Ebola virus disease preparedness strengthening team

Gambia country visit 17–22 November 2014



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Executive summary

The epidemic of Ebola virus disease (EVD) in West Africa poses a considerable risk of introduction of Ebola virus into currently unaffected countries. The EVD outbreak has been declared a "public health emergency of international concern" by the WHO Director-General under the International Health Regulations (2005) (IHR). Unaffected countries with land borders adjoining those of countries with current Ebola virus transmission have been advised by the IHR Emergency Committee to establish surveillance and alert systems 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, ensure that health care workers are trained in appropriate procedures for infection prevention and control and establish rapid response teams to investigate and manage EVD patients and their contacts.

WHO and partners are accelerating activities to support currently unaffected countries by strengthening their preparedness for introduction of EVD, to ensure immediate outbreak response capacity. The countries concerned are Benin, Burkina Faso, Cameroon, the Central African Republic, Cote d'Ivoire, the Democratic Republic of the Congo, the Gambia, Ghana, Guinea Bissau, Mali, Mauritania, Nigeria, Senegal and Togo. The activities include a preparedness checklist of the key components and tasks of an Ebola response and deployment of international "preparedness strengthening teams" to high-priority unaffected countries to facilitate use of the checklist and to help them plan and build their preparedness. The preparedness strengthening teams are formed in partnership with both national and international organizations.

The team deployed to the Gambia focused on assisting the country to be as operationally prepared as possible to effectively and safely detect, isolate, investigate and report potential EVD cases and to mount an effective response to prevent a larger outbreak. To accomplish this goal, the team conducted "scoping" activities, stakeholder meetings, site visits and a table-top simulation exercise to determine the systems in place and the areas of preparedness that could be strengthened.

The Gambia has an established mechanism for managing disasters and emergencies in its National Disaster Management Agency. The Agency established a health emergency preparedness and response plan in 2011 and a national EVD preparedness and response plan in April 2014. The plan focuses on health service response and includes strategic objectives, key activities and a budget. It is structured into five thematic areas: coordination, epidemiology and laboratory surveillance, case management, communications and social mobilization and logistics and safety. The five subcommittees responsible for these areas, which meet weekly, have already completed much work in preparing for the introduction of Ebola virus into the Gambia.

The Gambia country visit resulted in identification of both strengths and opportunities for improvement in all 10 key response components identified by WHO. Of the opportunities for improvement, four were considered critical and should be fully operationalized to permit an immediate response in the case of an EVD event:

- Ensure fully functional, equipped isolation facilities.
- Clarify the structure and composition of and the equipment required for rapid response teams.
- Identify a contact-tracing data management system, and train and provide resources for the necessary personnel.
- Clarify the relations between the national EVD plan and the response plan of the National Disaster Management Agency with respect to reporting and coordination.

Objectives

The objectives of the mission were:

- to ensure that the country 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 from developing and
- to identify the steps required to strengthen preparedness over periods of 30, 60 and 90 days.

The focus was supporting a country at risk in developing its own operational readiness for EVD by using national resources, expertise and networks as much as possible.

Country visit team

The joint team to strengthen the Gambia's EVD preparedness was composed of representatives of the Gambia's Ministry of Health, WHO, the US Centers for Disease Control and Prevention, the United Nations Office for the Coordination of Humanitarian Affairs, the Antigone Consortium, the Bernhard Nocht Institute for Tropical Medicine and other partners (see Annex 1).

Activities

(See also Annex 2)

Day 1. 17 November		
Greeting and planning session with the WHO Representative, staff and other team leaders	WHO Country Office	Introduction of the mission team and briefing by the WHO Representative on the Gambian context and the preparedness measures taken by the Gambia, supported by WHO
Review of country documents	WHO Country Office	Description by the WHO Representative of the Gambian EVD plan, past activities and future plans
Introductory meeting with the National Disaster Management Agency	WHO Country Office	National Disaster Management Agency presents EBV preparedness activities
Introductory meeting with staff of the Gambian Red Cross	Red Cross country office	Introduction to the Gambian Red Cross, discussion of WHO mission team objectives and of the activities of the Gambian Red Cross Society
Introductory meeting with Ministry of Health	Ministry of Health	Initial mission objectives set out by WHO Representative, Deputy Minister of Health and national Ebola task team. WHO provided a contextual briefing on the WHO response and introduced the consolidated preparedness checklist.
Team planning session	Ocean Bay Hotel	Summary of the day's activities and clarifications. Tasks distributed among the team and next day's activities planned

Meeting with the National Disaster Management Agency	Ocean Bay Hotel	Detailed presentation of the Agency's activities on EVD
Day 2. 18 November		
Meeting with Ministry of Health and partners to discuss the current situation of EVD	Ocean Bay Hotel	Meeting attended by representatives of the Ministry of Health, the mission team, United Nations agencies and nongovernmental organizations
preparedness in the Gambia		The mission team reviewed the preparedness checklist. The group broke up into six working groups representing the technical areas within the five elements of the Gambian EVD response plan: • coordination • epidemiological surveillance • laboratory surveillance • case management • communication and social mobilization • logistics and safety The working groups addressed the measures already in place, gaps, needs and priorities.
Meeting with the National Communication Task Force	Ministry of Health	The team participated as observers in a meeting of the National Communication Task Force attended by representatives of Government departments, nongovernmental organizations, religious bodies and the private sector. The meeting discussed various aspects of communication in the EVD preparedness and response plan and the budget.
Site visits	Emergency operations centre	Meeting with the Ebola preparedness subcommittees
GAMBIA/SENEGAL BORDER	Points of entry	Visit to the international airport in Banjul and to the Giboro land border to meet public health surveillance officers and immigration and customs staff. Review of equipment, standard operating procedures, staffing, training, holding facilities and challenges to preparedness
	National Reference Laboratory and Medical Research Council (MRC) Laboratory	Visit to the National Reference Laboratory to assess sampling, packaging and transport procedures and to the construction site of a BSL-3 facility in the MRC compound designated for EVD diagnostics
	Ebola treatment centres	Visit to assess infection prevention and control and case management at the designated EVD isolation and treatment centre (a converted tuberculosis sanatorium) and at the MRC

	Rural community (Giboro Kuta)	Field visit to the Giboro Kuta community to understand how the Communication Task Force's activities are translated into social mobilization at community level. It is a largely Fula community with strong ties to Guinea and is located near a major border crossing for people travelling from Guinea-Bissau, Guinea, Senegal and Sierra Leone. The community appeared to be well informed about EVD but asked for further information.
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Day 3. 19 November

Day 5. 19 November		
Preparation of table-top exercise	Ocean Bay Hotel	The preparedness strengthening team agreed on the scope of the exercise. The exercise scenarios reflected expected actions in the areas of detection, points of entry, case management, laboratory activities, contact tracing, social mobilization and coordination. The expected actions would be reported and used to evaluate the practical exercise the following day.
Table-top exercise	Ocean Bay Hotel	The exercise involved WHO, Ministry of Health authorities and other international partners. One of the two scenarios was at a health care facility and the other in a rural village. The exercise revealed strengths and weaknesses at national, regional and district levels.
Consensus on findings (field visits and exercise)	Ocean Bay Hotel	The participants separated into five working groups and discussed the outcomes of the exercise (see Annex 3) and the field visit, including the strengths and opportunities for improvement for each task force.
Day 4. 20 November		
Prioritization and time line	WHO Country Office	The five working groups compared their findings with the preparedness checklist (see Annex 4). Priorities, including time lines for work within the next 30, 60 and 90 days, were agreed upon.
Ebola treatment centre simulation exercise	MRC Ebola treatment centre	Members of the WHO team observed a field exercise on case management, infection prevention and control and sampling at the MRC Ebola treatment centre
Day 5. 21 November		
Ministerial and stakeholder debriefing	United Nations compound	Final briefing to the Ministry of Health and Social Welfare and stakeholders on the strengths, opportunities for improvement and suggested priorities for immediate action
Finalization of action plan and mission report	Ocean Bay Hotel	Drafts of the action plan and mission report were submitted to the WHO Representative.

Background

Geography

The Gambia is located midway on the bulge of the west African coast and stretches over 400 km inland from west to east on either side of the River Gambia, varying in width from about 50 km near the mouth of the River to about 24 km upstream. The country is bordered on the north, south and

east by Senegal and to the west by the Atlantic Ocean. The River Gambia, which runs the entire length of the country from the Futa Jallon highlands in Guinea to the Atlantic Ocean, divides the land area of 11 000 km² into two, the South Bank and the North Bank.

Administrative structure

The country has five provincial regions and two municipalities. The regions are the West Coast Region, the Lower River Region, the Central River Region, the Upper River Region and the North Bank Region. The municipalities are the Island of Banjul and Kanifing. The two municipalities are headed by elected mayors, while the five regions are headed by governors appointed by the President. The regions are further divided into 40 districts headed by chiefs. The administrative regions are further divided into seven health regions by the Ministry of Health and Social Welfare: Western Regions 1 and 2, the North Bank West Region, the North Bank East Region, the Lower River Region, the Central River Region and the Upper River Region.

Demographic profile

The Gambia has a total population of about 1.8 million, with a life expectancy at birth of 64 years for both sexes. The main tribal groups in the country are Mandinka, Wolof, Fula and Jola, and nearly 90% of the population are Muslims.¹ The literacy rate among women aged 15–24 years is 63%, and the national gross domestic product per capita is about US\$ 500.² Significant progress has been achieved in reducing mortality among children under 5 years, from 170/1000 in 1990 to 74/1000 live births in 2013.³ The maternal mortality rate in 2013 was 430/100 000 live births,⁴ and the national HIV prevalence rate in 2012 was 1.8%.⁵

The Gambia has no significant mineral resources, and the modern industrial sector in the country is small, providing employment for less than 5% of the labour force; it accounts for less than 8% of the gross domestic product. About 70% of the workforce in the country is employed in the agricultural sector. Tourism is also an important contributor to the country's economy. As a result of the Ebola outbreak in the sub-region, which has reduced tourism, and delayed rains in 2014, real growth of the gross domestic product in 2014 is projected to be -1%, while it was projected to be 6.7%.⁶

Health system

The Ministry of Health and Social Welfare is responsible for overall policy formulation, planning, organization and coordination of the health sector at national, regional, district and community levels. It is also responsible for resource mobilization, allocation and provision of technical support and supervision to the regions and specific health programmes. To ensure efficient, effective performance, the Ministry has established coordination structures at national level, which include directorates and programme management units responsible for coordinating specific areas. The current organizational structure at the Ministry comprises the following directorates:

- Health Services
- Planning and Information

¹ Republic of the Gambia. 2013 population and housing census. Preliminary results. Banjul; 2014.

² World Bank. Data. Gambia, the. Washington DC; 2014 (http://data.worldbank.org/country/gambia).

³ United Nations Children's Fund. Levels and trends in child mortality. Geneva; 2014.

⁴ United Nations Population Fund. The state of world population. New York; 2014.

⁵ Republic of the Gambia. HIV national sentinel surveillance report. Banjul; 2013.

⁶ World Bank. Update 24 November 2014. Washington DC; 2014 (http://www.worldbank.org/en/country/gambia/overview).

- Health Research
- National Public Health Laboratory Services
- Health Promotion and Education

To facilitate the management of health care activities at regional level, the Ministry has established regional health directorates that are responsible for coordinating policy interpretation, planning and implementation of health services and monitoring and evaluation of health service delivery in their respective regions. Each regional directorate is headed by a regional director, who is responsible for providing technical support to basic health facilities.

Health service delivery

Health service delivery is organized into primary (village health services), secondary (minor and major health centres) and tertiary (hospitals) levels.

Primary level: village health services

The primary level consists of 634 primary health care villages, which are clustered into 106 circuits of five to eight villages. Each village has traditional birth attendants and village health workers, who are often the first contact of individuals, families and communities with the health system and are supervised by trained community health nurses. Traditional birth attendants provide care for pregnant women, conduct normal deliveries and identify and refer obstetric emergencies. The village health workers conduct health promotion and prevention measures, treat minor ailments and refer cases that are beyond their scope.

The village health services are complemented by reproductive and child health "trekking" visits from the health centres. The package comprises antenatal care, treatment for sick children, child immunization, growth monitoring and registration of births and deaths.

Secondary level

The secondary level of care delivery consists of six major and 41 minor health facilities, which are responsible for delivering basic health services and serve as referral centres for village health services. The national standard for a minor health centre is 20–40 beds per 15 000 people. It should provide up to 70% of the basic health care package to the population, including basic obstetric care.

Major health centres not only provide basic health care but also serve as referral centres for the minor health centres for services such as comprehensive emergency obstetric care (surgery, blood transfusion and further medical care). The standard bed capacity of a major health centre is 110–150 beds per 150 000–200 000 population.

Tertiary level

The tertiary level consists of five general hospitals and one specialized and one teaching hospital. They serve as referral points for the major health centres and provide specialized services. The Edward Francis Small Teaching Hospital also provides training for health professionals.

Private health sector

The private sector includes both private for-profit and private non-profit facilities, which complement the services provided by public facilities. Most are located in the Greater Banjul area, so that the choice of health services by rural communities is very limited. There are weak links between public and private health services.

EVD and other emergency planning

The Gambia has a well-established, active National Disaster Management Agency. Using international conventions and protocols, the Agency has a developed policy on the basis of national, regional and international strategies. The Agency also has clear goals and a national vision that recognizes the need for safe, resilient communities in which the impacts of hazards do not hamper development or the ecosystem and the provision of a better quality of life (http://www.ndma.gm/home/).

In 2011, the Agency established a health emergency preparedness and response plan specifically for areas of ministerial and institutional responsibility in the management of known hazards (man-made and natural) that could have negative consequences on the health of the Gambian population. Types of disasters, the risks they present and the main and additional actors required to manage each type of disaster are identified. EVD is not included, but there is reference to yellow fever, another haemorrhagic fever. The main and supporting actors in an EVD event would probably be similar to those in a yellow fever outbreak.

The Gambia also has a national EVD preparedness and response plan, which was initiated almost immediately after confirmation of the first cases of EVD in West Africa (April 2014). This plan includes strategic objectives and specific preparedness actions in five coordination and technical areas. The subcommittees formed under the plan primarily address areas in the health sector but include other necessary response sectors, such as communications, logistics and security. The plan states that the principle of "one national plan" encourages stakeholders and partners to prepare specific plans within the same framework.

Findings and recommendations for the 10 areas of EVD preparedness

The following section briefly summarizes the infrastructure and activities for EVD preparedness that are already in place in the Gambia and identifies opportunities for improvement to strengthen the nation's readiness in the event of an EVD incident. Action points for improvement are summarized in Annex 5.

This section is organized into the 10 components of the WHO consolidated checklist for EVD preparedness, which are grouped into the five areas covered by the subcommittees of the national EVD preparedness and response plan:

Components of Gambian national EVD plan Components of WHO consolidated checklist		
1. Coordination	1. Planning and coordination	
2. Epidemiological and laboratory surveillance	2. Surveillance	
	3. Rapid response teams	
	4. Contact tracing	
	5. Points of entry	
	6. Laboratory	
3. Case management	7. Case management	
	8. Infection prevention and control	
4. Communication and social mobilization	9. Social mobilization and risk communication	
5. Logistics and safety	10. Budget	

Coordination

1. Planning and coordination *Strengths*

- An "all hazards" health emergency response plan was drawn up in 2011.
- The well-established National Disaster Management Agency could serve as a platform for the EVD response.
- A national joint operations centre is operational.
- The national EVD preparedness and response plan initiated by the health sector is active. It is
 implemented by five technical subcommittees that address the core areas required for the
 management of health sector activities.
- EVD simulation exercises covering a range of response activities have been conducted, and more are planned. The exercises validated many existing procedures and processes and were also helpful for identifying opportunities for improvement.

Opportunities for improvement

- The roles, responsibilities and reporting mechanisms among health and other sectors should be clarified immediately.
- The health emergency preparedness and response plan (2011) of the National Disaster Management Agency should be updated to include EVD as a hazard (disease with epidemic potential) and recognize the technical leadership required from the health sector during an event.
- The national EVD preparedness and response plan should be updated to ensure that the status of activities is tracked and shared and that prioritized activities are followed up immediately. A health incident management structure, including an organizational chart, should be developed within the EVD preparedness and response plan and disseminated to the National Disaster Management Agency. Plans at subnational level should be consistent with national plans.
- As a priority, a location (physical space) should be found for EVD operational direction and coordination, which has the necessary technical infrastructure (telecommunications, information technology).
- Consider establishing a national governance framework for EVD and other public health emergencies, recognizing national obligations under the IHR.
- Consider establishing a health emergency management programme for preparedness, response and recovery, which includes training and a progressive exercise programme.

Epidemiological and laboratory surveillance

2. Surveillance

Strengths

- Standard EVD case definitions have been developed and disseminated to some health facilities, points of entry and regional health teams. A simplified EVD case definition has been reported to exist.
- A free, well-publicized national hotline for EVD has been established at national level, staffed by health communications personnel and epidemiologists trained by WHO in use of the case definition. It can trigger the deployment of a rapid response team to verify reported possible cases.
- Facility-based surveillance for EVD within Integrated Disease Surveillance and Response has been enhanced.
- An extensive existing network of surveillance officers is being drawn upon.
- The Gambian Red Cross Society has trained a number of volunteers in community-based surveillance. This could be extended to include village health workers, community health nurses and nongovernmental organizations.

Opportunities for improvement

- Algorithms are required for the various services of the hotline, including answering and triaging calls, deploying rapid response teams and a "flying squad" (transport and burial team) and recording call data such as the numbers of suspected cases and common questions.
- Create a sheet or form to track calls and an electronic database to collect, track and reference information.
- Specific training in call management and risk communication could strengthen identification and management of suspected cases over the telephone.
- Establish a programme of continuous training of community members, traditional healers, traditional birth attendants and health facility staff at regional and district levels by trained trainers to strengthen capacity for early case detection.
- Improve triage of suspected cases at health facilities, including early, sensitive screening that does not rely inordinately on travel history.
- Evaluation of systematic surveillance is recommended to determine the strengths and opportunities for improvement in this area.
- Encourage private health care facilities to report on EVD.
- Train and engage people at community level in surveillance.

3. Rapid response teams

Strengths

- A free, well-publicized national hotline for EVD has been established, which can trigger the deployment of a rapid response team to verify reported cases.
- The need for rapid response teams has been recognized, and many staff have been identified at national and regional levels and trained in case definitions.
- Initiation of contact tracing has been identified as a key duty of rapid response teams, and there is agreement on formal training for this activity.

- Rapid response for EVD is critical for rapid detection and containment. The first opportunity for strengthening these activities is clarification of the structure of the teams.
 - Diagrams should be drawn of the structure and function of teams for each region, with clear roles and responsibilities for all involved, including surveillance officers, laboratory technicians, psychosocial experts, clinicians and flying squads. The diagrams should show how all these players are alerted, their means of transport and how they interact to investigate cases, initiate contact tracing, collect and process specimens, transport patients or bodies and conduct disinfection. The diagram should be approved by the national task force and distributed to all rapid response team members at national and regional levels.
 - A roster of all rapid response team members, including surveillance officers, laboratory personnel, psychosocial experts, clinicians and flying squads should be prepared, with names and telephone numbers, and distributed to all those with a role in rapid response.
 - All national and regional rapid response teams and flying squads should receive regularly updated information on the status of holding facilities and available resources; the location of a holding or treatment facility must be determined before a suspected case or body is transported.
- Presently, rapid response teams include a surveillance officer, who verifies the location of and determines whether a reported case meets the definition of a suspected case of EVD, initiates contact tracing and alerts the flying squad if transport or burial is required. National and regional rapid response teams could be strengthened by the addition of a laboratory technician, a

psychosocial expert, a clinician and a logistician, if they are not present in the community when the team is deployed.

- The surveillance officer in each rapid response team should be trained in contact tracing for rapid containment of introduction of EVD into the country.
- Laboratory technicians who collect samples should be able to travel independently and, once they have collected a sample, be able to transport it directly to the laboratory.
- Verification of a suspected case does not require a travel history to an affected country. Patients may not always disclose their travel history, and a secondary EVD case may be the first to be detected in the country.
- An incentive pay programme should be instituted for all members of rapid response teams and flying squads. They should communicate with isolation facilities before initiating transport of a suspected case.
- Dedicated vehicles and fuel must be present at national, regional and subnational levels to transport rapid response teams to communities, and separate vehicles must be available at each location to transport patients.
- Clear procedures should be established for rapid response teams to request transport and burial of dead bodies. Open pick-up trucks dedicated for this task must be identified.
- To maintain capacity and identify gaps, simulation exercises involving all members of the rapid response team should be conducted in each region or each the three subnational areas every 60 days

4. Contact tracing

Strengths

- The surveillance officers in rapid response teams have been identified as initial contact tracers, as they are familiar with the paper forms created for case investigation, contact listing and 21-day monitoring.
- Several networks of knowledgeable community volunteers (e.g. the Gambian Red Cross Society, voluntary health workers, Voluntary Service Overseas, Peace Corps) could act as contact tracers.

Opportunities for improvement

- Adopt an electronic data management system for contact listing and follow-up.
- Train surveillance officers in all aspects of contact tracing within the next 30 days.
- Within the next 60 days, identify a backup cadre of contact tracers, who could be supervised and trained by previously trained surveillance officers.
- Provide a list of the required equipment and supplies to the logistics subcommittee of the national task force.

5. Points of entry

Strengths

- Since identification of EVD as a risk, public health staff have been increased at Banjul International Airport. Currently, the airport has a rota of 10 surveillance officers, who provide screening 24 h/24 h, 7 d/7 d. The staff have access to PPE from the stock for H1N1. There is a designated space for isolating suspected cases and an ambulance, although it is not clear whether it is appropriate for transporting suspected cases.
- The airport has a contingency plan, which includes an EVD component. Exercises have been conducted, the most recent being in September 2014.
- Standard operating procedures for EVD triage are available at the airport.

- An exit screening protocol is outlined in the airport contingency plan but is not currently being used.
- Both the points of entry visited use 21-day contact-tracing forms for people returning from countries affected by EVD.
- The national hotline connects points of entry with national health surveillance officers, but communication with conveyance operators has not been tested.
- Exit screening at land crossings will meet WHO recommendations.

Opportunities for improvement

- The requirements of the IHR should be met at all official border crossings, including one full-time medical officer for every 800 travellers, an equipped designated isolation area for ill passengers, a safe, clean, covered holding area for possible cases and access to potable water and clean facilities for travellers.
- Staff confidence should be boosted by information, training, follow-up and compensation.
- Training should be provided in infection prevention and control, including when PPE should be worn, what PPE is required, donning, doffing and disposing of PPE and the role and responsibility of board of health officials in relation to rapid response teams, flying squads, disinfection and supplies.
- Exit screening procedures should be reviewed and the essential equipment procured.
- Consider requiring that entry cards request listing of the countries visited in the past 21 days, and reconsider the current travel ban on all people from affected countries, which may be ineffective. (WHO does not recommend general bans on travel or trade or general quarantine of travellers arriving from Ebola-affected countries as measures to contain the outbreak.)
- Strengthen regular communication and coordination with all airline companies to promote their awareness about EVD and to ensure implementation of the public health measures required by the competent authority, including arrangements to access the contact information of passengers when needed to trace contacts of EVD cases.
- Standardize and disseminate standard operating procedures for screening and case management to all points of entry.

6. Laboratory

Strengths

- Agreement has been reached with the Institut Pasteur in Dakar, Senegal, to test all samples from suspected cases of EVD in the Gambia; four samples have already been tested.
- The MRC has scheduled completion of a designated Ebola BSL-3 laboratory in Banjul for the beginning of December. Once it is operative, it will be able to accept samples from the whole country.
- Two-day training in sample collection and use of PPE has been conducted for 43 laboratory technicians.

- Once the MRC BSL-3 laboratory is operational, it should be fully integrated into the existing national sampling, transport and notification procedures.
- At least one vehicle should be designated for transporting samples to Dakar, and permanent permission should be obtained for the vehicle to cross the Senegalese border.
- Training for trainers from the National Reference Laboratory and intensified follow-up training for a core group of laboratory technicians should be conducted.
- Standard operating procedure for sample collection, packaging and transport are drafted and should be finalized.
- Trained laboratory technicians should be deployed as part of rapid response teams to the isolation unit in the major hospital and to the treatment centres.

- In order to be operational, the MRC laboratory must train four laboratory technicians and make an agreement with the Institut Pasteur in Dakar to confirm the first 25 positive and first 50 negative samples.
- An algorithm for reporting positive and negative laboratory results should be developed.
- A dedicated car is required for transporting samples from sampling sites to the National Reference Laboratory.
- 20 triple packages are available, but distribution to rapid response teams and isolation units must be organized.

Case management

7. Case management

7a. Ebola treatment centre in the converted sanatorium

Strengths

- The Ministry of Health and Social Welfare supports the standard set-up and management of the Ebola treatment centre.
- The national isolation facility is appropriate, with spacious capacity for case triage.
 - Three back-up water barrels are available, with a total capacity of 6000 L.
 - The Ebola treatment centre is close to the city hospital, about 10 km away.
 - The grounds are flat, with good drainage and concrete, so that the centre is accessible by foot and car.
 - The triage plan separates suspected and confirmed cases.
 - Separate showers and toilets are available for men and women and are fairly spacious.
 - The staff rooms are separate, air-conditioned and equipped with toilets.
 - There is an on-site morgue.
 - There are cultural amenities (on-site mosque) for the community and families.
 - Convalescent areas are available.
 - There is a plan for food delivery and preparation, with disposable plates and cutlery.
- Patient and staff flow in one direction, and there is separate staff flow for the isolation area.
- Walls around the perimeter of the facility ensure a degree of security; however, additional measures, such as the addition of barbed wire or higher walls, would provide further security.

- Devise a plan to expand the current bed capacity, if required.
- The transport identified for suspected cases and deaths is not adequate, as the ambulances are too small for decontamination and thus not ready for use.
- Ensure that all flooring is made even for smooth rolling of trolleys.
- Identify high- and low-risk zones with signage and colour coding to distinguish them better.
- Clear bush and debris from the grounds.
- There is no generator or other electricity source for back-up power. Provision has been negotiated with a nongovernmental organization, but a date has not been set.
- Designated beds should be placed in staff areas, so that they can sleep and rest.
- An initial simulation exercise should be run for all staff as part of continuous training.
- Establish a mentoring team to support staff.
- A contingency plan could be formulated to ensure continuous access to water.
- Ensure an algorithm or diagram of communication channels with rapid response teams, flying squads, laboratories, hospitals, holding centres, the other Ebola treatment centre, the Ministry of Health, the WHO Country Office, burial teams, community leaders, etc.

7b. MRC Ebola treatment centre

Strengths

- The facility is staffed and resourced.
- It is nearly functional to receive any potential EVD patient.
- The staff conduct simulation drills on site to prepare for EVD cases.
- Health care workers and ancillary staff understand their roles in treating EVD patients.
- There is a good overall flow for cases and staff.

Opportunities for improvement

- A scale for the staff compensation package is pending approval by the Gambian Government.
- It is suggested that staff agree on standard use of PPE.
- Flow of contaminated staff through the confirmed patient area should be avoided to ensure the safety of health care workers and patients. A concrete pathway could be constructed for clean and contaminated health care workers, if a fence can be built.

7c. Isolation centre at the Edward Francis Small Teaching Hospital

Strengths

- This identified site is in an established hospital with resources, which is readily accessible by EVD cases and health care workers.
- The flow for cases and health care workers between rooms is safe and efficient.
- The facility only accepts patients directly from hospital.
- The isolation area is planned to have at a two-bed capacity.

Opportunities for improvement

- Creation of a staff room would give a place for staff to rest.
- The grounds should be cleared of bush and debris.
- The existing fence should be reinforced by increasing its height with barbed wire.
- Pathways should be reinforced for case transfer to the hospital.

Infection prevention and control

8. Infection prevention and control

8a. General

Strengths

- Much work has been done on infection prevention and control, and most recommendations have been implemented.
- The WHO EVD infection prevention and control guidelines are available for use.
- Training in infection prevention and control has been conducted in various settings.
- A stock of PPE is available, but a distribution plan is required.
- 100 body bags are available.
- Staff are generally aware of the components of infection prevention and control.
- Two-bed isolation facilities have been identified at regional level but are not yet ready to accept patients.

- Existing communication channels at all levels of the health system should be strengthened to ensure that all appropriate personnel receive information.
- A national infection prevention and control policy should be developed.
- It is strongly recommended that the standard WHO infection prevention and control guidelines and materials be adopted until a national policy is available.

- The isolation facilities in major hospitals must be completed in order to assess rapid response teams and avoid transport of suspected cases to an Ebola treatment centre.
- A safe, appropriate vehicle is required for transport of suspected cases and bodies, with all the necessary clinical resources for infection prevention and control.
- All appropriate staff should be trained to train others in general awareness and practice of infection prevention and control.
- Hand-washing facilities and a constant supply of safe water supply must be ensured.
- Ensure that all hospitals and health centres in high-risk areas have access to infection prevention and control resources and that monitoring is conducted.
- Ensure the introduction of appropriate, puncture-resistant sharps containers.

8b. Ebola treatment centre in the converted sanatorium

Strengths

- Running water is available.
- PPE is available.
- Infection prevention and control and case management resources and posters are available.
- Containers of chlorine solution are in place.
- There is good flow for confirmed patients and staff.
- A waste management system is in place.
- A safe system of laundry management (washing machines) is in place.
- Entry and exit areas are Identified.

Opportunities for improvement

- This Ebola treatment centre and the location and construction of the two other planned centres must be completed.
- An adequate site and standard operating procedure for decontaminating the ambulance should be determined.
- The staff changing room and locker room should be completed.
- The door for staff moving from the clean to the contaminated area must swing only in the direction of flow.
- Isolation entry and exit areas must be equipped appropriately with all infection prevention and control resources.
- The windows must be secured.
- Chlorination containers should be appropriately labelled, with instructions for mixing attached to them.
- All mattresses must be covered with plastic so that they can be cleaned of body fluids and decontaminated between cases.
- All mattresses with tears or worn plastic covers must be removed and incinerated.
- Posters on hand hygiene and the steps for putting on and removing PPE should be displayed.
- Ensure the availability of individual commodes for patients with severe diarrhoea or who are bleeding from any part of the body.
- Ensure separate waste management systems for the management and incineration of high- and low-risk waste.

8c. Isolation centre in the converted sanatorium

Strengths

- Once the isolation centre is operational, confirmed cases can be transferred to an Ebola treatment centre.
- Cases can be transported to the isolation centre from the community.
- Posters showing PPE and infection prevention and control are in place.

- Ensure the availability of commodes.
- Complete the flow of health care workers to the isolation centre.
- Make staff changing areas available.
- The rear veranda should be enclosed for use for removing PPE.

8d. MRC isolation centre and treatment centre

Strengths

- Good entry and exit procedures are in place for cases and staff.
- Good infection prevention and control resources are available.

Opportunities for Improvement

- Posters showing PPE should be displayed.
- The pathway should be redesigned so that staff leaving the suspected case area do not pass through the confirmed case area.
- Consider adopting the WHO infection prevention and control guidelines.
- Ensure that there are separate waste management systems for the management and incineration of high- and low-risk waste.
- The windows of the female ward should be adequately covered.
- A separate staff rest room is required.
- Chlorine containers should be labelled appropriately, with instructions for mixing attached to them.

8e. Isolation centre in the Edward Francis Small Teaching Hospital

Strengths

- The Isolation centre is an identified area within the hospital.
- Case and staff flow is good.
- Some infection prevention and control resources are available.

Opportunities for Improvement

- Ensure access to a constant water supply.
- Safe waste and laundry management should be available, with safe transport of low- and highrisk waste to the converted sanatorium treatment centre for incineration.
- Ensure the availability of bedside commodes.
- Remove and replace existing mattresses with plastic-covered ones that can be cleaned and decontaminated.

8f. Burial procedures

Strengths

- Gambian Red Cross Society volunteers have been identified for the movement and safe burial of bodies.
- An adequate, appropriate, secure burial ground has been identified, with community agreement.
- A burial team has been established.
- A standard operating procedure has been developed.

- All Gambian Red Cross Society volunteers must be trained appropriately in infection prevention and control and in their roles and responsibilities.
- The number of Gambian Red Cross Society volunteer teams should be increased from six to eight, as per the guidelines.
- All trained personnel must have access to the necessary PPE, body bags, disinfectant, water, alcohol hand-rub and sharps containers.
- The standard operating procedure should be updated as per the WHO burial guidelines.

- The standard operating procedure and terms of reference should be agreed upon and implemented in conjunction with the Red Cross.
- Communication channels should be established with families.
- An appropriate pick-up truck is required for transporting bodies, with information and posters on hand hygiene and the steps for putting on and removing PPE.

Communication and social mobilization

9. Social mobilization and risk communication

Strengths

- There is an active, well-organized national communication task force on EVD, with representatives from relevant agencies, including Government, nongovernmental organizations, religious and other community groups and the private sector. The task force acts as a centralized forum for coordinating planning and implementing a number of risk communication and social mobilization activities.
- The task force has a thorough plan and budget for a range of current and proposed risk communication activities.
- The first wave of community EVD education has taken place, in various media (e.g. television, print and radio) and by community-level groups (e.g. traditional communicators, Gambia Red Cross volunteers, teachers and religious leaders).
- Organizations such as the Gambia Red Cross Society and members of the Association of Non-Governmental Organizations have trained numerous volunteers in community sensitization, hygiene promotion and EVD case-finding in all regions.
- The Gambia Red Cross Society in collaboration with other Red Cross country offices in the region are tracking the movement of people between nearby and neighbouring countries, including those currently affected by EVD.
- Some EVD educational materials have been deployed, and a more exhaustive programme, including the use of billboards, is planned.
- A widely advertised, active hotline for EVD education and reporting of suspected cases exists. Full-time staff must be identified and trained, and the case-reporting algorithm should be refined.

- An impressive community EVD education and risk-awareness programme is under way. Now, a budgeted communication and social mobilization response strategy is required should a confirmed EVD case occur. The strategy might include activities such as mobilization of community educators and psychosocial support personnel to affected communities, a system for collecting community-level data (including community concerns, perceptions and practices) and a media strategy. (A WHO manual on communication for behavioural impact provides some information on this aspect of EVD preparedness.)
- A social mobilization or psychosocial expert should be part of the rapid response team.
- The budget identifies some planned risk communication and EVD education activities for which sources of funding have not been identified.
- Studies to determine community perceptions and understanding of EVD and the agencies involved in ensuring that the population is sensitized to culturally sensitive EVD procedures that may deviate from their sociocultural norms, such as prompt burial, should be designed and budgeted. The expertise and sources of funding required for such studies have not been identified.
- EVD awareness and education activities already undertaken are to be reviewed; however, the necessary funding and expertise for such a review have not been identified. Ideally, the review would be conducted before the second wave of EVD educational activities.

- EVD education programmes should be extended on the basis of the review proposed above and should include groups such as military personnel.
- Representatives of the media require further training about EVD, and health care workers should be trained in communication with the media.
- Community feedback indicates that they would appreciate having a system for asking experts specific questions about EVD, for example in the form of a call-in radio or television show.
- While there is an appropriately trained, designated spokesperson for the Ministry of Health and Social Welfare, spokespersons for other Government agencies and regional and district health services have not been identified or trained.
- An informal system for monitoring rumours and the media is in place; however, a formal system should be developed and implemented.
- Functional, timely procedures for the review, validation and clearance of information products should be established.

Logistics and safety

10. Budget

Strengths

• As part of the national EVD preparedness and response plan, a detailed budget has been prepared with costing of specific activities, including costed line items.

Opportunities for Improvement

- Determine the financial resources for areas that require immediate funding.
- Re-evaluate and target available funding towards identified priorities.
- Identify areas that require funding for donors and partners, so that they can provide immediate support for these priorities.

Conclusion and next steps

The preparedness strengthening mission identified many existing activities and areas that can be considered a solid foundation for further strengthening the Gambia's preparedness for an EVD event. Government officials and others have done a considerable amount of work in a broad range of disciplines and jurisdictions; however, a considerable amount of work must be accelerated. Further support and resources will be required.

The information obtained during the mission allowed the preparedness strengthening team to come to consensus on areas that require immediate and longer-term attention. Keeping in mind the economic constraints and the seemingly overwhelming amount of work that must be initiated or completed, the team identified the steps required to strengthen preparedness over periods of 30, 60 and 90 days. Although many activities require completion within 30 days, when the opportunity exists, four response components should be fully operationalized to allow an immediate response in the case of an EVD event:

- Ensure fully functional, fully equipped isolation facilities.
- Clarify the structure and composition of and the equipment required for rapid response teams.
- Adopt a contact-tracing data management system, and train and resource personnel.
- Clarify the reporting and coordination relations between the national EVD plan and the National Disaster Management Agency response plan.

Annex 1. Preparedness strengthening team

WHO

Headquarters

Melissa Bingham, Case Management Paul Cox, PST Team Lead Freya Jephcott, Social Mobilization Rajesh Sreedharan, Medical Officer

WHO Regional Office for Africa

Anthony Eshofonie, Medical Epidemiologist

WHO Country Office

Sally Ceesay, Administrative Support Momodou Gassama, National Programme Officer, Health Promotion Kebba Gibba, National Programme Officer, Extended Programme for Immunization Alpha Jallow, National Programme Officer, Health and Environment Sharmila Lareef-Jah, National Programme Officer, Disease Prevention and Control Charles Sagoe-Moses, WHO Representative Yamundow Sowe, Administrative Support

Bernhard Nocht Institute for Tropical Medicine

Daniel Eibach, Epidemiologist

Public Health England

Susanne Howes, Infection Prevention and Control

United Nations Office for the Coordination of Humanitarian Affairs

Fatoumatta Mboge-Ba, Humanitarian Affairs Officer

US Centers for Disease Control and Prevention

Almea Matanock, Epidemiologist Rajal Mody, Epidemiologist

Annex 2. Agenda

Day 1: 17 November	Activity	Responsible entity	Observations
8:30-11:30	Meeting of preparedness strengthening team with WHO Representative	Team leader	Identify country documents relevant to the mission
	Agree on the mission objectives and terms of reference.		
11:30-13:00	Finalize agenda and working group composition	Team	
13:00-14:00	Lunch break		
14:00–17:30	Review country documents:country plan (revised)United Nations system contingency plan	Team	Adapt table-top exercise package to country context.
14:30–17:00	Introductory meetings with national authorities (Ministry of Health) and other partners (National Disaster Management Agency, Red Cross)	WHO Country Office	Provide the agenda and terms of reference; present the checklist. Highlight areas for the mission of specific interest to the authorities.
17:00–17:30	Conclusion	Team	Planning for next day
Day 2: 18 November			
9:00-13:00	Meet the national Ebola task team, the Department of Public Health (Director, Ebola focal point and other relevant department heads)	Team	Presentation of the agenda, mission terms of reference and checklist
13:00-14:00	Lunch break		
14:00-18:00	Field visits:	Team	
	 Ebola treatment centres (sanatorium and MRC) Points of entry (airport, Giboro); high-risk community (Fula); rapid response team Laboratory (MRC; National Reference Laboratory) Emergency operations centre Isolation facility (Edward Francis Small Teaching Hospital) 		
18:00-18:30	Conclusion and preparations for table-top exercise	Team	Planning for next day

Day 3: 19 November			
8:00-9:00	Final preparation for table-top exercise	Team	
9:00-13:00	Table-top exercise	Team	See detailed table-top exercise agenda
13:00-14:00	Lunch break	Team	
14:00-17:00	Review of checklist, and identify remedial actions	Team	
17:00-18:00	Conclusions	Team	Planning for next day
Day 4: 20 November			
8:30-11:00	Drafting of report on findings from field visits and table-top exercise	Team, group work	
11:00-12:00	Presentation of report on exercise by group	Team, group work	
12:00-13:30	Lunch break		
14:30-17:00	Consensus on findings and priorities	Team, group work	
	Team observes MRC drill on clinical management of a suspected EVD case.	Team	
	Development of an improvement plan	Team, group work	
17:00-17:30	Summary of the day and overview of next day	Team leader	
18:30-20:00	Planning for next day		
Day 5: 21 November			
8:00-10:00	Finalize draft of improvement plan	Team	
10:00-12:00	Present findings and draft report to Government and stakeholders	WHO Representative, team leader	
12:00-13:00	Lunch break		
13:00-14:00	United Nations country team	WHO Representative, team leader	
14:00-16:00	Finalize report and improvement plan in the light of amendments	Team	
16:00	File mission report and final improvement plan	WHO Representative, team	

Day 6: 22 Novemb	ber		
10:00-15:00	Team reviews draft plan	Team	
Day 7: 23 Novemb	per		
9:00-12:00	Draft plan reviewed with WHO Country Office	Team	

Annex 3. Results of table-top exercise

Participants providing feedback, 33

Share information on the progress of the preparation and response measures against EVD. Strongly disagree: 0 Disagree: 0 Agree: 15 Strongly agree: 18	
Identify areas of interdependence between health actors and between health actors and other sectors.	
Strongly disagree: 1 Disagree: 5 Agree: 17 Strongly agree: 10	
Identify lines of accountability and roles and responsibilities.	
Strongly disagree: 0 Disagree: 4 Agree: 20 Strongly agree: 9	
Review the operation management process for a suspected EVD case.	
Strongly disagree: 0 Disagree: 1 Agree: 27 Strongly agree: 5	
Confirm arrangements for notification, coordination and internal communications before and after confirmation of an EVD infection.	
Strongly disagree: 1 Disagree: 5 Agree: 17 Strongly agree: 10	
Validate aspects related to personal protection and other logistical needs (e.g. disinfection, burial) and the management of suspected cases of contamination before and after laboratory confirmation.	,
Strongly disagree: 2 Disagree: 9 Agree: 19 Strongly agree: 4	
Review the requirements of public health laboratories, coordination and funding.	
Strongly disagree: 0 Disagree: 4 Agree: 17 Strongly agree: 10	
Review public and media communications.	
Strongly disagree: 0 Disagree: 5 Agree: 21 Strongly agree: 7	
I'm more familiar with the current plans, information, guidelines, documentation, administrative rules and tools available to manage an outbreak of EVD.	
Yes: 25 No: 8	
I'm better prepared to act and respond appropriately according to my role. Yes: 22 No: 9	
The simulation scenario covered what I expected it to cover. Yes: 25 No: 8	
The facilitation was effective.	
Yes: 33 No: 0	
The logistical set up was appropriate.	
Yes: 25 No: 8	
25	

The duration of the simulation exercise was right for me.Yes: 25No: 6 (Too short: 3, too long: 3)

The pace of the simulation exercise was right for me. Yes: 31 No: 2

General comments

- Actors and comments should stick to to the scenario.
- Need more time.
- Include non-traditional medical practitioners.
- Share practices from affected countries.
- State corrective actions clearly.
- Organize plenary for group feedback.
- Main authorities should be in attendance.
- The focus was good.
- Logistics issues not clearly discussed
- What about unofficial borders?
- Must link EVD plan to National Disaster Management Agency
- Must identify national response roles on EVD subcommittees
- Well structured. You are a brave man! Thank you!

Annex 4. Component-specific assessment

Component 1. Overall coordination

	Tasks	Within (days)	Yes/No
1.1	Emergency and epidemic committees / Ebola Task Force 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	30	Yes
1.2	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	30	Yes/No
1.3	Technical sub-committees of the Ebola Task Force with focal points and clear mandate constituted	30	Yes
1.4	Existence of clear terms of reference of Ebola Task Force and technical sub-committees	30	Yes
1.5	Established procedures for command & control, coordination mechanisms, clearance of key technical and information products	30	No
1.6	Country United Nations office is coordinating donor support at the country level	30	Yes
1.7	Review of current policy and legislative frameworks to ensure that they will provide the authorization for the preparedness measures (including financing) that are proposed	60	No
1.8	Emergency Operations Centre/ Incident Management Structure (EOC/IMS): Establish nationally to cover areas of low and high population density	60	No
1.9	Identify, train and designate Incident Manager and Operations Manager	30	No

1.10	Demonstrate success during drills	30-90	No
1.11	Establish personnel at the subnational level for localized EOC/IMS coordination and management	60	No
1.12	Develop plans for communication channels within EOC/IMS and between EOC/IMS and the public	30	No
1.13	Clearly assign communication responsibilities to specific EOC/IMS roles	30	Yes

THE PURPOSE OF THE ASSESSMENT IS TO CHECK THE FUNCTIONAL ABILITY OF THE VARIOUS ELEMENTS EITHER SINGULARLY OR INTEGRATIVELY AS APPLICABLE. For example, if EOC is identified, the assessment should check i] the frequency, ii) when it was last tested, iii) any evaluation conducted and iv) how lessons learned implemented

Component 2. Rapid response team

	Tasks	Within (days)	Yes/No
2.1	Identify and assign team leader(s) and multidisciplinary members under the framework of the EOC/IMS	30	No
2.2	Ensure that there is a rapid communication system in place to alert the rapid response team	30	Yes/No
2.3	Train all clinical staff on the rapid response team in case management using international standards and the use of a mock Ebola treatment centre	30	No
2.4	Train the rapid response teams on sampling procedures for suspect EVD cases and on the transport of category A pathogens	30	Yes
2.5	Train the subnational rapid response team in surveillance and contact tracing	7	No
2.6	Map potential health facilities at the district level that are ready to receive suspect EVD cases	60	No
2.7	In the absence of an EVD case in the country after 60 days, conduct at least one simulation exercise to maintain the capacity of the rapid response teams to respond quickly	90	No

*THE PURPOSE OF THE ASSESSMENT IS TO CHECK THE ABILITY OF THE RAPID RESPONSE TEAM TO ADDRESS THE CRITICAL NEEDS AND IMMEDIATE RESPONSE PRIORITIES TO PROTECT AT RISK COMMUNITIES IN THE EARLIEST PHASE OF THE OUTBREAK. For example, the areas to confirm could include presence of a rapid response team roster, expertise in VHF, fit for purpose surveillance, transportation

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	Yes
	Identify and engage influential/key actors/mobilisers, such as religious leaders, politicians, traditional healers, and media in urban and rural areas	30	Yes
	Map out public communication capacities and & expertise within health and other sectors	30	Yes
	Identify and establish mechanisms for engagement with national networks for social mobilization	30	Yes
	Identify established functional communication coordination mechanism involving all government sectors and other stakeholders (including civil society organisations and communities)	30	Yes
	Establish coordination mechanism for engaging with the community (involving the traditional leaders, relevant sectors in a bottom-up approach)	30	Yes
	Establish coordination mechanism for engaging with partners (e.g. nongovernmental organizations)	30	Yes
	Draw up a roster with clear roles and responsibilities for internal and external communications and spokespersons	30	No
	Establish functional and timely procedures for review, validation and clearance of information products	30	No
	Identify and train spokespersons and communication team	30	Yes
	Develop a comprehensive strategy, plan and budget for engaging with the media and public (including a scaled-up approach)	30	Yes
	Establish a system for rumour monitoring, investigation and response	60	Yes/No
	Establish a plan for reviewing, revising and monitoring impact of communication strategy	30	No
	Identify critical communication networks (TV, radio, social media, SMS, story tellers, theatre) and plan for use in appropriate languages	30	Yes
	Establish media monitoring mechanisms with appropriate tools	60	No

*THE PURPOSE OF THE ASSESSMENT IS TO CHECK THE MEANS, SYSTEM, TRUST AND ABILITY TO ENGAGE WITH COMMUNITY AND VOLUNTARY SECTORS

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	No
	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	Yes
	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	Yes
	Establish a compensation and benefits package for health care workers for:	7	No
	 remuneration and motivation for high-risk assignment; in case of infection and death 		

Component 5. Case management

5a. Ebola Treatment Centre (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	Yes/No
	Equip and adequately train ambulance teams to transport suspect EVD cases.	30	No
	Identify health facilities at district level that can be turned into an Ebola treatment centre at short notice	30	No

5a.4 Identify health facilities at the local level that can be turned into an Ebola treatment centre at short notice

No

60

*THE PURPOSE OF THE ASSESSMENT IS TO CHECK THE OPERATIONAL CAPACITY TO SAFELY TREAT EVD/VHF CASES WHICH INCLUDES THE AVAILABILITY OF THE NUMBER OF QUALIFIED MEDICS AND ASSOCIATED HC STAFF

5b. Safe burials

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

*THE PURPOSE OF THE ASSESSMENT IS TO CHECK WHTHER TRAINED STAFF/VOLUNTEERS AND RIGHT/ADEQUATE SPEC PPES ARE AVAILABLE AND EASILY ACCESSIBLE TO CONDUCT DIGNIFIED BURIAL

Component 6. Epidemiological surveillance

	Tasks	Within (days)	Yes/No
6.1	Establish a 24/7 hotline with escalation facilities with medically trained staff	30	Yes
	Train the hotline staff on case identification and management of communication with potential cases	30	No
	Provide guidance (case investigation forms, standard case definitions to all countries)	30	Yes/No
	All countries to test existing Integrated Disease Surveillance and Response systems for Ebola, identify gaps and start implementation of corrective actions where necessary	30	No
	Establish immediate lines of reporting for suspect cases, clear responsibility for such actions	30	No
	Identify human resources for community surveillance (community health care workers, Red Cross/Crescent volunteers,	30	Yes/No

nongovernmental organization	ations, midwives, he	ealer, leaders etc.)

	Provide Technical Assistance and training to address the still existing gaps in Integrated Disease Surveillance and Response	60	No
	Distribute case definitions to all provincial, district levels and healthcare facilities; provide training on the case definition	60	Yes/No
6.9	Disseminate simplified case-definitions for community use	60	No

*THE PURPOSE OF THE ASSESSMENT IS TO CHECK WHETHER SURVEILLANCE IS OPERATIONAL AND TESTED

Component 7. Contact tracing

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

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	30-60	Yes/No
	Stand-by arrangements and agreements with WHO Collaborating Centres for confirmatory testing in place	30	Yes/No
	Stand-by arrangements and agreements with relevant air-lines to ship samples from suspected cases to WHO collaborating Centres in place	30	No

Availability of resources to facilitate transportation and shipment of specimens	30	No
Existence of protocol for:	30	No
 sample collection; referral and shipment of specimens from suspect EVD cases to designated laboratory for confirmation at national and sub-national public health laboratories Laboratory personnel trained on procedures for specimen collection, packaging, labelling, referral & shipment, including handling of infectious substances 	30-60	Yes/No

*THE PURPOSE OF THE ASSESSMENT IS TO ASCERTAIN AVAILABILITIES OF TRAINED STAFF, EXPERTISE, COMSUMABLES, TRANSPORT IN HANDLING AND DIAGNOSIS/INACTIVATION OF BIOLOGICAL SAMPLES

Component 9. Capacities at points of entry

	Tasks	Within (days)	Yes/No
9.1	Identify point of entry teams to cover 24/7, to assist travelers and ensure correct isolation if required	30	Yes/No
	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 points of entry needs to have either a separation room of a dedicated area for holding suspected cases.	30	No
	Train staff on infection prevention and control (Training of Trainers)	30	No
	Identify "holding" centre/area	30	No
	Ensure that a health emergency contingency plan is in place at high risk points of entry (ports, airports, and ground crossings)	30	No
	Equip and appropriately staff sites for health assessments and management of suspected ill travellers at all points of entry	30	Yes/No
	Avail standard operating procedures to identify, manage and refer suspected ill patients from points of entry to designated hospitals /isolation facility	30	No
	Review and test current communication system between health authorities and conveyance operators at points of entry, and national health surveillance systems	30	No

Sensitize public health authorities at points of entry to EVD, review their roles and processes for handling, reporting and for referral of suspected cases of EVD	30	No
Avail standard operating procedure for implementing exit screening in the event of a confirmed EVD outbreak	30	Yes
Review systems and procedures for implementation of health measures related to infection prevention and control	30	No

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	Yes/No
	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	Yes
	Develop templates for resource mobilization and for country and donor reporting, including mechanisms to monitor and track implementation	30	No
	Establish easily accessible contingency funds for immediate response to outbreak of EVD at national and other appropriate sites	7	No
	Identify the process to transfer money from central level to local emergency use	7	No

Annex 5. Action points

1. Coordination

1.1	Update national EVD plan (including operational elements).
1.2	Develop plans at subnational level.
1.3	Develop a national governance framework for EVD and public health emergencies.
1.4	Develop a health emergency management programme (preparedness, response and recovery), which includes a training and progressive exercise programme.
1.5	Clarify the roles, responsibilities and reporting procedures in the health sector and with other jurisdictions and disciplines.
2. Su	rveillance
2.1	Develop an algorithm to manage and triage calls, and introduce tracking sheets and database.
2.2	Strengthen health facility and community surveillance by improving triage and training for case finding, data flow and expectations of participants at every level.
2.3	Map consistent lines of communication and data flow.
2.4	undertake systematic evaluation to determine strengths and opportunities for improvement in surveillance.
3. Ra	pid response teams
3.1	Structure the rapid response teams.
3.2	National and regional rapid response teams could be strengthened by addition of a laboratory technician, a psychosocial expert, a clinician and a logistician.
3.3	Train the surveillance officer in each rapid response team in contact tracing.
3.4	Ensure that application of the case definition does not dependent on recent travel history to an affected country.
3.5	Implement an incentive pay programme for members of all rapid response teams and flying squads.
3.6	The laboratory technician should arrive independently and transport samples directly to an identified laboratory.
4. Co	ntact tracing
4.1	Identify and train personnel in contact tracing and in use a data management system.
4.2	Identify and resource a contact-tracing team staffed by an epidemiologist at nationa level, regional surveillance officers and contact tracers.
5. Po	ints of entry
5.1	Minimum core capacities required in Annex 1B of the IHR should be fully implemented at International points of entry.
5.1	Consider bilateral or multilateral agreements on prevention or control of international transmission of disease, in accordance with Article 57 of the IHR.

5.3 Maintain facilities used by travellers at points of entry in a sanitary condition and keep them free of sources of infection or contamination, including vectors and reservoirs.

6. Case management

- 6.1 Implement WHO guidelines for infection prevention and control.
- 6.2 Attach appropriate labelling and instructions for mixing to chlorination containers.
- 6.3 Install a back-up source of power at all Ebola treatment centres.
- 6.4 Introduce staff resting areas at all Ebola treatment centres.
- 6.5 Establish a professional mentoring team to support Ebola treatment centre staff.
- 6.6 Address issues in the compensation package of Ebola treatment centre staff.
- 6.7 Introduce an algorithm or diagram of communication channels between the rapid response teams and the Ebola treatment centres.

7. Infection prevention and control

- 7.1 Develop and implement a national infection prevention and control policy.
- 7.2 Secure a vehicle for patient transport, with all the necessary clinical and infection prevention and control equipment, which can be cleaned and decontaminated appropriately.
- 7.3 Ensure that there is a plan for PPE stocks and distribution.
- 7.4 Introduce appropriate, puncture-resistant sharps containers.

8. Laboratory

- 8.1 Once the MRC BSL-3 laboratory is operational, fully integrate the laboratory into the national sampling, transport and notification procedures in place.
- 8.2 Designate a vehicle for transporting samples to Dakar, and obtain permanent permission for the vehicle to cross the Senegalese border.
- 8.3 Train trainers from the National Reference Laboratory, and introduce intensified follow-up training for a core group of laboratory technicians.

9. Social mobilization

- 9.1 Develop a clear social mobilization plan for responding to an EVD outbreak, including the specific tasks and roles of relevant groups and individuals if such an event occurs.
- 9.2 Include a social mobilization or psychosocial expert in rapid response teams.
- 9.3 Conduct studies of community perceptions and understanding of EVD and the agencies involved in ensuring that the population is sensitized to culturally sensitive EVD procedures that may deviate from their sociocultural norms, such as prompt burial.
- 9.4 Review the effectiveness of the first wave of EVD awareness and education activities.
- 9.5 Develop the infrastructure for monitoring, investigating and responding to rumours.

10. Budget

10.1 Re-evaluate and target available funding and costs on the basis of revised priorities.