Healthy GateWays

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# Advice for restarting cruise ship operations after lifting restrictive measures in response to the COVID-19 pandemic

## Version 2

## April 2021 ·

The revised version incorporates the following changes:

- Definitions of contacts and cases
- Diagnostic testing policy for crew and passengers
- Use of face masks
- Considerations for vaccinations

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# Table of Contents

1. Introduction ..... 5
2. Purpose ..... 5
3. Essential prerequisites ..... 7
3.1. Monitoring of epidemiological situation, rules and restrictions worldwide ..... 8
3.2. Written contingency plan/outbreak management plan for COVID-19 ..... 8
3.3. Arrangements for medical treatment and ambulance services ..... 8
3.4. Arrangements for repatriation ..... 8
3.5. Arrangements for quarantine of close contacts (exposed passengers or crew members with negative RT-PCR test results for SARS-CoV-2) ..... 9
3.6. Arrangements for isolation of passengers or crew members positive for SARS-CoV-2 10
3.7. Adequate testing capacity for SARS-CoV-2 infection on board or in cooperation with shore-based laboratories ..... 10
3.8. Training of crew about COVID-19 ..... 11
3.9. Commitment for immediate reporting to the next port of call of any possible and confirmed cases ..... 11
3.10. Isolation and quarantine capacity on board cruise ships ..... 12
3.11. Focused inspection on COVID-19 prevention and control for resuming cruise ship voyages by EU HEALTHY GATEWAYS ..... 12
4. Options for measures to prevent COVID-19 infectious passengers from starting holidays ..... 13
4.1. Vaccination of passengers ..... 13
4.2. Diagnostic testing or other measures in accordance with the requirements for incoming travellers to the country of embarkation ..... 13
4.3. Exclusion policy ..... 14
4.3.1. Exclusion policy information ..... 14
4.4. High risk groups ..... 14
5. Preparedness for responding to COVID-19 events on board cruise ships ..... 15
5.1. Information, education and communication ..... 15
5.2. Contingency planning on board ..... 17
5.3. Supplies and equipment ..... 19
6. Crew vaccination and testing ..... 20
6.1. Vaccination of crew members ..... 20

6.2. Testing of crew members before resuming operations and incoming crew members . 20
6.3. Routine testing of crew members ..... 21
7. Options for measures to prevent COVID-19 infectious travellers (passengers and crew) from boarding cruise ships ..... 21
7.1. Screening at embarkation ..... 21
7.2. Diagnostic testing of passengers the day of embarkation ..... 22
8. Measures for preventing and limiting transmission of COVID-19 on board cruise ships ..... 23
8.1. Health monitoring and diagnostic testing ..... 23
8.2. Surveillance of black water for SARS-CoV-2 ..... 23
8.3. Limiting interaction ..... 24
8.4. Physical distancing ..... 25
8.5. Personal hygiene measures ..... 25
8.6. Respiratory etiquette ..... 26
8.7. Preventing droplet transmission by the use of face masks ..... 26
8.8. Adequate ventilation ..... 28
8.9. Cleaning and disinfection ..... 29
8.10. Special considerations for cabins ..... 29
8.11. Food safety rules ..... 30
8.12. Reducing face-to-face interactions ..... 32
8.13. Special considerations at reception ..... 32
8.14. Nursery and play areas for children ..... 33
8.15. Entertainment venues ..... 34
8.16. Casinos ..... 34
8.17. Hairdressers and beauty salons ..... 35
8.18. Gyms ..... 36
8.19. Potable water ..... 37
8.20. Sewage and grey water ..... 37
8.21. Recreational water facilities ..... 38
8.22. Decorative fountains ..... 39
8.23. Commercial stores inside the accommodation facility ..... 39
8.24. Other public spaces (indoor and outdoor) ..... 39
8.25. Interface between ship and shore-based personnel ..... 40
8.26. Port visits, shore based activities and excursions ..... 40

**9. Managing COVID-19 cases on board cruise ships and at terminal stations** ..... 41

**9.1. Management of a possible/confirmed case** ..... 41

**9.2. Management of contacts** ..... 43

**9.3. Embarkation/disembarkation** ..... 43

**9.4. Reporting** ..... 43

**10. Testing policy and non-pharmaceutical measures for travellers (passengers and crew members) vaccinated or recovered from COVID-19** ..... 44

**11. Responding to COVID-19 events retrospectively** ..... 44

**12. Considerations for cruise terminals** ..... 45

**12.1. Physical distancing** ..... 45

**12.2. Preventing droplet transmission by the use of face masks** ..... 46

**12.3. Respiratory etiquette** ..... 47

**12.4. Hand hygiene** ..... 47

**12.5. Cleaning and disinfection** ..... 47

**12.6. Ventilation** ..... 47

**12.7. Health monitoring of terminal personnel** ..... 48

**12.8. Management of possible cases and their contacts at the cruise terminal** ..... 48

**12.9. Baggage handling** ..... 48

References ..... 62

# 1. Introduction

In January 2020 the European Union (EU) HEALTHY GATEWAYS joint action switched from operating under the inter-epidemic mode to operating in an emergency mode, at the request of the European Commission's Directorate-General for Health and Food Safety (DG SANTE). As stated in the Grant Agreement, the objective of the emergency mode is to support coherent response of EU Member States (MS) according to Decision No 1082/2013/EU and the implementation of temporary recommendations issued by the World Health Organization (WHO). Under this emergency mode, EU HEALTHY GATEWAYS is available to respond to any specific requests from DG SANTE or EU/EEA MS to provide technical support, advice or ad-hoc training at points of entry as needed.

An ad-hoc working group was established with members from the EU HEALTHY GATEWAYS joint action consortium. The names and affiliations of the working group members who prepared this document are listed at the end of the document. The working group produced the following guidance, considering the Communications, Recommendations and materials issued by the Commission about travel during the coronavirus pandemic (https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/travel-during-coronavirus-pandemic_en). Moreover, experience gained during the cruises conducted in the summer of 2020, as well as current evidence, the temporary recommendations from the WHO (https://www.who.int/emergencies/diseases/novel-coronavirus-2019) and the technical reports of the European Centre for Disease Prevention and Control (ECDC) (https://www.ecdc.europa.eu/en/coronavirus/guidance-and-technical-reports) on COVID-19 (as of 30 March 2021) were taken into consideration.

The guidance provided in this document is based on the current situation of the pandemic, and will be revised as needed after considering the epidemiological situation. This guidance does not and should not impact any safety, environmental protection or security standard on board a ship.

# 2. Purpose

Cruise ships are semi-closed environments providing shared facilities for many people on board. Since the beginning of the COVID-19 epidemic, outbreaks have been reported on board cruise ships affecting both passengers and crew. Unprecedented challenges were faced by both the cruise ship industry, the public health authorities and all related sectors in dealing with cruise ship evacuations and management of outbreaks of COVID-19. As on-going transmission is currently reported in many countries worldwide and considering that several cases are asymptomatic, it is expected that both asymptomatic and symptomatic COVID-19 cases will most likely occur on board cruise ships, as in similar touristic venues ashore, if preventive measures are not implemented. In addition to measures aimed at excluding infected persons from boarding a cruise ship, early detection and isolation of the first case, disembarkation, and quarantine of close contacts[2] in facilities ashore are

[2] A close contact of a COVID-19 case is any person who had contact with a COVID-19 case within a timeframe ranging from 48 hours before the onset of symptoms of the case to 10 days after the onset of symptoms. If the case had no symptoms, a contact person is defined as someone who had contact with the case within a timeframe ranging from 48 hours before the sample which led to confirmation was taken to 10 days after the sample was taken.
A: If a single or more cases sharing the same cabin have been identified on board, then the following definitions of contacts should be applied:

all essential elements for effectively preventing future COVID-19 outbreaks on board cruise ships (1). Implementation of the International Health Regulations 2005 provisions by both the competent authorities at ports and the ship operators, regarding availability of contingency plans at designated ports and on board ships and core capacities for health measures application, are imperative to prevent COVID-19 outbreaks and to avoid prolonged quarantine periods on ships.

The purpose of this document is to provide general guidance to EU/EEA MS and to cruise lines about options for measures on cruise ships (of any capacity or flag state that sail on an international voyage) that could be applied after lifting the restrictive measures implemented in response to the COVID-19 pandemic in 2021.

Similar to other holiday-makers, for cruise passengers, public health risks exist not only while travelling on board cruise ships, but during the entire journey beginning from home to the cruise ship, including the sites of embarkation/ disembarkation, and at all destinations visited en route.

The current guidance provides a list of measures to reduce the risk for introduction of COVID-19 onto the ship, transmission during cruise ship voyage, embarkation and disembarkation, and further provides options for preparedness to respond to potential COVID-19 cases among travellers (passengers and crew).

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High-risk exposure (close) contact

- A person who has stayed in the same cabin with a COVID-19 case;
- A person who had direct contact with infectious secretions of a COVID-19 case (e.g. being coughed on).
- A crew member who entered the cabin of a case while they were inside the cabin, without wearing appropriate PPE. For example, a crew member who cleaned the cabin of a case or who delivered food to the cabin.
- A person who has had face-to -face contact (on-board or on-shore) within 1.5 metres for more than 15 minutes or who was in a closed environment for more than 15 minutes with a case. For passengers this could include, but is not limited to, participating in common activities, attending a class or sharing the same social space such as at a restaurant. This also includes contact with intimate partners. For crew this may include working in the same area as a case or socialising with a case (including fellow crew members), waiting on a table where a case was dining or leading a social activity where the case was participating.
- Healthcare workers or other persons providing direct care for a case without wearing appropriate PPE.

Low-risk exposure (casual) contact

- Risk assessment of individual cases and their contacts will be conducted by the public health authorities and the ship to define the low-risk exposure (casual) contacts. Any data available from contact tracing technologies will also be considered.

B. If three or more confirmed cases who are staying in two or more different cabins and who are not travelling together (excluding the cases identified the day of embarkation): Risk assessment of individual cases and their contacts will be conducted by the public health authorities and the ship as part of contact tracing. Risk assessments could identify additional contacts who are not under the categories listed in part “A” of the definition. Any data available from contact tracing technologies will also be considered. Local/national regulations, definitions and procedures could also apply as part of the contact tracing.

A strategy for reducing the risks for COVID-19 among cruise ship passengers and crew should cover the entire process, beginning at the time of booking and extending until passengers and crew have returned to their homes. National policies for accepting incoming tourists to cross borders and to board cruise ships at the turnaround ports should also be considered in cruise line plans.

It is suggested that a gradual approach to restarting cruise ship operations should be considered. When resuming operations, cruise lines may initially consider using itineraries of a short duration (e.g. 3 to 7 days) and to perhaps limit the number of port visits in the itinerary. The willingness and capacity of countries included in the itinerary should be explored, and arrangements should be in place with the ports of call in accordance with the "Tool for contingency plan development and assessment for ports" produced by the EU HEALTHY GATEWAYS (2).

# 3. Essential prerequisites

According to the International Health Regulations (IHR) 2005, ports must have the capacities to provide appropriate public health emergency response, by establishing and maintaining a public health emergency contingency plan. Interoperability of the port public health emergency contingency plan with the cruise ship contingency plan/outbreak management plan should be ensured as described in the "Tool for contingency plan development and assessment for ports" produced by the EU HEALTHY GATEWAYS (2).

For each cruise ship operating in the waters of an EU/EEA MS, a ship contingency plan/outbreak management plan for responding to a COVID-19 event should be prepared by the operating cruise line (see paragraph 5.2) and submitted to the competent authority of the home port, in order to be reviewed and ensure interoperability with the port public health emergency contingency plan. It is recommended that both the cruise ship and the port designate a single point of contact to facilitate the coordination. In particular, before cruise lines resume operations, competent authorities in the EU/EEA MS and ship operators should ensure that the following conditions are met and have been fully addressed in this cruise ship contingency plan/outbreak management plan. The arrangements should cover any possible scenario including evacuation to hospitals for passengers and crew in need of care and shore facilities for isolation and quarantine of COVID-19 cases and close contacts. It is advised that these are formalised in a written agreement between the cruise company and the authorities of the ports (home port or contingency port or transit port) to be visited, describing all the detailed arrangements agreed. "Home port" is the port where cruise ship passengers embark to start the cruise and disembark the cruise ship at the end of the cruise. The home port should fulfil the criteria of a contingency port. Each ship should have at least one contingency port as part of a 7 night itinerary. The home port should always be the contingency port, but additional contingency ports could be defined. "Contingency port" is the port for which interoperability of the ship's contingency plan and the port's contingency plan has been ensured, and agreed that any potential COVID-19 outbreak on board this cruise ship will be managed at this port, including complete evacuation of the cruise ship if needed and isolation/quarantine of cases/contacts. "Transit port" is the port of call which is an intermediate stop for a cruise ship on its sailing itinerary, where passengers will get on or off ship for excursions.

To ensure local port facilities are not overwhelmed, each port should define the maximum capacities of ships and travellers as described in the "Tool for contingency plan development and assessment for ports" produced by EU HEALTHY GATEWAYS (2).

### 3.1. Monitoring of epidemiological situation, rules and restrictions worldwide

Before starting journeys and throughout cruise ship operations, it is essential that cruise lines monitor the epidemiological situation worldwide and at the cruise ship destinations, as well as at the places of origin of incoming passengers and crew (ECDC's COVID-19 Country Overview page: http://covid19-country-overviews.ecdc.europa.eu/#1_introduction). Monitoring of epidemiological data should include additionally any potential new variant of the SARS-CoV-2 virus, which could undermine the preventive measures applied. This will help assess the risk and adapt policies for screening and evaluating cruise ship passengers and crew members from countries with a high incidence of COVID-19, and furthermore to avoid destinations in countries with a high incidence of COVID-19. Cruise lines should have access to real-time information on the situation regarding borders, travel restrictions, travel advice, public health measures and safety measures at the destination ports (3). The European Commission has a dedicated website with an interactive map combining information from Member States and the tourism and travel industry, which is available at: https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-and-transportation-during-coronavirus-pandemic_en and https://reopen.europa.eu/en. Worldwide maps are available from the WHO website.

### 3.2. Written contingency plan/outbreak management plan for COVID-19

Each cruise ship should have in place a written, regularly updated and tested contingency plan/outbreak management plan for the prevention and control of possible cases of COVID-19 as described in paragraph 5.2. Interoperability of the ship contingency plan/outbreak management plan and the port public health emergency contingency plan should be ensured.

### 3.3. Arrangements for medical treatment and ambulance services

Before starting journeys, cruise ship operators should check and ensure with ports of call that, if needed, arrangements can be made for passengers and crew members to receive medical treatment ashore (including possible air evacuation if needed). This should be clearly described in both written contingency plans of cruise ships and at least the home port, with the possibility of also using additional contingency ports during the voyage.

### 3.4. Arrangements for repatriation

Before starting journeys, cruise ship operators should ensure with ports along the route that, if needed, repatriations and crew changes can be organised. It is suggested that cruise lines have in place repatriation plans for passengers and crew members, considering different scenarios for partial or complete ship evacuation in the event of a COVID-19 outbreak. Repatriation and visa arrangements should be the responsibility of the cruise ship operators. Cruise ships' home ports should have airports operating international flights allowing repatriation of passengers

and crew as necessary. Repatriation of passengers and crew are responsibilities of the ship companies in consultation and in accordance with the countries' rules. Criteria for allowing repatriation and air travel based on exposure to COVID-19 cases and laboratory results of passengers and crew should also be considered in the planning process by both the competent authorities at ports and the cruise ship operator. In addition, airline public health policies and public health policies of home countries should be considered in planning of repatriation processes. Crew members should be considered as essential workers and allowed to also travel during COVID-19 travel restrictions.

### 3.5. Arrangements for quarantine of close contacts (exposed passengers or crew members with negative RT-PCR test results for SARS-CoV-2)

Before starting journeys, arrangements should be made between the cruise line and the local/national authorities of the home port (and additionally other contingency ports of call, if applicable) for quarantine[3] facilities and procedures to be followed for close contacts. The facilities should be agreed upon and pre-specified (e.g. hotels), as well as the cost recovery for the health measures implementation. Residents of the country of disembarkation could be quarantined at home, according to local/national rules and procedures. Transport plans and hygiene protocols should be included in the contingency plan of the port, as well as the cruise ship contingency plan/outbreak management plan.

The procedures for management of close contacts can be found in the EU HEALTHY GATEWAYS Advice for ship operators for preparedness and response to an outbreak of COVID-19, available at: https://www.healthygateways.eu/Novel-coronavirus.

Close contacts that have been exposed to a confirmed case of COVID-19 should disembark as soon as possible, and be quarantined and monitored (self-monitored or otherwise according to the country procedures) in quarantine facilities ashore, in accordance with rules where quarantine is completed (1).

All close contacts should not be allowed to travel internationally, unless this has been arranged in accordance with WHO advice for repatriation. Crew members may remain on board in quarantine if single occupancy balcony cabins are available in a designated quarantine area that has limited access, where precautionary measures can be closely monitored and controlled. Moreover, for situations where disembarkation of passengers and quarantine ashore are not feasible (e.g. due to lack of quarantine facilities ashore or visa issues), close contacts may remain in the ship's quarantine facilities on board (separated and individually quarantined for the required period of time), provided strict control measures are implemented and cabins have access to natural light (window or balcony) and required services.

Control measures should include checks to ensure those in quarantine remain in their cabin at all times, that no cabin visitors are allowed, and that strict infection control procedures are

[3] Quarantine: the restriction of activities and/or separation from others of suspect persons who are not ill or of suspect baggage, containers, conveyances or goods in such a manner as to prevent the possible spread of infection or contamination.

followed for the provision of food and other services. Records of the quarantine measures taken and control measures for enforcement of quarantine should be maintained and available to authorities during inspections.

Different scenarios with the expected numbers of persons to be quarantined should be considered and included in the planning and arrangements. Article 40 of IHR postulates that no charge shall be made for appropriate isolation or quarantine requirements of travellers, but this has to be checked by the cruise line if ports of call are complying.

## 3.6. Arrangements for isolation of passengers or crew members positive for SARS-CoV-2

Before starting journeys, arrangements should be made between the cruise line and the local/national authorities of the home port (and if applicable any additional contingency ports of call) for isolation[4] procedures and facilities for symptomatic/ asymptomatic/ pre-symptomatic infected travellers (persons with positive RT-PCR test[5] or rapid antigen detection test (RADT) results for SARS-CoV-2). The facilities should be pre-specified (e.g. hospitals, hotels), as should the cost recovery for the health measure implementation. Any person who has tested positive for SARS-CoV-2 should disembark as soon as possible (in accordance with the EU HEALTHY GATEWAYS "Advice for ship operators for preparedness and response to an outbreak of COVID-19", available at: https://www.healthygateways.eu/Novel-coronavirus), be isolated in a facility ashore and monitored until the ECDC criteria for discharge are met (4). Different scenarios with the expected number of persons to be isolated should be considered and included in the planning and arrangements made between the cruise line and the local/national authority.

## 3.7. Adequate testing capacity for SARS-CoV-2 infection on board or in cooperation with shore-based laboratories

Before starting journeys, arrangements should be made to ensure that cruise ships have adequate laboratory diagnostic testing capacity for SARS-CoV-2 on board and/or through arrangements with shore side laboratories, to be used when a passenger or crew member is suspected of being infected, or as part of routine testing of passengers and crew (3). Arrangements should be made between the cruise line and laboratories ashore to ensure that RT-PCR tests can be organised and conducted ashore. Adequate supplies on board for conducting rapid diagnostic testing or NAAT[5] should be ensured (5). Medical staff on board

[4] Isolation: separation of ill or contaminated persons or affected baggage, containers, conveyances, goods or postal parcels from others in such a manner as to prevent the spread of infection or contamination.

[5] RT-PCR or other Nucleic Acid Amplification Test (NAAT) could be conducted, which should have the CE certification marking and should be in the list of the JRC IVD database (https://covid-19-diagnostics.jrc.ec.europa.eu/) or in the list of FDA with the in Vitro Diagnostics EUAs - Molecular Diagnostic Tests for SARS-CoV-2 and authorised for screening (testing asymptomatic individuals without known exposure) and can be used at home or otherwise as specified in the authorization list for certified laboratories or health care settings: https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emergency-use-authorizations-medical-devices/in-vitro-diagnostics-euas-molecular-diagnostic-tests-sars-cov-2#individual-molecular. Further information on diagnostics can be found on FIND, the global alliance for diagnostics: https://www.finddx.org/

should be trained in sample collection and field laboratory testing performance would need to be verified. Laboratory performance needs to be assured in accordance with national regulations and international professional standards for medical laboratory services. The ECDC guidelines for clinical specimens' collection and testing should be followed (6).

### 3.8. Training of crew about COVID-19

All persons intending to work on board (ship officers, crew members) as well as external contractors who interact with passengers or crew on board or ashore should complete training about COVID-19, as described in paragraph 5.1. For external contractors, this training may be conducted internally, or they may be supplied with written guidance describing symptoms and requesting them to report symptoms, perform hand hygiene frequently, practise physical distancing, respiratory etiquette, and wear face masks. Knowledge about COVID-19 should be regularly checked and reinforced using refresher training.

Regular table-top exercises or drills should be conducted (e.g. before resuming operations after changing crews, general on a monthly basis) to train all staff on procedures related to prevention, detection, surveillance, reporting and response to COVID-19, response time, departmental cooperation, procedures and equipment. A drill/table-top exercise normally includes participant instructions, scenarios and evaluation tools.

### 3.9. Commitment for immediate reporting to the next port of call of any possible and confirmed cases

An essential pre-requisite for resuming cruise ship operations is the immediate reporting of any possible and confirmed case of infection, including possible and confirmed[6] COVID-19 cases, to the next port of call by submitting the Maritime Declaration of Health (MDH). Early detection and immediate reporting are key factors for preventing outbreaks of COVID-19 on board ships. Before cruise ship operations begin, all involved parties (National Single Window, ship agents, port state control authorities, and health authorities at all levels) must ensure that written and clearly defined procedures are agreed upon and implemented for immediate reporting through the MDH of any possible case of infection, to the health authority at the next port of call.

Any previous practice/policies for reporting of Influenza-Like Illness (ILI) aggregated data only at the end of voyages, should be stopped. This approach should be replaced by routine testing, actively looking for any person on board meeting the definition of a possible COVID-19 case, immediately reporting to the next port of call, and activating a ship contingency plan/outbreak management plan for management of the confirmed case and contacts.

It is suggested that EU/EEA MS competent authorities at the port level use the SHIPSAN Information System (SIS) to record health measures taken in response to possible or confirmed

[6] Possible case: any person with at least one of the following symptoms: cough, fever, shortness of breath, sudden onset of anosmia, ageusia or dysgeusia. Additional less specific symptoms may include headache, chills, muscle pain, fatigue, vomiting and/or diarrhoea (source: Case definition for coronavirus disease 2019 (COVID-19), as of 3 December 2020. https://www.ecdc.europa.eu/en/covid-19/surveillance/case-definition).

COVID-19 cases on board cruise ships. In parallel, the authorities at central level (national IHR focal point) must always be informed by the authorities at local level.

### 3.10. Isolation and quarantine capacity on board cruise ships

Cruise ship operators should reduce the number of passengers and crew on board to ensure that measures related to physical distancing on board ships can be maintained, and that temporary isolation and quarantine of passengers and crew can take place individually in cabins.

Cruise ship operators are advised to ensure they are able to individually and temporarily isolate or quarantine (in a single cabin) confirmed COVID-19 cases/contacts:

- 5% of passengers and 5% of crew on board (until disembarkation and quarantine/isolation according to the contingency plan/outbreak management plan will take place), for ships where it will not be possible to disembark crew and passengers who need to be quarantined or isolated within 24 hours from detection of the first possible COVID-19 case, according to the ship contingency plan/outbreak management plan.

- 1% of passengers and 1% of crew on board for ships where it will be possible to disembark crew and passengers who need to be quarantined or isolated within 24 hours from detection of the first possible COVID-19 case.

These proportions apply only to the initial phase of restarting operations, and will be re-considered and revised in the current document as appropriate depending on the epidemiological situation. Moreover, as far as possible it is advised that the maximum number of crew members living in the same cabin and/or sharing a bathroom should not be more than two persons.

Consideration should be given to embarking a sufficient number of critical staff on board, in order to respect and maintain the Minimum Safe Manning requirements in case of a COVID-19 outbreak on board.

### 3.11. Focused inspection on COVID-19 prevention and control for resuming cruise ship voyages by EU HEALTHY GATEWAYS

EU HEALTHY GATEWAYS will support the competent health authorities in EU/EEA MS after their request, to perform focused inspections on board each cruise ship and ashore, and review procedures and written plans of each cruise ship and cruise line, to ensure that the below mentioned measures are met by both the cruise ship operator and the port authority. Inspectors should be provided access to the documentation required for inspection. The EU HEALTHY GATEWAYS joint action will support the inspections by providing: a) a checklist based on the current advice document; b) training of inspectors working at local authorities (through webinars); c) scheduling at an EU/EEA level to avoid duplication of inspections in the various ports of call; and d) the EU/EEA database to record inspection results and inspection follow-up in the SHIPSAN Information System (secure area accessed only by the SHIPSAN inspectors).

Results of the focused inspections will not be published. The inspections will be scheduled in cooperation by EU HEALTHY GATEWAYS joint action work package 7 with the companies and competent authorities at ports (preferably the home port, and if needed, the contingency ports). Focused inspections will be announced to the companies at least four days in advance. It will not be necessary to conduct the inspection before starting cruise ship operations. This could be arranged at any date and at any port (the first days of sailing), in agreement with the company and the inspectors. Further details are described in the checklist for conducting focused inspections. If time allows, hygiene inspections according to the European Manual could be conducted; however, priority will be given to the focused inspection for COVID-19 and compliance with the current advice and/or any local/national rules and regulations.

# 4. Options for measures to prevent COVID-19 infectious passengers from starting holidays

## 4.1. Vaccination of passengers

Passengers should be advised by family doctors to be vaccinated at least three weeks prior to the voyage, in order to develop immunity before boarding the ship. In this respect, passengers should seek the advice of family doctors or travel medicine practitioners. Travel companies and travel agencies should advise travellers to seek health information from a medical professional prior to their cruise and be vaccinated as per medical professionals' advice. Vaccinated passengers should hold an official proof of vaccination and if asked, inform the medical staff on board and/or the public health authorities about their vaccination status. The vaccine delivered should be included in the list of approved vaccines of an internationally recognized authority (i.e. EMA, WHO or US FDA-approved vaccines). Any data kept by the ship operators should be handled in accordance with the relevant legislation for personal data protection. The European Commission proposed creating a 'Digital Green Certificate' to facilitate safe free movement inside the EU during the COVID-19 pandemic. The 'Digital Green Certificate' is designed as proof that a person has been vaccinated against COVID-19, received a negative test result or recovered from COVID-19. This Certificate will be used for travelling once it is adopted (7).

## 4.2. Diagnostic testing or other measures in accordance with the requirements for incoming travellers to the country of embarkation

Passengers who have travelled from abroad to the country of embarkation must comply with the requirements for incoming travellers to the country of embarkation. For example, this could be testing within 72 hours before arrival on the cruise ship with RT-PCR or other NAAT[5] or RADTs (listed in the document "Common list of COVID-19 rapid antigen tests, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates", https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf) as required in the country of embarkation (8). Only those with negative test results will be allowed on board the cruise ship, after the test at the day of embarkation is also negative (see paragraphs 6.2 and 7.2).

## 4.3. Exclusion policy

Cruise lines should develop an exclusion policy with regard to COVID-19 and inform the travelling public about the policy through their travel agents, travel companies, cruise line operators and other businesses operating in the tourism sector. Harmonisation of this policy in the cruise industry, or consistent wording would facilitate acceptance and understanding by the public. Symptomatic and potentially exposed passengers should not be accepted to travel, as is in place for air travel. In this respect, any person experiencing symptoms compatible with COVID-19, or if identified anyone who meets the definition of a "contact", or anyone who tests positive for SARS-CoV-2 as part of the pre-travel testing and/or day of embarkation testing by RT-PCR[7] or a RADT (listed in the document "Common list of COVID-19 rapid antigen tests, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates", https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (8) would not be accepted on board cruise ships.

### 4.3.1. Exclusion policy information

Cruise line operators and tour operators should provide all relevant information about the exclusion policy, as well as any pre-requisites and country specific rules on their websites and electronic reservation systems. Ideally, it should be obligatory to read the information in order to complete the reservation. These materials should be available in the national language, English and, where needed, other languages based on the most common language profiles of the passengers travelling on the respective cruise ship. Moreover, relevant information could be shared directly with passengers via email, text message, mail, website or other means of communication.

## 4.4. High risk groups

As long as the pandemic continues, special precautions may be applied to passengers and crew belonging to high risk groups. Passengers in high risk groups (people over 60 years of age or people of any age with underlying medical conditions (chronic diseases including cardiovascular disease, diabetes, hypertension, chronic respiratory diseases and immunocompromised individuals, severe overweight, e.g. BMI > 40)) should be advised to visit a doctor for pre-travel medical consultation to assess if they are fit to travel. Travellers in high risk groups should be advised to be vaccinated before travelling. Whenever feasible, activities and services on board cruise ships could be organized according to age group, so that older individuals are separated from other age groups. Crew members in high risk groups could work in positions where there is little or no interaction with other individuals and could be given priority/offered/ facilitated vaccination. Moreover, advanced respiratory protection (e.g. filtering face-piece class 2 or 3 (FFP2/FFP3) respirators[7]) could be prioritized for use by crew members belonging to high risk

[7] **Respirator or filtering face piece (FFP):** designed to protect the wearer from exposure to airborne contaminants (e.g. infectious agents inhaled as large or small particle droplets) and is classified as personal protective equipment (PPE). Respirators are mainly used by healthcare workers to protect themselves, especially during aerosol-generating procedures. Respirators comply with requirements defined

groups (if respirators are available for use by the public and if sufficient supplies of respirators are available after prioritization for use in healthcare settings).

# 5. Preparedness for responding to COVID-19 events on board cruise ships

## 5.1. Information, education and communication

Communication strategy and training plans

A communication strategy should be designed and implemented targeting the travelling public and the crew, defining the messages, the appropriate communication means and timing. The communication plan should cover processes related to ticketing, at pre-arrival, at the terminal, on board, as well as the procedures in case of a COVID-19 event.

Each cruise ship operator should design a training plan for their employees, with regular and on-going training. For example, a short webinar covering the topics listed in the following paragraph could be conducted.

Training content for crew

Cruise line operators should provide training and instructions to their crew regarding the recognition of the signs and symptoms compatible with COVID-19. Attention should be given to crew well-being.

Cruise line crew should be reminded of the procedures that should be followed when a passenger or a crew member displays signs and symptoms indicative of COVID-19. Each member of the crew should be trained in their role and responsibilities to implement measures as per the contingency plan/outbreak management plan. COVID-19 knowledge should be regularly checked and reinforced using refresher training.

Crew should also be instructed that if they develop symptoms compatible with COVID-19, they should not come to work. If symptoms develop while working, the crew member should immediately self-isolate, and inform their designated supervisor/manager and medical staff immediately. Symptoms should be reported for both themselves and other crew members or passengers, if noted.

The cruise ship operator should also reassure crew that those who report symptoms and are unable to work will continue to be paid.

in European Standard EN 149:2001+A1:2009. Because the various respirators fit users differently, they need to be fitted individually in order to match each user. (European Centre for Disease Prevention and Control. Guidelines for the implementation of non-pharmaceutical interventions against COVID-19. Stockholm: ECDC; 2020) https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-guidelines-non-pharmaceutical-interventions-september-2020.pdf

Cruise line operators should also provide training and instructions to crew regarding physical distancing measures, managing crowds, respiratory etiquette, use of face masks[8] (respirators, medical mask or non-medical "community" mask), strategies to improve face mask fit, ventilation in closed rooms, use of other PPE, as well as protocols for cleaning and disinfection (see Annex 1 for PPE donning and doffing techniques).

Crew who visit or stay in local areas at the various destinations should be informed in a timely manner about any national or local preventive measures or laws established by local or national public health authorities regarding COVID-19.

Medical staff on board should be trained in appropriate sample collection as well as storage and transport of the samples.

Information and communication to passengers

Cruise lines, travel companies and travel agencies should provide relevant pre-travel information about mitigating the risk of COVID-19 infection to their passengers as a part of their travel information. In this context, information regarding the symptoms of COVID-19, the associated health risks especially for vulnerable groups, and the importance of preventive measures should be provided together with bookings. To support on board preventive measures, cruise lines may share details of recommended personal hygiene items to carry during their travel from home and during their time on board the ship (e.g. alcohol-based hand rub solution, sufficient supply of face masks for the duration of the trip etc.).

Companies and travel agencies should inform travellers that they may be refused boarding if they have symptoms which are compatible with COVID-19, have had a positive RT-PCR test or other type of test result for SARS-CoV-2, or have been exposed to a COVID-19 confirmed case, as per the company's exclusion policy. The ticketing process should include information regarding the latest health and safety considerations, including those posed by COVID-19. During the ticketing process passengers should be informed about eligibility requirements.

Content of information and communication messages to crew and passengers

Before travelling, and, if applicable, regularly during the voyage, information should be provided to passengers and crew members (e.g. through electronic posters, recorded messages etc.). The information should include:

[8] **Medical face mask** (also known as surgical or procedure mask): a medical device covering the mouth, nose and chin to provide a barrier that limits the transmission of an infective agent between hospital staff and patients. The masks are used by healthcare workers to prevent large respiratory droplets and splashes from reaching the mouth and the nose of the wearer and to help reduce and/or control the spread of large respiratory droplets at source. Medical masks comply with requirements defined in European Standard EN 14683:2014. **Non-medical face masks (or "community" mask):** include various forms of self-made or commercial masks and face covers made of cloth, other textiles or other materials (e.g. paper). They are not standardised and not intended for use in healthcare settings or by healthcare professionals. (ECDC. Guidelines for the implementation of non-pharmaceutical interventions against COVID-19. Stockholm: ECDC; 2020) https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-guidelines-non-pharmaceutical-interventions-september-2020.pdf
The European Committee for Standardization (CEN) published Workshop Agreement guidelines (CWA 17553) on minimum requirements for non-medical "community" masks (https://www.cencenelec.eu/research/CWA/Documents/CWA17553_2020.pdf). Other standardization organizations have also published standards for non-medical "community" masks.

- boarding screening measures where applied;
- any requirements for COVID-19 testing prior to travel/embarkation;
- if passengers or crew have been vaccinated, then it is advised to carry with them the SARS-CoV-2 vaccination certificate, and present it to the ship officers and/or health authorities (if asked as part of the risk assessment of a COVID-19 event);
- symptoms compatible with COVID-19, including sudden onset of at least one of the following: newly developed cough, fever, shortness of breath, sudden loss of taste/smell;
- likelihood of being denied boarding if they have developed symptoms of COVID-19 or have been in contact during the last 14 days with a COVID-19 patient;
- advice on the risk of travelling for all individuals with chronic diseases and immunocompromised individuals;
- recommendation for passengers over 60 years of age to consult with their medical care provider to obtain advice on their ability to travel;
- hygiene measures: hand washing with soap and water or hand hygiene with alcohol-based hand rub solution (containing at least 60% ethanol or 70% isopropanol), respiratory (coughing and sneezing) etiquette, disposal of used tissues, physical distancing (including the elimination of handshaking, hugging, high fives, etc.), use of face masks, avoiding touching the nose, eyes and mouth without previously washing hands etc.;
- actions to take in case COVID-19 compatible symptoms develop;
- rules and health measures implemented on board cruise ships at the destination (e.g. physical distancing, when or where use of face masks is required, disembarkation) (9);
- the need to immediately report to cruise ship crew if passengers develop respiratory symptoms during travel, including means of reporting to crew (e.g. providing dedicated number or location to contact), crew will then inform the designated officer for the contingency plan/outbreak management plan implementation;
- after disembarkation the need to self-isolate and seek immediate medical care (including how to seek medical care) if developing any of the following: fever, cough, difficulty breathing, sudden loss of taste/smell, and to share previous travel history with the health care provider.

## 5.2. Contingency planning on board

Operators of cruise ships should have in place written contingency plan/outbreak management plans for the prevention and control of COVID-19 transmission on board the ship. For the implementation and execution of the written plan, one dedicated position/named individual/coordinator and a substitute (e.g. a ship officer with alternate) or an outbreak management committee should be appointed, who will be designated in the

written plan. It is good practice to have a dedicated Public Health Officer or medical person who will coordinate the execution of the company's infection prevention and control program. The contingency plan/outbreak management plan should include the following as applicable:

A. Preventive measures

- Physical distancing

- Personal hygiene rules

- PPE use

- Health monitoring of symptoms for cruise ship crew, and when applicable passengers through daily contactless temperature measurements or self-checks and record keeping

- Procedures for responding to a possible case (temporary isolation, arrangements for medical examination and laboratory testing)

- Standard Operating Procedures (SOP) for cleaning and disinfection covering all types of surfaces and materials, defining the disinfectants and the methods to be used

- SOP for laundry of linen and clothing

- SOP for cleaning and disinfection of body fluid spills in the environment

- Food safety management (e.g. dining and food service arrangements)

- Potable water safety management

- Recreational water safety management

- Ventilation of indoor areas

- Communication plan including reporting public health events to the competent authorities

- Data management of health and screening documents (e.g. Passenger/Crew Locator Forms, Maritime Declaration of Health)

B. Measures for response and management of a possible/confirmed case COVID-19

- Interviewing of cases

- Isolation/quarantine plan of the possible case and their close contacts

- Collaboration with the national competent authorities for contact tracing, quarantine of contacts and isolation of cases

- Referral (if required) to hospitals or isolation/quarantine facilities ashore

- Cleaning and disinfection procedures of contaminated spaces, objects and equipment (daily and final cleaning and disinfection)

- Communication strategy for informing the contacts of a confirmed COVID-19 case among the passengers/crew, retrospectively including psychosocial support.

## 5.3. Supplies and equipment

Adequate and sufficient medical supplies and equipment should be available on board cruise ships to respond to a case or an outbreak. Adequate supplies of disinfectants, hand hygiene supplies, tissues, face masks and no-touch bins for waste disposal should be carried on board cruise ships and also made available at the embarkation and disembarkation facilities.

An adequate supply of diagnostic tests (RT-PCR diagnostic panel test kits, RADTs (please see WHO recommendations: Antigen-detection in the diagnosis of SARS-CoV-2 infection using rapid immunoassays (who.int)) and equipment for collecting specimens to be tested at ashore facilities or on board should be available.

Supplies of PPE should be carried on board including: medical face masks and respirators (e.g. FFP2 or FFP3, or equivalent standard), eye protection (goggles or face shields), gloves, and long-sleeved impermeable gowns (aprons could also be included). It is recommended that face masks do not have exhalation valves since they may allow the release of exhaled droplets from the wearer, and thus cannot be used for source control.

Further details about PPE and supplies specific to COVID-19 can be found at: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance (please see: a) *COVID-19 operational support and logistics disease commodity packages* and b) *Technical specifications of personal protective equipment for COVID-19*).

Adequate supplies of PPE for use by passengers and crew should also be available (please see Annex 1). If crew and passengers will be using non-medical "community" masks, non-medical masks could be carried on board to ensure an adequate supply for the duration of the trip. Non-medical "community" masks are not considered PPE but could be used as a means to prevent droplet transmission (mainly intended for source control). These masks should be constructed of multiple layers of tightly woven, breathable fabric and may be manufactured or homemade.

Considerations regarding the filtration, breathability and fit of manufactured non-medical masks can be found here: https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak. Furthermore, the European Committee for Standardization (CEN) published guidance on minimum requirements for non-medical "community" masks (https://www.cencenelec.eu/research/CWA/Documents/CWA17553_2020.pdf) as have other standardization organizations.

Further recommendations for the type of PPE required according to the job position and the setting can be found here: https://www.healthygateways.eu/Novel-coronavirus

Additional medical staff should be considered to be available on board if required (e.g. based on passenger load/demographics etc.) in order to support surveillance, contact tracing, testing and case management. Medical facilities and shipboard accommodation spaces should be enhanced to provide sufficient on board critical care capacity for COVID-19 cases and separation of infectious and non-infectious patients.

# 6. Crew vaccination and testing

## 6.1. Vaccination of crew members

It is recommended that all seafarers be vaccinated against COVID-19. Currently, seafarers may be vaccinated in accordance with their national vaccination programme. Seafarers, as transportation workers, are recommended to be considered as a priority group by EU/EEA MS for vaccination against COVID-19 in accordance with the European Commission Communication (10). Vaccination of crew for ships sailing in EU/EEA MS should be legally acquired from official sources. Vaccinated crew members should hold an official proof of vaccination and inform their employer about their vaccination status. The vaccine delivered should be included In the list of approved vaccines by an internationally recognized authority (i.e. EMA, WHO or US FDA). Records of crew members who have received vaccination, including names and dates, should be kept in order to help in decision making regarding public health measures during a potential outbreak situation. Any data kept by the ship operators should be handled in accordance with the relevant legislation for personal data protection.

## 6.2. Testing of crew members before resuming operations and incoming crew members

Before resuming operations, cruise lines should perform RT-PCR or other NAAT[5] for SARS-CoV-2 to all crew members that are already on board the cruise ships. If positive results are found, then the contingency plan/outbreak management plan for management of cases available on board should be activated and implemented, as described in the EU HEALTHY GATEWAYS advice “Advice for ship operators for preparedness and response to an outbreak of COVID-19” available here: https://www.healthygateways.eu/Novel-coronavirus.

Incoming crew members (new employments or crew returning to the ship from home leave) should have been tested for SARS-CoV-2 with RT-PCR or other NAAT[5], within 72 hours before arrival on the cruise ship. Only those with negative test results will be allowed on board the cruise ship, provided that the additional diagnostic test (RT-PCR or RADT) conducted the day of embarkation is also negative.

All crew should undergo an RT-PCR or other NAAT[5] or RADT the day of embarkation (new employments or crew returning to the ship from home leave). The type of rapid antigen diagnostic test should be listed in the document “Common list of COVID-19 RADT, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates”,

https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (8).

Incoming crew members should be quarantined on board or ashore for 10 days and then be tested with RT-PCR or other NAAT[5] at the end of the quarantine period (on day 10). After their quarantine ends and if the test results are negative, they can start their regular work schedule on board the cruise ship. The same testing applies to crew members who are transferred from other vessels.

### 6.3. Routine testing of crew members

Once on board ships that operate with passengers and working in a regular work schedule, crew members should be tested with RT-PCR or other NAAT[5] or RADTs every 7 days. The type of rapid antigen diagnostic test should be listed in the document "Common list of COVID-19 RADTs, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates", https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (8). This practice should be considered as an additional layer of measures applied, and should not create a false sense of security.

Other control measures should be implemented in addition to diagnostic testing (e.g. hand hygiene, physical distancing, PPE use, adequate ventilation, cleaning and disinfection etc.).

In the event that a case of COVID-19 is identified among the crew members (except from incoming crew members that are in quarantine on board the ship), the contingency plan/outbreak management plan for management of cases available on board should be activated and implemented, as described in the EU HEALTHY GATEWAYS document "Advice for ship operators for preparedness and response to an outbreak of COVID-19" available here: https://www.healthygateways.eu/Novel-coronavirus. Crew members and passengers of the cruise ship should be tested with RT-PCR or other NAAT[5] or RADTs as soon as possible, in accordance with the risk assessment conducted as part of the contact tracing process. Depending on results of the risk assessment, it could be decided to conduct tests not only on close contacts, but also on low risk contacts.

## 7. Options for measures to prevent COVID-19 infectious travellers (passengers and crew) from boarding cruise ships

### 7.1. Screening at embarkation

Pre-boarding screening aims at assessing the presence of symptoms and/or the exposure to COVID-19 cases of arriving travellers. Travellers identified as exposed to or potentially infected with SARS-CoV-2 will be quarantined or isolated and treated, respectively.

Pre-boarding screening can identify symptomatic travellers and those who truthfully declare their past exposure. Screening measures may not identify mild symptoms, asymptomatic,

incubating travellers or those concealing symptoms (e.g. by using antipyretics) (11-13). Those travellers may not be detected and therefore may still board the ship.

Pre-boarding screening measures are generally conducted as a two-step process: primary screening and secondary screening (14, 15). Primary screening normally includes an initial assessment by personnel, who may not be public health or medically trained. This may include observing travellers for any signs of infectious disease and checking their body temperature. This should be supported by completion of a health screening questionnaire and Passenger Locator Form on the day of departure, asking about the presence of relevant symptoms and/or exposure to any COVID-19 cases. An example pre-boarding health declaration questionnaire is included in Annex 2.

Where feasible, the use of electronic questionnaires is preferable to hard copy questionnaires, in order to help minimise crew contact. Requirements under the General Data Protection Legislation (GDPR) must be followed for any personal data collected from individuals, in hard copy or electronically.

Travellers who have COVID-19 compatible signs or symptoms, or have been potentially exposed to SARS-CoV-2, should be referred to secondary screening. Secondary screening should be carried out by personnel with public health or medical training. It includes an in-depth interview, a focused medical (and if necessary laboratory) evaluation, and a second temperature measurement (16). Possible cases should not be allowed to embark, and a decision about allowing embarkation should be taken after considering the laboratory results, the symptoms and exposure. A standard policy should be implemented for denial of boarding to any exposed or symptomatic possible case among passengers and crew. Standard operating procedures should be in place for case management at the terminal facilities and ashore facilities (transportation, accommodation, health monitoring, precautions, duration of isolation, criteria for release from isolation and allowing repatriation) if possible cases will be confirmed by diagnostic testing.

If the port requires it, temperature screening could be conducted before disembarkation.

## 7.2. Diagnostic testing of passengers the day of embarkation

All passengers (except from children under the age of 6 years) should undergo an RT-PCR or other NAAT[5] or RADT the day of embarkation (or the first day of the cruise if the tests cannot be performed the day of embarkation). If RADTs will be conducted, the type of RADTs should be listed in the document “Common list of COVID-19 rapid antigen tests, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates”, https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (8).

# 8. Measures for preventing and limiting transmission of COVID-19 on board cruise ships

## 8.1. Health monitoring and diagnostic testing

Routine on board health monitoring for all crew and other shore side staff can help with early detection of symptomatic COVID-19 cases. Daily contactless temperature measurement or self-check measurement and immediately reporting to supervisors of any mild or severe symptoms compatible with COVID-19 is of high importance. Any crew with a temperature at or above 38°C should immediately self-isolate, be provided with appropriate PPE (e.g. medical face mask) and inform their designated supervisor/manager and medical staff. Salaries should continue to be paid in these cases. In the event of a possible COVID-19 case on board, the frequency of contactless temperature measurement of crew may be increased (e.g. to twice per day). However, body temperature measurement should be considered as an additional layer of measures applied, which has its own limitations: not all COVID-19 cases will have fever; incubating patients will not present with fever and fever can be masked with antipyretics.

Daily contactless temperature measures or self-checking for all passengers may also be conducted to support early detection of symptomatic COVID-19 cases. Any passenger with a temperature at or above 38°C should immediately self-isolate, report symptoms to medical staff for further evaluation and be provided with appropriate PPE (e.g. medical face mask). In the event of a possible COVID-19 case on board, the frequency of contactless temperature measurement may be increased (e.g. to twice per day).

Rapid antigen detection test or RT-PCR[5] of all passengers should be conducted during the cruise. Testing should begin on day 3 of the cruise, and can be combined with any required point of entry disembarkation testing for cruises which are less than 8 days duration. If a RADT will be conducted, the type of RADT should be listed in the document "Common list of COVID-19 rapid antigen tests, including those of which their test results are mutually recognised, and a common standardised set of data to be included in COVID-19 test result certificates",
https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/covid-19_rat_common-list_en.pdf (8).

## 8.2. Surveillance of black water for SARS-CoV-2

Sewage testing could be considered as an option to monitor the presence of SARS-CoV-2 virus in untreated black water as an early warning for COVID-19 cases on board the cruise ship. Results from sewage testing could be considered in conjunction with findings from clinical and diagnostic testing. Positive samples will indicate the presence of cases on board the ship and further actions should be triggered (e.g. active surveillance for cases if all diagnostic tests are negative).

A study on cruise ships and aircrafts showed that the sensitivity depends on sampling methods and molecular assays and is generally low (17). Thus it could be used only as a supplementary surveillance tool.

If surveillance of black water has been decided by the ship operator, untreated sewage samples could be collected from the influent of the ship's sewage treatment plant. If this is not possible then the samples should be collected from the holding tank. The proposed sampling frequency is at least 2 samples / week.

Samples may be either composite samples or grab samples. 24h composite samples can be collected by installing a programmable automated sampler (time proportional or flow proportional) in the sewage inlet of the ship's sewage treatment plant. During the sampling, the sample container should be kept at 2-8°C. Temperature can be controlled with the use of refrigerated samplers or with ice packs/ice bags. When an automated sampler is not available, it is recommended that multiple grab samples should be obtained. It is proposed to collect four distinct grab samples (500 ml) with a 3-hour interval in between, and merge the grab samples to a single composite sample.

A total volume of 500 ml should be sufficient for molecular analysis. In any case, the collaborative laboratory should be consulted about the sampling method and samples' transportation. Samples should be stored at least at –20°C during the ship's journey. Samples should not be pasteurized. Samples should be shipped in isothermal boxes containing ice packs at 2-8°C to ensure sample preservation during shipping.

## 8.3. Limiting interaction

In order to limit interaction among passengers, among crew, and between crew and passengers, it may be possible to divide passengers and crew into cohorts with appropriate numbers of people. Each group could be given scheduled times for food service, embarking and disembarking and participating in some on board activities. If it is not possible to maintain separate cohorts/groups on board, cohorts/groups should be maintained for shore based activities. Interaction between each cohort should be avoided as much as possible. This will help in the management of any potential COVID-19 case and their contacts, and should help to limit the number of exposed persons, as well as tracing possible close contacts.

This is particularly important for crew members where physical distancing and interaction cannot be avoided in the work place.

If it is not always possible to use cohorts, operators should implement ad hoc risk mitigation measures.

All crew designated to work with identified possible/confirmed COVID-19 cases should ideally have cabins in similar locations and dine together as a group, which minimises their traversal of the ship through common areas.

## 8.4. Physical distancing

Physical distancing of at least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) should be maintained at waiting areas and during boarding at transport stations, by adopting special markings and controlled entry measures. In addition to physical distancing measures practiced on board, the use of face masks should be required (please see Annex 1). One-directional flow of passengers should be implemented if possible.

Cruise ship crew could oversee the process and compliance with physical distancing measures to avoid crowding. Operating procedures could be implemented to control the flow of passengers. Moreover, to decrease crowding and support physical distancing, outdoor spaces could be utilized for group events and procedures like muster drills could be staggered.

Special floor markings could be considered at all possible traveller congestion points, such as ticket offices, passenger services, bars, restaurants, shops, entertainment areas and shared toilets to ensure physical distance is maintained.

If appropriate physical distancing cannot be guaranteed, the use of protective transparent (e.g. glass or plastic) panels should be considered at places such as reception areas, at bars and restaurants.

Each port terminal should conduct an initial assessment and identify the areas where passengers and crew queue in order to implement measures ensuring physical distancing, including signage, audio announcements, floor markings, directional arrows for traveller flows and management by crew. This should include outdoor sunshades where travellers gather during the summer months to await boarding. During embarkation/disembarkation, several gangways should be used if possible to avoid crowding of passengers.

Where there are permanent non-moving seats either indoors or outdoors, there should be special markings on where a passenger is and is not allowed to sit, in order to maintain physical distance.

## 8.5. Personal hygiene measures

Good hand hygiene should be maintained, with frequent and thorough hand washing conducted by passengers and crew using soap and water. If hands are not visibly soiled, then alcohol-based hand rub solutions may be used (these should contain at least 60% ethanol or 70% isopropanol) and preferably be touchless stations. It should be noted that the use of gloves does not replace hand hygiene and that glove use in the community is not recommended to prevent transmission of SARS-CoV-2. Furthermore, glove use may provide a false sense of security.

Stations with alcohol-based hand rub solutions (containing at least 60% ethanol or 70% isopropanol) should be available at all entrances/gangways to the ship and in other areas

such as crew/work areas, elevators, check-in areas, entertainment venues, casinos, bars and restaurants.

Cruise ship operators should provide information to passengers and cruise ship crew on hand hygiene related issues, and where necessary the appropriate facilities and equipment (18):

- Hand washing techniques (use of soap and water, rubbing hands for at least 20 seconds etc.)
- When hand washing is essential (frequent and meticulous hand washing must be performed and can be done for example before boarding and after disembarkation, after assisting an ill traveller or after contact with environmental surfaces they may have contaminated, prior to eating/drinking, after using restrooms, before wearing and after removing face masks and other PPE etc.)
- When hand rubbing with an alcohol-based solution can be used, instead of hand washing and how this can be performed
- Respiratory etiquette during coughing and sneezing with disposable tissues or clothing
- Avoid touching with hands the eyes, nose or mouth
- Appropriate waste disposal
- Proper use and storage or disposal of face masks (medical masks and non-medical "community" masks)
- Avoiding close contact with people suffering from acute respiratory infections

## 8.6. Respiratory etiquette

Respiratory etiquette should be advised: the nose and mouth should be covered with disposable paper tissues when sneezing or coughing and then the tissue should be disposed of immediately in a no touch bin, followed by meticulous hand hygiene using water and soap or an alcohol-based hand rub solution. It is important to have relevant supplies available in different areas around the cruise ship (e.g. tissues or paper towels and disposable gloves, no touch bins etc.). If disposable paper tissues are not available, coughing or sneezing into the elbow is recommended.

Information about respiratory etiquette should be provided to passengers via recorded communications, leaflets, infographics, electronic posters etc.

## 8.7. Preventing droplet transmission by the use of face masks

Cruise ships are semi-closed environments with common areas that may allow extended periods of close contact between people. As described in Annex 1, it is suggested that crew

members and passengers use medical face masks (and that strategies to improve fit[9] are considered). Respirators (e.g. FFP2 standard) could also be considered for crew members and passengers if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings.

Given limited availability of respirators, their use should be prioritized considering:

- Setting and job position: prioritized for health care workers, medical personnel or those providing direct care to a possible or confirmed COVID-19 case, especially if aerosol-generating procedures are performed

- Vulnerability of wearer: use of respirators if available for use by the public could be prioritized for crew members and passengers belonging to high-risk groups for severe COVID-19 complications or those that have not been vaccinated against SARS-CoV-2

If medical face masks or respirators are unavailable, non-medical "community" masks with multiple layers of tightly woven, breathable fabric could be used (and considered together with strategies to improve the mask's fit).

Further details about strategies that can be used by crew members to improve face mask fit can be found here: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html

In accordance with the prioritization above, face masks should be used by all crew members at all times on board when exiting/outside of individual cabins (exceptions include during eating and drinking, seated on sunbeds, swimming or doing other activities where the mask would get wet, in which case physical distancing should still be practiced). This should also apply to crew members who are off duty and outside of cabins, as well as shore-based personnel (e.g. maritime pilots, port workers, medical personnel etc.) boarding the ship.

Face masks should be used by passengers at all times in all areas on board when exiting/outside of their cabins (for example, exceptions include during eating or drinking,, seated on sunbeds, swimming or doing other activities where the mask would get wet, in which case physical distancing should still be practiced). Crew members and passengers should use a medical face mask in any public indoor space and any public outdoor space on the ship, in addition to maintaining physical distancing. Exceptions may be allowed for the use of medical face masks outdoors where this is not required by the health authorities. However, they must be worn outdoors if physical distancing cannot be maintained. When crew members and passengers are ashore they should follow the rules of each country.

Face masks should be used at all times during embarkation, disembarkation, when entering or at the terminal station and during shore-based activities/excursions.

[9] Strategies to improve mask fit include using masks with nose wires, using mask fitters/braces, using a knotting/tucking technique, or double masking: wearing a second mask on top of a first mask (to create a "double mask" wear a medical procedure mask underneath a cloth mask. Do not combine two medical procedure masks to create a "double mask"). (Centers for Disease Control and Prevention. Improve the Fit and Filtration of Your Mask to Reduce the Spread of COVID-19. 6 April 2021. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html#double-mask)

An overview of recommended PPE for crew and passengers on board cruise ships (in the context of lifting restrictive measures in response to the COVID-19 pandemic) can be found here: https://www.healthygateways.eu/Novel-coronavirus

If the passenger does not arrive with their own face mask, face masks could be made available for passengers at the terminal. Additional PPE could be provided upon request on board the ship.

Crew members could be present in areas around the ship, particularly where physical distancing is difficult to maintain, to monitor passenger compliance with proper use of face masks.

Information about the correct use of face masks should be provided to passengers via audio messages, leaflets, TV, infographics, websites or electronic posters etc. and at the terminal stations.

## 8.8. Adequate ventilation

The following recommendations are based on the ECDC guidance: "Heating, ventilation and air-conditioning systems in the context of COVID-19: first update" (available here: https://www.ecdc.europa.eu/en/publications-data/heating-ventilation-air-conditioning-systems-covid-19) and on the fourth version of the REHVA guidance: "How to operate and use building services in order to prevent the spread of the coronavirus disease (COVID-19) virus (SARS-CoV-2) in workplaces".

The minimum required air changes per hour for each space on the ship should be respected, and if possible, the air changes per hour should be further increased in order to reduce the risk of transmission. When possible, direct air flow should be diverted from groups of individuals (especially if they are stationary). Exhaust fans of bathrooms should be functional and operate continuously.

If technically possible, all of the air handling units (AHUs) should be switched from recirculation to 100% outside air by closing the recirculation dampers (via the Building Management System or manually). This decision should be taken after consultation of the manufacturer and considering the cooling and heating capacity of the system. In case it is not possible to completely stop the recirculation of the air, the ship should explore improving air filtration as much as possible and using HEPA filters or Ultraviolet Germicidal Irradiation (UVGI).

It is not recommended to change heating, cooling and humidification set points of the HVAC system.

All maintenance works related to the HVAC system, including changing the central outdoor air and extract air filters should be conducted according to the usual maintenance schedule. Duct cleaning should be avoided during the COVID-19 pandemic. Regular filter replacement and maintenance work shall be performed with common protective measures including adequate PPE.

The medical facilities as well as the designated isolation spaces, should be connected to separate AHU's. If aerosol-generating procedures are performed in the medical facilities of the ship, then the area should be under negative pressure and achieve at least 10 air changes per hour. The return air from the medical facilities and the isolation spaces should either be HEPA-filtered or exhausted to the outside.

## 8.9. Cleaning and disinfection

Enhanced cleaning and disinfection should be implemented in accordance with the EU HEALTHY GATEWAYS guidance on "Suggested procedures for cleaning and disinfection of ships during the COVID-19 pandemic (Version 2 – 20/04/2020)" and with an increased frequency in shared public areas/facilities (dining areas, entertainment venues etc.) and for surfaces that are frequently touched by crew and passengers (e.g. handrails, elevator buttons). Other items that are frequently touched in common areas such as magazines/brochures, should be removed and information provided in alternative ways, including through announcements, additional signage or directly to mobile devices. Special protocols for cleaning and disinfection should be implemented after a possible or confirmed COVID-19 case has been identified on board. There should be adequate PPE for the cleaning crew available on board (e.g. medical face masks, gloves, gowns, eye protection).

EU HEALTHY GATEWAYS guidance produced on suggested procedures for cleaning and disinfection of ships during the pandemic of COVID-19 (VERSION 2 - 20/04/2020) can be found here: https://www.healthygateways.eu/Portals/0/plcdocs/EU_HEALTHY_GATEWAYS_COVID-19_Cleaning_Disinfection_ships_21_4_2020_F.pdf?ver=2020-04-21-154731-953

This document includes advice about specifications for the training of cleaning crew and use of PPE, information about the cleaning equipment and materials to be used, and a summary of antimicrobial agents effective against coronaviruses. It further outlines suggested procedures for cleaning and disinfection for different materials and areas of the ships including health care and general settings.

## 8.10. Special considerations for cabins

Between check out and check in, all cabins should be thoroughly cleaned and adequately ventilated (it is recommended that this is for at least one hour after cleaning and disinfection, and before the next passengers enter). It is advised that any item that cannot be cleaned and disinfected between cabin occupancies should be removed from the cabin (e.g. shared multiple use items such as menus, magazines and other objects that cannot be disinfected, coffee or tea packaging, certain mini bar products etc.).

Moreover, it is recommended to remove equipment and products from the cabin which are not offered from a dispenser or cannot be disinfected between occupancies. It is preferable that the above devices or mini bar products be made available upon a passenger's request, so that their disinfection is ensured. The mini bar can be used as a refrigerator by passengers and should be disinfected after each check out.

A disposable cover should be placed on the TV and the air-conditioning remote controls to facilitate proper disinfection, unless these items can be easily and adequately cleaned and disinfected.

All types of surfaces and materials which may be touched, including textile surfaces (e.g. sofas, cushions, rugs, furniture, wallpaper) should be cleaned between occupancies.

During occupancy of a cabin by the same passenger/passengers, clothing and towels should be changed upon a passenger's request or routinely, but it is recommended that routine changes are made less frequent than normal (e.g. avoid changing of towels twice daily).

For natural ventilation of spaces, doors and windows (if applicable) should be opened daily.

It is recommended that individual alcohol-based hand rub solutions are placed in each cabin, which passengers can carry with them when moving outside of the cabin.

Specific advice for cleaning and disinfection of affected cabins is given in the EU HEALTHY GATEWAYS guidance on suggested procedures for cleaning and disinfection of ships during the pandemic of COVID-19 (VERSION 2 - 20/04/2020), available here: https://www.healthygateways.eu/Portals/0/plcdocs/EU_HEALTHY_GATEWAYS_COVID-19_Cleaning_Disinfection_ships_21_4_2020_F.pdf?ver=2020-04-21-154731-953.

## 8.11. Food safety rules

Food hygiene rules must be strictly followed as described in the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" available here: http://www.shipsan.eu/Home/EuropeanManual.aspx. The additional special provisions for preventing COVID-19 in food service areas and food operations should be described in a written plan, and crew should be trained on the procedures based on their specific duties.

During food loading and storage, precautions such as physical distancing, use of PPE and hand hygiene should be applied. Crew should be reminded to avoid contact with potentially contaminated items/surfaces (e.g. packaging, invoices, products, equipment) and then touch their face, nose, mouth etc. Where necessary, external packaging may be disinfected or removed to avoid any potential contamination of environmental surfaces on board the ship food areas.

It is recommended that self-service food operations which are not touchless are avoided, and if this is not feasible, these facilities can operate only if additional specific hygiene management precautions are implemented as described in the following paragraphs. It is preferable that food is delivered by crew to passengers in closed packages or wrapped when it is delivered.

Disposable salt, pepper and other relevant containers should be used unless these containers can be disinfected between uses. Cutlery, plates, trays, napkins, soft drinks,

straws etc. should be handed by crew to the passengers; the passengers should not collect these items themselves.

Physical distance should be maintained by travellers at all food service areas, including à la carte restaurants, specialty restaurants, service areas/breakfast areas, indoor and outdoor bars etc. It is recommended to limit food service provided in public areas of the ship. It is also recommended that only persons staying in the same cabin and/or persons from the same household or same travelling unit dine at the same table. A distance of 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) between chairs of different tables should be maintained.

It is also recommended when feasible that crew and passengers are divided into cohorts (designated groups) and are served food at different times to limit interactions. In addition, limiting seating capacities in dining areas or using reservations to control passenger crowds could be implemented. The duration that restaurants are open could be extended to allow the rotating attendance of passengers in cohorts. The frequency of food service could also be increased to limit crowding and ensure physical distancing is maintained.

Special care should be taken to keep physical distances of 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) whenever possible among crew working in the galley or other food areas.

Any person entering/working in the galley should wash their hands and wear a face mask (see Annex 1). Only food handlers should be allowed to enter the galley. In case visitors (e.g. maintenance staff) must enter the galley, they should perform hand hygiene and be provided with the appropriate PPE and other equipment (medical face mask, hair covering, apron etc.), which will be available at the entrance of the galley.

Passengers should wash or disinfect their hands (with an alcohol-based hand rub solution) upon entering and exiting the food service areas. Crew members could be present to monitor passenger compliance, especially during peak service times.

Towels including self-set towels, tablecloths and utensils should be washed even if they have not been used. Restaurant linen should always be changed between passengers.

If it is not possible to avoid buffet service (especially in the crew food service area), then the following precautions should be used:

- If hand washing stations are not available, at the entrance of the buffet area passengers and crew should be provided with an alcohol-based hand rub solution, and crew should ensure that passengers or crew disinfect their hands.

- The required physical distance should be maintained at all times in the service area.

- Suitable protection (e.g. sneeze guards/transparent dividers) should be installed between passengers/crew who will be served and the food, in order for the food to be completely protected from all sides (except the side where the crew member can serve food).

- If buffets are wall mounted or of island type construction, stanchions should be put in place at 1.5 metres to restrict passengers'/crews' direct access, and assisted services should be offered by designated crew wearing disposable aprons, community masks, face shield and disposable gloves.

- Only the designated crew should be allowed to serve food. Crew serving food should wear appropriate PPE (face masks, disposable gloves) and should follow strict hygiene rules. Under no circumstances should crew or passengers who will be served food use any commonly shared utensils or other items. These should be removed from the service so that only a designated crew can distribute them.

- Self-service of dispensed items, plates, cutlery and utensils by passengers or crew should not be allowed. Food handlers should serve any dispensed items (for example water, coffee, juice etc.). Food handlers should wear appropriate PPE (face masks, face shields) and follow strict hygiene rules.

Complimentary coffee stations could be open for self-service provided that the hand contact parts are disinfected by a crew member after each use.

Individual dining options, including room service, are recommended to provide food to passengers' cabins, in order to avoid overcrowding in restaurants and other food service areas. Room service crew should maintain appropriate physical distancing and use PPE. All normal food hygiene standards and precautions should be followed during the transport of food on board. Particular care should be taken with the safe collection and warewashing of room service items and utensils that have been used by passengers.

Crew providing individual dining options, including room service, should endeavour to maintain physical distance and use PPE. It is preferable that crew not enter the cabin, but rather deliver food to the door in a way which avoids hand to hand contact. Likewise, used plates and utensils should be collected by crew from outside the door.

## 8.12. Reducing face-to-face interactions

On-line bookings, orders and purchases should be encouraged, as well as the use of contactless cards for payments. Forms that need to be completed may be made available on-line for electronic completion.

Where face-to-face interaction without physical distancing between crew and passengers cannot be avoided, then protective screens or barriers may be used instead where feasible, or face shields with face masks could be worn.

All non-essential face-to-face employee meetings, group events (such as non-essential employee trainings) or social gatherings should be cancelled.

## 8.13. Special considerations at reception

Reception staff should be able to provide passengers with details about the on board

communicable disease controls and policies, as well as measures that have been taken to address possible cases of COVID-19 on board. Furthermore, reception staff should inform passengers how to get medical advice on board, and may also be able to provide PPE when requested.

It is recommended that written information, videos or electronic posters are made available to provide basic health instructions translated into English, and other languages based on the most common language(s) spoken by passengers and crew members on board. In addition, where feasible, health advice may be provided through a mobile phone application.

Special equipment should be available (e.g. alcohol-based hand rub solutions, face masks, and disposable gloves) in the event that a possible case is identified, or if a passenger seeks help at reception.

Reception staff should be able to recognize the signs and symptoms of COVID-19 and report any issues directly to medical staff.

The use of a sneeze guard/transparent screen at the reception and other service and information points is recommended, or face shields with face masks could be worn.

Alcohol-based hand rub solutions should be available for use by passengers at the reception desk. Crew should monitor and encourage compliance with good hand hygiene in this area as well as proper use of face masks.

Regular cleaning and disinfection of reception desks/counters is recommended. Key cards should be disinfected (see paragraph 8.9).

In order to maintain appropriate physical distancing, the cruise ship should configure the reception desk, add deck markings at distances of at least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) where passengers will stand/proper distance marking in the waiting area, properly arrange furniture and manage the queue to reduce waiting times and avoid crowding. Overcrowding during check-in and check-out should be avoided and physical distances should be maintained.

It is recommended to use electronic alternatives for check-in and check-out (e.g. mobile concierge or use of electronic devices that can be disinfected after each use). The possibility of using an outdoor based check-in may also be considered. It is recommended that passenger expenses are paid electronically where possible (cash should be accepted only in exceptional cases) and that bills, invoices and receipts are sent electronically, as well.

## 8.14. Nursery and play areas for children

It is preferable to operate the outdoor children's play areas only or maximise their use. If this is not possible, the number of children using the indoor areas should be reduced to levels which help staff maintain physical distancing. The areas should be cleaned and

disinfected according to the protocol on board and as required in the "European Manual for Hygiene Standards and Communicable Disease Surveillance on Passenger Ships" available here: http://www.shipsan.eu/Home/EuropeanManual.aspx

Crew members and any other person over 6 years of age in indoor and outdoor children's play areas should wear a medical face mask (or respirator if available for use by the public and sufficient supplies are available after prioritization for healthcare settings). If unavailable a non-medical "community" mask with multiple layers of tightly woven, breathable fabric could be used. Strategies to improve the medical or non-medical mask fit could be considered.

The number of children in the outdoor children's play areas/playgrounds may also be limited at one time. Consideration may be given to cohorting groups of children for the duration of the voyage. The child centre staff should monitor children for any signs or symptoms compatible with COVID-19, and the child exclusion policy should include possible COVID-19 cases. Child activities should be limited to those where physical distancing measures can be adhered to.

## 8.15. Entertainment venues

Overcrowding should be prevented in these areas (e.g. theatres) to maintain appropriate physical distancing, and the frequency of entertainment events may be increased to reduce numbers. The maximum allowable capacity of venues should be defined so that physical distancing of at least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) is maintained.

Alcohol-based hand rub solutions should be made available to passengers at the entrance of entertainment venues, with crew members monitoring compliance of hand hygiene. Additional alcohol-based hand rub solution equipment (e.g. dispensers) may also be provided in entertainment venues. Medical face masks (or respirators if available for use by the public and sufficient supplies are available after prioritization for healthcare settings) should be used in entertainment venues as described in Annex 1. If unavailable a non-medical "community" mask with multiple layers of tightly woven, breathable fabric could be used. Strategies to improve the medical or non-medical mask fit could be considered as described in Section 8.7. Singers do not need to wear a face mask while singing, provided that physical distancing of at least 3 metres is maintained.

It is recommended that entertainment venues are cleaned and disinfected after each use.

## 8.16. Casinos

Physical distancing of least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) should be applied in all casino areas. Medical face masks (or respirators if available for use by the public and sufficient supplies are available after prioritization for healthcare settings) should be worn as described in Annex 1. If unavailable a non-medical "community" mask with multiple layers of tightly

woven, breathable fabric could be used. Strategies to improve the medical or non-medical mask fit could be considered as described in Section 8.7.

Casino layouts should be reviewed so that physical distancing of least 1.5 metres (or otherwise as per national/local health authority requirements of the home port) is respected and the maximum capacity of passengers allowed to enter the casino area should be determined to avoid overcrowding. At gaming tables, the number of players per table should also be estimated and defined to help ensure physical distancing measures are maintained.

Staff should supervise all casino areas to ensure that the capacity limits and all other measures are respected.

Floor markings should be placed in the entrance to the casino area to ensure physical distancing measures are respected in case lines or queues form, and if necessary seats may be removed or taken out of use from slot and electronic gaming machines, and from gaming tables where they are closer together than 1.5 metres.

Appropriate signage should be displayed at the entrance of the casino area informing passengers of the maximum capacity limits in the casino, advising them to apply regularly alcohol-based hand rub solutions, not to touch their face and to respect physical distancing measures.

Slot and electronic gaming machines and gaming tables should be positioned so as to maintain the physical distancing measures between passengers. Physical distancing at slot and electronic gaming machines and at gaming tables may be achieved by relocating the machines or tables, removing chairs, by disabling some slot and electronic gaming machines to create appropriate distances between them and by adding protective screens.

Staff should ensure that passengers do not congregate around slot and electronic gaming machines and around gaming tables.

It is recommended that food service is suspended in the casino area.

Alcohol-based hand rub solutions should be placed at the casino entrances and passengers should be advised to use them when entering and exiting the area as well as throughout the casino area.

Cleaning and disinfection should follow routine procedures, but with an increased frequency in the casino area.

Slot and electronic gaming machines should be cleaned and disinfected between uses. This should be done by staff where possible or passengers may be provided with disinfectant wipes. Additionally, passengers may be provided with disinfectant wipes or solutions to wipe frequently touched hand contact surfaces.

## 8.17. Hairdressers and beauty salons

This paragraph applies to the following services and facilities: massage services, beauty

salons, hairdressers, saunas, Hammams and spas. Hygiene rules on those facilities must be strictly followed as described in the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" available here http://www.shipsan.eu/Home/EuropeanManual.aspx.

All public spaces (e.g. reception spa, hairdresser, near public toilets) should have hand rub alcohol-based solution for the passengers.

Where possible, the installation of sneeze guards/transparent screens or dividers at the spa's and the hairdressers' reception is recommended or face shields with face masks could be worn. Crew and passengers should wear face masks as described in Annex 1.

The operator should prevent overcrowding of the shared facilities and ensure adequate ventilation. Operating procedures whenever possible should include:

- Pre-booking systems;
- Timed appointments;
- Record keeping.

Crew should advise passengers to immediately stop using shared facilities if they start to feel unwell and report this to staff working in these areas.

## 8.18. Gyms

The gym operating capacity should be restricted using a ratio of 1 person per 10 m² per usable floor surface space and the maximum operating capacity posted on signs at the entrance.

- Operating procedures should be used to manage occupancies and avoid queues whenever possible including using:
  - Pre-booking systems;
  - Timed appointments;
  - Staggered and extended service times to help control the flow of individuals.
- Physical distancing should be maintained between users whenever possible:
  - ≥1.5 metres apart, or
  - A greater distance where required by health authorities.
- A sign-in and out system should be established to manage occupancy and contact tracing.
- Showers, lockers and changing rooms should be closed. However, gym users may still have access to any toilets located in the changing rooms.

- Provide appropriate floor markings, stickers, barriers or stanchions and signage to help manage physical distancing, the flow of people and maximum capacities. Consider using one-way systems for any small spaces.

- Equipment should be placed at least 1.5 metres apart, with a greater distancing for treadmills and other high-exertion aerobic fitness equipment where feasible.

    - Equipment can be arranged in an "X" pattern to help provide greater distancing.

    - Equipment that cannot be moved should be marked/blocked off to ensure that persons can maintain at least a distance of 1.5 metres from other users. Tape or other markings may be used to assist users to maintain physical distancing.

- Gym users should be encouraged to perform high-intensity exercise outdoors whenever possible.

- Indoor gym users are required to wear a face mask at all times (except as below).

- Gym users are not required to wear a face mask while performing high-intensity exercise such as running.

- Gym users should be asked to disinfect touch surfaces on equipment before and after each use.

    - Disinfectant wipes should be provided adjacent to equipment.

    - Enhanced cleaning and disinfection protocols should be implemented in the gym, with a focus on frequently touched surfaces.

- Supervisory staff should manage guest occupancy, traffic flows, wearing of face masks/shields, cleaning and disinfection of frequently touched surfaces, and the use of hand sanitizers or hand washing where required.

- The gym should be monitored for compliance with these precautions.

Additional requirements from local health authorities may supersede these procedures.

## 8.19. Potable water

In case the potable water system of the cruise ship has not been operated as per the standards of the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" (available here: http://www.shipsan.eu/Home/EuropeanManual.aspx), or the cruise ship was in dry dock for more than a month, the steps described in "ESGLI Guidance for managing Legionella in building water systems during the COVID-19 pandemic" should be followed.

## 8.20. Sewage and grey water

The ship should have standard well-maintained plumbing, such as sealed bathroom drains, and backflow valves on sprayers and faucets to prevent aerosolized faecal matter from entering the plumbing or ventilation system.

Deck drains sanitary devices connected to the black water should always operate correctly. In case the sanitary devices connected to them are not operated for long periods, water should be added to them in order for the water seal to work correctly. Water should be added regularly and dependent on the climate (e.g. every three weeks).

## 8.21. Recreational water facilities

The operation of indoor swimming pools is not recommended. However, the operation of indoor swimming pool venues that can be converted as outdoor after lifting/removing walls/roofs facilities with natural ventilation could be allowed.

The showers for the outdoor recreational water facilities should be separated, in order to ensure bather's privacy and to facilitate the efficient showering of the bathers before they enter the pool. Bathers should be strongly advised to shower before entering the pools and there should be relevant signs informing them to do so. The cruise ship should provide all necessary items for showering (e.g. soap, shower gel, etc.). Additionally, the entrances of showers should be equipped with hand rub alcohol-based solutions.

Positioning of seats (sunbeds, chairs, poufs, lounge chairs, etc.) should be such that the distance between the edges of the seats of two passengers from different umbrellas or two passengers from different cabins is at least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) in any direction.

Medical face masks (or respirators if available for use by the public and sufficient supplies are available after prioritization for healthcare settings) should be worn at recreational water facilities. If unavailable a non-medical “community” mask with multiple layers of tightly woven, breathable fabric could be used. Strategies to improve the medical or non-medical mask fit could be considered.

However, it is important to note that face masks do not need to be worn, when seated on sunbeds, when swimming or doing other activities where the mask would get wet. In these situations, physical distancing should be maintained.

It is recommended that the seats, tables, small safes, call buttons for the waiters and menus, are made, or covered with, materials that are suitable for cleaning and disinfection.

After the change of passengers, the seats, tables, small safes, call buttons for the waiters and menus should be disinfected. Food should not be served at pools, drinks and water should be served in glasses which can be cleaned, not in single use glasses.

It is recommended that the facility provides towels or other washable coverings that can cover the entire surface of the seat and that the seats are disinfected after each use. It is recommended that the textile surfaces of the sunbeds are removed.

It is recommended that bathers are managed by scheduling bathing times, or if possible by providing or separating swimming facilities and services into different groups.

The maximum allowable number of bathers at any time in the swimming pools should be one bather per 4 $m^2$ of water surface, regardless of the depth of the pool. Small hot tubs (with depth less than 1 m and tub volume less than 6 $m^3$) should be used only by bathers of the same household or by bathers staying in the same cabin at a time. For larger spa/hydrotherapy pools (with depth more than 1 m and tub volume more than 6 $m^3$), the maximum bather load is one person per 20 L per minute of recirculation flow (as per the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships"); in any case, the total number of co-bathers should not exceed one bather per 4 $m^2$ of water surface.

In case the recreational water facilities of the cruise ship has not been operated as per the European Manual standards, or the cruise ship was in dry dock for more than a month, the steps described in "ESGLI Guidance for managing Legionella in building water systems during the COVID-19 pandemic" should be followed.

## 8.22. Decorative fountains

The standards of the "European Manual for Hygiene Standards and Communicable Diseases Surveillance on Passenger Ships" (http://www.shipsan.eu/Home/EuropeanManual.aspx) for decorative fountains should be applied. In case the fountain remained out of operation for more than a month, the steps described in "ESGLI Guidance for managing Legionella in building water systems during the COVID-19 pandemic" should be followed.

## 8.23. Commercial stores inside the accommodation facility

Physical distancing, electronic payments, cleaning and disinfection should be followed in commercial stores on board cruise ships. Clothes and other items should not be tried on (unless they can be laundered or disinfected afterwards) and shoppers should be encouraged not to handle items on display. Alternatively garments that have been tried on can be removed for 72 hours before being re-issued. Crew and passengers should wear face masks as described in Annex 1.

## 8.24. Other public spaces (indoor and outdoor)

Crew members and passengers should use in any public indoor space and any public outdoor space on board the ship a medical face mask (or respirator if available for use by the public and sufficient supplies are available after prioritization for healthcare settings) and in addition maintain physical distancing. If unavailable a non-medical "community" mask with multiple layers of tightly woven, breathable fabric could be used. Strategies to improve the medical or non-medical mask fit could be considered as described in Section 8.7. Exceptions may be allowed for the use of medical face masks outdoors where this is not required by the health authorities. However, they must be worn outdoors if physical distancing cannot be

maintained. When crew members and passengers are ashore they should follow the rules of each country.

Passengers should be advised to avoid the use of the elevators. It is recommended that the maximum capacity of elevators should be revised and reduced based on the physical distancing guidance. Moreover, persons should be required face masks when using elevators as described in Annex 1**.** The elevators should be regularly cleaned and attention should be paid to frequently touched surfaces (buttons, knobs etc.).

To help ensure physical distancing, other precautions such as floor markings, placement of cones etc. may be implemented.

Other public spaces should be supplied with hand rub alcohol-based solution stations.

Furniture should be arranged in such a way to help avoid overcrowding in shared spaces (for example 4 persons/10 $m^2$).

The use of business centres may be suspended or the operation changed to provide services to clients to avoid 'self-service'. Alternatively, access to Wi-Fi, printing services or other business centre services may be completed remotely using mobile phone apps etc.

Public toilet use should be managed to try to avoid any overcrowding.

## 8.25. Interface between ship and shore-based personnel

To protect both crew and shore-based personnel who temporarily board the ship, precautions should be taken to minimize exposure risks to both. Where it is necessary for shore-based personnel to come on board, only the minimum number of personnel required should be allowed to embark. Furthermore, everyone who comes on board should observe hygiene protocols, screening measures and the use of appropriate PPE as described in Annex 1.

## 8.26. Port visits, shore based activities and excursions

Alcohol-based hand rub solutions should be made available at gangway exits, and all persons who disembark and re-embark the cruise ship should be requested to use them. At all times during embarkation, disembarkation and during shore-based activities or excursions medical face masks (or respirators if available for use by the public and sufficient supplies are available after prioritization for healthcare settings) should be used. If unavailable a non-medical "community" mask with multiple layers of tightly woven, breathable fabric could be used. Strategies to improve the medical or non-medical mask fit could be considered as described in Section 8.7.

Upon re-boarding of the cruise ship health screening assessing the presence of COVID-19 symptoms or other relevant illnesses and contactless temperature measurements should be conducted.

Shore excursion/tour staff should be trained in the procedures to be followed if possible cases are identified. Symptomatic passengers should immediately wear a medical face mask if tolerated and be transferred to an isolation or medical area for evaluation. All close contacts of potential cases should also be identified.

EU/EEA MS, cruise lines and terminal operators at destinations should ensure that appropriate measures are implemented to reduce overcrowding and maintain appropriate physical distancing when passengers disembark and re-board the ship.

Cruise lines should check that external excursion and tour providers offer similar precautions as on board, including physical distancing measures, use of PPE, and cleaning and disinfection protocols, while also following any local/national health regulations. Any external provider who interacts with passengers (such as tour guides) should follow cruise line protocols (e.g. for health screening). If tender boats or other means of transport are used to move passengers, physical distancing measures, use face masks and protocols for frequent cleaning and disinfection should be implemented in line with on board procedures. Cleaning and disinfection of frequently touched surfaces of transport, including tender boats, should be conducted between each use.

While travelling in groups, it should be ensured that passenger groups maintain physical distance from other tour groups.

Cruise lines may consider making available appropriate PPE (e.g. face masks) to passengers on excursions and should refrain from organising visits to crowded areas during the pandemic.

Ensure disembarking and embarking travellers (from different ships or from the same ship but different voyages) do not occupy the same enclosed or semi-enclosed areas (e.g. gangways, terminal waiting spaces, check-in areas) at the same time.

# 9. Managing COVID-19 cases on board cruise ships and at terminal stations

## 9.1. Management of a possible/confirmed case

Following a preliminary medical examination, if the ship's designated officer determines that there is a possible or confirmed case of COVID-19 on board[10], the patient should be isolated in an isolation ward, cabin, or quarters and infection control measures continued until they are disembarked and transferred to a hospital ashore. Cruise lines should designate single cabins to be used specifically for isolation of cases on board. The designated cabins should be located near the ship's medical facility for ease of accessibility by crew and if possible, have windows to promote appropriate air exchange. Contact with patients in isolation should be restricted to only those necessary, and crew in contact with the isolated patient

[10] ECDC, Case definition for coronavirus disease 2019 (COVID-19), as of 3 December 2020 https://www.ecdc.europa.eu/en/covid-19/surveillance/case-definition

(e.g. medical personnel) should wear appropriate PPE as described in **Annex 1**. If it is feasible, the isolation cabins should be cleaned by the occupants, if not, then only terminal (final) cleaning and disinfection should be performed by trained staff when the patient has been discharged.

Further advice, including the definition of a possible/confirmed case, management of possible/confirmed cases and use of the Passenger/Crew Locator Forms (PLFs) can be found in the EU HEALTHY GATEWAYS "Advice for ship operators for preparedness and response to an outbreak of COVID-19", available at: https://www.healthygateways.eu/Novel-coronavirus

Surveillance for influenza like illness (ILI) should integrate COVID-19 surveillance, as symptoms compatible with COVID-19 include those for ILI (as currently cruise ships will be implementing measures for early detection of COVID-19 possible cases)[11].

Depending on the assessment of the COVID-19 event on board, it may be necessary to shorten or terminate the cruise as described in the EU HEALTHY GATEWAYS "Advice for ship operators for preparedness and response to an outbreak of COVID-19" document, which can be downloaded here: https://www.healthygateways.eu/Portals/0/plcdocs/EU_HEALTHY_GATEWAYS_COVID-19_MARITIME_20_2_2020_FINAL.pdf?ver=2020-02-21-123842-480

When a possible case of COVID-19 is detected, laboratory testing should be performed according to the instructions provided by ECDC (https://www.ecdc.europa.eu/en/novel-coronavirus/laboratory-support).

Negative results do not rule out the possibility of a COVID-19 virus infection. A number of factors could lead to a negative result in an infected individual, including:

• Poor quality of the specimen, containing little patient material (as a control, consider determining whether there is adequate human DNA in the sample by including a human target in the PCR testing);
• When the specimen was collected late or very early in the infection;
• If the specimen was not handled or shipped appropriately;
• Technical reasons inherent in the test, e.g. virus mutation or PCR inhibition.

If a negative result is obtained from a patient with a high index of suspicion for COVID-19 virus infection, particularly when only upper respiratory tract specimens were collected, additional specimens, including from the lower respiratory tract if possible (hospitalized in ashore facilities), should be collected and tested.

Each Nucleic-acid Amplification Test (NAAT) run should include both external and internal controls, and laboratories are encouraged to participate in external quality assessment schemes when they become available. It is also recommended to laboratories that order their own primers and probes to perform entry testing/validation on functionality and potential contaminants.

[11] https://www.ecdc.europa.eu/en/publications-data/strategies-surveillance-covid-19

When it has been confirmed that the specimen collection and the testing for COVID-19 has been performed correctly, and as soon as the repeated results for the possible case are negative for COVID-19 according to the criteria by ECDC, then the case should be tested for influenza virus by means of viral detection through PCR techniques, not relying on rapid antigen diagnostic tests. If the patient is positive for influenza, then the "Guidelines for the prevention and control of influenza-like illness on passenger ship" of the "European Manual for Hygiene Standards and Communicable Disease Surveillance on passenger ships" should be followed for the case management.

## 9.2. Management of contacts

Cruise lines should designate single cabins to be used specifically for temporary quarantine of close contacts on board until disembarkation at the home/contingency port as described in the EU HEALTHY GATEWAYS "Advice for ship operators for preparedness and response to an outbreak of COVID-19", available at: https://www.healthygateways.eu/Novel-coronavirus. Children should be quarantined in the cabin with one of their parents and similar consideration given to supporting those with special needs. The designated cabins should be located near the ship's medical facility for ease of accessibility by crew, and if possible have windows to promote appropriate air exchange.

Management of contacts should be in accordance with the national policies of the port of disembarkation and as detailed in the contingency plan/outbreak management plans of the cruise ship and the port. Advice for management of contacts and use of the Passenger/Crew Locator Forms (PLFs) in **Annex 3** can be found in the EU HEALTHY GATEWAYS "Advice for ship operators for preparedness and response to an outbreak of COVID-19", available at: https://www.healthygateways.eu/Novel-coronavirus

## 9.3. Embarkation/disembarkation

As soon as a possible case is detected on board and for the duration of the journey until arrival at the final destination, a risk assessment of the event should be conducted (in cooperation of the port health authority and the ship officers) in order to decide if new passengers should not be allowed to board at intermediate destinations.

The competent authorities at the next port or destination will provide advice on the management of the possible case and their contacts.

## 9.4. Reporting

In accordance with the International Health Regulations (2005), the officer in charge of the ship must immediately inform the competent authority at the next port of call about any possible case of COVID-19[21].

For ships on international voyage, the MDH must be completed and sent to the competent authority in accordance with the local requirements at the port of call.

Ship operators must facilitate application of the health measures and provide all relevant public health information requested by the competent authority at the port. The officer in charge of the ship should immediately contact the competent authority at the next port of call regarding the possible case, to determine if the necessary capacity for transportation, isolation, laboratory diagnosis and care of the possible case/cluster of cases of COVID-19 is available at the port. The ship may be asked to proceed to another port in close proximity if this capacity is not available, or if warranted by the medical status of the possible case/cluster of cases of COVID-19. It is important that all arrangements are conducted as quickly as is feasible to minimise the stay of symptomatic possible case/cases on board the ship.

# 10. Testing policy and non-pharmaceutical measures for travellers (passengers and crew members) vaccinated or recovered from COVID-19

Currently, due to the lack of evidence whether individuals vaccinated or recovered from COVID-19 can be infectious, vaccinated travellers or travellers who have recovered from COVID-19 should not be excluded from the testing policy, or from implementing non-pharmaceutical measures (use of face masks, physical distancing etc.). This recommendation will be updated regularly taking into consideration any new evidence (19, 20).

# 11. Responding to COVID-19 events retrospectively

Contact tracing is one of the most important public health activities in the response to the COVID-19 pandemic, and is extremely important in this adjustment phase.[12,13] It is recommended to use Passenger/Crew Locator Forms to ensure that contact information of passengers and crew is available, in order to facilitate contact tracing if a case of COVID-19 is detected. Contact tracing will be conducted as instructed by the competent public health authority.

Passenger/Crew Locator Forms could be disseminated before boarding or during boarding and collected by cruise ship crew prior to disembarkation. Electronic completion of Passenger/Crew Locator Forms before boarding could be used in the future. If the company collects and keeps all information exactly as it is described in **Annex 3** "Passenger/Crew Locator Forms (PLFs)", then it will not be necessary to complete the PLF, provided that this information can be extracted and sent to the competent health authority in accordance with local rules. EU HEALTHY GATEWAYS has developed an EU application for common digital PLFs for the air, maritime and ground transport sectors:

[12] ECDC, Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union - second update at: https://www.ecdc.europa.eu/en/covid-19-contact-tracing-public-health-management

[13] ECDC, Mobile applications in support of contact tracing for COVID-19 - A guidance for EU EEA Member States at: https://www.ecdc.europa.eu/en/publications-data/covid-19-mobile-applications-support-contact-tracing

https://www.euplf.eu/en/home/index.html. Information that travellers provide in PLFs can be used by public health authorities in destination countries to rapidly contact travellers, with the goal of protecting the health of travellers' and their contacts, as well as preventing further disease spread.

**Annex 3** provides details of the Passenger/Crew Locator Forms for cruise ships, which are also available from the EU HEALTHY GATEWAYS joint action website here: https://www.healthygateways.eu/Translated-Passenger-Locator-Forms.

It is suggested that the Passenger/Crew Locator Forms for ships also be completed by all crew members who disembark for their long term leave.

Other means of contact tracing to identify and inform passengers of possible exposure may be employed by cruise lines, such as investigations by response teams, analysis of ship's CCTV, contact tracing wearable bracelets, use of mobile contact tracing applications and analysis of passenger key card usage.

# 12. Considerations for cruise terminals

## 12.1. Physical distancing

Physical distancing of at least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) should be maintained in combination with the use of face masks and respiratory etiquette in all internal and external areas of the terminal.

To avoid overcrowding and maintain physical distancing measures, competent authorities in EU/EEA MS and/or terminal operators may consider allowing only passengers, crew and other shore-based/terminal personnel, workers and contractors to enter indoor cruise facilities. Staggered flow of crew and passengers facilitates physical distancing.

The use of floor markers to ensure spacing, arrows to indicate directional flow, as well as prominent signage and audio announcements for travellers should be considered, in order to optimize layouts and restrict the number of indoor cruise terminal users.

Dedicated lanes or separation of different user flows, in addition to dividing terminals into designated zones (e.g. arrival, screening, post-screening) through which travellers must pass through for arrival, screening/testing and document processing (before being cleared for boarding and embarkation) may be considered.

Check-in, disembarkation, luggage handling, passenger queuing (inside and outside the terminal), and provision handling should be adjusted to reduce overcrowding and maintain physical distancing. Work and break schedules of crew and personnel who work in the terminal should be reviewed and adjusted to avoid overlap of crew.

For the protection of cruise terminal personnel and ship crew, the use of protective glass or plastic panels should be considered at locations where physical distancing cannot be

maintained or guaranteed. Furthermore, appropriate PPE should be provided. Appropriate ventilation should be implemented at the terminal buildings.

Cruise terminal operators should consider removing terminal facilities that encourage crowding (e.g. tables, benches etc.). Where there are permanent, non-moving seats either indoors or outdoors, there should be special markings on where a passenger is and is not allowed to sit in order to maintain physical distance. When conditions allow, terminal users should be encouraged to use outdoor spaces. Health promotion information material should be prominently displayed and provided to incoming and outgoing passengers.

In public toilets, the minimum number of users should be managed to maintain physical distancing of 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call) between users (or otherwise in accordance with national policy).

Digital methods should be used for as many processes as possible at the terminal to reduce the time that passengers spend in the terminal and avoid congestion., This can include processes for on-line purchasing, issuing of boarding passes, automatic passport and ID scanners.

Terminal operators may consider limiting the number of taxis, coaches and buses present at the terminal to control/limit overcrowding in waiting areas.

Designated terminal personnel should oversee the process and compliance with the physical distancing measures.

## 12.2. Preventing droplet transmission by the use of face masks

Competent authorities should require all terminal personnel, ship crew, passengers and other users of the cruise terminal to use medical face masks (or respirators if available for use by the public and sufficient supplies are available after prioritization for healthcare settings) at all times when entering or on the premises, taking into consideration their national epidemiological aspects and the international spread of disease. If unavailable a non-medical “community” mask with multiple layers of tightly woven, breathable fabric could be used. Strategies to improve the medical or non-medical mask fit could be considered as described in Section 8.7.

Exceptions for wearing masks include when eating, drinking, seated on sunbeds, swimming or doing other activities where the mask would get wet (in which case physical should be practiced). Designated terminal personnel should monitor compliance of face mask wearing, especially in terminal areas where physical distancing is challenging to maintain. In countries that have chosen to implement face mask policies, this should be communicated at the time of the ticket booking. Adequate PPE as described in **Annex 1** should be provided and distributed to all terminal personnel, with personnel trained in proper use (wearing, removing, management and safe storage or disposal) and strategies to improve fit.

## 12.3. Respiratory etiquette

Respiratory etiquette should be encouraged in terminals: the nose and mouth should be covered with disposable paper tissue when sneezing or coughing and then the tissue should be disposed of immediately in a no touch bin, followed by meticulous hand hygiene using water and soap or an alcohol-based hand rub solution. It is important to have relevant supplies available in different areas throughout the terminal (e.g. disposable tissues or paper towels and disposable gloves, no touch bins etc.). If disposable paper tissues are not available, coughing or sneezing into the elbow is recommended. Information regarding proper respiratory etiquette should be provided to users of the terminal through announcements, TV, screens, leaflets, infographics, electronic posters etc.

## 12.4. Hand hygiene

Good hand hygiene should be promoted and practised by all terminal personnel and users with frequent and thorough hand washing using soap and water, or where hands are not visibly soiled, an alternative alcohol-based hand rub solution may be used. It should be noted that the use of gloves does not replace hand hygiene and that glove use in the community is not recommended to prevent transmission of SARS-CoV-2. Furthermore, glove use may provide a false sense of security. Stations with alcohol-based hand-rub solutions (containing at least 60% ethanol or 70% isopropanol) should be available at all entrances of the terminal and other areas such as toilets, counters, terminal zones and at embarkation etc. Designated terminal personnel may oversee the process and help encourage compliance with hand hygiene requirements. Prominent signage regarding hand hygiene should be displayed throughout areas of the terminal.

## 12.5. Cleaning and disinfection

Terminals should remain closed until the time of boarding and access should only be granted to personnel consistent with overall prevention, cleaning and disinfection procedures.

Cleaning and disinfection should take place in accordance with routine procedures and with an increased frequency for surfaces that are frequently touched by terminal personnel and users. Cleaning and disinfection of the terminal should be conducted before and after each embarkation, by personnel using appropriate PPE. Cleaning and disinfection should follow the same protocols as those used on board cruise ships as described in paragraph 8.9. Special protocols for cleaning and disinfection should be available and implemented after a possible or confirmed case has been identified, either at the terminal or on board a ship, if they used the terminal facilities.

## 12.6. Ventilation

Indoor areas at cruise terminals should be adequately ventilated. The number of air exchanges per hour (both for natural and mechanical ventilation) should always be according to the applicable building regulations and should be maximised as much as

possible. However, draughts should be directed away from individuals (especially stationary individuals) since they could create a risk of spreading any aerosolized droplets further. In case of mechanical ventilation, recirculation should be avoided as much as possible.

## 12.7. Health monitoring of terminal personnel

Terminal personnel should practice frequent hand hygiene and wear appropriate PPE based on their specific work duties. It is recommended that terminal personnel follow the same screening protocols as travellers for entry to the terminal. Laboratory testing for COVID-19 of terminal workers could be conducted on a regular basis.

## 12.8. Management of possible cases and their contacts at the cruise terminal

Once a possible case is detected a contingency plan/outbreak management plan should be activated.

The possible case should be asked to wear a medical face mask as soon as they are identified. If a medical face mask cannot be tolerated, the possible case should practice strict respiratory etiquette and hand hygiene. An appropriate isolation space/cabin should be designated for isolating possible cases of COVID-19. The isolation cabin should be equipped with appropriate supplies (medical face masks, hand hygiene supplies, tissues and no-touch waste disposal bins etc.) and, if possible, with a separate toilet. The door should be kept closed at all times and entrance should be restricted only to personnel trained for responding to possible cases of COVID-19.

As soon as a possible case is detected, the public health competent authorities should be informed immediately in order to conduct any preliminary interviews and to manage the possible case and close contacts in accordance with the national protocols.

## 12.9. Baggage handling

Baggage handlers should perform frequent hand hygiene. Gloves are not required unless used for protection against mechanical hazards. Disinfection of luggage and especially the hand contact parts may be considered before loading luggage on board.

# Annexes

## Annex 1: Overview of suggested personal protective equipment (PPE) on cruise ships

This annex provides an overview of recommended PPE to be used on board cruise ships in the context of lifting restrictive measures in response to the COVID-19 pandemic.

Cruise ships are workplace settings for crew members employed on board. Specific measures can be implemented in these settings in the context of COVID-19 as operations gradually restart, to prevent and minimize the risk of virus transmission while protecting the health of both crew members and passengers. Personal protective and environmental measures should be implemented together in workplaces, in this case on board cruise ships (21).

Examples of public health measures that can be applied in all workplace settings include (22, 23):

- Promotion of frequent and meticulous hand hygiene by all crew members and passengers, also ensuring relevant supplies (e.g. soap, alcohol-based hand rub solution) are readily available
- Promotion of proper respiratory etiquette by all crew members and passengers, also ensuring relevant supplies (e.g. disposable tissues, no-touch waste bins) are readily available and ensuring medical face masks are available in case a crew member or passenger develops symptoms compatible with COVID-19
- Encouragement of physical distancing of at least 1.5 metres (or otherwise as per national/local health authority requirements of the home port or the port of call). Additional mitigation measures can be implemented to limit contact/interaction between crew members and between crew members and passengers (e.g. installation of sneeze guards/transparent dividers, directional controls in high-traffic areas, staggering of workspaces to provide separation, etc.)
- Ensure a supply of medical face masks are available in the event a crew member or passenger on board develops symptoms compatible with COVID-19
- Ensure a supply of face masks are available for use to prevent droplet transmission and protect high-risk groups, and provide information on proper face mask management (e.g. use, storage and cleaning or disposal)
- Ensure cleaning and disinfection of surfaces and objects according to routine procedures and with increased frequency in areas and on surfaces that are frequently touched by crew members and passengers
- Education, regular training and continuous risk communication on the importance of personal protective and environmental measures implemented on board
- Ensuring appropriate ventilation of closed environments

## Overview of PPE and face masks presented in this Annex

| Personal protective equipment (PPE) | | Protection offered |
|---|---|---|
| **Respirator**<br>e.g. class 2 or 3 filtering face-piece (FFP2/FFP3) | <br>©ECDC | • Protects wearer against inhalation of droplets and small airborne particles, including aerosols<br>• Requires proper fitting<br>• Primarily used by health care workers, particularly during aerosol-generating procedures<br>• Comply with requirements defined in European Standard EN 149:2001+A1:2009 |
| **Medical face mask**<br>(surgical or procedural mask) |  <br>©ECDC | • Protects against exhaled droplets when worn by ill patient<br>• Protects the user against potential large infective respiratory droplets<br>• Medical device that does not require fit-testing but require proper fitting<br>• Comply with requirements defined in European Standard EN 14683:2014 |
| **Other** | | **Protection offered** |
| **Non-medical face mask**<br>("community mask") |  | • Manufactured or homemade masks and face covers (made of cloth, textiles or other materials)<br>• Cannot be considered PPE or medical device and are not standardized In case of severe PPE shortages and if medical masks are not available, cloth masks are suggested as a last-resort<br>• Not intended for use by healthcare workers |

European Centre for Disease Prevention and Control. Guidelines for the implementation of non-pharmaceutical interventions against COVID-19. Stockholm: ECDC; 2020 (https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-guidelines-non-pharmaceutical-interventions-september-2020.pdf)

## General considerations for use of face masks (medical and non-medical "community" masks) (24, 25)

- Proper wearing (donning) and removing (doffing) procedures for face masks should be followed. Hand hygiene with an alcohol-based hand rub solution or soap and water should be conducted before wearing and immediately after removing the mask and disposing of it.

- Face masks should be placed carefully and secured to the wearer's head with ties or ear loops, ensuring that the mask covers their nose and mouth completely, and is secured under the chin. Face masks should be removed from behind and the wearer should be careful to avoid touching the mask (front side) when removing.

- Face masks should not be touched while wearing; if touched hand hygiene should be performed.

- Face masks should be changed as soon as they become damp.

- Single-use/disposable face masks should be discarded after each use and disposed of safely (e.g. in a closed bin or bag) immediately after removing, followed by hand hygiene.

- Reusable face masks should be removed and placed in a clean plastic re-sealable bag until cleaned. They should be laundered after each use as soon as possible, using common detergent, hot water (at least 60°C) and dried completely. Laundering face masks should not change the fit or damage the mask.

- Non-medical "community" masks (manufactured or homemade) should be constructed of multiple layers of tightly woven fabric that allows the wearer to breathe comfortably without restriction.

    - Manufactured non-medical "community" masks:
      The European Committee for Standardization (CEN) published Workshop Agreement guidelines on minimum requirements for non-medical masks (available here: https://www.cencenelec.eu/research/CWA/Documents/CWA17553_2020.pdf) as have other standardization organizations. Considerations regarding filtration, breathability and fit of manufactured non-medical masks can also be found here: https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak
    - Homemade non-medical "community" masks:
      Guidance on recommended materials and how to construct a homemade non-medical mask can be found at the following: https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak and https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-make-cloth-face-covering.html

- Face masks should not be worn by children under the age of 6 years, individuals with breathing difficulties or those who are unconscious or unable to remove a mask on their own.

- Face masks should be worn properly at all times, covering the wearer's mouth and nose completely, fitting against the face snugly but comfortably to reduce any gaps between the wearer's face and the mask. Masks should **not** have exhalation valves, slits or be damaged in any way (wearer's should inspect the mask before putting on).

- To improve the fit of face masks, strategies exist to reduce any gaps between the wearer's face and the face mask. These strategies include: using fitters and braces over a face mask, choosing face masks that have nose wires, using a knotting/tucking technique, or possibly "double masking"[14]. Further details and considerations for improving the fit of face masks can be found here: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html

- Additional resources for face mask use and management can be found at the following:

    **WHO:** https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks

[14] Wearing a second mask on top of a first mask (to create a "double mask"): wear a medical procedure mask underneath a cloth mask. Do not combine two medical procedure masks to create a "double mask." Medical procedure masks are not designed to fit tightly and wearing a second medical procedure mask on top of the first medical procedure mask does not help to improve the fit. (Centers for Disease Control and Prevention. Improve the Fit and Filtration of Your Mask to Reduce the Spread of COVID-19. 6 April 2021. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html#double-mask)

**ECDC:** https://www.ecdc.europa.eu/en/covid-19/prevention-and-control/protect-yourself
**CDC**: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html

- Other personal preventive measures should be practiced when wearing a face mask, including hand hygiene, respiratory etiquette and maintaining a distance of at least 1.5 metres[15] from others as far as practicable.

**Advice for the use of face masks by passengers and crew members**

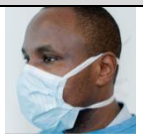
The following tables list recommended PPE for crew members, passengers and others based on specific settings and situations. Also provided are general recommendations for PPE to be used at terminal stations (detailed guidance about PPE use at terminal stations can be found here: https://www.healthygateways.eu/Novel-coronavirus).

**Table 1: Crew members - no interaction**

| WHO | WHEN | WHAT |
|---|---|---|
| Crew members | Located in their own individual cabin on board | **No face mask recommended** |
| | | **Frequent hand hygiene** |

As outlined in **Table 1**, when crew members are situated in their individual cabins where no interaction with others will occur, there is no need for the use of a face mask. In these situations, crew members should still practice frequent and meticulous hand hygiene.

**Table 2: Crew members on board**

| WHO | WHEN | WHAT | |
|---|---|---|---|
| Crew members | Crew members on duty any time outside of individual cabins or working with other crew members (e.g. in public spaces, service areas etc.)<br><br>Crew members off duty and outside of individual cabins, regardless of whether physical distancing of 1.5 metres can be maintained<br><br>Crew members in contact/interacting with passengers including when:<br>Handling food<br>Cleaning cabins | **Medical mask[a]**<br>**OR**<br>**Properly fitting respirator (FFP2)[b]**<br><br>If unavailable a **non-medical "community" mask[a]** |  <br>©ECDC<br>**OR**<br>  <br>©ECDC<br>**If above unavailable:**<br>  |
| | | **Frequent hand hygiene** | |

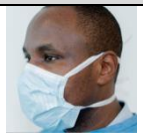
[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

[b] Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

[15] or otherwise as per national/local health authority requirements of the home port or the port of call

As outlined in **Table 2,** any time crew members are outside of their individual cabins on board (whether on or off duty) and regardless of whether physical distancing can be maintained, a face mask should be worn. Exceptions to mask use on board include when eating or drinking.

***Table 3: Passengers on board***

| WHO | WHEN | WHAT | |
|---|---|---|---|
| Passengers | Anytime outside of cabin, regardless of whether physical distancing of 1.5 metres can be maintained | **Medical mask[a] OR Properly fitting respirator (FFP2)[b]**<br><br>If unavailable a **non-medical "community" mask[a]** |  <br>©ECDC<br>**OR**<br>  <br>©ECDC<br>**If above unavailable:**<br>  |
| | | **Frequent hand hygiene** | |

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

[b] Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

As seen in **Table 3** in any situation or setting where passengers may interact with one another outside of their cabins regardless of whether physical distancing can be maintained a face mask should be used Exceptions include during eating, drinking, seated on sunbeds, when swimming or doing other activities where the mask would get wet.

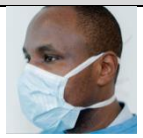
When passengers are interacting with their family unit or travelling unit (e.g. cohabitants) within their cabin, no face mask is recommended.

**Table 4: Crew members entering the medical facility/isolation area**

| WHO | WHEN | WHAT | |
|---|---|---|---|
| Medical personnel or crew members | Entering the medical facility/isolation area on board | **Properly fitting respirator (FFP2)**<br><br>*If not available*<br>**Medical face mask** |  <br>©ECDC<br>**OR**<br>  <br>©ECDC |
| | | **Frequent hand hygiene** | |

In the event that a possible COVID-19 case is being cared for, entering the medical facility/isolation area requires the use of a respirator or if unavailable, medical face mask and other appropriate PPE (e.g. goggles or face shield, as well as gloves and long-sleeved impermeable gowns if there is a risk of contact with body fluids or if contamination of the area is considered high). Only crew providing care should be admitted to the medical facility/isolation area.

**Table 5: Settings on board cruise ship where respiratory protection is strongly recommended to be required by crew members and passengers**

<table>
<tr><th>WHO</th><th>WHEN</th><th colspan="2">WHAT</th></tr>
<tr><td rowspan="2">Crew members and Passengers</td><td rowspan="2">All areas outside of individual cabins on board regardless of whether physical distance of 1.5 metres can be maintained<br><br>Examples of settings include:<br>Walking/passing in narrow corridors on board<br>In elevators on board<br>In entertainment venues, dining areas, reception areas, spas/hairdressers</td><td>Medical mask[a]<br>OR<br>Properly fitting respirator (FFP2)[b]<br><br>If unavailable a non-medical “community” mask[a]</td><td>  <br>©ECDC<br><u>OR</u><br>  <br>©ECDC<br><u>If above unavailable</u>:<br>  </td></tr>
<tr><td colspan="2">Frequent hand hygiene</td></tr>
</table>

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

[b] Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

There are certain settings on board as outlined in **Table 5** where the use of respiratory protection is strongly recommended to be required for both crew members and passengers.

Face masks should be required by crew members and passengers at all times on board when outside of individual cabins, regardless of whether a physical distance of 1.5 metres can be maintained (exceptions include during eating, drinking, when seated on sunbeds, when swimming or doing other activities where the mask would get wet).

**Table 6: Other settings where respiratory protection is strongly recommended to be required**

<table>
<tr><th>WHO</th><th>WHEN</th><th colspan="2">WHAT</th></tr>
<tr><td>Crew members and Passengers</td><td>All areas and settings outside the ship where interaction with others may occur, regardless of whether physical distance of 1.5 metres can be maintained<br><br>Examples of settings include:<br>When entering and on the premises of the terminal station<br>During embarkation at the terminal station<br>On buses during transport</td><td>Medical mask[a]<br>OR<br>Properly fitting respirator (FFP2)[b]<br><br>If unavailable a non-medical “community” mask[a]</td><td>  <br>©ECDC<br><u>OR</u><br>  <br>©ECDC<br><u>If above unavailable</u>:</td></tr>
</table>

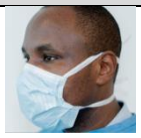
| | | | |
|---|---|---|---|
| | On board lifeboats<br>During disembarkation<br>During on-shore activities /excursions | |  |
| | | **Frequent hand hygiene** | |

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

[b] Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

**Table 6** describes situations where use of respiratory protection is strongly recommended to be required in areas outside the cruise ship where a high density of people may congregate and physical distancing is challenging, including during embarkation at the terminal, during transfers on buses(26)(25)(24)(24) on board lifeboats.

**Table 7: Shore-based personnel**

| WHO | WHEN | WHAT | |
|---|---|---|---|
| Shore based personnel boarding the ship before assessment by authorities:<br>Maritime pilots<br>Ship agents<br>Port workers (including shipyard workers)<br>Medical personnel | All areas and at all times when shore-based personnel are boarding a conveyance, including when interaction with crew members, regardless of whether physical distance of 1.5 metres can be maintained | **Medical mask[a]**<br>**OR**<br>**Properly fitting respirator (FFP2)[b]**<br><br>If unavailable a **non-medical "community" mask[a]** |  <br>©ECDC<br>**OR**<br>  <br>©ECDC<br>**If above unavailable:**<br>  |
| | | **Frequent hand hygiene** | |

[a] Could consider strategies to improve mask fit: using masks with a nose wire or mask fitter/brace, double masking etc.

[b] Respirators could be considered if they are available for use by the public and if sufficient supplies are available after prioritization for use in healthcare settings. Respirators must be prioritized for healthcare workers/medical personnel, especially during aerosol-generating procedures

Face masks should be used by shore-based personnel boarding the ship, regardless of whether physical distancing of 1.5 metres can be maintained and there may be interaction with crew.

## Annex 2: Pre-boarding health declaration questionnaire

**(The questionnaire is to be completed by all adults before embarkation)**

| NAME OF VESSEL | CRUISE LINE | DATE AND TIME OF ITINERARY | PORT OF DISEMBARKATION |
|---|---|---|---|
| | | | |
| **Contact telephone number for the next 14 days after disembarkation:** | | | |
| **First Name as shown in the Identification Card/Passport:** | **Surname as shown in the Identification Card/Passport:** | **Father's name:** | **CABIN NUMBER:** |
| | | | |
| **First Name of all children travelling with you who are under 18 years old:** | **Surname of all children travelling with you who are under 18 years old:** | **Father's name:** | **CABIN NUMBER:** |
| | | | |
| | | | |
| | | | |
| | | | |

**Questions**

| **Within the past 14 days** | **YES** | **NO** |
|---|---|---|
| 1. Have you or has any person listed above, presented sudden onset of symptoms of fever or cough or difficulty in breathing or sudden loss of taste/smell? | | |
| 2. Have you, or has any person listed above, had close contact with anyone diagnosed as having coronavirus COVID-19? | | |
| 3. Have you, or has any person listed above, provided care for someone with COVID-19 or worked with a health care worker infected with COVID-19? | | |
| 4. Have you, or has any person listed above, visited or stayed in close proximity to anyone with COVID-19? | | |
| 5. Have you, or has any person listed above, worked in close proximity to or shared the same classroom environment with someone with COVID-19? | | |
| 6. Have you, or has any person listed above, travelled with a patient with COVID-19 in any kind of conveyance? | | |
| 7. Have you, or has any person listed above, lived in the same household as a patient with COVID-19? | | |

| Test results and vaccination | |
|---|---|
| 1. Have you been tested for COVID-19 with a molecular method (RT-PCR) within the past 72 hours (if the country of embarkation requires it)? | □ No<br>□ Pending results<br>□ Positive*<br>□ Negative |
| 2. Have you performed, the day of embarkation, a rapid test for COVID-19? | □ No<br>□ Positive*<br>□ Negative |
| 3. Have you been vaccinated with all the necessary doses for COVID-19? | □ No<br>□ Yes |

* Embarkation on board the vessel is prohibited only if there is an affirmative answer

## Annex 3: Passenger/Crew Locator Form (PLF) for cruise ships

The form is available in Word format from the following link:

https://www.healthygateways.eu/Translated-Passenger-Locator-Forms

Considerations on passenger locator data can be found here: https://www.ecdc.europa.eu/en/publications-data/passenger-locator-data-entry-exit-screening-health-declaration

**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 ship. 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 OTHER **9. Age (years)**

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

**10. Mobile** **11. Business**

**12. Home** **13. Other**

**14. Email address**

**PERMANENT ADDRESS*:**

**15. Country** **16. State/Province**

**17. City** **18. ZIP/Postal code**

**19. Number and street (Separate number and street with blank box)** **20. Apartment number**

***21. if in the previous 14 days you have stayed in a country (not transit) other than your permanent address, declare below the name of country/countries:**

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

**22. Country 1** **23. State/Province 1**

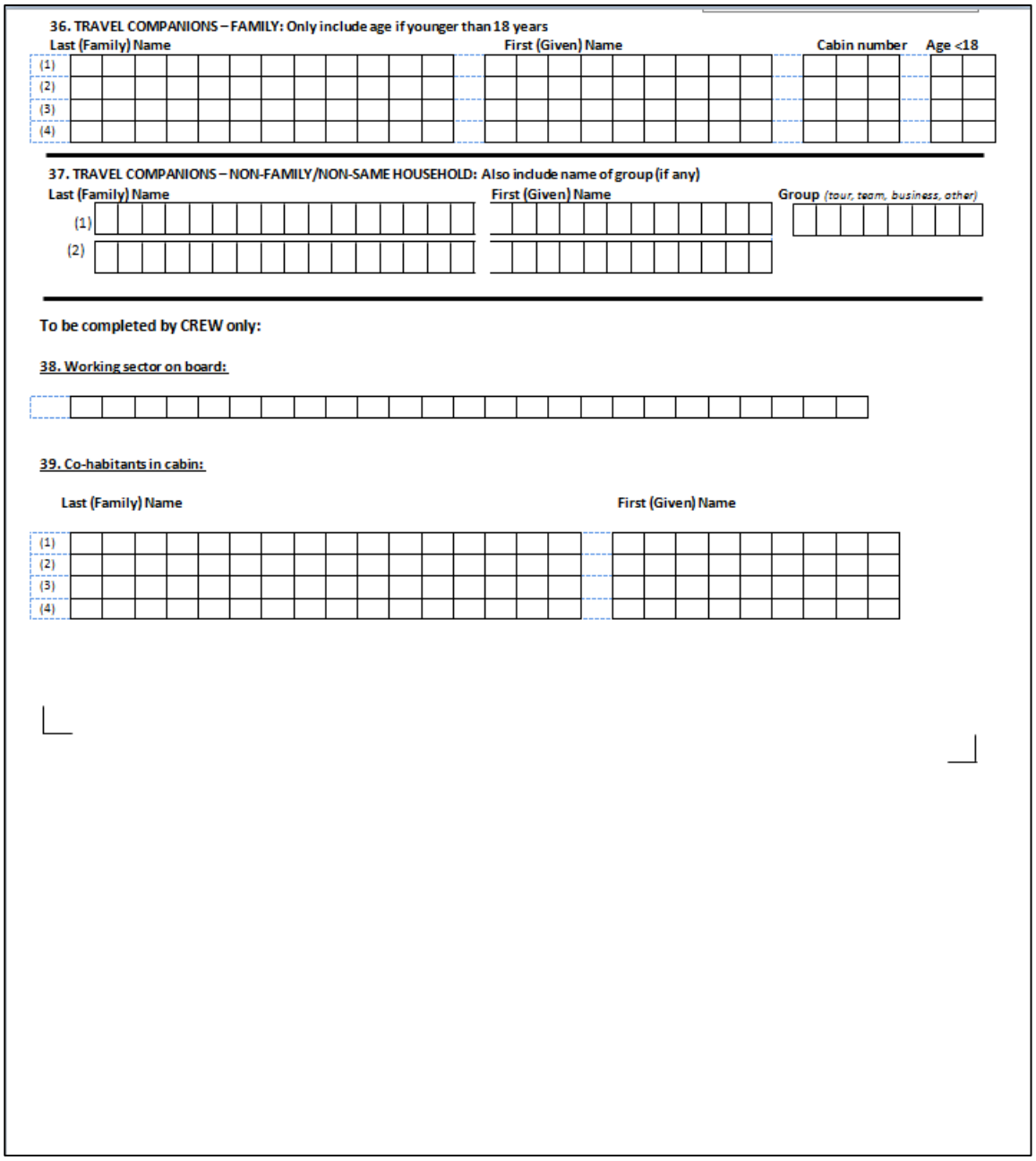
**24. City 1** **25. ZIP/Postal code 1**

**26. Hotel name 1 (if any)** **27. Number and street 1 (Separate number and street with blank box)** **28. Apartment number 1**

**29. Country 2** **30. State/Province 2**

**31. City 2** **32. ZIP/Postal code 2**

**33. Hotel name 2 (if any)** **34. Number and street 2 (Separate number and street with blank box)** **35. Apartment number 2**



36. 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) | | | | |

37. TRAVEL COMPANIONS – NON-FAMILY/NON-SAME HOUSEHOLD: Also include name of group (if any)

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

To be completed by CREW only:

38. Working sector on board:

39. Co-habitants in cabin:

| | Last (Family) Name | First (Given) Name |
|---|---|---|
| (1) | | |
| (2) | | |
| (3) | | |
| (4) | | |

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For any questions or support related to the points of entry including ports, airports, ground crossings, please email info@healthygateways.eu

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