INTERNATIONAL HEALTH REGULATIONS

(2005)

A guide for public health emergency contingency planning at designated points of entry

Departures

World Health Organization

South-East Asia Region   Western Pacific Region

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Acknowledgements

1 » Introduction

This guide was designed to assist WHO Member States, both large and small, to bridge the gap between the legal requirements of the International Health Regulations (2005), or IHR (2005), and the pragmatic readiness and response capacity for public health emergencies at designated points of entry (POE).

Under IHR (2005), Member States must comply with the legal requirements set out for designated POE. Furthermore, each country should ensure that the core capacities for designated POE are in place by June 2012, in principle. Many countries have prioritized their designation of several international airports, ports or ground crossings, while some small countries have chosen to designate only one airport and/or port to handle incoming and departing travellers during public health emergency situations. IHR (2005) compliance requires that a public health emergency contingency plan (PHECP) be developed and maintained in designated POE for responding to events that may constitute a public health emergency of international concern (PHEIC).

This guide provides a recommended approach, structure and logical set of considerations for the National Points of Entry Health Authority (NaPHA) to guide local points of entry health officers (PHOs) and emergency planners responsible for POE to develop a PHECP at a designated POE.

This guide is primarily targeted at NaPHA since it is responsible for driving IHR (2005) compliance related to POE, as well as mentoring, guiding and advocating for the development of a robust PHECP at designated POE. Other relevant authorities can also use the guide as a reference document.

In the case of an actual PHEIC, such as pandemic (H1N1) 2009, it is likely that the National Public Health Authority, such as the Ministry or Department of Health, would lead the overall health emergency response in conjunction with relevant sectors and points of entry agencies due to the requirement to coordinate national resources. It is therefore vitally important that the National Public Health Authority, in close coordination with competent POE authorities, guide public health emergency planning at designated POE to achieve the following objectives:

- ensure alignment and interoperability between emergency response plans at the local, national and international levels;

- update required national policy to support the PHECP;

- support the establishment and building of relationships between public health authorities and concerned POE stakeholders, agencies and service providers;

- support the building of core capacities at designated POE;

- play a facilitation role in the multisectoral collaboration that is required to build an effective PHECP;

- support the enhancement of technical competencies of NaPHA and local PHOs; and

- support the harmonization of regional and global emergency plans.

Attention to these factors will not only increase situational awareness between the national authorities and POE health officials, but also increase the public's confidence in authorities to effectively manage any significant threat to public health through points of entry.

IHR (2005) is a revision of the International Health Regulations (1969). IHR (2005) represents a "paradigm shift" involving a number of major changes in focus, including:

- from fixed diseases to all public health threats;

- from control of borders to also containment at source; and

- from pre-set measures to adapted responses.

Many lessons were learnt about the effectiveness and limitations of international border health interventions and response capacities at POE during pandemic (H1N1) 2009. These lessons reflect the need for a paradigm shift, a clearly defined role of POE, efficient coordination mechanisms between public health authorities and competent authorities at POE, as well as international collaboration and harmonization on public health interventions at POE. Pandemic (H1N1) 2009 clearly demonstrated a need for a balanced decision-making process for border health measures that is based on a risk assessment approach.

2 » Background

It is important for public health authorities and other stakeholders to understand the specific requirements detailed in IHR (2005) as they relate to POE so as to ensure that plans adequately cater to both public health emergencies and other IHR (2005) compliance requirements.

The first cases of pandemic (H1N1) 2009—an actual global public health emergency—were reported in April 2009. In the following months, various international border measures were implemented to respond to the pandemic. In November 2009, WHO and the ASEAN Secretariat convened a meeting in Manila, Philippines for NaPHA and PHOs from the Western Pacific and South-East Asian regions to review lessons learnt from the pandemic and discuss public health measures at POE under the new roles laid out in IHR (2005).

The main conclusions and recommendations from the meeting were as follows:

(1) At designated POE, strengthen emergency preparedness and response through:

- development, testing and evaluation of a PHECP;

- establishment of effective mechanisms for multi-agency communication, coordination and information sharing, including operational and liaison links between public health authorities, relevant POE stakeholders (including operators of ports, airports, ships and aircraft) and the National IHR Focal Point (NFP);

- documentation of arrangements made with relevant agencies for response measures, such as patient treatment, isolation and quarantine; and

- bilateral and multilateral cooperation and information sharing.

(2) Implement preventative measures with an emphasis on the importance of:

- identifying competent authorities and responsible agencies for each preventative measure;

- identifying and updating national guidelines for these measures in line with relevant international guidelines;

- coordinating with relevant stakeholders and agencies to ensure harmonized quality implementation and evaluation of these measures; and

- fostering multilateral cooperation and information sharing.

The participants recognized the importance of management and organizational structures, taking into consideration the following:

- the important role of NaPHA and PHOs, prior to and during an emergency response;

- the requirement of a direct operational link between NaPHA and the NFP within the National Public Health Authority, such as the Ministry of Health, in coordinating the national public health emergency response; and

- the importance of ensuring participation in effective international communication including sharing information during PHEIC.

3 » Purpose of the Guide

The primary purpose of this guide is to introduce NaPHA to public health emergency management planning fundamentals. It is intended that public health authorities will use this guide in tandem with specific national and local POE plans and guidelines to recommend a planning and emergency response process for POE planners.

This guide is not intended to be a detailed operational planning manual. Instead, it suggests key planning considerations, steps and a recommended plan structure so that POE planners can then develop their own, detailed, fit-for-purpose plans.

The end result should be a robust PHECP at the designated POE that meets IHR (2005) compliance, integrates with national response plans and is appropriate to deal with a real or potential PHEIC.

The secondary purpose of this guide is to bring to light the following key considerations for NaPHA and PHOs:

- the specific requirements of IHR (2005) as they pertain to designated POE so that those aspects can be included in POE plans;

- the importance of alignment and interoperability of POE plans with the national public health and emergency response framework;

- the importance of strategic relationships among local, national and international levels that will need support to be effective;

- the importance of supporting core capacity-building to ensure robust response capability required by designated POE; and

- the promotion of technical upskilling of POE health officials to enable them to provide better advice and guidance during an emergency.

To help NaPHA and PHOs better understand compliance and core capacity requirements under IHR (2005), WHO developed a Core Capacity Assessment Tool that can assist them in obtaining a baseline measurement of current capacity and gaps.

The components in this guide are based on universally acknowledged emergency management and planning principles. It has taken into consideration input from Member

States that implemented border management responses during the pandemic (H1N1) 2009, relevant guidance documents from WHO, and input from other international organizations including the International Civil Aviation Organization (ICAO).

WHO acknowledges that some countries may have their own established POE plans for public health threats. This guide does not intend to supplant these plans. Instead, it is designed to enhance and supplement them to make them more robust, effective and consistent in responding to PHEIC in a harmonized way and in line with IHR (2005).

4 » Scope of the Guide

This guide is primarily concerned with assisting NaPHA and emergency planners to develop contingency plans for real and potential PHEIC, especially those caused by emerging infectious diseases that do not respect national borders and can spread internationally.

Additionally, the scope encompasses a set of considerations involving policy, promotion and partnerships that will help public health authorities and response agencies align multiple agencies with POE plans to achieve the optimal interoperability.

Business continuity planning, while an important topic that deserves consideration and which may be relevant during a PHEIC, is outside the scope of the guide.

5 » Core Themes and Guiding Principles

This guidance document is based on a set of six core themes and associated guiding principles that are central to creating and enabling effective and appropriate plans for designated POE in Member States.

5.1 CORE THEMES

SIMPLICITY

Complexity is the archenemy of emergency response.

All plans and documents should be created with simplicity in mind so they can be understood easily and quickly by everyone involved.

PROPORTIONALITY and PRACTICALITY

One size does NOT fit all.

Plans should be built around a realistic response capability.

Since points of entry are different in nature, plans must be developed to suit the specific operating environment and resources available. However, the minimum capacities at designated POE should be in place for responding to potential PHEIC as indicated in Annex 1 of IHR (2005).

MINIMAL DISRUPTION

Plans should be created to ensure minimal disruption to passengers and cargo while maintaining a balanced approach to managing public health emergencies.

COLLABORATION

A multi-agency, multisectoral approach must be taken.

Plans should be harmonized with established systems and existing plans, where applicable.

COMMUNICATION

Effective communication is perhaps the greatest determinant of the success or failure of any plan and emergency response.

Communication involves knowing who needs to communicate, when to communicate, what key information needs to be communicated, and what communication method would be most effective. Communication to the public and media should be a key consideration in an emergency response.

The 3 R's of EMERGENCY MANAGEMENT

All plans should place equal emphasis and importance on the three R's of emergency management—readiness, response and recovery—to create a robust and effective plan.

5.2 GUIDING PRINCIPLES

Public health emergency contingency plans for designated POE should:

- be flexible and adaptable to match a wide variety of public health contingencies, especially emerging diseases such as an influenza pandemic;

- ensure broad consideration of existing national and local plans, including public and private sector plans, laws, regulations and policies;

- plan to develop surge capacity on an "as required" basis so that it can be engaged when needed, rather than as a "permanent" function;

- ensure full respect for the dignity, human rights and fundamental freedoms of persons as per IHR (2005);

- place equal focus on readiness, response and recovery; and

- ensure budgeting for regular exercising, refreshing and maintenance of plans.

6 » Key Planning Considerations

The key planning considerations of any plan are those elements that have the most impact on the success or failure of a response. These considerations apply equally at the national and local POE levels across all organizations and agencies involved in emergency response and provision of services.

In post-emergency reviews, the following areas were most frequently identified as needing improvement:

- communication - sharing the right information, to the right people, at the right time, in the right format;

- relationships - the right people connecting with the right people and working together in a mutually beneficial way;

- command and control - the right people empowered to make decisions that enable timely actions;

- decision support - providing the right information and data to the right people to make the right decisions (intelligence information);

- people - the right people, upskilled, trained and empowered in their roles;

- interoperability of plans - ensuring agencies align their plans as part of a multi-agency response; and

- a set of clear definitions - ensuring phrases and keywords are clearly defined to mitigate any potentially significant differences in interpretation of definitions.

6.1 COMMUNICATION

Effective operational communication is vital for an emergency response. Operational communication is the timely exchange of information among internal stakeholders. Effective operational communication ensures a coordinated response and will keep decision-makers informed of the situation, enabling them to make informed choices on the next possible steps and policy changes. Operational communication should take into consideration inter-country communications, especially when outbreaks of disease or other public health emergencies affect cross-border areas.

Communication for emergency management purposes goes beyond having an updated contact list of response team members and liaison points at key agencies. Recent public health emergencies, such as pandemic (H1N1) 2009, have revealed the crucial role of media and public messaging management. Plans need to be updated to reflect this growing communication consideration.

6.2 RELATIONSHIPS

Responding to a public health emergency in real time requires rapid information sharing and decision-making across numerous agencies, organizations and providers.

This process is aided significantly by the quality of established relationships between contact points.

Two kinds of relationships between people or organizations are needed in a public health emergency response, namely: strategic and operational.

Strategic relationships as they pertain to an emergency response are relationships between two or more people or organizations that are fundamental to the success of a coordinated response.

An example of a strategic relationship is the one that exists among NaPHA, NFP, the National Surveillance and Response Unit, and other relevant national authorities during a public health emergency response.

To further highlight the importance of understanding and mapping strategic relationships during a public health emergency of international concern, such as a pandemic, consideration should be given to the unique role of POE in the broader emergency response context.

As depicted in Figure 1, POE are:

- part of the *national system* for the public health emergency response, which links to the national command and control structure and participates in national surveillance, risk assessment and response activities; and

- part of the *international system*, which is linked to POE in other countries and participates in the regional and international alert and response system.

Figure 1. Strategic relationships during a public health emergency

NFP	:	National IHR Focal Point
POE	:	Point of Entry
NaPHA	:	National Points of Entry Health Authority
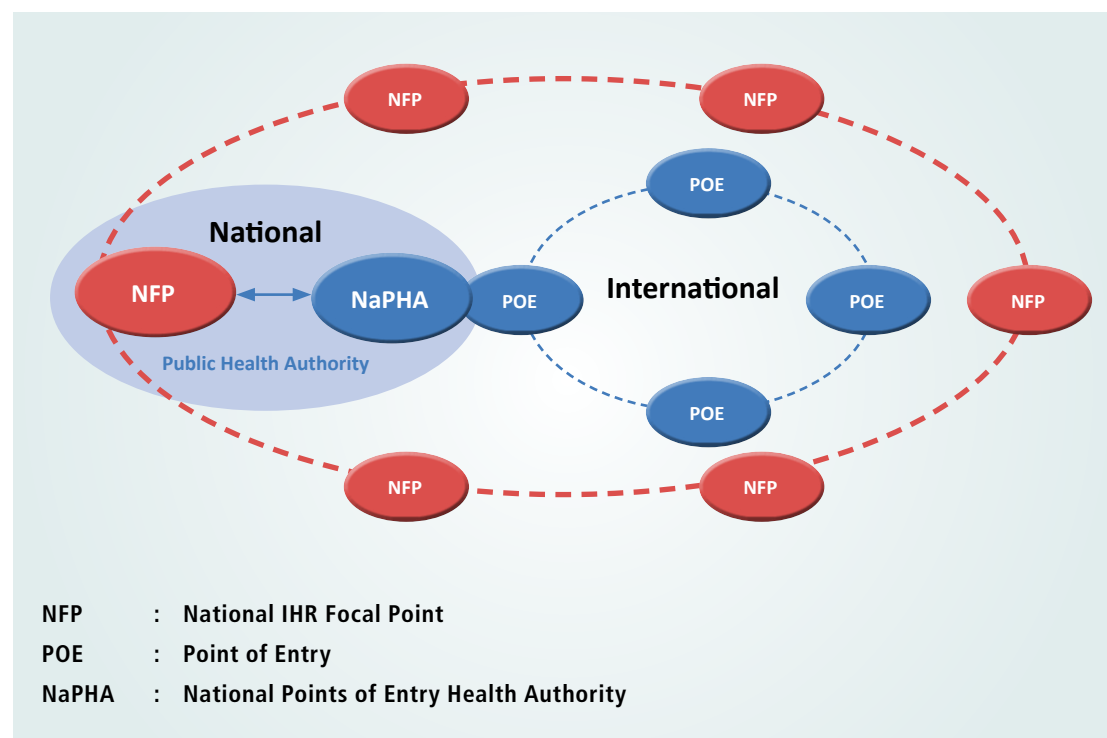
In the long term, the following strategic relationships are needed:

- NaPHA should be part of the national command and control structure for public health emergency response;

- NaPHA and local PHOs should link to national or local surveillance and response systems;

- NaPHA should link to the NFP;

- NaPHA should link to the national structure or mechanism responsible for public health risk assessment;

- NaPHA and local PHOs should link to relevant port and airport authorities as well as air and maritime industry officials, as appropriate;

- NaPHA should link to relevant international organizations and agencies (including WHO, the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO), when needed;

- NaPHA should be part of international networks of POE contacts;

- NFP should be part of the international network of NFPs; and

- NFP should link to relevant governmental agencies within and outside the National Public Health Authority such as the Ministry of Health.

Operational relationships as they relate to an emergency response are relationships between two or more people or organizations that are important for the execution or implementation of tasks and actions at the operational level.

An example of an operational relationship at a designated POE during a public health emergency is the relationship between PHOs and transport service providers, such as an ambulance service, which facilitates the rapid transport of suspected cases of an infectious disease (e.g. ill travellers) to a local health care facility (e.g. a designated hospital).

Another example is the relationship between PHOs and the airport operator and/ or air traffic services provider to determine the appropriate parking stand for an incoming affected aircraft. To further highlight the importance of mapping operational relationships, consider the network of relationships that need to exist to enable an efficient emergency response for a significant public health emergency (Figure 2).

Figure 2. Operational relationships to manage a public health emergency: arrangements, communication and coordination at a designated POE
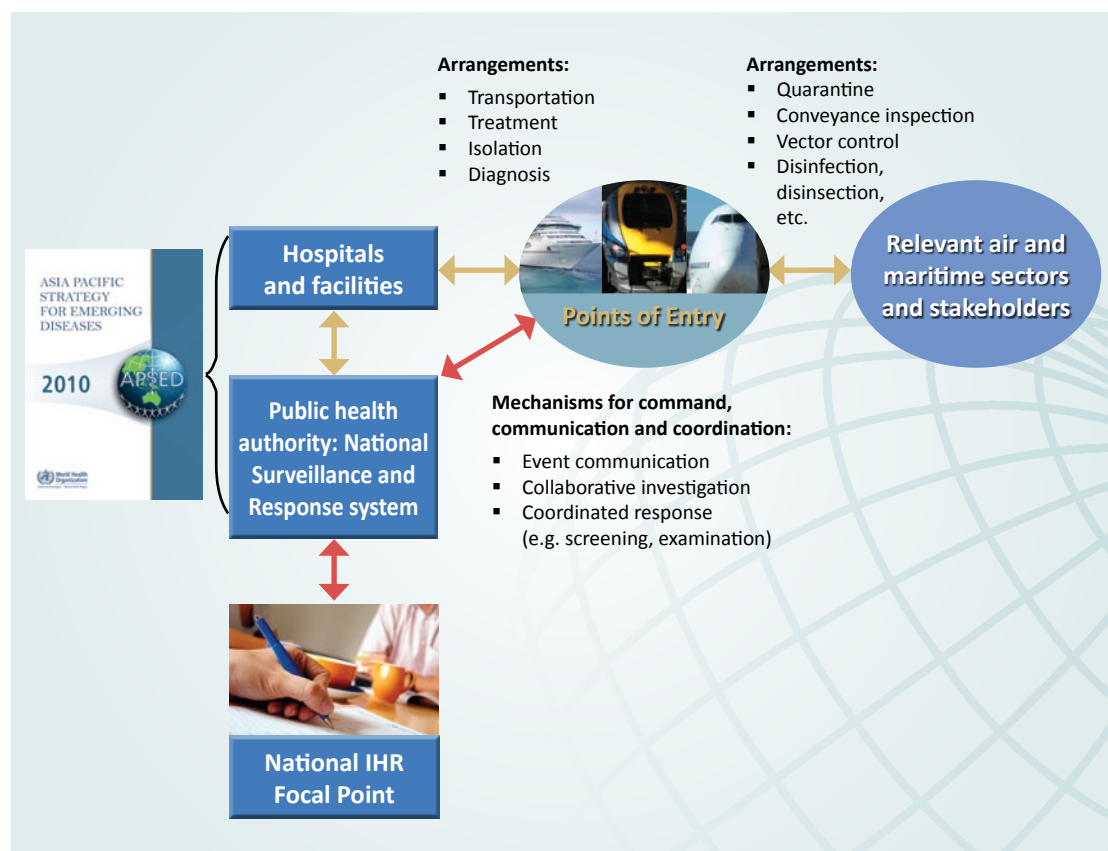
Emergency preparedness at a designated POE should emphasize pre-arrangements with agencies that are able to provide services, when required (such as arrangements with local hospitals for treatment of ill passengers and with service providers for the provision of relevant public health services like disinfection).

Examples of operational arrangements for services include arrangements with:

- port or airport authorities or relevant agencies to provide appropriate space for interviewing suspected or affected persons;

- local medical and veterinary facilities for isolation, treatment and other support services, when required;

- relevant facilities (away from the point of entry) to provide for the assessment and, if required, quarantine of suspect travellers;

- relevant agencies (public or private sectors) to apply recommended measures for disinsection, deratting, disinfection and decontamination, when required;

- relevant agencies to set up a system and procedures for quickly applying entry or exit controls (including screening) for arriving and departing travellers, when required;

- relevant sectors for access to specially designated equipment and supplies and provision of trained personnel for special measures such as decontamination, when required; and

- public health authorities and other relevant agencies for effective communication and coordinated response, including sharing of information, risk assessment, public health communication and contact tracing, when required.

Operational relationships are needed among the following groups:

- NaPHA and emergency or incident command and response teams;

- Emergency Operations Centre for POE response and:

  - POE airside, landside, terminal and maritime operations officials, as well as POE airport/port and aircraft/ship operators;

  - POE medical, security, customs, immigration and quarantine officials;

  - local and regional medical facilities;

  - suppliers of medical, pyschosocial and logistical services;

  - other local and national emergency operations centres and command structures;

  - providers of transport to hospitals and quarantine facilities;

- cargo/freight handlers and hazardous material crews; and

- teams formed to work on liaison and communication, planning, intelligence and logistics.

6.3 COMMAND AND CONTROL STRUCTURE

Command and control structures are vital for decision-making, accountability and directing the emergency response.

They are organizationally structured to enable an efficient decision-making process. Clearly defined functions are managed and coordinated by teams under the direction of an Emergency or Incident Commander.

In general, functions covered by a command and control structure are:

- operations

- logistics

- planning and intelligence (information gathering)

- liaison and communication

- administration and finance.

During a PHEIC, NaPHA or PHOs should become part of the national or local command and control structure by attaching as a direct report to the Incident Commander (Figure 3).

Figure 3. Example of POE Emergency Operations Centre structure with the public health official attached as a direct report
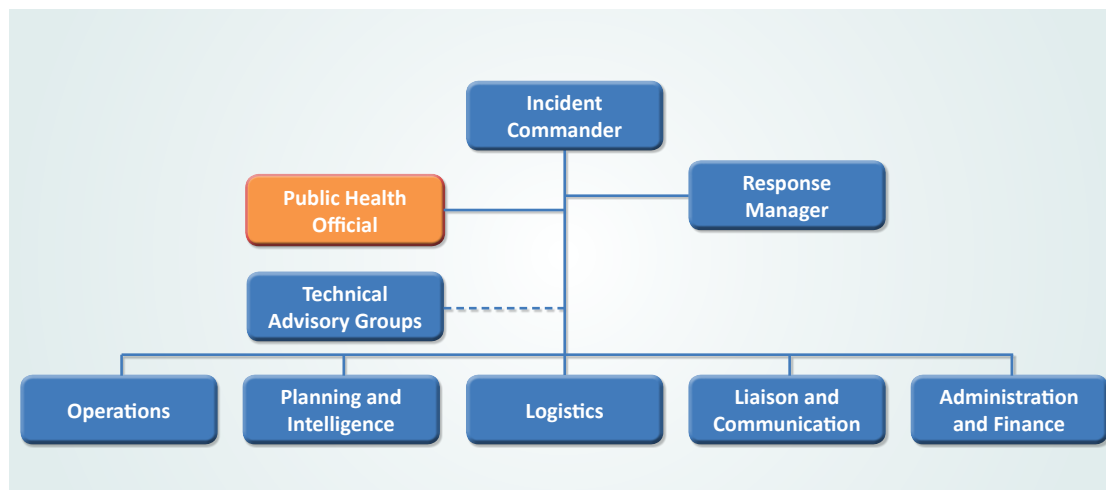
When designing the optimum command and control structure for the POE response, it is important to understand how the local POE public health authorities integrate with, report to and communicate with the national command and control structure (Figure 4).

Depending on the situation, two types of local response operations may be used:

(1) local response operations are managed at the local level with the support of national-level staff; or

(2) local response operations are managed at the national level.

Small countries may need only a national-level command and control structure, while larger countries may need both national and local command and control structures.

For small designated POE with limited resources, the existing local or national command and control structure can be utilized.

Figure 4. Example of a national command and control response management structure showing links to a POE public health emergency response structure
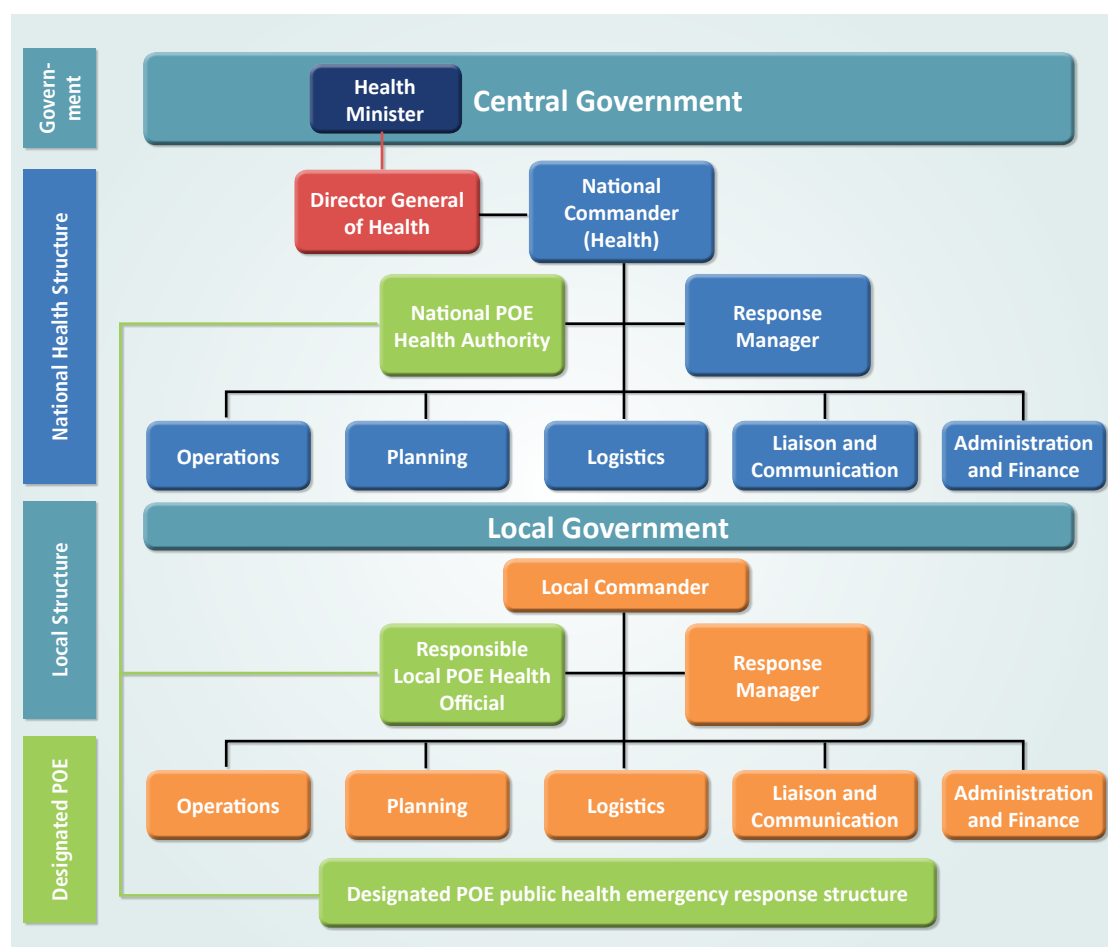
National command and control structures often require various information and situation updates from agencies to enable a timely risk assessment that will guide major decision-making in a coordinated response.

It is essential for NaPHA to form a link with the national command and control structure to share vital information related to the POE and to provide health-related technical input and advice on the POE. Keeping authorities well informed will assist decision-making.

For information sharing to be successful, it may be necessary to upskill and increase the technical competencies of NaPHA and local PHOs to allow them to perform in this capacity.

6.4 DECISION SUPPORT

One of the fundamental problems with emergency management response concerns the type and quality of data and information gathered and submitted to decision-makers.

There are a number of reasons for ineffective data and information, including:

- the information required was not clearly defined;

- information gathering systems or processes are not in place;

- emergencies are unpredictable, information changes rapidly and constantly, or information may be unobtainable; and

- people responsible for gathering the information are inexperienced, inadequately trained or both.

The risks caused by these common problems should be mitigated through preparedness efforts and by assigning staff within the response structure to be responsible for data collection, in conjunction with the liaison and communication team.

Typical types of information required for decision support include:

- location and area affected

- number of affected persons or items

- latest situation reports – local and national

- status reports of supplies and personnel

- latest technical and/or public health advice

- results of risk assessments
- main areas of concern identified (e.g. international travel).

Templates for collecting basic information can be developed and attached as annexes to the contingency plan. Templates can be used to guide the collection of relevant information quickly at the outset of any emergency response.

6.5 PEOPLE

The success or failure of any response will be closely linked to the calibre, level of skill and experience of the people in the command and control structures.

It is important to ensure that people are suited for their roles and responsibilities and to invest in upskilling, training and frequent exercises to keep them ready to perform at their best.

NaPHA and relevant officials have a unique and important role to play not only in managing the public health response at POE, but also in directly advising and guiding their counterparts in the national command and control structure. They therefore should be upskilled with technical competencies that are aligned with their new role and be linked with the regional and international response system.

6.6 INTEROPERABILITY OF PLANS

Plans need to be aligned with each other in order for tasks and actions to flow seamlessly from the national level to the local level. This is especially true during an outbreak or public health emergency affecting multiple locations at the same time.

The interface between NaPHA or PHOs and non-health-related service providers, e.g. port, airport, ship and aircraft operators, which will have their own emergency plans, is critical.

The best way to check the interoperability of plans, besides involving national and local planners on the planning team, is by conducting multi-agency exercises involving key response agencies. These exercises will determine if plans are interoperable. Involving national and local planners in the planning process is another good way to ensure interoperability.

6.7 ADDITIONAL PLANNING CONSIDERATIONS

Clear definitions of terms should be provided to ensure common understanding.

For POE planners, the PHECP should also take into account:

- relevant national legislation;

- IHR (2005);

- national policy on implementing IHR (2005);

- mandatory requirements imposed by other relevant bodies, e.g. relevant ICAO standards and guidance;

- the context of a country in terms of government institutional arrangements and private sector involvement;

- the risk profile of a country in terms of types and numbers of POE, quantity of international traffic, vectors and hosts present, and vulnerability of the area near the POE to vectors or disease; and

- resources that a country can provide and the resources available at each POE.

7 » Recommended Steps for Establishing a PHECP

Due to the different types, sizes and profiles of POE, it is important to develop a plan that is realistic and sustainable for the specific POE, taking into consideration the existing capacity, requirements and resources available. This includes resources that can be contracted locally or nationally to provide surge capacity.

The following steps are recommended as a logical workflow for planning that should be relevant for most POE.

Brief descriptions of some of the main components of each step are provided, but they are not exhaustive.

(1) Establish a planning team

Assign a team to lead the development of the plan

Consideration should be given to the national and local aspects of the plan and the need for interoperability. Ideally, the team should contain people familiar with national health and emergency management policy, interagency arrangements, risk assessment, and POE strategic and operational planning.

A multi-agency approach is required to optimize the planning process.

Involve subject matter experts

Where available, involve planners from stakeholder groups such as ports, airports, public health policy and health services providers. These experts will understand their own plans and know how a new plan will integrate with or affect existing ones.

There will be many options to consider when forming the planning team. It is vital that NaPHA and PHO are involved. Also, choose the optimum mix of members based on the value of their contribution, without making the team too big or cumbersome. Others who are not on the planning team can peer-review any draft plan produced.

Avoid fragmentation

If numerous POE plans are being developed in the country, establish and maintain a relationship with the central coordination point (e.g. NaPHA) to ensure consistency and alignment with national and local plans. Interoperability, common terminology and harmonization are key.

(2)   Prepare for the planning phase

Select a management approach

The planning cycle should follow a disciplined project management methodology that provides structure, a process and a defined timeline with regular and frequent reporting to ensure that the planning stays on time and participants and contributors are communicated with and involved productively.

Take into account international, regional, national and local considerations

Planning for PHEIC requires cooperation and coordination across the authorities that are responsible for managing any serious health emergency. Because of the transmissibility of communicable diseases and the travel patterns of people and conveyance, a public health threat may start at one POE and very quickly affect many more.

Therefore, planners should think on all four levels: locally, nationally, regionally and internationally.

Preparation will normally focus on local and national considerations. However, if international implications are taken into account during the preparation phase, an approach that is harmonized with other governments is facilitated. If required, WHO can assist health authorities in such planning in accordance with the IHR (2005) requirements.

National public health authorities should provide copies of relevant national plans or considerations that need to be factored into local POE plans.

Gather background documentation

Gather all relevant policy and planning documents from national as well as local health and emergency agencies and organizations. Include operational plans to guide and contextualize the current emergency structures and plans.

Interoperability with national and local public health and emergency management plans is important for the success of a response. Therefore, ensure that copies of all relevant plans are available to inform the integrated planning process.

Examples of documents for planning may include the following:

- IHR (2005);

- national health and emergency management legislation and policies;

- national and local plans for public health emergency response;

- civil defence or civil protection legislation and policies;

- linked documents from regulatory agencies such as Customs, Biosecurity, Police and Military;

- aviation and maritime port and industry regulations and plans;

- specific POE policies, operational plans and emergency plans;

- POE site plans, safety equipment register and map of locations;

- specific service provider operational capability documents and contracts;

- additional guidance documents on public health, communicable diseases and international travel, conveyance and ports prepared by WHO, ICAO, IMO, Airports Council International (ACI) and International Air Transport Association (IATA);

- previous public health or emergency management plans for POE;

- existing Core Capacity Assessment Tool (CCAT) results and reports; and

- existing "after action" or "post incident" reports or reviews from previous POE public health responses.

Create situational awareness

Situational awareness involves being alert to what is happening around you to understand how information, events and your own actions will impact your goals and objectives, both now and in the near future.

Understand the POE risk profile

Understanding the risk profile of specific POE is key to situational awareness for emergency response and is required for the development of contingency plans. For example, a major international airport with a large population living nearby will obviously have a greater risk in terms of a public health threat than a small provincial airport with very little conveyance.

The higher the risk from a public health emergency, the more robust and comprehensive the POE plan should be to address that risk.

Understand the current core capacity of the POE

To understand what current core response capacity exists at the POE, conduct a core capacity assessment utilizing the WHO Core Capacity Assessment Tool (CCAT) at each designated POE.

The CCAT is a spreadsheet with accompanying instructions (Figure 5).

Figure 5. Example of the Core Capacity Assessment Tool
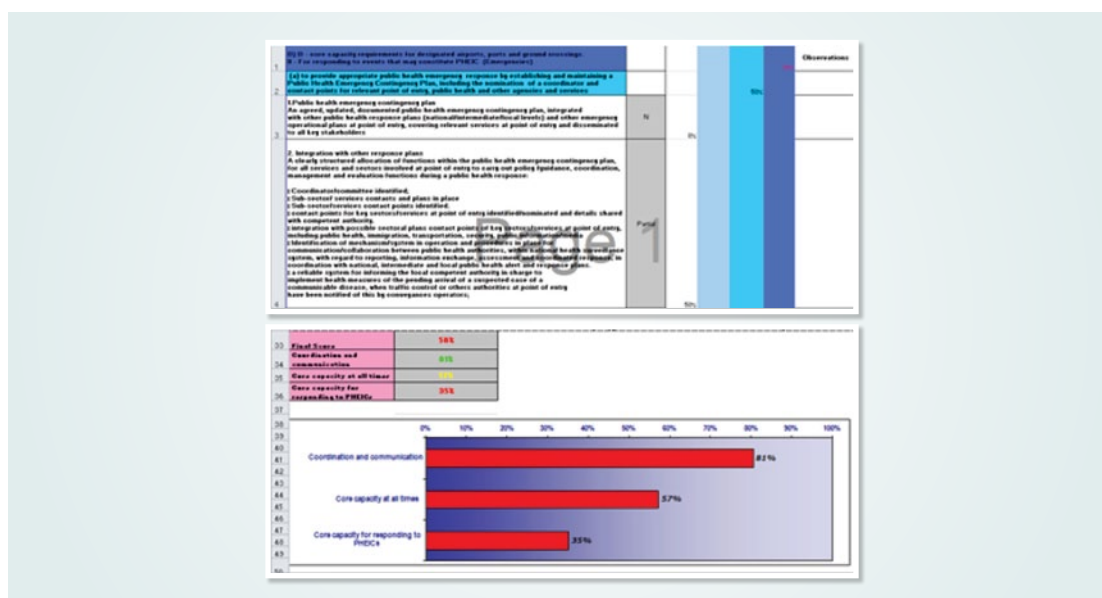
If possible, be part of the assessment or stakeholder team or obtain a copy of the report to understand the "current state" and create a gap analysis for planning purposes.

Obtain a copy of any official work programme or project plan that is created to address core capacity gaps from the CCAT so that the planning team understands what capacity improvements might be delivered in a certain time frame.

Do not delay the POE planning process even if a CCAT has not been conducted or scheduled. It is important to have a plan in place as soon as possible; it is easier to update the plan once the CCAT has been performed rather than delay planning.

(3)   Initiate the planning phase

Once the activity plan and all required reference documents and available input are collected, create a draft template for the POE plan.

Templates should be designed with an appropriate structure and format to suit the size, risk profile and complexity of the POE. For example, the template for an international airport in a big country will require more components, details and considerations than the template for a small country with a single airport with only one international carrier.

Once the plan's template is produced, delegate the required components to the relevant officials and/or the subject matter experts and other information gatherers who best understand what information is required.

Relevant officials and/or subject matter experts, as contributing authors, must review any existing contracts and consult with the key agencies and service providers to ensure that what is included in the plan is achievable and in line with service provider capabilities. Key agencies and service providers must be engaged in order for them to feel part of the planning process, to understand what may be required of them in an emergency response and to provide their perspective to the planning team. Planning meetings can be organized to facilitate this process.

Ensure that any plans written are operationally realistic and achievable.

Contributing authors should be provided with a set of relevant guidelines and reading materials to guide their writing and ensure that the sections of the plan are consistent, integrated and interoperable.

Set a timetable for the submission of drafts and the final document so that contributing authors are working to required timelines.

Where possible, review drafts in conjunction with the contributors to ensure they are on track.

(4)   Write the plan

During this phase, the planning team populates the plan's template with the sections from contributors and constructs the plan.

Where possible, utilize a technical writer to coordinate and write the plan. This person will assist with formatting and version control, which becomes very important over time with numerous contributing authors submitting different sections.

(5)   Review the plan

Set up and conduct two reviews—a peer review and a stakeholder review. Ensure that feedback is generated and, where appropriate, incorporated into the plan.

Ensure that the peer reviewers include representatives from the key agencies responsible for interoperability and operationalization of the plan. The stakeholder review team should be members of organizations identified in your "strategic relationships" list.

(6)   Test the plan

Design an exercise to test the plan using a scenario of a possible public health emergency.

This test only checks if the current draft plan is operationally realistic and achievable. As the plan has not yet been signed off or accepted, the test does not have to be a full-scale multisectoral exercise. A table-top exercise works well at this stage.

Engage an emergency management professional to develop some "injects" to challenge and test the management and response teams, when possible.

Ensure a budget for this test and for future exercises so that a process of continual improvement and readiness can be established.

Ensure that the lessons from test exercises are used to update the plan as appropriate.

(7)   Obtain stakeholder sign-off

Once the plan has been finalized and tested, send it back to the key stakeholder agencies and departments for final sign-off and acceptance, if appropriate.

Make it clear to agencies and stakeholders that by signing off the final document, they agree to their tasks and responsibilities in the plan. If necessary, memorandums of understanding may be developed with specific agencies or providers to make provision of their services to meet plan responsibilities contractually required.

Set a deadline for the expected return of the plan so that any final changes can be reviewed and incorporated and the sign-off process concluded.

Change control process

Change control is an important consideration of any evolving document such as a plan. Change control is the process of formally reviewing, incorporating and accepting changes and updating all previous versions to the latest version.

Change control is critical to ensure that all stakeholders are using the most up-to-date plan. Major problems may occur during a response if agencies or providers are using an old and incorrect version of the plan.

(8) Conclude the planning phase

At the end of the planning process, thank the contributors and agencies involved throughout the process. Continually managing these relationships is important, especially when changes and updates need to be made.

(9) Publish and communicate the plan

Publish the plan in printed hard copy and/or soft copy (PDF) and distribute both versions to every agency and team who may be involved in a response. Include all supporting agencies that need to be aware of the plan and its actions. The more people who know about the plan and can access it easily, the better it is.

Having an online version is also helpful for agencies that may need to access a copy of the plan at short notice. Be sure to have clear web links on easily accessible pages to avoid confusion.

(10) Brief and train required response personnel

Develop a briefing schedule that includes all the required skills needed for specific roles for response personnel.

Make it a requirement that interdependent agencies and organizations also maintain a commitment to train required personnel.

Where possible, train together.

Identify your most competent people and upskill them for multiple roles to provide backup capability when others are sick or absent.

Where possible, invest in training courses and keep response teams together to gain from the added benefits of working together and sharing experiences.

(11) Schedule regular exercises

A plan must be exercised and updated to incorporate relevant changes in staff, agency responsibility, and gaps or weaknesses identified through the exercise process.

Exercises are designed to:

- test the ongoing adequacy of the response plan;

- practise the public health operational response and identify the resources and roles required in a real-life public health emergency;

- test communication links with external organizations;

- develop relationships with stakeholders and service providers;

- test capacity in POE and coordination;

- test knowledge of legislation and powers; and

- evaluate gaps in information, logistics and resourcing needs.

Develop a schedule of exercises and use different scenarios so that teams are continually challenged.

Different types of exercises can be conducted, including:

- single agency briefing

- multi-agency briefing

- table-top exercise (single or multi-agency)

- local full-scale exercise based on a scenario

- subnational full-scale exercise based on a scenario

- national full-scale exercise based on a scenario.

There should be a regular schedule of exercises, up to and including a national full-scale exercise, whenever feasible. Many agencies conduct these exercises at a minimum of every 18 to 24 months. Ensure that national and subnational emergency response authorities are consulted before any schedule is established.

(12) Review, update and maintain the plan as required

After each exercise or emergency event, conduct a formal review and update your plans accordingly with the key lessons learnt.

Ensure that someone is always assigned to maintain the current version of the plan. When a new version is created, ensure that all parties receive the new copy and the old version is archived.

Agencies or service providers using different versions of the plan could potentially cause the failure of a response.

8 » Recommended Structure of a PHECP

8.1 OPTIONS FOR STRUCTURING A PHECP

The following section is a guide for developing a PHECP that incorporates the principles and recommendations in this guidance document. It is based on both effective plans that exist and lessons learnt from public health emergency responses. Member States may have different approaches to developing response plans and should use what suits their needs and context best.

Generally speaking, all plans should have an introductory section and an operational section. A section for more specific and detailed information to support the key information in the introductory and operational sections should be included as an annex to the plan.

Plan structure

There are a number of options for structuring the PHECP. There is no right or wrong approach, provided that the plan achieves the objectives and follows the core principles.

Some agencies may prefer an operational manual style with tasks and actions, while others may choose to be less detailed. Whichever structure and style is used, the plan must be clearly understood by someone reading it for the first time who may be new to emergency response and/or POE operations. The reader must be able to understand who is doing what and who is responsible for the decisions and actions.

Key information first

You may decide to start your plan with key information sections, such as command and control structures and roles and responsibilities, followed by operational sections on who does what and when.

Chronological – operational format

Plans may be structured in chronological order, i.e. providing the key operational information in the order that a PHEIC would unfold at the POE.

Chronological by alert code or phase

You may decide to structure the plan in alignment with the alert code structure that has been developed nationally or for the POE for public health emergencies.

This format allows readers to skip directly to relevant sections of the plan and to information under a specific code.

For example, if a PHEIC is deemed a "Code Red", then readers can go directly to the Code Red section and follow the specific information related to that scenario.

8.2 RECOMMENDED STRUCTURE

The following information and section headings are essential to any PHECP, regardless of format.

8.2.1 Sponsoring agency, location of POE and date

The front page should clearly identify the sponsoring agency by name (who owns the plan) including the agency logo and the name of the POE for which the plan has been prepared. It should also include the date that the plan was published.

8.2.2 Table of contents

The table of contents gives the reader an overview of the information contained in the plan and directs readers to specific sections and pages for information.

8.2.3 Foreword

The foreword is generally written by the highest-ranking official responsible for public health in the Member State. This may be the Minister of Health or an equivalent senior official. It is an opportunity to share a short personalized introduction and message of support. It may be beneficial to have the senior POE official counter-sign the foreword to lend further authority to the document.

8.2.4 Section 1 - Introduction

The introduction establishes the plan's mandate and context and explains how to use the plan. The introduction may include the following information:

- authority or mandate for the plan;

- relationship to other plans;

- instructions on how to read and utilize the plan (structure type); and

- purpose, objectives and scope.

(1) Authority or mandate for the plan

This section introduces the authorizing agency and relevant international, national and local policies, laws and regulations, such as:

- IHR (2005);

- national health-related laws or regulations including those related to infectious diseases and national health emergency management;

- national disaster-related laws and policies; and

- others as relevant, such as convention articles and ICAO standards and procedures for airports.

This section shows planners and responders where they fit, including their support for the plan's measures and the inter-connectivity between agencies and organizations.

(2) Relationship to other plans

The PHECP will have links with other documents and plans, which should be listed in a table or a map diagram so that responders know the other considerations and interdependencies. For example, POE public health authorities may use specific third-party service providers for required services such as transport. It will be important for those plans to be referenced and available for PHOs to understand any interdependencies.

Encourage your response teams and service providers to familiarize themselves with these other plans.

This section should include instructions on how to understand the plan's structure and format and how to read and utilize the plan. It is often helpful to include a legend for any symbols used in your plan.

(4) Purpose, objectives and scope

This section should include clear and succinct statements about what the plan's purpose, specific objectives, target audience and possible events.

For example, the purpose of the plan may be to mitigate the health impacts and respond to a potential public health emergency of international concern at a POE, and the objectives may be to inform agency stakeholders and response personnel about actions to take and information to use to achieve a successful response.

8.2.5 Section 2 – Operational response

The following sections are typically included in the operational response section of a PHECP:

- Command and control structures (POE and national)
- Roles and responsibilities
    - Command and control (POE level)
    - Command and control (national level)
    - Other supporting agencies
- Formal alert codes or phases (if used)
- Initial actions and/or protocols
- Activation of the plan
- Deactivation of the plan
- POE operational response
    - Emergency Operations Centre
    - Response Management
    - Response Operations
    - Response Logistics
    - Response Liaison and Communication
    - Response Planning and Intelligence
    - Response Administration and Finance

(1) Command and control structures

The command and control section describes the organizational structures by which decisions are made and by whom. An organizational chart should be used to define the key authorities that are accountable and responsible for decisions.

This section is one of the most important components of the plan. It should be done early and thoroughly. Experience has shown consistently that it is critical to get the correct authorities at the senior level involved personally to get the right structures. Both national and local POE commanders who are likely to lead a response operation should be directly involved.

Command and control structures are the organizational charts of the response structure teams with clearly defined roles and functions.

Ideally, this will be systematically laid out and harmonized with existing national or local public health and emergency management organizational command and control structures.

The national command and control structure should include diagrams that show national and local structures and specifically where the POE is positioned (Figures 6 and 7).

Figure 6. Example of a national command and control structure for a PHEIC
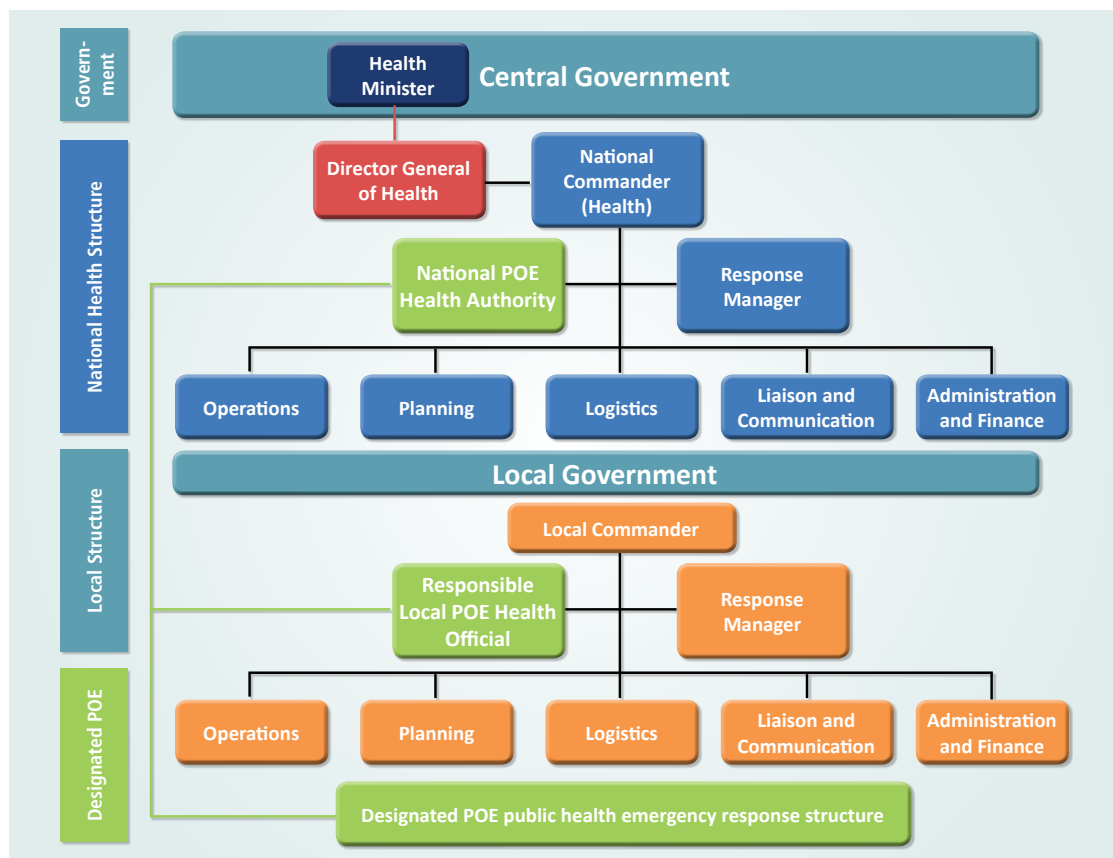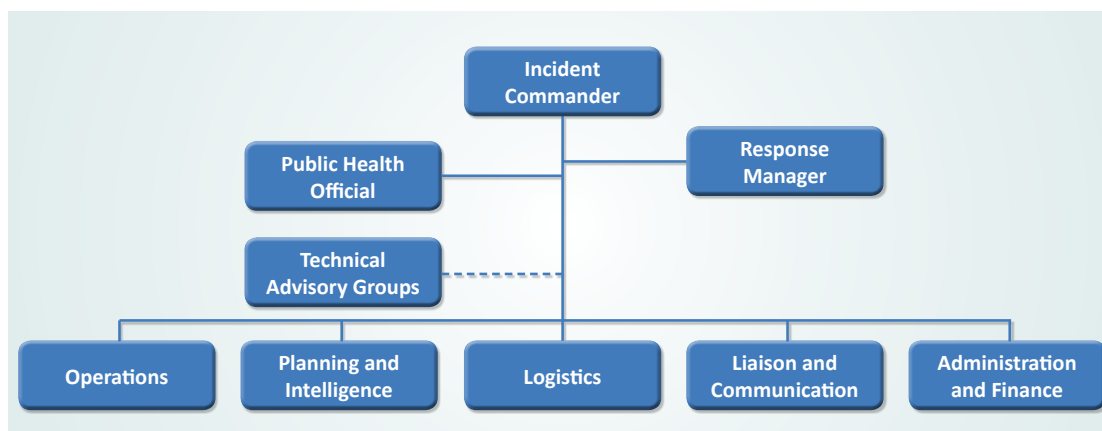
Figure 7. Example of a local POE command and control structure

Countries use various formal response systems for command and control. For example, some countries use the Incident Command System (ICS) as a tool. Member States should check which model is used by national authorities and attempt to adapt the command and control structure for POE to this response system.

(2) Roles and responsibilities

This section maps out the roles and responsibilities of each required response function, the individuals and agencies assigned to each function and a set of tasks.

It also designates the competent authorities and agencies that are responsible for carrying out the required tasks and actions associated with the plan to support operations.

During a PHEIC, the National Public Health Authority, such as the Ministry or Department of Health, often acts as the lead governmental agency, coordinating the involvement of other relevant agencies.

A table is often used to list the emergency response functions and formal roles within each function, as shown below:

Command and control roles

Role	Responsibility
Incident Commander	Overall responsibility for the response strategy and response operational success
Response Manager	Coordinates the command and control function teams to implement the response strategy
Public Health Official	Provides public health technical advice to support response operations and acts as the key health liaison and representative of the National Public Health Authority

These role and responsibility tables should be developed not only for command and control functional teams and individuals, but also for external agencies that support the response operation.

Examples of typical response teams and roles that might be included are as follows:

Operations team

- Operations manager
- Operations analysts
- Operations support role

Logistics team

- Logistic manager
- Logistics support role
- Procurement manager

Planning and Intelligence team

- Planning manager
- Intelligence manager
- Response planner
- Intelligence analyst
- Planning support
- Intelligence support
- Geospatial information services specialist
- Report writer

Administration and Finance team

- Administration manager
- Resource and personnel rostering
- Administration support
- Finance manager
- Finance support

Relevant agencies

- Airport or port authorities

- Transport and logistics agencies

- Airlines or shipping companies

- Security agencies

- Hospitals and health providers

- Equipment and supply organizations

- Cleaning and other service providers (e.g. disinfection, disinsection).

Listed under each of the roles should be the key responsibilities, key decisions and deliverables, and who they report to in the structure. Contact information may also be provided in the table or in the supporting information section.

This table is essential to quickly identify who is responsible for what actions and decisions.

(3) Formal alert codes or phases (optional)

Formal alert codes or phases are usually descriptors of specific conditions or scenarios that align to a specific response profile and set of actions. Details are usually given in the form of a table, using either a written description of the situation and aligned alerts phases, or a colour coding system representing the condition scenario.

(4) Initial actions and protocols

This section is designed to inform readers of what to do first (i.e. in the first few hours) when an alert is notified or triggered.

Usually, this section puts forth a set of specific instructions to follow and sets out who needs to do what in a chronological order to initiate and activate the response.

The initial actions and protocols usually involve rapid communication to key decision-makers to advise them that an alert has been triggered or a situation has occurred. It allows them to follow their protocols for qualifying the nature, risk factors and sextent of the emergency and to make a decision to formally activate the PHECP and the response structures.

(5) Activation of the plan

POE public health authorities (local and national) will have a predefined and agreed set of conditions that, when encountered, "trigger" a decision to formally activate the PHECP. This will facilitate a move to the next phase or the application of certain interventions.

It is important to have a clearly defined set of conditions for what constitutes the "activation" of a plan so that decision-makers can ensure they have made the right decision to activate and initiate the response.

Triggers

Triggers are formal, quantifiable events or conditions that, once reached, require formal action to be taken as part of an established plan.

There are triggers to activate plans, change interventions and phases, and deactivate plans. These triggers and resultant changes or actions should be represented, where possible, in an easily understandable table or graphic, which can serve as a key reference document for stakeholders and responders alike.

An example of a trigger is communication from the NFP, relevant national public health authority or WHO that a public health emergency of international concern is occurring.

(6) Deactivation of the plan

In the same manner as activation, it is important to have a clearly defined set of conditions to deactivate the plan and return to a recovery or "business as usual" state once the situation is under control or able to be de-escalated.

A process and mechanism for activation and deactivation must be developed to guide decision-making and the alignment/prioritization of subsequent response actions.

(7) POE operational response sections
- Emergency Operations Centre
- Response Operations
- Response Logistics
- Response Liaison and Communication
- Response Planning and Intelligence
- Response Administration and Finance
- Technical Advisory Teams

Emergency Operations Centre

The Emergency Operations Centre (EOC) is the hub of response operations, consisting of both facilities and functions.

Depending on the nature and scale of the emergency, there may be a single local centre (e.g. at a POE), or several centres at ports/airports, and/or at the local level and/or at the national level.

An EOC is generally a dedicated room or facility where the Incident Commander and response teams are based and operate (Figure 8).

These dedicated rooms are usually secure and purpose built to enable the response management team to operate effectively, efficiently and securely without being interrupted by the public, media or other non-response personnel.

Figure 8. Example of an Emergency Operations Centre

Response Operations
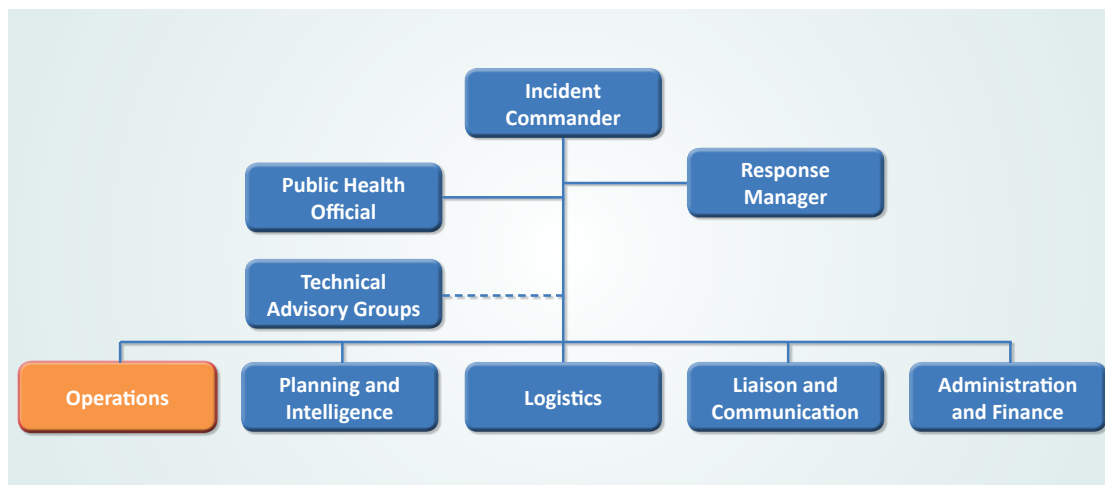
The operations team is responsible for the execution of tasks and functions required to achieve the objective.

An operations plan describes who is responsible to perform which tasks, how they are going to do it, and if known, by when.

The operations team within the command and control structure coordinate with the sector and operational teams and individuals to direct and assist them in carrying out their individual tasks and duties.

Examples of items in a typical Operations section of a PHECP for a POE may include:

- task lists allocated to agencies;

- declaration and/or locator card process;

- escort and transport of suspected cases;

- entry and exit screening tasks;

- staging area for personal protective equipment;

- rendezvous points for response personnel reporting for work; and

- briefing time and location of the National Public Health Authority.

Specific operational protocols or standard operating procedures may be included as an annex of the PHECP.

Response Logistics
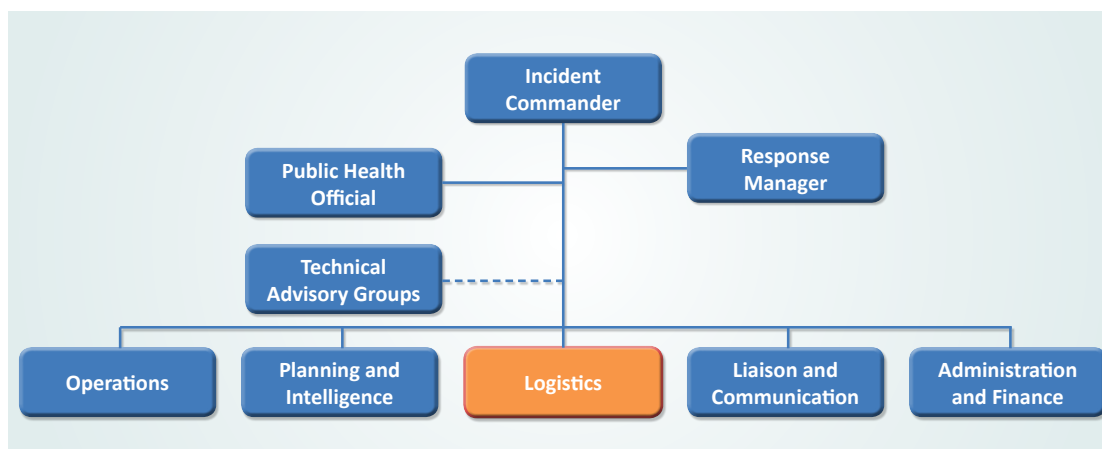
The logistics team is responsible for sourcing and distributing required resources, supplies and materials where and when they are needed to support smooth response operations.

Examples of items in a typical Logistics section of a PHECP for a POE may include:

- current supplies inventory
- surge capacity stockpile
- supply and distribution chains - transport
- facilities list
- supply process for requesting additional supplies
- tracking system used to manage supplies
- communication facilities
- staff deployment
- staff safety and security.

Response Liaison and Communication
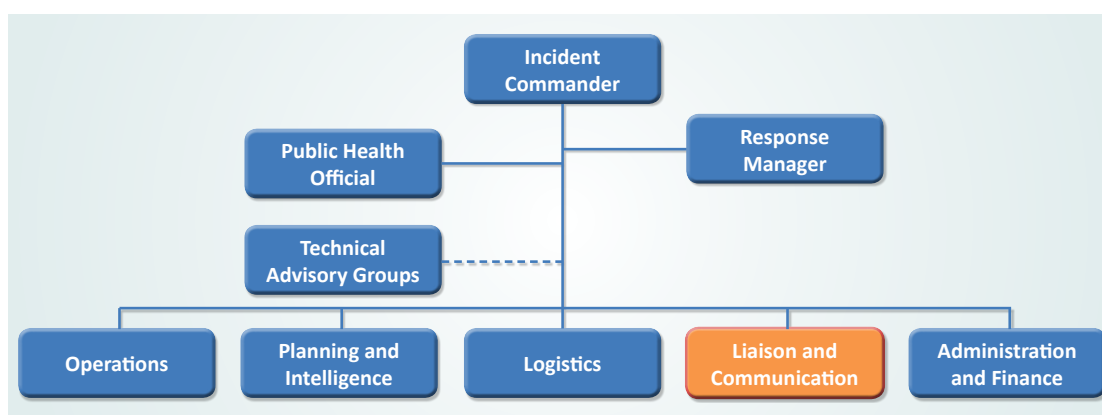
The response teams' ability to communicate in real-time is critical to establishing command and control at the scene of an emergency, maintaining situational awareness, and to overall operation within a public health-related emergency. Internal communication is not the only communication consideration. There are also external, media and public communication aspects to take into account.

The purpose of a communications and liaison plan is to connect the required individuals, agencies and service providers performing roles or functions together to enable them to share information and carry out their responsibilities.

Media management and structuring of key messages and information is an important part of any modern day emergency response due to the increased pressures and demands of media organizations. Specific media liaison roles are usually found in formal command and control structures to manage communication with the proliferation of television, print, radio and on-line news agencies at work today.

A communications plan should map out the critical roles for communication (who talks to whom) and the method of communication (phone, e-mail, written report, meeting). Alternate forms of communication should also be stated in case the primary method is unavailable, as well as any time considerations, e.g. daily situation briefings at a specific time.

Communication plans will generally be structured in the following manner:
- communications map;
- media or public information management;
- liaison information flows and/or diagram;
- communications infrastructure and assets, e.g. cell phones; and
- critical communications timelines and events

Response Planning and Intelligence
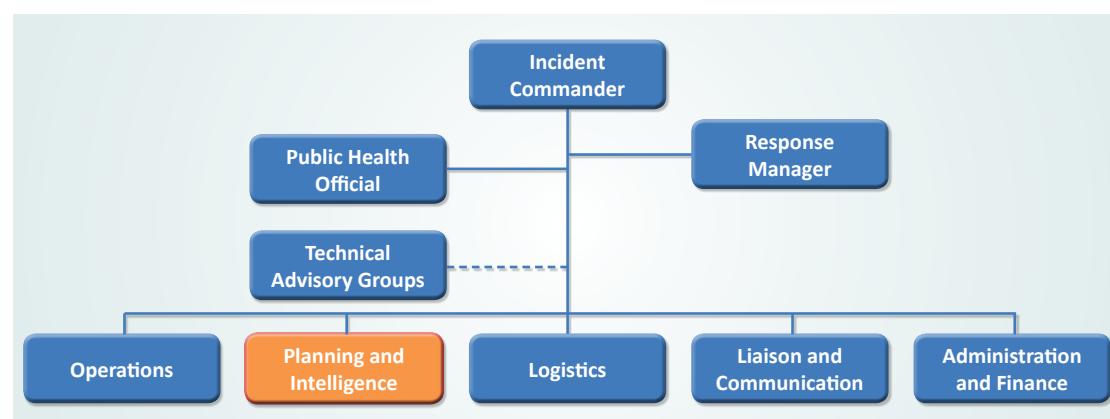
Planning

Planning as it relates to an emergency response team is the "forward view" of the response. Planning team members gather and use the latest information on the situation and associated factors to produce action and recovery plans that determine the next decisions and the course of action to be taken.

Planners try to build a picture of what situations they are likely to face in the future, and anticipate the key strategies, actions and tasks that will help achieve the response objective and return the situation back to normal with minimal impacts.

The Planning section describes who is responsible, what resources they will utilize, what outputs will be produced and when.

Examples of items in a typical Planning section of a PHECP for a POE may include:

- planning cycles
- planning team deliverables and frequency
- planning assumptions
- planning information sources.

National response authorities are encouraged to share pertinent planning documents and planning assumptions with POE command and control response management teams to support and inform planning. Often the national planning team has better access to expert advisory groups and research to aid planning.

Intelligence

Intelligence gathering is essential to an emergency response for effective decision-making support. This function works when individuals, teams and agencies gather the information required to monitor the situation and create situation reports.

The intelligence function is usually provided by an individual or team that has its own dedicated function or is attached to a surveillance or planning team, as relevant.

Examples of items in a typical Information section may include:
- sources of information
- frequency of information
- analysis and processing of information
- reporting and reporting frequency
- decision support considerations
- process for ad hoc information requests.

Response Administration and Finance
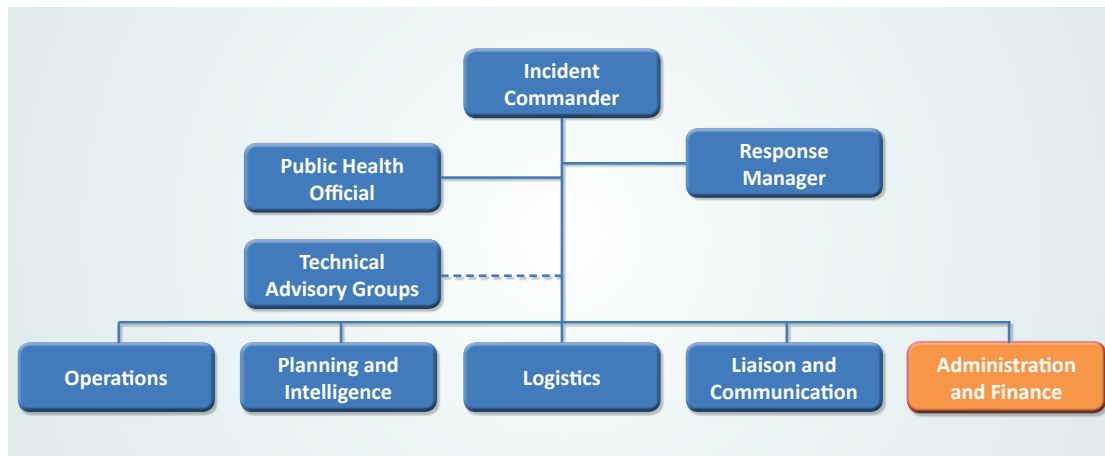
Emergencies are extraordinary events that place pressure and stress on existing systems and resources. The activation of plans usually requires a surge in capacity provided by current or contracted additional resources for periods of time.

With every emergency response, additional administration requirements and costs are incurred for provision and fulfilment of these extra resources.

Finance

Finance sections should detail the process for accessing emergency funding and identify who manages the funding and financial accounting for the response.

A finance officer should be attached to the formal response structure to track and audit the costs incurred and facilitate the emergency funding process, should it be required.

Examples of items in a typical Finance section of a PHECP for a POE may include:

- existing emergency funding
- source of additional emergency funds
- process for applying for, release and accrual of funding
- emergency cost accounting process
- post emergency audit and reconciliation process.

National authorities should clearly communicate to POE planners how the emergency funding process at the national level can support operations and how it is activated, applied for, distributed and accounted for.

Administration

Internal administration is critical in supporting any response where surge resourcing is required. Updated contact details and distribution lists are required to ensure smooth communications.

One of the largest administration aspects of supporting a response is the internal resourcing scheduling and logistics—food, transport and accommodation for response personnel. It is important to keep response personnel well-rested, well-fed and supported to keep them at their most productive as Emergency Operations Centre environments are often stressful environments in which to work.

Technical Advisory Groups

In any emergency of national or international significance, the Incident Commander and response teams will face a number of constant decisions that need to be based on the best information, data and advice from specialized advisers and other contributors.

While not part of the formal response team, these groups or individuals are often identified in advance and then activated as required and attached to the incident command structure as virtual team members.

Technical Advisory Groups attached to an Emergency Operations Centre
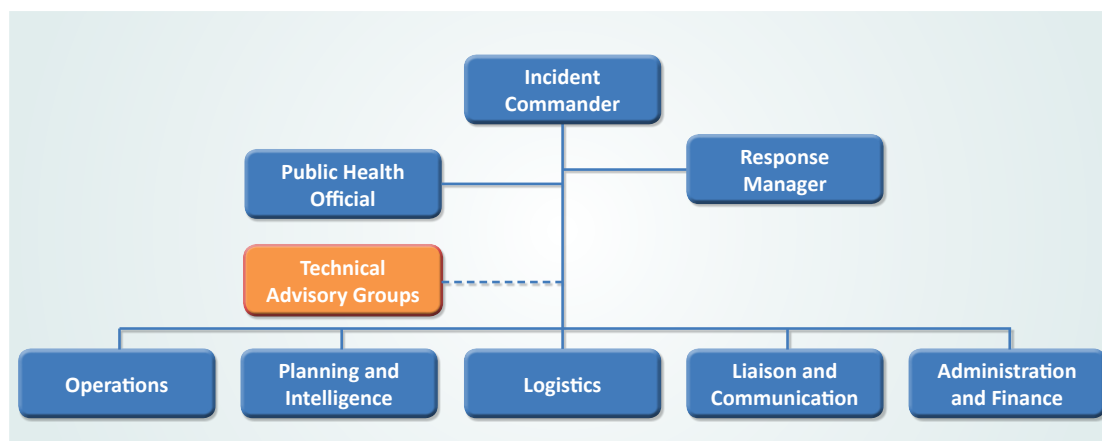
During the recent pandemic (H1N1) 2009, technical advisory groups were attached to formal command structures of public health authorities to inform decision-making on public health interventions in many countries.

A POE advisory group may include representatives from the airline operations team and/or airlines to discuss options for reconfiguring the arrivals and departures to accommodate screening and isolation of passengers. These groups can play extremely helpful technical advisory roles in a response.

8.2.6 Section 3 – Supporting Information

The supporting information section includes detailed information to support the plan, and is usually found in the annexes.

This section should be laid out in a logical and simple manner to provide accessibility to key information related to specific topics, such as contact information and standard operating procedures.

Typical information contained in the supporting information annexes include:

(1) Contact information (internal and external agencies)

(2) Maps of operational areas

(3) Standard operating procedures and/or protocols

- Activating and staffing the Emergency Operations Centre
- Reporting and briefing schedules
- Single inbound aircraft/vessel
- Multiple inbound aircraft/vessels
- Managing suspected and affected travellers (including the assessment, care and quarantine)
- Entrance and exit screening
- Boarding of aircraft/vessels
- Transportation of suspected or ill passengers
- Partial or full POE closure
- Communications protocols
- Alert code or phase change protocols
- Protocols for disinfection, disinsection, decontamination, etc.
- Security protocols
- Other response standard operating procedures

(4) Forms and templates for response processes

- Meetings and teleconferencing procedures
- Sample of emergency meeting agenda

- Situation report template

- Other response reporting templates

- Health declaration, quarantine and other medical forms

- Alert notices

- Equipment procurement forms

- Timesheets and rostering forms for personnel

- Other administrative forms

- Forms to make changes or update the PHECP

(5) Other linked plans

- Risk communication including media plans

- Airport/seaport operations plans

- National emergency response plan (relevant sections)

(6) Risk assessment and other technical guidance

- Risk assessment information

- Infection prevention and control advice including hand-washing, hygiene and personal protective equipment

- Specific technical medical or response information

- Infectious disease-specific information

- Legal information

ANNEX A » Acronyms

ACI	Airports Council International
ASEAN	Association of Southeast Asian Nations
CCAT	Core Capability Assessment Tool
EOC	Emergency Operations Centre
IHR	International Health Regulations
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICS	Incident Command System
IMO	International Maritime Organization
NaPHA	National Points of Entry Health Authority
NFP	National IHR Focal Point
POE	Points of Entry
PHECP	Public Health Emergency Contingency Plan
PHEIC	Public Health Emergency of International Concern
PHO	Points of Entry Health Official
WHO	World Health Organization

Annex B » Definitions of Key Terms

Airport	An airport where international flights arrive or depart.
Command and Control Structure	The formal organizational reporting and response management role structure utilized for emergency management.
Contingency Plan	A plan devised for a specific situation when things could go wrong.
Competent Authority	An authority responsible for the implementation and application of health measures under the IHR (2005).
Core Capacity	Capacities listed in Annex 1 of the IHR (2005).
Decision Support	Information that is required to aid decision-making.
Emergency Operations Centre	A designated room or area with operational functions attached, where emergency response command and operations are based.
Emergency Preparedness	A programme of long-term activities whose goals are to strengthen the overall capacity and capability of a country or a community to manage efficiently all types of emergencies and bring about an orderly transition from relief through to recovery.
"Front Line"	The teams or individuals involved in performing tasks and actions where the most intense activity is happening.
Fragmentation	Separate and disjointed pieces of a larger plan or entity.
Intelligence	Information that is deemed valuable and pertinent to the situation. Most often used for decision-making purposes.
Interoperability	The ability of diverse systems, processes and organizations to work together, i.e. interoperate.
National IHR Focal Point	The national centre, designated by each State Party, which shall be accessible at all times for communications with WHO IHR Contact Points under the International Health Regulations (2005).
Operational Relationship	A functional relationship between two or more entities to carry out specific tasks or actions to achieve objectives at an operational level.
Points of Entry	A passage for international entry or exit of travellers, baggage, cargo, containers, conveyances, goods and postal parcels as well as agencies and areas providing services to them on entry or exit.
National Points of Entry Health Authority	Public heath authority at the national level that is responsible for the overall public hearth functions at POE.

Port	A seaport or port on an inland body of water where ships on an international voyage arrive or depart.
Points of Entry Health Official	A public health officer/official responsible for public health functions at points of entry at the local level.
Strategic Relationship	Relationships between two or more organizations that are fundamental to the success of the coordinated response.
Sign-off	The process of formally acknowledging and accepting an item that requires approval, usually a document or contract.
Trigger	An event causing the activation or decision to carry out a set response action.
Upskilling	Training, education or skill acquisition of various aptitudes or certifications to become more technically proficient at a specific role or function.
WHO IHR Contact Point	The unit within WHO that is accessible at all times for communications with the National IHR Focal Points.

ANNEX C »   List of Resources

(1) International Health Regulations (2005), 2nd edition. http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf

(2) Assessment Tool for Core Capacity requirements at designated airports, ports and ground crossings, October 2009. http://www.who.int/ihr/ports_airports/PoE/en/index.html

(3) Asia Pacific Strategy for Emerging Diseases (2010), WHO SEARO and WPRO, 2011.

(4) Responding to Pandemic (H1N1) 2009: Options for interventions at international points of entry. WHO WPRO, May 2009. http://www.wpro.who.int/health_topics/h1n1/tech/tech_preparedness.htm

(5) Guide to Hygiene and Sanitation in Aviation (revised draft 2009).WHO. http://www.who.int/water_sanitation_health/hygiene/ships/en/

(6) Guidelines for states concerning the management of communicable disease posing a serious public health risk, 2009. http://www.icao.int/icao/en/med/ guidelines.htm

(7) Airport preparedness guidelines for outbreaks of communicable disease - April 2009. http://www.aci.aero/aci/aci/file/ACI_Priorities/Health/Airport%20preparedness%20guidelines.pdf

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World Health
Organization

South-East Asia Region   Western Pacific Region