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Special Course on Building Port Resilience Against Pandemics (BPR)

Participant manual

Section 1: Crisis Protocol and Communication Strategy

Strenghtening Knowledge
and skills through **innovative approaches**
for sustainable economic development

Development Account
Department of Economic and Social Affairs

Irish Aid
Government of Ireland
Rialtas na hÉireann

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1. CRISIS PROTOCOL AND COMMUNICATION STRATEGY

1.1 Definition, causes and past experiences of pandemics

Before diving into the design and implementation of protocols against pandemics, it is essential to define what a pandemic is and understand its causes.

Pandemic (from the Greek πᾶν, pan, "all" and δήμος, demo, "people") is the worldwide transmission of an infectious disease. It means that a disease has spread over a vast region, for example to several continents, affecting a considerable number of people.

According to the World Health Organization, a pandemic is the global spread of a new disease. For instance, an influenza pandemic occurs when a new influenza virus emerges and spreads around the world, and most people are not immune. Furthermore, some aspects of influenza pandemics may appear similar to those of seasonal flu, while others cause infections in all age groups. However, typical seasonal flu causes most deaths in the elderly, while other severe cases occur more often in people with various medical conditions. For example, both seasonal and pandemic flu can cause infections in all age groups, and in most cases the illness is self-limiting and the person recovers completely without treatment.

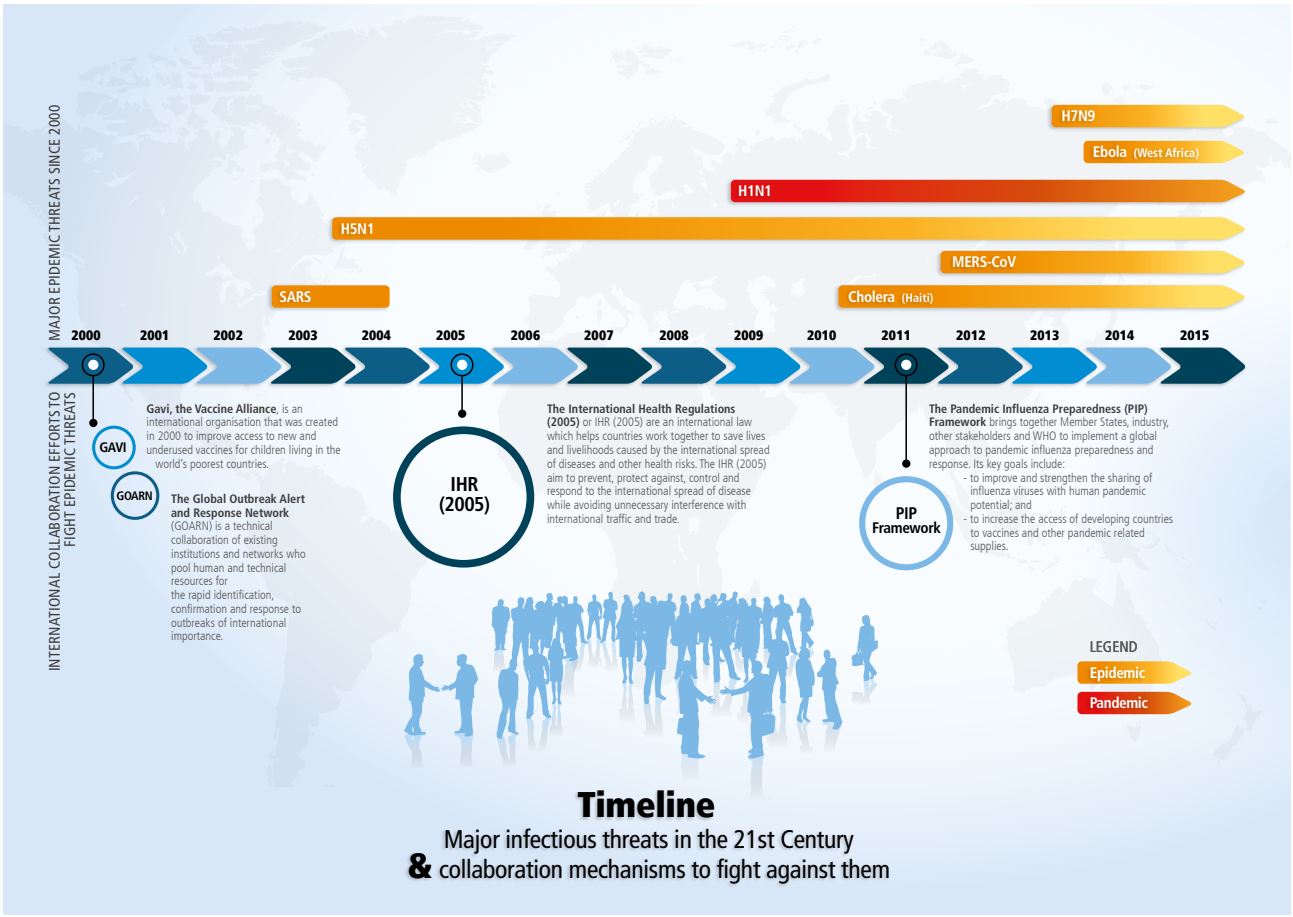
In this context, it is important to establish the **differences between epidemics and pandemics**. An epidemic is an actively spreading disease and is a term often used for conditions that have grown out of control. An epidemic affects a large number of people within a community, population, or region whereas, as mentioned above, a pandemic describes a disease that has a global effect. Some infectious diseases have been classified as epidemics, including recent Ebola outbreaks. Others have rapidly progressed from epidemic to pandemic, such as the variant of the coronavirus, COVID-19. In informal speech, the terms are often used interchangeably, but the distinction is essential. Epidemics are a concern when the number of cases quickly outstrips healthcare capacities, causing a strain on existing resources as the infection spreads. The United States Center for Disease Control and Prevention (CDC) actively monitors disease cases for signs of growing epidemics to prevent massive spreads and hence, pandemics.

It should be noted that a widespread endemic disease with a stable number of infected people is not a pandemic. Diffuse endemic diseases with a stable number of infected people, such as seasonal flu recurrences, are generally excluded as they occur simultaneously in large regions of the globe rather than being spread worldwide.

Throughout human history, there have been several pandemics, such as smallpox, tuberculosis, and influenza (H1N1) in 2009. The deadliest pandemic recorded in history was the Black Plague, which killed some 75-200 million people in the 14th century. The term *pandemic* had not yet been used, but was adopted in later worldwide spreads of diseases, including the 1918 influenza pandemic (Spanish).

Many other diseases have caused epidemics: for instance, the 2011 Escherichia Coli outbreak in Germany, the Ebola virus in 2014, Zika virus in 2016 and West Nile virus in Southern and Eastern European countries in 2019 all show that new infections can emerge at any time.

Figure 1: Timeline of the major infectious threats in the 21st Century



The following major factors have been identified that allow pathogens to cause epidemics and pandemics, and the phenomenon of "false" spikes in epidemic data has been studied.

The first and most important factor is "**Human population dynamics and behaviour**". As more people populate the planet, there is a greater possibility someone will encounter a pathogen that will spread to others. Moreover, as we are travelling greater distances today than ever before, this allows pathogens to spread more rapidly and further afield. This is one of the reasons for the recent outbreaks of Ebola.

Another major factor is the "**Change in insect or reservoir populations**". As a pathogen finds its way into new carriers, it can reach new ecosystems and populations, especially in combination with the previous factor. This has been critical to the spread of the West Nile virus, which finds new environments where it can flourish within species of birds and mosquitoes. To date, the largest outbreaks have been documented in areas along the major migratory routes of birds in Greece, Israel, Romania, Russia and the USA.

The second factor is undoubtedly exacerbated by factor number three: **"Weather and climate change"**. Changes in weather and the climate can drive some animals carrying pathogens to different areas, where they could spread diseases to people. At the same time, complications due to "Changes to the pathogens themselves" rise exponentially. The flu virus is a great example of how mutations can allow viruses to spread widely among populations. The influenza virus changes on a regular basis, creating the need to develop a new flu vaccine each season, while some strains of flu have the potential to cause pandemics.

Finally, **"Technological progress"** has allowed us to diagnose previously undiagnosed illnesses and identify outbreaks, an otherwise historically slow process. Such was the

case of Leptospirosis that was observed in Baltimore in the mid-1990s, which went unrecognized until better diagnostic tools became available, and revealed the likely "true" prevalence of the disease.

1.2 International and national rules and regulations

Within this framework, when we talk about the fight against infectious diseases that cause a pandemic, the spread should be monitored and controlled at the global level. The example of the COVID-19 pandemic shows that an outbreak can spread from a remote area to any major city in the world in few days: the first case was declared in Wuhan (China) in December 2019 and in only few weeks the virus had been observed in several countries around the world. It is therefore vital to protect health and safety at home but also to ensure that other countries have the knowledge and resources to stop threats before diseases spread beyond their borders. Together, the international community needs to build first lines of defence to better prevent, detect and respond to disease.

The **World Health Organization (WHO)** provides global leadership in public health. The WHO is a specialized agency of the United Nations founded in 1948, whose objective is to achieve for all countries the highest degree of health, as defined in its Constitution as a state of complete physical, mental and social well-being**,** and not only as the absence of diseases or illnesses. One of WHO's strategic priorities is to build and sustain resilient national, regional and global capacities required to keep the world safe from epidemics and other health emergencies. The WHO pays particular attention to combating major health problems, especially in developing countries and in contexts of crisis.

The Organization's experts develop health guidelines and standards, assist countries in addressing public health issues and promote health research. Through the WHO's mediation, governments can collectively address global health problems and improve people's well-being. This is why many of the policies that national governments adopt are based on WHO guidelines or recommendations.

In this framework, one of the responsibilities of the WHO is the management of the global regime for the control of the international spread of diseases. WHO Member States confer on WHO the power to adopt regulations **"designed to prevent an international spread of diseases"**.

It is with this goal in mind that the **International Health Regulations** (IHR 2005) purpose and scope are to "prevent the international spread of disease, protect against such spread, control it and provide a public health response that is in proportion and restricted to public health risks, while avoiding unnecessary interference with international traffic and trade". IHR provide an overarching legal framework that defines countries' rights and obligations in handling public health events and emergencies that have the potential to cross borders. They are not limited to specific diseases; rather, they may relate to any existing, new, and re-emerging diseases (e.g., yellow fever, plague, cholera, severe acute respiratory syndrome (SARS), Ebola virus, tuberculosis), including diseases caused by non-infectious agents. The IHR are an instrument of international law that is legally-binding on all WHO Member States. They create rights and obligations for countries, including the requirement to report any public health emergency of international concern.

The WHO, as the leading authority on public health, prepares recommendations to be adapted by national governments and is a source of consultation and advice for Member States. **National governments** can for instance adopt legislation or legal measures relating to state of emergency declaration, mask-wearing, social distancing, access to medication and vaccines, quarantine measures, disease surveillance, restriction on the

mobility of people and goods, mandatory use of detection tests to access the country, contact tracing, curfew, telecommuting, etc.

In this context, and to give an example of a regional measure, Decision 1082/2013/EU has already contributed significantly to the improvement of health security in the European Union and the protection of the Union's citizens from communicable diseases through the implementation and integration of solutions such as the EWRS (Early Warning and Response System) for communicable diseases. The Decision also clarifies the methods of cooperation and coordination between the various actors at the supra-national level, including the European Centre for Disease Prevention and Control (ECDC), and the Health Security Committee (HSC).

However, the management of this type of crisis remains a major challenge due to the variety of actors involved, the different legal, administrative, professional and political cultures, and the lack of transboundary crisis management structures. As a result, the typical challenges that usually emerge in any crisis situation are exacerbated. In a cross-border area such as ports and airports, it becomes harder to detect threats, to understand current circumstances and hence make collective decisions, especially when affected countries do not share borders. It thus becomes clear that some needs and challenges related to pandemic response remain unmet.

COVID-19 Pandemic

Following the IHR Emergency Committee for COVID-19 meetings in January 2020, the WHO Director-General declared that the outbreak constituted a Public Health Emergency of International Concern and issued IHR Temporary Recommendations.

As a consequence of the COVID-19 pandemic, the national legislation and regulations of many countries are being updated in an attempt to adapt to this health crisis situation. In this regard, as mentioned above, the WHO and the United Nations propose recommendations that in many countries are reflected in regulations, such as the mandatory use of masks and advised social distancing. Although there are many regulations on the prevention, control, and surveillance of pandemics, the emergence of COVID-19 has exponentially accelerated the publication of new regulations, instructions, recommendations, etc. for the protection of citizens.

Given the vast amount of information and unprecedent challenges arising from the COVID-19 pandemic, the WHO, together with other international partners, established the COVID-19 Law Lab, a database of national laws that more than 190 countries have implemented to support the global response to the pandemic by helping States establish and implement strong legal frameworks to manage the pandemic.[1]

In the event of a pandemic, the implementation of health control measures should be carried out at the national level taking into consideration urgent measures of prevention, containment and coordination and often based on WHO recommendations. Therefore, port authorities, port companies, and stakeholders need to be informed and follow the rules and recommendations established by national governments and relevant authorities.

1.3 Taking responsibility for ports

Port managers are required to go beyond regulatory compliance to ensure the health of the people working in their ports. In the context of a pandemic, ports carry out their operations with the support of the authorities, who recognize the essential role of ports in the logistics chain and thus in mitigating the impacts of the coronavirus. Despite the

1 The COVID-19 Law Lab database is accessible at the following link: https://covidlawlab.org.

fact that many ports have not reported significant impacts on cargo operations, some ports consider that it is much **more effective to be proactive than reactive.**

For example, many ports around the world have reported that they are proactively applying specific procedures for stakeholders. Examples of these measures include checking body temperature through the installation of thermographic cameras at the entrance to buildings and terminals, establishing guidelines for social distancing, etc. More specifically, these measures aim to:

- Promote distancing measures between people.
- Reduce as far as possible people's physical contact with the surrounding areas, implementing enhanced cleaning and disinfection measures.
- Facilitate measures to prevent and mitigate health risks that may arise at any given time.
- Facilitate the inspections by the shipping companies, whose execution, for any reason, requires internal or external facilities of the terminal where cruise ships operate.
- Facilitate the implementation of actions derived from the management of health-related incidents that have been detected on board a ship, or that have been detected in the passenger terminal facilities, which may affect passengers, ship crews, terminal ground staff, or other individuals, during their transit through the terminal.

Another measure adopted to prevent the spread of infectious diseases in some ports is the design and implementation of protocols to protect workers before they start and during their daily activities. Most ports have been operating a rotation system, which entails defining different teams that alternate their physical presence in the port area. For example, the different teams may alternate on a weekly basis. In larger organizations, there are examples where the number of people working on A and B shifts has been reduced in order to create a reserve C team. Some ports go further still, operating with A and B teams, while the C team is composed of a set of multidisciplinary professionals who can move around different operational areas, etc.

Besides the above, measures have been defined to deal with suspected cases of infectious diseases on board ships. In this regard, the ports follow the decisions of the health authorities of each country or region. In addition, proactive and voluntary measures are identified, such as the designation of specific berths (where possible) and the implementation of land-based quarantine zones for treatment. In all cases, protocols that have been defined for the treatment of suspected cases of disease and quarantine procedures for ships should seek to avoid, as far as possible, interfering with port operations.

1.4 Action protocols for pandemics

During a pandemic, ports should develop action protocols based on recommendations provided by national and regional authorities. Such guidelines are essential for the successful implementation of prevention actions and for the response to suspected infectious cases in a pandemic situation.

1.4.1 What is a protocol?

An action protocol can be defined as a **document that sets out the action guidelines for a given situation**. In the case of pandemics, these actions relate to the prevention

of infection and the protection of people and workers in the port area against the risk of infection.

A protocol broadly lays out "what" should be done and to a lesser extent, "how" the containment operation should be undertaken. The details on how to conduct such an operation should be adapted to local and national circumstances. Moreover, the ports protocol is expected to serve as a foundation for more detailed operational planning.

One of the main aspects to be taken into account is that protocols need to be aligned with or included in the protection, contingency and/or emergency plans approved by the corresponding public authorities. In this respect, protocols at the port level detail the instructions that must be followed in order to reduce risks and need to be compatible with the continuation of port activities.

It is worth noting that ports should identify all the potential risks that can occur in the port area, such as fire, explosion, contamination, accident, and the risk to public health, and establish appropriate protocols. Therefore, for each of the risks, different procedures or protocols should be established, defining the basic action guidelines for each scenario deriving from the risks and hazards identified. Also, a person in charge (an authority or a representative) should be designated for each of the steps, so that it is clear what action has to be taken and who is responsible for it.

1.4.2 Self-diagnosis of your port response to the COVID-19 pandemic

Before diving into the elaboration of protocols and the mitigation and control measures, a self-diagnosis of your port response to the COVID-19 pandemic is proposed below. The aim is to reflect on its effectiveness, in order to subsequently be able to develop a solid long-term strategy.

Whether or not specific pandemic contingency plans are in place in your port, the following self-diagnosis questionnaire will help to reflect on what has happened, detect gaps and prepare an appropriate response for the future. The analysis and reflection must take into account the port organization in all its complexity.

The following questions are proposed for self-diagnosis:

- Did your port have epidemic or pandemic protocols established before the COVID-19 pandemic?
- If so, were they sufficient and effective in light of the circumstances? Were they suited to the specifics of the COVID-19 pandemic?
- In response to the COVID-19 pandemic, did your port implement protocols to deal with the pandemic?
- If so, were they adequate and sufficient?
- As a port worker, did you have the necessary information to implement the protocols and act accordingly?
- Were your own and others' roles and responsibilities clearly defined?

- Were the protocols adapted to the changing circumstances?
- Did you know the appropriate measures of protection against COVID-19 to be carried out at work to ensure your safety while also continuing your work?
- Were effective protective measures implemented in your port?
- Can you identify weaknesses in the contingency plans?
- Were there tracking systems in place to track contagions, their origin, spread and mitigation?
- Were there qualified teams to deal with contingencies?
- Can you foresee the scope and consequences of a potential spread of contagion for your work?
- Was there a process in place to distinguish between essential and non-essential activities, and the foresight to replace and relieve work teams?
- Were there a system for measuring the effectiveness of the work, distinguishing between internal and external customers?
- Were advisory services (technical, legal, health) available?
- Was there adequate technical and sanitary information available to operate with full awareness of the risks?
- Does your port have protocols that consider other possible scenarios (e.g. other than the current COVID-19 circumstances)?
- If your activity coincides with that of other companies and operators simultaneously, have you issued or received instructions for coordinating the shared activity to eliminate contacts and minimize risks in the face of the pandemic?

In more general terms, it is advised to reflect on the following:

- Measures for the maintenance of the essential activities
- Establishment of work teams
- Coordination of activities with other companies and groups
- Establishment of collective protection measures
- Availability of individual protection equipment appropriate to the risks
- Specific training programmes on dealing with contagion
- Updated information systems

1.4.3 Elaboration of protocols

A protocol must be clear and simple in order to be correctly enforced by the authorities and followed by port staff, operators, and users. During a pandemic, the elaboration of protocols must take into account different elements which might make the process complex. On the one hand, there is an ongoing risk of possible contagion that requires the inclusion of control and prevention measures in generic protocols and that needs to be adapted to port organizations and companies in a given context. On the other hand, there may be risk situations that only emerge from outbreaks of infectious diseases, in which actions have to be established based on specific instructions and recommendations provided by national and international entities (Ministry of Health and WHO, for example).

Furthermore, it is important that the protocol is developed by a group or committee of experts on the scenarios to which the protocol applies. In the case of ports, the committee will need the following main elements:

- Complete knowledge of the port area and infrastructure (docks, roads, buildings, outdoor work areas, spaces, etc.).
- Detailed description of cargo handling, ship and passenger operations.
- Information on the number of employees, working shifts, mobility of staff in the port area, etc.
- Risk assessment of exposure to contamination (depending on level of contact between workers required by their tasks).
- Knowledge of relevant authorities, stakeholders, etc.
- Knowledge of the applicable legislation and regulations.

As key actors in the supply chain, ports support efforts to limit the spread of the new disease while maintaining essential operations. In this context, the implementation of protocols is aimed at ensuring the health, safety, and well-being of employees, travellers, and port community stakeholders. In this regard, it is recommended to focus the response on two areas. First, ports should aim to safely maintain and operate port facilities, to meet the region's essential needs, and to keep as many people employed as possible. Second, ports should help mitigate the economic impact of the pandemic through a variety of initiatives and targeted stimulus programmes to support the most severely-affected communities and industries in its region.

To ensure the effectiveness of a pandemic action plan or protocol for ports, the following essential elements must be taken into account:

- Appointment of the responsible authorities
- Cataloguing of all stakeholders involved
- Creation of a crisis committee appropriate to the different planned incidents
- Choice of technical, legal, health consultation offices, etc.
- Establishment of communication channels (internal and external) appropriate to incidents.

It is important to have a holistic vision of the state of the pandemic and of the port including its essential activities, staff, barriers, bottlenecks, etc. in order to be able to establish appropriate action protocols.

In general terms, ports have different plans and strategies to deal with contingencies of any kind. They can be based on emergency plans derived from International Maritime Organization (IMO) regulations, on security plans for compliance with the International Ship and Port Facility Security (ISPS) Code, or on health plans derived from experiences of previous health crisis, such as the avian flu or the Ebola virus. The result of this planning is usually an inventory of means, operators, protocols and their procedures, with a support structure that keeps them in force and updated.

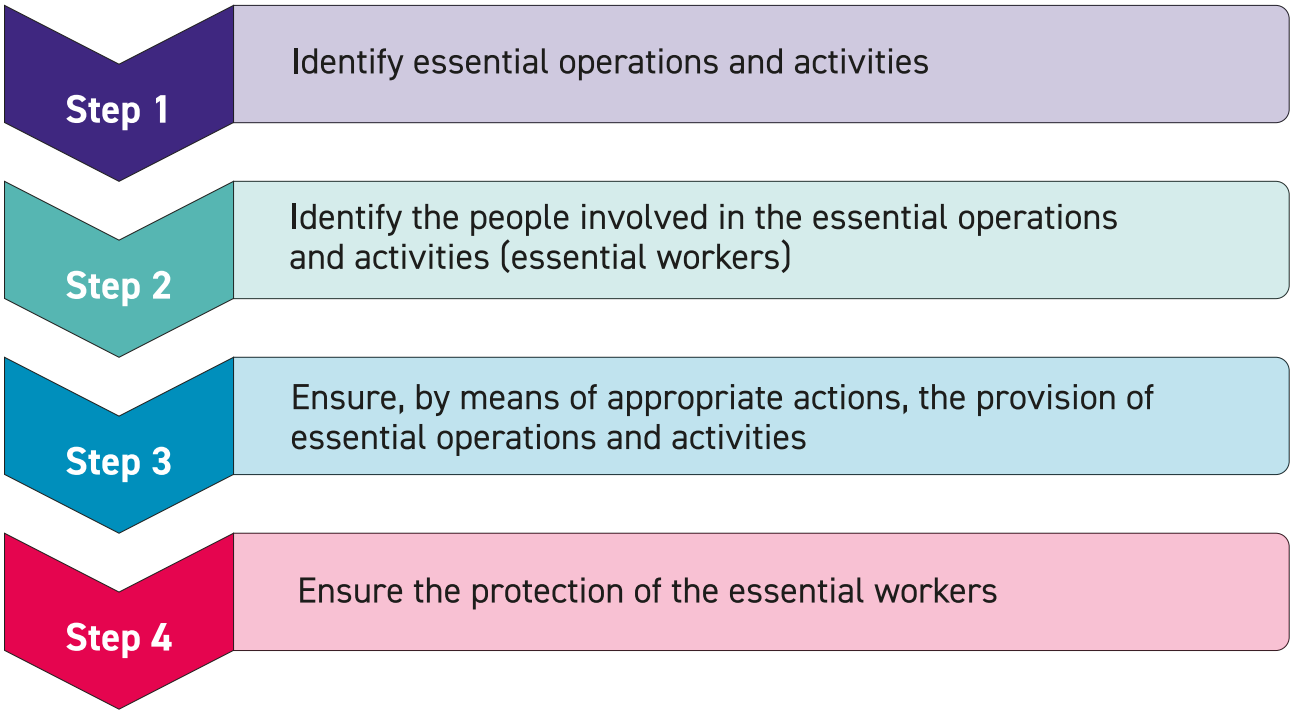
As discussed in more detail below, a port encompasses a multitude of agents, operators, concessionaires, administrations and authorities. This complexity makes it difficult to achieve a single, uniform or rapid response for the establishment of criteria or decision-making.

As an example, some circumstances experienced in ports worldwide since the declaration of the COVID-19 pandemic by the WHO in March 2020 included the following: home confinements, lockdowns, quarantines, curfews, and declarations of a state of

emergency. The first drastic measure taken by several national governments was to impose home confinement on the entire population of their country in order to curb the spread of the virus. The strategy of locking down large geographical areas was first implemented in China and Italy. Following the declaration of the pandemic, there has been no uniform strategy followed in all countries: from total containment in some countries to selective containment or attempts to achieve herd immunity in others. However, an approach involving different degrees of confinement has gradually become standard practice worldwide, with the almost total limitation of passenger mobility, the reduction of freight traffic and an unprecedented drop in productive activity.

In this context, most ports have been declared an essential activity to provide the goods necessary for the basic sustenance of life and health. At port level, lockdown requires a detailed study of essential and non-essential activities. When an activity is declared essential, the declaration also covers the workers who provide it. This declaration implies anticipating the contingency of having to maintain the flow of the activity with the application of appropriate measures, means and procedures of operation and coordination.

In order for ports to achieve these goals, the following four-step process can be followed:



Step 1. Identify essential operations and activities

In general terms, confinement measures, whether total or partial, must be established by means of enabling legislation issued by the competent authority (governmental or health authority). The enabling regulations must be interpreted according to local circumstances. The Port Authority must interpret the scope of the regulations and make the necessary arrangements for their application.

The port must adjust its existing procedures and all the participants involved in the different processes should take part in the adaptation process. If procedures or emergency teams are already planned, those can be activated. If not, new groups, committees and/or processes should be created to deal with the new situations that arise. In either case, it will be necessary to review all the phases in order to achieve the intended purpose. The final result of this first step should be a list of permitted activities (essential) and a list of suspended activities (non-essential).

This list of essential operations and activities must:

- Be in accordance with the applicable national regulations.
- Be verified with the operators involved.
- Foresee the possibility of contingencies.

Measures to prioritize goods and ensure the flow of essential cargo such as food, medicines or medical equipment are discussed in more detail in Section 4.2 below.

Step 2. Identify the people involved in the essential operations and activities (essential workers)

Confinement implies limitation of mobility and may affect the movement of people and vehicles.

To ensure the essential activities, the mobility of the people performing these tasks must be allowed, which requires an accreditation system validated by the competent authority or body, in turn necessitating the creation of a support structure for managing and updating said system.

Numerous measures must be taken to provide essential services, affecting all the agents involved in the operations such as:

- Transport operators in their different modes and their personnel
- Terminals (loading, unloading, handling and storage of goods, maritime stations and passenger services) and their personnel
- Port Employment Centres (or equivalent) and their personnel (stevedores)
- Shipowners and their personnel (shipowners, consignees and crews)
- Port Service Providers (Moorers, Pilots, Tugs, Provisioners) and their personnel
- Administrations and their personnel (Foreign Health Services, Port Captaincy, Customs, Armed Forces, Security Corps, State Security Forces and Corps, phytosanitary inspection services, etc.)
- Port Authority and its personnel (maintenance services, port police, access control, etc.)
- General and specialized assistance and maintenance services (electricity supply, drinking water supply, communications networks, assistance and emergency services, rescue services, etc.)

Step 3. Ensure, by means of appropriate measures, the provision of essential operations and activities

The provision of essential services requires the implementation of measures adapted to the activities to be performed.

Occupational risk prevention (ORP) measures

Preventive systems establish a preference for collective measures over individual ones and in this regard the port must ensure that they are carried out with the minimum possible risk. The measures proposed include the following:

- Systematic disinfection of work spaces (including machines, tools and equipment).
- Establishment of corridors for the circulation of workers in order to ensure physical separation and avoid contact.

- Creation of fixed work groups (establishment of watertight groups of workers) to prevent possible contagions from getting out of control.
- Intensive and exhaustive training on safer working methods relating to:
  - Hygienic measures
  - Maintenance of the distance between people
  - Use of personal protective equipment (PPE)
  - Use of shared elements
  - Individual disinfection
  - Detection of symptoms and protocols for communication to the competent health authorities
  - Diagnostic tests
  - Vaccination.
  - Medical attention

Constitution of advisory committees

In order to determine the most appropriate measures, the following list presents areas in which stakeholders could be consulted as part of an advisory committee or similar:

- Advice and consultation on disinfection measures and systems: health authorities and the port's ORP departments can be a good source of information.
- Advice and consultation on risk prevention measures: coordination between port operators can be supported by the port's ORP departments.
- Advice and consultation on safer working methods: the port's Health and Safety Committee can provide the necessary methodological endorsements to ensure the awareness and participation of workers and social agents.
- Advice and consultation on modifications to facilities to make them safer: engineering departments, with the participation of health departments can provide valuable information to make the usual conditions safer for workers in pandemics and design systems of physical separation between workers, methods for detection of suspicious symptoms, systems of purification and disinfection of machines and facilities, etc.
- Advice and consultation on the application of the best methods and tests for virus detection in the workforce: the port's health surveillance departments can be an appropriate source of training to establish the appropriate detection strategy.
- Advice and consultation on the vaccination strategy, establishment of vaccination passports, etc.: the port's health surveillance departments are often the best source for developing an approach and strategy.

Step 4. Ensure the individual protection of those identified as essential workers

Last but not least, measures must be taken to minimize the exposure risk of the essential personnel while carrying out their duties. Different measures could be adopted depending on the nature of the disease, and could include the following:

- Minimize face-to-face work without jeopardizing either efficiency or safety.
- Encourage remote work.
- Establish exceptional hygiene or disinfection measures for spaces, tools and equipment.

- Create watertight groups of shared work equipment in order to limit the possible spread.
- Provide individual and collective protection equipment appropriate to the risk of contagion.
- Implement more exhaustive and intense inspection and supervision systems in order to guarantee compliance with the instructions received.
- Increase specific training and updated information to minimize the risk of the work carried out.
- Implement specific action plan in the event of detecting an outbreak in the facility, which answers the following questions: How is it detected? What should be done? Who should be informed?

1.4.4 Example of a four-phase protocol

Proposed below is an example of a four-phase crisis protocol that can be used as a guide to the actions that should be implemented in relation to strictly-defined crisis levels depending on the state of the pandemic in the country and in the port. Please note that this protocol is only indicative and that other measures and types of protocols can be implemented instead. As mentioned above, a protocol should always be customized to the specifics of the disease, following WHO recommendations, and adapted to the specifics of the local context. In addition to the examples of measures below, Section 2 of the manual presents other measures that can be included in a protocol and discusses in more detail awareness-raising efforts, work from home protocols, control measures, testing process and strategy, and crew rotation management.

- PHASE 1: A pandemic has been declared by the World Health Organization, but there are no confirmed cases in the country.
- PHASE 2: There are confirmed cases in the country, but not yet in the port.
- PHASE 3: There are some suspected and/or positive cases in the port.
- PHASE 4: There is a high number of confirmed cases in the country and there are many confirmed cases in the port.

PHASE 1

- **International emergency declared**
- **No cases in the country**

PARTIES INVOLVED	CRISIS COMMITTEE/LEADERS
Collaborators, Clients, Partners	Names

ACTIONS
(examples)

- Test communication channels
- Identify isolation areas throughout the port
- Engage in disease prevention campaigns and follow WHO recommendations
- Communicate key messages internally
- Prepare messages to answer customer concerns
- Maintain direct communication with relevant national authorities (Public Health, Migration, Navy, etc.)
- Prepare for the implementation of Phase 2

PHASE 2

- International emergency declared
- **Confirmed cases in the country**
- **No cases in the port**

PARTIES INVOLVED	CRISIS COMMITTEE/LEADERS
Collaborators, Clients, Partners, Media	Names

ACTIONS
(examples)

All actions mentioned in Phase 1, and in addition:

- Implement preventive hygiene measures such as the installation of antibacterial gel dispensers in all access points and critical areas of the port
- Reinforce the internal campaign that promotes the importance of disease prevention and following WHO recommendations
- Suspend guided visits to the port (for students, clients, etc.)
- Inform clients about compliance with security protocols in relation to their cargo
- Maintain direct communication with community leaders
- Prepare for the implementation of Phase 3

During these first phases, it is necessary to insist on prevention measures based on the WHO recommendations. For instance, it is important to increase preventive hygiene measures. Depending on the specifics of the disease, generic individual protection measures may include the following:

√ Frequent hand hygiene.

√ Avoid close contact with people who show signs of respiratory disorders, such as coughing.

√ Maintain a distance of approximately one metre between people when possible.

√ Employees whose duties require them to work in places with a large number of people should be provided with personal protective equipment.

√ The cleaning frequency of areas should be increased, with an emphasis on contact surfaces (e.g. door handles, aisles, printers, lift buttons, telephone handsets, access turnstiles, etc.).

√ When furniture, material or vehicles are shared, both the person who used it first and the person who follows should clean the common work elements.

√ In meetings, greetings with personal contact should be avoided. Signs will be posted in access areas and meeting rooms.

√ Any signs of illness should be reported to the port medical service.

During these first two phases, other preventive measures regarding the way activities are conducted may also be taken by the Director General, directors or senior managers of the different departments, and may include the following:

√ The options of working in shifts, teleworking and/or change of workplace can be offered to some workers depending on the nature of their functions and on the specific features of the disease outbreak.

- √ For safety reasons, alternate working areas can also be set up at the port facilities.
- √ A no travel policy to places declared risk areas by the WHO can be implemented. In a pandemic situation, it is usually advised not to travel to places where there is a health alert.
- √ Meetings, congresses, courses, etc. should be reduced to the minimum, postponed or carried out through videoconferencing systems.
- √ Institutional visits should not be undertaken and therefore be postponed, except for those that are absolutely essential.
- √ Essential services of the port should be identified.
- √ If not already available, all workers' personal telephone number should be collected in case Phases 3 and 4 have to be activated.

PHASE 3

- International emergency declared
- Confirmed cases in the country
- **Suspicious cases detected in the port (crew or staff)**

PARTIES INVOLVED	CRISIS COMMITTEE/LEADERS
Collaborators, Clients, Partners, Media	Names

ACTIONS
(examples)

All actions mentioned in Phases 1 and 2, and in addition:

- Introduce remote work when possible in relation to the area concerned
- Isolate suspected person in the designated area and organize transfer to a dedicated medical centre
- Disinfect the area of interaction of the isolated person
- Notify the suspected person's relatives
- Send a statement to the company's employees informing them of the situation and measures adopted by the authorities, and whether operations will continue as normal
- Issue a press release to the media
- Prepare for the implementation of Phase 4

This phase would be activated in the event of the detection of one or several suspected and/or positive case(s) within the port. This phase can be activated either internally by the port's Crisis Committee (see below) or by the competent authorities. Depending on the nature of the case, one or more of the following actions may be taken:

- √ If a worker first experienced symptoms at the workplace, the worker should avoid moving from one place of work to another, avoid contact with other people, contact medical services and seek guidance from them, and avoid taking public transport.
- √ Colleagues who had contact with the symptomatic person or who are expected to work in the areas at risk of contagion can also be encouraged to go home while awaiting the results of the suspected case and to telework when possible.
- √ Workers who have symptoms while at home, should not go to the workplace and should inform the medical service by telephone or by email.

- √ Extraordinary and additional cleaning and disinfection should be carried out in the communal areas that may have been exposed.
- √ The area at risk of contagion should be temporarily closed for a reasonable period of time to ensure people's safety.
- √ Generally, there should be increased cleaning and disinfection measures.
- √ A statement should be sent out to all port workers informing them of the situation, the measures adopted by the authorities, and the impact on the operations

PHASE 4 • International emergency declared • **Increased number of cases in the country** • **Confirmed cases in the port (crew or staff)** • **Several staff are sick**	
PARTIES INVOLVED Collaborators, Clients, Partners, Media	**CRISIS COMMITTEE/LEADERS** Names
ACTIONS (examples) All actions mentioned in Phases 1, 2 and 3, and in addition: • Restrict access to port premises to critical staff only • Trace working contacts of confirmed cases in the previous two weeks • Deploy remote communication for all employees • Inform national health authorities of sick staff members and seek their advice • Manage confirmed cases among staff in line with recommendations from national health authorities and WHO	

This phase would be activated in the event that partial or total closure of facilities and/or offices of the port is required. This phase can be activated either internally by the port or it can be determined by competent authorities at any given time.

- √ There could be a partial or total closure of the areas that have been exposed.
- √ Teleworking protocols will be activated in accordance with the protocol established (see below) and, therefore, for various employees it would be compulsory to work from home and to be reachable during working hours.
- √ Critical staff working in services other than in offices and who cannot perform their job remotely could have access to their workplace using appropriate equipment.
- √ All personnel must consult their corporate mail daily in case the port needs to communicate and inform them of work-related issues as well as the evolution of the situation and new actions.

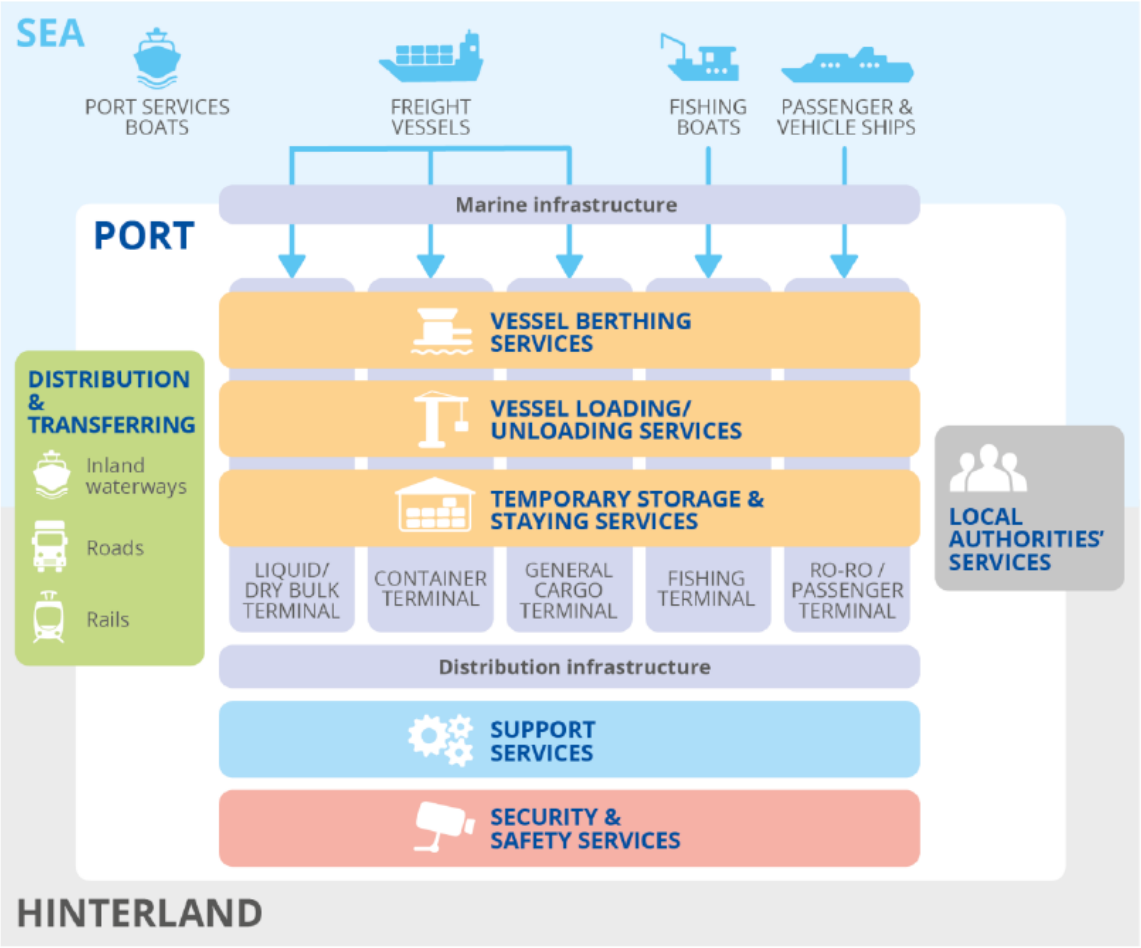
1.5 Stakeholders and the decision-making process

1.5.1 Port community stakeholders

The port ecosystem includes all stakeholders involved in port operations: port management bodies (port authorities, terminal and facility operators), national authorities (customs, police, city councils, etc.), transport companies (shipping companies, railway companies, haulage companies, fire services, etc.) and all providers of essential services for port operations (power companies, telephone companies, etc.).

The main targets of this study are the people in charge of day-to-day port operations, such as port authority employees, terminal operators, as well as the crews of the ships berthed in the port, and external companies entering the port (transport companies). In this regard, the following diagram is a useful way of depicting the main services of a port in order to better understand the different actors that are part of this complex ecosystem.

Figure 2: Port stakeholders[2]



As can be seen in the figure above, the overview of the stakeholders involved in port operations and processes is complex. Added to this complexity, ports around the world have different types of governance and ways of functioning. Nevertheless, the stakeholders of a port can be classified as follows:

2 ENISA Developed in collaboration with several EU ports, www.enisa.europa.eu.

Table 5: Port stakeholder classification

Internal Stakeholders	External Stakeholders	Community Stakeholders	Legislation and Policy Stakeholders
Port Authorities	Transport operators (ship-owners, shipping companies, railways, trucks, etc.)	Civil society organisations	Government
Workers	Terminal operators	Community groups	Port association
Port Services (Pilots, Tugboats, Moorers, etc.)	Consignees	Press / Media	Harbour master
	Stevedores		Health agency
	Service companies (cleaning, supplies)		
	Customs agencies		
	Companies (industrial)		

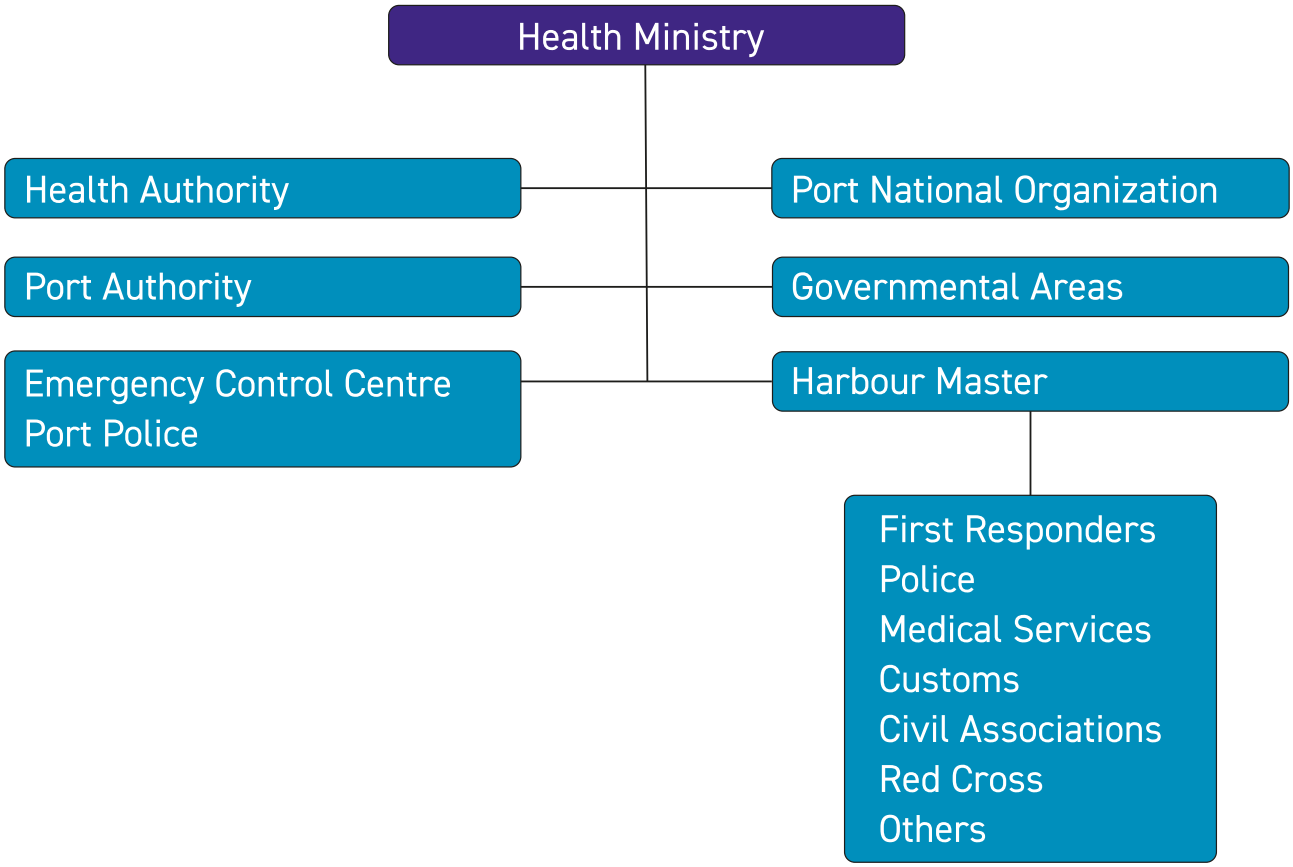
- **Internal stakeholders:** Actors within the organization of the Port Authority, such as managers, employees, members of the board of directors and port services such as pilots, moorers and tugboats.
- **External Stakeholders:** Divided into two main groups, they are the parties that are directly and indirectly involved in the port area:
  - The first group includes terminal operators, stevedores, freight forwarders, shipping companies, industrial companies and other companies providing other services such as ship repair, supplies, etc.
  - The second group is made up of port clients, companies, importers and exporters.
- **Community stakeholders:** Civil society organizations, the press and other non-market actors
- **Legislation and Policy stakeholders.** Government departments responsible for transport and economic affairs. Local authority services would also be included in this group.

1.5.2 Responsibility chart

The coordination between different actors involved in ports and cities is very important, particularly during a public health crisis. City and port stakeholders should not act on their own. Instead, stakeholders should create common teams and coordination structures that include representatives of public authorities, port authorities, and port companies.

These stakeholders must be able to combine resources and link decision-making chains to address emerging challenges, such as the slowdown of economic activity or the reorganization of the supply chain of strategic goods. The cooperation between the city and the port should be integrated. In this context, it is suggested that a crisis management team be established. This decision-making structure could be established as follows:

Figure 3: Chart of responsible actors



Some of the actors/authorities that should be part of this structure are:

- Port Authority (including its Emergency Control Centre / Port Police)
- Health Authority
- Government: Government Delegation / Those responsible for the Regional Government (if decentralized)
- Harbour Master
- First Responders: Security Forces (Sanitary Services, Coast Guard, Spanish Civil Guard, National Police, Local Police, Health Services, etc.)

1.5.3 Health & Safety Committee

If a public health crisis is declared because of the outbreak of an infectious disease, the port safety committee should be defined and could act according to the procedure set out above. This means that a "Health & Safety Committee" must be set up and included in the port's protection, emergency, and contingency plans. This committee could be composed of:

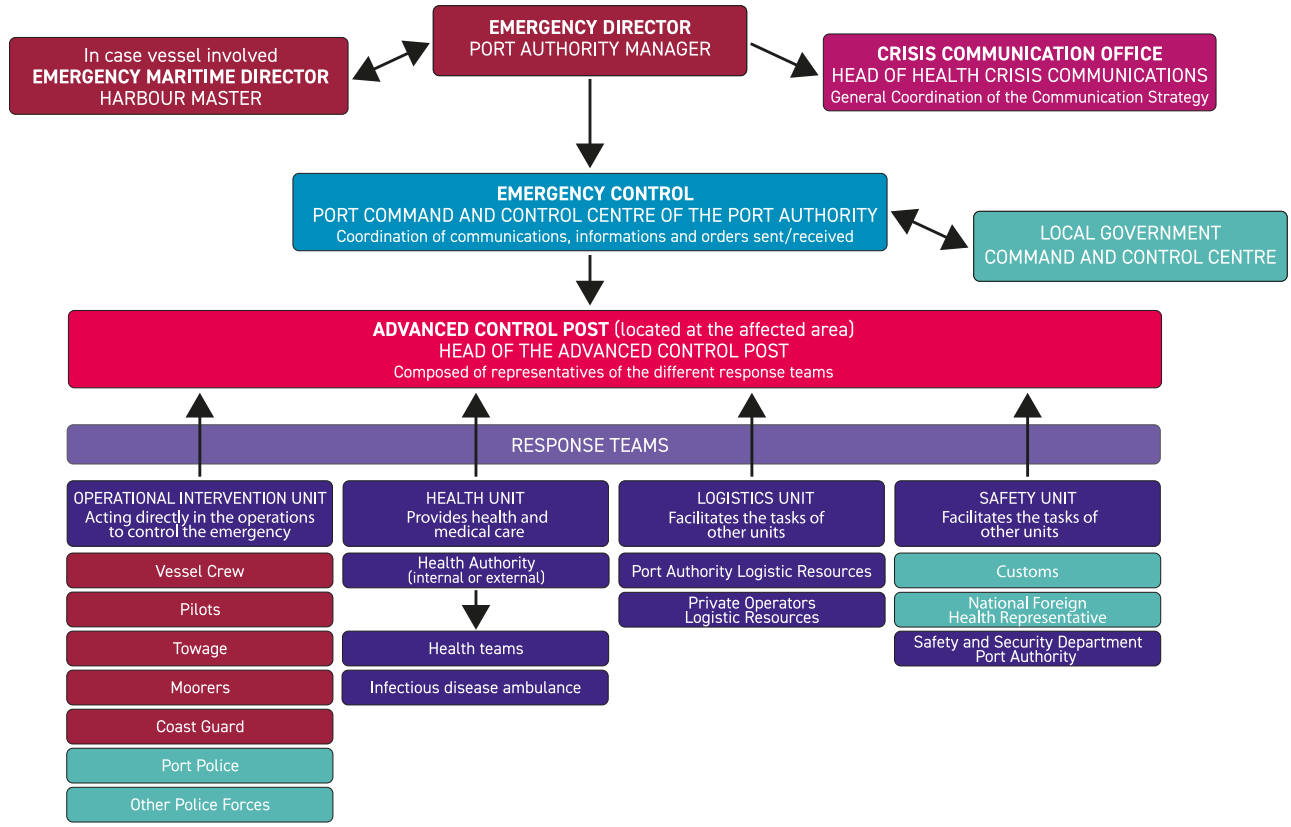
- **Emergency Director** (who also acts as the Director of the Emergency Action Plan). The Director is assisted in the emergency response by the other members.
- The **"command and control"** centre also called the **"Emergency Control"** Centre of the port, responsible for the coordination of communications, information and orders sent/received (see more details below).
- **The Advanced Control Post** is located at the site of the emergency. The post is where representatives from the different response teams operating in the

affected area meet. The **Head of the Advanced Command Post** will be in charge of the response teams and will exercise these functions subject to the guidelines given by the Emergency Director for this purpose.

- **The Response Teams**, which are divided into different units depending on their role in the emergency. They operate in the affected area or collaborate with or assist the other units. In turn, the Response Teams can be composed of the following units:
  - The **Operation Intervention Units** are the response teams that act directly in the operations to control the emergency.
  - The **Health Units** are the response teams that act to provide health and medical care to people that may be affected by the emergency.
  - The **Logistics Support Units** are the response teams that act to facilitate the tasks of the other response teams.
  - The **Safety Units** are the response teams that act to facilitate the tasks of the other response teams.
- The **Communications Office** is responsible for providing information regarding the evolution of the emergency to the media and acts under the direct orders of the Emergency Director.

These management and response bodies shall intervene and take control when appropriate and deemed necessary. The basic organization of a Health & Safety Committee could be as follows:

Figure 4: Health & Safety Committee organizational chart



In the Port of Valencia, for example, the actors taking on the different roles and responsibilities in **emergency situations due to public health risks from positive cases of COVID-19 detected in the port** would be the following:

- Harbour Master of Valencia (if there is a contagion on board a ship)
- Director of the Port Authority of Valencia
- Head of Operations of the Port Authority
- Head of Safety and Security of the Port Authority
- Port police nominated by the director or head of Safety and Security
- Technicians nominated by the Director of the Port Authority
- Foreign Health Service area representative for Valencia
- Communications Office

1.5.4 The command centre

During a pandemic, a port's main objective is to ensure safety in the port area. This needs to be done in close collaboration with local civil society organizations, public authorities, and relevant actors related to police, civil protection, prevention, and rescue. Therefore, during health crises, it is essential to have a place where the different actors involved in decision-making processes can gather together and to allow the Port Authority to carry out this coordination. The Command Centre should oversee the port activity and have the necessary information to facilitate any decision-making related to safety and security and the management of emergencies. The objective of this centre is to alert, coordinate, inform, follow up and assist the Emergency Director.

This centre consists of an operations room, a meeting room, an office for the Head of the Centre, as well as an appropriate area for the necessary facilities and equipment.

The command centre must have the following personnel assigned to it:

- Head of the Emergency Control Centre.
- On-call personnel of the Emergency Control Centre.

The centre should be equipped with transmission and communication systems, with both hardware and software support, necessary to efficiently conduct its work. It will be connected to the different Port Authority servers, as well as permanently connected to the Emergency Coordination Centre of the Community or Region in which it is located.

1.6 Information and communication

1.6.1 Sources of information

The COVID-19 pandemic has called into question certain norms of communication, given the almost unprecedented flood of information of all kinds and from a multitude of sources. Due to ports' status as a critical or essential facility to guarantee the supply chain, the information comes from both formal sources (Government and its different sources, media, social agents) and informal sources of international news from organizations of interest (e.g. WHO resolutions, cruise lines, shipping companies, etc.). This makes it more difficult to distinguish the genuinely useful information from that which is not relevant or introduces more complexity in a time of uncertainty.

For this reason, it is recommended to have a dedicated structure to sift through the available information and pinpoint the data that are relevant to the decision-making

on measures to put in place. This structure must have technical, health, legal and management criteria that will allow the managing entity to make decisions based on better criteria.

1.6.2 External and internal communication

A health crisis caused by a pandemic can lead to unprecedented global disruption. Therefore, keeping stakeholders informed with clear and consistent messages is essential for risk mitigation. This requires the elaboration of a crisis communication strategy. Within this framework, communication with stakeholders—including employees, suppliers, customers, users, government agencies and the media—is essential in order to minimize negative impacts, maintain control and ensure the organization's ability to move forward quickly and convey confidence. Therefore, one of the port's priorities must be to define a **communication strategy** for managing the situation by providing recommendations, messages and instructions on how to deal with the risk.

It is essential to establish a communication structure, with recognized and accepted channels for transmitting information and appropriate messages to its target audience, whether internal (employees under its control or supervision) or external (clients, suppliers, contractors, administrations, associated companies, authorities in general). More details on the way workers can be briefed on pandemics can be found in section 2.1.2 below.

A communication strategy could contain the following steps:

1. Identification of a health crisis (e.g. pandemic) communication leader

First, assign a general communications coordinator to manage the process. It is best if this person has experience, meaning that he or she has managed similar situations before. Ideally, this person should be a member of the executive management team.

2. Build a crisis response team

A multi-functional team can be formed to address all aspects of the crisis. Within that team, a second communication team of employees should meet regularly. This team supports the person assigned in step one by developing their communications plan and guiding decisions on what to communicate to whom and when. The team's members are essential workers, and it may be useful to involve leaders from each area of the organization to ensure consistent messaging. When it comes to crisis communications, the last thing the team wants is for conflicting information to spread throughout the organization.

3. Define a coordinated plan

An effective crisis communication plan defines messages, timing, means of delivery and other factors that ensure consistency and credibility. The plan should identify and address each stakeholder group. When it comes to creating a coordinated strategy, it is important to adhere to it and follow it through. However, this is uncharted territory and circumstances change rapidly, so those involved need to be prepared to adapt and turn around at a moment's notice.

4. Communicate in advance the action plan for situations of health risk due to a pandemic

Uncertainty makes most people uncomfortable. Communicating a shared purpose and sense of urgency can help enormously. Describe objectives and action plans and share the organization's vision for success. For stakeholders, the unknown is often worse than the truth. Speculation fills the void in the absence of communication, while inconsistent

messages feed doubt and rumour. If they have to wait too long, stakeholders may make rash decisions based on inaccurate information. The sooner the message is delivered on how the pandemic is being addressed, the easier it will be to manage fears and execute plans.

5. Fulfilment of objectives

It is important to get the messages to circulate quickly, without making statements that may become false or commitments that cannot be met. Credibility is critical. If something cannot be disseminated, it is better to be transparent and state, for example, that the information is not yet available or that the issue has not yet been decided. Most of the time, people who invest in the organization understand that not everything can be determined immediately; they will prefer this message to something unconvincing.

Once these points have been defined, it is advised to identify the recipients (internal and external stakeholders) and the **communication channel(s**). With regard to the communication channels, the most useful are the use of the web and social networks as they reach a high number of stakeholders. It should also be noted that apart from the great scope that social networks allow, another advantage is that the Port Authority narrates the situation as it happens, thus heading off erroneous messaging from external sources.

Additionally, it is important to assess whether it is necessary to define other more specific channels according to the nature of stakeholder. Direct bilateral contact via a phone call or personalized emails can help by making the connection with some stakeholders human and authentic, making them feel involved or included. This can contribute to the efficiency of the messages delivered.