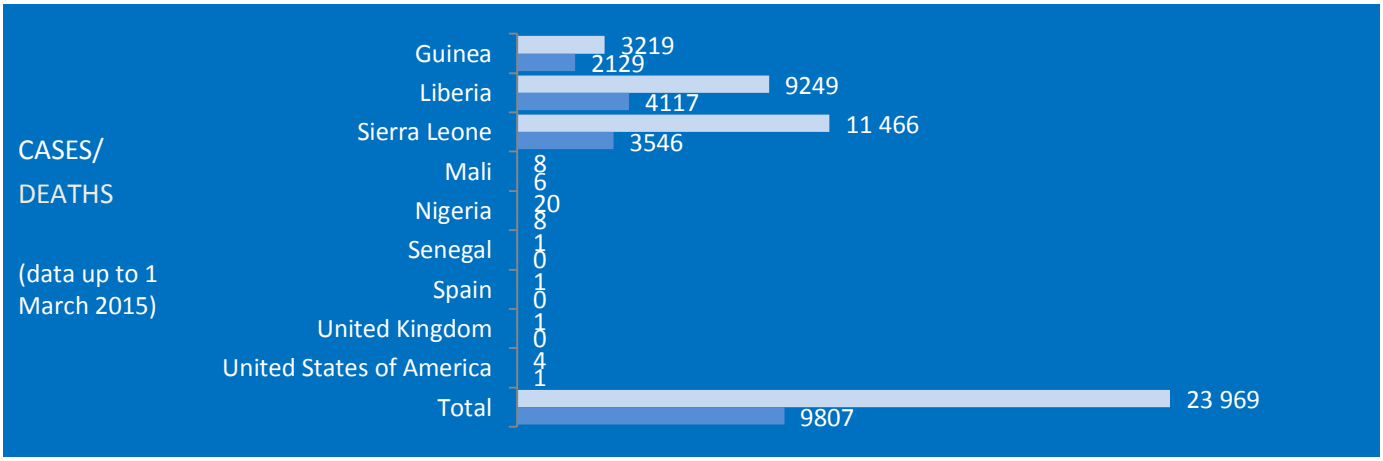
World Health Organization

EBOLA SITUATION REPORT

4 MARCH 2015
CORRIGENDUM AS OF 6 MARCH 2015



SUMMARY

- A total of 132 new confirmed cases of Ebola virus disease (EVD) were reported in the week to 1 March, an increase on the previous week (99 new cases). Liberia reported no new confirmed cases this week, the first time since the week of 26 May 2014. The weekly number of confirmed cases has increased in both Sierra Leone and Guinea. Transmission remains widespread in Sierra Leone, which reported new confirmed cases in 8 districts during the week to 1 March. In Guinea, Forecariah and Conakry reported a marked increase in case numbers compared with the previous week.
- Guinea reported 51 new confirmed cases in the week to 1 March, compared with 35 cases the previous week. Cases continue to arise from unknown sources with only 49% of cases arising from registered contacts. Seven prefectures reported new cases, with the largest number of new confirmed cases reported from 3 neighbouring western prefectures: Conakry (17 cases), Coyah (5 cases), and Forecariah (23 cases). Macenta also reported 2 new confirmed cases, a district that has not reported a confirmed case for 4 weeks. Low levels of transmission continue in the eastern prefecture of Lola (1 new case), bordering Côte d'Ivoire.
- Sierra Leone reported 81 new confirmed cases from 8 districts in the week to 1 March. A previously reported cluster of cases in the Aberdeen fishing community of the capital, Freetown, has seeded outbreaks in other districts, notably Bombali which reported 22 new confirmed cases. There were 26 new confirmed cases in Freetown and 16 new cases in Port Loko over the same period.
- Liberia has reported no new confirmed cases this week. Contacts from the last known chain of transmission, in the St Paul's Bridge district of Monrovia, are being monitored. In the week to 1 March, 277 samples were tested for EVD nationwide, no new test results were positive.
- The number of confirmed EVD deaths occurring in the community in Guinea and Sierra Leone remains high, suggesting that the need for early isolation and treatment is not yet understood, accepted or acted upon. In Guinea in the week to 1 March over half (53%: 17 out of 32) of reported confirmed deaths occurred in the community, an increase from 42% the previous week (9 out of 21). In Sierra Leone, 16% of confirmed EVD deaths occurred in the community in the week to 1 March, compared with 21% the previous week.
- Unsafe burials continue to occur, with 16 reports of unsafe burials in both Guinea and Sierra Leone, respectively, during the weeks to 1 March and to 22 February.
- Laboratories in Guinea, Liberia and Sierra Leone processed 270, 277 and 1531 samples, respectively, in the week to March 1.
- Mindful of the risk of cross border transmission, delegations from Guinea, Mali and Senegal met on 25-26 February 2015 and agreed to strengthen cross-border cooperation in case management (including the sharing of laboratory resources), community-based surveillance, risk communication and information sharing, and screening at border crossings.
- In the week to 1 March, 1 new health worker infection was reported Guinea, bringing the total of health worker infections reported across the three most-affected countries since the start of the outbreak to 839, with 491 deaths.

COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

- There have been over 23 900 reported confirmed, probable, and suspected cases[1] of EVD in Guinea, Liberia and Sierra Leone (table 1), with over 9800 reported deaths (outcomes for many cases are unknown). A total of 51 new confirmed cases were reported in Guinea, 0 in Liberia, and 81 in Sierra Leone in the 7 days to 1 March.
- The total number of confirmed and probable cases is similar in males and females (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 nearly four times more likely to be affected than children.
- A total of 839 confirmed health worker infections have been reported in the 3 intense-transmission countries; there have been 491 reported deaths (table 4).

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	2813	138	1737
	Probable	392	*	392
	Suspected	14	*	‡
	Total	**3219**	**138**	**2129**
Liberia	Confirmed	3150**	6	‡
	Probable	1877	*	‡
	Suspected	4222	*	‡
	Total	**9249**	**6**	**4117**
Sierra Leone	Confirmed	8370	240	3180
	Probable	287	*	208
	Suspected	2809	*	158
	Total	**11 466**	**240**	**3546**
Total	Confirmed	14 333	384	‡
	Probable	2556	*	‡
	Suspected	7045	*	‡
	Total	**23 934**	**384**	**9792**

*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. ** Decrease in cumulative cases due to retrospective data cleaning.*

GUINEA

- Key performance indicators for the EVD response in Guinea are shown in table 3.
- A total of 51 confirmed cases were reported in the 7 days to 1 March (figure 1), compared with 35 cases the week before.
- Seven prefectures reported new confirmed cases, most of which are concentrated in the west of the country, with the majority reported from Conakry (17 cases), Coyah (5 cases), and Forecariah (23 cases). The neighbouring prefectures of Dubreka (2 cases) and Boffa (1 case) also reported new confirmed cases during the reporting period (figure 1).
- Macenta, which had not reported a confirmed case for 4 weeks, reported 2 new confirmed cases. The eastern prefecture Lola, which borders Côte d'Ivoire, reported 1 new confirmed case. Cross-border surveillance has been strengthened.

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

- At least one security incident was reported in 4 of 34 prefectures in the week to 1 March.
- Difficulty engaging with communities can make identifying contacts and tracing chains of transmission more challenging. As a result, some cases are only identified after post-mortem testing. Over half (16 out of 30) of the confirmed deaths from EVD in the week to 1 March occurred in the community. Over the same period, 12 unsafe burials were reported, compared with 19 the previous week.
- Locations of 7 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). At present, 3 of 6 ETCs are occupied by patients with EVD. One new health worker infection and 1 new health worker deaths was reported in the week to 1 March in Forecariah and Boffa, respectively.
- The case fatality rate (CFR) among people hospitalized with confirmed EVD for whom a definitive outcome was reported was 55%, 57% and 66% for November, December and January, respectively. On average, it took 3.3 days between the onset of EVD symptoms and isolation and treatment of a confirmed, probable or suspected case during January.
- During the month of February, 98% of samples from suspected and probable cases were tested within 1 day of collection; 80% were tested on the same day as collection. 270 samples were tested for EVD in the week to 1 March, 114 of which were swabs from deceased individuals. Locations of the 7 operational laboratories in Guinea are shown in figure 7.

LIBERIA

- Key performance indicators for the EVD response in Liberia are shown in table 3.
- No new confirmed cases have been reported in the week to 1 March, the first week with no new confirmed cases reported since the week of 26 May 2014.
- Montserrado and Margibi are the only counties to have reported a confirmed case within the past 45 days (figure 5).
- Locations of the 19 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. No new health worker infections were reported in Liberia in the week to 1 March.
- 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 2.8 days between the onset of EVD symptoms and isolation and treatment of a confirmed, probable or suspected case during November.
- During the month of February, 85% of samples from suspected and probable cases were tested within 1 day of collection compared with 95% during January. 40% of samples were tested on the same day as collection. During the week to 1 March, 277 samples were tested by the 5 operational laboratories in Liberia shown in figure 7.

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* (per 100 000 population)		By age group‡ (per 100 000 population)		
	Male	Female	0-14 years	15-44 years	45+ years
Guinea	1532 (28)	1637 (30)	495 (11)	1776 (38)	878 (56)
Liberia	2871 (144)	2828 (144)	964 (56)	3077 (180)	1180 (221)
Sierra Leone	5289 (185)	5614 (194)	2262 (93)	6069 (234)	2369 (321)

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

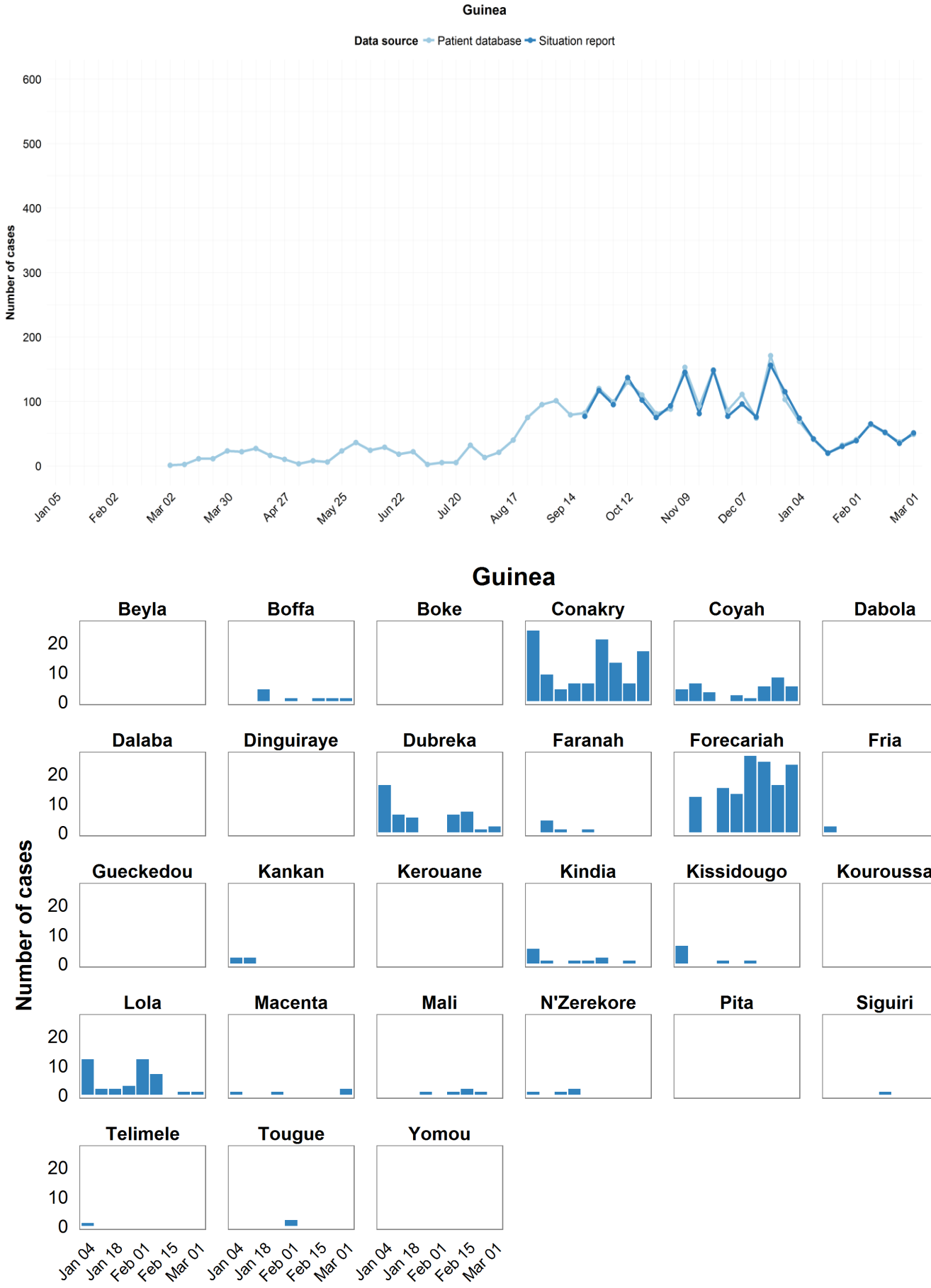
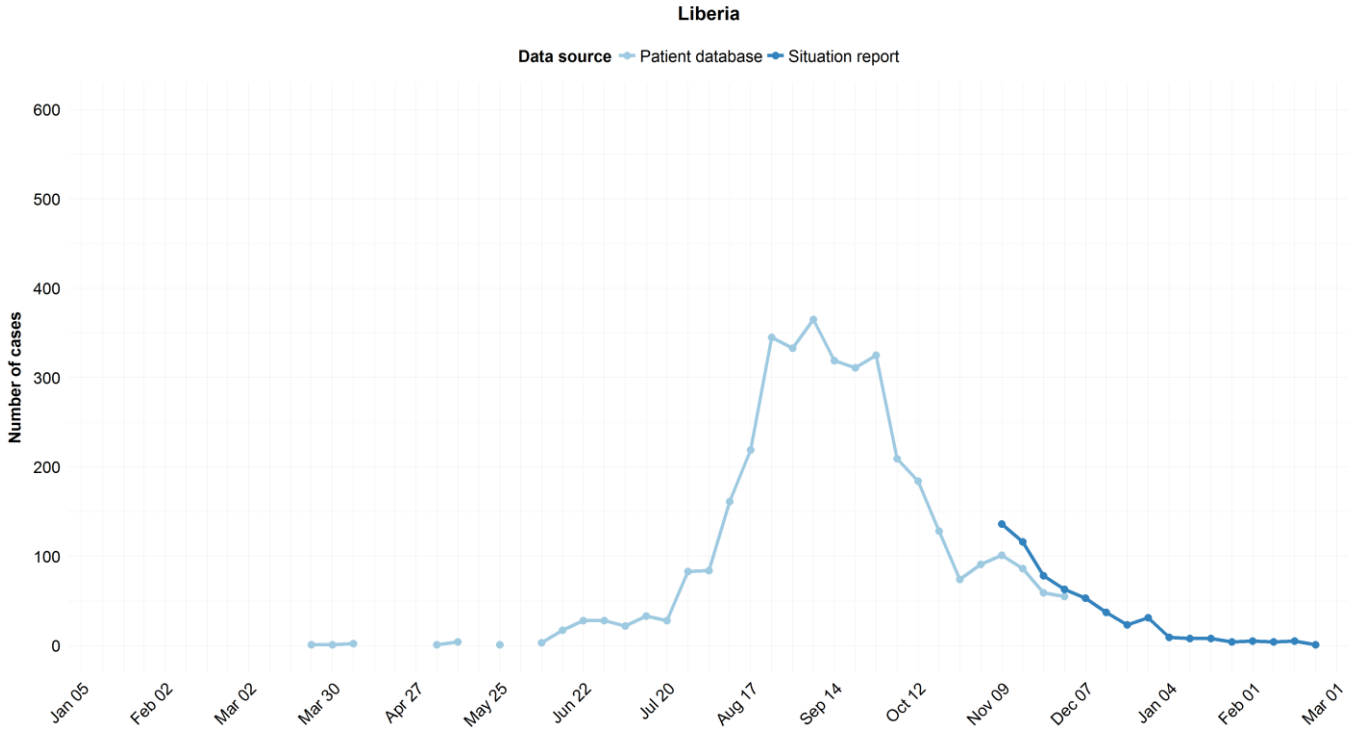
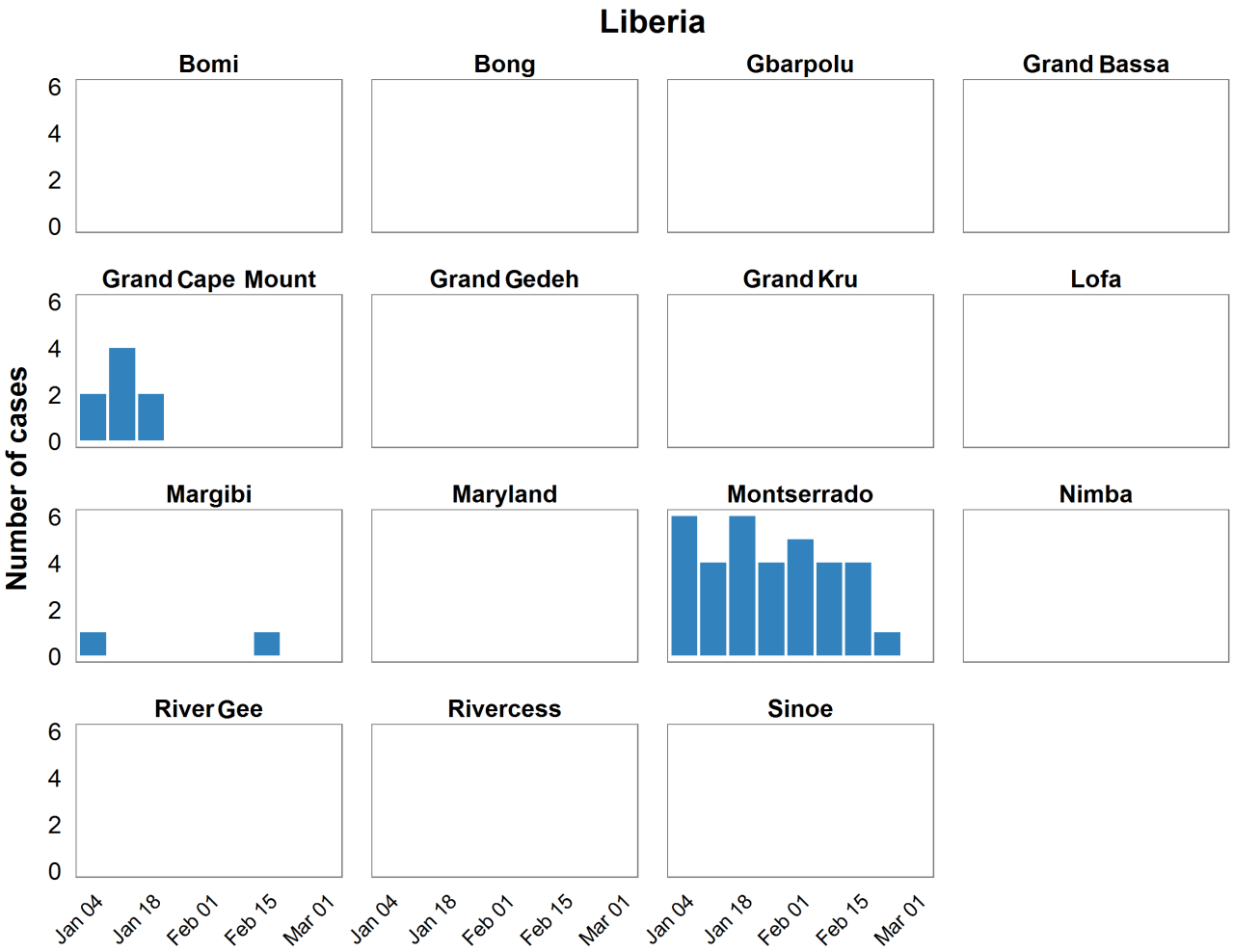


Figure 2: Confirmed weekly Ebola virus disease cases reported nationally and by district from Liberia





Systematic data on laboratory confirmed cases have been available since 3 November nationally, and since 16 November for each district.

Table 3: Key performance indicators across the 4 lines of action for Phase 2 of the Ebola Response

CASE FINDING

Indicator	Target	Guinea			Liberia			Sierra Leone		
Cases and deaths		15 Feb	22 Feb	1 Mar	15 Feb	22 Feb	1 Mar	15 Feb	22 Feb	1 Mar
Number of confirmed cases	Zero	52	35	51	5	1	0	96	63	81
Number of confirmed deaths	Zero	40	21	32	0	3	0	68	52	85
Number of confirmed deaths that occurred in the community	Zero	16	9	17	0	0	0	25	11	14
Diagnostic services		Dec	Jan	Feb	Dec	Jan	Feb	Dec	Jan	Feb
Percent of samples tested within one day of collection	100%	(n=738) 96%	(n=540) 96%	(n=801) 98%	(n=884) 96%	(n=505) 95%	(n=177) 85%	(n=6366) 84%	(n=8649) 83%	(n=4905) 88%
		15 Feb	22 Feb	1 Mar	15 Feb	22 Feb	1 Mar	15 Feb	22 Feb	1 Mar
Number of samples tested and the percent of positive EVD results*		177 (32%)	180 (23%)	270 (29%)	350§ (3%)	340§ (2%)	277§ (0%)	1087 (8%)	1518 (6%)	1531 (6%)
Contact tracing		8 Feb	15 Feb	22 Feb	15 Feb	22 Feb	1 Mar	8 Feb	15 Feb	22 Feb
Percent of new confirmed cases from registered contacts#	100%	(7/70) 10%	(17/53) 32%	(17/35) 49%	(5/5) 100%	(1/1) 100%	(0/0)	(29/81) 36%	(18/96) 19%	(49/63) 78%

*Data are given for complete months unless otherwise specified. *These numbers are subject to change due to ongoing reclassification, retrospective investigation and the availability of laboratory results. Note that positive EVD results include both initial and repeat sample test results. §Laboratory data has been retrospectively corrected (6 March 2015). #Data from Guinea includes new confirmed and probable cases from registered contacts.*

SAFE AND DIGNIFIED BURIALS

Indicator	Target	Guinea			Liberia			Sierra Leone		
		15 Feb	22 Feb	1 Mar	15 Feb	22 Feb	1 Mar	8 Feb	15 Feb	22 Feb
Number of unsafe burials reported	Zero	39	19	16	6	0	0	41	45	16

CASE MANAGEMENT

Indicator	Target	Guinea			Liberia			Sierra Leone		
Isolation		Nov	Dec	Jan	Sept	Oct	Nov	Oct	Nov	Dec
Time between symptom onset and case isolation‡	<2 days	3.5	3.1	3.3	4.1	3.6	2.8	3.5	3.7	2.9
Outcome of treatment		Nov	Dec	Jan	Oct	Nov	Dec	Oct	Nov	Dec
Case fatality rate (among hospitalized cases)##	<40%	55%	57%	66%	53%	52%	50%	62%	62%	66%
IPC and Safety		Jan			Feb			Jan		
Percent of IPC-assessed ETCs that met minimum IPC standards§	100%	(2/2) 100%			(12/12) 100%			(14/18) 78%		
		15 Feb	22 Feb	1 Mar	15 Feb	22 Feb	1 Mar	15 Feb	22 Feb	1 Mar
Number of newly infected health workers**	Zero	0	2	1	1	0	0	1	1	0

*For definitions of key performance indicators see Annex 2. ‡Isolation for confirmed, probable and suspected cases is not recorded for 4-8% of cases in Guinea, 62-65% in Liberia and 50-61% in Sierra Leone. ##No final outcome is recorded in 3-19% of confirmed and probable cases in Guinea, 2-41% in Liberia, and 68-76% in Sierra Leone. §IPC assessment results are available periodically. This data reflects IPC assessments of ETCs and not Community Care Centres (CCCs) or other Ebola facilities. **Does not include foreign medical teams.*

COMMUNITY ENGAGEMENT

Indicator	Target	Guinea			Liberia			Sierra Leone		
		15 Feb	22 Feb	1 Mar	15 Feb	18 Feb†	25 Feb†	15 Feb	18 Feb†	25 Feb†
Number of districts with at least one security incident or other form of refusal to cooperate	Zero	13	10	4	2	6	1	2	4	4

For definitions of key performance indicators see Annex 2. †Please note the different time period used.

SIERRA LEONE

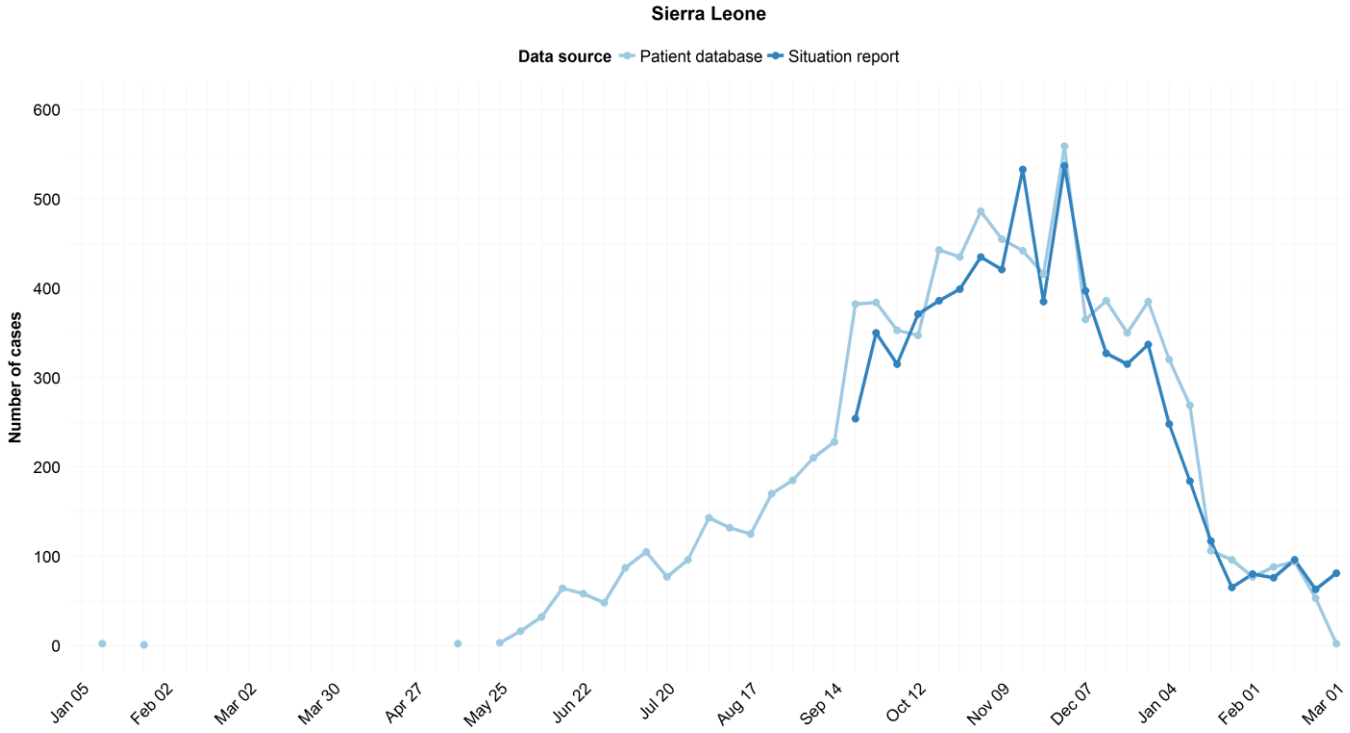
- Key performance indicators for the EVD response in Sierra Leone are shown in table 3.
- After a rapid decline, weekly case incidence has stabilized since the week ending 25 January, at between 60 and 100 confirmed cases per week. A total of 81 confirmed cases were reported in the week to 1 March, a rise on the previous week (to 22 February), but slightly less than the 96 confirmed cases reported in the week to 15 February.
- Both Freetown and Western Rural district reported a rise in new confirmed cases compared to the previous week: Freetown reported 26 cases compared with 14 the previous week, and Western Rural reported 8 cases compared with 3 the previous week. The increase in reported confirmed cases in the northern district of Bombali has continued with 22 confirmed cases reported in the week to 1 March. The neighbouring districts of Kambia (6 confirmed cases) and Port Loko (16 confirmed cases) also report persistent transmission. The outbreak in Bombali is reportedly linked to the cluster of cases in the fishing community in the Aberdeen area of Freetown. A response team continues to trace and monitor over 2000 contacts associated with the Aberdeen cluster.
- Although most cases are reported from western districts, transmission is also reported in several other regions of the country, including Koinadugu, Kono, and Tonkolili, which each reported 1 confirmed case in the week to 1 March.
- Community engagement remains a challenge in several areas of Sierra Leone. A total of 16 unsafe burials were reported in the week to 25 February. In the week to 1 March, a total of 14 confirmed cases were identified after post-mortem testing of dead bodies found in the community. Four incidents of community resistance were reported in the week to 25 February.
- Locations of the 22 operational Ebola treatment centres (ETCs) in Sierra Leone are shown in figure 6. Two ETCs closed during the past week, one in Kailahun and the other in Freetown. No health worker infections were reported in the week to 1 March.
- There are 13 operational laboratories in Sierra Leone (figure 7). In the month of February, 88% 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. 1531 samples were tested for EVD in the week to 1 March, 953 of which were collected post mortem. This large number of samples indicates a high level of surveillance.

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

Country	Cases	Deaths
Guinea	172	90
Liberia	372	180
Sierra Leone	295	221
Total	**839**	**491**

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

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



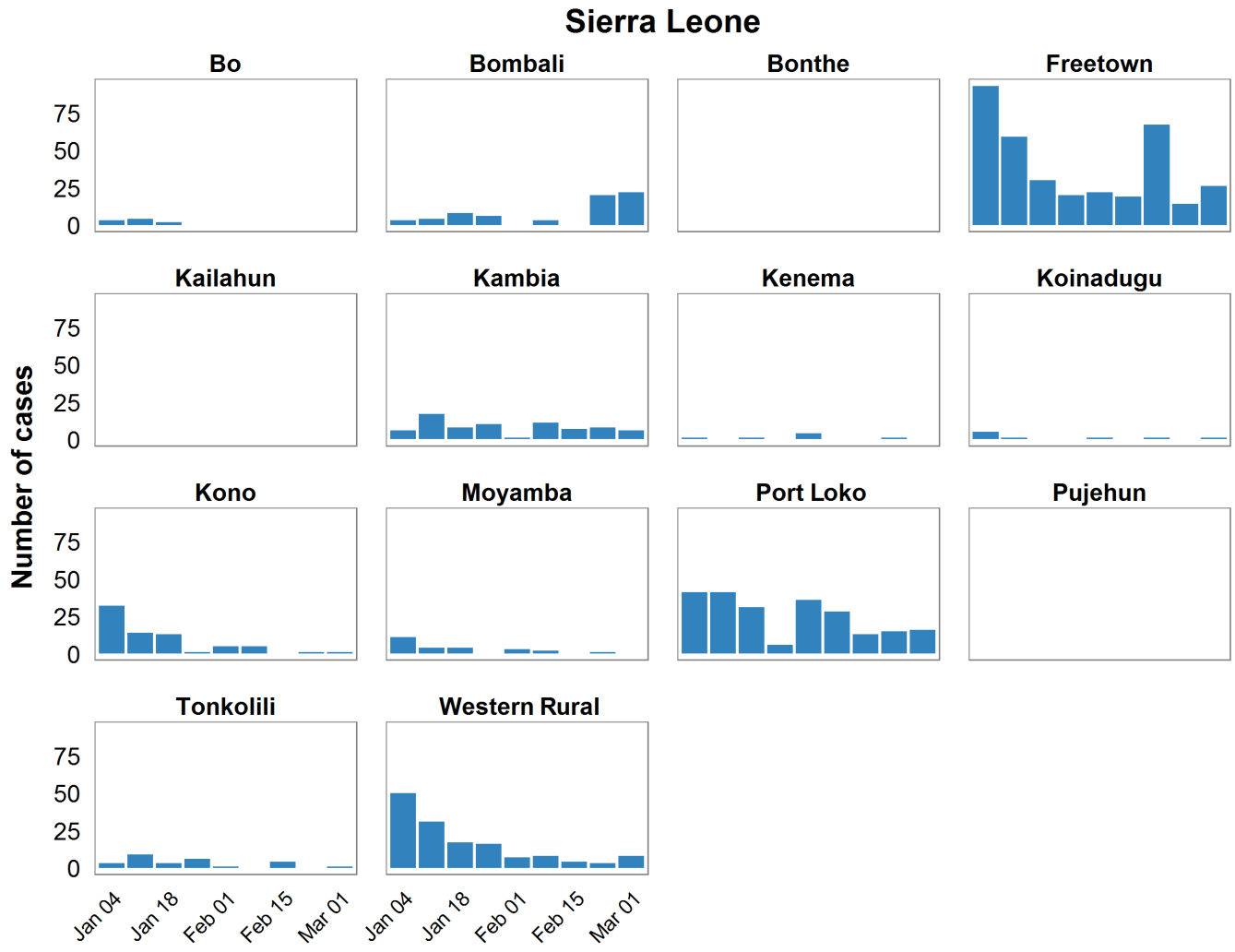
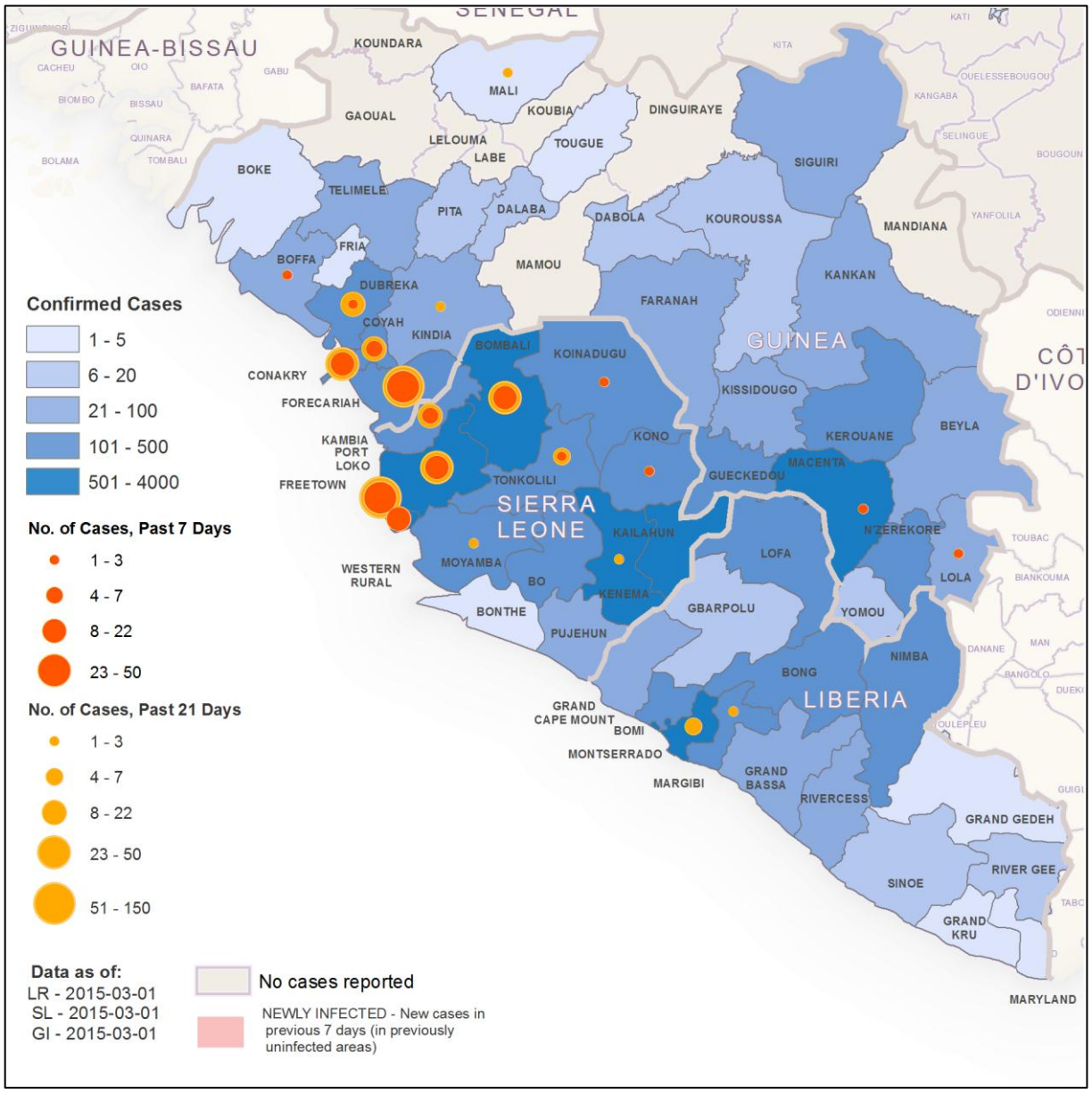
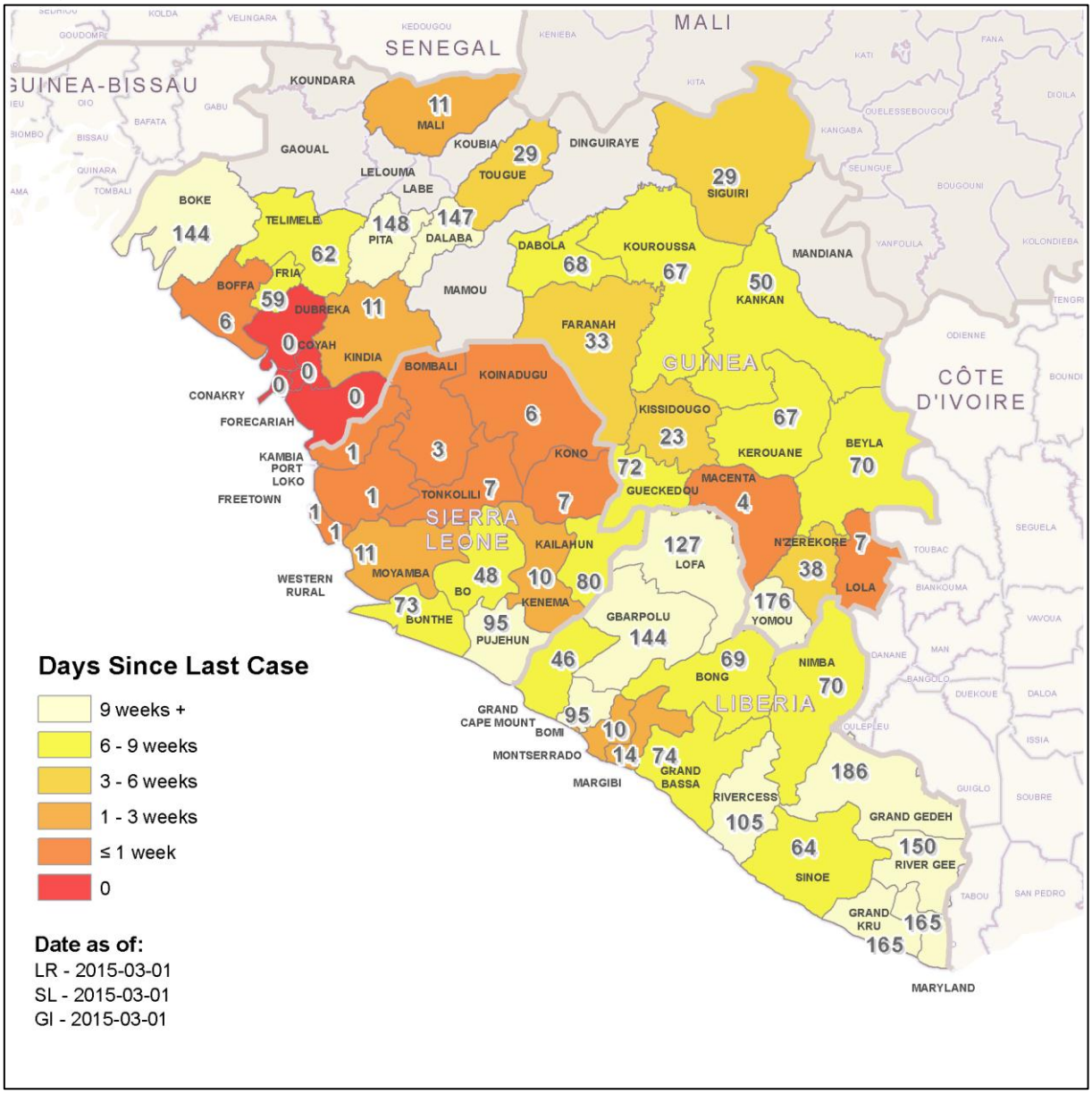


Figure 4: Geographical distribution of new and total confirmed cases



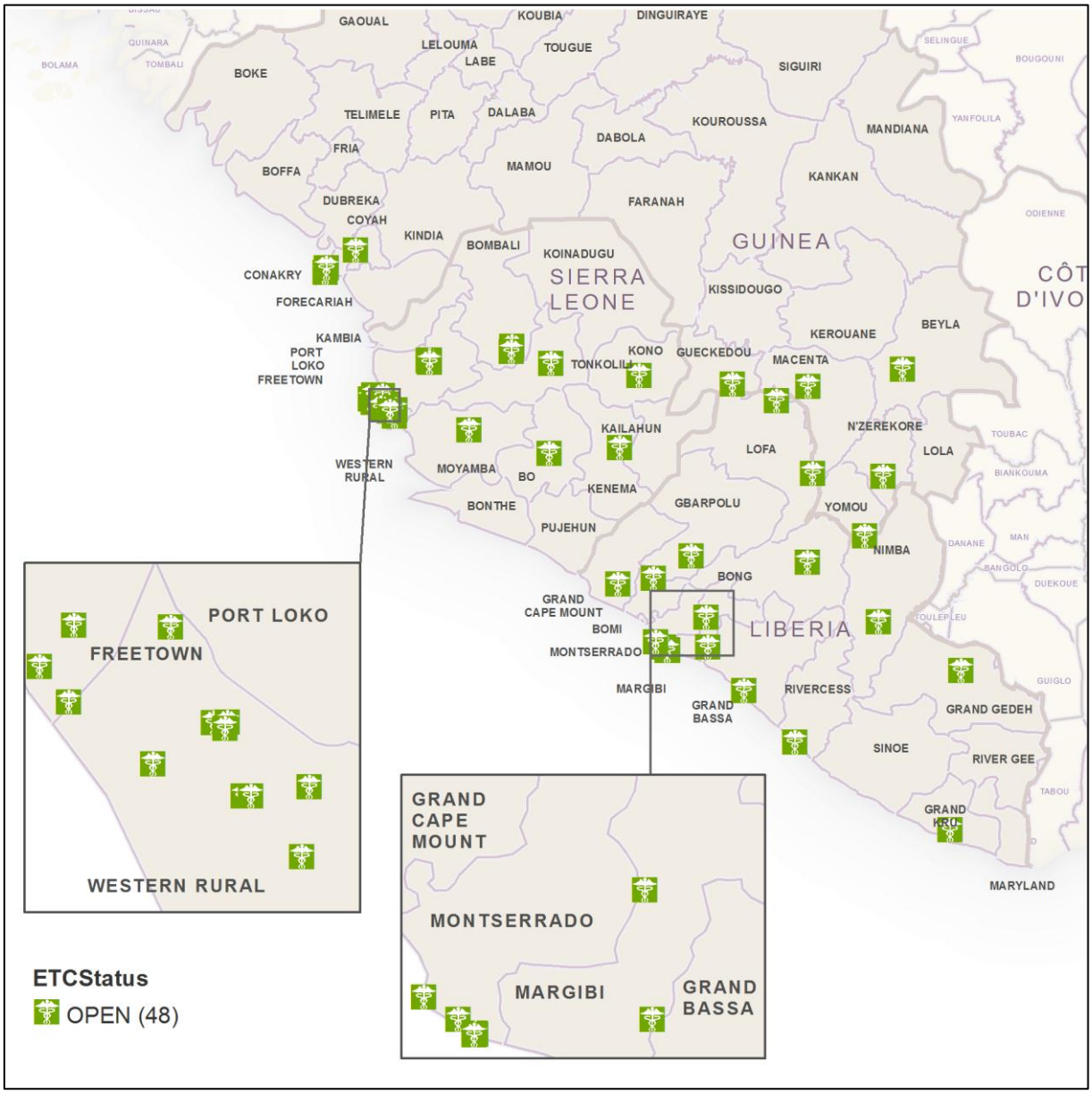
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers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

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



1 March is counted as day 0.

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

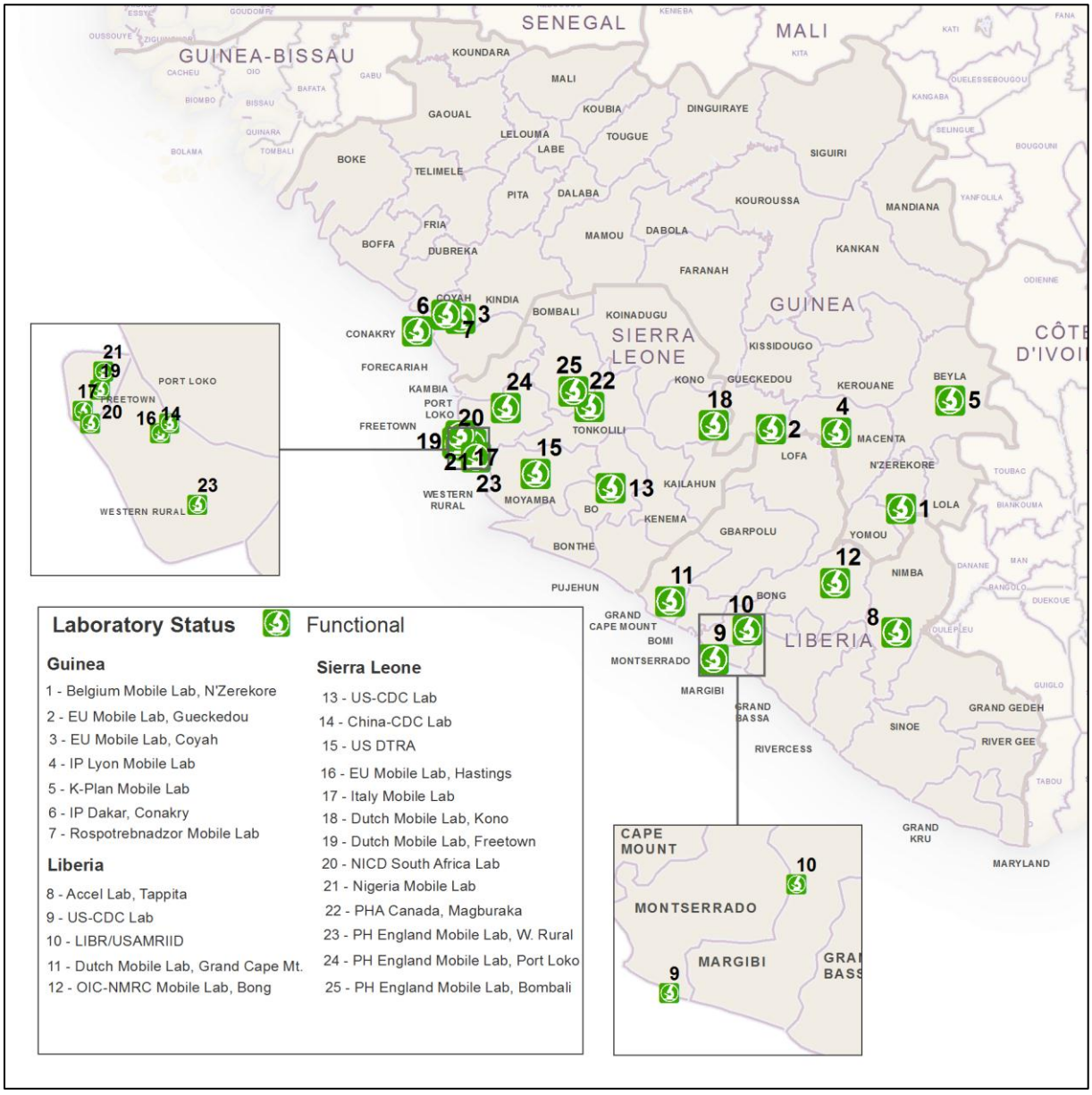
- Six countries (Mali, Nigeria, Senegal, Spain, the United Kingdom and the United States of America) have reported a case or cases imported from a country with widespread and intense transmission.
- In the United Kingdom, public health authorities confirmed a case of EVD in Glasgow, Scotland, on 29 December 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	39

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 strengthening 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.
- Follow-up visits to support priority needs in EVD Preparedness have now completed their 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 high level meeting held in Labe, Guinea, attended by delegations from Guinea, Mali and Senegal on 25-26 February 2014 issued a final communiqué strengthening cooperation between the three countries in case management (including the sharing of laboratory resources), community-based surveillance, risk communication and information sharing, and screening at border crossings. The meeting also established a 12 month calendar of activities to maintain collaboration at the operational and policy levels.
- During the week to 1 March, five cross-border meetings took place, including a coordination meeting in Kambia/Forécariah. This meeting was held on both sides of the border to facilitate communication, to share best practices, and to align strategies.
- A country visit to Mauritania is currently underway (25 February to 4 March) where support is being provided in the areas of community engagement and social mobilisation, case management, logistics, and points of entry.
- Follow-up PST support is planned for all priority countries with a focus on the following:
    - Provision of tailored, targeted technical guidance tools and support to strengthen EVD preparedness capacities; operationalize 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 PHASE 2 KEY PERFORMANCE INDICATORS

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: 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: 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
Number of samples tested and percentage with positive EVD results	# of samples tested # of samples tested with a positive EVD result	Laboratory database	N/A # of samples tested	Laboratory database
Contact tracing				
Percent of new confirmed cases from registered contacts	# of new confirmed cases registered as a contact	Guinea: Weekly WHO situation reports Liberia: 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: Ministry of Health Ebola situation Reports
Isolation				
Time between symptom onset and case isolation (days)	Time between symptom onset and isolation of confirmed, probable or suspected case (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 that met minimum IPC standards	# of IPC-assessed ETCs that met minimum IPC standards**	IPC Reports	# of IPC-assessed ETCs	IPC Reports
Number of newly infected health workers	# of newly infected health workers	Guinea: Daily WHO situation reports Liberia/Sierra Leone: 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	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. **A facility meets minimum standards when the average score for a selected list of IPC criteria is ≥ 80%.*