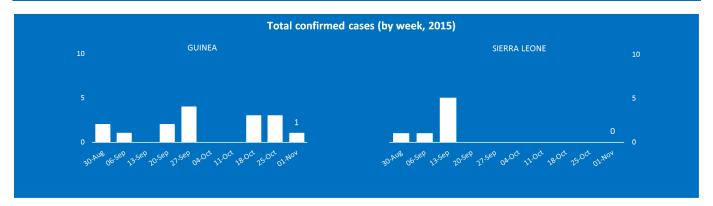


# **EBOLA SITUATION REPORT**

**4 NOVEMBER 2015** 



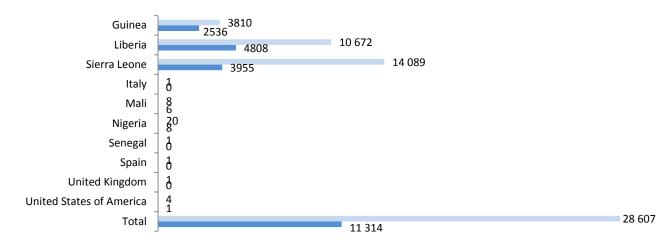
#### **SUMMARY**

- One new confirmed case of Ebola virus disease (EVD) was reported from Guinea in the week to 1 November. The case is the newborn child of a 25-year-old woman who was confirmed as a case in the prefecture of Forecariah during the previous week. The child was delivered in an Ebola treatment centre (ETC) in Conakry, and is currently undergoing treatment. The mother died after giving birth. Her other two young children were also confirmed as cases during the previous week and are receiving treatment. The 3 confirmed cases reported the previous week generated a large number of high-risk contacts in Forecariah who are now entering the second week of their 21-day post-exposure follow-up period. On 1 November there were 382 contacts under follow-up in Guinea (compared with 364 the previous week), 141 of whom are high-risk. Therefore there remains a near-term risk of further cases among both registered and untraced contacts. Sierra Leone reported zero cases for a seventh consecutive week, and will be declared free of EVD transmission on 7 November if no further cases are reported.
- Case incidence has remained at 5 confirmed cases or fewer per week for 14 consecutive weeks. Over the same period, transmission of the virus has been geographically confined to several small areas in western Guinea and Sierra Leone, marking a transition to a distinct, third phase of the epidemic. The phase-3 response¹ coordinated by the Interagency Collaboration on Ebola² builds on existing measures to drive case incidence to zero, and ensure a sustained end to EVD transmission. Enhanced capacity to rapidly identify a reintroduction (either from an area of active transmission or from an animal reservoir), or re-emergence of virus from a survivor, and capacity for testing and counselling as part of a comprehensive package to safeguard the welfare of survivors are central to the phase-3 response framework.
- The single new confirmed case reported from Guinea in the week to 1 November is the tenth case in the Forecariah branch of the Ratoma transmission chain, and the fourth confirmed case from the same family and household from the village of Kondeyah, in the subprefecture of Kaliah, Forecariah. Of 382 contacts under follow-up in Guinea on 1 November, 43 were located in Conakry with 339 located in Forecariah. Of a total 141 high-risk contacts, 7 are located in Conakry with 134 located in Forecariah. In the past 42 days, 1 contact from Forecariah has been lost to follow-up.
- In Sierra Leone, all contacts linked to the country's 2 most recently active chains of transmission, Bombali and Kambia, have completed 21-day follow-up. The last case to receive treatment was confirmed free of EVD after a second consecutive negative test on 25 September. The country will be declared free of EVD transmission on 7 November if no further cases are reported.
- Robust surveillance measures are essential to ensure the rapid detection of any reintroduction or reemergence of EVD in currently unaffected areas. Nine operational laboratories in Guinea tested a total of 615 new and repeat samples in the week to 1 November. In Liberia, 1162 new and repeat samples were tested over the same period in the country's 4 operational laboratories. 1437 new samples were collected in Sierra Leone and tested by 9 operational laboratories.

<sup>&</sup>lt;sup>1</sup> Ebola response phase 3: Framework for achieving and sustaining a resilient zero: http://www.who.int/csr/resources/publications/ebola/ebola-response-phase3/en/

<sup>&</sup>lt;sup>2</sup> See: http://www.who.int/csr/disease/ebola/situation-reports/ice-reports/en/

Figure 1: Confirmed, probable, and suspected EVD cases worldwide (data up to 1 November 2015)



## **COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION**

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

Country	Case definition	Cumulative cases	Cases in past 21 days	Cumulative deaths	
	Confirmed	3351	7	2083	
Outra-	Probable	453	*	453	
Guinea	Suspected	6	*	‡	
	Total	3810	7	2536	
	Confirmed	3151	-	‡	
	Probable	1879	-	‡	
	Suspected	5636	-	‡	
Liberia**	Total	10 666	-	4806	
Liberia	Confirmed	6	0	2	
	Probable	*	*	‡	
	Suspected	‡	*	‡	
	Total	6	0	2	
	Confirmed	8704	0	3589	
Ciama Lagra	Probable	287	*	208	
Sierra Leone	Suspected	5098	*	158	
	Total	14 089	0	3955	
	Confirmed	15 212	7	‡	
Total	Probable	2619	*	‡	
าบเสเ	Suspected	10 740	*	‡	
	Total	28 571	7	11 299	

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. Due to ongoing surveillance and retrospective validation of cases and deaths, these totals may be subject to revision. Liberia was declared free of Ebola virus transmission in the human population on 3 September 2015, and has now entered a period of heightened surveillance.

- Since the beginning of the outbreak there have been a total of 28 571 reported confirmed, probable, and suspected cases<sup>3</sup> of EVD in Guinea, Liberia, and Sierra Leone (figure 1, table 1) up to 1 November, with 11 299 reported deaths (this total includes reported deaths among probable and suspected cases, although outcomes for many cases are unknown). One new case was reported from Guinea in the week to 1 November.
- The total number of confirmed cases is similar in males and females (table 2). Compared with children (people aged 14 years and under), adults aged 15 to 44 years of age are approximately four times more likely to be affected in Guinea and Liberia, and three times more likely to be affected in Sierra Leone. Adults aged 45 years and above are approximately five times more likely to be affected in Guinea, and approximately four times more likely in Liberia and Sierra Leone.
- No new health worker infections were reported in the week to 1 November. Since the start of the outbreak a total of 881 confirmed health worker infections have been reported in Guinea, Liberia, and Sierra Leone; there have been 513 reported deaths (table 5).

Table 2: Cumulative number of confirmed cases by sex and age group in Guinea, Liberia, and Sierra Leone

	Cumulative cases								
Country		y sex* 000 population)	By age group‡ (per 100 000 population)						
	Male	Female	0–14 years	15-44 years	45+ years				
Carina a	1599	1747	537	1904	861				
Guinea	(29)	(32)	(12)	(41)	(55)				
Liberia <sup>§</sup>	1911	1838	561	2060	703				
Liberia	(96)	(93)	(33)	(121)	(132)				
Sierra Leone	4823	5118	1992	5636	2140				
	(169)	(176)	(82)	(218)	(290)				

Population figures are based on estimates from the United Nations Department of Economic and Social Affairs. <sup>4</sup> These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results. \*Excludes cases for which data on sex are not available. ‡Excludes cases for which data on age are not available. <sup>§</sup> Data are until 9 May 2015.

## **GUINEA**

- Key performance indicators for the EVD response in Guinea are shown in table 6.
- One confirmed case was reported from Guinea during the week ending 1 November (table 3, table 4, figure 2, figure 3). The case is the newborn child of a 25-year-old woman who was reported as a case in Forecariah during the previous week. The child was delivered in an Ebola treatment centre (ETC) in Conakry, and is currently undergoing treatment. The mother died after giving birth. Her other two young children were also confirmed as cases during the previous week and are receiving treatment.
- The single new confirmed case reported in the week to 1 November is the tenth case in the Forecariah branch of the Ratoma transmission chain, and the fourth affected member of the same family and household from the village of Kondeyah, in the subprefecture of Kaliah, Forecariah. Three members of the same family (the mother and two children) were confirmed as cases the previous week, and generated a large number of high-risk contacts in Forecariah. Those contacts are now entering their second week of the 21-day post-exposure follow-up period.
- Of the 382 contacts who were under follow-up in Guinea on 1 November, 43 were located in Conakry (7 of whom are high risk) with the remaining 339 located in Forecariah (of whom 134 are high risk; table 3).
- The *Ebola ça suffit!* ring vaccination trial is continuing in Guinea. All rings comprised of contacts and contacts of contacts associated with confirmed cases now receive immediate vaccination with the rVSV-ZEBOV Ebola

<sup>&</sup>lt;sup>3</sup>Case definition recommendations for Ebola or Marburg Virus Diseases: <a href="http://www.who.int/csr/resources/publications/ebola/ebola-case-definition-contact-en.pdf?ua=1">http://www.who.int/csr/resources/publications/ebola/ebola-case-definition-contact-en.pdf?ua=1</a>

<sup>&</sup>lt;sup>4</sup> United Nations Department of Economic and Social Affairs: http://esa.un.org/unpd/wpp/Excel-Data/population.htm

vaccine. Previously, rings were randomly allocated to receive either immediate vaccination or vaccination 21 days after the confirmation of a case. On 1 September, the eligibility criteria for the trial were amended to allow the vaccination of children aged 6 years and above.

- There were 423 safe burials reported in Guinea out of 424 reported community deaths during the week to 1
   November. Not all community deaths are reported.
- Including both initial and repeat testing, a total of 615 laboratory samples were tested in the week to 1 November. Most tests (84% in the week to 1 November) are of post-mortem swabs taken to rule out EVD as the cause of death (figure 7, figure 8). Analyses of the geographical distribution of samples tested indicate that no samples from live or dead suspected cases of EVD were tested from almost half (16 of 34) of Guinean prefectures during the week to 1 November (figure 7, figure 8). Most of the 16 prefectures with zero samples tested are located in the north and east of the country. Locations of the 9 operational laboratories in Guinea are shown in figure 8.
- On 1 November, 29 of 34 Guinean prefectures reported at least one alert of a person or persons who showed any symptom compatible with EVD, or a community death.
- Locations of the 7 operational ETCs are shown in figure 6. No health worker infections were reported in the week to 1 November.

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

Country	Prefecture/ District	Week		26 Oct	27 Oct	28 Oct	29 Oct	30 Oct	31 Oct	01 Nov	Week 44	Contacts under follow
		42	43									up*
Guinea	Conakry	1	0	0	0	0	0	0	0	0	0	43
Guinea	Forecariah	2	3	0	0	0	1	0	0	0	1	339
Subtotal		3	3	0	0	0	1	0	0	0	1	382
Sierra Leone	Kambia	0	0	0	0	0	0	0	0	0	0	0
Subtotal		0	0	0	0	0	0	0	0	0	0	0
Total		3	3	0	0	0	0	0	0	0	1	382

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 1 November 2015 for Guinea and Sierra Leone.

Table 4: Location and epidemiological status of confirmed cases reported in the 3 weeks to 1 November 2015

Country	Prefecture/ District	Sub- prefecture/ Chiefdom	Week 42 (12 - 18 Oct 2015)	Week 43 (19 - 25 Oct 2015)	Cases	Week 44 (26 On contact list	October - Epi- link*	- 1 November 2 Unknown source of infection <sup>‡</sup>	2015) Confirmed community death <sup>§</sup>	Date of last confirmed
<b>a</b> :	Conakry	Ratoma	1	0		list		infection	death	case 13/10/2015
Guinea	Forecariah	Kaliah	2	3	1	1				29/10/2015
Subtotal			3	3	1	1	0	0	0	
Sierra Leone	Kambia	Tonko Limba	0	0						09/09/2015
Subtotal			0	0	0	0	0	0	0	
Total			3	3	1	1	0	0	0	

Sub-prefectures/chiefdoms that reported one or more confirmed cases in the 7 days to 1 November are highlighted. \*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.  $^{\ddagger}$ 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.

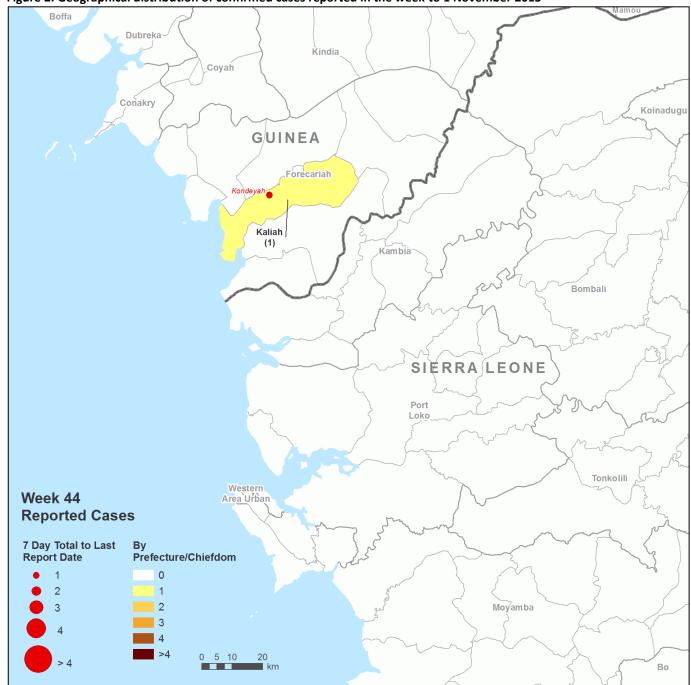


Figure 2: Geographical distribution of confirmed cases reported in the week to 1 November 2015

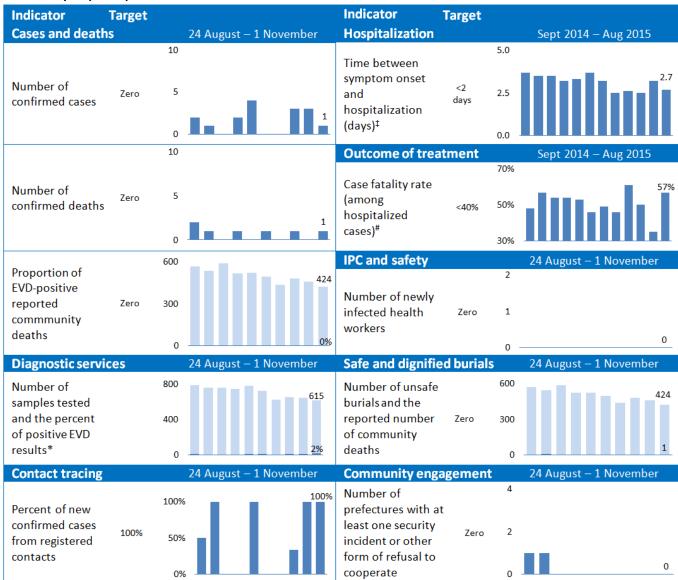
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Table 5: Ebola virus disease infections in health workers in Guinea, Liberia, and Sierra Leone

Country	Cases	Deaths		
Guinea	196	100		
Liberia*	378	192		
Sierra Leone	307	221 <sup>‡</sup>		
Total	881	513		

Data are confirmed cases and deaths only, apart from deaths in Sierra Leone, which include confirmed, probable, and suspected deaths. \*Data are until 9 May 2015. <sup>‡</sup>Data as of 17 February 2015.

Table 6: Key response performance indicators for Guinea



For definitions of key performance indicators see Annex 2. Data are given for 7-day periods. \*Includes repeat samples. <sup>‡</sup>Data missing for 0–3% of cases. <sup>‡</sup>Outcome data missing for 0 hospitalized, confirmed cases.

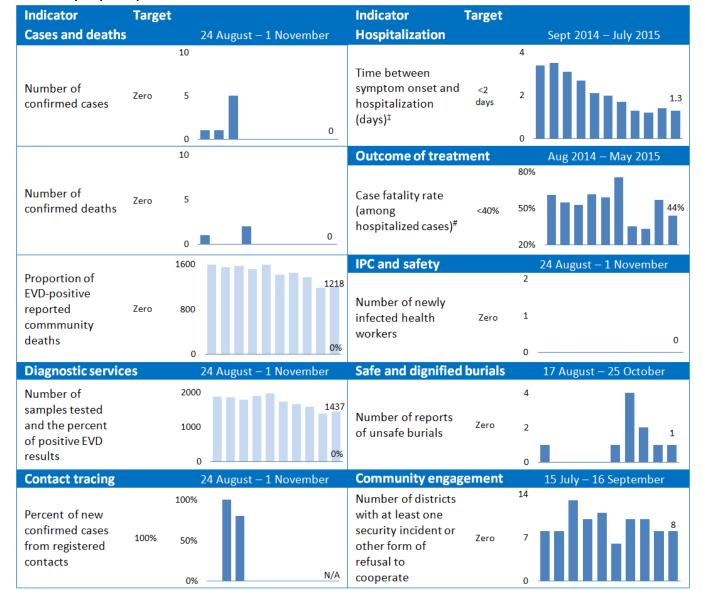


Table 7: Key response performance indicators for Sierra Leone

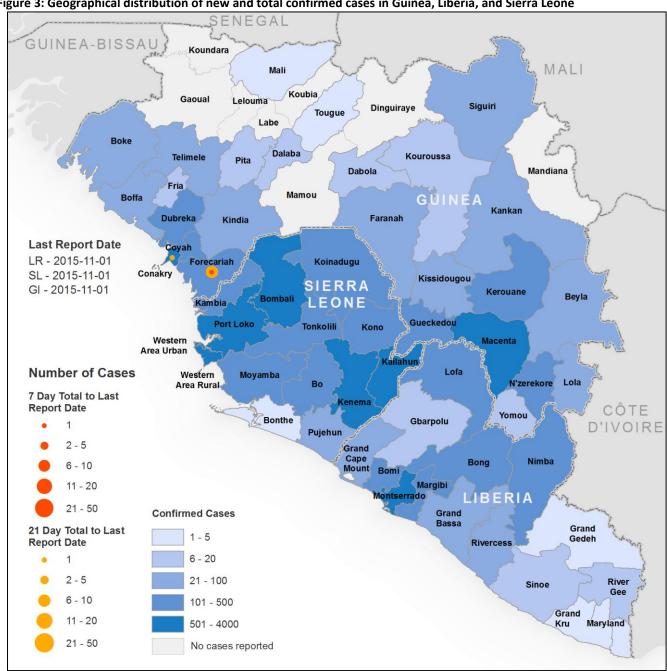
For definitions of key performance indicators see Annex 2. Data are for 7-day periods. <sup>‡</sup>Data missing for 7–14% of cases. <sup>#</sup>Outcome data missing for 0–79% of hospitalized, confirmed cases.

## **SIERRA LEONE**

- Key performance indicators for the EVD response in Sierra Leone are shown in table 7.
- No new confirmed cases were reported from Sierra Leone in the week to 1 November. This is the seventh consecutive week that the country has recorded zero cases.
- All contacts linked to the country's 2 most recently active chains of transmission, Bombali and Kambia, completed 21-day follow-up as of 4 October (the last case reported in Bombali was isolated on 12 September, before being reported as a case on 13 September). In addition, the last case to receive treatment was confirmed free of EVD after a second consecutive negative test on 25 September.
- The *Ebola ça suffit!* ring vaccination Phase 3 efficacy trial of the rVSV-ZEBOV vaccine was extended from Guinea to Sierra Leone in September. Contacts and contacts of contacts associated with new confirmed cases and who meet the trial's eligibility criteria will therefore be offered the vaccine.
- Locations of the 10 operational Ebola treatment centres (ETCs) in Sierra Leone are shown in figure 6. No health worker infections were reported in the week to 1 November.

- Laboratory indicators continue to reflect a heightened degree of vigilance, with 1437 new samples tested in the week to 1 November (table 7) from all 14 districts. This represents an increase compared with the previous week and ends a series of 4 consecutive weekly declines in the number of samples tested. Most tests (79% in the week to 1 November) are of post-mortem swabs taken to rule out EVD as the cause of death (figure 7, figure 8).
- In the week to 25 October (the most recent week for which data are available) there were 238 alerts of people who showed any symptom compatible with EVD, all of which were responded to within the same day. During the same period, there were 1452 notifications of burials, of which 1441 (98%) were responded to within the same day.
- Locations of the 9 operational laboratories in Sierra Leone are shown in figures 7 and 8.

Figure 3: Geographical distribution of new and total confirmed cases in Guinea, Liberia, and Sierra Leone



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Figure 4: Confirmed weekly Ebola virus disease cases reported nationally and by prefecture from Guinea

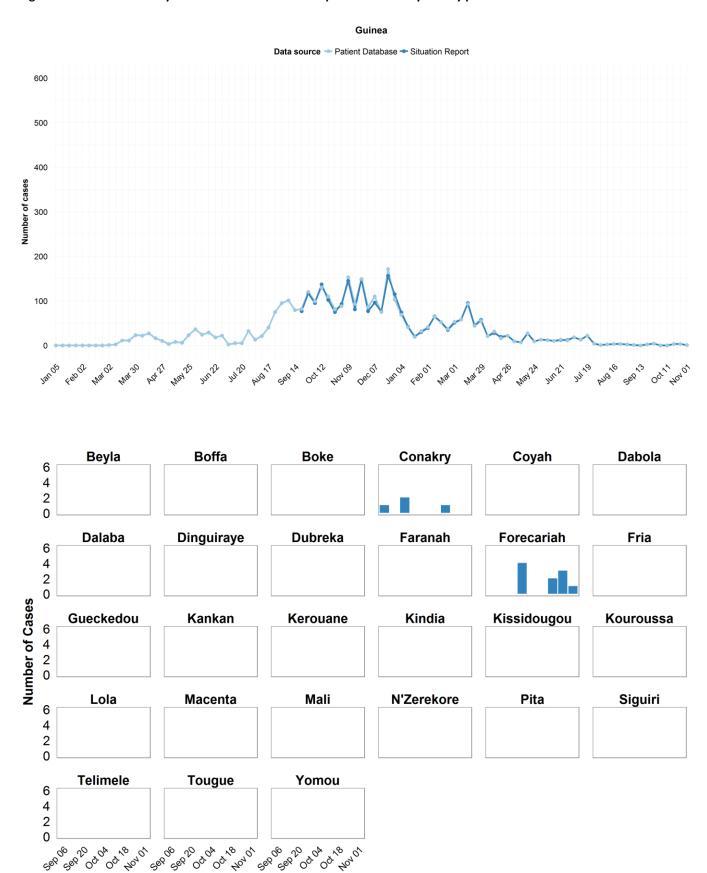
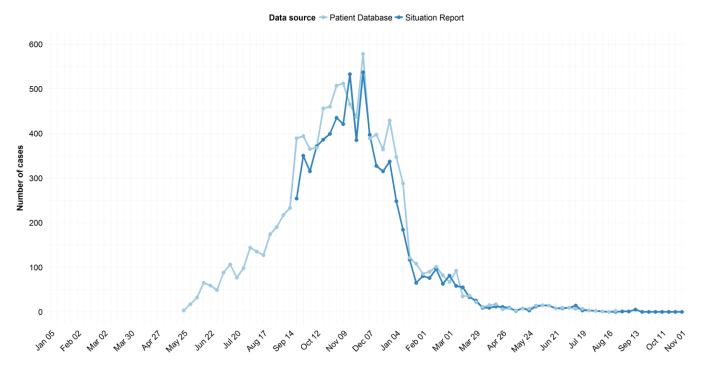
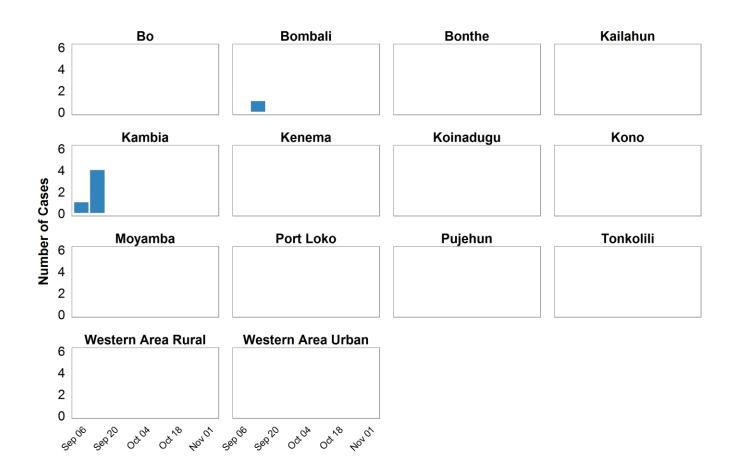


Figure 5: Confirmed weekly Ebola virus disease cases reported nationally and by district from Sierra Leone

Sierra Leone





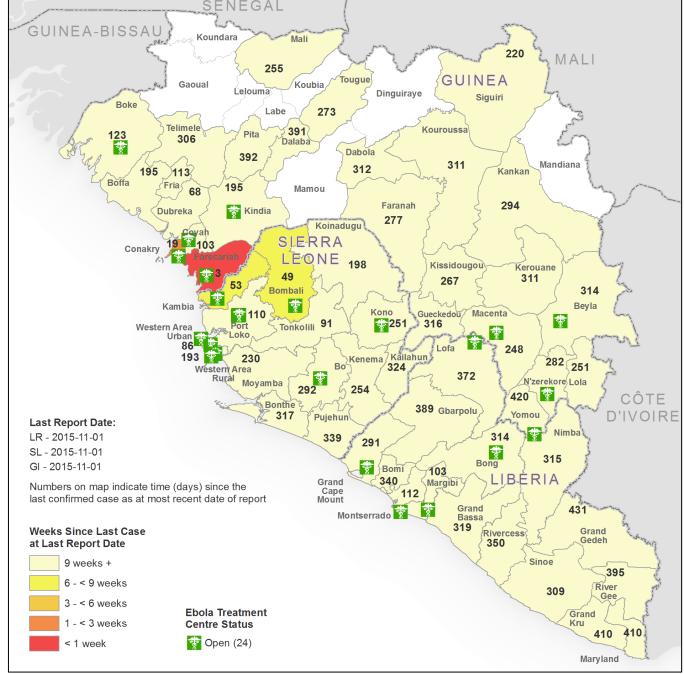


Figure 6: Location of Ebola treatment centres and time since last confirmed case in Guinea, Liberia, and Sierra Leone

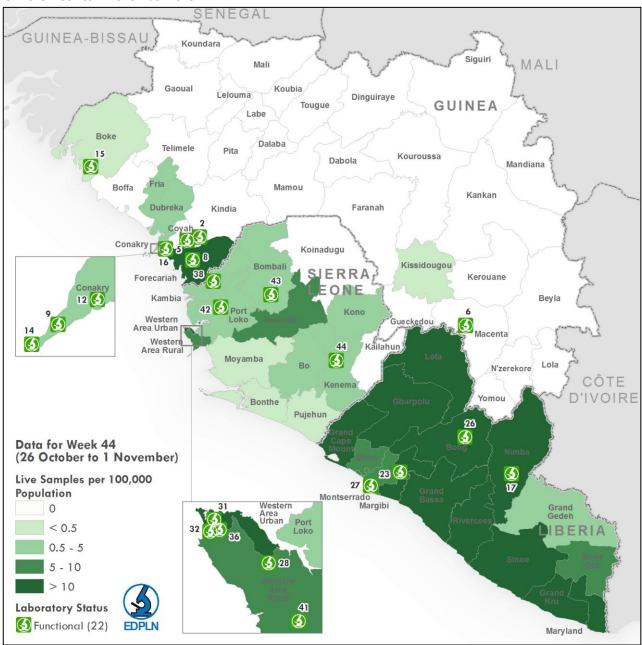
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#### OTHER AFFECTED AND PREVIOUSLY AFFECTED COUNTRIES

Liberia was declared free of Ebola virus transmission in the human population on 3 September 2015, 42 days after the country's last laboratory-confirmed case completed treatment and was confirmed as EVD-negative.
 November marked 113 days since symptom onset of the last reported confirmed case (figure 6), and 59 days since that case was discharged after receiving a second, consecutive negative EVD test. The country is therefore two-thirds though its 90-day period of heightened surveillance. In the week to 1 November, 1162 samples were collected from all of the country's 15 counties and tested in the country's 4 operational laboratories.

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. On 6 October 2015, a patient who was reported as a case in the United Kingdom on 29 December 2014, and who later recovered, was hospitalised in the United Kingdom after developing late EVD-related complications. As of 13 October, a total of 62 close contacts had been identified in the UK for follow-up, of whom 26 have received the rVSV-ZEBOV vaccine.

Figure 7: Location of laboratories and geographical distribution of samples from live patients in Guinea, Liberia, and Sierra Leone in the week to 1 November 2015



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. 2=CREMS Lab – Kindia; 5=EU Mobile Lab – Coyah; 6=IP France – Macenta; 8=K-Plan Mobile Lab – Forecariah; 9=IP Dakar – Conakry; 12=REDC Lab – Conakry; 14=K-Plan Mobile Lab – Conakry; 15=Boke Mobile Lab; 16=Tappita Lab – Nimba; 22=LIBR National Reference Lab/USAMRIID; 25=OIC-NMRC Mobile Lab Bong; 26=MOH Lab – Montserrado; 27=US-CDC Lab – Bo; 28=China-CDC Lab – Jui; 30=CPHRL/DTRA – Lakka; 31=EMDF/NICD – Lakka; 35=MOH/Emergency – PCMH/Freetown; 37=Nigeria Mobile Lab – Kambia; 40=PH England Mobile Lab – Kerry Town; 41=PH England Mobile Lab – Port Loko; 42=PH England Mobile Lab – Makeni; 43=PH England Mobile Lab – Kenema.

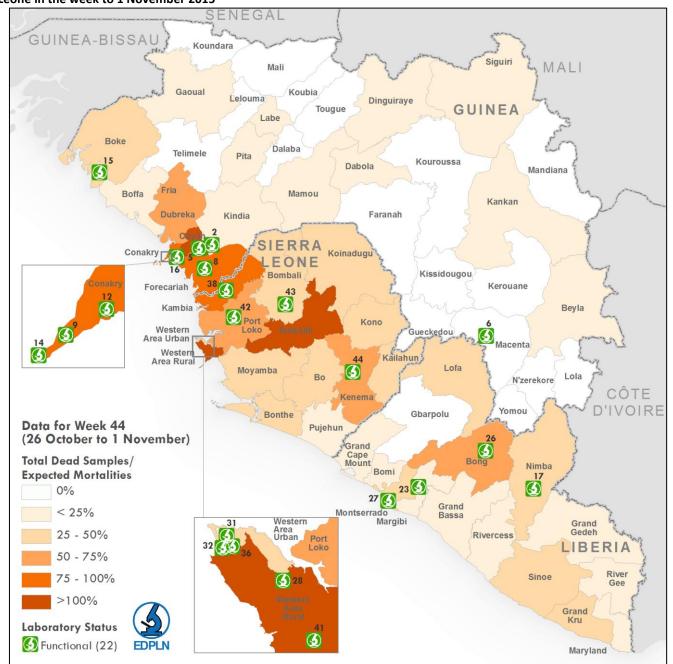


Figure 8: Location of laboratories and geographical distribution of samples from dead bodies in Guinea, Liberia, and Sierra Leone in the week to 1 November 2015

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. 2=CREMS Lab – Kindia; 5=EU Mobile Lab – Coyah; 6=IP France – Macenta; 8=K-Plan Mobile Lab – Forecariah; 9=IP Dakar – Conakry; 12=REDC Lab – Conakry; 14=K-Plan Mobile Lab – Conakry; 15=Boke Mobile Lab; 16=Tappita Lab – Nimba; 22=LIBR National Reference Lab/USAMRIID; 25=OIC-NMRC Mobile Lab Bong; 26=MOH Lab – Montserrado; 27=US-CDC Lab – Bo; 28=China-CDC Lab – Jui; 30=CPHRL/DTRA – Lakka; 31=EMDF/NICD – Lakka; 35=MOH/Emergency – PCMH/Freetown; 37=Nigeria Mobile Lab – Kambia; 40=PH England Mobile Lab – Kerry Town; 41=PH England Mobile Lab – Port Loko; 42=PH England Mobile Lab – Makeni; 43=PH England Mobile Lab – Kenema.

#### 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, Democratic Republic of the Congo, Ethiopia, Gambia, Ghana, Mauritania, Niger, Nigeria, 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.
- Since 20 October 2014, PSTs have provided technical support in Benin, Burkina Faso, Cameroon, Central African Republic, Côte d'Ivoire, Ethiopia, Gambia, Ghana, Guinea-Bissau, Mali, Mauritania, Niger, Senegal, South Sudan, and Togo. Technical working group meetings, field visits, high-level table-top exercises, and field simulations have helped to identify key areas for improvement. Each country has a tailored plan to strengthen operational readiness.
- From October 2014 to October 2015, WHO has undertaken over 290 field deployments to priority countries to assist with the implementation of national plans.
- WHO provides personal protective equipment (PPE) modules containing minimum stocks to cover staff protection and other equipment needs to support 10 patient-beds for 10 days for all staff with essential functions. PPE modules have been delivered or are in the process of being delivered to all countries on the African continent. In addition, all countries have received a PPE training module.
- Contingency stockpiles of PPE are in place in the United Nations Humanitarian Response Depots (UNHRD) in Accra and Dubai, and are available to any country in the event that they experience a shortage.

## Ongoing follow-up support to priority countries

- Following initial PST assessment missions to the priority countries in 2014, a second phase of preparedness-strengthening activities have provided support on a country-by-country basis. Activities in the week to 1 November are highlighted below.
- An Infection Prevention and Control (IPC) specialist was deployed to Benin on 12 October until 30 October 2015. The objectives of this mission were to follow up on the implementation of the IPC action plan, finalise a National IPC Plan, establish a national assessment team, and develop an IPC community engagement project.
- In Guinea-Bissau, preparedness support continues to be provided at the central level, and in two priority regions (Tombali and Gabu) through WHO sub-offices. A field coordinator, an epidemiologist, and a logistician are currently deployed to the country. From 3 to 6 November WHO is supporting a rapid-response team training in Beijagos.
- A WHO team will deploy to Niger from 2 to 6 November to plan a number of functional simulation exercises with the country's Ministry of Health and partners.
- Togo, Niger, and Mauritania, with support from WHO, are in the process of planning for national and regional rapid-response team trainings to be conducted between November and December 2015.

## **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, Mali, Mauritania, Niger, Senegal, and Togo.

## Training, exercises, and simulations

- Priority countries that have achieved a minimum of 50% implementation of preparedness checklist activities are encouraged to undertake a series of drills on elements of an EVD response and a functional exercise to test the coordination of the Ebola operations centre.
- Simulation exercises aimed at testing preparedness capabilities are being planned for Burkina Faso, Ethiopia, Guinea-Bissau, Mauritania, Niger, and Togo. Exercises will take place in Benin from 9 to 13 November.
- A workshop to support 6 priority countries to develop specific plans for the implementation of Public Health Emergency Operations Center (PHEOC) will be held in Brazzaville from 12 to 13 November in collaboration with the PHEOCs Network in the WHO African Region.

## 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>5</sup> is available online.

## **ANNEX 1: COORDINATION OF THE EBOLA RESPONSE**

WHO continues to work with many partners in response to the EVD outbreak, including the African Union, the Economic Community of West African States, the Mano River Union, national governments, non-governmental organizations, UN agencies, and technical institutions and networks in the Global Outbreak Alert and Response Network (GOARN). Agencies responsible for coordinating 4 key lines of action in the response are given below.

Lines of action	Lead agency
Case management	WHO
Case finding, laboratory services, and contact tracing	WHO
Safe and dignified burials	International Federation of Red Cross and Red Crescent Societies (IFRC)
Community engagement and social mobilization	UNICEF

<sup>&</sup>lt;sup>5</sup> See: http://who.int/csr/resources/publications/ebola/ebola-preparedness-checklist/en/

<sup>&</sup>lt;sup>4</sup> See: http://apps.who.int/ebola/preparedness/map

## ANNEX 2: DEFINITION OF KEY PERFORMANCE INDICATORS FOR PHASE 2 OF THE EBOLA RESPONSE

Indicator	Numerator	Numerator source	Denominator	Denominator				
				source				
Cases and deaths		Cuinas, Daily WIIO situation reports						
Number of confirmed cases	# of confirmed cases	Guinea: Daily WHO situation reports Sierra Leone: Daily Ministry of Health Ebola situation reports	N/A	N/A				
Number of confirmed deaths	# of confirmed deaths	Guinea: Daily WHO situation reports Sierra Leone: Daily Ministry of Health Ebola situation reports	N/A	N/A				
Number of confirmed deaths that occurred in the community	# of deaths that occurred in the community with positive EVD swab results	Guinea: Weekly WHO situation reports Sierra Leone: Daily Ministry of Health	N/A	N/A				
Diagnostic Services								
Number of samples tested and percentage with positive EVD results	# of new samples tested # of new samples tested with a positive EVD result	Guinea: Laboratory database Sierra Leone: Daily Ministry of Health Ebola situation reports	N/A # of new samples tested	Guinea: Laboratory database Sierra Leone: Daily Ministry of Health Ebola situation reports				
Contact tracing								
Percent of new confirmed cases from registered contacts	# of new confirmed cases registered as a contact	Guinea: Weekly WHO situation reports Sierra Leone: Weekly Ministry of Health Surveillance Report	# of new confirmed cases	Guinea: Daily WHO situation reports Sierra Leone: Daily Ministry of Health Ebola situation Reports				
Hospitalization	Time between symptom							
Time between symptom onset and hospitalization (days)	Time between symptom onset and hospitalization of confirmed, probable or suspected cases (geometric mean number of days)	Clinical investigation records	N/A	N/A				
Outcome of treatment								
Case fatality rate (among hospitalized cases)	# of deaths among hospitalized cases (confirmed)	Clinical investigation records	# of hospitalized cases (confirmed) with a definitive survival outcome recorded	Clinical investigation records				
	nd Control (IPC) and Safety							
Number of newly infected health workers	# of newly infected health workers	Guinea: Daily WHO situation reports Sierra Leone: Daily Ministry of Health Ebola situation Reports	N/A	N/A				
Safe and dignified buris	Safe and dignified burials							
Number of unsafe burials reported	# of reports/alerts of burials that were not known to be safe	Guinea: Daily WHO situation reports Sierra Leone: Ministry of Health situation reports	N/A	N/A				
Social mobilization								
Number of districts with at least one security incident or other form of refusal to cooperate	# of districts with at least one security incident or other form of refusal to cooperate in the past week	Guinea: Daily WHO situation reports Sierra Leone: UNICEF	N/A	N/A				