



World Health  
Organization

# Health service continuity planning for public health emergencies

A handbook for health facilities

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*Interim version for field testing*





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Health service continuity planning for public health emergencies: a handbook for health facilities. Interim version for field testing

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# Abbreviations

DFID	United Kingdom Department for International Development
KOICA	Korea International Cooperation Agency
PHE	public health emergency
USAID	United States Agency for International Development

# Glossary

These definitions of terms are a synthesis of various resources, including WHO publications, academic literature and internal technical documents and expertise adapted to the context of health service continuity planning.

## **After-action review (AAR)**

An AAR is a qualitative review of actions taken in response to an event of public health concern. An AAR is a means of identifying and documenting the best practices and challenges demonstrated by the response to the event. The review seeks to identify actions that need to be implemented immediately, to ensure better preparation for the next event. It also aims to identify medium and long-term actions needed to strengthen and institutionalize the necessary capabilities of the public health system (1).

## **Contingency planning**

Contingency planning is a management process that analyses specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses to such events and situations. Contingency planning results in organized and coordinated courses of action with clearly identified institutional roles and resources, information processes and operational arrangements for specific actors at times of need. Based on scenarios of possible emergency conditions or public health emergency events, it allows key actors to envision, anticipate and solve problems that can arise during crises. Contingency planning is an important part of a much broader emergency preparedness process and recovery planning. This process often results in the development of a contingency plan.

“Contingency planning” and “continuity planning” are sometimes used interchangeably in literature and technical guidelines. They are similar regarding their purpose; both are intended to enable organizations to continue essential operations and functions in the event of emergencies. Generally, continuity planning is centred around the core question: how to maintain essential functions as usual in face of an emergency; continuity planning is intended to cover a broad range of disruptive scenarios and address the impact of them. Contingency planning is centred on the “survival” of the organization and the mitigation of risks in the face of specific types of events that have a higher likelihood of occurring.

## **Continuity planning**

Business continuity planning: an ongoing process supported by senior management and



funded to ensure that the necessary steps are taken to identify the impact of potential losses and maintain continuity of services and viable recovery strategies. In the public sector, it is also known as planning for continuity of operations or continuity of governance.

The process often results in the development of a business continuity plan for the facility or operation. Business continuity plans (a term not limited to the health context) are always required by public and private institutions to ensure that vital functions and services continue throughout an emergency.

### **Health service continuity planning**

This is a type of business continuity planning specifically for health-related services. Health service continuity planning is a process with the purpose of maintaining the continuity of health services that are routinely provided, in order to protect lives and health of the population affected by potentially disruptive emergencies, including disasters, disease outbreaks, etc.

This process often results in the development of a health service continuity plan, which is a collection of actions, procedures and information that is developed and maintained for use in the event of a potential service interruption. Health service continuity plan are important for public and private health services providers to ensure continued delivery of routine health services delivery in the face of public health emergencies or shocks to the health system.

### **Hazard**

This is defined as a process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation (2).

### **Preparedness**

The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from, the impacts of likely, imminent or current hazard events or conditions. Preparedness action is carried out within the context risk management and aims to build the capacities needed to efficiently manage all types of emergencies and achieve orderly transitions from response through to sustained recovery. Preparedness is based on a sound analysis of risks and good linkages with early warning systems and includes such activities as contingency planning, stockpiling of equipment and supplies, the development of arrangements for coordination, evacuation and public information and associated training and field exercises. These must be supported by formal institutional, legal and budgetary capacities. The related term “readiness” describes the ability to quickly and appropriately respond when required.

## **Prevention**

The outright avoidance of adverse impacts of hazards and related public health emergencies. Prevention (i.e. disaster prevention) expresses the concept and intention to completely avoid potential adverse impacts through action taken in advance. Very often the complete avoidance of losses is not feasible, and the task transforms to that of mitigation. Partly for this reason, the terms prevention and mitigation are sometimes used interchangeably in casual use.

## **Public health emergency management (including disaster management)**

The systematic process of using administrative directives, organizations and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of public health emergencies. Public health emergency/disaster risk management aims to avoid, lessen or transfer the adverse effects of hazards through activities and measures for prevention, mitigation and preparedness.

The organization and management of resources and responsibilities for addressing public health emergencies through prevention, preparedness, response and recovery steps. A crisis or emergency is a threatening condition that requires urgent action. Effective emergency action can avoid the escalation of an event into a disaster. Emergency management involves plans and institutional arrangements to engage and guide the efforts of government, and voluntary and private agencies in comprehensive and coordinated ways to respond to the entire spectrum of emergency needs. The use of the term public health emergencies in this document encompasses disasters.

## **Readiness**

The ability to respond quickly and appropriately when required. Readiness is the outcome of planning, allocation of resources, training, exercising and organizing to build, sustain and improve operational capabilities based on risk assessment.

## **Recovery**

The restoration and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce public health emergency risk factors. The recovery task of rehabilitation and reconstruction begins soon after the emergency phase has ended and should be based on pre-existing strategies and policies that facilitate clear institutional responsibilities for recovery action and enable public participation. Recovery programmes, coupled with the heightened public awareness and engagement after a disaster, afford a valuable opportunity to develop and implement public health emergency risk reduction measures and to apply the “build back better” principle.

## **Resilience**

Resilience refers to the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management (2)

Health system resilience can be defined as the capacity of health actors, institutions and populations to resist, prepare for and effectively respond to crises; maintain core functions when a crisis hits; and, informed by lessons learned during the crisis, reorganize if conditions require it (3).

## **Response**

The provision of emergency services and public assistance during or immediately after a public health emergency in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected. Public health emergency response is predominantly focused on immediate and short-term needs and is sometimes called “relief”. The division between this response stage and the subsequent recovery stage is not clear-cut. Some response actions, such as the supply of temporary housing and water supplies, may extend well into the recovery stage.

## **Risk**

Risk is defined as the potential loss of life, injury or destroyed or damaged assets which could occur to a system, society or a community in a specific period. The level of risk depends on the nature and exposure to the hazard, vulnerabilities and capacities and level of preparedness and readiness to respond (4).

## **Risk assessment**

A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend. Risk assessments (and associated risk mapping) include: a review of the technical characteristics of hazards such as their location, intensity, frequency and probability; the analysis of exposure and vulnerability including the physical, social, health, economic and environmental dimensions; and the evaluation of the effectiveness of prevailing and alternative coping capacities in respect to likely risk scenarios. This series of activities is sometimes known as the risk analysis process.

## **Routine health services**

In this document, this term refers to all health services provided routinely or during normal times; they include but are not limited to those identified in essential health service packages. They are considered distinct from the additional health services demands brought about by public health emergencies.

## **Vulnerability**

This refers to the conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards (2).

# 1. Introduction



Public health emergencies, like pandemics, disasters and other catastrophic events, pose significant threats to the ability of health facilities to maintain operational capabilities and provide essential and basic health services for the public or community. Some causes of routine health service disruption during a public health emergency include overwhelmed health services because of increased demand, a shortage of health workers because of fear, sickness or death, diversion of essential medical supplies to the emergency response, damage to health facilities, etc. Continuity of essential health services during public health emergencies is vital for global, regional, national and local health security, as well as for the achievement of universal health coverage objectives. When health services are disrupted during public health emergencies, there are far-reaching and devastating consequences, including increased morbidity and excess mortality from emergency-related conditions and other health problems and increased risk of secondary emergencies as seen in recent public health events. It is therefore critical that countries develop capacity to ensure the maintenance of routine and essential health services during public health emergencies.

In the health sector, service continuity planning is a proactive process that identifies and prioritizes the critical functions of a health facility, evaluates the potential impact of various types of hazards and analyses and identifies actions to ensure continuity of critical functions (i.e. essential health services) during crises. The systematic protocols and procedures intended to maintain health service continuity, which clearly detail the actions that are to be performed and how, when and by whom, before, during and after a public health emergency, should always be documented in a written service continuity plan, also known as a business continuity plan.

In the face of continuous threats of public health emergencies, many public health institutions, health authorities and facilities have already developed emergency preparedness and response plans to ensure an effective response to various public health emergencies. However, judging from an internal WHO desk review, health service continuity planning remains a critical gap in many settings and processes in emergency preparedness and response planning. Where they exist, a service continuity document may be presented as a protocol or procedure document or as part of other emergency preparedness and response plans, depending on the planning approach and the context. However, the plan is presented, it is important that its content is fit for purpose and will facilitate maintenance of health services in a public health emergency.

**Service continuity plans for health care will therefore complement emergency-focused plans by providing a focus on continuity or maintenance of routine health services during emergency response alongside emergency-specific health care.** The main goal of health service continuity planning is to enable the continuation of routine health services as normal, even during emergencies.



Health facilities have a major role to play in public health emergency management across the continuum of prevention, preparedness, response and recovery in collaboration with various stakeholders. When hit by emergencies that require additional resources, health facilities with service continuity plans are more likely to maintain continuous high-quality health services than those without a plan (5). Service continuity planning helps bring all stakeholders together and ensures that everyone knows their roles and responsibilities during emergencies. Planning also prepares health workers and authorities to identify surge capacity quickly and address factors which may prevent or discourage health service utilization in an emergency. It is therefore imperative that service continuity plans are in place and tested before emergencies as part of preparedness and are implemented as part of emergency response to ensure continuity of high-quality essential health services, while enhancing preparedness, response (including scaling up services as required) and post-event recovery.

It is important to note that service continuity planning is not a stand-alone exercise, it is rather a component of wider health system resilience efforts. Service continuity plans should be aligned with national health security preparedness strategy and harmonized with hazard-specific plans and broader national and subnational health security and health sector plans, to ensure a coordinated response by all stakeholders. Service continuity plans should be developed in coherence with the emergency preparedness and response plans at local, subnational and national levels for a systematic and integrated approach to building resilience of health services. In this document, planning is envisioned as a process rather than a tangible product itself. The plan itself should not be regarded as the only essence of the service continuity planning, but rather as one element among the set of planning activities.



## Objectives and scope

In view of the current paucity of guidance on health service continuity planning at facility level; this handbook is developed with the aim of supporting health care facilities to minimize disruption and ultimately increase the resilience of health services during public health emergencies. It provides step by step guidance for developing service continuity plans in public health emergency context by outlining the procedures and key elements to be considered for planning including a planning template.

By its very nature, the utility of this handbook is not specific to a particular emergency response and underpins a preparedness and proactive approach towards various public health emergency risks for which the health services should be prepared before they occur or disrupt health services.

**The intended audiences for this interim handbook are health facilities, health service managers, health workers and health authorities with responsibility for planning and coordinating emergency management and service continuity operations among health facilities. They can use this handbook to:**

- **enhance awareness of the necessity of service continuity planning and associated requirements;**
- **review and update their existing service continuity plans and other arrangements for health services continuity;**
- **develop service continuity plans if there are none for their health facilities.**

This interim version will be updated as required in the light of lessons learned from its application in countries.

The document was based on a desk review of available literature and expert consultations within the World Health Organization. Details of the methodology are provided in Annex 1. Additional useful resources are listed in Annex 2, and risk assessment tools in Annex 3.



## 2. Health service continuity planning: all-hazards approach



The revised version of the International Health Regulations (2005), as well as the Sendai Framework for Disaster Risk Reduction 2015–2030, promote an “all-hazards” approach in emergency preparedness. This is an integrated approach to emergency management and planning. It focuses on critical capacities for a full spectrum of emergencies and disasters, based on the recognition that there are common elements, and common capacities required, in the management of these risks (2). WHO, in its Guidance for business continuity planning (6), recommends that all its regional and country offices adopt an all-hazards approach in their business continuity and contingency planning. This handbook also underpins an all-hazards approach and complements the aforementioned Guidance by focusing on service continuity planning at health facility levels in countries.

The all-hazards approach is also widely recommended for application at national and subnational levels. It acknowledges that, at any given time, several types of hazards may pose a potential threat to any given community or facility; health facilities should identify these potential hazards, the likelihood of their occurrence and the severity of their impact by conducting a risk assessment. Risk assessment is used to stratify potential hazards, measure the probability of occurrence of those hazards and guide overall emergency preparedness, along with evidence-based assumptions.

The basic assumption for service continuity planning at health facility level is the worst-





case scenario that is likely to occur in the health facility or the community that the health facility serves, – a scenario resulting in disruption of essential health services. A series of general assumptions around the worst-case scenario, which may be guided by theories and models (e.g. predictive modelling in epidemiology) that help to predict how the scenario may evolve and affect health services, should be the basis for developing the service continuity plan. Experts on the identified risks should be consulted during planning, to forecast how scenarios may evolve. Assumptions can also be made in relation to requirements for tackling the hazards, based on a realistic picture of the resources and capacities that would be available and could be mobilized for implementing the plan. All planning assumptions should be well documented in the service continuity plan, applying an all-hazards approach.

The all-hazards approach allows for a unified plan with the flexibility to adapt to specific hazards and remove the need for multiple, often siloed, plans. However, hazard-specific guidance can be factored into the integrated approach. For instance, accidents involving hazardous materials require an understanding of toxicology to minimize damage and protect lives; radiological accidents require special measures for decontamination; infectious disease outbreaks require extra attention to infection prevention and control. It is important to note that the all-hazards approach does not imply that authorities should prepare for all hazards; rather, it focuses on common needs that emerge from various types of emergencies. Although the all-hazards planning approach can provide a basic framework, service continuity planners should prioritize preparedness for hazards that pose a higher risk for the facility and services based on local, dynamic risk assessment. The all-hazards approach may also have the benefit of cost-effectiveness and enhance the efficiency of planning and operations.

## 3. Steps in health service continuity planning



The steps to be taken and the key areas of service continuity planning for health services in the public health emergency context are based on the general principles of emergency and service continuity planning. Like other emergency preparedness activities, health service continuity planning should not wait until an actual emergency occurs. Health service continuity plans can be developed by health facilities, groups of health facilities within a catchment area or that have mutual aid agreements and by health authorities. All types of health facilities (primary, secondary and tertiary; public and private) have important roles in the planning, testing, implementation and review of these plans. A health facility is likely also to appear in other health facilities' or local/regional/national plans. Representatives of health facilities who are responsible for their facilities' service continuity planning should participate actively in other related planning activities in their locality to ensure coherence.

Coherence and complementarity between various preparedness and readiness activities is essential. As an example: the capacity to continue routine health services in emergency contexts can be included as a key component of health facility preparedness and readiness assessments, and the results of these assessments can be used to inform service continuity planning.

The following steps are recommended for health service continuity planning using the all-hazard planning approach.

- 1 Form a collaborative planning team.**
- 2 Conduct risk assessment and prioritize risks.**
- 3 Determine overall objectives and operational priorities.**
- 4 Conduct capacity assessment.**
- 5 Develop the service continuity plan.**
- 6 Test and update the plan.**
- 7 Implement the plan and monitor implementation.**
- 8 Conduct post-event review and update/improve the plan.**

A matrix to help in the identification of key actions in the planning process, in relation to the emergency management cycle, is provided in section 4.

### Step 1. Form a collaborative planning team

To initiate planning, the head of the health facility or the person in charge of continuity

planning should assemble a planning team with clear terms of reference. The person in charge of continuity planning might be the same as that in charge of emergency preparedness. Note that implementation of continuity plans goes beyond the scope of one health facility; health facilities require the technical, coordination, resource mobilization support of health authorities at various levels to develop and implement service continuity plans. The final plan and its operationalization is likely to have critical gaps if the planning process is not inclusive of all relevant stakeholders. Therefore, the planning team should include not only representatives from each department in the health facility, but also representatives (public and private) from outside the facility and outside the health sector who play a role in provision of health services in emergencies.

In addition to a facility-based planning team (including management, clinicians and non-clinicians), examples of other stakeholders needed for successful service continuity planning include community representatives, other health facilities (at the same, higher or lower levels of care), local/regional/national health and public health authorities, WHO and other health partners in health security and health system strengthening and other relevant services outside the health sector (e.g. social services, police, fire brigade), depending on the level of the health facility. The key stakeholders' roles and responsibilities in service continuity planning and implementation should be clearly defined and communicated. The engagement of stakeholders outside the health facility can take advantage of existing emergency preparedness mechanisms, including coordination platforms, planning committees, etc.

Below are examples of planning team functions and responsibilities which can be included in the terms of reference of the planning team, adapted if necessary:

- *ensure effective continuation of health facility operations in the event of a potentially disruptive public health emergency;*
- *develop, review and organize testing of health service continuity plans (e.g. simulation*



*exercises) in collaboration with relevant stakeholders;*

- *coordinate the planning and delivery of training and guidance to ensure the effectiveness of the planning team and all stakeholders with a role in implementing the service continuity plan;*
- *coordinate the implementation and monitoring of health service continuity plans during public health emergencies;*
- *ensure coherence between service continuity plans and other plans relevant to public health emergency management;*
- *review the structure and effectiveness of the planning team;*
- *liaise and coordinate with public health emergency management structures, health system strengthening structures and other relevant forums to ensure coordinated planning and implementation of the plans;*
- *identify options for mobilizing resources to enable implementation of service continuity plans;*
- *any other relevant task, as deemed necessary.*

## Step 2. Conduct risk assessment and prioritize risks

Before planning begins, it is important to identify high-impact risks to the health facility and the community it serves and assess the potential consequences for functions and operations and routine and essential health service delivery and utilization. The risk assessment allows response actions to be defined or improved in accordance with the identified risks. The risks to be assessed include both internal and external disasters, those threatening the health of the served population and those threatening the functionality of the health facility or system. Important factors to be analysed and noted during the risk assessments include:

- ☐ *identification of hazards and vulnerabilities*
- ☐ *likelihood of occurrence*
- ☐ *level of preparedness*
- ☐ *potential impact on staff, premises and health services*
- ☐ *consequences for the population*
- ☐ *actions required to respond to the risks.*

Examples of potential impacts to consider include poor utilization of essential services (even when the services are available) owing to lack of trust in and/or inaccessibility of health services; excess burden on health services imposed by the emergency; loss of human, material or financial resources. In addition to the direct impact of public health emergencies, the crisis may cause other problems, e.g. financial difficulties for health facilities and the population or

susceptibility to additional public health emergencies (disease outbreaks, social unrest, etc.). These secondary risks should be proactively addressed as part of service continuity planning. Examples of risk assessment tools can be found in Annex 3.

### Step 3. Determine overall objectives and operational priorities

After identifying high impact risks, overall objectives and operational priorities should be determined to ensure unity and consistency among all stakeholders and activities. Objectives are the desired result or end-state during and after implementation of the plan. Operational priorities specify what the health facility is to accomplish to achieve the desired results or end-state. For example, routine health services may need to be reprioritized to maintain the most essential or urgent services during public health emergencies and/or identify alternative platforms (e.g. community- or home-based care or telemedicine) for delivery of care when routine models are disrupted. Even when maintaining the most essential services, quality of care should continue to be assessed using some pragmatic method of performance monitoring.

### Step 4. Conduct capacity assessment

Capacity assessment involves identifying available resources, required resources and resource gaps. Examples of health service resources include health workers (including rapid response teams and community health workers), infrastructure, bed capacity, support staff, medicines and medical equipment, information technology facilities and funding. Once overall objective and operational priorities have been determined, the planning team identifies resources for maintenance of high-quality essential health services, including the resources that are needed, are not yet available, but can be obtained. Ideally, essential health services are already in place and resourced at the facility, although this may not always be the case, especially in low-resource settings. The planning team should investigate the potential differences between delivery of essential health services in routine health care and delivery during public health emergencies, as well as the resource implications of preventing or mitigating any decline in access to high-quality health services. In terms of resource gaps, the team should also account for resources that will be drawn from routine resources for emergency response and how routine health service resourcing plans and systems could be impacted by public health emergencies (e.g. discontinuation of user fees, central resources deployed for emergency response, supply chain disrupted).

Once the planning team identifies all the requirements, they can match the available resources of the facility/facilities and those available in the community and through aid agreements and partners to the resources needed. Repurposing and reallocation of resources to ensure continuity of high-quality essential health services should also be considered. From this resource mapping, the planning team then determines resource shortfalls, develops a list of needs that require additional support and identifies potential sources for the additional



### Box 1. Surge capacity

Surge capacity is defined as “the ability of a health service to expand beyond normal capacity to meet increased demand for clinical care”. It is a measurable representation of the ability to manage a sudden influx of patients. This depends on a well functioning incident management system and the variables of space, supplies, staff, and special considerations. When it comes to surge capacity, mutual aid agreements among different sectors (e.g. health facilities (public and private), fire department, police, military, etc.) allow sharing of personnel, space, equipment and other resources designed to forestall situations that may overwhelm the resources of a single facility or area, play an important role.

Source: Hospital emergency response checklist – an all-hazards tool for hospital administrators and emergency managers. Geneva: World Health Organization; 2011 ([http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0020/148214/e95978.pdf](http://www.euro.who.int/__data/assets/pdf_file/0020/148214/e95978.pdf), accessed 26 June 2021).

support needed for surge capacity (Box 1). The planning team can also document any lack of supporting policies, information-sharing platforms or coordination and collaboration mechanisms with other sectors and report to the health authorities if such gaps are identified in the process of resource mapping.

## Step 5. Develop the service continuity plan

Health service continuity plan development needs to be aligned with national or subnational emergency management plans to ensure streamlining of processes and provision of resources and capacities at the operational level. Thresholds to activate and deactivate a service continuity plan should be established from the initial stages of planning. A series of activities will follow activation points (see Section 5 below for a sample health service continuity plan template). When developing activities, the planning team should use the hazard that has the greatest impact on community and health services in the general planning assumptions. While building a scenario, the planning team identifies the required activities to ensure continuity of essential health services. The following key questions can help to determine the necessary actions.

- *What action is needed?*
- *What are the consequences if the action is not taken?*
- *Who is responsible for the action?*
- *When should the action take place?*
- *How long should the action take, and how much time is actually available?*
- *What must happen before the action is taken?*

- *What must happen after the action is taken?*
- *Which resources are needed to perform the action? These should be clearly identified and budgeted in the plan.*
- *What are alternatives to the action?*
- *How will the plan implementation be monitored and evaluated and feedback used to review and update the plan?*

The first draft of the service continuity plan is usually based on a discussion of courses of action. The planning team usually works through a few successive drafts and circulates a final draft to obtain feedback from organizations that have a role in implementing the plan. The application of some basic rules for writing plans can help ensure that users easily understand the contents.

- *Keep the language simple, clear and plain; avoid using jargon; minimize the use of acronyms.*
- *Summarize important information using checklists and visual aids.*
- *Use short sentences and the active voice.*
- *Provide enough detail to convey the message accurately, but using as few words as possible.*
- *Format the plan and present its contents in a user-friendly way. Readers should quickly be able to find the information they are looking for.*
- *As far as possible, endeavour to be make the plan consistent and coordinated with other relevant or related plans, e.g. those developed for emergency preparedness and response in your setting and those used by other response agencies and organizations in the*



*community. However, this should not compromise the objectives of the service continuity plan, which are primarily to ensure continuity of routine health services alongside public health emergency response activities.*

The plan should be reviewed and finalized by key staff and experts and updated after tests (simulation exercises) or implementation during actual events. Once the plan is finalized, it should be disseminated immediately to responsible staff in the facility/facilities and all stakeholders and used to inform other emergency planning processes and resource mobilization.

## Step 6. Test and update the plan

Testing of plans involves evaluation of key components of the plan: activation procedures, critical activities and networks and communication pathways. Tests such as simulation exercises enable critical staff to practise the procedures and systems, ensure that stakeholders all know each other and enable effective communication during an emergency. Successful execution of service continuity plans relies on frequent testing (e.g. through simulation exercises and audits) and monitoring and evaluation of the plan. This also creates the necessary awareness and updates the knowledge and skills of health workers and other responsible persons for implementing the plan. Health facilities need to ensure that their staff benefit from training and simulation exercises to become familiar with procedures and perform the required roles during emergencies; this includes staff working in non-critical-care areas. After the plan is tested, it is important to update it if any procedures do not function well and to address any gaps or obstacles identified during testing.

Continuous review of the plan against the latest developments in the health facility, community and wider society is also essential. Various types of hazard may occur, and service continuity plans must be continually assessed to cover the various risks or potential impact on health services. A regional or global public health threat, such as an Ebola virus disease outbreak, may also trigger the need to test plans.

## Step 7. Implement the plan and monitor implementation

During disruptive events, the plan is activated by responsible persons according to predetermined trigger and breaking points (see Box 2) in close communication with local health authorities, in order to maintain functionality of health facilities and continuity of high-quality essential health services for those in need. Implementation involves mobilization of the relevant stakeholders and resources needed to counter the threat and minimize its impact on health service provision and utilization. It is important to have measures in place for continuous monitoring of implementation of the plan, to ensure proper implementation and to determine if and when there is a need for adjustment, flexibility or adaptation depending on the prevailing situation.



**Box 2. Triggers for activation, planned activities and breaking point**

The plan needs to have a clear activation trigger point and emergency procedures; once those simple activities have been exercised or tested, then the improvement process follows. It is also important at some point to be able to identify plan's failure, the breaking point, because all plans may fail at some point.

**Triggers for activation:** examples of triggers for activation may include the number of patients or the nature of the emergency, e.g. a local 20-bed emergency department being alerted to a fire disaster with 50 inbound patients. The head of the facility will activate and deactivate the business continuity plan following clear criteria and procedures. Depending on the situation, s/he will decide whether all or only part of the plan should be activated. Triggers for activation and deactivation should be based on the risk assessment and on possible scenarios.

**Emergency procedures/activities:** these are the identified actions or interventions in the plan to absorb the shock of an emergency and maintain high-quality essential health services. These activities need to be clearly communicated in simple terms to those concerned and implemented in a coordinated manner.

**Breaking point:** the breaking point is a general description of the point when the planned actions are no longer able to meet the demands or impact of the emergency and ensure continuity of essential functions and services. For example, the breaking point is reached if a facility loses its ability to manage patients within the physical structure of the facility with the available staff and supplies. When a plan fails, there still needs to be a basic framework in place to allow activities to remain organized until additional support is available, e.g. until patients can be transferred elsewhere or more aid arrives.

## Step 8. Conduct post-event review and update/improve the plan

Plans should be reviewed when they are outdated or were executed with limited effectiveness during an actual emergency, in order to prepare better for and respond to future emergencies. The review involves using after-action reviews, lessons learned from emergency experiences and good practices related to service continuity in order to improve service continuity planning for future emergencies. These lessons must be documented and shared as part of the learning and improvement process. Successful implementation, failures in execution or the end of the emergency does not mean that the plan should be abandoned; rather it should be reviewed and improved as necessary in preparation for the next emergency to improve the resilience of health services. After-action reviews and plan updates should also improve the operability of the plan.

## 4. Key elements in health service continuity planning



Health service continuity planning can follow various frameworks and service continuity plans have diversified structures and technical areas depending on context, types and levels of health facilities, priority hazards of concern, etc. The building blocks of the health system (see Figure. 1) provide a framework for identifying key elements of health service continuity planning.

Listed below are key areas to consider in service continuity planning. These cut across the health systems building blocks and highlight additional important considerations (e.g. community engagement, vulnerable populations, safety and security). Planners may include additional considerations based on their own contexts. A planning template can be used for the planning process to facilitate inclusion of all essential elements.

- 1 **Governance and coordination:** this involves having a clear chain of communication and a coordination structure in place, clearly defining the roles and responsibilities of all facilities, agencies and personnel involved. For example, the incident management system and the hospital incident management system are organizational tools that provide this structure to initiate a rapid and coordinated response when many individuals and institutions are involved. The organizational structure of a coordination system covers operations, planning, logistics and administration/finance. A well-functioning coordination mechanism is essential for the effective management of service continuity planning process and all activities in service continuity plans. Partnerships with the private sector (within and outside the health sector), the military and other non-health organizations are crucial to various aspects of health services continuity planning, including stockpiling, infrastructure, security and surge capacity.

**Figure 1. WHO health systems building blocks**

Leadership and governance	Service delivery (individual and population - level services)
Health workforce	
Health financing	
Medical supplies, equipment and infrastructure	
Knowledge and information systems	

Adapted from the source: Everybody's business – strengthening health systems to improve health outcomes: WHO's framework for action. Geneva: World Health Organization; 2007 (<https://apps.who.int/iris/handle/10665/43918>, accessed 29 June 2021).

- 2 Information management:** planning priorities that fall into this programming area include information technology or equipment, information exchange mechanisms and protocols and data management. These issues should be considered in the context of both internal information, which is used within the planning structure, organization or team to improve operational deliverables, and external information, which is shared with partners to coordinate activities. The effective exchange of information can provide the details needed to identify the extent of the impact on health services and inform timely decisions and actions to ensure, as far as possible, continuity of service delivery within the health facility and alternative settings. Systematically gathering and sharing information can also support assessment of the quality of services and actions to improve care and document and share knowledge and lessons learned. It is also important to use information to coordinate activities in collaboration with local health authorities and other stakeholders (such as other health care facilities, general practitioners, practitioners of traditional, complementary and integrative medicine (7), health workers at alternative treatment sites, emergency medical services, private sector entities and nongovernmental organizations). Whatever the context of internal or external information, transparency should always be emphasized.
- 3 Human resources:** identification of human resources needs is mainly addressed at the stage of capacity assessment. It refers to the availability of mechanisms to ensure human resources (clinical and nonclinical staff) and surge capacity to provide essential health services. It is important to ensure that hospitals and associated health care facilities, such as alternative care sites, are adequately staffed, with respect to numbers of personnel and required competencies, to deliver high-quality care and perform other hospital services, as well as to ensure that hospitals make the necessary arrangements to acquire the staff needed to respond to the increased demands of an



emergency. Health facilities can also benefit from multisectoral engagement in the event of emergencies, such as private-sector engagement and collaboration between military health and civilian health services. Training of health workers, ensuring safety, well-being and mental health of health workers and measures to ensure health worker retention are also paramount.

- 4 **Essential medical supplies and equipment:** essential medical supplies and equipment needs are also identified at the stage of capacity assessment. This usually involves ensuring availability of and access to medicines, medical equipment and supplies that are listed as essential for maintaining basic health services for the population being served. This also requires functional supply chain mechanisms, using both traditional and innovative options, to mitigate the risks for disruption in supply during emergencies.
- 5 **Infrastructure and amenities:** this refers to creating safe and adequate physical space for the provision of essential health services, with safe patient flow and referral. It includes the space and facilities to provide services e.g. screening and triage areas, isolation spaces, inpatient and outpatient facilities and sanitation and hygiene facilities such as toilets and bathrooms. If space and facilities cannot be made available within the health facility, alternative settings will be required to provide services in collaboration with local health authorities, e.g. other health facilities, home settings, tents and other makeshift facilities in the community. Irrespective of the location of services, the space and environment should allow for safe patient flow and high-quality service provision. Infrastructure also includes supporting amenities that are essential for health services delivery; these include electricity, water supply, water purifiers, waste management, ventilation, central supply rooms, etc.
- 6 **Administration, finance and logistics:** this refers to financing and budgetary aspects to meet additional demands on routine health services. Mechanisms to prevent potential financial barriers to accessing essential health services during public health emergencies should also be considered in planning. Logistics can provide the right resources, at the right time, in the right quantities and in the right places in order to satisfy the increased demands being made on the hospital by an emergency and to do so without compromising the normal functioning of the hospital, as well as to support management of hospital operations and the need for personnel, supplies, equipment and transportation. If the affected population has trouble reaching health service locations, transport should be provided in line with the referral plan and service pathways.
- 7 **Risk communication and community engagement:** this involves ensuring participation of the community or public (including indigenous peoples (8)) as partners in maintaining the functionality of the health system and continuity of services, through a variety of context-appropriate methods. It is the opportunity

to build, maintain or regain the communities' trust in health services and facilitate their contributions towards minimizing the impacts of public health emergencies on health services. Regarding risk communication, real-time access and exchange of information, advice and opinions are vital so that all partners can make informed decisions and take action to ensure seeking, accessing and provision of essential health services. Public information activities should be coordinated among stakeholders in order to avoid the dissemination of conflicting information and tailor the information to the risks facing and needs of at-risk and vulnerable populations.

- 8 Provision of prioritized essential health services:** for situations where it is not possible to maintain all routine health services delivered pre-emergency; service continuity planning also entails identification of services that must be maintained to meet the health needs of the population as much as possible. Initial and ongoing assessment of population health needs should be conducted, and essential services identified. The aim should be to maintain the routine services and package of essential health services as far as possible. However, the routine health services may be reprioritized to identify the most critical services to be maintained during public health emergencies. This prioritization is usually based on the country's package of essential health services and guidelines for essential service prioritization in an emergency context. Alternative models for providing essential health services and mechanisms for ensuring that health services remain at adequate levels of quality should be explored and ensured, including clear referral pathways (6).
- 9 Adaptations for vulnerable populations:** vulnerable populations include those who need special medical attention. They tend to have extra medical needs or be at greater risk of poorer outcomes than the general population affected by emergencies. Vulnerable populations may also include racial or ethnic minorities, children, elderly, uninsured and socioeconomically disadvantaged people, populations who have no access to care, internally displaced persons, refugees, nomads, etc., who are at higher risk of poor health because of barriers to accessing health services. Planning for service continuity includes special considerations to meet the health needs of these populations, since general measures may not be adequate to reach them.
- 10 Safety and security:** this area includes additional actions, not only for staff safety, but also for the safety of patients and the community (e.g. infection prevention and control, medication safety, waste management, infrastructure safety). Security issues (e.g. bioterrorism, attacks on health workers) may also lead to or arise during public health emergencies. It is important to ensure the safety and security of the facility, its occupants (staff, patients, visitors) and the systems and assets essential for its ability to function safely and effectively during an emergency.
- 11 Monitoring and evaluation:** mechanisms for monitoring and evaluating the service continuity planning process (e.g. regular testing of the plan) and implementation of



the plan during emergencies are vital for effectiveness of the plan in achieving its aim. The monitoring and evaluation framework should be developed along with the plan (before implementation), based on the objectives of the plan. This involves identifying indicators and modalities that would be used to monitor progress, implementation or achievements related to the plan. The monitoring and evaluation part of the plan can draw on existing data and health information systems. Examples of indicators to monitor the planning process and implementation include the following:

- *number of staff trained and oriented to use the health service continuity plan;*
- *number of hours it takes to activate the plan;*
- *time required to convene stakeholders;*
- *plan activated and deactivated according to established trigger points;*
- *availability of a mechanism for feedback from health workers and service users (patients and community) to the responsible authority on plan implementation;*
- *logging (documentation) of key decisions taken during activation of the plan;*
- *number of simulation exercises conducted to test the plan within a specified period (e.g. one year);*
- *plan updated based on recommendations from testing and implementation in real events.*

## Consideration of the emergency management cycle in health service continuity planning

Apart from the programming areas listed above, the emergency management cycle is another dimension to consider in service continuity planning which in turn, is part of emergency



management. Comprehensive emergency management refers to a series of closely interrelated measures for prevention or mitigation, emergency preparedness (including operational readiness), response and recovery. The planning areas above are dynamic processes, and the focus of each planning area changes throughout the emergency management cycle.

Phases of emergency management include prevention, preparedness, response and recovery. Emergency management is based on the premise that “prevention and mitigation measures can reduce the likelihood and severity of emergencies; that sound preparedness will lead to more timely and effective response; that coordinated response will result in appropriate targeting of health services to the needs of those affected with a focus on the most vulnerable; and that recovery and reconstruction should be designed to reduce the risks of future emergencies (Build Back Better approach, including strengthening of health systems)” (9).

Although the service continuity plan is required during the emergency response phase, when resources are either diverted or limited, the planning process also stretches across other phases of emergency management. This is important to ensure proactive planning before the emergency response is required; effective implementation during the response; and clarification of necessary actions to be taken after emergencies with regards to service continuity planning. The planning actions to be carried out across the phases of emergency management can be identified and documented to show what needs to be done before, during and after emergencies as part of the service continuity planning process.

The service continuity planning matrix below (Table 1) covers both dimensions. This matrix can be used as a template to remind the planning team of the essential elements that need to be considered for inclusion in the service continuity plan, so that no essential programming areas are left out. In using the matrix below, the planning assumptions made during the planning process should be indicated in the column provided. The blank spaces under “Pre-PHE”, “During PHE” and “Post-PHE” should be filled with specific actions and activities relevant to each programming area during the respective phase of public health emergency management.

**Note that the matrix below is not the service continuity plan template but can be used for the identification and mapping of important actions in the planning process (a service continuity plan template is provided in Section 5). This can be based on the emergency management cycle, i.e. what actions take pre-emergency, during an emergency and post-emergency for service continuity planning. Examples of activities are shown in the matrix for planners to adopt or adapt and identify more activities, as applicable to their context. Please note that all activities are cross-cutting; the effective execution of each activity requires the inputs of other programming areas, for example, staff training also requires governance and finance inputs. Organizing the table below by planning components can be useful for ensuring that all important aspects of the process are covered.**

**Table 1. Matrix for identifying key actions to take in the service continuity planning process**

Planning component	Examples of pre-PHE (prevention/preparedness) activities	Examples of activities during PHE (response)/service continuity plan implementation	Examples of post-PHE (recovery) activities
<b>Governance and coordination</b>	<p>Conduct risk assessment to develop or update facility risk register</p> <p>Assess available resources and capacities to address risks and vulnerabilities</p> <p>Set up planning/ oversight team with terms of reference</p> <p>Lead development of the plan</p> <p>Test the plan with simulation exercises</p>	<p>Activate the plan</p> <p>Provide oversight for implementation</p> <p>Deactivate the plan when returning to normality</p>	<p>Organize an evaluation of plan implementation</p> <p>Provide oversight for review and improvement of all parts of the plan, as needed</p> <p>Provide feedback for all stakeholders</p>
<b>Information management</b>	<p>Record and disseminate the plan</p>	<p>Track indicators to monitor and evaluate plan implementation</p> <p>Produce regular situation reports to inform plan implementation</p>	<p>Document and disseminate lessons and best practices</p> <p>Keep track of improvements made in the plan post-emergency</p>
<b>Human resource</b>	<p>Train staff in the plan</p> <p>Identify appropriate incentive approaches</p>	<p>Position responsible/ trained staff to implement the plan</p>	<p>Ensure staff involved in implementation are also engaged in the evaluation</p>



Planning component	Examples of pre-PHE (prevention/preparedness) activities	Examples of activities during PHE (response)/service continuity plan implementation	Examples of post-PHE (recovery) activities
<b>Essential medical supplies and equipment</b>	Identify emergency suppliers  Pre-position supplies  Train responsible persons in supply chain management in emergencies	Ensure timely availability of additional supplies in facilities as required	Account for available supplies (e.g. from existing response supplies) in the updated plan
<b>Infrastructure</b>	Identify additional facilities/space for potential surge in number of patients  Identify of additional isolation facility for potential cases of infectious diseases	Set up additional space as needed	Account for current infrastructure situation in the updated plan
<b>Administration, finance and logistics</b>	Identify sources of funds for the plan  Make prior arrangements for ambulance services	Release funds for plan implementation	Provide funds and other resources for plan evaluation and revision
<b>Community engagement and risk communication</b>	Community engagement for community participations  Orient communities in alternative service platforms which may be used during emergencies for services continuity	Ensure community participation in plan implementation  Include messaging for service continuity and utilization in emergency risk communication	Engage community representations in evaluation of plan implementation

Planning component	Examples of pre-PHE (prevention/preparedness) activities	Examples of activities during PHE (response)/service continuity plan implementation	Examples of post-PHE (recovery) activities
<b>Delivery of essential services</b>	Identify essential services that must be maintained	Implement planned alternative service platforms e.g. telemedicine, as appropriate	Ensure that evaluation and revision processes do not disrupt routine functions and services  Adopt service delivery innovations in the updated plan
<b>Security</b>	Identify communication channels security alerts  Put security measures such as fencing in place	Invite security agencies for additional security as needed	Update security actions in plan based on lessons learned
<b>Additional considerations for vulnerable population</b>	Identify marginalized and vulnerable populations to be covered by the plan	Pay special attention to marginalized and vulnerable populations including monitoring of service provision to these groups	Include best practices and lessons on equity in revised plan

PHE: public health emergency.

## 5. Template for health service continuity plan



Below is an illustrative template; it may vary to match different settings. Please adapt it according to your level of health care (tertiary, secondary, primary) and other contextual considerations.

In the template below, *italic texts* are explanations about what contents each section should contain or examples of contents. An editable copy of this template can be downloaded through the link [https://cdn-auth-cms.who.int/media/docs/default-source/integrated-health-services-\(ihs\)/hsr/health-service-continuity-guide/template-for-health-service-continuity-plan.docx](https://cdn-auth-cms.who.int/media/docs/default-source/integrated-health-services-(ihs)/hsr/health-service-continuity-guide/template-for-health-service-continuity-plan.docx)

*[Title of the plan]*

*[Date of approval]*

Approved by *[unit/personnel that approves this plan]*

### Section A. Situation

#### 1. Health facility profile

*Includes at least: (1) scope of health services provided by the facility/facilities, including location, population and community served; and (2) an organigram, including management structures in an emergency situation and showing the interface with other emergency and health services structures in the catchment area.*

#### 2. Result of risk assessment and resource/capacity mapping

*This section displays the results of the conducted risk assessment (please refer to and contextualize available risk registers at subnational and national levels). From the risk assessment and criticality scoring, extract the most critical risks identified, considering their impact on population health and health facility functioning and operations, and their likelihood of occurrence. Describe in more detail the hazards and vulnerabilities that may contribute to these risks, as well as their consequences for staff, premises, assets and operations. Evaluate for each risk whether the necessary risk response actions are in place and are sufficient, or whether they need to be developed or improved. Similar hazards, e.g. acute watery diarrhoeal diseases and haemorrhagic fevers can be clustered together.*

Priority hazards using the all-hazards approach (example provided, more than one hazard can be included, depending on risk profile)	Potential consequences of public health emergencies on the following areas, as examples (include other areas as needed)		Available resources/ current capacity to address the risk/ potential consequences of public health emergencies
<i>Example: Acute watery diarrhoeal diseases e.g. cholera</i>	<b>Staff (clinical and support staff)</b>	<i>Example: inadequate staffing to meet increased patient load</i>	<i>Example: number of health workers – 5 nurses, 1 physician, 3 cleaners, 1 driver, 2 community health workers</i>
	<b>Infrastructure</b>		
	<b>Medical equipment/ supplies</b>		
	<b>Information systems</b>		
	<b>Services</b>		
	<b>Community</b>		
	<b>Governance and coordination</b>		

## Section B. Essential components of the health service continuity plan

### 3. Planning assumptions

*Include assumptions about the emergency/emergencies which need to be made first and documented here to inform the plan, e.g. assumption of a worst-case scenario.*

### 4. Objectives and operational priorities

*Set the overall objective of the plan (what is to be achieved through the plan). This can include specific objectives relating to the services that the plan would help to maintain during public health emergencies.*

*Refer to the essential health services that are provided routinely in the facility or catchment area, informed by local demography and epidemiology. To set specific objectives and priorities, make a list of health services provided by your facility/facilities and sort into the following groups:*

- essential and must be maintained in an emergency*
- can be relocated to other facilities or service platforms*
- can be temporarily suspended.*

*The objectives should reflect interventions and services that are critical for reducing excess mortality and morbidity of the population in the catchment area during public health emergencies.*

## 5. Essential supporting functions, operations and personnel during emergency

*Essential functions/operations: identify essential functions and operations (those that must be maintained in order to continue health services e.g. management functions including responsible officer for the service continuity plan; health information system; facility maintenance; logistics; transportation). These functions should not be interrupted and must be restored in a short time frame if interrupted. Essential functions can be defined with reference to the key planning elements/areas outlined in Section 4.*

*Essential personnel: identify staff members designated by the head of facility, director or emergency response team as critical to the continuation of key operations (essential functions) and services in the event of activation of the service continuity plan.*

Essential health services/ functions/ operations (based on risks and priorities in previous section)	Quantified resource/ capacity requirements (available/ unavailable) for service continuity during public health emergencies*	Resource/ capacity gaps)**	Action points/ responsible persons/ teams to address the needs
<b>Essential health services</b>			
<i>Example: maternal and child health services (Can specify further depending on aspect at risk of disruption during public health emergencies)</i>	<i>Example: 8 community health volunteers for expanded community based maternal and child health services</i>	<i>6 volunteers (based on section A; 2 volunteers already available at the facility)</i>	<i>District health team to identify/register 6 community health workers in surge team (may be repurposed from unaffected catchments without disrupting health worker functions in those areas)</i>
<b>Essential functions (health facility functions to support services generally, e.g. admin, finance and logistics support)</b>			

\* Includes identification of modalities needed for service continuity (consider health system building blocks and other key elements/ considerations in Section 4).

\*\* Refer to available resources/capacity mapped in earlier sections to compare with required resources and identify gaps.

*For the plan to be functional, the gaps in resources and functions need to be addressed, either through additional resource mobilization or by transfer from other accessible facilities in the catchment area to ensure that they are available when needed.*

### **Summary of requirements/needs and budget**

*Many of the gaps and action points identified in Section B are likely to be common to several essential health services and can therefore be consolidated in this section, e.g. the community health workers supporting maternal and child health may also support malaria services if identified in the plan, therefore this section would show how many workers would be needed in total (without double-counting) and associated cost.*

## **Section C. Service continuity operations during emergencies**

### **6. Activation of the plan**

*List the triggers that will activate the service continuity plan; add annexes showing procedures for activation, including responsible person and his/her backup person.*

### **7. Key activities for service continuity during response phase**

*Summarize activities for each element or programming area during the response phase (e.g. governance and coordination, human resources, infrastructure, security), based on the planning sections in the present document. Make sure that the relevant standard operating procedures are available in the annex.*

### **8. Deactivation of the plan**

*List the triggers for deactivation of the service continuity plan; add annexes showing procedures for deactivation, including the responsible person and his/her backup person.*

### **9. Roles and responsibilities of key staff, departments and organizations**

*Make a list of current responsible persons and their details; they will be assigned or repurposed, with clear and defined roles and responsibilities, to ensure service continuity during public health emergencies. Add annexes showing job action sheets and terms of reference. Also to be included:*

- *relevant organigrams and communication pathways, with contact details;*
- *list of contacts to be notified in case of a public health emergency and triggers for activating service continuity plan, etc.;*
- *list of surge staff needed, with generic job descriptions;*
- *list of other stakeholders, including collaborating facilities, e.g. private facilities, animal health services, non-health partners (security agencies, schools, community leaders, etc.)*

and their roles, with designated persons and contacts;

- list of sources which could fund and/or support service continuity during emergencies, with their contact details and templates for proposals.
- There should be a designated role for communication of the approved plan and its updates to all responsible officers within the facilities and collaborating entities.

## Section D. Training, testing and post-emergency evaluation

### 10. Record of training related to the plan, testing exercises and reviews of the plan

Date	Type of exercise	Objective of exercise	Responsible person	Actions taken based on recommendations

List, in a structured manner, the actions needed to address capacities that are currently insufficient to allow execution of the service continuity plan. This list is also applicable to after-action reviews.

Area needing improvement	Action needed	Responsible person	Budget (total amount required)	Deadline

### 11. Post-event review

Outline the process for reviewing and improving the plan (if necessary), according to the lessons learned from an emergency experience.

## Section E. Monitoring and evaluation

### 12. Modalities for monitoring and evaluation during implementation of the plan

- *List key performance indicators to monitor effectiveness of the plan in maintaining health services during emergencies.*
- *Describe the method(s) to be applied in monitoring and evaluating implementation of the plan during emergencies.*
- *Outline how findings will be communicated and used to inform decisions and actions.*

## Annexes

*Some examples of annexes for the service continuity plan (others can be included as needed):*

- *List of members and terms of reference of the planning/oversight team.*
- *Contact list for essential personnel, departments, facilities and organizations.*
- *Contact list for suppliers (showing key, secondary and backup suppliers).*
- *Table of planning activities for all emergency management phases: prevention, preparedness, response and recovery phases (planning matrix).*
- *Standard operating procedures for activation and deactivation.*

Once finalized, the service continuity plan should be made available to all responsible officers in paper and electronic versions, with proper version control.



## 6. Conclusion



Health systems are often overwhelmed by the need to respond to public health emergencies. This problem is further compounded by a lack of preparedness of health systems to provide an effective emergency response while simultaneously continuing to deliver routine health services. Health services continuity planning is essential to improve the preparedness of health systems to sustain their routine health services in the face of public health emergencies and their impacts. Therefore, emergency management capacities in health facilities must include flexible, all-hazard service continuity plans to maintain quality routine health services during all stages of public health emergencies. The information provided in this handbook can help health workers to develop and utilize services continuity plans as part of actions to make health systems more resilient to public health emergencies.

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# Annex 1. Summary of method used to develop the guidance

This interim handbook is based on global and Africa-specific desk reviews and expert consultations. The preliminary rapid review was conducted to investigate the need for health service continuity planning guidance and approaches to health service continuity planning around the globe. The guidance is informed by the desk review and the collated technical guidance and plans related to health service continuity.

A review of peer-reviewed literature and grey literature, following a search protocol related to service continuity planning, was conducted in order to gain an understanding of the status, scope and practices of health service continuity planning and arrangements in the event of emergencies at the health facility level globally. The search was conducted using strictly defined keywords, inclusion criteria and exclusion criteria in databases and websites of key global health stakeholders, and a snowballing approach using various publications. Since we were aware that health services continuity plans may not necessarily be titled as such, and may be part of overall emergency preparedness and response plans in some settings; the search was expanded from “service or business continuity plans” to include various terms for emergency-related planning, with a special focus on the African context, that being an important setting where this handbook could be useful.

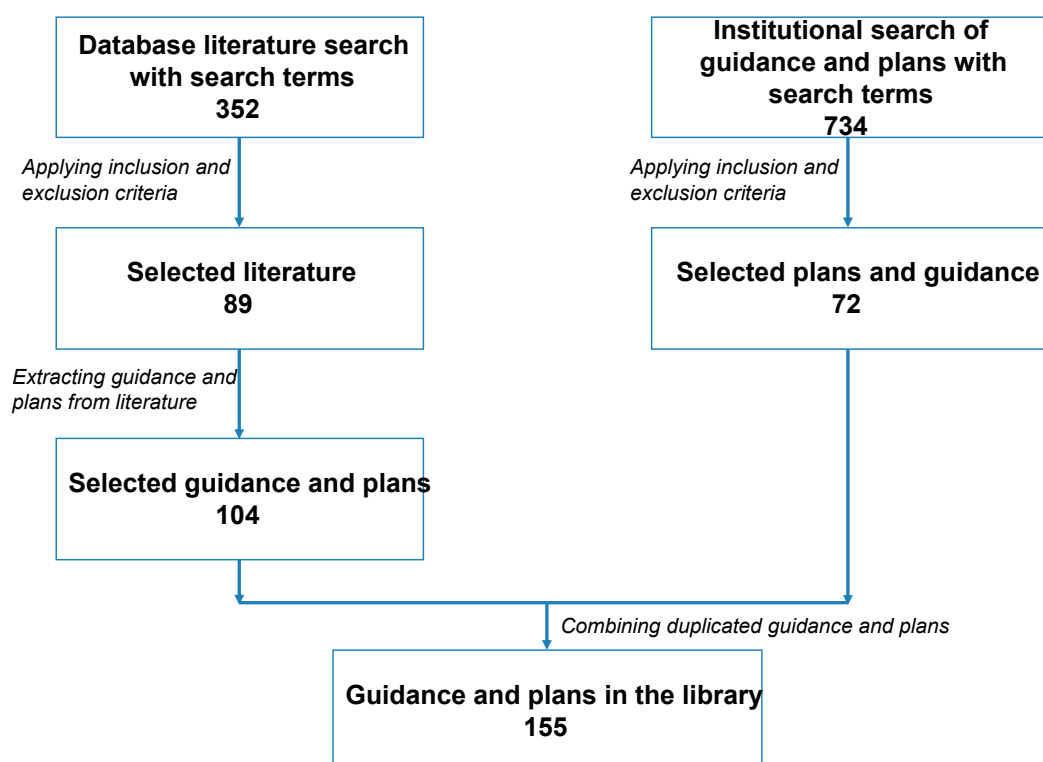
Inclusion criteria:

- ▶ plans for health service continuity;
- ▶ emergency-related plans containing aspects of service continuity plans;
- ▶ literature on policies, guidelines, standard operating procedures, etc. for planning and maintaining the continuity of health services at the health facility level;
- ▶ studies and evaluations on plans for health service continuity.

Exclusion criteria:

- × plans with no elements related to health service continuity;
- × plans, policies, literature, etc. not related to public health emergencies;
- × non-health-service-related plans;
- × plans where no full text was available;
- × plans not written in the English language.

To make the most of this rapid review, it mainly utilized plans and planning guides that are already evaluated or analysed by specific institutions and researchers. By searching in databases and institutional websites, relevant literature was identified, and planning guides and

**Figure A1.1. Literature search process and result**

plans were extracted from the literature. By reviewing this literature and the collated materials, key components of health service continuity were identified and summarized.

On the basis of the above criteria, a total of 155 plans and planning guides were selected. The relevant academic literature, plans, policies, guidelines and standard operating procedures, reports on evaluation and analysis of various plans were collated and reviewed (see Figure A1.1). On the basis of these materials, key elements of service continuity plans and planning approaches were summarized and gaps identified to inform the development of the present guidance.

This review showed that most of the available facility-level plans and related materials identified were from high-income countries. More work is needed on documenting and sharing experiences related to health services continuity during emergencies in low- and middle-income settings. Opportunities for documenting such experiences and using the lessons learned can be derived from the application of this guidance through various projects and programmes that support countries in building health services resilience, such as the KOICA-funded health services resilience project in Ethiopia and Liberia, the DFID-funded

Tackling Deadly Disease in Africa Programme and the USAID-funded health systems and security linkage project.

Because of the lack of plans from the WHO African Region among the 155 plans and planning guides reviewed, and the ongoing health service resilience work with countries in the Region, the desk review method was adjusted to include national and subnational emergency-focused preparedness or response plans in the Region in order to investigate the extent to which routine health service continuity is addressed in national and/or subnational emergency preparedness and response plans. This part of the review focused on anglophone African countries and yielded 85 emergency-related plans from 21 countries. However, only a small proportion of these plans (13 out of 85) incorporated some aspect of health service continuity during emergencies. All 13 plans relevant to health service continuity had limitations in the processes and scope necessary for successful planning and implementation. Although the available plans were mostly at national level, it is expected that a strong capacity for health services continuity planning at facility level would be a function of capacity and priorities at various levels of the health system and would reflect emergency planning at subnational and national levels.

The draft handbook developed during the review was disseminated within the Integrated Health Services Department and Health Emergencies Programme at WHO headquarters, the WHO Regional Office for Africa and the WHO country offices in Ethiopia and Liberia for expert consultation. The final document is informed by the desk review and by feedback from these consultations.

Overall, the desk review showed that comprehensive health service continuity planning is yet to emerge as an integral part of emergency preparedness in many countries. This gap is widely acknowledged in many parts of the world, and some have taken steps to make services continuity plans mandatory for health facilities, especially in higher-income settings (for example in the United States of America (1) and Italy (2)). Less evidence of health services continuity planning was observed in lower-income countries in the review and, where plans existed, they lacked key elements for effective planning and implementation.

Health systems are often overwhelmed by public health emergencies responses. This is further compounded by inadequate preparedness of health systems to handle with the emergency response and render routine health services at the same time. Health services continuity planning is essential to improve the preparedness of health systems to sustain their routine health services in the face of public health emergencies and their impacts. However, the guidance and required capacities for this are limited in many contexts, with more emphases being placed on planning for emergency response. For example, a situational assessment conducted in Ethiopia and Liberia on building resilient health services (within the scope of a KOICA-WHO HSR project), identified that there are gaps in capacities for health service continuity planning at national, subnational and health facility levels. There is an urgent need for global and national emergency management and health system strengthening

stakeholders to provide robust emergency preparedness and response guidance which include clear considerations for health services continuity planning and implementation. Emergency management capacities in health facilities must also include flexible all-hazard service continuity plans to effectively maintain routine health services during all stages of emergencies.

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## Annex 2. Additional resources

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## Annex 3. Tools for risk assessment

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The tools listed above present precise key information and summarized guidance for risk assessment, so that users can quickly get an overview of the process of risk assessment. If more detailed guidance are needed, resources on plans, tools and templates for hazard vulnerability assessment/risk assessment are available (<https://asprtracie.hhs.gov/technical-resources/3/hazard-vulnerability-risk-assessment/1#plans-tools-and-templates>).

## Annex 4. Additional templates for business continuity plans

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