WHO guidance for contingency planning







ACKNOWLEDGEMENTS

© World Health Organization 2018

WHO/WHE/CPI/2018.13

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization.

Suggested citation. WHO Guidance for Contingency Planning. Geneva, Switzerland: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at HYPERLINK "http://apps.who.int/iris/" http://apps. who.int/iris.

Sales, rights and licensing. To purchase WHO publications, see http://apps.who.int/bookorders. To submit requests for commercial use and queries on rights and licensing, see http://www.who.int/about/licensing.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

Printed in English.

This document was developed by the WHO Health Emergency Programme (WHE) Country Health Emergency Preparedness and the International Health Regulations department in partnership with all WHO regional offices, other headquarters departments and many country offices from all regions. Many staff from the WHO Health Emergencies Programme and beyond provided invaluable inputs based on their experience and expertise. We particularly acknowledge all the WHO Representatives who were invited by our regional colleagues to review and test the guidance and who took the time to provide precious feedback in order to make this guidance as user-friendly as possible. We are deeply grateful to, and would like to thank, all those who contributed to the development of this document. This new guidance reflects the new policies and the new way of working promoted by the WHO Health Emergencies Programme described in decision WHA69(9) Resolution and document A69.30 of May 2016.



FOREWORD

TABLE OF CONTENTS

The goal of the WHO Health Emergencies Programme is to help countries and to coordinate international action to prevent, prepare for, detect, rapidly respond to, and recover from outbreaks and emergencies in order to reduce the mortality and morbidity of affected populations.

This includes WHO's own capacity to manage risks and respond to emergencies in a timely, predictable and effective manner. Headquarters, regional and country offices all need to plan, well ahead of a crisis, for the appropriate resources, systems, policies, procedures and capacities to undertake effective risk mitigation and response operations in support of, and in collaboration with, ministries of health and other partners.

Understanding the risk that threatens people's health, planning to mitigate the impact, and preparing to respond can significantly save lives and preserve health and well-being. Thus all WHO offices need to undertake, along with governments, other UN agencies and partners, or alone if needed, regular strategic risk analysis and monitoring, and related contingency planning.

In this contingency planning guidance, a set of actions to prepare for emergencies from all hazards and to help minimize their impact, is proposed. These actions include the development, implementation, simulation, monitoring and regular update of risks-based contingency plans.

This guidance is based on a common organizational approach and procedures for risks management and emergency response across all hazards and at every level of the Organization. It encompasses WHO's responsibilities under the International Health Regulations¹ (2005) and other international treaties, as the United Nations' lead agency for health and the health cluster, and as a member of the United Nations or humanitarian country teams. The guidance has therefore been developed in line with the WHO corporate risk management framework and the WHO readiness checklist, as well as the Inter-Agency Emergency Response Preparedness Framework and its Contingency Plan Guidance².

1. Introduction

Purpose	
Scope	•••
Accountability	•••
2. Guidance	•••
Key principles of contingency planning	
Developing scenarios and assumptions: what could hap	p
Mitigation strategy: how can health risks linked to the h	a
Preparing to respond: how can all health needs of affect	е
Health sector preparedness	•••
Developing a response plan	•••
WHO specific responsibilities	•••
Action plan: how will WHO fulfill its responsibilities?	•••
Monitoring: how have the risks evolved?	•••
Testing: how can readiness be improved?	•••
Hazard based contingency planning flow chart	•••
3. WHO office contingency plan template	•••
Introduction	
Scenarios and assumptions	•••
Mitigation strategy	•••
WHO preparedness strategy	•••
Preliminary response plan	•••
WHO action plan	•••
Testing and maintaining the contingency plan	•••
4. Annexes	•••
Preparedness timelines	
5. References	•••



	3
	4
	4
	4
	5
	5
appen?	6
hazard be reduced?	8
cted populations be addressed?	9
	9
	10
	11
	13
	13
	14
	13
	15
	15
	15
	15
	15
	16
	16
	16
	17
	17
	19

INTRODUCTION

Contingency planning is part of a cycle in which the identification and regular monitoring of risks, vulnerabilities and capacities informs the planning and implementation of measures to mitigate the risks and prepare to respond.

- Risk mitigation includes all actions to reduce the severity, probability of occurrence of, or exposure to, a given hazard and therefore lessen its impact.
- Preparedness refers to all actions to increase knowledge and capacity to anticipate, respond to and recover from the impact of one or more events.
- Readiness is the outcome of preparedness actions

 it refers to the outcome of planning, allocation of resources, training, exercising and organizing to build, sustain and improve operational capabilities based on risk assessments.

All WHO offices need to have available a strategic analysis of the hazards which threaten the health of the populations they serve. This analysis is used to identify the major health threats for which contingency plans (CPs) need to be developed and implemented. The aim of contingency planning is to mitigate the potential health consequences of these threats and to be ready to respond should the threats cause an emergency. In countries, the analysis of risks and subsequent contingency planning is usually initiated by the government or the UN Inter-Agency Standing Committee country team, and is jointly performed with all sectors and partners³. It should cover all hazards; WHO and the ministry of health need to ensure that all health related issues are effectively included and all health partners are involved.

WHO and the ministry of health also need to ensure that specific health sector CPs are available for all major health threats. Each CP should clearly define the roles, responsibilities, planned actions and support that each partner committed to prepare for and provide in case of an emergency.

As part of this process, WHO needs to perform an independent analysis of the plan's comprehensiveness and quality. Any gaps identified need to be addressed by government/partners.

Finally, WHO must develop its own set of time-bound actions to be accomplished in order to address the threats. The implementation of these actions can be organized and monitored through an action plan. Purpose

WHO offices at country, regional and headquarters levels must take all possible measures to mitigate risks and have in place the appropriate resources, systems, policies, procedures and capacities in order to prepare for and respond to emergencies whenever and wherever they occur.

This guidance note is to be used to direct the planning of mitigation and preparedness actions to address specific health threats; the note can be adapted to the context and needs of each WHO office.

Scope

Contingency plans need to be developed for each major threat identified in the risks analysis. All plans must be regularly updated based on the evolving risks and environment.

Accountability⁴

As a member of the UN system, and lead in the health sector, WHO needs to be involved in contingency planning exercises and ensure the inclusion of all necessary health issues and partners. Quality, comprehensiveness, efficiency, timeliness and effective implementation and monitoring of plans are also essential.

The head of each WHO office is responsible for ensuring that:

- health is appropriately integrated in all multisectoral contingency planning;
- high quality, health sector specific CPs are developed and implemented;
- the WHO action plans developed and implemented:
- » set out the roles and responsibilities to which WHO is committed as part of the UN, and as lead in the health sector;
- » prepare WHO to respond to emergencies as per the Emergency Response Framework;

4 Accountability is defined in WHO's Accountability Framework as the obligation of every member of the Organization to be answerable for his/her actions and decisions, and to accept responsibility for them. http://intranet.pdrive.who.int/public-drives/PubDept/DGO-CRE%20-%20Compliance%2C%20Risk%20Management%20and%20Ethics%20Office/CMP/reference/accountability_framework.pdf

3 see: Emergency response and preparedness (ERP). Risk analysis and monitoring, minimum preparedness, advanced preparedness and contingency planning. Inter-Agency Standing Committee; July 2015 (available at https://www.humanitarianresponse.info/en/programme-cycle/space/emergency-response-preparedness-guidance-and-templates)



- Contingency planning is the framework that enables each WHO office to:
- prepare for threats and reduce their potential public health consequences
- identify needs and outline related actions
- plan the implementation of these actions
- identify resources and the time needed for implementation
- monitor progress in implementation.

- plans are regularly tested, updated, monitored, and maintained;
- the resources necessary to implement the action plans are identified and mobilized;
- the office contingency plans are formally handed over to his/her successor.

FI GUIDANCE

Key principles of contingency planning

Hazard based contingency planning flow chart

While each emergency is different in nature and context, there are many similarities, such that common emergency management practices and policies can be built into the health system to create resilience. Thus, although a separate CP should be developed for each type of threat, much of WHO contingency planning is generic and applicable to all types of emergencies.

The key principles to bear in mind are that contingency planning should be:

- practical
- simple and easy to do
- realistic and feasible
- needs based and efficient, ensuring fair use of resources
- process driven for effective operationalization
- regularly tested through exercises
- monitored and updated.





Developing scenarios and assumptions: what could happen?

The planning process is initiated by a strategic risk assessment⁵. The purpose of this assessment is to identify and rank the risks and their geographical locations, and define those hazards and scenarios for which contingency planning is required. Each priority hazard needs its own contingency plan based on flexible and realistic scenarios. Scenario development provides a basis for planning



Identify and monitor priority hazards threatening health

Identify risk mitigation measures to reduce health consequences

 Identify preparedness measures to ensure readiness to respond • Plan implementation according to level of needs and / or imminence of risks

• Introduce a contingency or preliminary response plan based on scenarios • Set preliminary response specific objectives, activities, targets and indicators

• Test plan to ensure validity and functionality and address identified weaknesses • Monitor progress of achievements and adequacy with evolution of risks

> and generates consensus on the nature of the potential crisis and the response to be provided. Most contingency planning takes place at multisectoral or interagency level to ensure coordination and maximize synergy of the preparedness and response actions and the use of resources. WHO and the health sector need to be part of these efforts to ensure that health issues are included in the plans.

The specific health risks posed by each hazard should be considered. In this document, floods are used as an example hazard. This hazard:

- carries specific health risks, such as trauma or water-borne diseases, that need to be addressed by the health sector; and
- requires different approaches in urban settings and remote villages.

An example of a flood scenario is:

Hazard	Floods						
Early warning mechanisms	Rainfall forecast, high risks areas mapping						
Scenario	 Number of people affected Number of people drowned/killed Number of people injured (50-100) Number of inaccessible or damaged hospitals and health facilities (2 of the 3 hospitals not accessible by road) Number of houses destroyed or damaged (10 000-20 000) Electricity cuts: highly likely Lack of or limited access likely Contaminated fresh water sources (5 out of 10) Crops destroyed 						
Health needs and risks	 Trauma care (short term) Lack of access to essential services Watery diarrhoea including cholera Malnutrition (longer term unless already present, and depending on the harvest calendar) 						
Assumptions	 Security problems do not hamper access Boats are available for transport Pre-positioned stocks are not affected by flooding 						

Mitigation strategy: how can health risks linked to the hazard be reduced?

Once the risks to health have been identified, the next step is to ascertain which measures are already in place, and which can be taken, to prevent or miti-



Continuing with the example of floods, mitigation measures for this hazard include:

Identified health risks	Floods
Frauma	 Public risk communication to promo Training in mass casualty management
Lack of access to essential services	 Identify flood prone areas and evaluate Strengthen community based first air Identify back-up for referral systems
Risk for watery diarrhoea including cholera	 Improve water and sanitation in high Assess opportunities for cholera vacco Develop and implement risk communication
Malnutrition	 Map vulnerabilities and determine f Develop community based preventive

2

gate the impact of the risks. These measures should be put in place or strengthened as soon as the risks have been identified.

Relevant actions to be taken in all areas and countries need to be identified in order to prevent and/or control public health risks. Such actions include: vaccination; enhanced surveillance and early warning, alert and response systems; vector control; infection control (including personal protection); enhanced sanitation and hygiene; increased provision of water and/or nutrients; prepositioning of drugs and medical supplies, etc.

ote personal safe behaviours nent

uate the health infrastructures aid

.

gh risk areas

ccination campaign in high risk areas

unication campaign

follow-up actions accordingly ive interventions

Preparing to respond: how can health needs of affected populations be addressed?

Once mitigation strategies are in place, potential response needs have to be determined; this will allow WHO to identify and plan for related preparedness actions and for the response itself.

Health sector preparedness

Actions need to be developed, coordinated and planned with the ministry of health and all health sector partners. If a national contingency plan already exists for the hazard or scenario in question, it should provide a summary in which the respective roles and responsibilities of each stakeholder are outlined. Specific timelines for preparedness actions are important to ensure that most of the response elements are in place at the time of the event/emergency. An

example of a preparedness timeline for a seasonal epidemic disease such as meningococcal meningitis is provided in annex 1, which lists the main risk monitoring and preparedness actions advisable ahead of the outbreak season and their suggested sequence. As well as for seasonal outbreaks, it is important to formulate preparedness timelines for other foreseeable or seasonal events such as mass gatherings, droughts and floods.





To continue with the floods example, preparedness actions are outlined here:

Health risk	Needs	Planned response	Preparedness action
Trauma	 Trauma care and mass casualty management systems (MCM) Referral of injured to hospitals Availability of drugs, medical supplies and equipment 	 Rapid activation of reliable, predictable and quality MCM systems, including referral to secondary and tertiary health care as per agreed protocols Continuous drugs and supplies chain management based on regular needs assessments 	 Develop a rapid alert system with key actors of MCM, from community based first-aid actors to referral hospitals to emergency medical teams Train and exercise MCM actors, procedures and systems Prepare memorandum of understanding with transport com- panies; predict boat requirements Preposition trauma kits Evaluate warehouse and supply chain capacity
Lack of access to essential health care	 Mobile or temporary clinics to provide alternative access to essential health care and services Rapidly reestablish access to essential health care 	 Mapping of areas and/or affected populations without access to health care Information sharing with partners, coordination for increased/priority coverage of health operations Targeted mobilization of mobile clinics, field hospitals etc., as per needs 	 Prepare inventory of current capacities of field hospitals and/ or mobile clinics, including staff, activities, drugs and supplies Identify response gaps as per scenarios, and potential partners to fill gaps (e.g. emergency medical teams, Red Cross) Identify potential obstacles to access (geographic, political, socio-cultural) and needed actions to address these obstacles (negotiations and advocacy, special transport such as helicopters, etc.)
Outbreaks of diarrhoeal diseases	 Ensure rapid detection, confirmation and alert Provide materials to test for and treat cholera Ensure treatment 	 Activate early warning alert and response systems (EWARS) in hot spots Deploy rapid response teams for rapid investigation and early response Provide case management at rehydration and treatment centres adapted to required infection control standards 	 Ensure availability and adapted coverage of EWARS, provide refresher training Order rapid tests and cholera kits Identify possible placement of future rehydration or cholera treatment centres Prepare for water testing and treating
Malnutrition	 Prevention of risks by food/cash distribution Screening and referral Case management at community and health facility levels 	 Coordination with livelihood and nutrition cluster Regular screening in hot spots and EWAR Initiate community based management of malnutrition and referral to appropriate health facilities for severe cases and/or medical complications 	 Select sentinel sites for malnutrition screening Identify potential health facilities to establish therapeutic feeding centres Preposition kits for the management of severe acute malnourished children with medica complications



Developing a response plan

With the response needs identified above, a preliminary response plan is developed with the objectives⁶ of:

- fostering common understanding among all partners of the anticipated scope of the emergency, the possible health and health related needs, and the nature and scope of the planned operational response;
- clearly explaining WHO and the health sector/cluster response strategy to address the needs of the affected population in the first weeks of an emergency;
- reflecting specific challenges/gaps in the potential response in order to communicate anticipated funding requirements;

 supporting the timely drafting of a resource mobilization document, e.g. a flash appeal, in the event of an emergency.

This preliminary response plan sets out the initial response strategy and operational plan for meeting critical humanitarian needs during the first three to four weeks of an emergency. The plan should therefore use the same format as a response plan and state the preliminary response objectives, activities, targets and indicators.

The response can be activated as soon as the event/emergency has been graded⁷. To continue with the example of floods:

Activity	Target population	Indicator	Responsible actors	Estimated cost
First strategic	objective: The immediate w	ounds and trauma of the	people affected by the floo	d are addressed
Second s	rategic objective: All affecte	ed people have access to a	n essential package of hea	Ith services

WHO specific responsibilities



In addition to the overall health sector contingency plan, WHO has additional responsibilities to ensure it is prepared to respond and deliver on the specific functions it has committed to perform during an emergency, as per the Emergency Response Framework⁸. The WHO contingency plan therefore needs to include the preparedness and response actions to be implemented in order to achieve these goals.

Continuing with the example of floods:

Responsibility	Response needs
Coordination	 A collective and synergic health sector response covers all needs and all affected people Synergy and complementarity with other secto water sanitation and hygiene, nutrition, logistics Harmonious decision-making with ministry of and other decision-makers
Information and planning	 Updated epidemiological profile of the affected exposed population Understanding of health system modus operar Updated data on partners' activities and covera (4Ws - who, what, where and when) Joint risks and needs assessments Identification of triggers for activation of the res Response plan
Health operations and expertise	 Technical guidances on mass casualty manager (MCM), case management of waterborne disease malnutrition. Early warning, alert and response systems (EWA and rapid response teams (RRTs) Risk communication campaign Delivery of basic package of health services in a with issues of access
Operations support and logistic	 Uninterrupted supply chain Communications facilities, transport, housing a accomodation for sub-offices and surge team
Finance and administration	 Availability or rapid access to contingency funds Availability of budget lines that can be repurpo Development of donor appeals Development of proposals and grants manager Human resources management

7 As per: Emergency Response Framework. Second edition. Geneva: World Health Organization; 2017 (http://www.who.int/hac/about/erf/en/)
 8 Emergency Response Framework. Second edition. Geneva: World Health Organization; 2017 (http://www.who.int/hac/about/erf/en/)



	Preparedness action
se which ors e.g. ⁵ health	 Define coordination mechanisms and architecture with host government, ministry of health, UN agencies, other sectors and health partners Ensure procedures are in place for requesting and coordinating international assistance (emergency medical teams(EMT), Global Outbreak Alert and Response Network (GOARN), standby partners)
ed or Indi age esponse	 Ensure availability and good understanding of: baseline data triggers of activation of response, including EOC needs assesment methodologies and tools data collection tools for 4Ws, Health Resources Availability Mapping System (HeRAMS), EWARS response plan templates and procedures
ement les, and /ARS) areas	 Procure all needed guidelines Training on EWARS, case management, MCM, infection prevention and control (IPC), etc. Identify/clarify essential package of health services to deliver in areas with no or limited access Prepare risk communication messages Pre-identify possible communications channels
and	 List warehouse capacity and transportation modalities Ensure catalogues and lists of prepositioned supplies available Obtain waivers for customs or visas Pre-identify accommodation for surge teams
ds osed ement	 Ensure emergency standard operating procedures (E SOPs) are known and understood Make proposal and reporting templates available Ensure grant management procedures are known Identify and contact potential donors Ensure visa and work permit procedures are in place

Action plan: how will WHO fulfill its responsibilities?

The ultimate but most important planning step is to determine the means and resources by which WHO will implement its mitigation and preparedness actions according to the agreed schedule. A standard logical framework format can be used to develop the details, timing and budget requirements of the different elements of each plan.

Continuing with the floods example:

Objectives	WHO activity	Priority	Start date	End date	Resources needed	Responsible WHO staff	Estimated cost in USD
Risk mitigation							
	Map flood-prone areas	2	Jan 2017		 Geographical information system Consultant 	 Public health officer 	5,000
	Evaluate safe hospitals	3	Mar 2017		Consultant	• Public health officer	5,000
	etc.						
Preparedness							
actions							
	Preposition trauma kits	1	Oct 2016	Dec 2016	 Funding Warehouse Logistics supply system 	 Emergency coordinator Logistics officer 	12,000
	Train health care workers on cholera diagnostics	1	Nov 2016	Dec 2016	 Trainer Funding Training room Training material 	 Public health officer 	6,000
	etc.						

Testing: how can readiness be improved?

Regular review is a crucial element in assessing an office's readiness to respond. In order to be effective and reliable, the contingency plan needs to be constantly improved through testing to ensure that emergency management capabilities are consistent with the plans, procedures and policy.

Exercises are therefore an integral part of contingency planning. Selection, planning and costing of exercises are well explained in section 3 of the WHO exercise manual and the related exercise planning tool⁹. The head of office ensures the contingency plan is tested before approval; he/she also ensures the contingency plan is well maintained and enhanced through yearly updates, reviews and exercises.

Monitoring: how have the risks evolved?

As risks are dynamic and evolve continuously, there is a need to keep monitoring them, and adjust plans and actions accordingly.

WHO staff should:

- re-evaluate the risks and priorities, and revise the assumptions, adequacy of mitigation and preparedness activities, and the implementation schedule, as necessary;
- regularly compare the actual and planned implementation;
- diagnose delays and identify remedial actions.



Exercises enable:

- validation of the adequacy of emergency plans, systems and procedures;
- familiarization of all stakeholders with the plan, procedures and systems;
- assessment and enhancement of functionality;
- identification of gaps or weaknesses, and subsequently of remedies for these deficiencies;
- maintainance and updating of the continuity plan.

The head of office ensures the continuity plan is tested before approval.

B WHO OFFICE CONTINGENCY PLAN TEMPLATE

Г	4
L	
L	
L	
L	

Title: WHO Office [name of country/region] Contingency Plan for [name of hazard] Date of approval Signed by [name]

Introduction

Results of risk assessment related to hazard Please provide a short description of:

- the hazard and its characteristics (seasonality, transmission/amplification, scale, etc.)
- impact and likelihood of the hazard.

Scenarios and assumptions

- Description of specific contingency plan scenario(s)
- Description of early warning systems

Situation analysis

Please provide a short overview of:

- the demographic and health profile of the country and the affected population
- health system structure and services provision at national and sub-national levels
- recent disasters/emergencies with public health impact.
- Description of health needs and risks linked to the hazard
- Description of planning assumptions.

Mitigation strategy

List all mitigation measures for the identified health risks linked to the hazard:

Identified health risks	Mitigation measures	

WHO preparedness strategy

List all preparedness actions WHO has to deliver and which are linked to the identified response needs:

Health risk	Response needs	Preparedness action

Preliminary response plan

From the identified response needs, define the key strategic objectives of the response and list the related main activities that will need to be implemented in the first weeks of the emergency in order to reach these objectives. Clearly identify the population targetted (based on assumptions) and the indicators, enabling

Exercise calendar

Activity	Target population	Indicator	Responsible actors	Estimated cost		
First strategic objective						
First strategic objective						

WHO action plan

List all mitigation and preparedness actions that will be implemented by WHO and define the means and

Objectives	WHO Activity	Priority	Start	In place	Resources needed	Responsible WHO staff	Estimated cost in USD
Risk mitigation							
Preparedness							
actions							

Testing and maintaining the contingency plan

Test calendar

Target population	Indicator	Responsible actors	Estimated cost



monitoring of progress and/or achievments. If already identified, responsible actors can be listed for each activity. Estimating preliminary funding needs for the response avoids difficult discussions at the time of the response and developing the appeal.

resources (human, logistics, financial) needed to implement these activities according to an agreed schedule.



Preparedness timelines

Preparedness timelines and matrices can be developed for predictable events such as important mass gatherings or seasonal epidemics of communicable diseases. The example below is a preparedness timeline for meningococcal meningitis, in which the main risk monitoring and preparedness actions advisable ahead of the outbreak season are listed in a suggested sequence.

ACTIVITIES		Months ¹⁰			Epidemic season						Months ¹⁰		
		-4	-3	-2	-1	E1	E2	E3	E4	E5	E6	+1	+2
Collect, analyse and report surveillance data	Risk monitoring												
Identify and monitor the distribution of bacterial meningitis pathogens and meningococcal serogroups	Risk monitoring												
Map and monitor the distribution of germs and drug resistance	Risk monitoring												
Send specimens to WHO collaborating centres to monitor the distribution and emergence of epidemic strains	Risk monitoring												
Establish epidemic contingency funds mechanism	Preparedness												
Develop preparedness and response plans with clear priorities, funding and responsibilities	Preparedness												
Establish an epidemic preparedness and response committee	Preparedness												
Identify high risk epidemic areas	Preparedness												
Constitute a local strategic vaccine stockpile for epidemic response (according to risk identified)	Preparedness												
Ensure up-to-date knowledge on access to the International Coordinating Group on global emergency vaccine stockpile for meningitis, through availability of standard operating procedures (SOPs), training, etc.	Preparedness												
Reinforce laboratory diagnostic confirmation techniques and equipment	Preparedness												
Strengthen lumbar puncture capacity (policy, training, personnel)	Preparedness												
Evaluate laboratory supply needs	Preparedness												
Procure/distribute laboratory diagnostics supplies	Preparedness												

Perform laboratory after actions review and establish/revise testing and feedback algorithms and SOPs across the laboratory network (tests conducted at peripheral level vs intermediate vs central vs WHO collaborating centre level)	Preparedness	
Establish mechanism for transport of laboratory samples	Preparedness	
Evaluate laboratory supplies, reagents and equipment needs	Preparedness	
Procure/distribute laboratory diagnostics supplies, reagents and equipment		
Test laboratory capacity through proficiency testing		
Conduct on-site training and supervision visits to check the availability of all necessary reagents and laboratory proficiency	Preparedness	
Carry out additional corrective actions for low performing laboratories		
Reproduce and disseminate standardized data collection and transmission tools, case definitions, guidelines and SOPs	Preparedness	
Establish standard surveillance data flow circuits and feedback	Preparedness	
Conduct training on epidemiological surveillance – Integrated Disease Surveillance and Response/meningitis enhanced surveillance	Preparedness	
Estimate antibiotics needs according to risk, procure and preposition	Preparedness	
Identify hospital structures to care for increased number of cases	Preparedness	
Establish rapid investigation teams and protocols	Preparedness	
Prepare community awareness and information plan	Preparedness	
Inform population on meningitis during the season: risk of meningitis cases, symptoms, importance of seeking prompt care/treatment, evolution of epidemic, etc.	Preparedness	
Conduct evaluation of meningitis epidemic season and response – identify challenges and lessons learned to integrate in next preparedness plan	Preparedness	



5 REFERENCES

- Coularton R. Contingency planning and humanitarian action: A review of practice. UK: Humanitarian Practice Network (HPN); March 2007.
- https://odihpn.org/resources/contingency-planning-and-humanitarian-action-a-review-of-practice/
- Emergency response framework. Second edition. Geneva: World Health Organization; 2017. http://www.who.int/hac/about/erf/en/
- International Health Regulations (2005): second edition. Geneva: World Health Organization; 2008. http://www.who.int/ihr/publications/9789241580496/en/
- Framework for a Public Health Emergency Operations Centre. Geneva: World Health Organization; November 2015.
- WHO Exercise Manual. Geneva: World Health Organization; July 2016. http://www.who.int/ihr/publications/9789241565134_eng/en/
- Risk analysis and monitoring, minimum preparedness, advanced preparedness and contingency planning. Draft for field testing. Inter-Agency Standing Committee; 2015. https://interagencystandingcommittee.org/node/10186
- Readiness checklist. Geneva: World Health Organization; July 2015. https://intranet.who.int/homes/erm/readiness/
- Approach for the integrated and strategic risk assessment of public health threats. Draft version. Geneva: World Health Organization; September 2016.
- Early detection, assessment and response to acute public health events: implementation of early warning and response with a focus on event-based surveillance. Interim version. Geneva: World Health Organization; 2014. http://apps.who.int/iris/bitstream/10665/70810/1/WHO_HSE_GAR_ARO_2012.1_eng.pdf
- Technical brief. Scenario building: how to build scenarios in preparation for or during humanitarian crises. Geneva: ACAPS; August 2016.
- Contingency planning guide. Geneva: International Federation of Red Cross and Red Crescent Societies (IFRC); 2012.



World Health Organization



www.who.int