

SUMMARY

- A total of 150 new confirmed cases of Ebola virus disease (EVD) were reported in the week to 15 March, compared with 116 the previous week. There were 95 new confirmed cases reported in Guinea: the highest weekly total for the country in 2015. Sierra Leone reported 55 new confirmed cases over the same period: the country’s lowest weekly total since late June 2014. Liberia reported no new confirmed cases for the third consecutive week. March 15 was day 12 since the final patient in Liberia had a second negative test for EVD (42 days must elapse before transmission can be considered to have ended).
- A total of 12 districts in Guinea and Sierra Leone reported a confirmed case in the week to 15 March, all of which lie on a geographically contiguous arc in and around Conakry to the north and Freetown to the south. An additional 4 districts have reported a confirmed case in the past 21 days: Kono and Tonkolili in central and eastern Sierra Leone, and Lola and Macenta in eastern Guinea.
- Though transmission is currently confined to a relatively narrow geographic corridor, the population is highly mobile, with a great deal of movement throughout surrounding districts and countries. Limiting the movements of cases and contacts is challenging but essential to prevent the seeding of new outbreaks.
- Key response indicators for Guinea suggest that there remain significant challenges to overcome before transmission is brought under control. Of 49 total reported EVD deaths in the week to 15 March, almost half (23) were identified post-mortem in the community. In the week to 8 March, a low proportion (28%) of confirmed cases arose from registered contacts, and there were a reported 18 unsafe burials. Taken together, these indicators suggest that the outbreak in Guinea is still being driven by unknown chains of transmission.
- In the week to 15 March a total of 125 suspected cases of EVD were reported in Liberia, none of whom tested positive for EVD. All contacts associated with the last known chain of transmission have now completed 21-day follow-up.
- By contrast with Guinea, key response indicators for Sierra Leone present a more promising outlook. In the week to 8 March over two-thirds (67%) of confirmed cases came from registered contacts, whilst in the week to 15 March, 6 of 62 total EVD-confirmed deaths were identified post-mortem in the community. There was 1 reported unsafe burial over the same period. However, there are still areas where most new cases arise from unknown chains of transmission. Kambia, a district north of Freetown on the border with the Guinean prefecture of Forecariah, reported 7 new cases in the week to 8 March, 5 of which came from post-mortem testing of people who had died in the community and who were not known to be contacts of a previous case.
- A meeting was held in Freetown on 14–15 March to finalise guidelines for the safe decommissioning of Ebola Treatment Centres and Community Care Centres when and where appropriate.
- 11 new health worker infections were reported in the week to 15 March: 3 in Conakry and 1 in Forecariah, Guinea, and 7 in Sierra Leone (4 in Bombali, and 3 in Port Loko). This brings the total number of health worker infections reported across the three most-affected countries since the start of the outbreak to 852, with 492 deaths. In addition, 2 EVD-positive health workers and a number of close contacts were medically evacuated to Denmark, the United Kingdom, and the United States of America in the week to 15 March.

COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

- There have been almost 25 000 reported confirmed, probable, and suspected cases¹ of EVD in Guinea, Liberia and Sierra Leone (table 1), with over 10 000 reported deaths (outcomes for many cases are unknown). A total of 95 new confirmed cases were reported in Guinea, 0 in Liberia, and 55 in Sierra Leone in the 7 days to 15 March.
- The total number of confirmed and probable cases is similar in males and females (table 3). Compared with children (people aged 14 years and under), people aged 15 to 44 are approximately three times more likely to be affected. People aged 45 and over are nearly four times more likely to be affected than children.
- A total of 852 confirmed health worker infections have been reported in Guinea, Liberia, and Sierra Leone; there have been 492 reported deaths (table 5).

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
Guinea	Confirmed	2966	204	1829
	Probable	395	*	395
	Suspected	28	*	‡
	Total	3389	204	2224
Liberia	Confirmed	3150	0	‡
	Probable	1879	*	‡
	Suspected	4497	*	‡
	Total	9526	0	4264
Sierra Leone	Confirmed	8487	194	3325
	Probable	287	*	208
	Suspected	2977	*	158
	Total	11 751	194	3691
Total	Confirmed	14 603	398	*
	Probable	2561	*	*
	Suspected	7502	*	*
	Total	24 666	398	10 179

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. ‡Data not available.

GUINEA

- Key performance indicators for the EVD response in Guinea are shown in table 2.
- A total of 95 confirmed cases were reported in the 7 days to 15 March (figure 1), compared with 58 cases the week before.
- At present transmission is confined to an area around and including the capital Conakry (25 confirmed cases), with the nearby prefectures of Boffa (3 cases), Coyah (20 cases), Dubreka (2 cases), Forecariah (42 cases), and Kindia (3 cases) being the only other prefectures to report cases (figure 1, figure 4). Lola and Macenta in the east of the country and the northern prefecture of Mali have reported confirmed cases in the past 21 days.
- Limiting the movements of cases and contacts is essential but challenging in the context of a highly mobile population.

¹Case definition recommendations for Ebola or Marburg Virus Diseases: <http://www.who.int/csr/resources/publications/ebola/ebola-case-definition-contact-en.pdf?ua=1>

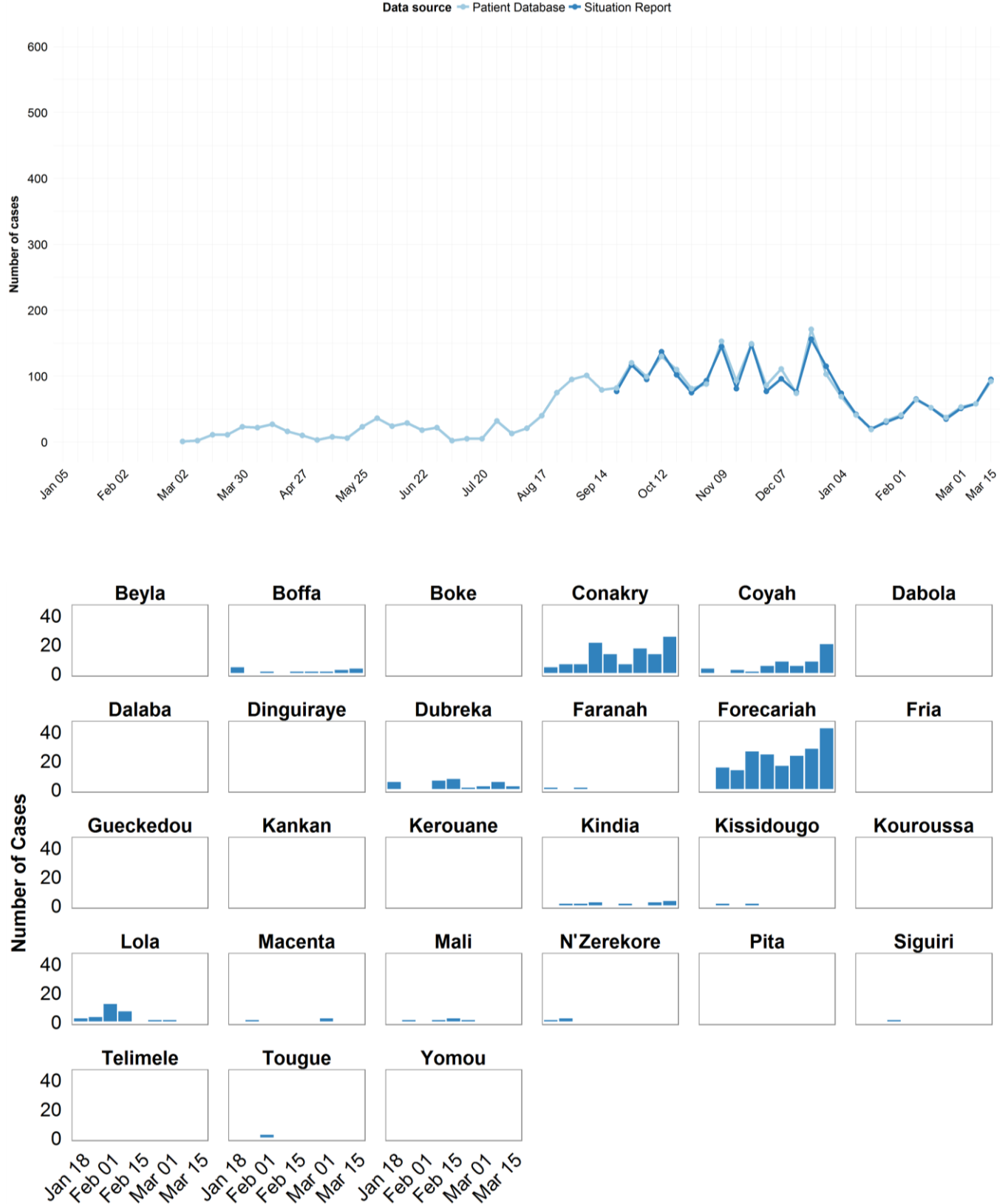
- Challenges engaging effectively with communities are affecting several crucial aspects of the response. In the week to 8 March, a relatively low proportion of confirmed EVD cases arose among known contacts (16 of 58 cases: 28%), whilst almost half (23 of 49) of EVD-positive deaths occurred in the community in the week to 15 March. Of 425 samples that were tested in the week to 15 March, a high proportion (32%) tested positive for EVD. A total of 18 unsafe burials were reported over the same period. A total of 4 prefectures reported at least one instance of community resistance.
- Locations of 8 operational Ebola treatment centres (ETCs) are shown in figure 6. Two ETCs have been assessed and have met minimum standards for infection prevention and control (IPC). Four new health worker infections were reported in the week to 15 March, 3 from Conakry and 1 from Forecariah.
- Locations of the 9 operational laboratories in Guinea are shown in figure 7. Over 99% of samples were processed within 1 day of arrival at a laboratory in the week to 15 March.

Table 2: Key performance indicators for Guinea for Phase 2 of the Ebola Response

Indicator	Target	Indicator	Target
Cases and deaths		Hospitalization	
	5 Jan – 15 Mar		Aug - Feb
Number of confirmed cases	120 Zero	Time between symptom onset and hospitalization (days) [‡]	6 <2 days
Number of confirmed deaths	60 Zero	Outcome of treatment	Aug - Feb
Number of confirmed deaths that occurred in the community	30 Zero	Case fatality rate (among hospitalized cases) [#]	60% <40%
Diagnostic services	23 Feb – 15 Mar	IPC and safety	5 Jan – 15 Mar
Number of samples tested and the percent of positive EVD results	600 32%	Number of newly infected health workers	Zero
Contact tracing	5 Jan – 8 Mar	Safe and dignified burials	5 Jan – 15 Mar
Percent of new confirmed cases from registered contacts*	100% 28%	Number of reports of unsafe burials	Zero
Community engagement	5 Jan – 15 Mar	Community engagement	5 Jan – 15 Mar
Number of districts with at least one security incident or other form of refusal to cooperate	Zero	Number of districts with at least one security incident or other form of refusal to cooperate	Zero

For definitions of key performance indicators see Annex 2. Data are for 7-day periods. *Includes new confirmed and probable cases from registered contacts. [‡]Hospitalization for confirmed, probable and suspected cases is not recorded for 0–3% of cases. [#]No final outcome is recorded for 3–14% of hospitalized confirmed cases.

Figure 1: Confirmed weekly Ebola virus disease cases reported nationally and by district from Guinea



LIBERIA

- Key performance indicators for the EVD response in Liberia are shown in table 4.
- No new confirmed cases were reported in the week to 15 March: the third consecutive week in which no new confirmed cases have been reported. March 15 was day 12 since the final patient in Liberia had a second negative test for EVD: 42 days must elapse before transmission can be considered to have ended. Once the 42-day period has elapsed, an additional period of heightened vigilance will be required.
- No counties have now reported a confirmed case within the past 21 days (figure 5). All contacts associated with the last known chain of transmission have now completed 21-day follow-up. Surveillance and early warning systems detected 125 suspected cases in the week to 15 March, none of whom have tested positive for EVD.
- Locations of the 18 operational Ebola treatment centres (ETCs) in Liberia are shown in figure 6. All of the 12 that have been assessed met minimum infection prevention and control standards as of February. 12 non-Ebola health-care facilities were also assessed (2 in Montserrado county, 10 in Nimba county): 5 (42%) met minimum IPC standards.
- Case fatality rates for people hospitalized with confirmed EVD for whom a definitive outcome was reported were 53%, 52% and 50% for the months of October, November and December, respectively. On average, it took 2.6 days between the onset of symptoms and hospitalization of a confirmed, probable or suspected case during February.
- Locations of the 5 operational laboratories in Liberia are shown in figure 7. A total of 289 samples were tested in the week to 15 March, none of which tested positive for EVD.

Table 3: Cumulative number of confirmed and probable cases by sex and age group in Guinea, Liberia, and Sierra Leone

Country	Cumulative cases				
	By sex*		By age group‡		
	(per 100 000 population)		(per 100 000 population)		
	Male	Female	0-14 years	15-44 years	45+ years
Guinea	1604 (29)	1720 (32)	521 (11)	1868 (40)	915 (59)
Liberia	2897 (146)	2845 (145)	970 (57)	3113 (182)	1181 (221)
Sierra Leone	5396 (189)	5736 (198)	2312 (95)	6194 (239)	2419 (327)

Population figures are based on estimates from the United Nations Department of Economic and Social Affairs.² *Excludes cases for which data on sex are not available. ‡Excludes cases for which data on age are not available.

SIERRA LEONE

- Key performance indicators for the EVD response in Sierra Leone are shown in table 6.
- A total of 55 confirmed cases were reported in the week to 15 March, compared with 58 the previous week. This is the lowest weekly total since late June 2014.
- Cases were reported from 6 northern and western districts around and including the capital Freetown, which reported 29 new confirmed cases. The neighbouring districts of Bombali (6 cases), Kambia (4 cases), Port Loko (11 cases) and Western Rural (3 cases) also reported cases.
- Two other districts, Kono and Tonkolili, have reported a confirmed case within the past 21 days.
- More than two-thirds (39 of 58: 67%) of confirmed EVD cases arose among known contacts in the week to 8 March; the number of confirmed cases identified after post-mortem testing of dead bodies found in the community fell to 6 in the week to 15 March. According to the National Ebola Response Centre, 92% of credible reports of potential EVD cases were investigated within 24 hours in the week to 8 March. Potential cases were identified through contact tracing or case finding, or from reports to a dedicated national Ebola alert hotline.
- Locations of the 20 operational Ebola treatment centres (ETCs) in Sierra Leone are shown in figure 6. A total of 12 of 17 assessed ETCs met minimum standards for IPC, along with 9 of 15 community care centres.

² United Nations Department of Economic and Social Affairs: <http://esa.un.org/unpd/wpp/Excel-Data/population.htm>

- Locations of the 13 operational laboratories in Sierra Leone are shown in figure 7. Of 1649 samples tested in the week to 15 March, 4% were EVD positive.

Table 4: Key performance indicators for Liberia for Phase 2 of the Ebola Response

Indicator	Target	5 Jan – 15 Mar	Indicator	Target	Aug - Feb
Cases and deaths			Hospitalization		
Number of confirmed cases	Zero		Time between symptom onset and hospitalization (days) [‡]	<2 days	
Number of confirmed deaths	Zero		Outcome of treatment		Aug - Dec
Number of confirmed deaths that occurred in the community	Zero		Case fatality rate (among hospitalized cases) [#]	<40%	
Diagnostic services			IPC and safety		
Number of samples tested and the percent of positive EVD results			Number of newly infected health workers	Zero	
Contact tracing			Safe and dignified burials		
Percent of new confirmed cases from registered contacts	100%		Number of reports of unsafe burials	Zero	
			Community engagement		
			Number of districts with at least one security incident or other form of refusal to cooperate	Zero	

For definitions of key performance indicators see Annex 2. Data are for 7-day periods. [‡]Hospitalization for confirmed, probable and suspected cases is not recorded for 4–23% of cases. [#]No final outcome is recorded for 2–41% of hospitalized confirmed cases.

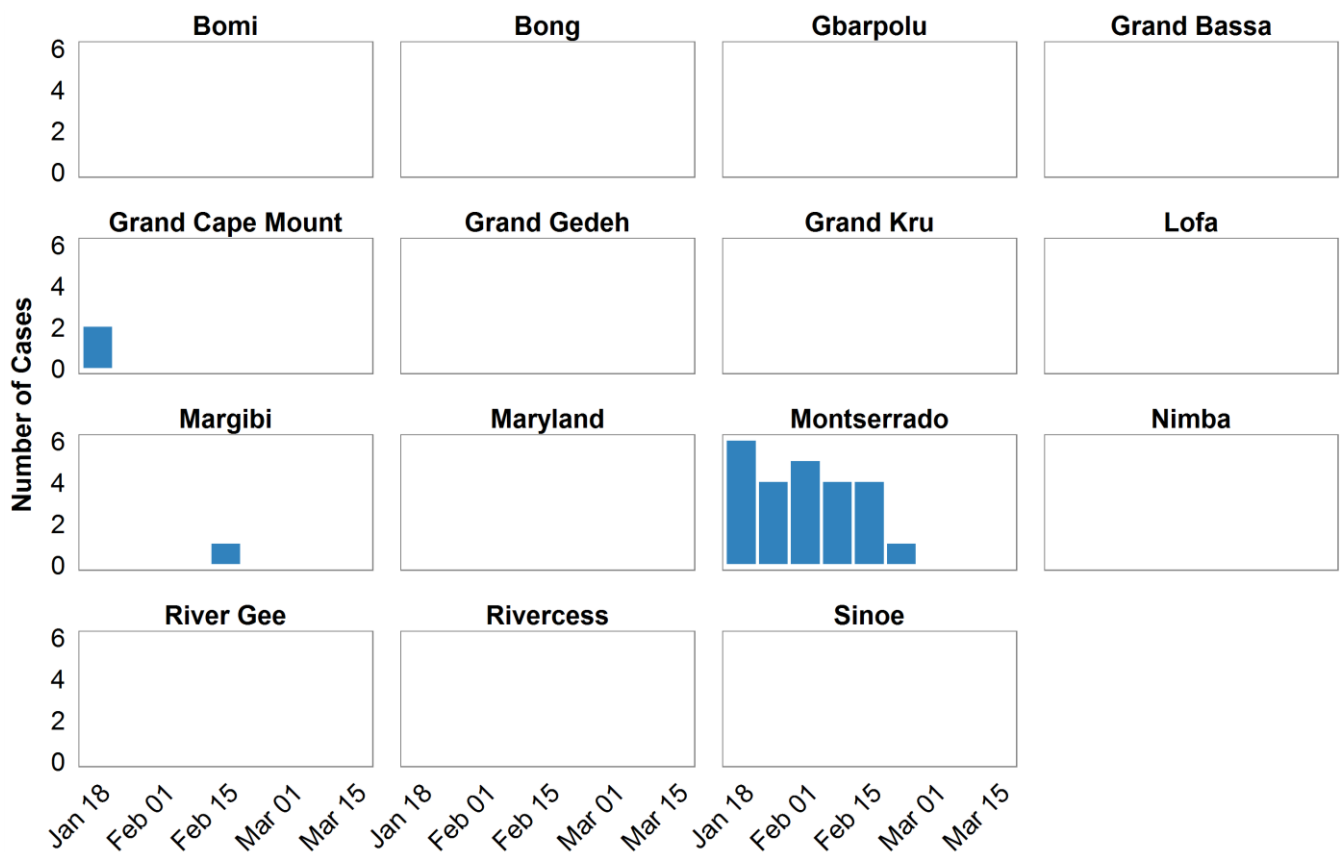
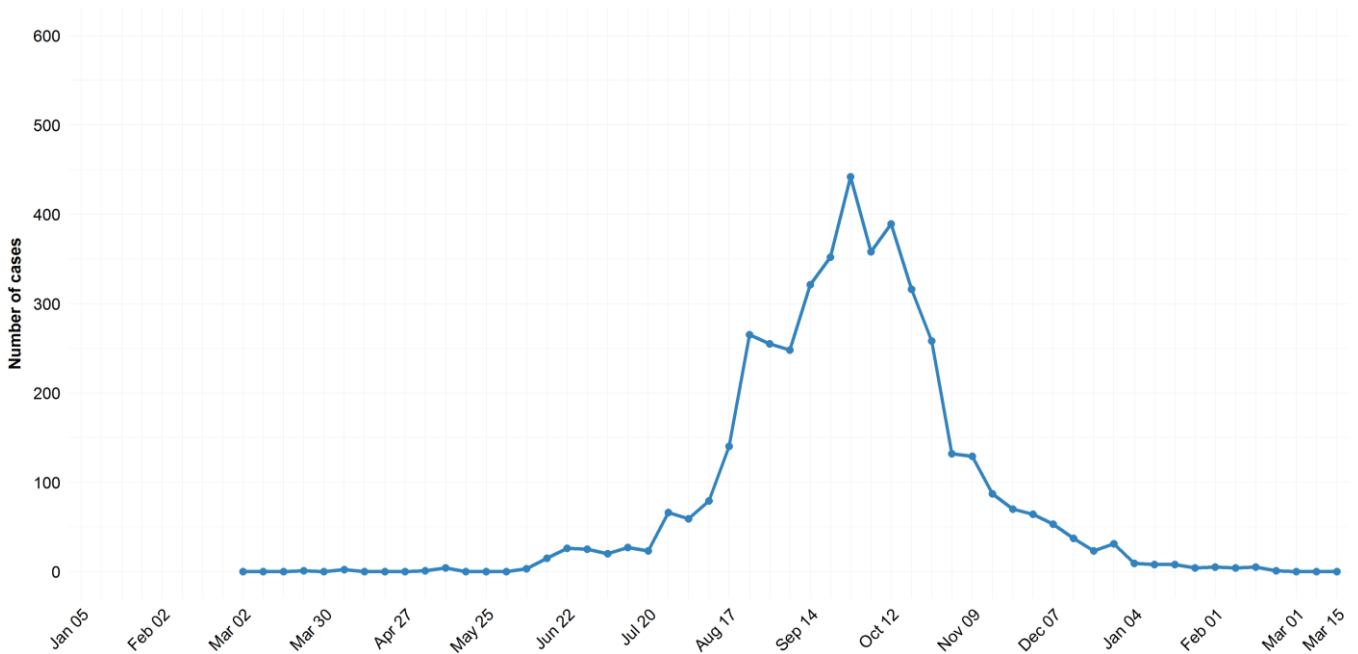
Table 5: Ebola virus disease infections in health-care workers in the three countries with intense transmission

Country	Cases	Deaths
Guinea	178	91
Liberia	372	180
Sierra Leone	302	221*
Total	852	492

Data are confirmed cases and deaths only, apart from deaths in Sierra Leone, which include confirmed, probable, and suspected deaths. *Data as of 17 February.

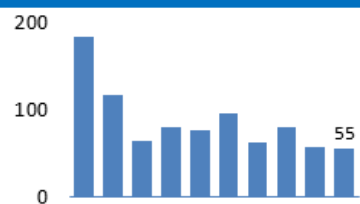
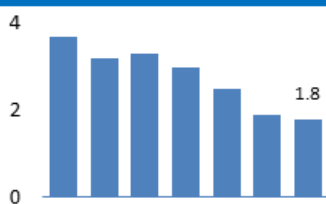
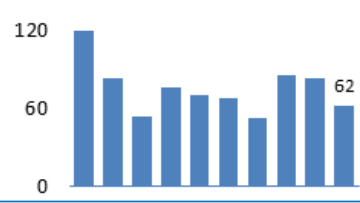
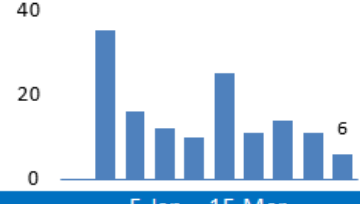
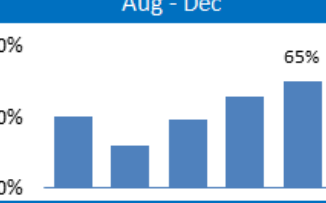
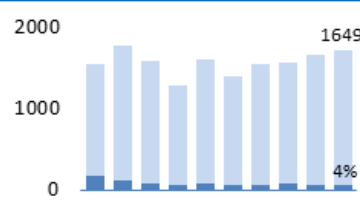
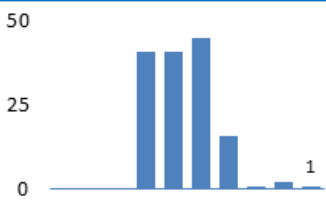



Figure 2: Confirmed weekly Ebola virus disease cases reported nationally and by district from Liberia

Data source — Situation Report



Data are laboratory confirmed cases reported by the Liberian Ministry of Health

Table 6: Key performance indicators for Sierra Leone for Phase 2 of the Ebola Response

Indicator	Target	Indicator	Target
Cases and deaths 5 Jan – 15 Mar		Hospitalization Aug - Feb	
Number of confirmed cases	Zero	Time between symptom onset and hospitalization (days) [‡]	<2 days
			
Number of confirmed deaths	Zero	Outcome of treatment Aug - Dec	
		Case fatality rate (among hospitalized cases) [#]	<40%
			
Diagnostic services 5 Jan – 15 Mar		IPC and safety 5 Jan – 15 Mar	
Number of samples tested and the percent of positive EVD results	Zero	Number of newly infected health workers	Zero
			
Contact tracing 12 Jan – 8 Mar		Safe and dignified burials 26 Jan – 15 Mar	
Percent of new confirmed cases from registered contacts	100%	Number of reports of unsafe burials	Zero
			
Community engagement 12 Jan – 9 Mar			
		Number of districts with at least one security incident or other form of refusal to cooperate	Zero
			

For definitions of key performance indicators see Annex 2. Data are for 7-day periods. [‡]Hospitalization for confirmed, probable and suspected cases is not recorded for 6–11% of cases. [#]No final outcome is recorded for 36–76% of hospitalized confirmed cases.

Figure 3: Confirmed weekly Ebola virus disease cases reported nationally and by district from Sierra Leone

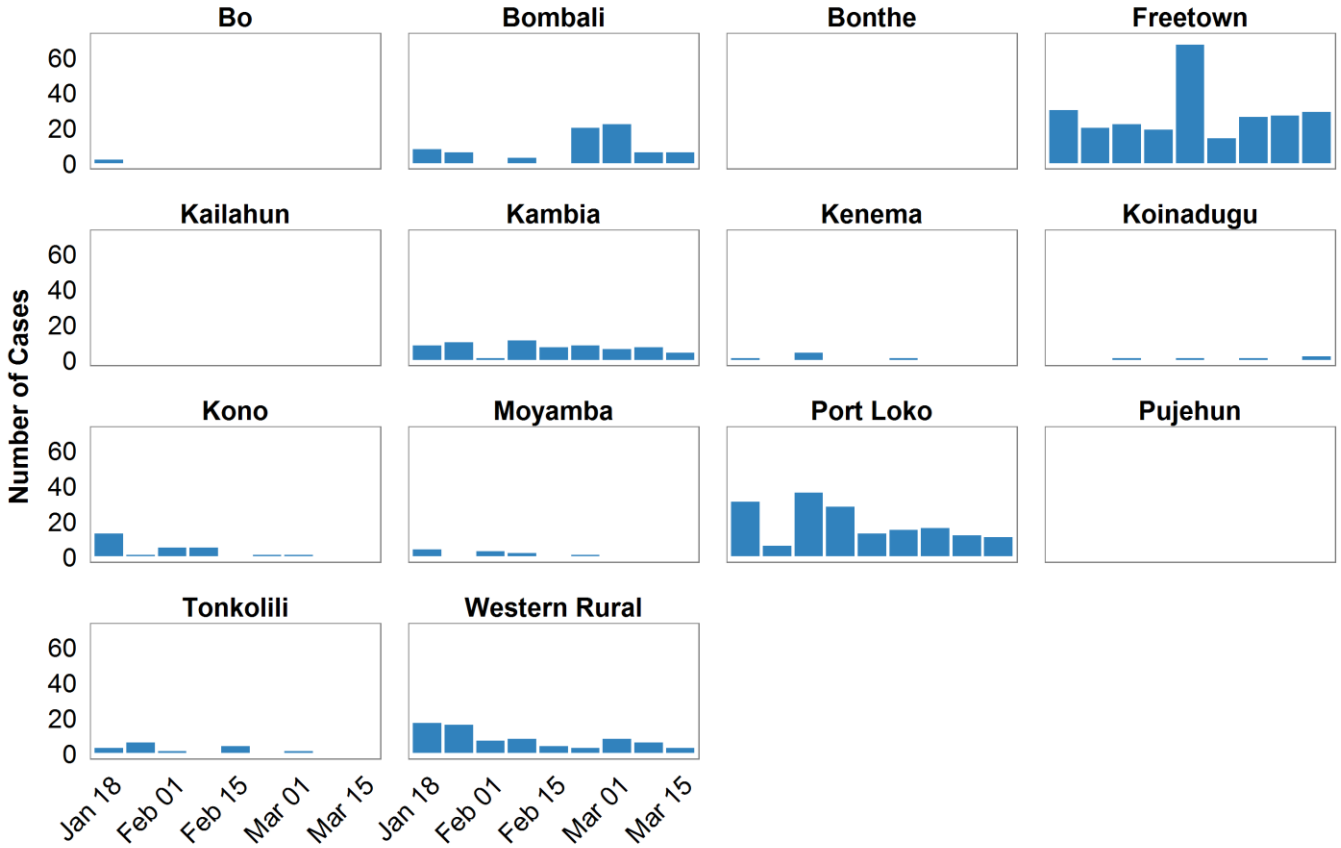
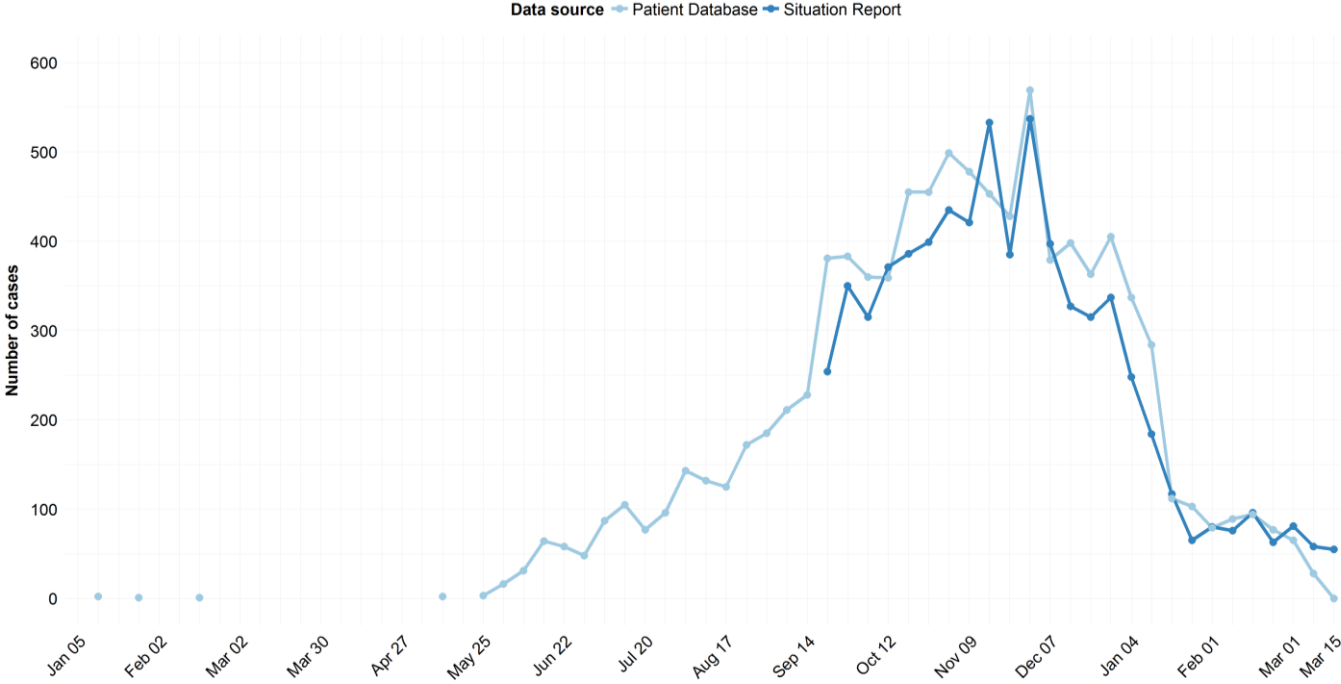
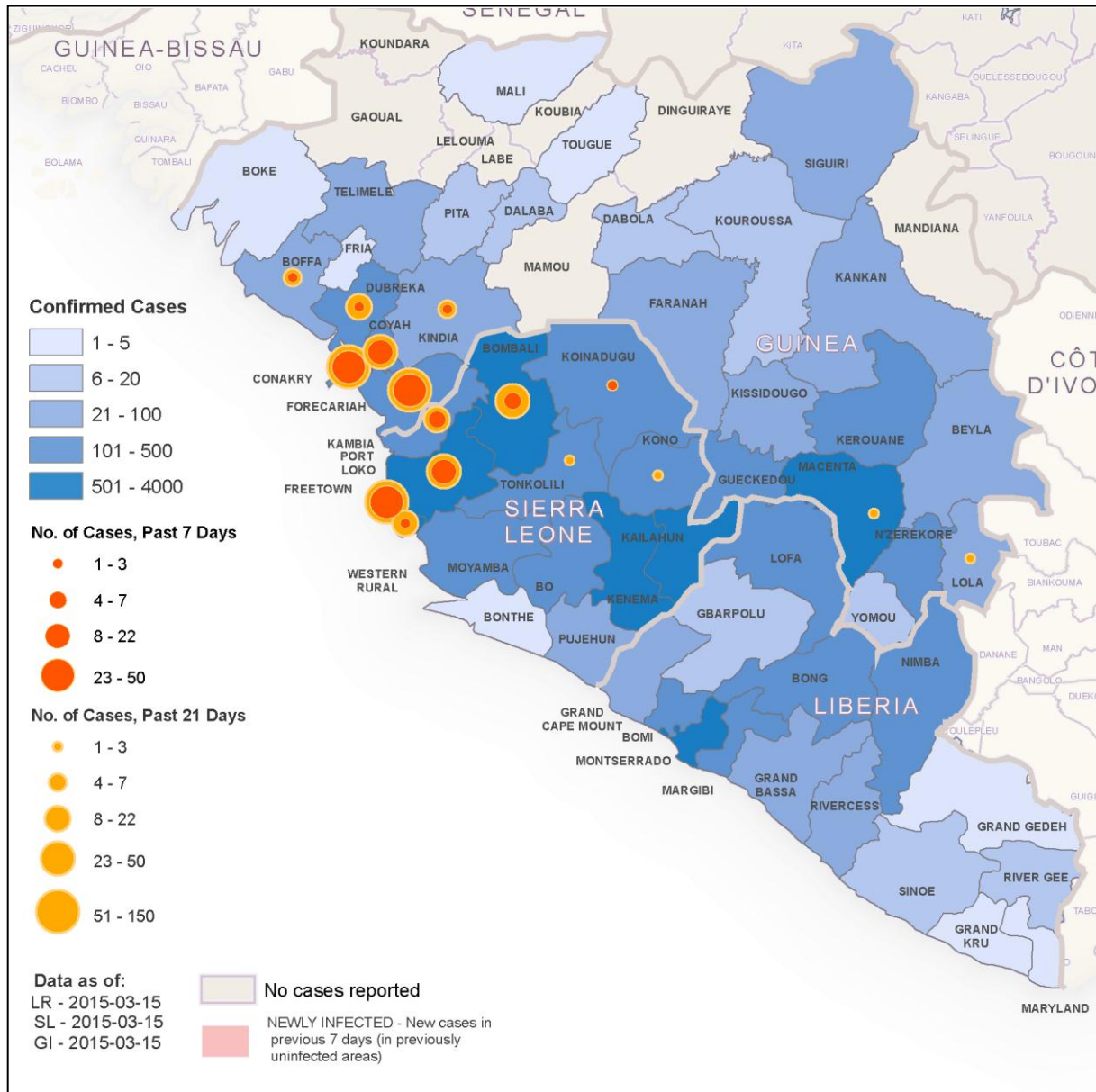


Figure 4: Geographical distribution of new and total confirmed cases



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.

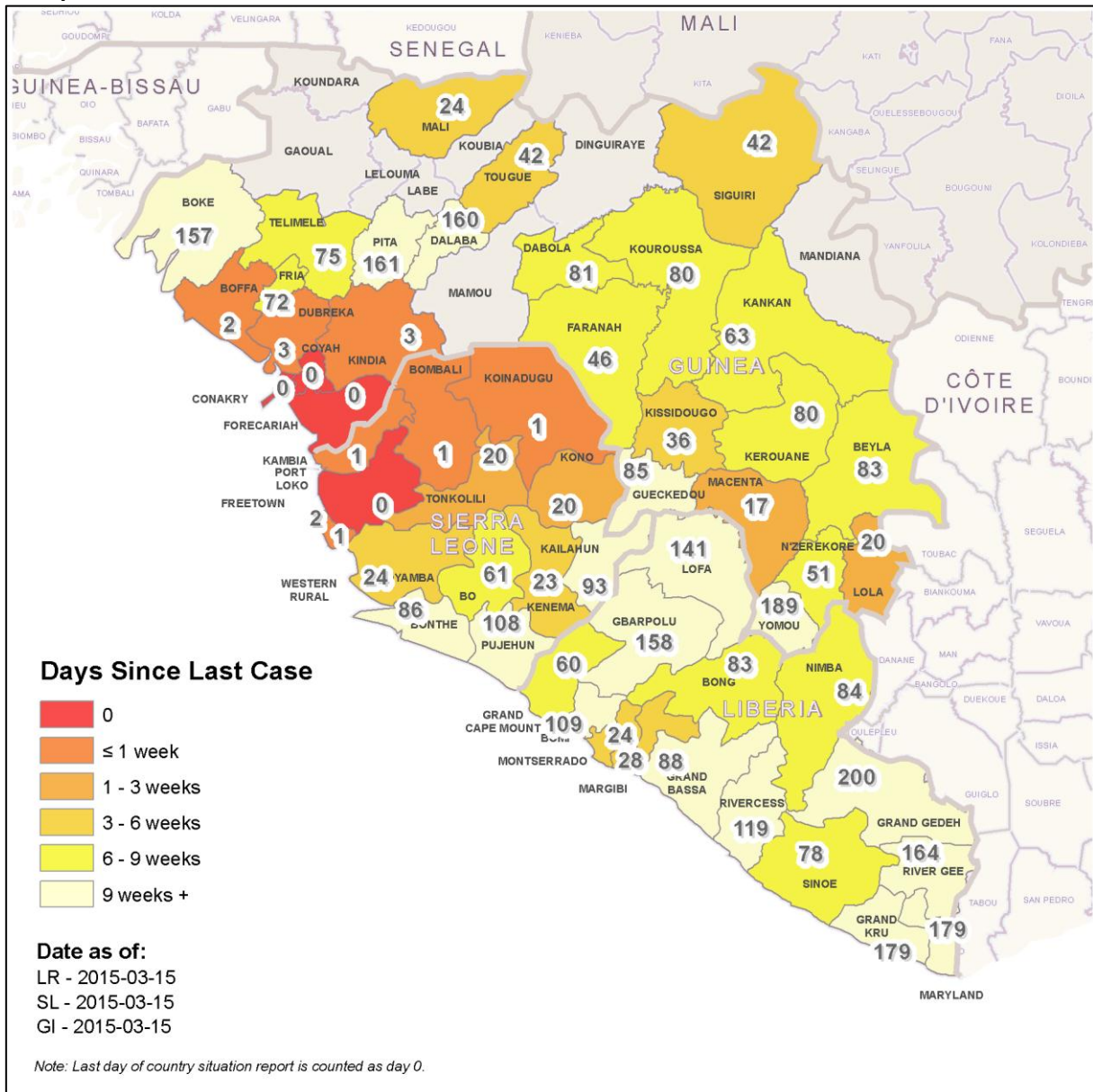
COUNTRIES WITH AN INITIAL CASE OR CASES, OR WITH LOCALIZED TRANSMISSION

Six countries (Mali, Nigeria, Senegal, Spain, the United Kingdom and the United States of America) have 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 for as long as cases are reported in any country. With adequate levels of preparation, however, such introductions of the disease can be contained with a rapid and adequate 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 visits by preparedness-strengthening teams (PSTs), direct technical assistance to countries, and the provision of technical guidance and tools.

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

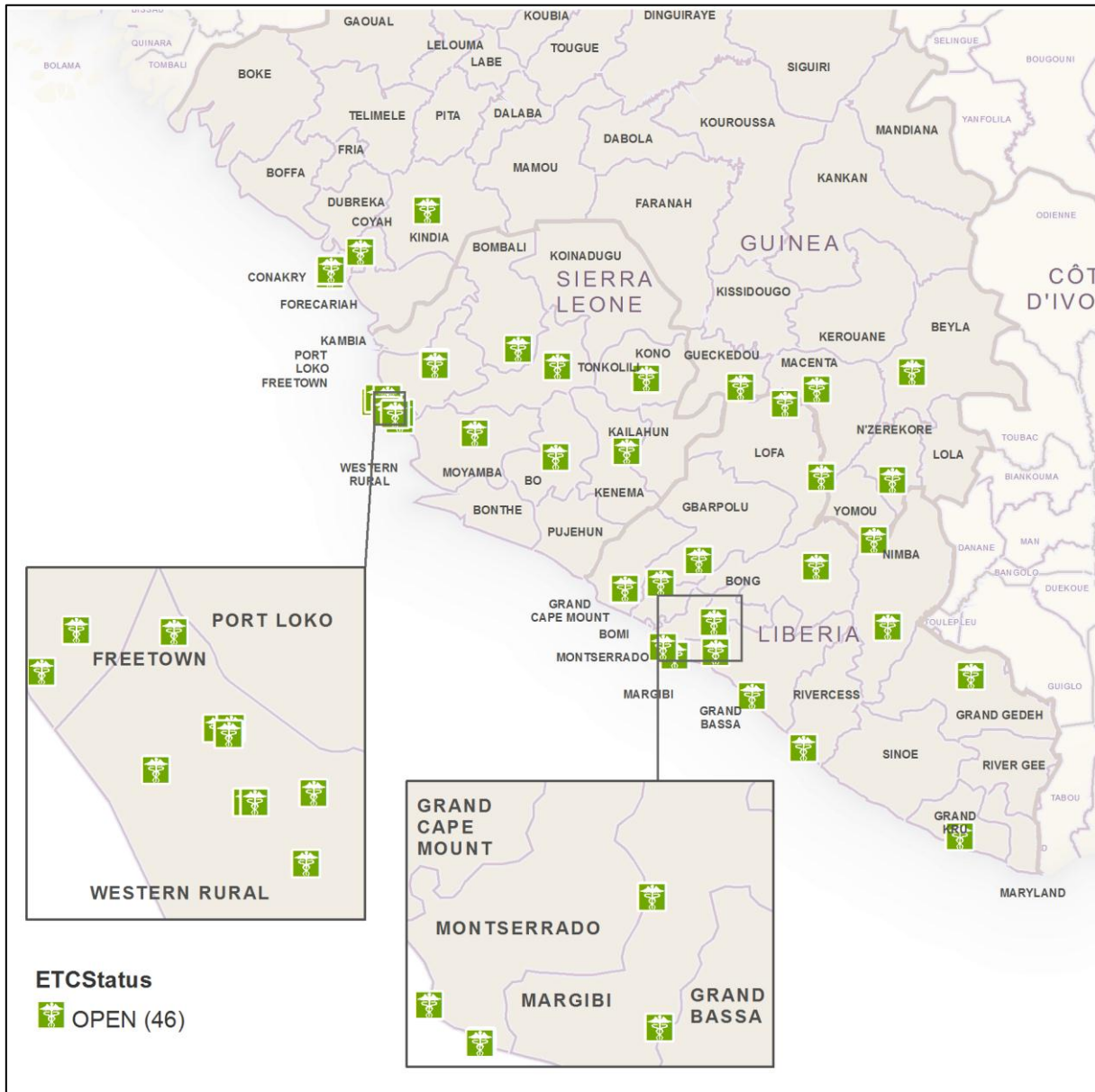


Priority countries in Africa

- 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 – Burkina Faso, Benin, Cameroon, Central African Republic, Democratic Republic of the Congo, Ethiopia, Gambia, Ghana, Mauritania, Nigeria, South Sudan, Niger and Togo. The criteria used to prioritize countries include geographical proximity to affected countries, trade and migration patterns, and strength of health systems. Other countries of focus include Nigeria, Democratic Republic of the Congo and South Sudan.
- Since 20 October 2014, preparedness-strengthening teams (PSTs) have provided technical support in 14 countries: Benin, Burkina Faso, Cameroon, Central African Republic, Côte d’Ivoire, Ethiopia, Gambia, Ghana, Guinea Bissau, Mali, Mauritania, Niger, Senegal and Togo. Technical working group meetings, field visits, high-level exercises and field simulations have helped to identify key areas for improvement. Each country has a tailored 90-day plan to strengthen operational readiness. WHO and partners are deploying staff to the 14 countries to assist with the implementation of 90-day plans.
- Follow-up visits to support priority needs in EVD Preparedness have implemented immediate activities in the four Member States (Côte d’Ivoire, Senegal, Mali, and Guinea Bissau) immediately surrounding countries experiencing widespread and intense EVD transmission. In addition to supporting priority areas in each of

these countries, the visits were able to strengthen cross-border surveillance and the sharing of outbreak data under the framework of the International Health Regulations. A program to roll-out longer term support is currently under development, with staff levels being increased in WHO Country Offices to coordinate preparedness activities.

Figure 6: Location of Ebola treatment centres in Guinea, Liberia, and Sierra Leone



Locations of community care centres and community transit centres are not shown.

Follow-up Preparedness-Strengthening Team support to priority countries

- Following the initial PST assessment missions to the 14 high-priority countries undertaken in 2014, a second phase of preparedness strengthening has been initiated to achieve the following goals:
 - Provide tailored, targeted technical support to strengthen EVD capacities in human resources; operationalise plans; test and improve procedures through field exercises and drills; and support the implementation of Preparedness plans with financial and logistics support;
 - Provide leadership and coordinate partners to fully support one national plan;
 - Contribute to the International Health Regulations (2005) strengthening of national core capacities and the resilience of health systems.

- Three country visits are currently underway. A mission to Benin is due to end on 21 March, although some technical experts will remain for a longer duration. The focus of the visit is on coordination, logistics and strengthening the implementation of the national operational plan and budget. Capacity strengthening will include training, logistics assessments and skill drills. EVD preparedness and technical assistance missions are also currently deployed to Gambia and Togo, with focus on logistics, coordination, IPC, contact tracing and surveillance.

Training

- A pilot rapid-response 4-day training session with the Eastern Mediterranean Regional Office (EMRO) is taking place from 15 to 19 March in order to develop a training package for use in EMRO and other WHO regional offices.

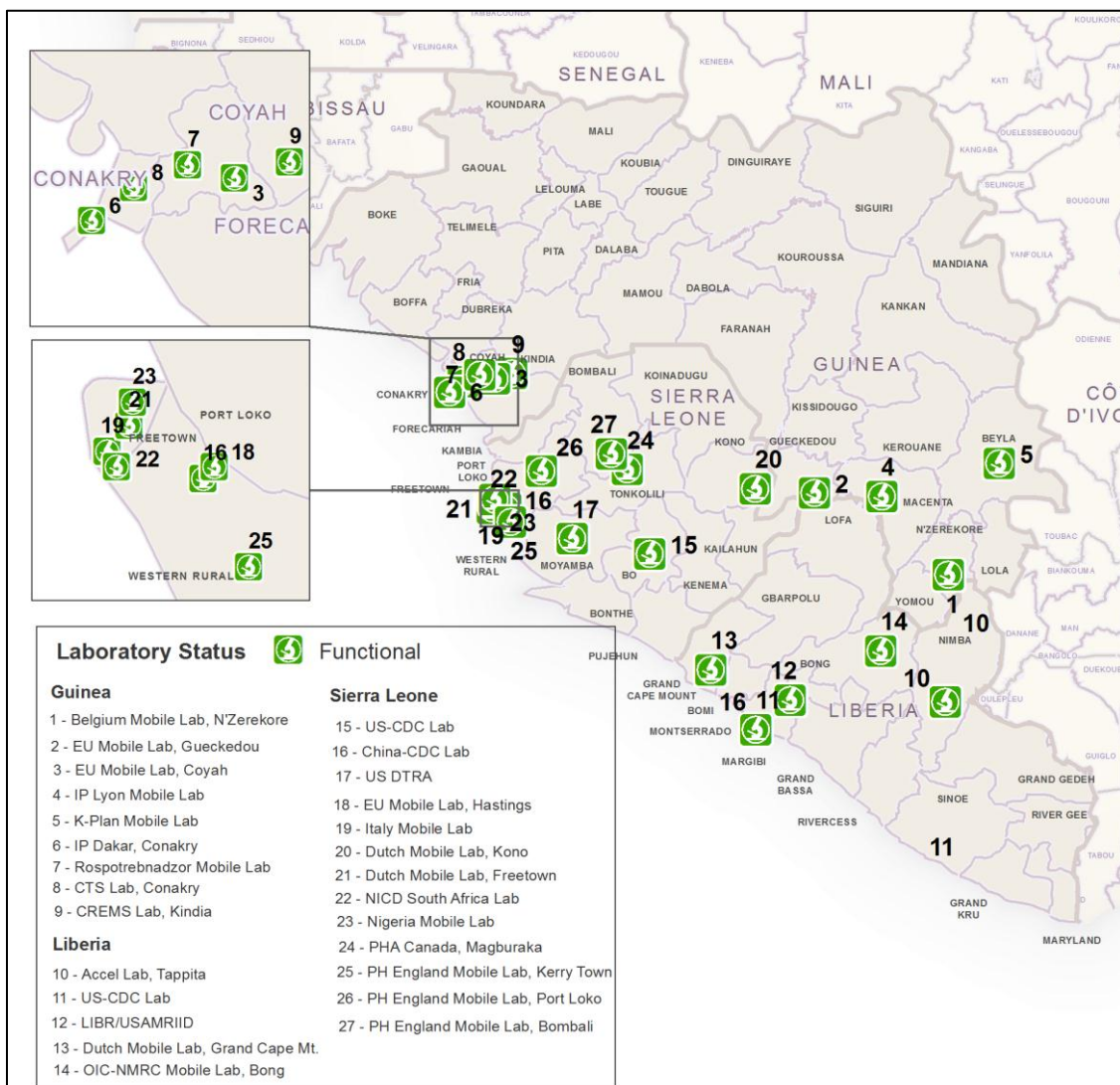
Surveillance indicators

- Indicators based on surveillance data, case management capacity, laboratory testing and equipment stocks are collected on a weekly basis from the four countries neighbouring Guinea, Liberia, and Sierra Leone.

Preparedness Indicators

- An interactive preparedness dashboard based on WHO EVD checklist is now available online³.

Figure 7: Location of laboratories in Guinea, Liberia, and Sierra Leone



³ See: <http://apps.who.int/ebola/preparedness/map>

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 and UN agencies. 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

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

Indicator	Numerator	Numerator Source	Denominator	Denominator Source
Cases and deaths				
Number of confirmed cases	# of confirmed cases	Guinea: Daily WHO situation reports Liberia/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 Liberia/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 Liberia/Sierra Leone: Daily Ministry of Health	N/A	N/A
Diagnostic Services				
Number of samples tested and percentage with positive EVD results	# of samples tested # of samples tested with a positive EVD result	Guinea: Laboratory database Liberia/Sierra Leone: Daily Ministry of Health Ebola situation reports	N/A # of samples tested	Guinea: Laboratory database Liberia/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 Liberia: Daily Ministry of Health Ebola situation reports Sierra Leone: Weekly Ministry of Health Surveillance Report	# of new confirmed cases	Guinea: Daily WHO situation reports Liberia/Sierra Leone: Daily Ministry of Health Ebola situation Reports
Hospitalization				
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
Infection Prevention and Control (IPC) and Safety				
Number of newly infected health workers	# of newly infected health workers	Guinea: Daily WHO situation reports Liberia/Sierra Leone: Daily Ministry of Health Ebola situation Reports	N/A	N/A
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 Liberia/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 Liberia/Sierra Leone: UNICEF	N/A	N/A