health Regulations (2005): handbook for inspection of ships and issuance of ship sanitation certificates. Geneva: World Health Organization; 2011 (WHO/HSE/IHR/LYO/2011.3; https://apps.who.int/iris/handle/10665/44594, accessed 24 February 2020).

Annex 1

Sample pre-boarding questionnaire

The questionnaire is to be completed by all adults prior to embarkation.

Name as shown in the passport:

- _____

Names of all children travelling with you who are under 18 years old:

- _____
- _____
- _____
- _____

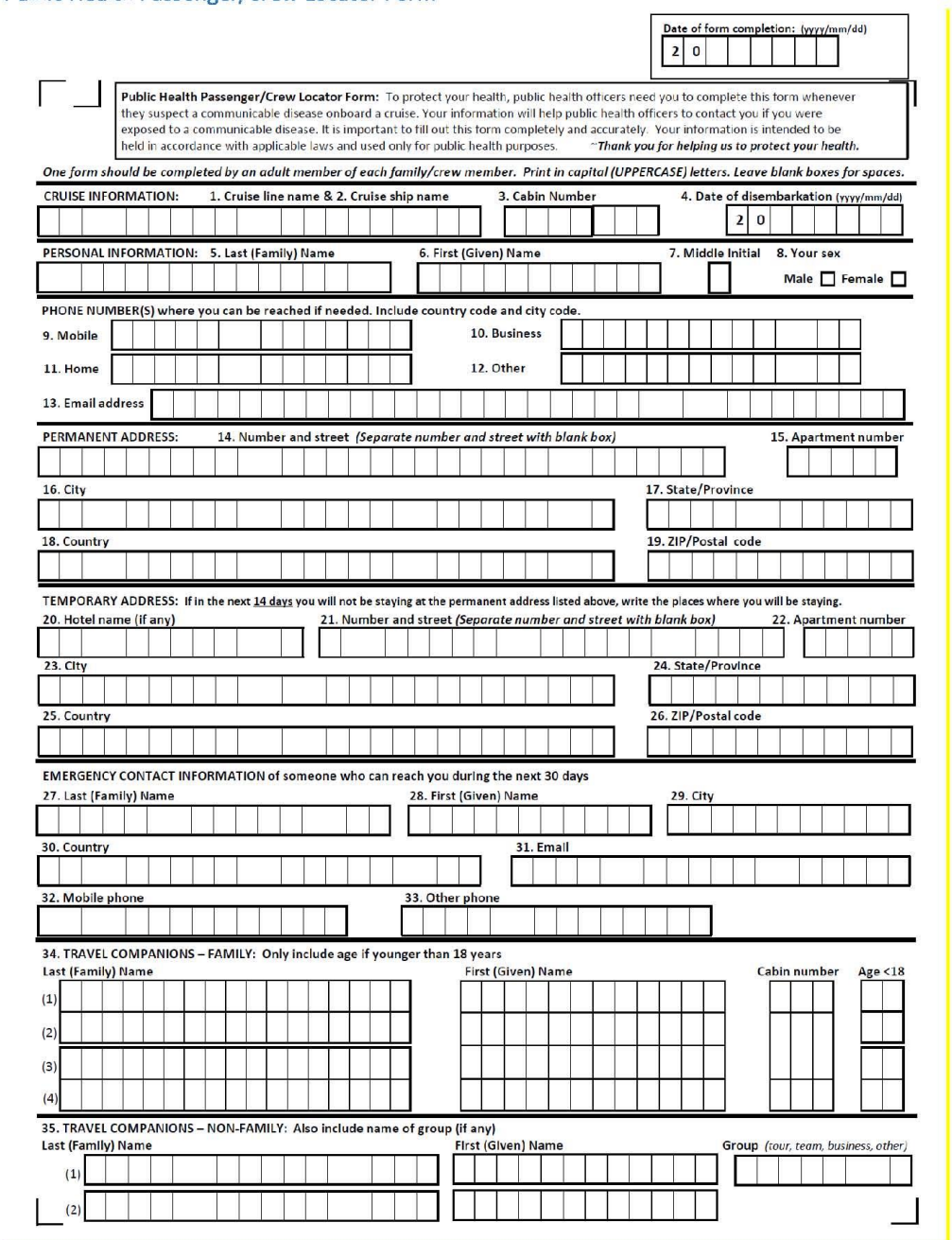
Questions

Within the past 14 days

- have you, or has any person listed above, had close contact with anyone diagnosed as having coronavirus disease (COVID-19)?
- have you, or has any person listed above, provided care for someone with COVID-19 disease or worked with a healthcare worker infected with COVID-19 disease?
- have you, or has any person listed above, visited or stayed in close proximity to anyone with COVID-19 disease?
- have you, or has any person listed above, worked in close proximity to or shared the same classroom environment with someone with COVID-19 disease?
- have you, or has any person listed above, travelled with a patient with COVID-19 disease in any kind of conveyance?
- have you, or has any person listed above, lived in the same household as a patient with COVID-19 disease?

Annex 2

Public Health Passenger/Crew Locator Form



Date of form completion: (yyyy/mm/dd) 2 0

Public Health Passenger/Crew Locator Form: To protect your health, public health officers need you to complete this form whenever they suspect a communicable disease onboard a cruise. Your information will help public health officers to contact you if you were exposed to a communicable disease. It is important to fill out this form completely and accurately. Your information is intended to be held in accordance with applicable laws and used only for public health purposes. *Thank you for helping us to protect your health.*

One form should be completed by an adult member of each family/crew member. Print in capital (UPPERCASE) letters. Leave blank boxes for spaces.

CRUISE INFORMATION: 1. Cruise line name & 2. Cruise ship name | 3. Cabin Number | 4. Date of disembarkation (yyyy/mm/dd) 2 0

PERSONAL INFORMATION: 5. Last (Family) Name | 6. First (Given) Name | 7. Middle Initial | 8. Your sex Male ☐ Female ☐

PHONE NUMBER(S) where you can be reached if needed. Include country code and city code.

9. Mobile | 10. Business

11. Home | 12. Other

13. Email address

PERMANENT ADDRESS: 14. Number and street *(Separate number and street with blank box)* | 15. Apartment number

16. City | 17. State/Province

18. Country | 19. ZIP/Postal code

TEMPORARY ADDRESS: If in the next 14 days you will not be staying at the permanent address listed above, write the places where you will be staying.

20. Hotel name (if any) | 21. Number and street *(Separate number and street with blank box)* | 22. Apartment number

23. City | 24. State/Province

25. Country | 26. ZIP/Postal code

EMERGENCY CONTACT INFORMATION of someone who can reach you during the next 30 days

27. Last (Family) Name | 28. First (Given) Name | 29. City

30. Country | 31. Email

32. Mobile phone | 33. Other phone

34. TRAVEL COMPANIONS – FAMILY: Only include age if younger than 18 years

	Last (Family) Name	First (Given) Name	Cabin number	Age <18
(1)				
(2)				
(3)				
(4)				

35. TRAVEL COMPANIONS – NON-FAMILY: Also include name of group (if any)

	Last (Family) Name	First (Given) Name	Group *(tour, team, business, other)*
(1)			
(2)			

© World Health Organization 2020. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO licence.

WHO reference number: WHO/2019-nCov/IHR_Ship_outbreak/2020.1