

**Ebola virus disease
preparedness
strengthening team**

***Mali country visit
20–24 October 2014***



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Organization**

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Executive summary

As recently demonstrated in Mali, the evolving outbreak of Ebola virus disease (EVD) in West Africa poses a considerable risk to countries in close geographical proximity to those with intense, widespread transmission. If there is an adequate level of preparation, introduction of the virus can be contained before a large outbreak develops. WHO, with partners including the United States Centers for Disease Control and Prevention (CDC), is deploying international “preparedness strengthening teams” to help unaffected countries build on their current preparedness and planning.

In August 2014, the WHO Director-General declared the EVD outbreak a public health emergency of international concern under the International Health Regulations (2005) (IHR). The IHR Emergency Committee recommended that unaffected states with land borders adjoining states in which there was Ebola transmission should urgently establish surveillance for clusters of unexplained fever or deaths due to febrile illness; establish access to a qualified diagnostic laboratory for EVD; ensure that basic infection prevention and control measures are in place in health care facilities and that health workers are aware of and trained in the appropriate procedures; and establish rapid response teams with the capacity to investigate and manage EVD cases and their contacts.

EVD preparedness is also supported by the United Nations Mission for Emergency Ebola Response, the five strategic pillars of which are to: stop the outbreak, treat infected patients, ensure essential services, preserve stability and prevent further outbreaks. A consultation between WHO and partners on EVD preparedness and readiness, held in Brazzaville on 8–10 October 2014, agreed on intensified, harmonized, coordinated support to currently unaffected countries. WHO is intensifying preparedness to ensure immediate outbreak response capacity in Benin, Burkina Faso, Cameroon, the Central African Republic, Cote d’Ivoire, the Democratic Republic of the Congo, Gambia, Ghana, Guinea Bissau, Mali, Mauritania, Nigeria, Senegal and Togo.

The immediate objective of the country visit to Mali was to ensure that Mali is as operationally ready as possible to effectively and safely detect, investigate and report potential EVD cases and to mount an effective response that will prevent a larger outbreak. During the country visit, Mali confirmed its first case of EVD. The joint team for strengthening preparedness for EVD was composed of representatives of Mali’s Ministry of Health, WHO, CDC, the National Public Health Institute in Quebec (Canada), Johns Hopkins University and other partners.

After technical working group meetings, field visits, a “table-top” exercise and a hospital-based simulation exercise were undertaken. Key strengths and weaknesses were identified, and specific areas for improvement were proposed to the Ministry of Health, as follows:

1. Coordination

- Establish an operational system for coordination of technical teams under a command-and-control structure.
- Establish an emergency operations centre with a functional organigram to coordinate technical operations and implement preparedness and response activities.
- Establish technical teams by Ministerial decision or decree, nominate official focal points with operational decision-making authority, and nominate team members with clear terms of reference.
- For the incident management structure and the emergency operations centre:
 - Integrate all the human resources required for preparedness and response under the structure and chain of command.
 - Strengthen technical capacity and reinforce human resources within the structure.
- Ensure that logistical support is available to technical teams (including sampling equipment, means for infection prevention and control, transport, infrastructure and telecommunications).

2. Surveillance
 - Establish and strengthen a call centre to manage functioning hotlines 24 h/24 h, 7 d/7 d.
 - Enhance community surveillance and sensitization for rapid detection of suspected EVD cases.
 - Create a data management team in the emergency operations centre, with a standard database and tools for data collection.
3. Contact tracing
 - Prepare standard operating procedures for the identification and follow-up of contacts.
 - Train community focal points in contact tracing.
 - Decentralize contact-tracing teams.
4. Infection prevention and control
 - Accelerate the establishment of minimum standards for infection control (standard precautions) in all health care facilities in Mali.
 - Develop and implement specific EVD standard operating procedures for infection prevention and control in all health centres and hospitals.
5. Rapid response teams
 - Strengthen membership of the national rapid response team.
 - Establish rapid response teams at regional and district levels where necessary.
6. Case management

Ebola treatment centres:

 - Increase the number of Ebola treatment centres (two in Bamako and one in each region), and urgently:
 - Complete the two centres in Bamako (at the Centre pour le Développement de Vaccins/Centre national de l'Appui à la Lutte contre la Maladie (CVD/CNAM) and Mali Hospital) and make them operational according to international standards.
 - Establish Ebola treatment centres in Kayes and Sikasso.

Observation sites:

 - Reorient the current isolation sites to temporary observation sites or holding centres for patients before their transfer to regional or national Ebola treatment centres.
 - Establish two-bed observation rooms in each district referral centre, with the necessary infection control and case management resources.

Safe, dignified burials:

 - Establish teams responsible for conducting safe burials according to WHO guidelines.
7. Social mobilization
 - Integrate community health staff (“relais communitaires”) in the detection of cases in the community.
 - Sensitize all Malians to the basic signs and symptoms of EVD and the risk of transmission; use sensitization activities to dispel myths and misconceptions.
8. Laboratory
 - List all laboratory technicians who are trained in procedures for confirming the presence of Ebola virus.
 - Strengthen procedures for the transport of samples in triple packaging.
9. Points of entry
 - Strengthen procedures and means for transporting suspected cases from points of entry to observation centres or Ebola treatment centres.

10. Budget

- Update detailed budgets of the contingency plan, the incident management structure and the emergency operations centre structure.
- Present the budgetary deficit to partners for financial support.
- Ensure funds for pre-positioning material at field level.

With the Ministry of Health and local partners in Mali, WHO, CDC and international partners will facilitate implementation of the national EVD action plan by:

- providing immediate and longer-term technical support to Mali to achieve 30-, 60- and 90-day goals, with follow-up visits by experts in the fields of infection prevention and control, clinical management and surveillance;
- finalizing and costing the operational action plan for strengthening preparedness and response in the national contingency plan;
- preparing and implementing a comprehensive plan for training at national, regional and local levels with WHO reference materials and tools;
- cooperating closely with the United Nations country team to support and monitor technical progress; and
- providing logistic support for the necessary preparedness and response operations at country level.

These follow-up steps are already being implemented in the country.

Introduction

Given the evolving situation of Ebola virus disease (EVD), there is a considerable risk that cases will appear in currently unaffected countries. With adequate preparation, introduction of the virus can be contained before a large outbreak develops. WHO is currently deploying international “preparedness strengthening teams” to help unaffected countries strengthen or plan preparedness. The teams are formed with national and international partners and networks such as the Global Outbreak Alert and Response Network, the International Association of National Public Health Institutes and the United States Centers for Disease Control and Prevention (CDC). The teams visit countries to support them in developing operational readiness for EVD to the greatest degree possible.

In August 2014, the WHO Director-General declared the EVD outbreak a public health emergency of international concern under the International Health Regulations (2005) (IHR). The IHR Emergency Committee recommended that unaffected states with land borders adjoining states with Ebola transmission urgently establish surveillance for clusters of unexplained fever or deaths due to febrile illness; establish access to a qualified diagnostic laboratory for EVD; ensure that basic infection prevention and control measures are in place in health care facilities and that health workers are aware of and trained in appropriate procedures; and establish rapid response teams with the capacity to investigate and manage EVD cases and their contacts.

In particular, the IHR Emergency Committee recommended that countries:

- establish alert systems at:
 - major land border crossings with already affected countries (which are currently Guinea, Liberia, Nigeria and Sierra Leone) and
 - the airport, seaport (if any) and health care facilities, especially major hospitals, in the capital city;
- activate their epidemic management committee and rapid response teams;
- ensure that adequate infrastructure and supplies for infection prevention and control are available in health care facilities;
- ensure that health care workers have received training in the application of standard precautions and appropriate use of personal protective equipment (PPE); and
- consider activating public health emergency contingency plans at designated points of entry.

EVD preparedness is also supported by the United Nations Mission for Emergency Ebola Response, which has five strategic aims: to stop the outbreak, treat infected patients, ensure essential services, preserve stability and prevent further outbreaks. A consultation between WHO and partners on EVD preparedness and readiness, held in Brazzaville on 8–10 October 2014, agreed on intensified, harmonized, coordinated action to support currently unaffected countries. WHO is accelerating preparedness activities to ensure immediate Ebola outbreak response capacity in Benin, Burkina Faso, Cameroon, the Central African Republic, Cote d’Ivoire, the Democratic Republic of the Congo, Gambia, Ghana, Guinea Bissau, Mali, Mauritania, Nigeria, Senegal and Togo.

Objectives of the country visit

The objective of the visit to Mali was to ensure urgently that the country is as operationally ready as possible to detect, investigate and report potential EVD cases effectively and safely and to mount an effective response that will prevent a larger outbreak. The visit identified the next steps required to strengthen preparedness over 30, 60 and 90 days (the EVD action plan).

Country visit team

The joint team to strengthen EVD preparedness in Mali (Annex 1) was composed of representatives of Mali's Ministry of Health, WHO, CDC, the National Public Health Institute of Québec (INSPQ), Johns Hopkins University and partners working in the country.

Activities

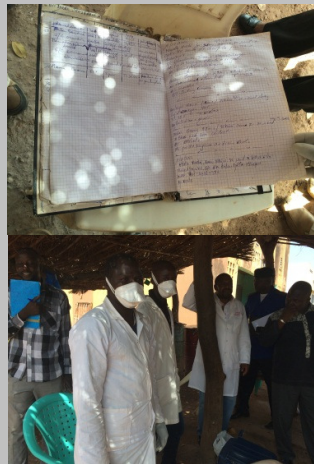
Day 1

Team briefing by the WHO Representative in Mali	WHO Mali	Introduction of team, briefing on the context in Mali and preparedness measures taken by Mali, supported by WHO
Agreement on mission objectives with the Minister of Health	Ministry of Health	Initial mission objectives described by the WHO Representative, the Minister of Health, the Secretary-General of Health and representatives of CDC and the National Public Health Institute in Quebec (Canada) (INSPQ) The team described context of the WHO response, recommendations of the IHR Emergency Committee for preparedness, the meeting in Brazzaville and establishment of the United Nations Mission for Emergency Ebola Response. Introduction of the consolidated preparedness checklist
Meeting with Ministry of Health and partners to discuss current preparedness for EVD in Mali	WHO Mali	Meeting attended by representatives of the Ministry of Health, the mission team, the World Food Programme and nongovernmental organizations. Technical leaders from the Ministry of Health presented current preparedness in Mali in five technical areas: <ul style="list-style-type: none"> • surveillance, alert and response • rapid response teams • contact tracing • laboratory work • social mobilization and identified overall challenges for preparedness in each area. The set-up and scope of the simulation exercise were discussed.
Technical working group break-out groups	WHO Mali	The working groups were introduced to the preparedness checklist and broke up into three subgroups to address gaps, needs and priorities in surveillance, rapid response teams, contact tracing, social mobilization, case management, safe burials and infection prevention and control. Human resource gaps, logistic challenges and areas in which further training was required were identified. Thematic discussions were held to define the scope of the simulation exercises.

Day 2

EVD preparedness support team, Mali country visit, 20–24 October 2014

Visit to border post between Mali and Guinea



Kouremale (Health District of Kangaba)

A team travelled to one of the 10 districts currently implementing enhanced surveillance at points of entry. The border between Mali and Guinea runs through the centre of Kouremale (population, about 5000).

The team met with two health teams at the Mali border post and one at the Guinea post. The team was briefed on the screening procedures in place, the criteria for further examining some travellers, case definitions, the availability of PPE, management of suspected cases and transmission of surveillance data from the border post to national level.

Visit to the community health centre and the site for isolation of suspected and confirmed EVD cases



Kouremale (Health District of Kangaba)

The team met with the staff of the local health centre and representatives from the district referral centre to discuss routine surveillance measures, EVD case definitions and procedures for the management and clinical care of suspected or confirmed cases.

The team visited the local isolation site (constructed outside the village, not close to a health care facility). The site had no running water or electricity and would provide only very basic shelter for patients, with three tents or huts, one of which was open and well ventilated and would be used to isolate patients during laboratory testing. The procedure for referral of confirmed cases to the national isolation centre was not clear.

Patients would be managed by the national rapid response team and reference health centre staff at district level.

Visit to the prospective national Ebola treatment centre at the Centre pour le Développement de Vaccins/Centre national de l'Appui à la Lutte contre la Maladie (CVD/CNAM)

CNAM

The team visited a proposed Ebola treatment centre at the CNAM hospital in Bamako. The treatment centre will have 24 beds and will be managed by the rapid response team. Currently, it is being rehabilitated.



Preparations for EVD exercise

WHO Mali



Contact list prepared and invitation letter sent by WHO Representative and Ministry of Health to partners and Ministry staff

Exercise agenda finalized

Aim and objectives identified

Facilitation, players, observers and documentation roles identified.

EVD preparedness support team, Mali country visit, 20–24 October 2014

		Discussion presentation completed
Technical working groups discussions continued	WHO Mali	Feedback and recommendations for preparedness coordination completed with input from the Ministry of Health and other partners
Visit to the National Institute for Public Health Research laboratory	National Institute for Public Health Research laboratory	Institute designated by the Ministry of Health as responsible for contact tracing Visit by WHO and CDC representatives to discuss EVD preparedness and contact tracing
Day 3		
Team briefing with Ministry of Health on findings of field visit	WHO Mali	The team presented the findings of the previous day's field visit to the border town of Kouremale.
Preparation of the table-top exercise and the subsequent field exercise	WHO Mali	The team agreed on the scope of the two exercises. The table-top exercise would represent expected actions for detection, points of entry, case management, laboratory work, contact tracing, social mobilization and coordination. The expected actions would be reported and used to evaluate the practical exercise the following day. The location of the field simulation was agreed as the Gabriel Touré Hospital in Bamako. A communications plan for the exercise was prepared.
EVD table-top exercise	WHO Mali	The INSPQ team ran the exercise, which involved WHO, CDC, Ministry of Health authorities (including the SEREFO laboratory, which processes specimens from suspected EVD cases) and international partners including the United Nations Office for the Coordination of Humanitarian Affairs, the International Federation of Red Cross and Red Crescent Societies, Mali Red Cross, UNICEF, USAID, the World Food Programme and Médecins sans Frontières. The exercise included two scenarios: one at a point of entry and the other at a district reference health centre. The aim of the exercise was to detect strengths and weaknesses at national, regional and district levels.
		
Visit to Gabriel Touré Hospital in Bamako	Gabriel Touré Hospital, Bamako	The Director of the hospital was briefed on the simulation exercise to be held the following day.
Day 4		
Pre-simulation briefing	WHO Mali	Outline of the rules of the exercise, presentation of the scenario and selection of the exercise team
Field simulation	Gabriel Touré Hospital	Field exercise on detection, case management (including infection prevention and control) and communication. The team included representatives of the Ministry of Health, CDC, Johns Hopkins University and WHO.
		



Simulation evaluation WHO Mali Evaluation of the hospital (see annexes 3 and 4)

On 23 October 2014, the first case of Ebola virus disease was confirmed in Kayes, Mali, in a 2-year-old girl with a history of travel to Guinea.

Day 5

Ministerial debriefing	Ministry of Health	Final briefing on strengths and weaknesses in Mali's preparedness and high-level recommendations
Training in protection for interagency staff	WHO Mali	Rapid training of representatives of the WHO Country Office, the Ministry of Health and partner agencies before departure for Kayes, where the first confirmed Ebola case was identified
EVD task force meeting	WHO Mali	Minister of Health and WHO Representative chaired a meeting of the EVD task force to discuss the confirmed case detected in Kayes.
Finalization of action plan and mission report	WHO Mali	Costing of the action plan and incorporation into the national contingency plan for EVD

Strengths and weaknesses

Coordination	Existence of strategic and policy coordination structures (see Annex 2) Existence of an EVD task force that meets regularly at national and regional levels Mechanisms for transferring funds to local levels	No operational emergency structure Fragmentation of roles among Government institutions, with no clear integrating structure No formal technical roles and responsibilities within the EVD task force
Surveillance	Existence of case definition Mechanisms for sharing epidemiological data Training on surveillance has been conducted with the case definition Enhanced surveillance at points of entry	Case definition not available in all health centres Private health care facilities not covered in current contingency plans Community-based surveillance strategies not yet implemented.

		Contact tracing functions unclear and no training of teams
Rapid response teams	The leader of the rapid response team leader has been named. The team has been mobilized and has tested all 25 suspected EVD cases.	Inadequate human resources (more rapid response teams required at subnational level) No coordination with other technical teams
Social mobilization	A dedicated public health institution exists for social mobilization. Many community and cultural organizations are active nationally and locally. Communication materials have been produced and shared.	No designated focal point or spokesperson in high-level committees No thematic subgroups or activities Strategy for communication is of limited scope, providing only general prevention messages with no plan for a response to an Ebola outbreak Technical content of messages sometimes incorrect
Infection prevention and control	PPE is available in the country and has been distributed. Hand-washing facilities available at points of entry (at ground crossings)	Health workers are not familiar with basic infection prevention and control. Infection prevention and control not considered in isolation sites Pre-positioning of material not complete
Case management	An Ebola treatment centre is currently being upgraded (12–20 beds).	Currently, no fully functional Ebola treatment centre in the country No capacity for clinical management or safe burials Not clear who is responsible for case management
Laboratory	A P3 laboratory exists and has been used to process samples from suspected cases. Laboratory technicians have been trained. Laboratory equipment is available.	Sample packaging has not been distributed. Lack of means of transport for shipping samples within the country
Points of entry	Enhanced surveillance at points of entry in 33 locations Sites available for holding suspected cases close to points of entry Screening mechanisms functioning	Isolation sites do not meet international standards. No means available for transporting suspected cases to the isolation sites
Budget	A costed contingency plan exists. Mechanism for transferring funds to the field exists. Partners are willing to contribute to costs. The Ministry of Health has mobilized US\$ 1.5 billion from domestic sources.	Resource mobilization a challenge for the Ministry of Health Insufficient funds available at regional and local levels
Logistics		Further assessment of logistics, capability and capacity required

Key areas for improvement by the Ministry of Health

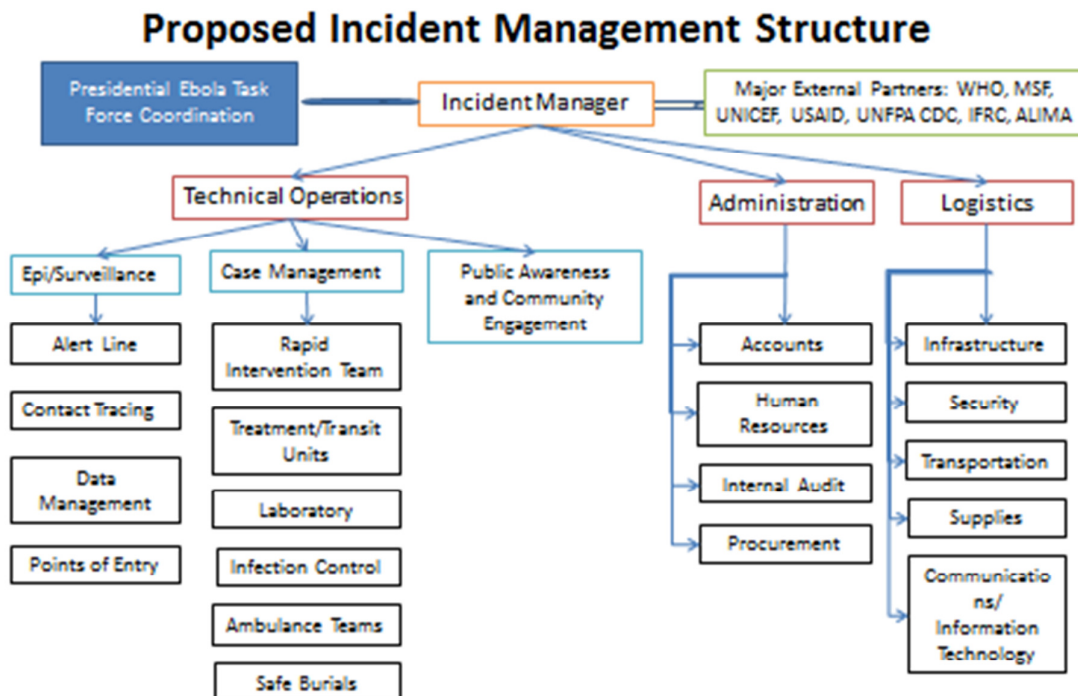
The following areas of improvement were identified and communicated to the Minister of Health on the basis of the mission activities and the strengths and weaknesses identified.

1. Coordination

- Establish an operational system for coordination of technical teams under a command-and-control structure.
- Establish an emergency operations centre with a functional organigram to coordinate technical operations and implement preparedness and response activities.

- Establish technical teams by Ministerial decision or decree, nominate official focal points with operational decision-making authority, and nominate team members with clear terms of reference.
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 - Strengthen technical capacity and reinforce human resources within the structure.
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Figure 1. Proposed incident management structure



2. Surveillance
 - Establish and strengthen a call centre to manage functioning hotlines 24 h/24 h, 7 d/7 d.
 - Enhance community surveillance and sensitization for rapid detection of suspected EVD cases.
 - Create a data management team in the emergency operations centre, with a standard database and tools for data collection.
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 - Prepare standard operating procedures for the identification and follow-up of contacts.
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4. Infection prevention and control
 - Accelerate the establishment of minimum standards for infection control (standard precautions) in all health care facilities in Mali.

EVD preparedness support team, Mali country visit, 20–24 October 2014

- Develop and implement specific EVD standard operating procedures for infection prevention and control in all health centres and hospitals.
5. Rapid response teams
 - Strengthen membership of the national rapid response team.
 - Establish rapid response teams at regional and district level where necessary.
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Ebola treatment centres:

 - Increase the number of Ebola treatment centres (two in Bamako and one in each region), and urgently:
 - Complete the two centres in Bamako (at CVD/CNAM and Mali Hospital) and make them operational according to international standards.
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Safe, dignified burials:

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 8. Laboratory
 - List all laboratory technicians who are trained in procedures for confirming the presence of Ebola virus.
 - Strengthen procedures for the transport of samples in triple packaging.
 9. Points of entry
 - Strengthen procedures and means for transporting suspected cases from points of entry to observation centres or Ebola treatment centres.
 10. Budget
 - Update detailed budgets of the contingency plan, the incident management structure and the emergency operations centre structure.
 - Present the budgetary deficit to partners for financial support.
 - Ensure funds for pre-positioning material at field level.

Conclusions and next steps

With the Ministry of Health and local partners in Mali, WHO, CDC and international partners will facilitate implementation of the national EVD action plan by:

- providing immediate and longer-term technical support to Mali to achieve 30-, 60- and 90-day goals, with follow-up visits by experts in the fields of infection prevention and control, clinical management and surveillance;
- finalizing and costing the operational action plan for strengthening preparedness and response in the national contingency plan;

EVD preparedness support team, Mali country visit, 20–24 October 2014

- preparing and implementing a comprehensive plan for training at national, regional and local levels with WHO reference materials and tools;
- cooperating closely with the United Nations country team to support and monitor technical progress; and
- providing logistic support for the necessary preparedness and response operations at country level.

The resources provided immediately to Mali are:

- accelerated cascade training on infection prevention and control throughout the country;
- rapid deployment of 2000 sets of PPE;
- an emergency operations centre plan and coordination of the incident management structure;
- more frequent meetings of the EVD task force and its subgroups;
- mobilization of partners and stakeholders involved in Ebola response and
- training and establishment of teams for contact tracing and safe burial with the Malian Red Cross.

Acknowledgements

WHO acknowledges with gratitude the support of the Government of Mali, CDC, the Institut National de Santé Publique du Québec and John Hopkins University and the members of the preparedness strengthening team (see Annex 1).

Annex 1. Mission team

WHO

Headquarters

Stella Chungong (mission leader)

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Rana Hajjeh

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Institut National de Santé Publique du Québec

Alain Poirier

Lucie Lemieux

Anne Fortin

Johns Hopkins University

Amiata Kaba

Annex 2. Committees for EVD planning and response in Mali

- Coordinating Committee for Prevention and Management of EVD (16 meetings), chaired by the Minister of Health
- Interministerial Standing Committee for Management of Epidemics (five meetings), chaired by the Minister of Health
- Regional and local standing committees for management of epidemics, chaired by regional governors and prefects

Annex 3. Results of the table-top exercise

Assessment of scenario-based discussion and suggested improvements

The discussion preparatory to the field simulation generated much interest and comments, although only a few participants responded to the scenario designed to stimulate discussion of the components of the preparedness and response plan. Teams could not be formed for all the components of the WHO checklist, and the time allowed for the exercise did not allow discussion of every component.

A feedback form was used to identify the main points, on the basis of responses to open questions on challenges observed and suggested improvements. The responses are consolidated below, by checklist component.

Component	Suggested improvements	No. of participants (out of 25)
Overall coordination	This aspect was brought up most frequently, particularly with regard to needs; suggestions were also made for clarifying who is in charge, strengthening the committee for management of communicable diseases and establishing an emergency operations centre. A few participants had perceived resistance on the part of some authorities to admit to shortcomings, and lack of political will.	13
Rapid response team	Without naming the unit, several participants said that case-detection arrangements, sampling and their shipment to laboratories should be improve or clarified.	9
Public awareness and community engagement	Suggestions were made for increasing communications, especially about suspected cases. Rumour management and transparency were also mentioned.	11
Infection prevention and control	Several participants said that the conditions and siting of isolation facilities should be improved.	12
Case management a) Ebola treatment centre	A number of participants said that management of confirmed cases should be improved, one participant citing referral health centres.	10
Case management b) Safe burials	Participants considered that there was room for improvement, with greater involvement of the community.	3
Epidemiological surveillance		0
Contact tracing	Improvements are expected, specifically with regard to training.	10
Laboratory	Mentioned only once	1
Capacities at points of entry		4

Other topics raised were the need for more human resources (4), training (3), equipment (3) and funding (3), and the management of water (2) and wastes (1). General comments were made by five participants on the discussion itself, the way it was organized, the mission and further simulation exercises. Two participants commented that the discussion was becoming unproductive and it was time to get to work.

EVD preparedness support team, Mali country visit, 20–24 October 2014

The evaluation form and table-top discussion also included questions on the extent to which the objectives had been achieved, the quality of the discussion and the usefulness of the lessons learnt. The level of agreement with the three statements below exceeded 95%.

Statement	Strongly agree	Agree	Disagree	Strongly disagree
The discussion achieved the stated goal.	25%	71%	4%	
The scenarios and questions gave rise to good discussion.	36%	64%		
The form and discussion helped to raise important issues and to draw useful lessons.	40%	56%	4%	

Annex 4. Simulation exercise

Expected actions and shortcomings

Aspect	Expected action and shortcomings	By whom
Preparedness for importation of Ebola cases	Sanitary cordon in place at customs posts, with one health team using an infrared thermometer. All travellers checked.	Two health workers at each sanitary cordon
	33 sanitary cordons, 17 isolation facilities	
	Available guidelines on case definitions, passenger lists and emergency intervention arrangements circulated to all sanitary cordons	National Health Department
	Training for health workers	
	Vehicle containing passenger with suspected EVD immobilized. Rapid response team called. Other passengers remain in situ until results are known. If the passengers refuse to remain, the police are called.	
	The patient is taken to the evaluation unit and then, if he or she meets the definition of a suspected case, to the isolation unit.	Health workers
	Bus disinfected by health workers	Health workers
Luggage held at a designated site, with no access to luggage during waiting period. No guidelines for luggage		
Public latrines at customs posts disinfected regularly	Customs officers	
Reporting	Channel of communication to the district chief medical officer (depending on administrative structure)	
Internal coordination and communication	The chief medical officer and rapid response team are informed simultaneously as soon as a suspected case is declared.	Health workers by hotline (on-duty team)
	Hotlines: mobile communications do not always work (technical issues to be addressed by operators). Malitel is reliable.	National Health Department by two hotlines (on-duty physicians)
	No hotline coverage 24 h/24 h, 7 d/7d. Call centre should be established.	
	No communications strategy for patients or health workers (both categories stigmatized)	
	Posters distributed to community and referral health centres for widespread public dissemination only; not distributed to private clinics.	
Case management	At the sanitary cordon, health workers evaluate patients and then telephone the rapid response	

	<p>team.</p> <p>Receptionists at referral health centres are told about the guidelines and to call the hotline.</p> <p>Initial cases were not managed according to the protocol.</p> <p>It was reported that, when health workers fear Ebola, they abandon their posts and the rapid response team is called.</p> <p>Isolation units (sanitary cordon)</p> <p>First plan: four tents, one for putting on PPE, one for health workers, one for suspected cases and one for confirmed cases</p> <p>Subsequent plans: three tents or modular units and six major investments for isolation facilities</p> <p>Health centre training: no dedicated personnel, no Ebola-specific training;</p> <p>67% unaware of basic practices</p> <p>The Hygiene and Sanitation Division is responsible for training health workers in infection prevention and control on the basis of a technical protocol, training modules, a trainer’s guide and a hand hygiene seminar. Not Ebola-specific</p> <p>The number of isolation and treatment facilities other than at CNAM is not clear.</p> <p>Water needed at isolation facilities. The isolation facility at the CNAM is adequate.</p> <p>Patient security should be strengthened.</p> <p>The Mali Hospital will be used if the number of patients exceeds the capacity of the CNAM.</p> <p>Management of dead bodies: Burial teams must be established. Currently, health workers appear to be responsible for burials, only some of whom have been trained.</p> <p>Sprayers for decontamination should be identified and trained.</p>	<p>National Health Department</p> <p>National Health Department</p> <p>National Health Department, Hygiene and Sanitation Division</p> <p>National Health Department</p>
Contact tracing	<p>The rapid response team sends a list of contacts to the National Institute for Public Health Research, which checks the list. Coordination is difficult. No response from the rapid response team, which consists of a single person.</p> <p>The Director of the Institute conducts case monitoring. Patients do not want to be visited, nor do they want to go to a clinic, for fear of stigma.</p> <p>No training in contact tracing</p>	<p>National Institute for Public Health Research</p> <p>Red Cross could provide support (as in other countries)</p>
Transport	<p>The intervention team transports patients and any specimens. Drivers wear PPE. The vehicles are disinfected.</p>	

	Transport is improvised at the customs post. Patients should be transported to the Ebola treatment centre by ambulance. There is no ambulance.	
Decontamination elements to be taken into consideration	There is no decontamination team at the customs post, isolation units or the treatment centre, or for decontaminating bodies. No sprayer.	
Communications media and public	Media communication. News spreads rapidly at all levels (political, administrative, population). No designated spokesperson. A communication plan and several communication strategies are attached to the contingency plan. Hundreds of radios have been distributed. Reliance on community intermediaries and religious leaders to communicate news to the population	Minister of Health informs the population
Laboratory	Specimens sent to the Centre for Tuberculosis and AIDS Research (SEREFO) in Mali	
Funding	No discussion	
Coordination	The coordination structure and technical committees should be institutionalized. A technical command centre is needed.	Interministerial committee, prefects, regional coordinators

Report on the simulation exercise at the Gabriel Touré Hospital

1. Reception and evaluation		
The patient arrives at Gabriel Touré Hospital in a taxi. Posters are displayed in the waiting room informing reception staff of symptoms of EVD, such as fever and cough. The patient agrees to wear a mask and to sit in a separate area of the waiting room. The patient is seen by a nurse and subsequently by the physician on duty.		
Expected response	Indicators	Remarks
Rapid evaluation of the patient Hand hygiene General considerations: <ul style="list-style-type: none"> Do not shake hands. Maintain a distance of at least 1 m between interviewer and interviewee. PPE not necessary if the person is asymptomatic (no fever, diarrhoea, vomiting or bleeding), if the correct distance is maintained and there is no contact with the environment. Hydroalcoholic solutions and hand- 	Application of general measures	Satisfactory <input type="checkbox"/> Standing instruction at the hospital not to shake hands Maintenance of a distance of at least 1 m Findings: No poster displayed in reception area Wash basin out of order; no soap; no hydroalcoholic solution provided by hospital (patients required to provide it) Recommendations: Ensure that wash-basins in reception areas are in working order and soap and hydroalcoholic solutions are made available by the

<p>hygiene techniques are available and used by interviewers.</p>		<p>hospital.</p>
<p>Questionnaire: significant symptoms: fever, headache, muscle pain, cough, sore throat, abdominal pain, diarrhoea, haemorrhage Exposure factors: significant contacts in a region at risk</p>		<p>Satisfactory <input type="checkbox"/></p> <p>Findings: Patient questioned correctly about symptoms, but no questions asked about the nature of exposure. Visited Conakry, but no questions about to contact with EVD patients Recommendations: Make the guidelines and case definition available at reception (all points of entry to the hospital: emergencies, general consultations, obstetrics, paediatrics, etc.). Train reception staff at all points of entry to the hospital.</p>
<p>If the patient fits the definition of a suspected case:</p> <ul style="list-style-type: none"> • PPE: mask, gloves, waterproof gown (over medical scrubs), disposable or used solely for purpose • toilet or slop pail for patient only • restriction on number of visitors and persons entering the room • register of persons entering the room 	<p>Awareness of measures, specifically the procedure for putting on and taking off PPE Training sessions</p>	<p>Satisfactory <input type="checkbox"/></p> <p>PPE is available (N=10) Put on with the help of another person. The correct sequence is followed, with reference to a table of instructions contained in the PPE box. Number of visits is limited. For example, the patient's wife is allowed to visit her husband at a distance, accompanied by the physician. Number of training sessions: None Findings: The patient was led in by the physician, walking alone, as his condition permitted it. This was not envisaged in the scenario, and created some confusion. The scenario was adapted: 1) the patient falls ill in the isolation room, and 2) the medical staff must wear PPE. The medical staff put on their PPE in two locations: the two nurses in a separate room and the physician next to the isolation room. No notice of infection and control measures displayed on the door. Putting on PPE: Difficult. No medical scrubs. No hand hygiene (no wash-basin, no hydroalcoholic solution). Removing PPE: Very difficult. Multiple errors in the sequence, resulting in contamination. No technique for removing gloves. No hand hygiene. PPE placed in a USAID cardboard box, which is too small for the biohazard suit and gloves. We are told that PPE is available in one size only. The size label is inside the biohazard suit and therefore difficult to see. It might be a good idea to install a wardrobe with provision of small, medium, large and extra-large PPE. No special material in the isolation room.</p>

		<p>Physician ignorant of the disinfection technique; told us that he wrapped his stethoscope in a glove to avoid direct contact with the patient. No container for sharps. No container for waste.</p> <p>A toilet and wash-basin are available for the patient at the back of the room.</p> <p>The isolation room is definitely too small to ensure safe management of the disease by health workers. No space at the exit for good hand hygiene (no wash-basin, no hydroalcoholic solution) and insufficient room to remove PPE.</p> <p>Recommendations: Provide a proper isolation room in line with WHO standards in order to ensure the safety of health workers and visitors.</p> <p>Ensure access to wash-basins, soap and hydroalcoholic solution near the isolation room.</p> <p>Display infection prevention and control measures on the door of the isolation room.</p> <p>Display the correct sequence for putting on and taking off PPE for medical staff.</p> <p>Ensure the provision of PPE (impermeable and several sizes of biohazard suits and gloves) according to WHO standards.</p> <p>Make equipment available exclusively for treating patients.</p> <p>Train nurses, health workers, disinfection workers and all other people treating the patient.</p>
<p>Add to PPE: boots (or shoe covers), face or eye protection, hood, second pair of gloves</p>	<p>Awareness of measures, specifically techniques for putting on and taking off PPE</p>	<p>Satisfactory <input type="checkbox"/></p> <p>Findings: Not applicable. Boots and hood form part of the biohazard suit. Eye protection and a second pair of gloves are worn as a matter of course.</p>
<p>The physician confirms a suspected EVD case and tells the patient and his wife.</p>		
<p>The medical director is informed.</p>		<p>Satisfactory: The medical director, as the next most senior officer, was informed.</p> <p>Recommendations: None</p>
<p>The rapid response team is contacted for initial evaluation, contact-tracing and reporting to the health authorities</p>		<p>Satisfactory <input type="checkbox"/></p> <p>Findings: The medical director immediately contacted the head of the rapid response team. He did not have the hotline number. 20 min between the call and arrival of the rapid response team.</p> <p>Recommendations: Ensure a hotline staffed 24 h/24 h, 7 d/7 d, and circulate the contact details of the rapid response team.</p>

<p>The patient is transferred to the primary isolation unit for treatment while awaiting confirmation of the EVD diagnosis.</p>		
<p>The isolation unit is informed of the transfer. In preparation for the transfer, the patient washes his hands and puts on a mask and gown. The stretcher-bearer wears PPE. Management of soiled bedclothes and biohazardous wastes and decontamination of the room and the toilet</p>	<p>Information before transfer Stretcher-bearer aware of measures and specifically the technique for putting on and taking off PPE Management of soiled bedclothes and decontamination of the room and the toilet</p>	<p>Satisfactory <input type="checkbox"/></p> <p>Findings: See above. No container for wastes. No disinfection at reception or at the isolation unit Recommendations: Ensure waste management and disinfection of the environment in line with WHO standards. Proper training for waste management and environmental disinfection</p>
<p>Clinicians, nurses, hygiene officers, hygiene promotion officers, environmental sanitation personnel</p>	<p>Human resources</p>	<p>Satisfactory <input type="checkbox"/></p> <p>Physicians and nurses are present. Findings: No hygiene officer, no one in charge of hygiene promotion, no one in charge of environmental hygiene Recommendations: Ensure the availability of hygiene officers, hygiene promotion officers and environmental sanitation personnel</p>
<p>Isolation unit, basic hygiene equipment, 100 PPE kits, environmental sanitation equipment, disinfection equipment and protective equipment (gloves, soap, bleach, disinfectant), waste management facilities, medical equipment, incinerators</p>	<p>Materials and equipment</p>	<p>Satisfactory <input type="checkbox"/></p> <p>Number of isolation beds: 1 (See findings and recommendations above) Number of PPE kits: about 10 Findings: No basic hygiene equipment. No environmental sanitation or disinfection equipment. No dedicated medical supplies. No waste management facilities. No incinerators. Recommendations: Ensure availability of the required material, through public channels if necessary.</p>
<p>Technical documentation: Case definitions Guidelines</p>	<p>Documentation on site</p>	<p>Satisfactory <input type="checkbox"/> Specify:</p> <p>Findings: No case definitions. No other guidelines at the hospital. Recommendations: Ensure availability of technical documentation in line with WHO standards.</p>
<p>Motivational measures</p>	<p>Remuneration and motivation for high-risk assignments Indemnities in the event of infection or death</p>	<p>Satisfactory <input type="checkbox"/> Specify:</p> <p>Findings: No motivational measures Recommendations: Institute motivational measures: remuneration and motivation and indemnity in the event of infection or death.</p>
<p>Remarks: At no stage was listing of contacts mentioned. There should be better environmental hygiene in the isolation room.</p>		
<p>2. Rapid response team: specimen-taking, packaging, transport of specimens and treatment of patient</p>		

<p>The rapid response team arrives and evaluates the patient. The reference laboratory is informed that it will shortly receive specimens for testing for EVD. The specimen-taking protocol is validated (type of specimen required, transport). The basic specimens are taken (white blood cells, smear, glycaemia, blood culture, test for Ebola or Marburg virus).</p> <p>The specimens are transported to the reference laboratory.</p> <p>The patient is given antibiotic and antimalarial treatment as a matter of course.</p>		
Expected response	Indicators	Remarks
<p>PPE for evaluation and specimen-taking</p> <p>No-touch container for sharps at point of care</p>	<p>Knowledge of procedures</p> <p>Training sessions</p> <p>No-touch container at point of care in a secure location</p>	<p>Satisfactory <input type="checkbox"/></p> <p>Number of training sessions: None</p> <p>Findings: Two technicians with no experience or training brought in for the exercise, as the usual team of technicians had been sent to evaluate and take specimens from a suspected case at Kayes.</p> <p>No sharps container available</p> <p>Recommendations: Strengthen procedures for evaluating patients, taking specimens and transporting blood specimens for several tests.</p> <p>Ensure proper training of laboratory technicians.</p>
<p>Disinfection of test tubes and deposition in a waterproof bag labelled “Biohazard—for decontamination at a laboratory facility”.</p> <p>Laboratory request form in a second hermetically sealed bag. Deposition in a rigid airtight container.</p> <p>Decontamination of container before it leaves the treatment facility</p>	<p>Knowledge of procedures</p> <p>Training sessions</p>	<p>Satisfactory <input type="checkbox"/></p> <p>Number of training sessions: None</p> <p>Findings: The technicians assigned to the exercise were not aware of the triple-packaging technique.</p> <p>Recommendations: Ensure proper training for laboratory technicians.</p>
<p>Level-3 laboratory</p> <p>Level-4 laboratory</p> <p>Mode of transport, availability agreement</p> <p>Collaboration agreements</p>	<p>Level-3 laboratory</p> <p>Level-4 laboratory</p> <p>Agreement on availability of transport</p> <p>Agreement on collaboration with WHO confirmation centre</p>	<p>Satisfactory <input type="checkbox"/></p> <p>Mali has a level-3 laboratory (SEREFO). A collaboration agreement has been established with the WHO Dakar laboratory. Transport arrangements have been agreed between SEREFO and WHO Dakar. Transport from the site of specimen-taking to the SEREFO laboratory is currently handled by the rapid response team</p> <p>Findings: The information about the laboratories, the mode of transport and the agreements was obtained orally, outside the simulation exercise.</p> <p>Recommendations: None</p>
<p>Two laboratory technicians</p>	<p>Human resources</p>	<p>Satisfactory <input type="checkbox"/></p> <p>Findings: At present, two technicians have been properly trained to cover the entire country. This would not be enough if the number of cases increased. Other technicians are being trained.</p> <p>Recommendations: Recruit and train</p>

		enough laboratory technicians.
Triple-packaging kits, PPE, incinerators	Equipment and materials	Satisfactory <input type="checkbox"/> Findings: No triple-packaging kits during the exercise. Some are apparently available for the rapid response team. PPE is available for laboratory technicians. No incinerator at the Gabriel Touré Hospital. Recommendations: Ensure availability of material to transport specimens and manage waste.
Technical documentation: Specimen-taking Packaging and transport to the laboratory	Mode of transport	Satisfactory <input type="checkbox"/> Findings: This component was not evaluated. Recommendations: Not applicable
Some hours later, the patient is confirmed as having EVD and is transferred to the Ebola treatment centre.		
Expected response	Indicators	Remarks
The Ebola treatment centre is given advance warning. Ambulance crews wear PPE (mask, gloves, gown), check hand and respiratory hygiene (mask) and are observed putting on and removing PPE. Management of soiled bedclothes and biohazardous waste Decontamination of the ambulance	Knowledge of procedures, specifically for putting on and removing PPE Training sessions	Satisfactory <input type="checkbox"/> Number of training sessions: None Findings: The Ebola treatment centre is not yet operational. No transfers have yet been made. Recommendations: Finalize arrangements at the CVD/CNAM (12 beds) for the treatment of confirmed EVD in line with WHO standards. Ensure that a second centre is operational to house other patients, if the need arises.

Annex 5. Checklist results for Mali

Component 1. Overall coordination

	Tasks	Within	Yrd/No
1.1	Emergency and epidemic committees / Ebola task force	30 days	Y
	Existence of multisectoral, functional Ebola task force / Committee and technical subcommittees at national and district levels; Pre-existing emergency / epidemic committee transitioned into an Ebola task force		
	Membership to the Ebola task force at national and sub-national level in “at risk” districts reviewed and updated, and every one informed of the roles and responsibility		
	Technical sub-committees of the Ebola task force with focal points and clear mandate constituted		
	Existence of clear terms of reference of Ebola task force and technical sub-committees		
	Established procedures for command and control, coordination mechanisms, clearance of key technical and information products		
1.2	Emergency operations centre / Incident management structure:	30 days	N
	Establish nationally to cover areas of low and high population density		
	Identify, train and designate an incident manager and an operations manager		
	Demonstrate success during drills		
	Establish personnel at the subnational level for localized emergency operations centre / incident management structure coordination and management		
	Develop plans for communication channels within emergency operations centre/incident management structure and between emergency operations centre/incident management structure and the public		
Clearly assign communication responsibilities to specific emergency operations centre / incident management structure roles			

Component 2. Rapid response team

	Tasks	Within (days)	Yes/No
2.1	Identify and assign members of the teams	30	Y/N
2.2	Train medical staff on EVD rapid response team	30	Y
2.3	Train medical staff using WHO Regional Office for Africa modules applied in Liberia, including mock Ebola treatment centre	30	N
2.4	Identify a space in an existing health facility and turn it into a fully functioning Ebola treatment centre	30	Y

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2.5	Map potential health facilities at the district level that can be turned into Ebola treatment centres at short notice	30	N
2.6	Identify and train community volunteers in the community	60	N
2.7	Train the epidemiologists in subnational rapid response team as part of the second level 24h/7 hotline service	60	N
2.8	Ensure that there is no cash-flow problem and a contract-facilitation mechanism	60	N
2.9	In the absence of an EVD case in the country after 60 days, conduct at least one simulation exercise to maintain capacity	90	N

Component 3. Public awareness and community engagement

	Tasks	Within (days)	Yes/No
3.1	Develop or adapt, review, translate into local languages and disseminate targeted messages for media, health care workers, local and traditional leaders, churches, schools, traditional healers and other community stakeholders	30	Y
3.2	Identify and engage influential/key actors/mobilisers, such as religious leaders, politicians, traditional healers, and media in urban and rural areas	30	Y
3.3	Map out public communication capacities and expertise within health and other sectors	30	Y
3.4	Identify and establish mechanisms for engagement with national networks for social mobilization	30	Y
3.5	Identify established functional communication coordination mechanism involving all government sectors and other stakeholders (including civil society organisations and communities)	30	Y (nongovernmental organization)
3.6	Establish coordination mechanism for engaging with the community (involving the traditional leaders, relevant sectors in a bottom-up approach)	30	Y (nongovernmental organization)
3.7	Establish coordination mechanism for engaging with partners (e.g. nongovernmental organizations)	30	Y

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3.8	Draw up a roster with clear roles and responsibilities for internal and external communications and spokespersons	30	N
3.9	Establish functional and timely procedures for review, validation and clearance of information products	30	Y
3.10	Identify and train spokespersons and communication team	30	N
3.11	Develop a comprehensive strategy, plan and budget for engaging with the media and public (including a scaled-up approach)	30	Y
3.12	Establish a system for rumour monitoring, investigation and response	30	N
3.13	Establish a plan for reviewing, revising and monitoring impact of communication strategy	30	Y
3.14	Identify critical communication networks (television, radio, social media, SMS, storytellers, theatre) and plan for use in appropriate languages	30	Y
3.15	Establish media monitoring mechanisms with appropriate tools	30	Y/N

Component 4. Infection prevention and control

	Tasks	Within days	Yes/No
4.1	Provide health facilities with basic hygiene, sanitation, disinfection/protective equipment and posters. Priority should be given to hospitals; then health centres in high risk areas (started in 30 days and to cover priority districts in 60 days)	30 – 60	Y
4.2	Increase the general awareness about hygiene and how to effectively implement infection prevention and control (started in 30 days and completed in 60 days for priority districts)	30 – 60	N
4.3	Identify health facilities for setting up basic isolation units (2 beds) for suspected cases in all major hospitals and all border points (ideally regional and district hospitals)	30	N
4.4	Establish a compensation and benefits package for health care workers for: <ul style="list-style-type: none"> - remuneration and motivation for high-risk assignment; - in case of infection and death 	60	N

Component 5. Case management

5a) Ebola treatment centre

	Tasks	Within (days)	Yes/No
5a.1	Set up at least one facility with trained staff, adequate supplies, ready to provide care to a patient or cluster of patients with suspected EVD. This facility should cater for 15 patients initially.	30	N
5a.2	Equip and adequately train ambulance teams to transport suspect EVD cases	30	N
5a.3	Identify health facilities at district level that can be turned into an Ebola treatment centre at short notice	30	N
5a.4	Identify health facilities at local level that can be turned into an Ebola treatment centre at short notice	60	N

5b) Safe burials

	Tasks	Within (days)	Yes/No
5b.1	Develop SOPs for safe burials and decontamination	30	Y
5b.2	Identify appropriate secured burial ground with agreement of the community	30	Y
5b.3	Train burial team (8 people)	30	N
5b.4	Ensure that a dedicated transportation process is in place to bury human remains safely	30	N

Component 6. Epidemiological surveillance

	Tasks	Within (days)	Y/N
6.1	Establish a 24/7 hotline with escalation facilities with medically trained staff	30	Y
6.2	Train the hotline staff on case identification and management of communication with potential cases	30	Y
6.3	Provide guidance (case investigation forms, standard case definitions to all countries)	30	Y
6.4	All countries to test existing IDSR systems for Ebola, identify gaps and start implementation of corrective actions where necessary	30	N
6.5	Establish immediate lines of reporting for suspect cases, clear responsibility for such actions	30	Y
6.6	Identify human resources for community surveillance (community health care workers, Red Cross Red Crescent volunteers, nongovernmental organizations, midwives, healer, leaders etc.)	30	N
6.7	Provide technical assistance and training to address the still existing gaps in IDSR	60	N
6.8	Distribute case definitions to all provincial, district levels and health care facilities; provide training on the case definition	60	Y/N
6.9	Disseminate simplified case-definitions for community use	60	Y

Component 7. Contact tracing

	Tasks	Within (days)	Yes/No
7.1	Train the teams at both national and subnational levels from rapid response teams and trainers on contact tracing and data management	30	Y
7.2	Provide UNMEER with list of required equipment and materials for contact tracing at national and sub-national levels	30	N
7.3	Train staff at district level on contact tracing	60	N
7.4	Train staff at sub district and community level on contact tracing	90	N

Component 8. Laboratory

	Tasks	Within (days)	Yes/No
8.1	For each district, identify laboratory responsible for analysis and /or specimen handling of biological samples and mode of transport for samples	30	Y
8.2	Stand-by arrangements and agreements with WHO collaborating centres for confirmatory testing in place	30	Y
8.3	Stand-by arrangements and agreements with relevant air-lines to ship samples from suspected cases to WHO collaborating centres in place	30	Y
8.4	Availability of resources to facilitate transportation and shipment of specimens	30	Y
8.5	Existence of protocol for: <ul style="list-style-type: none"> - sample collection; - referral and shipment of specimens from suspect EVD cases to designated laboratory for confirmation at national and sub-national public health laboratories 	30	Y
8.6	Laboratory personnel trained on procedures for specimen collection, packaging, labelling, referral and shipment, including handling of infectious substances	30	N

Component 9. Capacities at points of entry

	Tasks	W.	Y/N
9.1	Identify point of entry teams to cover 24/7, to assist travellers and ensure correct isolation if required	30	Y
9.2	Deliver identified supplies (9 PPE full sets at each point of entry medical equipment to survey cases 3 infrared hand held thermometers, 1 scanner, 2 observation room/ 2 health facilities and supplies for safe isolation and observation of suspect cases if possible separation room, if not, a separated area. Depending on the geographical location, 1 ambulance) to points of entry. Every point of entry needs to have either a separation room of a dedicated area for holding suspected cases	30	Y/N
9.3	Train staff on infection prevention and control (training of trainers)	30	Y
9.4	Identify "holding" centre/area	30	Y
9.5	Ensure that a health emergency contingency plan is in place at high risk point of entry (ports, airports, and ground crossings)	30	Y
9.6	Equip and appropriately staff sites for health assessments and management of suspected ill travellers at all point of entry	30	Y
9.7	Avail SoPs to identify, manage and refer suspected ill patients from point of entry to designated hospitals /isolation facility	30	Y

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9.8	Review and test current communication system between health authorities and conveyance operators at point of entry, and national health surveillance systems	30	N
9.9	Sensitize public health authorities at point of entry to EVD, review their roles and processes for handling, reporting and for referral of suspected cases of EVD	30	Y
9.10	Avail SOP for implementing exit screening in the event of a confirmed EVD outbreak	30	N
9.11	Review systems and procedures for implementation of health measures related to infection prevention and control	30	N

Component 10. Overall budget for outbreak

	Tasks	Within (days)	Yes/No
10.1	Define operational budget for activities (communication, enhanced surveillance, investigation, etc.), pre-epidemic detection and for the preliminary response	30	Y
10.2	Identify funding sources, including allocation of domestic resources and mechanisms to raise additional resources when necessary, has been put in place and is known	30	Y
10.3	Develop templates for resource mobilization and for country and donor reporting, including mechanisms to monitor and track implementation	30	Y
10.4	Establish easily accessible contingency funds for immediate response to outbreak of EVD at national and other appropriate sites	30	Y
10.5	Identify the process to transfer money from central level to local emergency use	30	Y