

# **EBOLA SITUATION REPORT**

**3 FEBRUARY 2016** 



#### **SUMMARY**

- Human-to-human transmission directly linked to the 2014 Ebola virus disease (EVD) outbreak in West Africa was declared to have ended in Sierra Leone on 7 November 2015. The country then entered a 90-day period of enhanced surveillance to ensure the rapid detection of any further cases that might arise as a result of a missed transmission chain, reintroduction from an animal reservoir, importation from an area of active transmission, or re-emergence of virus that had persisted in a survivor. On 14 January, 68 days into the 90-day surveillance period, a new confirmed case of EVD was reported in Sierra Leone after a post-mortem swab collected from a deceased 22-year-old woman tested positive for Ebola virus. The woman died on 12 January at her family home in the town of Magburaka, Tonkolili district, and received an unsafe burial. Approximately 150 contacts associated with the case were listed in 4 districts; the total number of contacts currently under follow-up (as at 2 February) is 112. A number of contacts deemed to be at highest risk of developing EVD, including members of the close family of the index case, were transferred to voluntary quarantine facilities (VQFs) for the duration of their 21-day follow-up period. On 20 January, one of the contacts residing in a VQF in the district of Tonkolili developed symptoms and tested positive for Ebola virus. This second case in the cluster is the aunt of the index case, and cared for her during her illness. She was transferred to an Ebola treatment centre in Freetown, where she continues to receive treatment.
- The 4 contacts who were residing in the same VQF as the most recent case at the time she became ill will remain under observation until 11 February, 21 days after their last possible exposure. All 108 other contacts associated with the index case will complete their 21-day follow-up period on 3 February. However, 48 of the 108 are yet to be traced, and efforts to locate them will continue for at least a further 21 days from 3 February. All 48 missing contacts, 18 of whom are high risk, were originally listed in Kambia.
- Human-to-human transmission linked to the most recent cluster of cases in Liberia was declared to have ended on 14 January 2016. Guinea was declared free of Ebola transmission on 29 December 2015, and has now entered a 90-day period of enhanced surveillance that is due to end on 27 March 2016.
- With guidance from WHO and other partners, ministries of health in Guinea, Liberia, and Sierra Leone have plans to deliver a package of essential services to safeguard the health of the estimated more than 10 000 survivors of EVD, and enable those individuals to take any necessary precautions to prevent infection of their close contacts. Over 300 male survivors in Liberia have accessed semen screening and counselling services.
- To achieve the second key objective of the phase 3 response framework of managing residual Ebola risks, WHO has supported the implementation of enhanced surveillance systems in Guinea, Liberia, and Sierra Leone to enable health workers and members of the public to report any case of febrile illness or death that they suspect may be related to EVD. In the week to 31 January, 1063 alerts were reported in Guinea from all of the country's 34 prefectures, with the vast majority of alerts (1060) reports of community deaths. Over the same period 9 operational laboratories in Guinea tested a total of 346 new and repeat samples (14 samples from live patients and 332 from community deaths) from 17 of the country's 34 prefectures. In Liberia, 1062 alerts were reported from all of the country's 15 counties, most of which (925) were for live patients. The country's 5 operational laboratories tested 1003 new and repeat samples (807 from live patients and 196 from community deaths) for Ebola virus over the same period. In Sierra Leone 1287 alerts were reported from the country's 14 districts. The vast majority of alerts (1071) were for community deaths. 1059 new and repeat samples (76 from live patients and 983 from community deaths) were tested for Ebola virus by the country's 7 operational laboratories over the same period.

Figure 1: Confirmed, probable, and suspected EVD cases worldwide (data up to 31 January 2016)

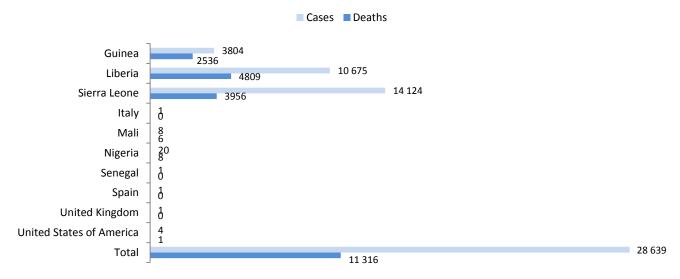


Table 1: Confirmed, probable, and suspected cases in Guinea, Liberia, and Sierra Leone

Country	Case definition	Cumulative cases	Cases in past 21 days	<b>Cumulative deaths</b>		
	Confirmed	3351	0	2083		
G#	Probable	453	*	453		
Guinea <sup>#</sup>	Suspected	0	*	‡		
	Total	3804	0	2536		
Liberia**	Confirmed	3151	-	‡		
	Probable	1879	-	‡		
	Suspected	5636	-	‡		
	Total	10 666	-	4806		
	Confirmed	9	0	3		
	Probable	*	*	‡		
	Suspected	*	*	‡		
	Total	9	0	3		
	Confirmed	8704	-	3589		
	Probable	287	-	208		
	Suspected	5131	-	158		
Sierra Leone <sup>§</sup>	Total	14 122	-	3955		
Sierra Leone	Confirmed	2	2	1		
	Probable	0	0	0		
	Suspected	0	0	0		
	Total	2	2	1		
	Confirmed	15 217	2	‡		
Total	Probable	2619	*	‡		
rotar	Suspected	10 767	*	‡		
	Total	28 603	2	11 301		

Data are based on official information reported by ministries of health. These numbers are subject to change due to ongoing reclassification, retrospective investigation, and availability of laboratory results. \*Not reported due to the high proportion of probable and suspected cases that are reclassified. <sup>‡</sup>Data not available. \*\*Cases reported before 9 May 2015 are shaded blue. §Sierra Leone was declared free of Ebola virus transmission in the human population on 7 November 2015, and has now entered a 90-day period of heightened surveillance. Cases reported before 7 November 2015 are shaded blue. <sup>‡</sup>Guinea was declared free of Ebola virus transmission in the human population on 29 December 2015, and has now entered a 90-day period of heightened surveillance.

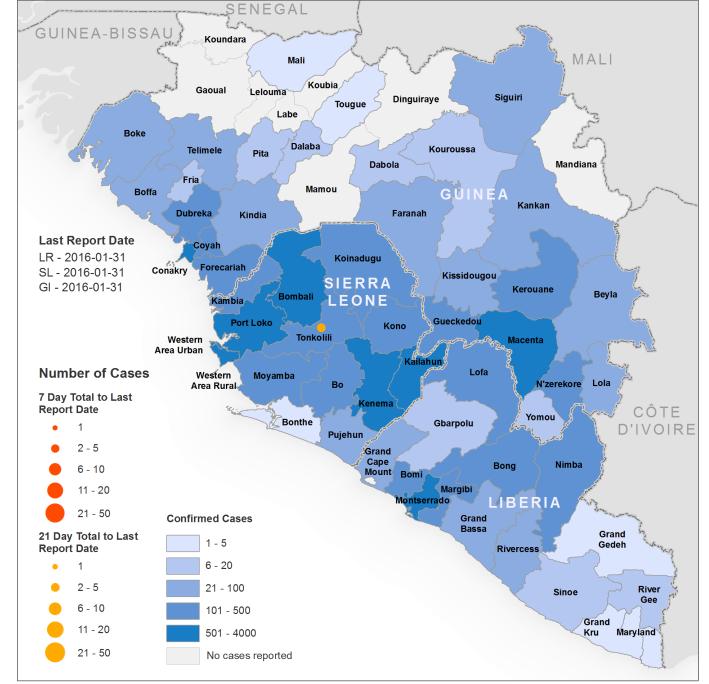


Figure 2: Geographical distribution of new and total confirmed cases in Guinea, Liberia, and Sierra Leone

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

### **PHASE 3 RESPONSE FRAMEWORK**

28 603 confirmed, probable, and suspected cases have been reported in Guinea, Liberia, and Sierra Leone, with 11 301 deaths (table 1; figure 1; figure 2) since the onset of the Ebola outbreak. The majority of these cases and deaths were reported between August and December 2014, after which case incidence began to decline as a result of the rapid scale-up of treatment, isolation, and safe burial capacity in the three countries. This rapid scale-up operation was known as phase 1 of the response, and was built on in the first half of 2015 during a period of continuous refinement to surveillance, contact tracing, and community engagement

interventions. This period, termed phase 2, succeeded in driving case incidence to 5 cases or fewer per week by the end of July 2015. This marked fall in case incidence signalled a transition to a distinct third phase of the epidemic, characterised by limited transmission across small geographical areas, combined with a low probability of high consequence incidents of re-emergence of EVD from reservoirs of viral persistence. In order to effectively interrupt remaining transmission chains and manage the residual risks posed by viral persistence, WHO, as lead agency within the Interagency Collaboration on Ebola and in coordination with national and international partners, designed the phase 3 Ebola response framework. The phase 3 response framework builds on the foundations of phase 1 and phase 2 to incorporate new developments in Ebola control, from vaccines and rapid-response teams to counselling and welfare services for survivors. The indicators below detail progress made towards attaining the two primary objectives of the phase 3 framework.

#### **PHASE 3 RESPONSE INDICATORS**

- Key performance indicators for the phase 3 response framework are shown for Guinea, Liberia, and Sierra Leone (table 2). A full list of phase 3 response indicators can be found in annex 2.
- Human-to-human transmission linked to the most recent cluster of cases in Liberia was declared to have ended on 14 January 2016, 42 days after the 2 most-recent cases received a second consecutive negative test for Ebola virus. Human-to-human transmission linked to the primary outbreak in Guinea was declared to have ended on 29 December 2015, 42 days after the country's most recent case, reported on 29 October (figure 5), received a second consecutive negative blood test for Ebola virus RNA. The country has now entered a 90-day period of enhanced surveillance, which is due to end on 27 March.
- Human-to-human transmission directly linked to the 2014 Ebola virus disease outbreak in West Africa was declared to have ended in Sierra Leone on 7 November 2015. The country then entered a 90-day period of enhanced surveillance to ensure the rapid detection of any further cases that might arise as a result of a missed transmission chain, reintroduction from an animal reservoir, importation from an area of active transmission, or re-emergence of virus that had persisted in a survivor. On 14 January, 68 days into the 90-day surveillance period, a new confirmed case of EVD was reported in Sierra Leone after a post-mortem swab collected from a deceased 22-year-old woman tested positive for Ebola virus. The woman died on 12 January at her family home in the town of Magburaka, Tonkolili district, and received an unsafe burial. Approximately 150 contacts associated with the case were listed in 4 districts; the number of contacts under follow-up on 2 February was 112 (table 3). A number of contacts deemed to be at highest risk of developing EVD, including members of the close family of the index case, were transferred to voluntary quarantine facilities (VQFs) for the duration of their 21-day follow-up period. On 20 January, one of the contacts residing in a VQF in the district of Tonkolili developed symptoms and tested positive for Ebola virus. This second case in the cluster is the aunt of the index case, and cared for her niece during her illness. She was transferred to an Ebola treatment centre in Freetown, where she continues to receive treatment.
- The 4 contacts who were residing in the same VQF as the second case in the cluster at the time she became ill will remain under observation until 11 February, 21 days after their last possible exposure. All 108 other contacts associated with the index case will complete their 21-day follow-up period on 3 February. However, 48 of the 108 are yet to be traced, and efforts to locate them will continue for at least a further 21 days from 3 February. All 48 missing contacts, 18 of whom are high risk, were originally listed in Kambia.
- With guidance from WHO and other partners, ministries of health in Guinea, Liberia, and Sierra Leone have plans in place to deliver a package of essential services to safeguard the health of the more than 10 000 individuals who have survived an Ebola infection. Not including individuals who have been tested as part of ongoing viral persistence studies, over 300 male survivors in Liberia had used semen screening and counselling services (table 2), enabling them to understand and, if appropriate, take precautions to protect their close contacts. In addition, over 2600 survivors in Sierra Leone have accessed a general health assessment and specialised eye exam (visual problems are commonly reported complications in individuals who have survived an Ebola infection).

Guinea Liberia Sierra Leone **Indicator Objective 2: Prevent (Survivors)** 5000 5000 5000 4051 Number of registered survivors (dark blue) and 3032 number estimated 1550\*\* 1268 survivors (light blue) 100% 100% 80% Number and percentage of registered survivors Data not available who have ever accessed 20% services# 312 0% 350 312 Number of male survivors' semen tested (light blue) and the Data not available Data not available cumulative number of initial positives (dark 34 blue) Objective 2: Detect (Surveillance) 1500 1500 1500 Number of alerts (those 1062 1063 for live alerts in light blue and for community deaths in dark blue) 1400 1400 1400 Number of new and 1059 1003 repeat samples tested (those from live patients in light blue and from dead bodies in dark blue) 100% 100% 100% 100% 100% Percentage of 50% prefectures/counties/ districts providing samples for testing Objective 2: Respond (Rapid response teams) Number of functional national and/or sub-Data not available national rapid response teams 5 5 5 Number of national 2 simulation exercises conducted

Table 2: Key performance indicators for phase 3 in Guinea, Liberia, and Sierra Leone in the 3 weeks to 31 January 2016

All data provided by WHO country offices. For definitions of key performance indicators see Annex 1. \*\*Number of estimated survivors not yet confirmed by Liberia WHO country office. #Reported services accessed in Liberia currently include semen screening and counselling for male survivors; reported services accessed in Sierra Leone currently include a general health assessment and eye exam. \*Data correspond to the three weeks ending 20 December 2015.

To manage and respond to the consequences of residual Ebola risks, Guinea, Liberia, and Sierra Leone have each put surveillance systems in place to enable health workers and members of the public to report any case of febrile illness or death that they suspect may be related to EVD to the relevant authorities. In the week to 31 January, 1063 alerts were reported in Guinea from all of the country's 34 prefectures: the third consecutive increase in reported alerts. The vast majority of alerts (1060) were reports of community deaths. In Liberia, 1062 alerts were reported from all of the country's 15 counties, most of which (925) were for live patients. In Sierra Leone 1287 alerts were reported from all of the country's 14 districts. The vast majority of alerts (1071) were for community deaths.

Table 3: Cases and contacts by district over the past 3 weeks

Country District		eek	25 Jan	26 Jan	27 Jan	28 Jan	29 Jan	30 Jan	31 Jan	Week 4	Contacts under follow	
		2	3	0	0	0	0	0	0	0		up*
Sierra Leone	Tonkolili	1	1	0	0	0	0	0	0	0	0	37
	Kambia	0	0	0	0	0	0	0	0	0	0	70
	Port Loko	0	0	0	0	0	0	0	0	0	0	4
	Western Area Urban	0	0	0	0	0	0	0	0	0	0	1
Total	Total		1	0	0	0	0	0	0	0	0	112

Data are based on official information reported by ministries of health. These numbers are subject to change due to ongoing reclassification, retrospective investigation, and availability of laboratory results. \*Data as of 2 February 2016.

Table 4: Location and epidemiological status of confirmed cases reported in the 3 weeks to 31 January 2016

		Week 2	Week 3	Week 4 (25–31 January 2016)						
Country	District	Chiefdom	(11–17 Jan 2016)	(18–24 Jan 2016)	Cases	On contact list	Epi- link*	Unknown source of infection <sup>‡</sup>	Confirmed community death <sup>§</sup>	Date of last confirmed case
Sierra Leone	Tonkolili	Kholifa Rowalla	1	1	0					20/01/2016
Total			1	1	0	0	0	0	0	

\*Epi-link refers to cases who were not registered as contacts of a previous case (possibly because they refused to cooperate or were untraceable), but who, after further epidemiological investigation, were found to have had contact with a previous case, OR refers to cases who are resident or are from a community with active transmission in the past 21 days. \*Includes cases under epidemiological investigation. 
§A case that is identified as a community death can also be registered as a contact, or subsequently be found to have had contact with a known case (epi-link), or have no known link to a previous case.

- As part of each country's EVD surveillance strategy, blood samples or oral swabs should be collected from any live or deceased individuals who have or had clinical symptoms compatible with EVD. In the week to 31 January, 9 operational laboratories in Guinea tested a total of 346 new and repeat samples from 17 of the country's 34 prefectures. The trend in the number of samples tested each week has remained flat for the past two months. 96% of all samples tested in Guinea were swabs collected from dead bodies. By contrast, 80% of the 1003 new and repeat samples tested in Liberia over the same period were blood samples collected from live patients. In addition, all 15 counties in Liberia submitted samples for testing by the country's 5 operational laboratories. 1059 new and repeat samples were collected from all 14 districts in Sierra Leone and tested by 7 operational laboratories. 98% of samples in Sierra Leone were swabs collected from dead bodies (table 2; figures 3 and 4).
- 1060 deaths in the community were reported from Guinea in the week to 31 January through the country's alert system (table 2). This equates to 47% of the 2248 community deaths expected based on estimates of the population and a crude mortality rate of 11 deaths per 1000 people per year. 137 deaths in the community were reported from Liberia over the same period, representing approximately 14% of the 982 community deaths expected per week. 1071 deaths in the community were reported from Sierra Leone, representing approximately 52% of the 2075 community deaths expected per week.
- The deployment of rapid-response teams following the detection of a new confirmed case continues to be a cornerstone of the national response strategy in Guinea, Liberia, and Sierra Leone. Each country reports to have at least 1 national rapid-response team (table 2). Strengthening of national and subnational rapid-response capacity and validation of incident-response plans is continuing throughout early 2016.

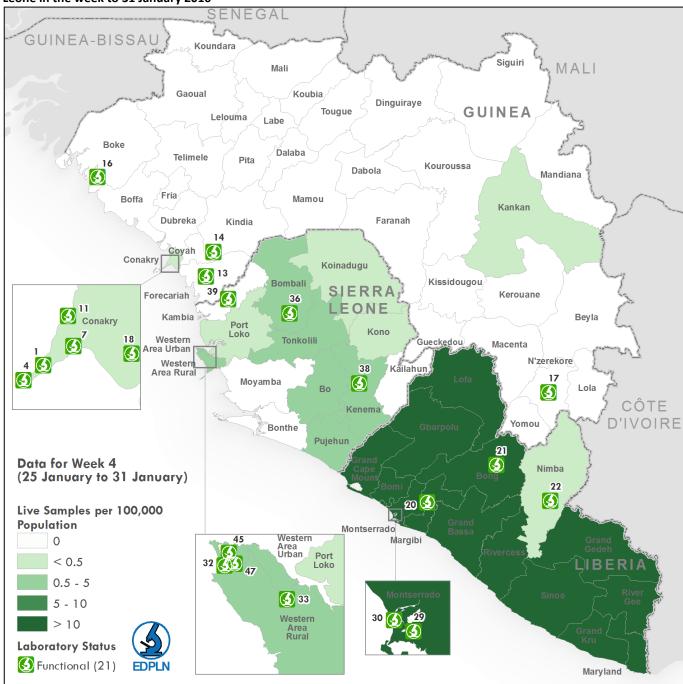


Figure 3: Location of laboratories and geographical distribution of samples from live patients in Guinea, Liberia, and Sierra Leone in the week to 31 January 2016

The analysis includes initial and repeat samples but excludes samples with unknown and incorrect testing weeks and samples with unknown or incorrect location information. EDPLN=Emerging and Dangerous Pathogens Laboratory Network. The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. 1=IP Dakar – Conakry; 4=K-Plan Mobile Lab – Conakry; 7=REDC Lab – Conakry; 11=EU Mobile Lab – Nongo; 13=K-Plan Mobile Lab – Forecariah; 14=CREMS Lab – Kindia; 16=Boke Mobile Lab; 17=INSP/PFHG/IPD LAB - N'Zérekore; 18= EUWAM Lab – Conakry; 20=LIBR National Reference Lab/USAMRIID; 21=OIC-NMRC Mobile Lab Bong; 22=Tappita Lab – Nimba; 29=MOH Lab – Montserrado; 30= Redemption Hospital Lab – Monsterrado; 32=EMDF/NICD – Western Area Urban; 33=China-CDC Lab – Jui; 36=PH England Mobile Lab – Makeni; 38=PH England Mobile Lab – Kenema; 39=Nigeria Mobile Lab – Kambia; 45=CPHRL/DTRA – Western Area Urban; 47=MOH/Emergency – PCMH/Freetown.

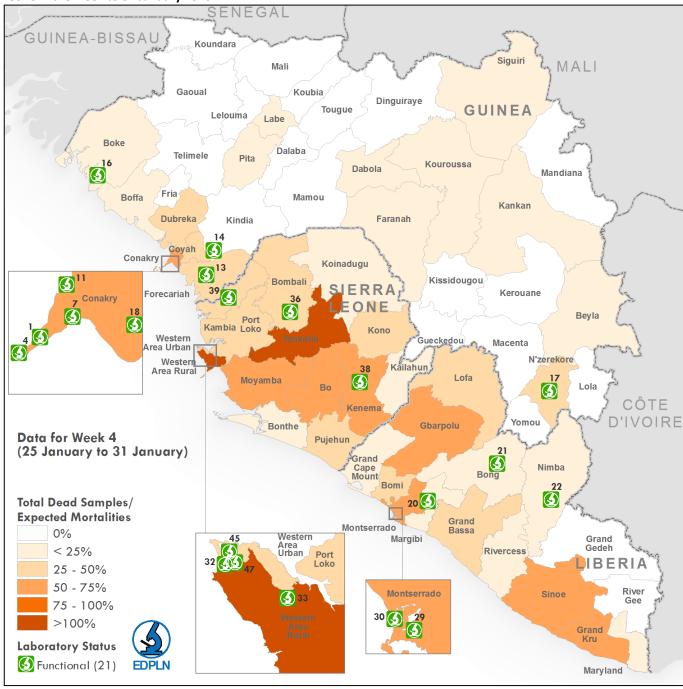


Figure 4: Location of laboratories and geographical distribution of samples from dead bodies in Guinea, Liberia, and Sierra Leone in the week to 31 January 2016

The analysis includes initial and repeat samples but excludes samples with unknown and incorrect testing weeks and samples with unknown or incorrect location information. EDPLN=Emerging and Dangerous Pathogens Laboratory Network. The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. 1=IP Dakar – Conakry; 4=K-Plan Mobile Lab – Conakry; 7=REDC Lab – Conakry; 11=EU Mobile Lab – Nongo; 13=K-Plan Mobile Lab – Forecariah; 14=CREMS Lab – Kindia; 16=Boke Mobile Lab; 17=INSP/PFHG/IPD LAB - N'Zérekore; 18= EUWAM Lab – Conakry; 20=LIBR National Reference Lab/USAMRIID; 21=OIC-NMRC Mobile Lab Bong; 22=Tappita Lab – Nimba; 29=MOH Lab – Montserrado; 30= Redemption Hospital Lab – Monsterrado; 32=EMDF/NICD – Western Area Urban; 33=China-CDC Lab – Jui; 36=PH England Mobile Lab – Makeni; 38=PH England Mobile Lab – Kenema; 39=Nigeria Mobile Lab – Kambia; 45=CPHRL/DTRA – Western Area Urban; 47=MOH/Emergency – PCMH/Freetown.

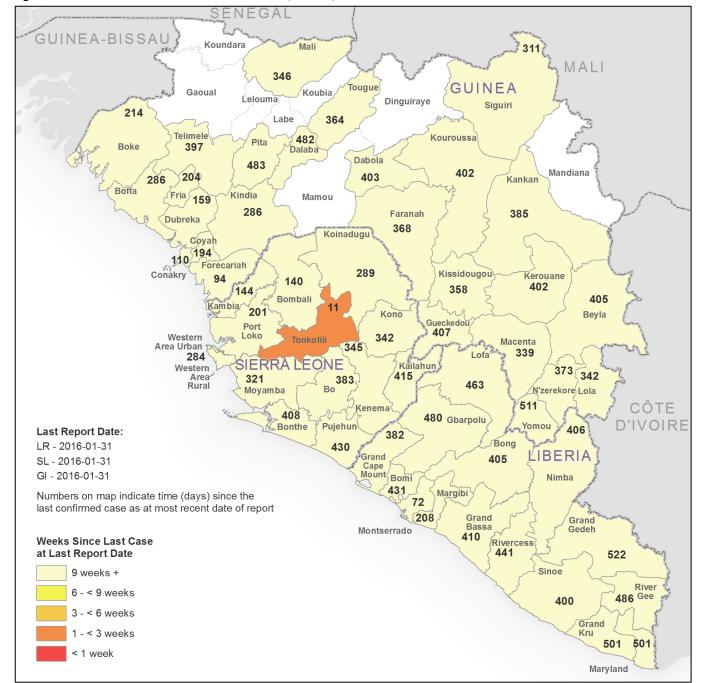


Figure 5: Time since last confirmed case in Guinea, Liberia, and Sierra Leone

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

#### PREVIOUSLY AFFECTED COUNTRIES

• Seven countries (Italy, Mali, Nigeria, Senegal, Spain, the United Kingdom, and the United States of America) have previously reported a case or cases imported from a country with widespread and intense transmission.

#### PREPAREDNESS OF COUNTRIES TO RAPIDLY DETECT AND RESPOND TO AN EBOLA EXPOSURE

- The introduction of an EVD case into unaffected countries remains a risk as long as cases exist in any country. With adequate preparation, however, such an introduction can be contained through a timely and effective response.
- WHO's preparedness activities aim to ensure all countries are ready to effectively and safely detect, investigate, and report potential EVD cases, and to mount an effective response. WHO provides this support through country support visits by preparedness-strengthening teams (PSTs) to help identify and prioritize gaps and needs, direct technical assistance, and provide technical guidance and tools.

### **Priority countries in Africa**

- The initial focus of support by WHO and partners is on highest priority countries Côte d'Ivoire, Guinea-Bissau, Mali, and Senegal—followed by high priority countries—Benin, Burkina Faso, Cameroon, Central African Republic, Ethiopia, Gambia, Ghana, Mauritania, Niger, South Sudan, and Togo. The criteria used to prioritize countries include the geographical proximity to affected countries, the magnitude of trade and migration links, and the relative strength of their health systems.
- From October 2014 to 3 February 2016, WHO has undertaken 384 field deployments to work with ministries of health to address gaps or as part of multi-partner teams to support preparedness efforts and to assist with the implementation of national plans.
- Over the past 12 months, technical assistance in priority countries has led to significant progress in Ebola preparedness. The Preparedness Dashboard<sup>1</sup> demonstrates an increase in overall preparedness at the country-level from 19% (at baseline) to 62% (31 December 2015) among the priority countries. Furthermore, 11 of the 14 countries have achieved a score of 50% against the Ebola Preparedness Checklist, which signals they are equipped to test their response systems.
- Contingency stockpiles of PPE are in place in all countries on the African continent and at the United Nations Humanitarian Response Depots in Accra and Dubai where they are available to any country in the event that they experience a shortage.

# Ongoing follow-up support to priority countries

- After a phase of targeted activities to strengthen Ebola preparedness, WHO is now strengthening preparedness for a broader range of risks, and extending activities to other countries, including Guinea, Liberia, Sierra Leone, Chad, Democratic Republic of Congo, Malawi, Tanzania, and Uganda.
- Technical support is provided at the request of the respective ministries of health in several interlinked technical areas at the country level: planning and resources for health emergencies; coordination; accelerated health system and capacity strengthening; improving outbreak operations through stronger logistical systems; and system monitoring, evaluation and testing.
- A new wave of assessment missions to Gambia, Guinea-Bissau, Mauritania, Niger, Tanzania, and Togo began in mid-January and will continue until mid-February. International teams, consisting of WHO, other UN agencies, and national and international partners are deploying to assess progress against key performance indicators for preparedness.
- The assessment mission to Guinea-Bissau took place from 18 to 22 January 2016, with representatives from WHO, IOM, OCHA, OIE, WFP and the Ministry of Health Portugal.
- Assessment missions are taking place this week in Gambia, Mauritania, and Niger.

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<sup>&</sup>lt;sup>1</sup> See: http://apps.who.int/ebola/preparedness/map

In Togo, from 1 to 5 February, WHO experts are providing support to the Ministry of Health in two areas: the establishment of an e-surveillance pilot project in two priority regions of the country (Savannes et Lomé Commune) and a national risk assessment for acute health threats.

### **EVD preparedness officers**

- Dedicated EVD preparedness officers have been deployed to support the implementation of country preparedness plans, coordinate partners, provide a focal point for inter-agency collaboration, offer specific technical support in their respective areas of expertise, and develop capacity of national WHO staff. Preparedness officers are currently deployed to Benin, Burkina Faso, Cameroon, Central African Republic, Côte d'Ivoire, Ethiopia, Gambia, Guinea-Bissau, Mauritania, Niger, Senegal, and Togo.
- As of January 2016, 86% of priority countries for Ebola preparedness have achieved over half of the tasks on WHO's Ebola preparedness checklist. This compares to only 7% in December 2014.

## Training, exercises, and simulations

- Priority countries that have implemented a minimum of 50% of Ebola preparedness checklist activities are encouraged to test outbreak preparedness and response by undertaking a series of skill drills and simulations on elements of an EVD response.
- In Mauritania, from 18 to 25 January, WHO provided technical support for the development of a training programme for members of regional rapid-response teams responsible for hygiene and infection control. WHO experts were also able to update the national guide for infection control.
- In Côte d'Ivoire, from 1 to 5 February, WHO is supporting the planning of a functional exercise to test the coordinating role of the new Public Health Emergency Operations Centre in partnership with US CDC. WHO is also providing support for a field exercise to test response teams, and a national risk assessment for acute health threats.

### Surveillance and preparedness indicators

- Indicators based on surveillance data, case management capacity, laboratory testing, and equipment stocks continue to be collected on a weekly basis from the four countries that share a border with affected countries: Côte d'Ivoire, Guinea-Bissau, Mali, and Senegal.
- An interactive preparedness dashboard based on the WHO EVD checklist<sup>2</sup> is available online.

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<sup>&</sup>lt;sup>2</sup> See: http://who.int/csr/resources/publications/ebola/ebola-preparedness-checklist/en/

# **ANNEX 1: EBOLA RESPONSE PHASE 3 KEY PERFORMANCE INDICATORS**

Indicator	Target	Numerator	Denominator
OBJECTIVE 1: Interrupt all chains of transm	ission		
Number of confirmed cases	0	# of new confirmed cases	N/A
Number of confirmed deaths and proportion that occurred in the community	0	# of total new confirmed deaths # of new community deaths with positive Ebola virus swab results	N/A
Percentage of new cases from registered contacts	100%	# of new confirmed cases registered as a contact	# of new confirmed cases
OBJECTIVE 2: Prevent (Survivors)			
Number of registered survivors and number estimated survivors	N/A	# of registered survivors # of survivors estimated	N/A
Number and percentage of registered survivors who have accessed the basic service package	100%	# of registered survivors who have accessed the basic service package	# of registered survivors
Number of male survivors' semen tested and the number positive	N/A 0	# of male survivors' semen tested positive for Ebola virus	# of male survivors' semen tested for Ebola virus
OBJECTIVE 2: Detect (Surveillance)			
Number of alerts	N/A	# of alerts	N/A
Number of new and repeat samples tested (samples from live and dead suspects)	N/A	# of samples tested for Ebola virus (samples from live and dead suspects)	N/A
Percentage of prefectures/ counties/ districts providing samples for testing	100%	# of prefectures/ counties/ districts providing samples for testing	# of prefectures/ counties/ districts
OBJECTIVE 2: Respond (Rapid response tea	ıms)		
Number of functional national and/or sub-national rapid response teams	3 per country	# of national rapid response teams appropriately staffed, equipped, and budgeted	N/A
Number of national simulation exercises conducted		# of national simulation exercises conducted	N/A

# **ANNEX 2: KEY EBOLA RESPONSE PHASE 3 PERFORMANCE INDICATORS**

Indicator  ORIECTIVE 1. Intervent all chains of transmission	Numerator	Denominator
OBJECTIVE 1: Interrupt all chains of transmission		
Number of confirmed cases	# of new confirmed cases	N/A
Number of confirmed deaths and proportion that occurred	# of total new confirmed deaths and # of new	N/A
in the community	community deaths with positive EVD swab results	
Percentage of new cases from registered contacts	# of new confirmed cases registered as a contact	# of new confirmed cases
Number of newly infected health workers	# of newly infected health workers	N/A
Time in days between symptom onset and case isolation	Time between symptom onset and hospitalization of	N/A
	confirmed, probable, or suspected cases (geometric	
Case fatality percentage	mean # of days) # of deaths among hospitalized confirmed cases	# of hospitalized confirmed
case ratality percentage	# of deaths among hospitalized committee cases	cases with a definitive surviva
		outcome
OBJECTIVE 2- B		outcome
OBJECTIVE 2: Prevent (Survivors)		
Essentials services for survivors agreed	Essentials services for survivors agreed (yes/no)	N/A
Agency-specific responsibilities for survivors agreed under	Agency-specific responsibilities for survivors agreed	N/A
overall ECM/RC coordination	(yes/no)	
Number of registered survivors and number estimated	# of registered survivors	N/A
survivors	# of survivors estimated	
Number and percentage of registered survivors who have	# of registered survivors who have accessed the basic	# of registered survivors
accessed the basic service package	service package	o. repotered survivors
Number of laboratories with capacity for testing semen for	# of laboratories with capacity for testing semen for	N/A
Ebola virus	Ebola virus	N/M
		N1/A
Counselling services, logistic capacity, and procedures in	Counselling services, logistic capacity, and procedures	N/A
place to ship samples to appropriate laboratory and provide	in place to ship samples to appropriate laboratory and	
feedback Number of male survivors' semen tested and the number	provide feedback (yes/no)  # of male survivors' semen tested positive for Ebola	# of male survivors' semen
positive	virus	tested for Ebola virus
1		
Number of primary healthcare facilities providing essential	# of primary healthcare facilities providing essential	N/A
services for survivors	services for survivors	
Number of referral healthcare facilities for survivors	# of referral healthcare facilities for survivors	N/A
Coordination mechanism with WASH partners in place	Coordination mechanism with WASH partners in place	N/A
	(yes/no)	
OBJECTIVE 2: Detect (Surveillance)		
Number of alerts	# of alerts	N/A
		· ·
Percentage of prefectures/ counties/ districts reporting	# of prefectures/ counties/ districts reporting alerts	Total # of prefectures/
alerts	" C!: 1	counties/ districts
Percentage of live alerts tested for Ebola virus	# of live alerts tested for Ebola virus	# of reported live patients
		meeting criteria for Ebola viru testing
Percentage of expected community deaths that were	# of reported community deaths (Sierra Leone: # of	# of expected community
reported	reported burial alerts)	deaths (= crude mortality *
reported	reported burial dierts)	population)
Percentage of reported community deaths that were	# of community deaths that were swabbed for Ebola	# of reported community
swabbed and those which were Ebola virus positive	virus (Liberia and Sierra Leone: # of Ebola virus swabs)	deaths (Sierra Leone: # of
	# of new community deaths with positive Ebola virus	reported burial alerts)
	swab results	'
Number of new and repeat samples tested (samples from	# of samples tested for Ebola virus (samples from live	N/A
live and dead suspects)	and dead suspects)	
Percentage of prefectures/ counties/ districts providing	# of prefectures/ counties/ districts providing samples	Total # of prefectures/
I f el l : i i i	for Ebola virus testing	counties/ districts
samples for Ebola virus testing		
Number of unsafe burials	# of burials that were reported to be unsafe	N/A
	# of burials that were reported to be unsafe # of prefectures/ counties/ districts with at least one	N/A N/A
Number of unsafe burials	·	
Number of unsafe burials Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate	# of prefectures/ counties/ districts with at least one	
Number of unsafe burials Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate	
Number of unsafe burials Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate	
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week	N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams	N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted	N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted # of days between confirmation of an event and	N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after identification of a new index case	N/A N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team  Number of generations of cases and secondary cases after	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after	N/A N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team  Number of generations of cases and secondary cases after identification of a new index case	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after identification of a new index case	N/A N/A N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team  Number of generations of cases and secondary cases after identification of a new index case  Number and percentage of prefectures/ counties/ districts	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after identification of a new index case  # of prefectures/ counties/ districts with isolation	N/A N/A N/A N/A Total # of prefectures/
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team  Number of generations of cases and secondary cases after identification of a new index case  Number and percentage of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after identification of a new index case  # of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases	N/A  N/A  N/A  N/A  Total # of prefectures/ counties/ districts
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team  Number of generations of cases and secondary cases after identification of a new index case  Number and percentage of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases  Number of national simulations exercises conducted	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after identification of a new index case  # of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases  # of national simulations exercises conducted	N/A  N/A  N/A  N/A  Total # of prefectures/ counties/ districts  N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team  Number of generations of cases and secondary cases after identification of a new index case  Number and percentage of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases  Number of national simulations exercises conducted  Number of functional international rapid response support	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after identification of a new index case  # of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases  # of national simulations exercises conducted  # of international rapid response support teams on	N/A  N/A  N/A  N/A  Total # of prefectures/ counties/ districts  N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team  Number of generations of cases and secondary cases after identification of a new index case  Number and percentage of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases  Number of national simulations exercises conducted  Number of functional international rapid response support	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after identification of a new index case  # of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases  # of national simulations exercises conducted  # of international rapid response support teams on stand-by which are appropriately staffed trained,	N/A  N/A  N/A  N/A  Total # of prefectures/ counties/ districts  N/A
Number of unsafe burials  Number of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate  OBJECTIVE 2: Respond (Rapid response teams)  Number of functional national and/or sub-national rapid response teams  Time between confirmation of an event and deployment of rapid response team  Number of generations of cases and secondary cases after identification of a new index case  Number and percentage of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases  Number of national simulations exercises conducted  Number of functional international rapid response support teams on stand-by	# of prefectures/ counties/ districts with at least one security incident or other form of refusal to cooperate in the past week  # of national and/or sub-national rapid response teams appropriately staffed, equipped, and budgeted  # of days between confirmation of an event and deployment of the team  # of generations of cases and secondary cases after identification of a new index case  # of prefectures/ counties/ districts with isolation capacity or referral plan of suspect cases  # of national simulations exercises conducted  # of international rapid response support teams on stand-by which are appropriately staffed trained, equipped, and budgeted	N/A  N/A  N/A  N/A  Total # of prefectures/ counties/ districts  N/A  N/A