

REPUBLIC OF RWANDA



MINISTRY OF HEALTH

EBOLA VIRUS DISEASE

NATIONAL EBOLA PREPAREDNESS AND CONTINGENCY PLAN

Phase III Plan: July – December 2019

Updated: June 2019

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Acknowledgement

The epidemiological situation of the outbreak of Ebola Disease Virus (EVD) in the Democratic Republic of Congo (DRC) remains critical. The most recent declaration of EVD in Uganda and the persisting and increasing risks of potential spread beyond the national borders, particularly into Rwanda necessitated the implementation of EVD preparedness and operational readiness capabilities in Rwanda. Since August 2018, when the outbreak in DRC was first declared, the Rwanda Government, with support from partners developed and implemented the first and second phases of EVD preparedness and contingency plans (August 2018 – January 2019 and February – July 2019). Thanks to the concerted efforts and support from all partners, a lot has been achieved in terms of establishment and strengthening of the core capacities for EVD preparedness and response, although more still needs to be done.

In view of the continuing EVD outbreak in DRC, the most recent outbreak in Uganda, and the continuing risk for spread, the Government of Rwanda, in collaboration with WHO and partners reviewed and updated the national EVD preparedness and contingency plan for another six months (July – December 2019). This third phase of the plan is focused on the prioritized 15 districts as was phase II implementation.

Against this background, the Ministry of Health and the Rwanda Biomedical Centre wishes to acknowledge the concerted efforts of partners and all stakeholders for the achievements during the first and second phases of the EVD preparedness activities, and for the review and update of the National Ebola Preparedness and Contingency Plan. The Ministry of Health appreciates the financial support from KOICA, PIH, CERF, RESOLVE TO SAVE LIVES, DFID, USAID, GAVI, the Federation of the Red Cross, CDC, Japan Government, UNICEF and WHO that were instrumental in ensuring the achievements and progress to date. The Ministry of Health also values the technical support from all implementing partners under the leadership and coordination of WHO.

We look forward to the continued support and collaboration as we implement the third phase of the national EVD preparedness and contingency plan.

It is my hope that together, we shall achieve optimal EVD operational readiness capacities to keep Rwanda safe and free from EVD.

Thank you all.


Dr Diane GASHUMBA

Minister of Health



Executive summary

The Ministry of Health of the Democratic Republic of the Congo declared a new outbreak of Ebola virus disease (EVD) in North Kivu Province on 1st August 2018. Most recently, the Ministry of Health in Uganda declared an outbreak of Ebola virus disease (EVD) in Kasese District, western Uganda on 11th June 2019. Based on a risk assessment of the outbreak by the World Health Organization (WHO), the current EVD epidemic poses a high risk at national and regional levels but risk is considered low at the global level. Rwanda and South Sudan are considered to be at high risk for EVD importation (priority 1) due to cross-border population mobility; including movement of returnees and refugees from DRC.

Since the declaration of the outbreak, and per the WHO recommendations for priority 1 at risk countries, Rwanda, supported by partners and stakeholders developed an EVD preparedness and contingency plan and has been implementing the plan since then. The national EVD preparedness and contingency plan was initially for six months covering the period from August 2018 to end of January 2019. The initial and second plans, henceforth referred to as the phase I and phase II EVD preparedness and contingency plans for Rwanda aimed to build capabilities for operational readiness to ensure an effective, efficient, well-coordinated, and timely response for containment of an EVD case confirmed within the confines of the national boundary of Rwanda.

The development and implementation of the phase I and II EVD preparedness and contingency plans incorporated the key EVD preparedness components of strategic leadership and coordination; rapid response teams capabilities; enhanced surveillance including strengthening of laboratory capacities for EVD testing and confirmation, and screening at POEs; case management, infection prevention and control; EVD vaccination and therapeutics; risk communication and community engagement; and medical and operational logistics. The implementation of phase I and II EVD preparedness and contingency plans resulted in several achievements across various technical working group pillars, especially at the national level, although major gaps remained.

Because of the new declaration of EVD outbreak in Uganda, the continuing outbreak of EVD in the DRC, the persisting and increasing risks of potential spread beyond the confines of DRC, and against a background of additional needs to ensure operational readiness for EVD response in Rwanda, the phase II EVD preparedness and contingency plan was updated at the end of June 2019 for another six months (July – December 2019). The review and update of the plan was by stakeholders drawn from Ministry of Health, all the priority Districts, non-government organizations and development partners. The review and update of the preparedness plan took into consideration the gains and achievements during the previous eleven months (phase I and II EVD preparedness and contingency plans implementation), the epidemiology and context of the EVD outbreak in the DRC and Uganda, and the need for scaling up the implementation of EVD preparedness activities to roll out and improve operational readiness in 15 priority districts, as well as close gaps at the national level. The

review and update of the phase II EVD preparedness plan resulted in the development of the phase III EVD preparedness and contingency plan.

The overall goal of the phase III EVD preparedness and contingency plan is consistent with the previous plans, which is to enhance the capacity of Rwanda to prevent, rapidly detect, and effectively respond to and contain any case of EVD within the confines of the territory of Rwanda. The updated phase III EVD preparedness plan, consistent with the previous plans, is organized around the WHO core components for EVD preparedness and response, builds on previous achievements, aims to close gaps, and prioritizes strengthening EVD preparedness capabilities in the 15 priority districts.

Strategically, interventions during the phase III EVD preparedness plan focus on:

- Reinforcing leadership and coordination at central level, while strengthening similar capacities in the 15 priority districts
- Strengthening risk communication and community engagement, with a focus on sustaining community engagement activities at district level, empowering the districts to implement risk communication and community engagement activities, sustaining and promoting media communication and strategic use of information and communication materials to increase public awareness and participation in EVD prevention and control activities, and integrating risk communication and messaging to promote EVD vaccination, acceptance, and understanding of the vaccination strategy.
- Scaling up and sustaining enhanced surveillance and laboratory diagnostic capabilities at district level, including at transit centers and refugee camps
- Reinforcing early case identification and linkage with rapid response teams for rapid investigation
- Improving reporting and management of EVD surveillance data
- Strengthening capacity for case management and infection prevention and control capacity in all hospitals in the 15 priority Districts
- Improve capacity for EVD related mental health and psychosocial support to affected individuals, families, communities, and frontline health workers
- Ensuring the protection of frontline workers through the roll out and management of EVD vaccination.
- Ensuring availability and access to operational, medical and non-medical supplies for EVD case detection, diagnosis, case management, and prevention as well as supporting and facilitating the establishment of the four desired ETCs (including one mobile ETC)

The planned interventions will continue to be coordinated through the national Task Force for EVD preparedness, with activities coordinated and implemented through the technical working groups.

The estimated budget for implementation of the updated phase III EVD preparedness and contingency plan at the national level and in the 15 prioritized districts over the next six months is **USD 14,645,103 (Fourteen million, six hundred forty five thousand and one hundred three United States dollars).**

In the event of a confirmed case/outbreak of EVD in the Rwanda, a response plan informed by a risk assessment will be developed, resources mobilized, and response interventions implemented to contain the outbreak.

1. Introduction

The Republic of Rwanda has no confirmed cases of Ebola Virus Disease (EVD) but remains at risk for importation of the disease from the region. The EVD outbreak in the Democratic Republic of the Congo (DRC) which started in August 2018, has persisted and the disease burden has increased in terms of numbers of confirmed cases and numbers of Health Zones affected, and has spread to Uganda where an outbreak of EVD was declared on 11th June 2019. As of 22nd June, 2019, 2,239 cases had been reported from 22 health zones in DRC. However, the outbreak remains limited to the two provinces of North Kivu and Ituri and the neighboring province in Uganda where cases from DRC travelled to.

The risks of importation of the virus from DRC to Rwanda remains high and is related to free movement of people and goods across the borders and the complex security challenges that continue to undermine response efforts in the outbreak affected areas in the DRC. The World Health Organization (WHO) categorized Rwanda among the priority 1 countries, requiring enhanced vigilance and preparedness for potential EVD outbreak response.

In response to the August 2018 EVD outbreak in the DRC, the Government of Rwanda, in collaboration with WHO and partners developed and implemented the first phase of the national EVD preparedness and contingency plan from August 2018 to June 2019, focusing on 12 priority districts. Given the persistent DRC outbreak beyond 2018, the first plan was reviewed and updated for the period of February 2019 to July 2019, focusing on 15 priority districts. The areas of interventions were in line with the WHO recommended core capacity requirements for EVD preparedness and operational readiness focusing on leadership and coordination, risk communication and community engagement (RCCE), surveillance and laboratory capacity for confirmation, including capacities for port health, case management and infection prevention and control (IPC), vaccination, therapeutics and research, and medical and operational logistics.

Due to the declaration of EVD outbreak in Uganda, the EVD epidemiological situation in the DRC, and the persisting risks, the second phase of the national EVD preparedness and contingency plan was reviewed and updated during the end of June 2019 to facilitate continuity of establishment and strengthening of the capacities for detection, diagnosis, case management, and containment of a confirmed EVD case. This third phase of the EVD Preparedness plan is for 6 months (July–December 2019) and remains focused on the 15 priority districts. The updated plan builds on achievements made during the last 11 months of EVD preparedness activities, incorporates lessons learned including identified gaps, and aims to scale up the level of preparedness from National to District level.

1.1 Background

Ebola virus causes severe illness in exposed humans and bush animals with a death rate of up to 90% in the absence of medical treatment. The death rate can be significantly reduced with early treatment and care. There are five distinct species of the genus Ebola virus: *Bundibugyo*, *Zaire*, *Reston*, *Sudan*, and *Tai Forest*. Fatality rates range from 25% to 90% of all clinically

ill cases. The disease is transmitted through direct contact with the blood, body fluids, tissues, and corpses of infected persons. Transmission of Ebola virus has also occurred by handling sick or dead infected wild animals (e.g., chimpanzees, gorillas, monkeys, forest antelope, fruit bats). In healthcare facilities (HCFs), the disease is transmitted to health care workers (HCWs) due to inadequate IPC measures.

This Contingency Plan is premised on the history of EVD outbreaks in the region and the strength of the health care system and administrative structures in the Republic of Rwanda. Implementation for strengthening readiness and preparedness builds on the interventions that began following the May 2018 outbreak in DRC.

This EVD Contingency Plan is in line with the EVD outbreak declared August 1, 2018 in the DRC. According to the WHO internal risk assessment, this ongoing outbreak of EVD poses a high risk at the national and regional level but risk is low at the global level. Rwanda (together with Uganda and South Sudan) are considered at high risk from this current outbreak. The EVD outbreak has been graded an internal WHO grade 3 acute public health emergency. However, the 2005 International Health Regulations (IHR) emergency committee has advised the Director General of WHO that at present, the EVD outbreak does not constitute a public health emergency of international concern (PHEIC).

In line with the IHR 2005, WHO does not advise any restriction on travel and trade. WHO advises unaffected countries with land borders adjoining the DRC to urgently strengthen their EVD preparedness and contingency measures to ensure effective operational response in the event of a confirmed case.

In this context, the MOH in Rwanda, together with partners have developed this national EVD preparedness plan, building on the gains of phase I and II Contingency Plans that were implemented from August 2018 to June 2019.

1.2 Context in Rwanda

Rwanda is a land-locked country, located in the great lakes region of Sub-Saharan Africa. The country shares borders with Burundi in the South, Tanzania in the East, Uganda in the North, and the DRC in the West.

The country has an area of 26,338 square kilometers. According to May 2018 United Nations estimates, population of Rwanda is estimated at 12,468,384 persons. Rwanda population is equivalent to 0.16% of the total world population, with one of the highest population densities in Africa (507 inhabitants/km²) and a high population growth rate (2.4% per annum). Approximately 34.0 % of the population (4,255,257) is urban.

This region is characterized by natural disasters such as volcanic activity, landslides and mudslides, civil wars, and increasingly unpredictable weather patterns. Furthermore, 70% of

the emerging and re-emerging infectious disease outbreaks in the last decade have originated from the Congo Basin, in which Rwanda lies.

The Republic of Rwanda is administered by the Central Government based in Kigali, and a presidential system. The country consists of four provinces (Intara) (Northern, Western, Eastern, and Southern) and Kigali City, the country's capital. Provinces are subdivided into districts (Uturere), sectors (Imirenge), cells (Utugari) and villages (Imidugudu). The district is the basic politico-administrative unit of the country. The village (Umudugudu) is the smallest politico-administrative unit of the country and hence closest to the people [www.minaloc.gov.rw].

The health sector in Rwanda is led by the Ministry of Health (MOH), whose primary objective is to improve the health of the population of Rwanda. The MOH supports, coordinates, and regulates all health interventions. There are other government ministries that implement activities that either directly or indirectly impact health. Development partners, faith-based organizations, non-governmental organizations, professional organizations, and a host of regulatory bodies also support the health sector.

At the district level, there are district hospitals, pharmacies, community-based health insurance, and HIV/AIDS committees. All these entities are technically supervised by the director of the district hospital, but administratively report to the Vice-Mayor in charge of Social Affairs. The country has five (5) National Referral Hospitals, provincial hospitals, district hospitals, a network of ambulance services (SAMU), as well as private health facilities.

At the village level, community health workers (CHWs) are supervised administratively by those in charge of social services and technically by the in-charges of health centers. CHWs receive a compensation for their work from the Performance Based Financing (PBF) mechanisms through formally established local cooperatives. There are health posts at cell level, and health centers at sector level, which are governed by health posts or health centers committees respectively. These committees provide oversight on the work of various units within the health center, its outreach, supervision services, and general financial control.

For refugee's health, UNHCR, in coordination and collaboration with the national Government, remains responsible for providing routine health care to the refugee's populations in the refugee settlements as per the national policy and requirement. However, in the event of an EVD outbreak, the national Government takes the lead, in coordinating the response in collaboration with UNHCR and other partners involved.

1.3 Context of EVD Preparedness in Rwanda

The Republic of Rwanda has never had an EVD outbreak. The existing EVD preparedness capacities have been developed largely as part of the preparedness intervention in response to the on-going outbreaks in the region, and to a limited extent, as part of implementation of the Integrated Disease Surveillance and Response System (IDSR), focusing on preparedness for

multi-hazards. Notable progress was realized in 2018, starting with limited EVD focused preparedness interventions in response to the May EVD outbreak in the Equator Province of the DRC during which, Rwanda was a priority 2 country. More structured and extensive EVD preparedness activities were realized during the first and the second phases of the EVD preparedness activities related to the August 2018 EVD outbreak in the Ituri and North Kivu provinces of the DRC. A comprehensive EVD preparedness plan was reviewed, updated, and implemented by the EVD preparedness Task Force members over a six-month time frame (July–December 2019) focusing on 15 priority districts. This updated plan for the third phase of the EVD preparedness and contingency plan builds on achievements and progress made during the first and second phases of interventions and aims to scale up operational readiness interventions in the 15 districts that have been prioritized for EVD preparedness activities.

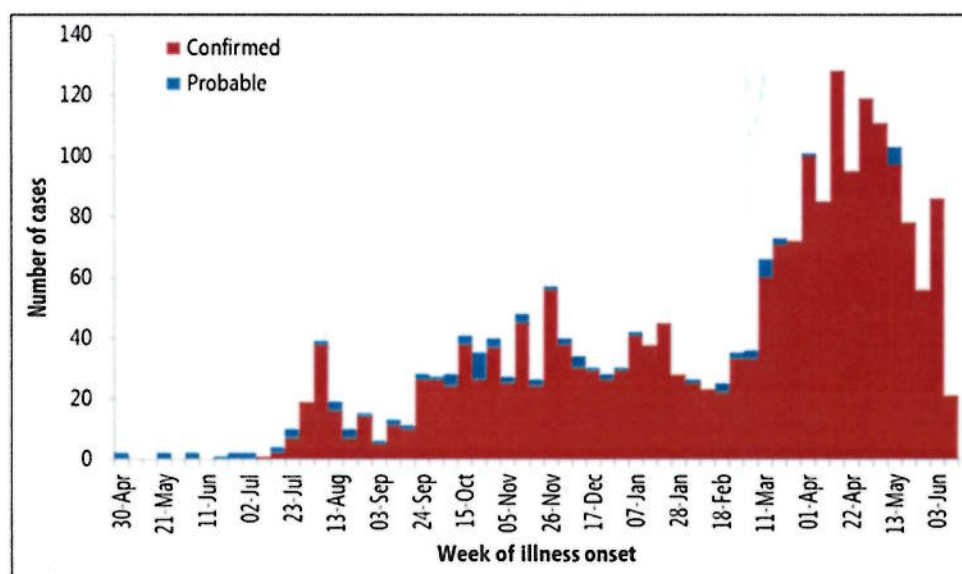
The risk criteria for prioritization of the districts have included proximity to outbreak affected areas in the DRC (notably border districts), population movements to and from DRC and Uganda, as well as presence of refugee settlements and transit centers.

2. Status of the EVD Outbreak in neighboring countries and Potential Risks of Spread to Rwanda

2.1. Status of the EVD Outbreak in DRC

Since the declaration of the August 2018 outbreak of EVD affecting the North Kivu and Ituri provinces in the eastern part of the DRC, the outbreak has continued to expand in terms of numbers of cases and health zones affected. Figure 1 below is the epidemic curve as of third week June 2019.

Figure 1: Confirmed and Probable Cases of Ebola Virus Disease by Week of Illness Onset



As shown in the epidemic curve above, the weekly number of confirmed EVD cases has continued to increase since the start of the epidemic, and by end of June 2019, there was no indication of the outbreak getting contained soon. As of June 22, an estimated total of 2,239 EVD cases (2,145 confirmed and 94 probable cases) including 1,506 deaths (CFR: 67%) had been reported from 22 health zones in the provinces of North Kivu and Ituri. Twelve of the 15 affected health zones were still having ongoing active transmission, reporting at least one confirmed case in the previous 21 days (DRC MoH Sitrep of 22 June, 2019). The increasing trend in the number of cases, including the expansion into wider geographical areas is a clear indication of the persisting and increasing risks for potential spread beyond the national border of the DRC.

2.2. Status of the EVD Outbreak in Uganda

On 11 June 2019, the Ministry of Health in Uganda declared an EVD outbreak in the Kasese District of western Uganda. During 11–13 June 2019, three confirmed EVD cases were reported, and all have died (case fatality ratio 100%). The first case in this event was a five-year old boy who entered Uganda from the DRC on 10 June 2019, accompanied by his mother and four other close relatives, and presented to Kagando hospital in Kasese District with fever, vomiting blood, bloody diarrhea, muscle pain, headache, fatigue and abdominal pain. The case-patient was referred to Bwera Hospital Ebola treatment unit (ETU). Blood specimens obtained and shipped to the Uganda Virus Research Institute (UVRI) on 10 June 2019 tested positive for Ebola Zaire by reverse transcriptase polymerase chain reaction (RT-PCR) on 11 June 2019. The case-patient died on 11 June 2019.

The exportation of Ebola virus infection to Uganda this week raised serious concerns locally and globally. The event served as a stark reminder that the risk of spread of EVD to neighboring countries remains high as long as the outbreak in the DRC is not contained. The event also emphasizes the importance of having functional preparedness and readiness measures in place, particularly for early detection and quick containment of imported cases to avoid establishment of local transmission. The cross-border collaboration between authorities in the DRC and Uganda was equally instrumental. The Ugandan authorities, along with stakeholders, need to remain vigilant and continue to strengthen their preparedness capacities and ability to swiftly respond to any future importation events of the disease.

2.3. Potential Risk for Spread of the Ebola Outbreak

2.2.1. General risks for spread of Ebola Virus Disease

Potential risk factors for spread within the country, and beyond the national border of the DRC for this outbreak in North Kivu and Ituri provinces is related to contextual factors hampering response efforts and the high population movement to and from outbreak affected areas. Contextual factors affecting response and containment efforts as well as creating sustained transmission and outbreak spread include the lack of cooperation from the affected communities, mistrusts, and insecurity, which were not initially foreseen and tackled by the response community. The complex insecurity situation resulting in massive population

displacement and frequent interruption of public health measures is creating sustained risk for local and regional spread. Current data shows a widening of the affected geographical areas with some of the new areas reporting cases getting closer to Goma, and therefore closer to Rwanda. This complex situation makes it difficult to project when the epidemic will be contained in the DRC, and subsequent risks to neighboring countries eliminated. The risks for potential spread is further compounded by the high population movement and trade between the affected areas and neighboring countries, and through displaced or special migrant population. In fact, Rwanda continues to receive and host refugee population and Rwandese returnees from the DRC, also, Rwanda has health tourism and Kigali is a very successful regional and international conference hub.

Considering the outbreak status and the potential risks for spread, the national EVD preparedness and contingency plan was reviewed and updated to cover a duration of additional six months (July–December 2019). The special /migrant population continue to be part of the National EVD preparedness and contingency planning. The Phase I EVD Preparedness and Contingency Plan prioritized 12 districts, including four refugee camps and six refugee transit centers (RTCs). The revised and updated Phase II and now Phase III EVD Preparedness and Contingency Plans prioritize 15 districts, including 2 additional RTCs (1 in Nyanza and another one in Bugesera) bringing the total of eight RTCs.

3. Achievements and Gaps during Phase I and Phase II EVD Preparedness and Contingency Plan

3.1. Evolution of EVD Preparedness Measures and Capabilities in Rwanda

The Republic of Rwanda has established a mechanism for managing disasters and emergencies through the Ministry of Emergency Management (MINEMA). Preparedness and response for EVD is the responsibility of the Ministry of Health, through the Rwanda Biomedical Center/Epidemic Surveillance and Response division, with the mandate to ensure the technical coordination, prevention and control of epidemic diseases and other public health emergencies through the implementation of an effective and efficient national epidemiological surveillance and response system.

A Joint External Evaluation of the IHR core capacities conducted in May 2018 with the intention to strengthen the National Agenda for Public Health Security (NAPHS) for health emergencies, ranked the country's capacities for epidemic prevention and response to be among the highest in the AFRO region. While Rwanda has never experienced an outbreak of EVD, efforts have been made in the past to strengthen EVD core capacities for response to possible confirmed EVD cases in the event of an importation to Rwanda. Notably, a national EVD preparedness and contingency plan was developed and implemented in response to the 2014 West African outbreak of EVD. This was followed by a smaller and lighter EVD preparedness and contingency plan that was developed and implemented following the declaration of the May 2018 EVD outbreak in the Equator Province in the DRC. With the current and on-going EVD outbreak that was declared on 01 August 2019 and is ravaging multiple health zones in the provinces of Ituri and North Kivu, WHO classified Rwanda as a priority 1 country for EVD preparedness and contingency planning. Consequently, the Government of Rwanda supported by WHO and partners developed and implemented the first EVD preparedness and contingency plan covering 12 priority districts over a six-month time frame (August 2018–January 2019). Because of the EVD epidemiology in the DRC showing an expansion of the outbreak resulting in persisting risk and threat to the population of Rwanda, the first phase of the plan was reviewed and updated at the end of January for another six months. This phase II plan incorporated lessons learned during the previous six months of implementation and addressed gaps. Like the phase I and II EVD preparedness and contingency plan, the updated plan is structured along the WHO recommended core capacities for EVD preparedness and response which include:

- Strategic leadership and coordination
- Risk communication and community engagement (RCCE)
- Surveillance and epidemiology
- Laboratory capacity
- Rapid response teams (RRTs)
- Case management
- Infection prevention and control (IPC), and water sanitation and hygiene (WASH)
- EVD vaccination and therapeutics
- Operations and medical logistics

3.2 Achievements during the Phase I and Phase II EVD Preparedness and Contingency Plan Implementation.

Implementation of the phase I and II EVD Preparedness and Contingency Plan has resulted in significant progress in terms of EVD preparedness capabilities over the previous six months despite limited resources that were mobilized in support of plan implementation. Notable progress can be observed in the areas of operationalization of the Incident Management System; establishment of an Ebola Treatment Center (ETC) at Rubavu; improved screening at priority points of entry (POEs) and EVD monitoring at RTCs; RCCE activities; EVD active surveillance at community and HCF levels, including improved capacities for rapid verification and investigation of alert and suspect cases through establishment of trained RRTs; improved capacities for case management and IPC; improved access and availability of medical logistics and supplies; and establishment of national capacities for vaccination. Details of achievements and gaps under each of the core components during the first six months of plan implementation are outlined in Annex 1 of this document.

The development and update of this phase III EVD preparedness and contingency plan took into consideration the Uganda EVD outbreak, the epidemiology of the EVD outbreak in the DRC, the dynamic context hampering outbreak control, the achievements and gaps during the first six months of the EVD preparedness activities, and lessons learned.

4. EVD Preparedness and Response Strategy for Rwanda

This updated phase III EVD Preparedness and Contingency Plan is for another six months (July–December 2019), and aims to build on achievements made during phase I and II EVD preparedness activities and close on gaps. The aim is to ensure capabilities for operational readiness to respond to and contain any possible imported EVD case into Rwanda. Should the current EVD outbreak in the DRC or Uganda continue beyond July 2019, the EVD preparedness efforts will however have to be sustained for the duration of the outbreak, or until the risks for potential spread beyond the national border is eliminated?

4.1. Goal

The goal of EVD preparedness is to enhance the capacity of Rwanda to prevent, rapidly detect, and effectively contain any possible spread to Rwanda of the EVD outbreak in the North Kivu and Ituri Provinces in the DRC and neighboring province in Uganda.

4.2. Objectives

The specific objectives of the phase III EVD preparedness and contingency plan in Rwanda are consistent with those of the phase I and II plans and include:

1. Enhance public awareness of EVD threat and potential importation to Rwanda and the need for sustained vigilance, community mobilization, and engagement for EVD prevention and control
2. Continue to enhance and sustain capacities for EVD preparedness and response focusing on the 15 high risk districts, as well as nationally for prevention, rapid detection, and timely response and containment of potential EVD cases through:
 - a. Implementation of enhanced surveillance at community, points of entry (POEs), RTCs and HCF levels;
 - b. Strengthening capacities for EVD sample collection, transportation, testing and confirmation;
 - c. Establishment and sustained EVD specific IPC and WASH capacities HCFs, POEs, and at community level;
 - d. Strengthening capacities for comprehensive EVD case management, including for mental health and psychosocial support (MHPSS) to affected individuals, families, communities and to health care and frontline workers;
 - e. Establishment of capacity for provision of adequate nutritional needs to EVD patients, particularly pregnant women and children;
 - f. Vaccination of high risk health care and frontline workers, as well as building capacities for use of EVD therapeutics and coordination of operational research
 - g. Improved and sustained capacities for provision of operational, medical, and non-medical logistics, including ensuring adequate security measures during EVD preparedness and response as needed

3. Develop and implement EVD preparedness monitoring framework and test the preparedness capabilities and system to assess level of operational readiness
4. Mobilize partners and resources for coordinated and effective implementation of the National EVD Preparedness and Contingency Plan to ensure national EVD operational readiness capabilities

4.3 Implementation Strategy for EVD Operational Readiness

As stipulated in the Epidemic Preparedness and Response plan for Rwanda (2014), during a public Health emergency, the Ministry of Health coordinates the epidemic preparedness and response activities through the Epidemic Preparedness and Response (EPR) Committee. (Ref: EPR Plan 2014, p18, Annex 4). According to the EPR plan 2014, the EPR committee chaired by the Minister of Health, the Permanent Secretary or another individual designated by the Minister, ensures the implementation strategy for the EVD outbreak operational readiness. The committee is responsible for reviewing guidelines regarding preparedness and readiness for EVD outbreak threat. It is also responsible of the coordination and mobilization of resources, as well as linking the health sector to all other sectors and stakeholders relevant to outbreak response and mitigation in the country. The committee operates through six thematic pillars including Coordination and Leadership, Risk Communication and Community Engagement, Surveillance and Laboratory, Case Management and Infection Prevention and Control, Logistics and Immunization and New drugs.

Efforts will be made to sustain the achievements gained while scaling up interventions to strengthen EVD preparedness and operational readiness capabilities at National and District levels. The phase III EVD preparedness plan will continue to incorporate preparedness among special migrant population groups (refugees and returnees from the DRC) and to prioritize strengthening of EVD preparedness activities in the priority districts, including empowering the districts to lead and coordinate implementation of district level activities.

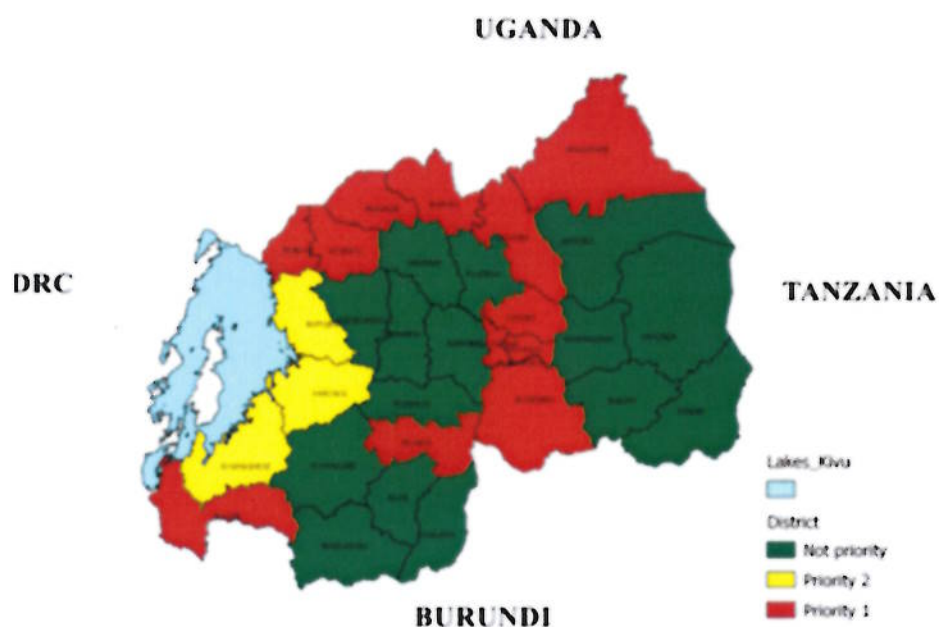
At the national level, a strategic advisory group comprising of key senior leadership in MOH and key stakeholders will be constituted to provide oversight and guidance on strategic issues.

Included below are descriptions of the priority areas/districts for EVD preparedness and priority interventions by EVD preparedness component.

4.3.1. Priority Districts for EVD preparedness Interventions

The phase III EVD preparedness activities will continue at the national level and in the 15 districts prioritized during the phase II implementation of the EVD preparedness and contingency plan, due to identified risks associated with population movement as well as presence of refugee transit centers. The priority districts are categorized into 12 Priority 1 districts (Rubavu, Rusizi, Musanze, Kicukiro, Gasabo, Nyarugenge, Burera, Gicumbi, Nyabihu, Nyanza, Bugesera, and Nyagatare) and three Priority 2 districts (Karongi, Rutsiro, and Nyamasheke) Figure 1 below is a map of Rwanda showing the updated priority districts for the Phase II and III EVD Preparedness and Contingency Plans.

Figure 1: Map of Rwanda showing 15 Priority Districts for Phase III EVD Preparedness Plan.



Activities at district level will target the district health management team (DHMT), district hospitals and health facilities, POEs, refugee settlements, RTCs, and communities within the district. Table 1 below summarizes existing government health facilities, including hospitals that will be targeted for EVD preparedness activities.

Table 1: Distribution of Health Facilities and POEs by Priority District

#	Priority District	Hospital(s)	Number of Health Centers	Number of POEs
A	Priority 1 Districts (n=12)			
1	Rubavu	Gisenyi	14	4
2	Rusizi	Mibilizi	11	3
		Gihundwe	7	3
3	Musanze	Ruhengeri	16	0
4	Burera	Butaro	19	1
5	Gicumbi	Byumba	25	1
6	Nyagatare	Nyagatare	21	1
7	Nyabihu	Shyira	16	0
8	Nyanza	Nyanza	17	0
9	Bugesera	Nyamata	16	0
10	Kicukiro	Masaka	10	1
11	Gasabo	RMH	0	0
		Kibabagaba	16	0
		Kacyiru	0	0
		KFH	0	0
		Ndera	0	0
12	Nyarugenge	CHUK	0	0
		Muhima	11	0
B	Priority 2 Districts (n=3)			
13	Karongi	Kibuye	10	1
		Mugonero	7	0
		Kirinda	5	0
14	Rutsiro	Murunda	18	0
15	Nyamasheke	Kibogora	13	6
		Bushenge	7	
Total	15	24	259	21

4.3.2. Description of Priority Interventions by EVD Preparedness Components

Below is summary description of the priority interventions for strengthening EVD preparedness by core components. The priority interventions include those that needs to be sustained.

4.3.2.1. Strategic Leadership and Coordination

The phase I and phase II EVD preparedness activities under strategic leadership and coordination focused on strengthening command and control systems at the national level, with coordinated joint multi-stakeholder and multi-partner efforts working harmoniously to implement and scale up EVD preparedness activities nationally, while rolling out activities to the districts. During phase III EVD preparedness activities, efforts will be focused on sustaining leadership and coordination activities nationally, while prioritizing activities for rolling out and strengthening district level capacities for leadership and coordination. The priorities over the next six months of the EVD preparedness activities will include:

- Strengthening and sustaining/on-going activities and implementing Incident Management System essential functions including review and adaptation of the critical policies (e.g., short-term deployments/repurposing of staff, mobilization and management of emergency supplies, motivation of HCWs repurposed to support EVD preparedness and response, etc.) to facilitate and promote EVD emergency preparedness and response, ensuring adequate staffing, review and update of public health laws;
- Continuation of advocacy and resource mobilization efforts, including transparent monitoring of fund utilization and reporting;
- Strengthening of national level coordination through the establishment and formalization of the strategic advisory group for deliberations on strategic issues, as well as stake holders and partner coordination;
- Establishing and strengthening district level coordination structures and support districts to develop and implement district level plans;
- Finalization of EVD protocols, SOPs, and job aids with dissemination to all levels;
- Overseeing, facilitation, and supervision of the work of the TWGs, as well as provision of technical and supervisory support to the districts
- Routinely tracking and reporting on progress of implementation and EVD capacity building through tracking and reporting on the WHO Key Performance Indicators, as well as oversee routine testing and assessment of existing/established capabilities; and
- Supporting the establishment of a framework for research in EVD preparedness and response.

The TWGs will continue with planning, development, implementation and reporting on implemented activities.

The TWGs will continue with providing the operational platform for multi-sector and multi-partner engagement in support of plan implementation, monitoring, and evaluation. The Incident Management System, supported by the technical arm, will be responsible for updating and reporting to the sectorial and inter-ministerial coordination mechanism that reports directly to the Head of State. Similar coordination structures will be established at the district level.

4.3.2.2. Enhanced surveillance for early case detection and Isolation

Enhanced surveillance for early case detection continues to be rolled out in the priority districts. During the previous 6 months, all HCFs have been put on the alert and are implementing weekly EVD reporting. HCWs at HCFs in the 12 priority districts have been trained on enhanced surveillance for EVD and are monitoring and reporting EVD alerts and suspect cases. 21POEs are conducting screening for EVD cases and referring alerts and suspect cases for further assessment, evaluation and laboratory investigation as appropriate. At least 3 community volunteers per village have been trained on EVD community surveillance and alerting mechanisms and timely reporting. RRTs are being trained and rolled out in all priority districts and are conducting rapid verification and investigation of alert and suspect cases.

During the next 6 months, all the above-mentioned activities being conducted as part of enhanced surveillance for EVD will have to be sustained and extended to cover all 15 priority districts and the 21 POEs. Refresher trainings will be offered to all target groups that include the RRTs at national and district levels, HCF and POE staff and CHWs. The surveillance SOPs, tools, and job aids will be finalized and distributed to the target groups, who will be trained on the use and application. Capacities for detection, verification, investigation, and reporting of alert cases will be sustained throughout, and the information used for action. Additionally, the EVD preparedness surveillance variables will be integrated into e-IDSr for easy storage, retrieval, and analysis for action in real time. Overall capacities for data management and analysis at national and district levels will be improved through training and on-job mentorship and supervision. Communication and information sharing with neighboring countries to address cross-border surveillance will be improved.

4.3.2.3. Improving Laboratory diagnostic capabilities.

Laboratory diagnostic capacity is a crucial component of EVD surveillance and case management. The focus in the next phase of building capacity for laboratory diagnoses will include improving the capacity for sample collection, triple packing, transportation, and testing of samples at national and district levels. Priority will be given to strengthening the district hospital laboratory capacity in biosafety and bio-risk management for handling, packaging, transporting, and analyzing high-risk samples. At the national level, the lab personnel will be supported and trained as part of the RRT to support rapid verification and investigation of suspect cases, phlebotomy and appropriate sample collection, testing, reporting lab results, and the algorithm for reporting. The laboratory staff will additionally be

trained on surveillance and their role, as well as on appropriate lab data management. Support functions that facilitate good laboratory performance such as regular and timely maintenance and service of equipment at the National Reference Laboratory will be implemented. Additionally, an adequate supply of diagnostic kits and consumables will be procured and appropriate storage, deactivation of samples, and laboratory waste management will be conducted.

To instill confidence in the staff, a mentorship program for phlebotomists and laboratory staff will be developed and implemented. A system for proper specimen collection, packaging, and a referral system for all priority districts and border areas to the national level will be developed and implemented. Appropriate linkages with reference laboratories for EVD testing will be established, and staff will be sensitized on the procedures for specimen referral to an international reference laboratory.

4.3.2.4. Risk Communication and Community Engagement

The strategies for RCCE are to sustain the activities for community engagement and communication, including messaging on EVD prevention and control in the mass media. The priorities for the next phase of RCCE will include developing and implementing a framework/system for collection of community feedback, real time management of rumors, and development and implementation of a communication strategy related to the planned EVD vaccination campaigns. The hotline will be upgraded to deliver 24/7 service and strengthen integration with surveillance and coordination at all levels.

Improved public awareness on EVD transmission, signs and ways of ensuring community engagement in prevention and control will be sustained through media communication. Interactive communication will be used to explore and develop appropriate messaging on sensitive topics such as burial issues and providing care to sick people in the community. Messages on prevention and control measures, with a focus on early recognition and timely reporting, will be integrated in the communication strategy.

Appropriate use of information, education and communication (IEC) materials, and community outreach through regular mass gatherings events (e.g., sports, schools, church services, Umuganda, etc.) will be sustained. The RCCE plan will be implemented in collaboration with different stakeholders.

4.3.2.5. Case Management and Safe and Dignified Burial

The preparedness actions under the Case Management/IPC TWG focuses primarily on enhancing capacity of HCWs in early case recognition and detection, case management in communities, PoEs, HCFs, and ETCs. This will be achieved through multiple strategies that include:

- Ensuring access to EVD specific guidelines and standard operating procedures (SOPs) for case management, and management of dead bodies, referrals, decontamination and psychosocial support. Integrated protocol for case and nutrition management of EVD patients particularly children and pregnant women will be developed and disseminated;
- Prepositioning of food and nutrition commodities for both EVD cases and contacts.
- Establishment of at least 3 fully equipped and properly staffed 25-bed capacity ETCs in strategic locations (Rubavu, Rusizi and Kigali);
- Establishment of temporary 2–4 bed capacities in all priority district hospitals for temporary isolation of suspect cases during investigation pending outcome of the laboratory results and for temporary management of confirmed cases as transfer to an ETC is being established following initial confirmation of EVD;
- Establishment and implementation of triage systems in ETCs and in high risk district hospitals and health centers;
- Training of a team first rapid responders (fRRT) for case management and deployment in the event of a confirmed case. The fRRT will be on a roster at national and district levels and ready for deployment at short notice;
- Establishment and management of at least 3 ambulances for safe transportation and referral of EVD cases, as well as training of ambulance teams;
- Training and establishment of at least two teams of eight persons, for safe and dignified burial, and at least one team per priority district. These District Teams will be mobilized and retooled depending on location of the outbreak.

4.3.2.6 Infection Prevention and Control (IPC), and Water, Sanitation and Hygiene.

Enhancing IPC practices is the most important feature of EVD prevention and control. Protection of HCWs can only be achieved through good IPC practices. IPC practices shall be improved to ensure that all affected communities and health workers at HCFs and ETCs have adequate knowledge and skills to promote IPC practices to protect themselves and minimize nosocomial transmission. Efforts will be made to ensure availability and access to required medical supplies and logistics.

WASH is the backbone of IPC practices. WASH facilities and services shall be improved at all levels to enhance IPC. The immediate priority actions in WASH at HCFs and ETCs will be to improve water supplies, appropriate drainage systems, waste disaggregation, and incineration facilities; and reinforce appropriate use of chlorinated water, hand-washing practices, . Toilet and latrine facilities at holding centers, isolation units and ETCs shall be improved. Promotion of hand washing practices and waste disposal in the community shall be integrated into RCCE programs in general.

The strategies that will be implemented over the next six months include:

- Printing and distribution of SOPs for IPC and WASH;
- Strengthening capacities for WASH and waste management in ETCs and HCFs in the 15 priority districts; – including private HCFs and contracted cleaners
- Training and mentorship of frontline health care and public health workers on IPC practices and WASH in the community, POEs, RTCs, HCFs, and ETCs.
- Regular monitoring of IPC practices and WASH capabilities to assess progress and identify additional needs for corrective measures.
- Replenishment of critical consumable WASH supplies, primarily chlorine
- Development of infrastructure for WASH facilities shall be integrated into logistic plans. The urgent WASH needs are providing waste disposal and toilet facilities at holding areas, improvement of water supply, drainage, and waste disposal facilities at ETCs and hospitals (isolation units).

4.3.2.7 Mental Health and Psychosocial Support

An EVD outbreak disrupts social cohesion and causes traumatization through fear of infection, isolation of sick persons and contacts, separation of family members, death and non-participation in care of sick relatives and non-participation in burial of loved ones. In addition, survivors face stigma and discrimination in the community that makes it difficult for them to gain meaningful livelihoods. HCWs also experience high levels of distress from fear of infection, exhaustion from heavy PPE use, and high fatality rate of their patients. Some HCWs will be contacts and even EVD patients.

To address all mental health effects and psychosocial problems of EVD affected individuals, families, communities and HCWs, MHPSS will be provided at three levels: the community, HCFs, and at ETCs. Mental health specialists will provide support to general HCWs to deliver interventions at ETCs and HCFs while CHWs and community volunteers will provide most of the interventions in the community.

The following strategies will be instituted:

- MHPSS SOPs will be integrated into case management SOPs and all EVD preparedness and response plans;
- HCWs will be trained and mentored to deliver MHPSS to ETC patients, support affected families, and provide support to CHWs to then provide psychosocial support in the Communities;
- Trainers of CHWs will be trained and prepared to carryout training of CHWs once an outbreak occurs;
- Psychosocial support to frontline health workers including burial teams and ambulance team members shall be established;
- Child protection will be integrated into all EVD related interventions.

4.3.2.8. Operational Research and Use of Investigational products for EVD prevention and Control

Although there has been some remarkable progress in terms of development of vaccines and therapeutics and ongoing clinical trial. Key interventions for this pillar during EVD preparedness measures include:

- Use of vaccination for the protection of at risk health care and front-line workers during preparedness interventions will continue and an operational platform for

implementation of ring vaccination using the Ebola vaccine rVSV-ZEBOV during a confirmed EVD outbreak due to the Zaire strain will be established. This is in line with the recommendations of the WHO Strategic Advisory Group of Experts (SAGE) on immunization, from their meeting in April 2017, for the use of rVSV-ZEBOV vaccine (not yet licensed) under an expanded access/compassionate use protocol during EVD outbreaks linked to the Zaire strains such as the current ongoing outbreak in the DRC.

- ii) Use and application of EVD therapeutics during EVD outbreak response. Currently there are 5 different EVD therapeutics (Zmapp, Remdesivir – GS -5734, REGN 34703471 – 3479, Favipiravir, mAb 114) at various stages of clinical development with promising safety and efficacy data in lab and animal modes. On an ethical basis, WHO recommends offering and administering investigational interventions in the context of an outbreak with high mortality on an emergency basis outside of clinical trials. In this regard, WHO has developed and recommends the use of an ethical framework — Monitored Emergency Use of Unregistered Interventions (MEURI) protocol for the use and application of investigational products. As part of preparedness, Rwanda will need to obtain ethical approval as well as approval from the Rwanda Federal Drug Administration (RFDA) to be able to import and use investigational products during a confirmed EVD outbreak, as well as establish a framework for monitoring and reporting on implementation/use of the investigational therapeutics.
- iii) Establishing a framework for operational research. Research is a very important component of EVD response and facilitates the generation of new information. To facilitate this, the framework for operational research needs to be established in advance of a confirmed outbreak, with clear mechanisms for identification of and approval for useful studies, monitoring implementation of therapeutics, and ensuring appropriate use and dissemination of information generated.

In Rwanda, the following strategic approaches will be employed for prevention of EVD transmission among frontline health care and public health workers as well as EVD affected communities in the event of a confirmed outbreak:

- i) Vaccination of frontline health care and public health workers in the 11 remaining priority districts.
- ii) Maintain Ultra-Cold chain management, training of vaccination teams, enumeration and vaccination of targeted health workers;.
- iii) Vaccination communication strategies will continue to be reviewed and implemented;
- iv) Vaccination of EVD potentially exposed individuals at community level;
- v) Community engagement will be initiated as part of preparedness and ring vaccination and will be undertaken in communities affected by EVD in case of an outbreak;
- vi) Facilitation of use of investigational EVD therapeutics in management of EVD cases during a confirmed outbreak, including RFDA approval for use, establishment of protocols for use of these drugs and supply chain management. Health workers will be trained on use of these drugs;

- vii) Capacity for research in treatment and public health aspects of EVD will be developed in Rwanda. A research framework will be developed to facilitate implementation; and
- viii) Monitoring and evaluation of vaccination and use of investigational therapeutic drugs will be done and regularly report to the Ethics Committee

4.3.2.9. EVD Preparedness Measures in Refugees /Migrant Population Settlements

The settlements for the refugees and migrant populations from DRC in Rwanda are also targeted for EVD preparedness and will benefit from all the technical interventions outlined in this plan. UNHCR will lead the efforts to implement and develop these capabilities based on nationally agreed and validated standards, SOPs, and guidelines. WHO and partners will work closely with UNHCR to support the establishment of the EVD preparedness capabilities as per the plan and based on needs.

In the event of a suspect or confirmed EVD case among the migrant population, the national government and WHO will be informed immediately, and the case immediately transferred to an ETC or an officially established isolation facility for further management.

4.3.2.10. Operational Logistics and support

The aim of the operational logistics and support function is to ensure timely and continuous availability and proper management of the required logistics and supplies. The logistic needs for EVD preparedness comprise of operational, medical, and non-medical logistics. The logistic needs will be defined in coordination with each of the pillar areas, and these needs will be estimated and quantified for the duration of the plan. The agreed and endorsed items will be procured, distributed, and managed according to standards, timelines, and needs.

For operational logistics, the following strategies will be deployed:

- i) Capacity of Logistics TWG, operational logistics systems, and coordination of different stakeholders will be improved. Additional human resources may be required at the national level to support identification, procurement and management of required logistics;
- ii) Strategic infrastructure will be developed and all equipment required for screening, case management, IPC, and WASH will be procured and provided. The key infrastructure needs in this phase include: completion of the ETC in Rugerero, remodeling of a temporary ETC in Rusizi, and construction of a permanent and multipurpose ETC in Kigali. Additional work will include operational support to establish temporary 2–4 bed capacity isolation units in district hospitals in priority districts, creating holding areas at POEs and equipping these facilities (ETCs and temporary isolation units);

- iii) Adequate supplies will be procured and made available and contingency stock will be prepositioned at strategic locations. A contingency stock of essential medicines, medical supplies, and IPC materials will be distributed to the designated isolation facilities, and some prepositioned at district level pharmacies for ease of access. Donations will be accepted in line with the needs indicated on the plan and subject to validation of needs and quality standards;
- iv) Medical and operational transport systems will be strengthened to meet the needs of operations. This will include an ambulance system for referral and transportation of EVD cases, appropriate vehicles for burial teams, and a transportation system for staff, medical supplies, and patient specimens. Three ambulance teams will be operationalized and systems for hiring vehicles will be strengthened. A system for flexible and efficient use of existing the transportation system at national and district levels will be created.

4.3.2.11. Monitoring and Evaluation Framework

The monitoring and evaluation of progress in establishing EVD preparedness and operational readiness capabilities will be tracked through:

- Monitoring of plan implementation using indicators outlined in section 4.5 of this strategic document. An indicator database will be created at the Incident Management System (IMS), and updated on weekly basis;
- Mid-term and final progress reviews of the plan post-implementation. This could be achieved through a meeting convening all pillar and co-pillar leads to review progress in implementation and make appropriate adjustments and corrective measures;
- Periodic/bi-weekly tracking of capabilities at national and district level using the high level WHO key performance indicators for tracking progress towards operational readiness capabilities;
- Joint internal /external assessments; and
- Full-scale SIMEX conducted during second half of plan implementation to test the operational functionality of the preparedness capabilities and systems created.

4.4. Activity and Budget

From the current outbreak status and potential risks of spread articulated in the introduction section of this document, it is impossible to determine for how long the outbreak will continue. This updated phase III plan has therefore been developed to cover a duration of 6 months (July to December 2019), and will again be reviewed and updated in the context of the outbreak or scaled down should the outbreak be contained and risks for spread beyond national boundaries of the DRC eliminated.

Section 4.4.1 below provides an estimated summary budget by key areas of intervention, while Annex 2 provides the detailed budget by area of intervention and by activity.

4.4.1. Estimated Summary Budget by Core Components

SN	Technical area	Budget (RWF)	Budget (USD)
1	Coordination and leadership	1,103,168,306	1,224,078
2	Risk Communication and Community Engagement	1,359,089,756	1,508,049
3	Surveillance	1,609,247,620	1,785,624
4	EVD laboratory capacity	853,747,646	947,320
5	Immunization and New Drugs	599,500,020	665,206
6	Case management and Infection prevention and control	1,314,691,286	1,458,784
7	Logistics and supplies	4,343,975,000	4,820,084
	Preparedness Budget	11,183,419,634	12,409,145
	72-hours response plan	2,015,098,463	2,235,957
	Grand Total	13,198,518,097	14,645,103

The detailed priority actions and budget time frame, including responsible persons are outlined in Annex 2.

4.5 Framework for Monitoring and Evaluation of EVD Preparedness Plan and Capacity Strengthening

To monitor and track progress in plan implementation and for EVD preparedness, information using indicators in Annex 3 below will be collected and analyzed routinely. Table 1a in Annex 3 contains indicators to be collected at the national level while Table 1b contains district level indicators.

The indicator measurements will be used to track progress in planned EVD preparedness capacity strengthening and to guide decisions for corrective interventions to ensure operational readiness capabilities in the shortest time possible.

Additionally, the progress and functionality of the EVD preparedness capabilities will be assessed through full-scale SIMEXs, and external joint assessment missions will be used to develop and implement targeted improvement plans.

Abbreviations/Acronyms

AFRO: Africa Regional Office for WHO
CHW: Community Health Worker
CFR: Case fatality rate
DHMT: District Health Management Team
DRC: Democratic Republic of the Congo
EOC: Emergency Operations Center
ETC/ETU: Ebola Treatment Center/Ebola Treatment Unit
EVD: Ebola Virus Disease
FLW: Front Line Worker
HCW: Health Care Worker
HCF: Health Care Facility
IATA: International Air Transport Association
IDSR: Integrated Disease Surveillance and Response
IEC: Information, Education, and Communications
IHR: International Health Regulations
IPC: Infection Prevention and Control
MEURI: Monitored Emergency Use of Unregistered and Experimental Interventions protocol
MINEMA: Ministry of Emergency Management
MOH: Ministry of Health
MHPSS: Mental Health and Psychosocial Support
NAPHS: National Action Plan for Health Security
NRL: National Reference Lab
PBF: Performance Based Finance
PHEIC: Public Health Event of International Concern
PHEOC: Public Health Emergency Operations Centre
POE: Point of Entry is a passage for international entry or exit of travelers, baggage, etc.
RCCE: Risk Communications and Community Engagement
RBC: Rwanda Biomedical Center
RRT: Rapid Response Team
RTC: Refugee Transit Center
RT-PCR: Real-time Polymerase Chain Reaction
SAMU: Services d'Aide Médicale Urgente
SIMEX: Simulation Exercise
SDB: Safe and Dignified Burial
TWG: Technical Work Group
UNHCR: United Nations High Commissioner for Refugees
UVRI: Uganda Viral Research Institute
WASH: Water, Sanitation, and Hygiene
WFP: World Food Program
WHO: World Health Organization

Annexes

Annex 1: Summary Achievements and Gaps from the Phase I and Phase II EVD Preparedness Activities Plan by Components.

Below is a summary of the EVD preparedness achievements over the past six months by core components:

3.2.1 Leadership and Coordination

The establishment and operationalization of the Public Health Emergency Management is a major milestone in EVD preparedness in Rwanda. The Public health operation emergency center is in process of official establishment. Regular weekly coordination meetings, of the TWGs and other ad-hoc meetings are conducted. The Coordination TWG provides the operational platform and venue for TWG working session and meetings. However, major gaps still exist in staffing and technical capabilities needed to implement the preparedness plan and information management related activities. . Additionally, much of the achievements for building capacities for leadership and coordination have been achieved at the national level. Efforts will be made to establish and enhance district level capacities for leadership and coordination of preparedness and response to public health emergencies.

Other achievements under this component include:

- Established and operationalized the TWGs for EVD preparedness focal areas and conducted routine meetings;
- Developed and launched two six-month national EVD preparedness and contingency plans (August 2018– July 2019), including development and roll out of implementation plans of respective TWGs;
- Conducted resource mobilization efforts in support of plan implementation;
- Designed and implemented a full-scale simulation exercise (SIMEX) towards end of the first six-month plan (end of January). Lessons learned, including recommendations for improvement are yet to be implemented;
- Hosted and participated in the external WHO Joint Assessment Mission for EVD Preparedness that identified both strengths and areas for improvement;
- Drafted the Public health emergency law; and
- Drafted EVD SOPs guidance;

3.2.2 Surveillance and Epidemiology

The surveillance system for EVD has been enhanced through a number of interventions that include:

- Updating and dissemination of EVD case definitions, case investigation forms, and reporting flow charts to 15 priority districts;
- Implementation of weekly reporting of EVD alerts and suspect cases;
- Training of 34 focal persons for eIDSR surveillance and response;
- Implementation of screening at 21 priority POEs in the prioritized districts;
- Training of 189 trainers of CHWs and completed cascade training of 20,632 CHWs in the 10 priority districts;

- Training of 1176 contact tracers, including 299 volunteers from the Rwanda Red Cross; and 877 Rwanda National Police officers
- Strengthening of reporting and verification of EVD alerts from the community, RTCs, POEs, and HCFs in real time; and
- Routine production and dissemination of weekly EVD preparedness bulletin

The surveillance capacities for active EVD preparedness need to be sustained throughout the period of heightened vigilance and alert and for as long as the EVD outbreak in the DRC continues. The surveillance SOPs for EVD enhanced surveillance and reporting need to be disseminated country wide to facilitate timely detection and reporting from any part of the country. Real time reporting, verification, investigation, and management of alerts and rumors is weak and requires strengthening.

Additional surveillance priorities for the next phase of the EVD preparedness and contingency plan includes operationalization of EVD screening in all priority POEs, integration of EVD active surveillance into eIDSR and evaluation of its performance, strengthening the capacities for epidemiological data management, and use of eIDSR for EVD surveillance.

3.2.3 Laboratory

The capacity for laboratory diagnosis of EVD and its differential diagnosis has been improved through:

- Training of three staff members at the NRL;
- Training of 14 nurses and laboratory technicians in Rubavu District to safely collect patient specimens, and safely triple package and transport specimens to the NRL;
- Ensuring availability and functionality of the Gene Expert Machine with 72 diagnostic kits. Regular servicing of the Gene Expert machine by a resident engineer; and
- Establishment and strengthening of a system for specimen transportation from districts to the NRL .Diagnostic testing of a total of three samples from suspected cases since August 2018 (all samples tested negative for EVD).

Existing gaps and challenges include inadequate numbers of trained health workers in patient specimen collection, triple packaging of specimens, and transportation from HCFs to NRL. The trained staff members are not currently certified by the International Air Transport Association (IATA) on packing and international shipment of samples classified as dangerous pathogens. The capacities for phlebotomy, specimen packaging, and transportation is still inadequate.

3.2.4. Rapid Response Teams

RRTs have been trained in 12 priority Districts. These RRTs continue to respond to and conduct verification and investigation of all alerts and suspect cases detected and reported from the communities, POEs, RTCs, and HCFs.

The capacities of these RRTs at district level needs to be strengthened to improve their effectiveness. In some of the districts the RRTs are incomplete. The capacities of RRTs will need to be extended to all 15 priority districts in the Phase III EVD Preparedness and Contingency Plan.

3.2.5 Risk Communication and Community Engagement

RCCE for EVD prevention and control has been implemented at both national and district levels. EVD related messages were developed and information and communication materials were distributed. Over 10,200 flyers were distributed and some billboards were erected at strategic locations. The EVD media spots continue to be aired on national and local radio and TV stations. The RCCE strategy has integrated social media platforms.

Engagement of district level health workers and the Rwanda Red Cross volunteers on creating community awareness for EVD prevention and control measures continue to be implemented in all districts. Media monitoring and mechanisms for management of rumors is well established.

While RCCE activities need to be sustained for the duration of persisting risks for possible importation of EVD from DRC, additional needs include: evaluating the impact of EVD messages on attitudes and behavior of the community members, integration of people with disabilities, and incorporation of messages regarding safe and dignified burials (SDBs). More engagement of media houses and Ministry of Communication to create space for more mass media communication is needed.

3.2.6 Case management, Infection Prevention and Control, and Water Sanitation and Hygiene

Improved capacity for case management has been achieved through:

- Development and dissemination of SOPs and jobs aids for case management, WASH, MHPSS, nutrition protocols, and referral and ambulance procedures;
- Development and implementation of assessment checklists for IPC practices, case management, and WASH capabilities. Other case management related SOPs which include use and application of new drugs and therapeutics are still under development;
- Establishment of an Ebola Treatment Centre at Rugerero/Rubavu District to care for EVD confirmed patients and patients in recovery. The ETC is frequently used as a training site for orienting and creating familiarity with an ETC prior to outbreak occurrence;
- Training of ten SDB teams in ten priority districts with support from Rwanda Red Cross;
- Integration of standard IPC practices are into routine patient care in all HCFs and enforcement of WASH components as part of environmental health interventions (ie cleaning, disinfection, waste management). However, more diligence with all IPC and WASH practices are still needed to be able to mitigate possible EVD spread;
- Assessment of Gisenyi Hospital in Rubavu District to identify improvements needed in in IPC and WASH; training of 177 Health Workers and training of 25 environmental health officers and community volunteers in WASH;
- Training of 198 health workers and training of 25 environmental health officers in WASH (cleaning, disinfection, waste management); and
- Training of 130 Mental health and psychosocial support staff

A number of areas that require improvement and additional intervention remain. Creating capacity to manage children and pregnant women in an ETC, creating a roster for the deployment of staff for the ETC, installation of an incinerator at the ETC, correction of the chlorination and non-return components of the on-site water supply system in the ETC,

creation of ambulance cleaning and disinfection area in the ETC, improvement of ambulance readiness for SDB in all the priority districts, and mobilization of appropriate vehicles for the SDB team are needed. Capacity for isolation of suspect EVD cases in hospitals is inadequate and appropriate holding areas for alert cases at POEs and HCFs is lacking. Improving the capacity for health workers and CHWs to deliver EVD related MHPSS remains an existing critical gap. There is a need to create and make functional IPC committees in all HCFs and ensure all HCWs are trained on IPC practices. WASH capacities in all HCFs, POEs, and RTCs need to be improved.

3.2.8 EVD vaccination and use of new drugs

The planning and preparation for immunization of health care and frontline workers in Rwanda is in an advanced stage and many achievements have been made including:

- Approval of the EVD Vaccination Protocol, vaccine importation license has been processed by RFDA, and EVD vaccine SOPs have been developed and translated as appropriate;
- Ultra-Cold chain management has been established at the national level including procurement of freezers and Arktek deep freezers (vaccine carriers), and training and orientation of cold chain managers;
- Sensitization of health care and frontline workers and completion of enumeration exercises in four high-risk districts..

Pending gaps for implementation of EDV vaccination include completion of enumeration exercise in all 15 priority districts, training of vaccination teams, mobilization of the required vaccination logistics, and rolling out the vaccination of all eligible frontline workers. A strategy and framework for use and application of new EVD therapeutics during response interventions is yet to be developed and implemented. Additionally, a framework to facilitate research implementation as part of an outbreak response needs to be developed with procedures clarified.

3.2.9 Medical and Operational Logistics

An effective medical and operational logistics system and framework is required to achieve any form of readiness and preparedness for an EVD outbreak. The achievements made by the Logistics TWG include:

- Design, construction, furnishing and equipping of the Rugerero ETC;
- Provision of tents for holding at POEs.
- Prepositioning of medical supplies at the ETC, 15 district hospitals in the priority districts, 85 health centers, and 6 POEs;
- Creation of storage capacity at the national and district level by integrating supply system into the MPPD system;
- Establishment of a system for ensuring access to and availability of transportation needs for all field activities; implementation is in progress. Additionally, three vehicles procured for use at national level; and
- One ambulance was reconditioned and repurposed for management EVD referrals and two additional new ambulances have been procured with support from the World Food Program.

Annex 2: Detailed Budget and Implementation Timeline

Components/ Objectives/ Key Activity	Timeline												Implementation level	Responsible	Budget	
	2019														RWF	USD
	Ju l	Au g	Se p	Oc t	No v	De c										
Technical area 1: Coordination and leadership																
Strategy 1. Strengthen EVD preparedness coordination and leadership at decentralized level																
Objective 1. 1 Avail Public Health Emergency policy, term of reference and standard operating procedures approved by authorized level of authority																
Activity 1.1.1 - Simplify one page of SOP for each Technical area (To be drafted in TWG and finalized in two days workshop)	X											National	All TWG	9,011,000	9,999	
Activity 1.1.2 Printing simplified SOPs for each Technical area (To be drafted in TWG and finalized in two days workshop)		X										National	All TWG	9,800,000	10,874	
Activity 1.1.3 Develop and disseminate medical countermeasures SOPs and tracking tool (human resources, equipment and materials)	X											National	MOH/RBC	28,380,240	31,491	
Activity 1.1.4 Develop and approve a new national EVD response plan											X	National	All TWG	18,208,850	20,205	
Activity 1.1. 5 Develop and approve public health emergency law	X	X										National	MOH/RBC	0	-	
S/T total														65,400,090	72,568	
Objective 1.2 Additional human resources to support EVD preparedness activities (ETC, Public Health Emergency Management and all pillars)																
Activity 1.2.1 Ensure salaries for additional human resources for public health emergency management and logistics	X	X	X	X	X	X					X	National	MoH/RBC	238,177,690	264,282	
Activity 1.2.2 Procure additional equipment for public health emergency management	X											National	MoH/RBC	162,420,000	180,222	
Activity 1.2.3 Ensure Operational cost for public health emergency management	X	X	X	X	X	X					X	National	MoH/RBC	38,348,000	42,551	
Activity 1.2.4 Ensure the communication between national and district for public health emergency management	X	X	X	X	X	X					X	National/District	MoH/RBC	-	-	
Activity 1.2.5 Ensure cross-border EVD information sharing for public health emergency management	X	X	X	X	X	X					X	National	MoH/RBC	0	-	
Activity 1.2.6 Review and update EVD contingency plan												National	MoH/RBC	19,323,840	21,442	
Activity 1.2.7 Participate in international and regional meetings, conferences and training on EVD		X	X	X	X	X					X	National	MoH/RBC	150,040,000	166,485	
Activity 1.2.8 Conduct quarterly supervision/mentorship of EVD district coordination activities			X								X	National	MoH/RBC	28,946,400	32,119	
S/T total																

Objective: 1.3 Strengthen the district EVD coordination structures										637,255,930	707,100
Activity 1.3.1 Conduct initiation training with DHMT/DECC for establishment of district PH emergency coordination											
Activity 1.3.2 Strengthen the district epidemic coordination committee (DECC) emphasizing on EVD preparedness											
Activity 1.3.3 Trainings of district epidemic coordination committee (DECC)											
Activity 1.3.4 Nominate or designate the staffing for the Incident Management system at district level											
S/T total										250,789,560	278,277
Objective: 1.4 Mobilize partners and resources for implementation of national preparedness for EVD prevention and control											
Activity 1.4.1 Evaluation of the implementation status of the contingency plan											
Activity 1.4.2 Conduct workshop for review and update the national EVD contingency plan											
Activity 1.4.3 Conduct advocacy and resource mobilization meetings											
Activity 1.4.4 Establish strategic advisory committee on prioritized activity											
Activity 1.4.5 Ensure contingency funds for immediate response to an EVD outbreak at national and sub national levels											
S/T total										57,055,000	63,308
Objective 1.5 Ensure maintenance of ETC											
Activity 1.5.1 Salaries of ETC management staff											
Activity 1.5.2 Operational cost											
S/T total										92,667,726	102,824
Total for EVD preparedness Coordination and leadership										1,103,168,306	1,224,078
Objective 1.6 Ensure readiness for EVD 72- hour immediate response plan											
Activity 1.6.1 Activation of an EVD 72- hour immediate response plan											
Activity 1.6.2 Conduct simulation Exercise of 72-hour response plan											
Total for 72-Hour response plan										2,015,098,463	2,235,957
Technical area 2: Risk Communication and Community Engagement											
General Objective: The overall aim of this strategy is to contribute to the national preparedness and response plan to halt the transmission of EVD in Rwanda, through general											

awareness and effective evidence based social mobilization, community engagement and public education that supports desired behavior change									
Specific objective 2. 1: By the End of December 2019, 90% of the Population in 15 High-risk Districts will have received EVD signs and symptoms and Prevention messages including Hygiene Practices, Vaccination and Early Seeking of Care and Services									
Activity 2.1.1 Evidence generation to inform strategy developments (KAP Survey)			X	X	X	National /District	MOH/RBC/UNICEF	56,000,000	62,138
Activity 2.1.2 Develop/Adaptation, Produce and disseminate educational and communication materials (for preparedness, during & post outbreak, Vaccination) with inclusive messages (incorporate the disability friendly materials to existing IEC materials)	x		X	x	X	National /District	MOH/RBC/DISTRICTS	160,000,000	177,536
Activity 2.1.3 Support the District Distribution and disseminate of produced educational and communication materials (for preparedness, during & post outbreak, Vaccination) within the Community	X		X	X	X	National /District	MOH/RBC/UNICEF	24,000,000	26,630
Activity 2.1.4 Use of Mass media, mobile technology and social media to raise awareness on Ebola prevention and preparedness in the Community	X		X	X	X	National /District	UNICEF	250,000,000	277,401
Sub/total 1								490,000,000	543,705
Specific objective 2.2 : By the End of December 2019, 70% of the stakeholders will be trained on Risk Communication around Ebola Prevention, early detection and How/where to seek services;									
Activity 2.2.1. Support District EVD teams to conduct Training and refresher training of Community Health Workers			X	X		National /District	MOH/RBC/WHO/UNICEF	90,000,000	99,864
Activity 2.2.2 Support Ministry of Education/ Rwanda Education Board to conduct Training of Education and other Children Institutions	x					Districts	MOH/RBC/WHO/UNICEF	45,400,000	50,376
Activity 2.2.3 Support the District EVD teams to conduct Trainings of the CSOs (FBOs and Local NGOs)	X		X	X	X	Districts	MOH/RBC/WHO/UNICEF/Partners	42,000,000	46,603
Activity 2.2.4 Support the District EVD teams to conduct refresher Trainings of local authorities and Community leaders	X		X	X	X	Districts	MOH/RBC/WHO/UNICEF	20,000,000	22,192
Activity 2.2.5 Conduct Training and refresher training of Media Houses and Journalists on Ebola		X		X			MOH/RBC/WHO	30,000,000	33,288
Activity 2.2.6 Conduct training of Disability umbrella and cascade training to the PLWD in Districts		X			X				-
Sub/total 2								227,400,000	252,324
Specific objective 2. 3: By the End of December 2019, 60% of the Community in 15 High-Risk Districts have improved the attitude and practices to prevent and control EVD									

Activity 2.3.1 Support the District EVD teams to conduct community participation/Engagement on Ebola prevention practices through community outreach/events	X	X	X	X	X	X	X	X	X	MOH/RBC/IRRC/UNICEF/Other Partners	300,000,000	332,881
Activity 2.3.2 Support the District EVD teams and use the Community Events to share EVD Prevention and Control (Community Meetings and other gathering Forums, Churches, Umuganda)	X	X	X	X	X	X	X	X	X	MOH/RBC/IRRC/UNICEF/Other Partners	70,000,000	77,672
Activity 2.3.3 Support the community Health Workers and Community volunteers to conduct Door to door outreaches within the Community of the 15 High Risk Districts	X	X	X	X	X	X	X	X	X	MOH/RB/IRRC/UNICEF/Other Partners	60,000,000	66,576
Activity 2.3.4 Support the District EVD teams to disseminate EVD signs, symptoms and prevention messages in schools and Children Centers			X	X	X	X			X	MOH/RB/IRRC/UNICEF	35,000,000	38,836
Activity 2.3.5 Support the District NCPD teams to conduct Awareness and Education to the People with Disability on EVD Prevention					X	X			X	MOH/RB/WHO	42,000,000	46,603
Sub/total 3											507,000,000	562,568
Specific objective 2.4: By the End of July 2019, set up a functional community feedback mechanism at all levels to receive and address rumors												
Activity 2.4.1 Upgrade the Hotline Center Server Capacity to be able to operate 24/7 (System software and maintenance cost).	x	x								National	24,890,096	27,618
Activity 2.4.2 Capacitate the call center with additional personnel to be able to operate 24/7 (4 per time staff for 6 months).	x	X	X	X	X	X	X	X	X	National	62,783,660	69,665
Activity 2.4.3 Regular coordination of Risk Communication and Community Engagement Task Team from Central to Decentralized level	x	X	X	X	X	X	X	X	X	National/District	4,500,000	4,993
Activity 2.4.4 Supervision and Monitoring of the Risk Communication Activities on quarterly basis		X						X			18,000,000	19,973
Activity 2.4.5 Documentation of RCCE Activities and lesson learnt			X				X		X	National/Districts	24,516,000	27,203
Sub/total 4											134,689,756	149,452
Total risk communication and community engagement											1,359,089,756	1,508,049
Technical area 3: Surveillance												
STRATEGY 1: Early case identification and linkage with Rapid Response Team for rapid investigation												
Objective 3.1a: Ensure health workers at the community and facility level have the knowledge and tools to safely and rapidly screen, identify, isolate, investigate and report												

Activity 3.1.a. 1 Update the Standard Case Definition , print and disseminate simplified standard case definition, Case investigation form, contact listing form, contact tracing form, daily contact tracing report, Ebola Case definition handout, Decision-making Flowchart, Data flow chart, unique ID Sticker, Booklet for HC mentorship and EVD Surveillance SOP to all health facilities in high risk zone and POEs	X									National	ESR, CDC, WHO	43,799,400	48,600
Activity 3.1.a. 2 Conduct cascade training for HCWs on the use of case definition and completing the case investigation form at all POEs, health centers, and hospitals located in catchment area of Masaka DH, shyira DH, Kibagabaga DH, Kacyiru DH, Muhima DH, Nyamata DH, Nyanza DH, Mugonero DH, Kirinda DH	X	X								National	ESR, CDC, WHO	111,813,300	124,068
Activity 3.1.a.3 Train the private clinics on EVD surveillance (case identification, investigation, reporting)			X	X						National	ESR, CDC, WHO	26,909,100	29,858
Activity 3.1.a. 4 Train CHWs from Kicukiro, Nyabihu, Gasabo, Nyarugenge, Bugesera, Nyanza, and Karongi districts on community-based surveillance for EVD		X	X							District	RBC, MOH, WHO, UNICEF	53,206,200	59,038
Activity 3.1.a. 5 Procure material for community surveillance and contact tracing as well as supplies for the protection of CHWs during case identification, investigation and contact tracing including thermometers, mask, gloves, boots)	X									National	MOH, RBC, UNICEF	284,238,000	315,391
Activity 3.1.a. 6 Train local authorities of 15 high risk district on EVD surveillance and contact tracing	X	X								District	MOH, RBC	50,000,000	55,480
Activity 3.1.a. 7 Conduct refresher training of Contact Tracers in 15 high risk districts		X								National	MOH, RBC, RRC	43,350,000	48,101
Activity 3.1.a. 7 Procure motorcycles to facilitate Contact Tracers	X											18,000,000	19,973
S/Total												631,316,000	700,510
Objective 3.1b: Ensure availability of staffing and supplies at POEs for optimal EVD screening													
Activity 3.1b.2 Identify and train PoE staff on detection, of EVD cases and utilization of Thermo scanner machines, isolation and reporting	X	X								National	MOH, ESR	7,675,200	8,516
Activity 3.1b.2 Provide incentive to POE Staff for transport and lunch	X	X	X	X	X	X	X	X	X	National	WHO, ESR	167,248,800	185,580
S/Total												174,924,000	194,096
Objective 3. 1c: Improve communication and information sharing with neighboring countries to address cross-border surveillance													

Activity 3.1c.1 Develop a quarantine policy, SOP and travel advisories	X									National	MOH, RBC	15,970,500	17,721
Activity 3.1c.2 Improve cross-border collaboration in scope of EVD prevention, control the transmission and response	X	X	X	X	X	X	X	X	X	National, District	MOH, RBC	3,289,500	3,650
S/T total												19,260,000	21,371
Objective 1d: Improve the monitoring and evaluation of EVD surveillance activities at the community, district, and national levels													
Activity 3.1d.1 Supervise facility health workers and CHWs on case identification, investigation, and reporting	X	X	X	X	X	X	X	X	X	District	RBC, UNICEF, RRC	36,743,400	40,771
Activity 3.1d.2 Supervise EVD surveillance activities at POEs	X	X	X	X	X	X	X	X	X	National and District	RBC, MOH, OIM, CDC	13,882,560	15,404
Activity 3.1d.3 Conduct SIMEX at high risk POEs	X	X	X	X	X	X	X	X	X	National and District	RBC, MOH, OIM, CDC	13,882,560	15,404
S/T total												64,508,520	71,579
STRATEGY 2: Management and reporting of EVD surveillance data													
Objective 3. 2a: Develop a user-friendly and accessible database to report EVD data from peripheral (community, Health Centres and District hospital levels) to central level													
Activity 3.2a.1 Implement electronic community event-based surveillance system (eCEBS) in high risk districts					X	X				District	MOH, UNICEF	514,697,840	571,110
Activity 3.2a.2 Conduct training of data managers and IDSR focal persons on reporting of EVD data using eIDSR platform	X	X								District	ESR	67,178,560	74,541
Activity 3.2a.3 Strengthen the EVD data management at ETC										District	MOH	45,800,000	50,820
Activity 3.2a.4 Develop, adapt and train an electronic system to manage contact tracing data	X	X	X	X	X	X	X	X	X	National	RRC, ESR	16,659,900	18,486
Activity 3.2a.5 Salary for temporary Data Manager staff	X	X	X	X	X	X	X	X	X	National	CDC, DFID, ESR	39,000,000	43,274
S/T total												683,336,300	758,231
Objective 3. 2b: Ensure timely and action-oriented reporting at the community, district, and national levels													
Activity 3.2b.1 Reinforce e-IDSR reporting by private clinics by refresher trainings		X	X							National	MOH/ ESR	28,702,800	31,849
Activity 3.2b.2 Provide devices for e-reporting to POEs	X									National	MoH/ ESR	7,200,000	7,989
S/T total												35,902,800	39,838
S/T Total Surveillance												1,609,247,620	1,785,624
STRATEGY 3: EVD laboratory capacity													
Objective 3.3a: Improve the National Reference Laboratory capacity for sample collection, triple packing, transportation, and testing at national and district levels													

Activity 3.3a.1 Train the National Reference Laboratory Rapid response team on EVD blood sample collection, triple packing, shipping and management of hazardous clinical/biological wastes.	X							National	MOH/RBC-NRL/WHO	10,857,824	12,048
Activity 3.3a.2 Refresher Training for lab personnel in all the priority districts on EVD blood sample collection, triple packing, shipping and management of hazardous clinical/biological wastes.								District	MOH/RBC-NRL/WHO	248,083,560	275,274
Activity 3.3a.3 Establish mobile lab (for clinical management of ETC patients) immediately deployable if there is a confirmed outbreak	X							National	MOH/RBC-NRL/WHO	18,120,000	20,106
Activity 3.3a.4 Procure 3 Laptops for Laboratory data management								National & District	MOH/RBC-NRL/WHO	2,733,300	3,033
Activity 3.3a.5 Procure refrigerator in the NRL for temporary storage of EVD samples					X			National	MOH/RBC-NRL/WHO	-	-
Activity 3.3a.6 Ensure supply chain for lab reagents	X	X	X	X	X	X	X	National	MOH/RBC-NRL/WHO	-	-
S/Total										279,794,684	310,461
Objective 3.3b: Enhance district hospital laboratory capacity in biosafety and biorisk management for handling transport and analysis in all the high-risk areas											
Activity 3.3b.1 Conduct Cascade training for the Health Centres attached to all the priority district hospitals on biosafety and biorisk management.	X							District	MOH/RBC-NRL/WHO	452,625,700	502,234
Activity 3.3b.2 Conduct technical support and mentorship visits to both Hospital and Health center laboratories located in the priority districts to EVD sample collection and management of clinical/biological wastes, Biosafety audit, etc...	X				X			District	MOH/RBC-NRL/WHO	97,325,522	107,993
Activity 3.3b.3 IATA Certification and training for lab staff in triple packing and shipment of dangerous pathogens		X						National	MOH/RBC-NRL/WHO	5,284,800	5,864
S/Total										555,236,022	616,091
Objective 3.3c: Ensure regular and timely equipment maintenance and service at the National Reference Laboratory											
Activity 3.3c.1 Procure service contracts for 2 EVD diagnostic equipment (7500 ABI PCR systems)		X						National	MOH/RBC-NRL/WHO	18,716,940	20,768
S/Total										18,716,940	20,768
Total for Laboratory										853,747,646	947,320
Technical Area 4: Immunization and New Drugs											
Objective: Reduce risk of EVD infection among high risks communities, front liners and health care workers by applying standard IPC requirements as well as all											

transmission preventive measures, use of emergency drugs and vaccines currently available										
Objective specific 1: Ensure the protection of exposed frontline and health workers in high risk districts with available recommended vaccine										
Objective 4. 1a. Maintain cold chain functioning										
Activity 4. 1a.1 Carry out preventive maintenance for cold chain equipment and regular temperature monitoring	X	X	X	X	X	National	VPDP		-	-
Objective 4.1b Ensure a functional end-to-end supply chain for uninterrupted availability of EVD vaccine and devices to the eligible end user.										
Activity 4. 1b.1 Complete sensitization and enumeration exercise and develop the list of beneficiaries in two districts (Nyanza and Bugesera)		X				National	WHO/VPDP	1,116,621		1,239
Activity 4. 1b.2 Hire vehicles for supplying vaccine and devices		X				National	WHO	3,382,500		3,753
Activity 4. 1b.3 Ensure supply chain supervision		X				National	WHO/VPDP/CDC	1,000,000		1,110
S/T total								5,499,121		6,102
Objective 4. 1c. Build up the capacity of vaccination teams for effective EVD vaccine delivery										
Activity 4. 1c.1 Printing of Informed consent form, vaccination and ID cards	X					National	WHO	6,525,701		7,241
Activity 4. 1c.2 Supply protective materials for vaccination team and vaccine related waste	X					National	WHO	10,332,900		11,465
Activity 4. 1c.3 Accommodation and Mission allowances for vaccination team members and supervisors		X				National	WHO	225,427,257		250,135
Activity 4.1c.4 Supply medical and non-medical materials							WHO	6,203,344		6,883
Activity 4. 1c.5 Ensure transport for vaccination team and supervisors	X	X					WHO	109,702,500		121,726
Activity 4.1c.5 Providing communication for vaccination team and supervisors	X	X	X				WHO	4,910,000		5,448
S/T total							WHO	363,101,702		402,898
Objective 1d Ensure follow up of EVD vaccine beneficiaries and management of AEFIs related to EVD vaccination										
Activity 4. 1d.1 Providing communication to the member of follow up 3rd, 14th and 21st day after vaccination		X				National		4,030,200		4,472
S/T total								4,030,200		4,472
Objective specific 2: Reduce the risk of EVD transmission by vaccinating all potentially exposed people and treating EVD cases with emergency drugs and promising investigational therapies										
Objective 2a. Establish a framework for EVD investigational therapies										
Activity 4.2a.1 Establish an investigation team	X					National	MOH/RRC			-
Activity 4.2a.2 Develop protocols and submit for Ethical and RFDA approvals	X					National	Investigation team			-
Activity 4.2a.3 Research coordination						National	MOH/WHO			-

Activity 5.1.7. Conduct Drills for case management team members	x	x	x	x	x	x	x	x	District	MOH/Partners	103,783,104	115,158
Activity 5.1.8. Conduct Support Supervision to Hospitals, POEs, ETC on WASH/ IPC: 4days/2month	x	x	x	x	x	x	x	x	National/district	MOH, ESR, Partners	48,863,808	54,219
Activity 5.1.9. Integrate Nutrition in IPC/ CM training and develop food/nutrition related protocols for support to Ebola victims and their contacts	x								District	MOH/Partners	15,180,000	16,844
Activity 5.1.10 Preposition food and nutrition commodities for an estimated 100 patients/3,000 contacts	x	x	x						National	MoH/WFP/UNICEF	320,923,800	356,098
Activity 5.1.11. Conduct Drills on safe and dignified burial	x	x	x	x	x	x	x	x	District	MOH/Partners	51,693,660	57,359
Activity 5.1.12. Conduct training of 20 Rwanda Defense Force and Police staff on SDB		x							National	MOH/ESR/Partners	12,865,600	14,276
S/total:											913,893,096	1,014,058
Component 2: Water, sanitation and Hygiene at Hospitals, Health centers, Ports of entries and community												
Objective 1. 1. To support infection prevention and control (IPC) by ensuring that workers at point of entry, hospital, health centers ,in community have adequate knowledge and facilities to clean, disinfect and manage waste, specific to the needs of EVD IPC												
Activity 5. 2. 1 Correct chlorination system in Rugerero ETC	x								National/District	MOH/Partners	7,200,000	7,989
Activity 5.2.2 Cascade training to train WASH/IPC staff at point of entries, health centers (including contracted cleaners and private health centers) on chlorine solution preparation and usage, containment of suspected case) :	x								District	DH,ESR, MoH&partners	19,943,000	22,129
Activity 5.2. 3 Train 280 private HFs(2staff/HF) in WASH IPC									National/District	DH,ESR, MoH&partners	43,120,000	47,846
Activity 5.2.4 Train 566 contracted cleaners in WASH IPC									National/district	DH,ESR, MoH&partners	43,582,000	48,359
Sub/total 2											113,845,000	126,323
Component 3: Psychosocial support												
Objective 1. 1. To Improve capacity for EVD related mental health and psychosocial support to affected individuals, families, communities and frontline health workers including addressing child protection issues.												
Activity 5.3.2 Conduct training of trainers at district to Health Workers at Health Centres and Community Health workers at District level		x							National	MoH,ESR, &partners	43,742,800	48,537
Activity 5.3.3 Train Health Workers at Health centres to provide MHPSS (6 workshops)		x	x						District	MoH,ESR, &partners	58,008,270	64,366
Activity 5.3.4 Conduct Training of Community Health Workers, Red Cross Community Volunteers , regional Leaders to PSS		x							District	MoH,ESR, &partners	50,621,000	56,169
Activity 5.3.5 Conduct Support Supervision to DH	x	x	x	x	x	x	x	x	National	MoH,ESR, &partners	93,592,800	103,851

Activity 6.4.3: Ensure six (6) vehicles for six (6) months of rented vehicles (4X4) for the MoH Personnel + Driver for field mission in the different designated high risk areas	X	X	X	X	X	X	X	X	X	National & District	MOH/LTWG	87,320,000	96,890
Activity 6.4.4: Acquire 8 additional EVD adapted ambulances and equipment for medical transport to ensure that each of the 10 top priorities has 1 ambulance adapted for EVD transport.	X	X	X	X	X	X	X	X	X	National & District	MOH/	400,400,000	444,285
Sub/total objective 4												522,420,000	579,678
Total for Logistics													
GRAND TOTAL (all technical areas)												4,343,975,000	4,820,084
												13,198,518,097	14,645,103

Annex 3: Indicators for Tracking Progress in EVD Preparedness and Capacity Strengthening at National and District Levels

Table 1a: Indicators for monitoring and tracking progress in EVD preparedness capacity strengthening at national level

Core Components	Indicator	Measurement	Target	Freq. of reporting
Strategic leadership & coordination	Establishment/existence & functionality of a national multi-sectoral /technical coordination committee	Y /N	C	Monthly until established
	Proportion of priority districts having a functional emergency multisectoral coordination committee	Number (Percentage)	15 (100%)	Bi-weekly
	Existence of clearly defined TORs for the coordination structures at National and district levels	Y /N	100% at national level; 100% at district level	Bi-weekly until established
	Existence of coherent plans and procedures for coordination and incident management to include liaison between the Public Health Emergency Management and National Disaster management structures	Y /N	100% for existence of IMS; 100% for linkage with Ministry of Disaster Management	Bi-weekly until established
	Availability of EVD preparedness and contingency plans developed/ updated and shared with all key stakeholders	Y/N	100%	Monthly
Rapid Response teams	Existence of regular and documented coordination meetings with partners and stakeholders at national level	Y/N	100%	Bi-weekly
	Existence of national RRT conducting routine verification of alerts and suspect cases	Y/N	100%	Bi-weekly
	Proportion / Number of districts with trained and function RRT	Number (Percentage)	15 (100%)	Bi-weekly
Surveillance for early detection	Proportion of alerts investigated timely (within 48h)	100%	100%	Bi-weekly
	No, and proportion of villages with trained CHW, and equipped with EVD alert case definition	Number (Percentage)	Total number of villages in the 15 priority districts (100%)	Bi-weekly
	Number and proportion of health facilities with EVD case definitions	Number (Percentage)	100% (283)	Bi-weekly

Core Components	Indicator	Measurement	Target	Freq. of reporting
	Number of health workers trained on IDSR including EVD identification and case investigation	Number	301	1 per Health Center and 2 per hospital in 15 priority Districts
	Number/proportion of health facilities, and POEs having surveillance tools including case investigation form	Number (Percentage)	100% (283) for HF; 100% (21) for POEs	Bi-weekly
	Number /proportion of HFs providing zero weekly reporting of EVD cases	Number (Percentage)	Number (100%)	Bi-weekly
	Total alerts and suspect cases reported and investigated	percentage	100% (# of alerts investigated/total # of alerts	Weekly
	Number /Proportion of priority districts with capacity for sample collection, management, packaging and referral to national reference lab	Number (Percentage)	15 (100%)	Bi-weekly / Monthly
Laboratory diagnostic capacity	Existence of capacity for analysis or specimen handling of biological samples and testing for EVD at the national referral laboratory	Yes /NO	100%	
	Proportion of high-risk districts with at least three trained phlebotomists and capacity for dead body swab management.	Percentage	100%	Bi-weekly
	Number/proportion of districts with capacity for sample collection, transportation and referral	Number (Percentage)	15 (100%)	Bi-weekly
	Number of functional Ebola Treatment Centers identified and equipped	Number	3	
	Number/Proportion of hospitals in priority districts with EVD designated isolation units	Number (Percentage)	24 (100%)	Bi-weekly
Case management including safe and dignified burials, IPC and MHPSSS	Number/Proportion of districts with pre-positioned 'community WASH kits' * (*defined by CM/IPC TWG, to be held at one district hospital)	Number (Percentage)	15 (100%)	Bi-weekly
	Number/proportion of high risk districts with at least one trained and equipped team for safe and dignified burial	Number (Percentage)	15 (100%)	Bi-weekly
	Number/proportion of hospitals in high risk districts with triage and IPC	Number (Percentage)	15	Bi-weekly

Core Components	Indicator	Measurement	Target	Freq. of reporting
	Number /proportion of hospitals in high-risk districts with EVD specific and comprehensive IPC materials /measures (Kits of full personal protective equipment, safety boxes, hand-washing facilities)	Number (Percentage)	24 (100%)	Bi-weekly
	Number/proportion of health facilities with trained staff and a in cleaning, disinfection and waste management	Number (Percentage)	283 (100%)	Bi-weekly
	Number/proportion of health facilities equipped with minimum kit* of WASH material for effective cleaning, disinfection and waste management (*defined by CM/IPC TWG)	Number (Percentage)	283 (100%)	Bi-weekly
	Number and proportion of district HF that have conducted IPC assessment and are implementing corrective measures	Number (Percentage)	283 (100%)	Bi-weekly
	Number /Proportion of high risk districts with trained teams and mentors for MHPSS	Number (Percentage)	15 (100%)	Bi-weekly
Points of Entry	Number/proportion of high risk PoEs in priority districts having screening and referral capacity	Number (Percentage)	21	Bi-weekly
	Number/proportion of priority POEs with appropriate and equipped holding area (close to screening area). Equipped with bed, table, chairs, toilet.	Number (Percentage)	21 (100%)	Bi-weekly
	Number of high risk PoEs with handwashing facilities and chlorine	Number (Percentage)	21 (100%)	Bi-weekly
	Number of high risk PoEs with information (and SOPs) for IPC practice, health promotion, and alcohol-based handwashing solution	Number (Percentage)	21 (100%)	Bi-weekly
	Number/proportion of high risk districts with district level plan for RCCE activities.	Number (Percentage)	15 (100%)	Bi-weekly
Risk communication and community engagement	Numbers /proportion of high risk district having EVD communication tools for public awareness message (banners, billboards, flyers, pull up banners	Number (Percentage)	15 (100%)	Bi-weekly
	Presence and easily accessible of 24/7 hotline for reporting of alerts	Y/N	100%	Monthly

Core Components	Indicator	Measurement	Target	Freq. of reporting
Preparedness for investigational vaccinations and therapeutics	Availability of relevant information on vaccines /vaccination, therapeutics, guidance and protocols	Y/N	100%	Monthly
	Ethical and regulatory approvals obtained	Y/N	100%	Bi-weekly until approved
	Vaccination teams established and trained on vaccination SOP and on good clinical practice	Y/N	100%	Bi-weekly until achieved
	Number of Frontline healthcare and public health workers vaccinated	Number (percentage)	Targeted Number (100%)	Bi-weekly
Logistics and Operational Support	Proportion of priority districts having access to transportation facility for patient referral, and EVD preparedness activities	Number (percentage)	15 (100%)	
	Coordination meeting facilities are set up, equipped and functional	Y/N	100%	Bi-weekly until achieved
	Availability of adequate and appropriate logistics and supply for EVD case management stockpile?	Y/N	100%	Bi-weekly until achieved
	Number /proportion of district hospitals /Health facilities /POs reporting no stock out of required supplies and logistics	Number (Percentage)	24 (100%) 183 (100%) 21 (100%)	Bi-weekly
	Number /Proportion of districts with designated and trained Emergency logistics officer	Number (Percentage)	15 (100%)	Monthly until achieved
	Number/Proportion of districts with established and functional stock management system in place	Number (Percentage)	15 (100%)	
	Number of ready to use ETCs	Number	3	Monthly
				Quarterly

Table 1b. Indicators for monitoring and tracking progress in EVD preparedness capacity strengthening at district level

Indicator No.	Area	Performance indicators for district level	Measurement	Target	Frequency of Reporting
1	Coordination	The district has an emergency multisectoral coordination committee with terms of references and contact list of members	Yes/No		Monthly
2		The district has a functional coordination committee, holding meetings at least weekly and providing minutes	Yes/No		Biweekly
3		The district has an Ebola Virus Disease preparedness/response plan	Yes/No		Monthly
5		The district has conducted at least one simulation exercise in the last 4 months	Yes/No		quarterly
7		Existence of cross-border coordination mechanism	Yes/No/Not Applicable		Monthly
8	Rapid Response Team	Presence of a functional Rapid Response Team conducting routine verification and investigation of EVD alerts and suspect cases	Yes/No		Monthly
9		Number of Alerts /suspects reported and investigated timely over the last one week	Number of alerts/suspects reported; Percentage investigated within 24 hrs.	100%	weekly
11		Proportion of alerts investigated timely (within 48h) in district since 1st August 2018	Total number reported Percentage investigated timely		weekly
13	Surveillance	Number of private health facilities supervised on Ebola Virus Disease surveillance in the last month	Number	100%	Monthly
14		Number /Proportion of health facilities in the district with Ebola Virus Disease case definitions	Number (Percentage)	100%	Monthly
15		Number/Proportion of Community Health Workers trained on Ebola Virus Disease case detection	Number (Percentage)	100%	Monthly
16		Number /Proportion of health care workers in the district trained on Ebola Virus Disease case detection and reporting	Number (Percentage)	100%	Monthly
17		Number/proportion of health facilities in the district with surveillance tools (i.e. Integrated disease surveillance and response reporting forms, Ebola Virus Disease case investigation forms, Ebola Virus Disease contact tracing forms)	Number (Percentage)	100%	Monthly
18		Number/Proportion of private health facilities reporting surveillance data through electronic Integrated disease surveillance and response system	Number (Percentage)	100%	weekly
19		Number of healthcare workers from private health facilities trained on IDSR including EVD identification and case investigation	Number		Monthly
20		Availability of mechanism to report alert cases in the district (hotline, emergency number(s), alert system) (Y/N		Monthly
21		Number of people in the district trained on contact tracing	Number	10	Monthly

22	Laboratory	Presence of standard operation procedures for Ebola Virus Disease sample collection, packaging, storage and transportation (Yes/No)	Y/N		Monthly
23		The district has sample collection materials for at least 2 suspect cases (i.e. triple packaging kit, Personnel protective equipment)	Y/N		Monthly
24		The district has trained personnel for sample collection and transportation	Y/N		Monthly
26	Case Management /IPC	Number of hospitals in the district with appropriate isolation facility (at least 3 cases within 72h)	Number (percentage)	Total Number (100%)	Monthly
27		Number/proportion of health facilities in the district with Guideline and SOP for case management, IPC, and Psychosocial support	Number (percentage)	Total Number (100%)	Monthly
28		Number/proportion of health professionals trained on EVD case management, Infection Prevention Control /Water, Sanitation and Hygiene (WASH)	Number (percentage)	Total Number (100%)	Monthly
29		Total number /proportion of health facilities with functional incinerators / burn pits	Number (percentage)	Total Number (100%)	Monthly
		Number of hospitals and health centers practicing mandatory handwashing with chlorinated water upon entry to the compound	Number (percentage)	Total Number (100%)	Monthly
		Number of hospitals and health centers with adequate CM/IPC/WASH supplies	Number (percentage)	Total Number (100%)	Monthly
31		Presence of at least 1 trained team on safe and dignified burial in the district, ready to be deployed	Y/N		Monthly
33		Number/percentage of point of entry with appropriate holding area in the district (close to screening area, equipped [bed, table, chairs, toilet,])	Number (percentage)	Total Number (100%)	Monthly
36		Number /proportion of point of entry in the district screening travelers and reporting alert /suspect cases	Number (percentage)	Total Number (100%)	Monthly
37		Availability of health promotion material at all Point of Entry	Yes/No/Not applicable		Monthly
38	POEs	Number of Point of Entry in the district with handwashing facilities	Yes/No/Not applicable		Monthly
39		Number of community leaders trained on Risk communication and Community engagement in the district	Number		Monthly
41		Availability of public awareness messages through information, education communication tools banners, billboards, pull up banners (at least one)	Y/N		Monthly
42	Risk communication and Community Engagement	Number of community meetings and gathering in which Ebola Virus Disease awareness message was deliver in last month	Number		Monthly
43		Number of schools received Ebola Virus Disease awareness message in last month	Number		Monthly
44	Logistics	Availability of vehicle/ambulance for safe transportation and referral of suspect and confirmed cases from community/health center, hospital or ETC	Y/N		Monthly
46		Availability of VHF kits including PPEs, thermometers, body bags, gum boots, triple packaging, sample collection kits, chlorine, bio-hazard bags	Y/N		Monthly
48		Number of POEs with no functional infrared thermometers for screening at Point of Entry	Number /NA	0	Monthly
49		Availability of chlorine at the hospital	Y/N		Monthly
50		Availability of bio-hazard bags at the hospital	Y/N		Monthly
51		Availability of sprayers at the hospital	Y/N		Monthly

52	Availability of injection safety boxes	Y/N			Monthly
53	Availability of at least 25 full personal protective equipment kits at the hospital	Y/N			Monthly
	Number /proportion of Health facilities with no stock out for supplies and logistics for standard precautions	Number (percentage)	0		Monthly
54	Availability of full package of safe and dignified burial equipment (body bags, full personal protective equipment kits, hoe, spade...) (Yes/No)	Y/N			Monthly
55	Vaccination	Number			Bi-weekly

Bibliography

1. ACAPS (August 2016). Technical brief. Scenario building: How to build scenarios in preparation for or during Humanitarian crises.
w.acaps.org/sites/acaps/files/resources/brief/humanitarian-crisis.
2. Coularton R. (2007). Contingency planning and humanitarian action: A review of practice. Humanitarian Practice Network (HPN).
3. Inter-Agency Standing Committee. (2015). Risk analysis and monitoring, minimum preparedness, advanced preparedness and contingency planning. Draft for field-testing
4. International Federation of Red Cross and Red Crescent Societies (IFRC) (2012). Contingency planning guide. Geneva
5. World Health Organization; (2008). International Health Regulations (2005). Second edition. Geneva
6. World Health Organization; (2014). Early detection, assessment and response to acute public health events: implementation of early warning and response with a focus on event-based surveillance. Interim version. Geneva.
7. World Health Organization (July 2015). Readiness checklist. Geneva:
<https://intranet.who.int/homes/erm/readiness/>
8. World Health Organization; November (2015). Framework for a Public Health Emergency Operations Centre. Geneva.
9. World Health Organization (July 2016) Exercise Manual. Geneva.
<http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.10/en/>
10. World Health Organization (September 2016). Approach for the integrated and strategic risk assessment of public health threats. Draft version. Geneva.
11. World Health Organization (2017) Emergency response framework. Second edition. Geneva