

EBOLA RESPONSE PHASE 3

Framework for achieving and sustaining a resilient zero

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Photo: WHO/M. Winkler

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Context for phase 3



Photo: WHO/S. Hawkey

From a peak of over 950 confirmed cases per week at the height of the Ebola outbreak, current case counts in West Africa are the lowest in over 12 months. The geographical extent of the outbreak has been greatly reduced and since July 2015 the vast majority of cases in Guinea, Sierra Leone and Liberia can be epidemiologically-linked to known chains of transmission. There is strong evidence that the strategies and tactics employed to date are working.

Although the incidence of Ebola has significantly decreased, transmission is on-going and the risk of reintroduction due to virus persistence has emerged as a substantive near-term threat to achieving and maintaining zero Ebola in the region. The July 2015 outbreak in Liberia, which was likely due to virus persistence in a male survivor who had recovered months earlier, reaffirmed the possibility for transmission to re-start. While the risk of re-introduction due to virus persistence in some survivors is declining over time, it is significant due to the sheer number of people affected in this outbreak.

The purpose of this Phase 3 framework is to incorporate new knowledge and tools into the ongoing Ebola response and recovery work to achieve and sustain a “resilient zero”. Phase 3 of the response builds upon the rapid scale-up of treatment beds, safe and dignified burial teams, and behaviour

change capacities during Phase 1 (August – December 2014), and the enhanced capacities for case finding, contact tracing, and community engagement during Phase 2 (January to July 2015)¹.

This framework incorporates new developments and breakthroughs in Ebola control, from vaccines, diagnostics and response operations to survivor counselling and care. Many of the operational advances are already reflected in the latest national Ebola response initiatives, from “Operation Northern Push” in Sierra Leone, to the “cerclage” approach in Guinea, and the rapid response operation in Liberia.

As in previous Phases of the response, it is critical that the concerns of affected communities, households, and individuals are well understood and that they are fully engaged in implementation. The framework reflects the need for strong linkages across the response, early recovery and longer term health systems strengthening work outlined in the National Health System Recovery Plans.

While Phase 3 activities will require some adjustments to current response operations and recovery planning, it is crucial that the progress made in Phases 1 and 2 - and the underlying capacities - remain in place as the foundation for all response efforts. The scale and geographic prioritization of Phase 3 activities will be regularly reviewed and adjusted based on the evolving epidemiologic situation and understanding of virus persistence.

Phase 3 objectives:

Objective 1 - To accurately define and rapidly interrupt all remaining chains of Ebola transmission

Objective 2 - To identify, manage and respond to the consequences of residual Ebola risks.

¹ A full description of Phase 1 and 2 activities and capacities can be found in the “WHO Ebola Response Roadmap”, the “Ebola Outbreak Overview of Needs and Requirements (ONR)” and the “WHO strategic response plan 2015: West Africa Ebola outbreak”.

Objective 1 - Accurately define and rapidly interrupt all remaining chains of transmission



Photo: WHO/D. Licona

Building on the recent experience in identifying and stopping chains of transmission in Sierra Leone, Guinea and Liberia, three major additional activities will be prioritized and scaled-up in areas of active transmission:

1. *Risk-based event management*: to align under government leadership, and optimize the impact of, all partners operating in each country, the recently introduced 'event management' approach will be strengthened by:
 - a. Treating each new transmission chain as an 'event' for which a coordinated and coherent multi-disciplinary response will be established under national leadership;

- b. Assessing and managing all relevant chiefdoms/sub-prefectures, villages and households in each 'event' based on the risks associated with each chain of transmission (e.g. known contacts, missing contacts, 'unknown' contacts, probable cases, deaths in the community);
 - c. Enhancing the operational capacity to manage each new event and improve the quality of each new response through such mechanisms as forward operating bases, local incident management capacity, and independent monitoring of quarantine;
 - d. Alerting, assessing and supporting all health centers and referral facilities in the area surrounding a new transmission chain/event to ensure appropriate infection prevention and control measures (e.g. the 'ring IPC' approach);
 - e. Ensuring operational excellence and full implementation of standard operating procedures through increased supervision, effective reporting, and systematic feedback loops to promote continuous improvement.
2. *Enhanced identification, incentivization and management of cases & contacts*: the full investigation and management of both confirmed *and* probable Ebola cases will be improved to enhance the identification and engagement of all contacts, and the understanding of transmission chains, by:
- a. Systematically integrating medical and social anthropology into each case investigation;
 - b. Using genetic sequencing of all viruses to determine more accurately the source of infection for each case, understanding of each transmission chain, and risks;
 - c. Implementing "ring" vaccination for contacts and contacts-of-contacts in accordance with protocols established under the Ebola vaccine trial in Guinea and Sierra Leone;
 - d. Ensuring optimal clinical management of and procedures for all Ebola cases to further improve patient survival;
 - e. Improving, tailoring, and monitoring the package of benefits and incentives for contacts and communities (including food, water, sanitation and hygiene, livelihoods, psycho-social support, and health services);
 - f. Prioritizing the tracing and recovery of missing contacts (including beyond 21 days to determine their ultimate welfare) and expanding the identification of likely destinations and priority villages for active case searching;
 - g. Engaging specific community groups that could be potential drivers of the disease, such as traditional healers, taxi drivers, and border/wharf communities.
3. *Chieftain-led, community-owned, local response*: building on the growing experience in all affected countries, enhanced community ownership of the response will be prioritized by:

- a. Giving local leaders (and/or those best placed to deliver reliable messages) the responsibility and accountability for working with households to ensure all contacts are identified, missing contacts are found and followed, quarantined households are properly managed, active surveillance is properly targeted, and safe and dignified burials are undertaken;
- b. Supporting and building the capacity of local leaders to achieve agreed targets through deployment of integrated teams of anthropologists, epidemiologists, contact tracers, social mobilization and other experts; and
- c. Continuing to identify and address core issues that create barriers between communities and the response, including through the reactivation of routine health services.

Objective 2 – Identify, manage and respond to any consequences of the remaining Ebola risks



Photo: WHO/P. Haughton

The risk of Ebola re-emergence (due to missed transmission chains²) or re-introduction (from nature or due to virus persistence in survivors) will be assessed and prioritized for each district/prefecture using data on the time since the last case, the number of survivors, and related factors. Based on the assessed risk, areas will be prioritized for the scale up of three major additional activities under the leadership of the Ministry of Health:

1. *Enhanced alert management*: surveillance to detect and manage any importation or re-emergence of Ebola will be enhanced by:

² Currently there is no evidence that a transmission chain has gone undetected for more 4-5 generations

- a. Adapting the protocols for identifying, investigating and managing live and death alerts to reflect the level of risk in each area and thereby increase overall notification and investigation rates; simultaneously strengthening the functioning of the alert systems so that community members and health care workers continue to trust and use those systems;
 - b. Providing on-going support to district/prefecture health teams to facilitate their close work with chiefs and other community leaders to ensure that all deaths and suspect Ebola cases are reported and investigated;
 - c. Rapidly validating and field-evaluating new, high-specificity, high-sensitivity rapid diagnostic tests (RDTs) and developing protocols for their use to identify high risk alerts or even suspect Ebola cases; ensuring sufficient PCR capacity to provide a definitive diagnosis for all such high risk alerts and suspect cases (esp. to discard the substantial number of false positives that can be generated with RDTs);
 - d. Establishing and maintaining safe triage, isolation, and improved infection prevention and control in all health facilities;
 - e. Improving the speed and aggregation of comprehensive national data on Ebola and the sharing of such information across national and district/prefecture borders.
2. *Regional/Zonal rapid response capacity*: the capacity to rapidly mount a comprehensive and high quality response to any new Ebola case(s) in any district will require:
- a. Establishing multi-disciplinary rapid response teams³ at the national level and in key regions/zones to ensure sufficient coverage of those districts/prefectures/counties at particular risk of re-emergence (e.g. due to recent cases, proximity to a natural reservoir and/or a high number of survivors);
 - b. Developing standard operating procedures (SoPs), protocols, operational arrangements and accountabilities for those national entities and partners that have key roles in the Rapid Response Teams.
3. *Improved survivor engagement & support*: recognizing the substantial medical, psycho-social, livelihood, and other needs of Ebola survivors, enhanced capacity will be established to provide for the care, screening⁴ and counselling of these people by:
- a. Updating national policies and guidelines for Ebola survivor screening and counselling (e.g. to test the semen of all male survivors by at least 3 months after recovery and then monthly thereafter until they have twice tested negative);

³ It is anticipated that these teams will be comprised of existing staff with other responsibilities, but who could be immediately released or repurposed to serve on an RRT.

⁴ On-going research in West Africa has confirmed Ebola virus persistence in the semen of male survivors; although virus positivity declines over time, 25-30% of men may still test positive at 9 months after recovery.

- b. Establishing at the national level and in key sub-national sites the capacity to provide ongoing counselling and screening of Ebola survivors (including sufficient PCR capacity);
- c. Establishing appropriate clinical services to provide care for the physical and psychological needs of Ebola survivors (esp. for the high prevalence/consequence musculo-skeletal and ocular complications);
- d. Accelerating research on new interventions such as ebola vaccines and therapeutics to assess their capacity to clear viral persistence and to address longer-term consequences of Ebola infection.

Risks to the implementation of phase 3 activities



Photo: WHO/S. Gborie

As the number of Ebola cases continues to decrease and residual transmission chains are interrupted, recovery activities and longer term development initiatives will increasingly demand priority and resources. However, the high probability of Ebola re-emergence(s), and the very high consequences of such events, demands that the following risks are managed and minimized to ensure full implementation of Phase 3 activities:

1. *Decreased partner support:* Partners and donors form a core and essential part of the response. Ensuring that partners and donors are aligned with Phase 3 activities and willing to provide support, both financially and with other resources, is critical to getting to and maintaining zero. Longer-term projects, and the recovery agenda, must continue in a manner that is balanced with the immediate and ongoing objective of getting to and sustaining zero Ebola cases;

2. *Insufficient coordination to manage the risks of re-emergence:* Over the course of 2016 there will still be a number of complex technical issues and high consequence risks to be managed which require significant government and partner coordination. This is especially the relevant where coordination responsibilities are being transitioned from national incident command centers back to the Ministry of Health. Mitigating this risk will require establishing dedicated coordination processes for key elements of Phase 3, particularly in the areas of alerts/surveillance/diagnostics and survivor care, screening and counselling;
3. *Enhancing and adjusting technical expertise to the demands of Phase 3:* As the response gets closer to zero there will be a temptation for experienced national and international Ebola responders to see the job as complete and leave. A sufficient number of technical experts who understand the local environment must remain engaged to manage the implementation of Phase 3. Furthermore, new, additional expertise may need to be recruited to address the new areas of work under Objective 2 in particular.
4. *Complacency among officials, the population and responders:* The Ebola outbreak in West Africa has continued for 18 months. In the setting of a prolonged outbreak, substantially reduced case numbers and competing health and other priorities, the risk of complacency among government officials, communities and partner agencies is very real. Government and community leaders have a vital role to play in keeping Ebola a collective priority and in maintaining vigilance among the public and health workers, throughout 2016, even as case numbers decline and eventually cease.

Priorities to operationalise phase 3



Photo: WHO/S. Gborie

To effectively operationalize the Phase 3 Framework, international and national response efforts need to be further refined and focussed to address the priorities outlined above. It is critical that alignment and coordination is sustained between and across partners operating at international, national and local levels, by:

1. Reinforcing existing coordination mechanisms and where necessary establishing new ones at the international, national and/or sub-national levels (including to enhance interaction and sharing of information within and between districts/prefectures) (September 2015);
2. Developing country-specific, multi-agency workplans for those elements of the Phase 3 Framework that are not included in existing plans, and updating the associated budgets/resource requirements. This should include a review of each partner's roles and responsibilities and an updating of the 4 Ws (who/what/where/when) for all Phase 3 activities (September 2015);

3. Developing guidelines, protocols or tools for the new and emerging technical areas of work under Phase 3 (September-November 2015), including for:
 - a. Clinical management, screening and counselling of Ebola survivors;
 - b. On-going surveillance and testing for Ebola (including the roles of automated PCR and rapid diagnostic tests);
 - c. Role and use of new Ebola vaccines;
 - d. Management of Ebola in the context of pregnancy;
 - e. Deployment of multi-disciplinary rapid response teams;
 - f. IPC best practices and safe early recovery.
4. Reinforcing operational and accountability frameworks for partner coordination, prioritization of interventions, implementation, and monitoring and reporting of interventions based on the Phase 3 framework (September 2015).

Phase 3 and early recovery



Photo: WHO/S. Saporito

Investment in Phase 3 activities will need to continue alongside, and complement, early recovery efforts for the health sector which will continue along four interconnected areas:

1. Effective infection prevention & control within a wider context of patient safety;
2. Strengthened integrated disease surveillance and response capacities (IDSR) as part of enhancing the resilience of local health systems;
3. Safe reactivation of a basic package of essential health services in affected countries; and
4. Rebuilding of short-term health workforce capacities as a foundation for sustainable health workforce strengthening.

Phase 3 activities are designed to complement the building of national and sub-national health sector capacities to establish resilient health systems.

Key timelines and milestones for phase 3



Photo: WHO/S. Gborie

The implementation of Phase 3 objectives will be monitored and tracked based on the indicators and milestones outlined below:

Indicator / milestone	Due Date (2015)				
	Aug	Sep	Oct	Nov	Dec
Objective 1 - Accurately define and rapidly interrupt all remaining chains of transmission					
<i>1.1 Risk-based event management</i>					

Indicator / milestone	Due Date (2015)				
	Aug	Sep	Oct	Nov	Dec
<ul style="list-style-type: none"> Percentage of new events where multi-disciplinary response with forward operating base is established under national leadership (Target 100%) 	x	x	x	x	x
<ul style="list-style-type: none"> Percentage of new events where all health centers and referral facilities in the area surrounding the new transmission chain have taken appropriate infection prevention and control measures (Target 100%) 	x	x	x	x	x
<i>1.2 Enhanced identification and incentivization of cases & contacts</i>					
<ul style="list-style-type: none"> Percentage of new cases where genetic sequencing technologies are appropriately applied to determine the source of infection and accelerate case and contact identification (Target: 100%) 	x	x	x	x	x
<ul style="list-style-type: none"> Percentage of new cases where package of tailored benefits and incentives for contacts and communities (including food, water, sanitation and hygiene, livelihoods, psycho-social support, and health services) are applied and monitored (Target: 100%) 	x	x	x	x	x
<ul style="list-style-type: none"> Percentage of new events where ring vaccination has been implemented in accordance with Ebola vaccination trial protocols (Target 100%) 	x	x	x	x	x
<i>1.3 Chieftain-led, community-owned, local response</i>					
<ul style="list-style-type: none"> Percentage of new events where dedicated teams of anthropologists, epidemiologists, contact tracers, social mobilization and other experts are deployed to support local leaders to manage local response (Target: 100%) 	x	x	x	x	x
Objective 2 – Identify, manage and respond to the					

Indicator / milestone	Due Date (2015)				
	Aug	Sep	Oct	Nov	Dec
remaining risks					
<i>2.1 Enhanced and adapted alert management</i>					
<ul style="list-style-type: none"> Validation, evaluation and development of protocols for the usage of newly developed high-specificity, high-sensitivity rapid diagnostic tests (RDTs) 		x			
<ul style="list-style-type: none"> Deployment of sufficient PCR capacity at national and sub-national levels to adequately support active surveillance protocols 			x	x	x
<i>2.2 Regional/Zonal rapid response capacity</i>					
<ul style="list-style-type: none"> Development of standard operating procedures and assignment of operational responsibilities for rapid response teams 		x			
<ul style="list-style-type: none"> Deployment of rapid response capacities in accordance with agreed SOPs 			x	x	x
<i>2.3 Improved survivor engagement & support</i>					
<ul style="list-style-type: none"> Updated national policies and guidelines for Ebola survivor screening and counselling; 		x			
<ul style="list-style-type: none"> Capacities to regularly counsel and screen Ebola survivors established at national and priority sub-national sites 			x	x	x