

SUMMARY

- A total of 128 new confirmed cases of Ebola virus disease (EVD) were reported in the week to 15 February. Guinea reported 52 new confirmed cases – a decrease from the previous week, and the first week-to-week decline since January 25. Transmission remains widespread in Sierra Leone, with 74 new confirmed cases, and is most intense in the capital, Freetown, which reported 45 confirmed cases. Liberia reported 2 new confirmed cases in the 4 days to 12 February.
- Engaging effectively with communities has been one of the keys to successfully driving cases to zero in many parts of Guinea, Liberia, and Sierra Leone, but continues to present a challenge in several areas. Each of the three countries reported an increase in security incidents related to the Ebola response compared with the previous week. In Guinea and Sierra Leone, 39 and 45 unsafe burials were reported, respectively, in the week to 15 February, and over 40 new confirmed cases were identified only when testing was carried out on samples from individuals after they died in the community, away from treatment facilities. Not only have these individuals not received potentially life-saving treatment, but other members of the community have been put at greater risk of exposure to EVD than they would have been had those individuals been isolated when they first showed symptoms. Contact tracing also relies on the cooperation of affected communities; when this cooperation is not secured, the vital task of tracking chains of transmission becomes much more difficult. Recent success in engaging with communities in the eastern Guinean prefecture of Lola enabled responders to trace cases and contacts related to an unsafe burial, and rapidly bring a localised outbreak under control. Similar breakthroughs must now be made in the remaining areas of transmission.
- Most of the new confirmed cases reported by Guinea were in the capital, Conakry (13 confirmed cases), and the western prefecture of Forecariah (24 confirmed cases). The north Guinean prefecture of Mali, which borders Senegal, reported 2 new confirmed cases.
- A mission to strengthen surveillance in the border areas of Côte d’Ivoire is ongoing. Further preparedness missions are planned for Guinea Bissau, Mali, Senegal later this month to strengthen cross-border surveillance.
- A total of 2 confirmed cases were reported from Liberia. All of the cases originated from the same area of Montserrado county, linked to a single chain of transmission.
- Following the steep decline in case incidence in Sierra Leone from December until the end of January, incidence has now stabilized. A total of 74 cases were reported in the week to 15 February, compared with 76 confirmed cases in the previous week.
- The case fatality rate among hospitalized cases (calculated from all confirmed hospitalized cases with a reported definitive outcome) remains high, at between 53% and 64% in the 3 affected countries.

COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

- There have been over 23 000 reported confirmed, probable, and suspected cases¹ of EVD in Guinea, Liberia and Sierra Leone (table 1), with over 9000 reported deaths (outcomes for many cases are unknown). A total of 52 new confirmed cases were reported in Guinea, 2 in Liberia, and 74 in Sierra Leone in the 7 days to 15 February (data missing for 13, 14, and 15 February in Liberia).
- A stratified analysis of cumulative confirmed and probable cases indicates that the number of cases in males and females is similar (table 2). 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 approximately four times more likely to be affected than are children.
- A total of 833 confirmed health worker infections have been reported in the 3 intense-transmission countries; there have been 488 reported deaths (table 4).

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

Country	Case definition	Cumulative cases	Cases in past 21 days	Cumulative deaths
Guinea	Confirmed	2727	156	1683
	Probable	374	*	374
	Suspected	7	*	‡
	Total	3108	156	2057
Liberia**	Confirmed	3149	11	‡
	Probable	1876	*	‡
	Suspected	3982	*	‡
	Total	9007	11	3900
Sierra Leone	Confirmed	8212	230	3042
	Probable	287	*	208
	Suspected	2604	*	158
	Total	11103	230	3408
Total		23 218	397	9365

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. **Data are missing for 13, 14 and 15 February.

GUINEA

- Key performance indicators for the EVD response in Guinea are shown in table 3.
- A total of 52 confirmed cases were reported in the 7 days to 15 February 2015 (figure 1), compared with 65 the week before, ending a sequence of 3 consecutive increases in weekly incidence.
- Cases are concentrated in the west of the country. Forecariah and the capital Conakry reported 24 and 13 confirmed cases, respectively. The neighbouring prefectures of Dubreka (7 confirmed cases), Coyah (5 confirmed cases), and Boffa (1 confirmed case) also reported cases during the reporting period.
- The north Guinean prefecture Mali, which borders Senegal, was the only other prefecture to report confirmed cases in the week to 15 February, with a total of 2 new confirmed cases. The cases are linked to the same chain of transmission as the first case reported in the prefecture: a man who travelled from the Liberian capital, Monrovia (figure 4).
- Effectively engaging with communities continues to be a challenge in many areas. Serious security incidents were reported in several prefectures including Boffa, Conakry, Coyah, Dubreka, and Forecariah. Over the reporting period, 13 prefectures reported at least one security incident.

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>

- In several prefectures, difficulty engaging with communities has made it hard for responders to identify contacts and trace chains of transmission. As a result, many cases are only identified after post-mortem testing. When individuals die of EVD in their community, it means that not only have they not received potentially life-saving treatment, but also that other members of the community have been put at greater risk of exposure to EVD than they would otherwise have been had the individual gone to an Ebola Treatment Centre. In the week to 15 February throughout Guinea, 16 confirmed cases were identified after post-mortem testing of dead bodies found in the community. Over the same period, 39 unsafe burials were reported. By contrast, recent success in engaging with communities in the eastern district of Lola allowed responders to trace cases and contacts related to an unsafe burial, and rapidly bring a localised outbreak under control.
- Fourteen districts that have previously reported confirmed cases did not report any confirmed cases in the 21 days to 15 February (figure 4, figure 5).
- Locations of 6 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). No new health worker infections were reported in the week to 15 February.
- The case fatality rate (CFR) during the month of December was 57% among hospitalized confirmed cases for whom a definitive outcome was reported. On average, it took 3.4 days between the onset of EVD symptoms and isolation and treatment of a case during December.
- In the 14 days to 14 February, 98% of samples from suspected and probable cases were tested within 1 day of collection; 78% were tested on the same day as collection. Locations of the 6 operational laboratories in Guinea are shown in figure 7.

LIBERIA

- Key performance indicators for the EVD response in Liberia are shown in table 3.
- A total of 2 confirmed cases were reported in the 4 days to 12 February (figure 2). All confirmed cases were reported from Montserrado, (figure 2 and figure 4) and are linked to the same chain of transmission.
- Montserrado is the only county to have reported a confirmed case within the past 29 days (figure 5).
- Locations of the 19 operational Ebola treatment centres (ETCs) in Liberia are shown in figure 6. Of the 11 that have been assessed, 10 (90%) met minimum standards for IPC. In the week to 12 February, 1 new health worker infection was reported in Montserrado.
- In the 14 days to 14 February, 83% of samples from suspected and probable cases were tested within 1 day of collection; a fall from 96% throughout January. 43% of samples were tested on the same day as collection. Locations of the 5 operational laboratories in Liberia are shown in figure 7.
- In the 4 days to 12 February, 0 of 2 (0%) new confirmed cases arose among registered contacts.
- Misinformation about the presence of EVD in shots used for routine vaccination led to an increase in reported security incidents in Liberia in the week 11 February. A total of 6 districts reported at least one security incident; up from 2 the previous week.

Table 2: 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	1481 (27)	1586 (29)	487 (10)	1720 (37)	837 (54)
Liberia	2824 (142)	2770 (141)	951 (55)	3008 (176)	1157 (217)
Sierra Leone	5127 (180)	5445 (188)	2225 (92)	5840 (226)	2327 (315)

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.

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

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

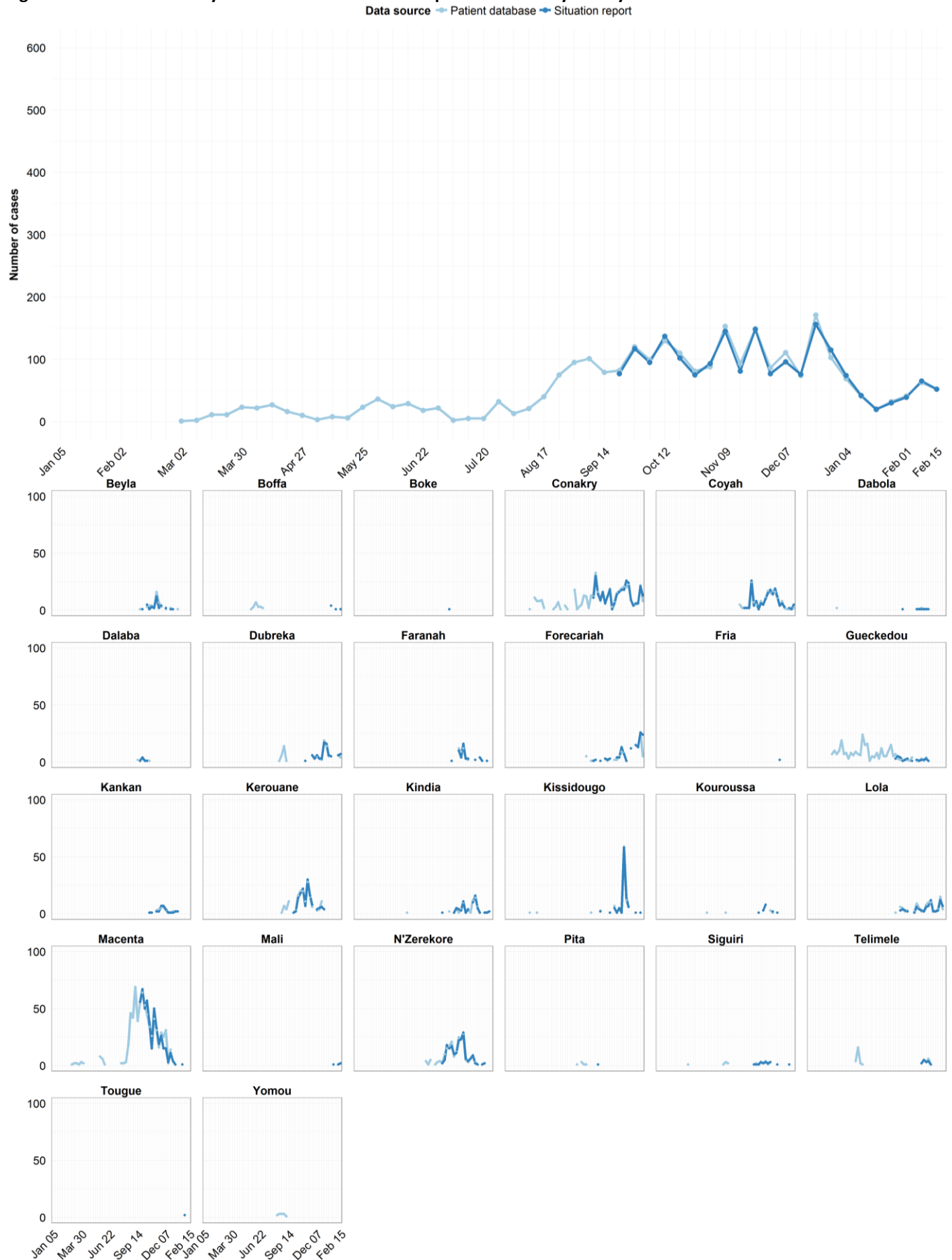
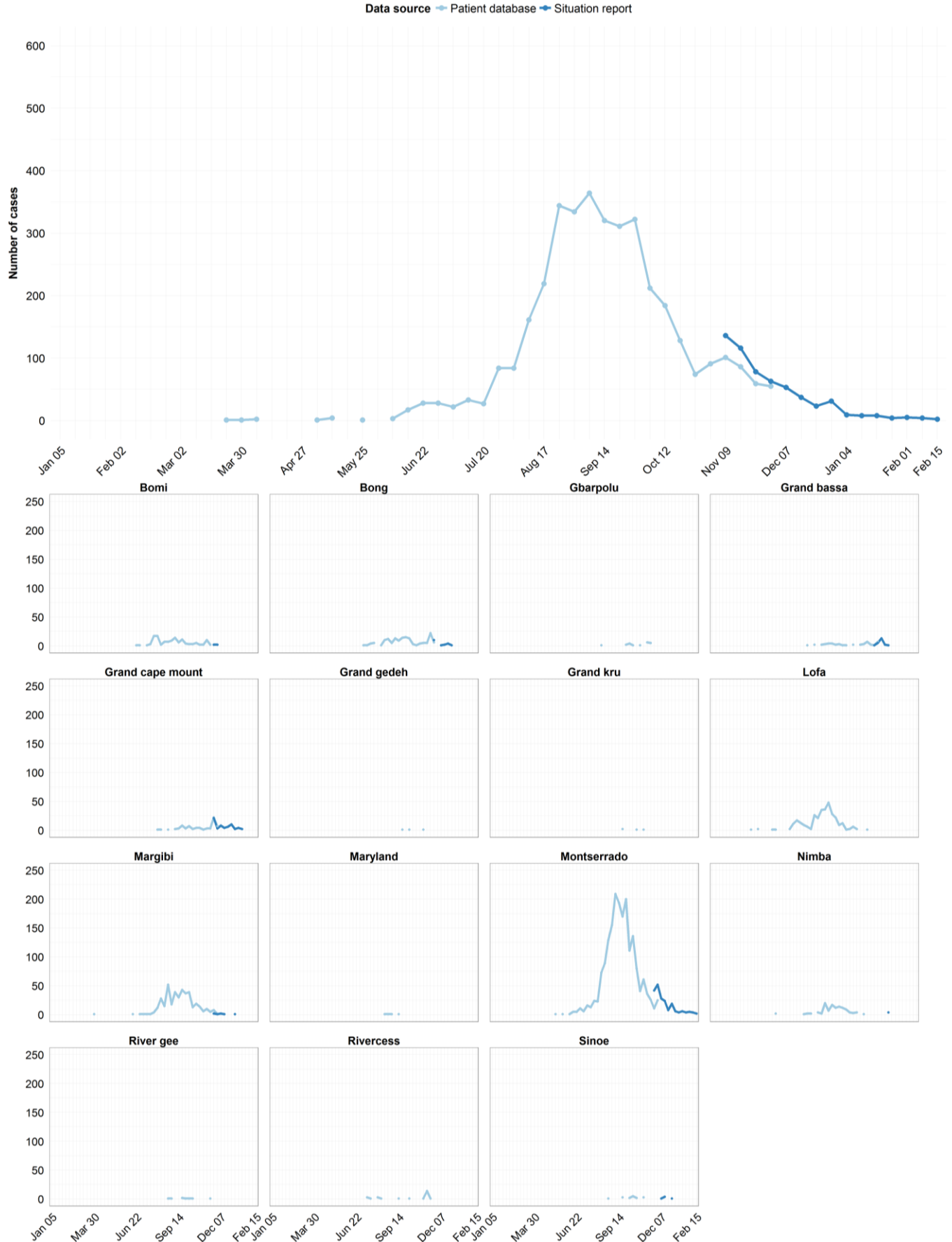


Figure 2: Confirmed weekly Ebola virus disease cases reported nationally and by district from Liberia



Systematic data on laboratory confirmed cases have been available since 3 November nationally, and since 16 November for each district. Data are missing for 13, 14 and 15 February.

Table 3: Key performance indicators for phase 2 of the Ebola response

Indicator	Target	Guinea			Liberia			Sierra Leone		
		1 Feb	8 Feb	15 Feb	1 Feb	8 Feb	12 Feb	1 Feb	8 Feb	15 Feb
Cases and deaths										
Number of confirmed cases	Zero	39	65	52	5	4	2	80	76	74
Number of confirmed deaths	Zero	19	44	40	2	3	0	76	70	68
Number of confirmed deaths that occurred in the community	Zero	6	21	16	0	2	0	12	10	25
Diagnostic services										
Percent of samples tested within one day of collection	100%	96%	96%	98%	96%	96%	83%	84%	83%	87%
Contact tracing										
Percent of new confirmed cases from registered contacts [#]	100%	(7/42) 17%	(10/65) 15%	Data not available	(7/7) 100%	(1/4) 25%	(0/2) 0%	(45/84) 54%	(29/81) 36%	Data not available
Isolation										
Time between symptom onset and case isolation	<2 days	4.3	3.7	3.4	4.2	3.6	2.7	3.2	3.2	2.6
Outcome of treatment										
Case fatality rate (among hospitalized cases)	<40%	59%	55%	57%	55%	53%	54%	62%	58%	64%
IPC and Safety										
Percent of IPC-assessed ETCs	100%		(2/6) 33%			(11/19) 58%			(18/24) 75%	
Health workers										
Number of newly infected health workers ^{**}	Zero	2	0	0	0	0	1	0	3	1
Safe and dignified burials										
Number of unsafe burials reported	Zero	29	34	39	0	6	0	41	41	45
Social mobilization										
Number of districts [‡] with at least one security incident or other form of refusal to cooperate	Zero	9	8	13	0	2	6	3	2	4

For the lead agencies coordinating the 4 key lines of action see Annex 1. For definitions of key performance indicators see Annex 2. [^]During 14 days to 14 February. ^{*}Different time period used by Liberia. [#]Includes new confirmed and probable cases in Guinea. [‡]Isolation is not recorded for 4-9% of cases in Guinea, 55-63% in Liberia and 30-35% in Sierra Leone. ^{##}No final outcome is recorded in 4-5% of confirmed cases in Guinea, 17-40% in Liberia, and 35-77% in Sierra Leone. ^{**}Does not include foreign medical teams. [§]34 prefectures in Guinea, 15 counties in Liberia and 14 districts in Sierra Leone.

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

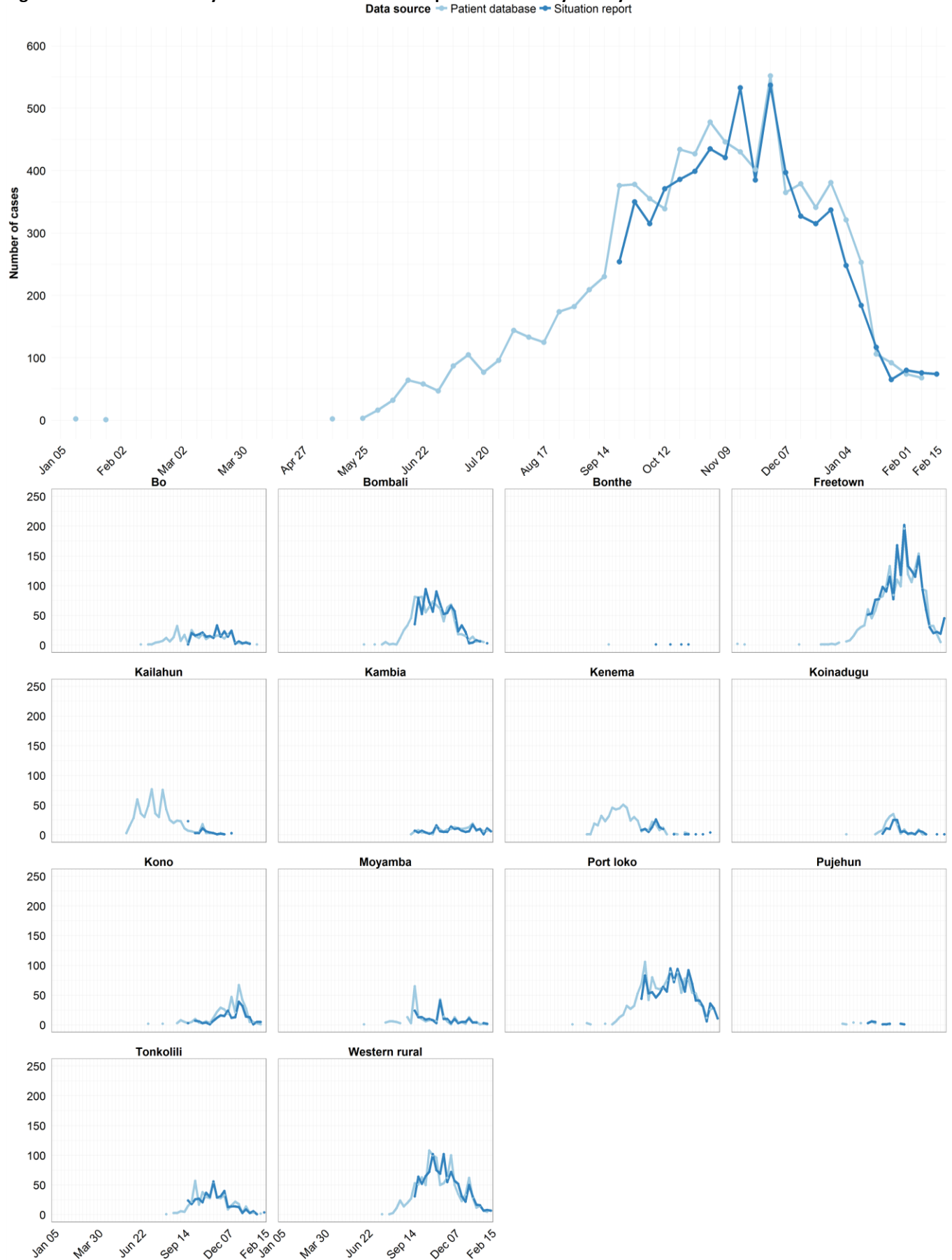
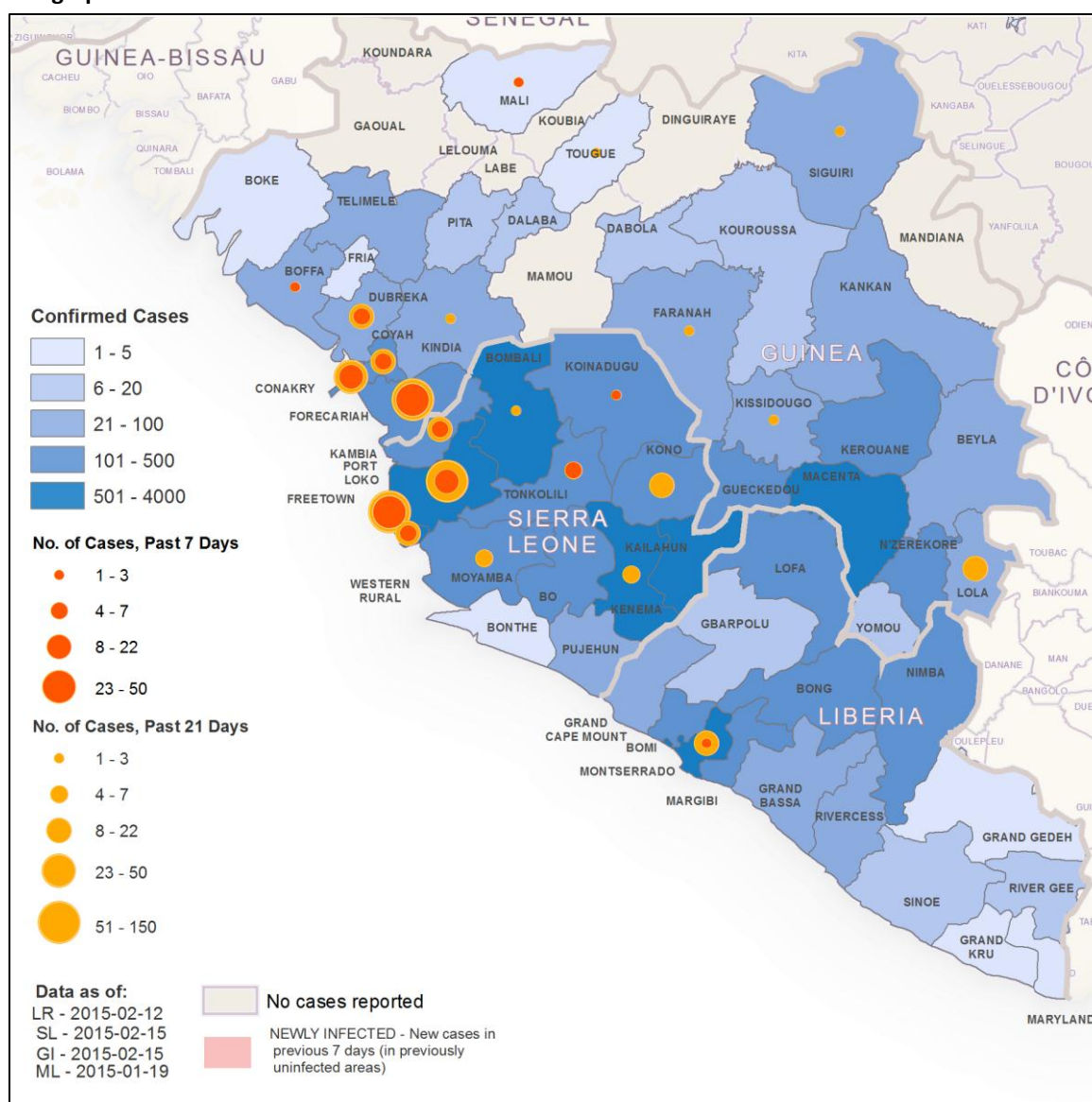


Table 4: Ebola virus disease infections and deaths in health workers in the three countries with intense transmission

Country	Cases	Deaths
Guinea	167	88
Liberia	372	179
Sierra Leone	294	221
Total	833	488

Data are confirmed cases and deaths only, apart from deaths in Sierra Leone, which include confirmed, probable, and suspected deaths.

Figure 4: Geographical distribution of new and total confirmed cases



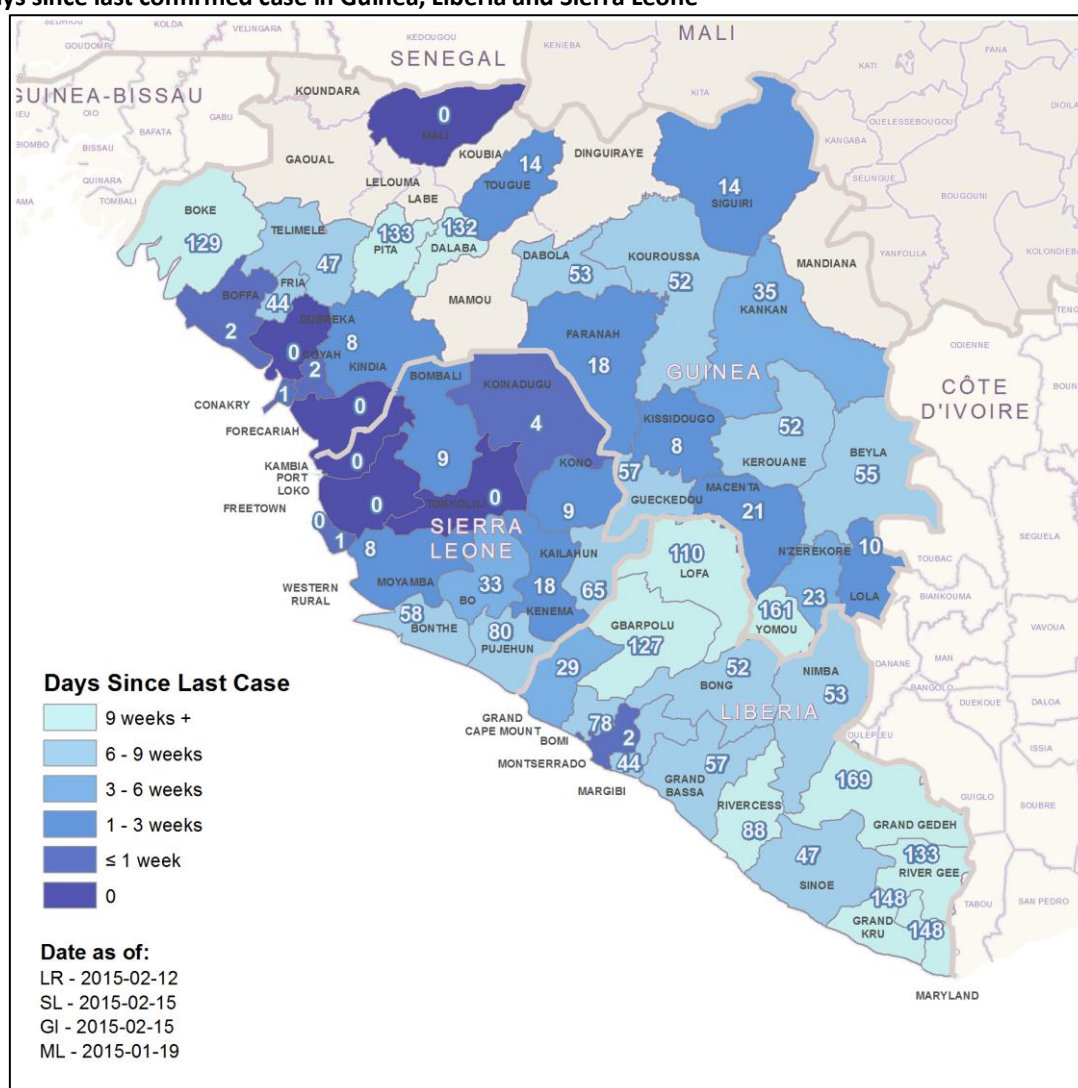
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. Data for Liberia are missing for 13, 14, and 15 February.

SIERRA LEONE

- Key performance indicators for the EVD response in Sierra Leone are shown in table 3.
- After a rapid decline, weekly case incidence has stabilized since the week ending January 25, at between 60 and 80 confirmed cases per week. A total of 74 cases were reported in the week to 15 February, compared with 76 confirmed cases the previous week, and 80 confirmed cases reported in the week to 1 February.

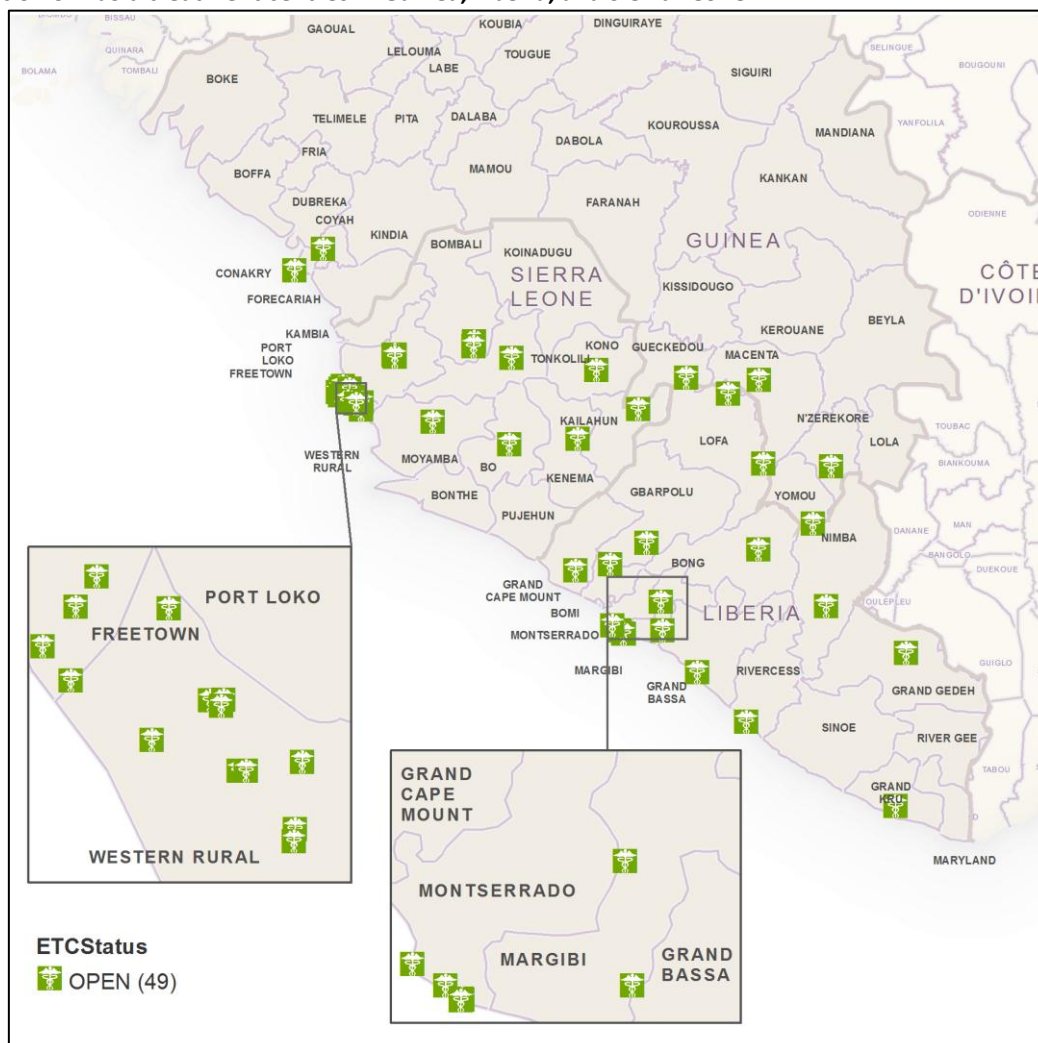
- The capital, Freetown, reported the majority of new confirmed cases (45), with the neighbouring district of Port Loko reporting 11 new confirmed cases; down from 28 in the previous week (figure 3, figure 4). A cluster of cases reported in a highly mobile fishing community in the Aberdeen area of Freetown is likely to lead to further cases. A response team is currently working to trace over 2000 contacts associated with the cluster.
- The western districts of Kambia (6 confirmed cases), Western Rural (7 confirmed cases), the central district of Tonkolili (4 confirmed cases), and the northern district of Koinadugu (1 confirmed case) also reported confirmed cases in the week to 15 February.
- Community engagement remains a challenge in several areas of Sierra Leone. Four of 14 districts reported at least one security incident in the week to 11 February. In addition, 45 unsafe burials were reported in the week to 15 February, 20 of which were in the western urban area that includes the capital, Freetown. Over the same period, a total of 25 confirmed cases were identified after post-mortem testing of dead bodies found in the community.
- Locations of the 24 operational Ebola treatment centres (ETCs) in Sierra Leone are shown in figure 6. A total of 43 of 50 (86%) of assessed health facilities met minimum standards for infection prevention and control. In the week to 10 February 3 new health worker infections were reported.
- There are 13 operational laboratories in Sierra Leone (figure 7). In the 14 days to 14 February, 87% of samples from suspected and probable cases were tested within 1 day of collection. 50% of samples were tested on the same day they were collected.

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



February 15 is counted as day 0 for Guinea and Sierra Leone. February 12 is day 0 for Liberia. Data for Liberia are missing for 13, 14, and 15 February.

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.

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

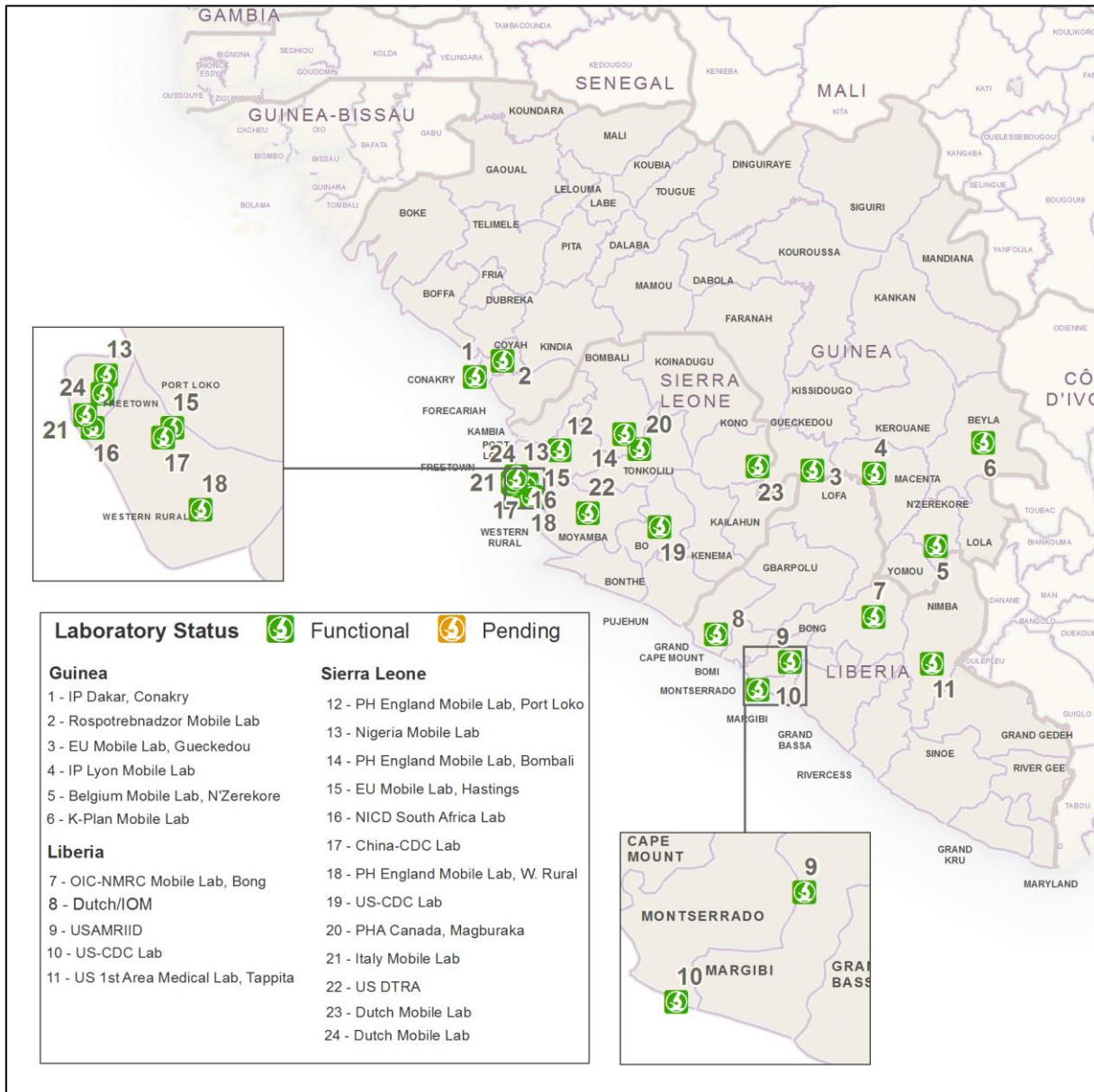
- Six countries (Mali, Nigeria, Senegal, Spain, the United Kingdom and the United States of America) have reported a case or cases imported from a country with widespread and intense transmission.
- In the United Kingdom, public health authorities confirmed a case of EVD in Glasgow, Scotland, on 29 December 2014 (table 5). The case was a health worker who returned from volunteering at an ETC in Sierra Leone. The patient was isolated on 29 December and received treatment in London. On 23 January the patient tested negative twice for EVD, and on 24 January the patient was discharged. All contacts have completed 21-day follow-up.

Table 5: Ebola virus disease cases and deaths in the United Kingdom

Country	Cumulative cases					Contact tracing			
	Confirmed	Probable	Suspect	Deaths	Health workers	Contacts under follow-up	Contacts who have completed 21-day follow-up	Date last patient tested negative	Number of days since last patient tested negative
United Kingdom	1	0	0	0	100%	0	55	23/01/2015	25

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.

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



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 support teams (PSTs), direct technical assistance to countries, and the provision of 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 – 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.

- 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.
- A rapid response assessment team has been deployed to the western border area of Côte d'Ivoire to evaluate levels of preparedness for an imported case of EVD. The neighboring Guinean district of Lola has recently reported a cluster of cases. A technical support team has also been deployed to Côte d'Ivoire, and is focusing on cross-border collaboration with Guinea, response coordination, surveillance, and resource mobilisation. A training plan is being accelerated to strengthen capacity in these areas.
- Follow-up PSTs are planned to all priority countries with a focus on the following:
 - Provision of tailored, targeted technical guidance tools and support to strengthen EVD preparedness capacities; operationalise plans; test and improve procedures through field exercises and drills; and support the implementation of preparedness plans, including logistics support;
 - Foster inter-country collaboration and networking, including cross-border communication, cooperation, and exchanges;
 - Provide leadership and coordinate partners to fully support one national plan and the steering role of national authorities;
 - Coordinate global advocacy and support to EVD preparedness, document and disseminate experiences, lessons learnt and good practices, monitor progress, and evaluate outcomes;
 - Strengthen the implementation of the International Health Regulations, and ensure that the core capacities to manage health emergencies are at the heart of resilient health systems.

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, lab 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: DEFINITIONS OF KEY PERFORMANCE INDICATORS

Indicator	Numerator	Numerator source	Denominator	Denominator Source
Cases and deaths				
Number of confirmed cases	# of confirmed cases	Guinea / Sierra Leone: Daily WHO situation reports Liberia: Ministry of Health Ebola Situation Reports	N/A	N/A
Number of confirmed deaths	# of confirmed deaths	Guinea / Sierra Leone: Daily WHO situation reports Liberia: 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: Ministry of Health	N/A	N/A
Diagnostic Services				
Percent of samples tested within one day of collection	# of samples for which the difference between date of sample testing and date of sample collection is less than or equal to one day*	Laboratory Database	# of samples that have date of test and date of collection recorded*	Laboratory Database
Contact tracing				
Percent of new confirmed cases from registered contacts	# of new confirmed cases registered as a contact (includes probable cases in Guinea)	Guinea: Weekly country situation reports Liberia: Ministry of Health Ebola Situation Reports Sierra Leone: Weekly Ministry of Health Surveillance Report	# of new confirmed cases (includes probable cases in Guinea)	Guinea / Sierra Leone: Daily WHO situation reports Liberia: Ministry of Health Ebola Situation Reports
Isolation				
Time between symptom onset and case isolation (days)	Time between symptom onset and isolation of confirmed or probable 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				
Percent of IPC-assessed ETCs	# of IPC assessed ETCs	IPC Reports	# of operational ETCs	WHO field coordinators
Number of newly infected health workers	# of newly infected health workers	Guinea / Sierra Leone: Daily WHO situation reports Liberia: 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: Weekly WHO situation reports Liberia: WHO Country Office Sierra Leone: Ministry of Health	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

*For samples that do not have a date of testing recorded, the date of receipt at a laboratory is used as a proxy.