

SUMMARY

- Case incidence continues to fall in Guinea, Liberia, and Sierra Leone, with a halving time of 1.4 weeks in Guinea, 2.0 weeks Liberia, and 2.7 weeks in Sierra Leone. A combined total of 145 confirmed cases were reported from the 3 countries in the week to 18 January: 20 in Guinea, 8 in Liberia, and 117 in Sierra Leone.
- Mali has been declared free of Ebola virus disease (EVD) after completing 42 days since the last case tested negative for EVD.
- Surveillance and information sharing will be increased in the border districts of Guinea-Bissau, Côte d’Ivoire, Mali and Senegal adjacent to the 3 intense-transmission countries.
- Each of the intense-transmission countries has sufficient capacity to isolate and treat patients, with more than 2 treatment beds per reported confirmed, probable and suspected case. The planned numbers of beds in each country has now been reduced in accordance with falling case incidence.
- Similarly, each country has sufficient capacity to bury all people known to have died from EVD.
- Guinea, Liberia and Sierra Leone report that between 89% and 99% of registered contacts are monitored each day, though the number of contacts traced per EVD case remains lower than expected in many districts. In the week to 11 January, 53% of new confirmed cases in Guinea arose from known contacts; in the period between 1 January and 15 January, 53% of new confirmed cases in Liberia arose from known contacts. Equivalent data are not yet available for Sierra Leone.
- There are currently 27 laboratories providing case-confirmation services in the 3 intense-transmission countries. Five more laboratories are planned in order to meet demand. The mean time between sample collection to sample testing in the 21 days to 18 January was 1.37 days in Guinea, 2.03 days in Liberia, and 2.32 days in Sierra Leone, although several districts in Guinea have yet to report data.
- Case fatality among hospitalized patients (calculated from all hospitalized patients with a reported definitive outcome) is between 57% and 59% in the 3 intense-transmission countries, with no detectable improvement since the onset of the epidemic.
- A total of 828 health worker infections have been reported in the 3 intense-transmission countries; there have been 499 reported deaths. The incidence of health worker infections has fallen in Liberia and Sierra Leone, but rose in Guinea throughout December.
- As an indication of community engagement, 71% of districts in Guinea and 100% of districts in Sierra Leone have a list of key religious leaders who promote safe and dignified burials. No data are available for Liberia. Incidents of community resistance to safe burials and contact tracing continue to be reported in all 3 countries, although they are most common in Guinea.

COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

- There have been in excess of 21 000 reported confirmed, probable, and suspected cases (Annex 1) of EVD in Guinea, Liberia and Sierra Leone (table 1), with more than 8600 deaths (outcomes for many cases are unknown). A total of 20 new confirmed cases were reported in Guinea, 8 in Liberia, and 117 in Sierra Leone in the 7 days to 18 January.
- 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 almost four times more likely to be affected than are children.
- A total of 828 health worker infections have been reported in the 3 intense-transmission countries; there have been 499 reported deaths (table 3).

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	2539	136	1557
	Probable	319	*	319
	Suspected	13	*	‡
	Total	2871	136	1876
Liberia	Confirmed	3135	25	‡
	Probable	1854	*	‡
	Suspected	3489	*	‡
	Total	8478	25	3605
Sierra Leone	Confirmed	7903	549	2779
	Probable	287	*	208
	Suspected	2150	*	158
	Total	10 340	549	3145
Total		21 689	710	8626

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.

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	1341 (25)	1438 (26)	443 (10)	1572 (34)	742 (47)
Liberia	2538 (128)	2444 (124)	831 (48)	2653 (155)	1015 (190)
Sierra Leone	4879 (171)	5150 (178)	2243 (93)	5634 (218)	2331 (315)

Population figures are based on estimates from the United Nations Department of Economic and Social Affairs.¹ *Excludes cases for which data on sex are not available. ‡Excludes cases for which data on age are not available.

¹ United Nations Department of Economic and Social Affairs: <http://esa.un.org/unpd/wpp/Excel-Data/population.htm>

Table 3: Ebola virus disease infections in health workers in the three countries with intense transmission


Country	Cases	Deaths
Guinea	162	100
Liberia	370	178
Sierra Leone	296	221
Total	828	499

Data for Guinea represent confirmed cases only, and confirmed and probable deaths. Data for Liberia represent confirmed cases and deaths only. Data from Sierra Leone represent confirmed, probable, and suspected cases and deaths.

GUINEA

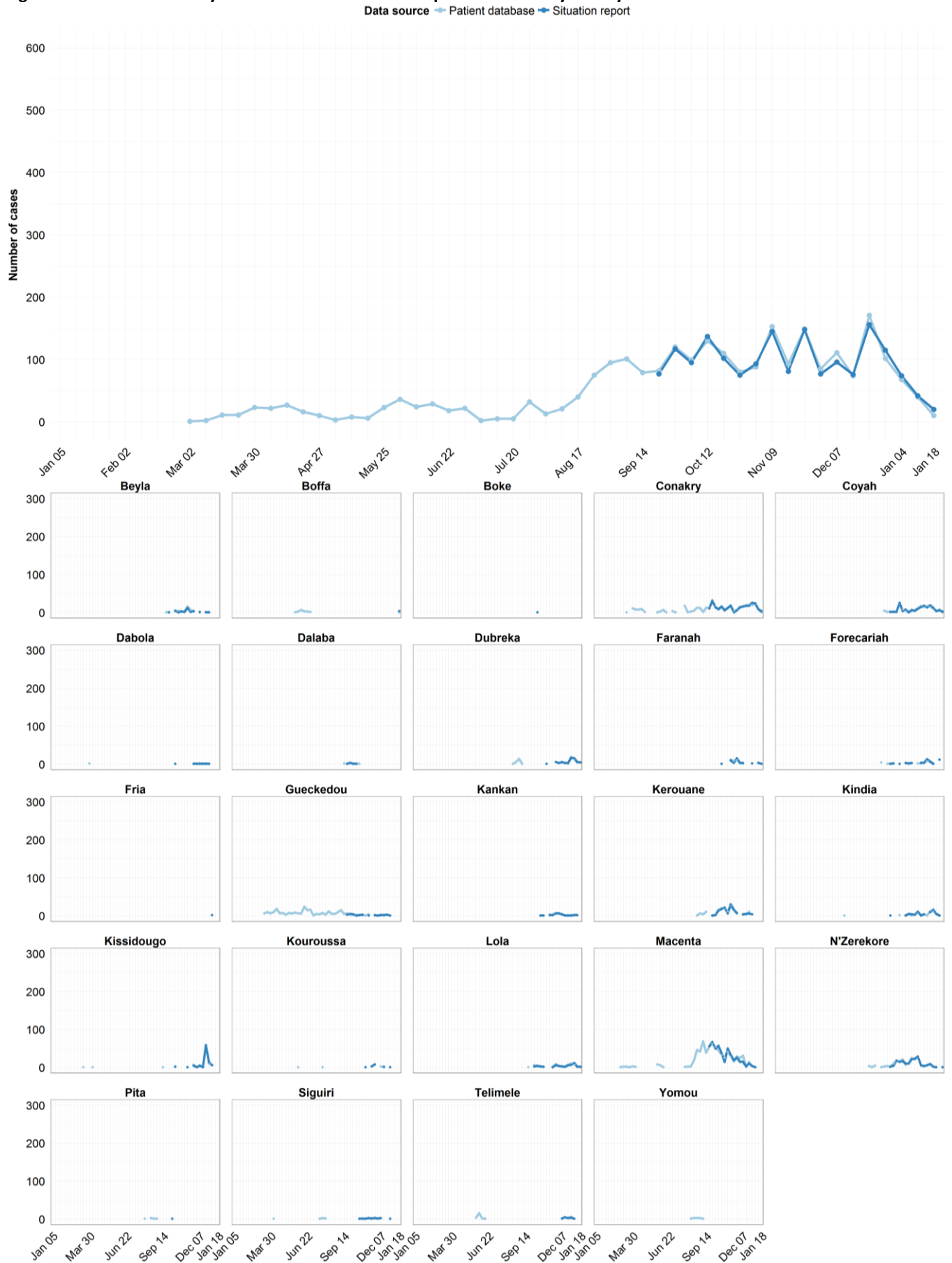
- Key performance indicators that monitor EVD response in Guinea are shown in table 4.
- A total of 20 confirmed cases were reported in the 7 days to 18 January 2015 (figure 1), compared with 45 the week before. Case incidence declined for the third week in a row to the lowest level nationally since the week ending 3 August 2014. Eight districts reported a confirmed or probable case in the reporting period (figure 2).
- Dubreka, with 5 confirmed cases, was the worst-affected district, followed by Conakry and Boffa, each with 4 confirmed cases (figure 1). Boffa had not previously reported a case since 27 June 2014. 10 districts that have previously reported Ebola cases, including the origin of the epidemic, Gueckedou, did not report any confirmed cases in the 21 days to 18 January (figure 1 and figure 2).
- In the 21 days to 18 January, there were 6.9 available beds per reported confirmed and probable EVD case, falling to 4.9 beds if suspected cases are included. Locations of Ebola Treatment Centres are shown in figure 5.
- The mean laboratory processing time for Guinea in the 21 days to January 18 was 1.37 days (range 1.00–1.93 days; processing time is calculated by subtracting the date a sample is collected from the date a sample is tested). Processing time data is currently only available for 3 districts. Laboratory locations are shown in Figure 6.
- A mean of 16 contacts (range 4–27) were registered per confirmed case in the 21 days to 18 January.

Table 4. Key performance indicators for the Ebola response in Guinea

Indicator	Source dates	Current status	% of planned / target
% of districts with laboratory services accessible within 24h	As of 19/01/15		100%
% of ETC beds operational	As 15/01/15	67% (330 beds)	490 beds
% of CCC/CTComs beds operational	As of 08/01/15	1 operational CTCom (Siguri – 8 beds) with 62 planned	
Capacity to isolate	29/12/14 – 18/01/15	Average: 6.9 beds per reported case (probable and confirmed) Median: 0 Range: 0 – 150	
Case fatality rate (%) among hospitalized patients	Cumulative (to 18/01/15)	57%	
% of burial teams trained and in place	As of 07/01/15	98% (61 teams)	62 teams
% of registered contacts to be traced who were reached daily	12/01/15 – 18/01/15	89%	
# of newly infected national health workers	12/01/15 – 18/01/15	 (1 – Boffa, 1 – Dubreka)	
% of districts with a list of identified key religious leaders or community groups who promote safe and dignified burials	As of 05/01/15	71%	

Numerators and denominators for each indicator are shown in Annex 2. WHO is the lead agency for case management and case finding (laboratory confirmation and contact tracing). Information is also provided on social mobilization and the capacity to conduct safe burials (Annex 3). CCC=community care centre. CTCom = community transit centre. ETC=Ebola treatment centre.

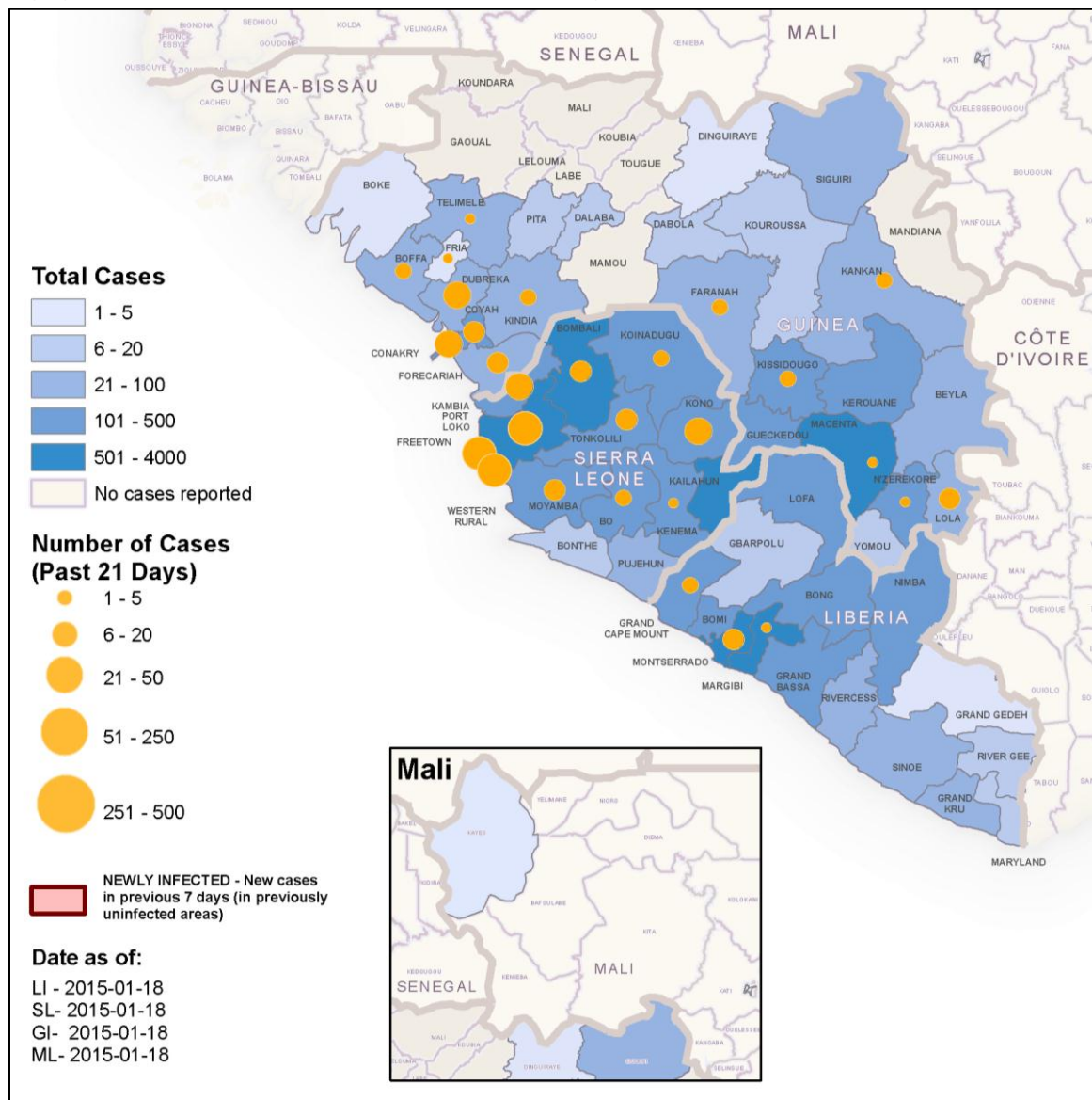
Figure 1: Confirmed weekly Ebola virus disease cases reported nationally and by district from Guinea



LIBERIA

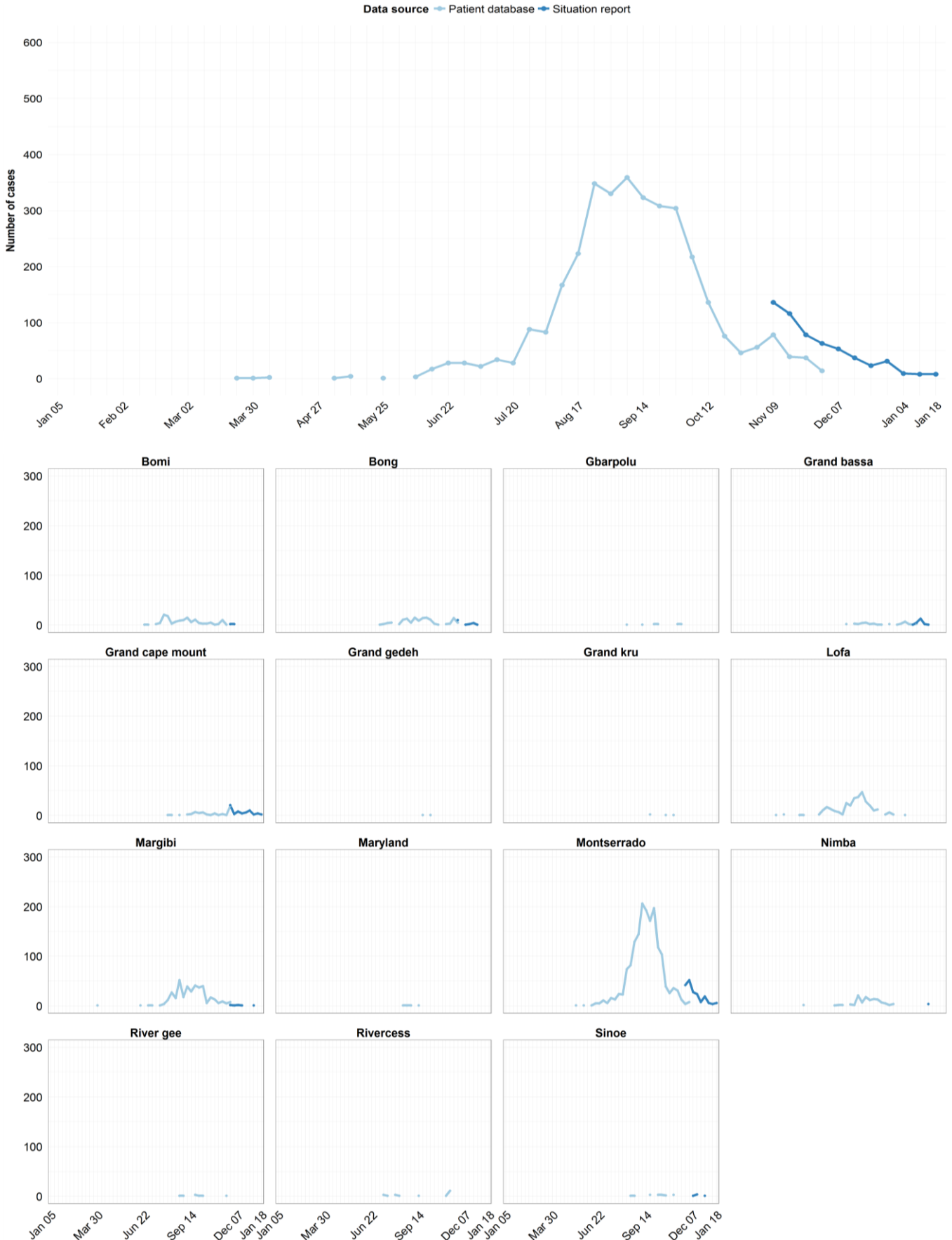
- Key performance indicators that monitor the EVD response in Liberia are shown in table 5.
- Case incidence has declined from a peak of over 300 new confirmed cases per week in August and September 2014 to 8 confirmed cases in the 7 days to 18 January 2015 (figure 3); compared with 8 cases the previous week.
- In the 7 days to 18 January, 6 confirmed and 11 probable cases were reported in Montserrado, with 2 confirmed cases in Grand Cape Mount (figure 2 and figure 3); these were the only 2 districts to report cases.
- In the 21 days to 18 January, there were 18.4 available beds per reported confirmed and probable EVD case, falling to 4 beds if suspected cases are included. Locations of Ebola Treatment Centres are shown in figure 5.
- The mean laboratory processing time for Liberia in the 21 days to January 18 was 2.03 days (range 1.0–4.0 days; processing time is calculated by subtracting the date a sample is collected from the date a sample is tested). Laboratory locations are shown in Figure 6.
- A mean of 83 contacts (range 40–165) were registered per confirmed case in the 21 days to 18 January, compared with 39 in the previous 21 days.

Figure 2: Geographical distribution of new and total confirmed and probable* 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 the past 21 days represent confirmed cases.

Figure 3: 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 5. Key performance indicators for the Ebola response in Liberia

Indicator	Source dates	Current status	% of planned / target
% of districts with laboratory services accessible within 24h	As of 19/01/15	100%	100%
% of ETC beds operational	As of 18/01/15	100% (540 beds)	540 beds
% of CCC beds operational	As of 02/01/15	100% (103 beds)	103 beds
Capacity to isolate	29/12/14 – 18/01/15	Average: 18.4 beds per reported case (probable and confirmed) Median: 16.7 Range: 0 – 333	
Case fatality rate (%) among hospitalized patients	Cumulative (to 18/01/15)	58%	
% of burial teams trained and in place	As of 07/01/15	69% (69 teams)	100 teams
% of registered contacts to be traced who were reached daily	12/01/15 – 18/01/15	98%	
# of newly infected national health workers	12/01/15 – 18/01/15	(0)	
% of districts with a list of identified key religious leaders or community groups who promote safe and dignified burials	As of 05/01/15	Data not yet available	

Numerators and denominators for each indicator are shown in Annex 2. WHO is the lead agency for case management and case finding (laboratory confirmation and contact tracing). Information is also provided on social mobilization and the capacity to conduct safe burials (Annex 3). CCC=community care centre. CTCCom = community transit centre. ETC = Ebola treatment centre.

SIERRA LEONE

- Key performance indicators that monitor the EVD response in Sierra Leone are shown in table 6.
- Case incidence is decreasing quickly in Sierra Leone. There were 117 new confirmed cases reported in the week to 18 January 2015, compared with 184 the previous week and 248 the week before that.
- The west of the country remains the area of most intense transmission. The capital, Freetown, reported 30 new confirmed cases, and the neighbouring districts of Port Loko and Western Rural reported 31 and 17 new confirmed cases, respectively, in the 7 days to 18 January.
- A total of 10 out of 14 districts reported new confirmed cases in the latest reporting period. Kailahun, which borders Gueckedou, has reported no confirmed cases for 37 days.
- Kambia, which borders Port Loko and the Guinean district of Forecariah (figure 2), reported 8 confirmed cases, as did Bombali.
- In the east of the country, also on the border with Guinea, the district of Kono reported 13 confirmed cases during the reporting period.
- In the 21 days to 18 January, there were 8.7 available beds per reported confirmed and probable EVD case, falling to 5.5 beds if suspected cases are included. Locations of Ebola Treatment Centres are shown in figure 5.
- The mean laboratory processing time for Sierra Leone in the 21 days to January 18 was 2.32 days (range 1.44–5.22 days; processing time is calculated by subtracting the date a sample is collected from the date a sample is tested). Laboratory locations are shown in Figure 6.
- A mean of 14 contacts (range 0–25) were registered per confirmed case in the 21 days to 18 January, compared with 10 in the previous 21-day period.

Figure 4: Confirmed weekly Ebola virus disease cases reported nationally and by district from Sierra Leone

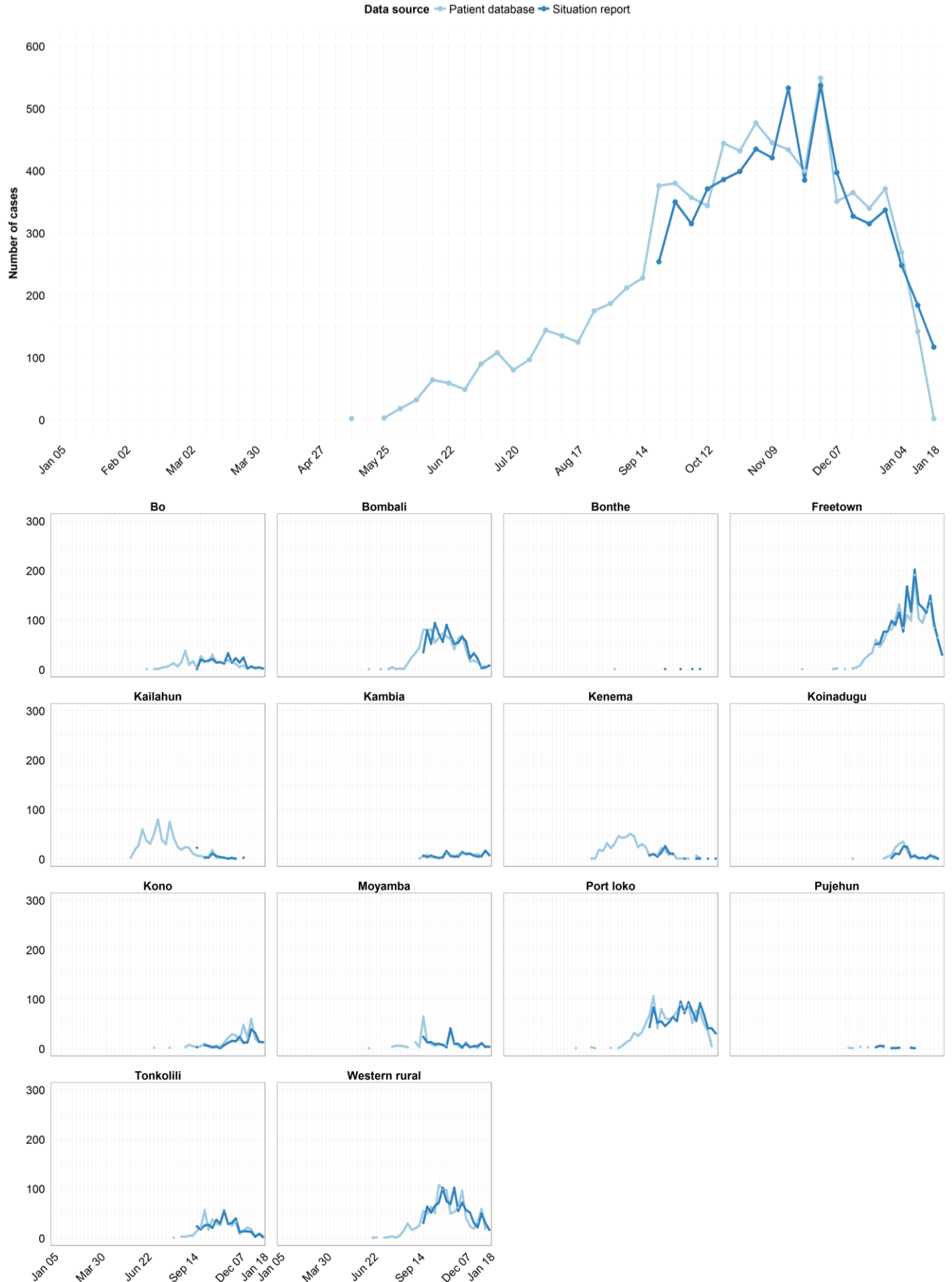


Table 6. Key performance indicators for the Ebola response in Sierra Leone

Indicator	Source dates	Current status	% of planned / target
% of districts with laboratory services accessible within 24h	As of 04/01/15	100%	100%
% of ETC beds operational	As of 18/01/15	100% (1150 beds)	1150 beds
% of CCC beds operational	As of 06/01/14	100% (437 beds)	437 beds
Capacity to isolate	22/12/14 – 11/01/15	Average: 8.7 beds per reported case (probable and confirmed) Median: 13.6 Range: 0 – 64	
Case fatality rate (%) among hospitalized patients	Cumulative (to 18/01/15)	59%	
% of burial teams trained and in place	As of 18/01/15	95% (102 teams)	107 teams
% of registered contacts to be traced who were reached daily	12/01/15 – 18/01/15	96%	
# of newly infected national health workers	12/01/15 – 18/01/15	(0)	
% of districts with a list of identified key religious leaders or community groups who promote safe and dignified burials	As of 05/01/15	100%	

Numerators and denominators for each indicator are shown in Annex 2. WHO is the lead agency for case management and case finding (laboratory confirmation and contact tracing). Information is also provided on social mobilization and the capacity to conduct safe burials (Annex 3). CCC=community care centre. CTC=community transit centre. ETC = Ebola treatment centre.

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

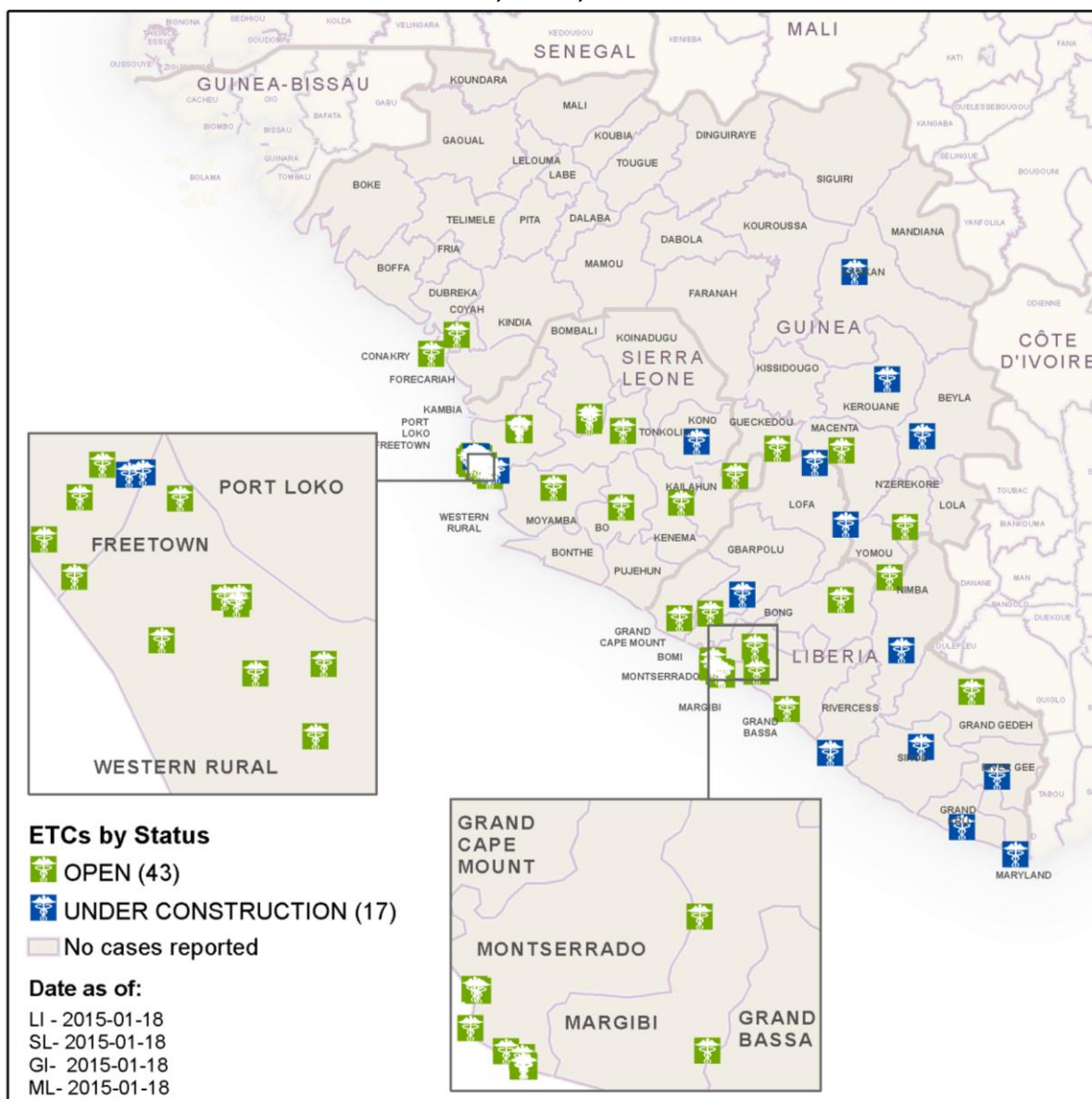
- Six countries (Mali, Nigeria, Senegal, Spain, the United Kingdom and the United States of America) have reported a case or cases imported from a country with widespread and intense transmission.
- In the United Kingdom, public health authorities confirmed a case of EVD in Glasgow, Scotland, on 29 December 2014 (table 7). The case is a health worker who returned from volunteering at an ETC in Sierra Leone. The patient was isolated on 29 December and is receiving treatment in London. As a precautionary measure, Public health authorities have investigated all possible contacts of the case. No high-risk contacts have been identified.
- On 18 January, Mali completed 42 days since its last case tested negative for EVD, and has been declared free of EVD.

Table 7: Ebola virus disease cases and deaths in Mali and 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		

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 5. Location of Ebola Treatment Centres in Guinea, Liberia, and Sierra Leone



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

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

- The evolving EVD outbreak highlights the risk of cases being imported into unaffected countries. 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.

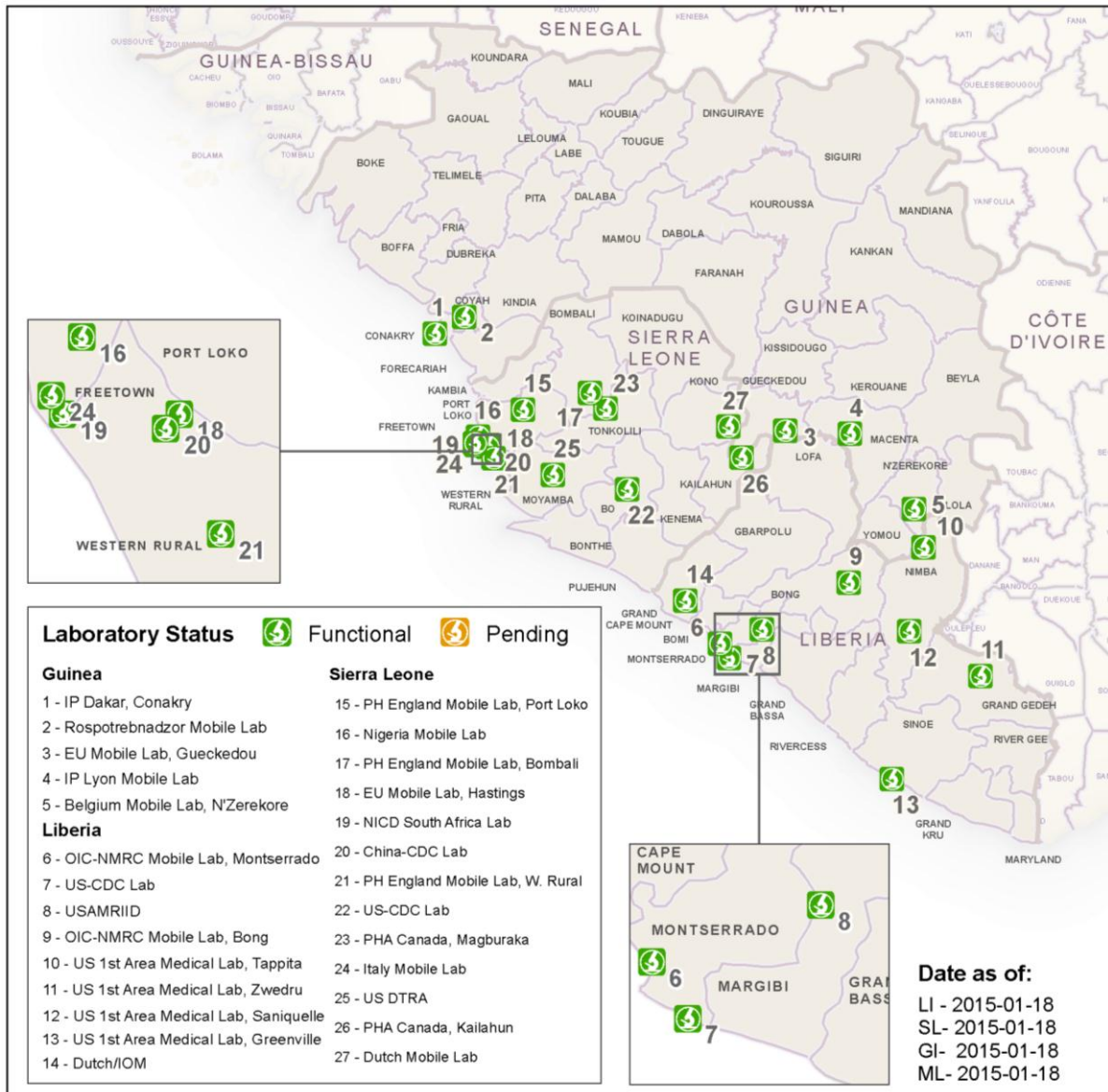
Tools and resources for preparedness

- Building on existing national and international preparedness efforts, a set of tools has been developed to support any country to identify opportunities for improvements to intensify and accelerate their readiness. The WHO EVD Preparedness Checklist² identifies 10 key components and tasks for countries preparing their

² <http://www.who.int/csr/resources/publications/ebola/ebola-preparedness-checklist/en/>

health systems to identify, detect and respond to EVD. The 10 components include: overall coordination, rapid response, public awareness and community engagement, infection prevention and control, case management, safe burials, epidemiological surveillance, contact tracing, laboratory capacity, and capacity building for points of entry. A revised list of technical guidelines and related training materials by preparedness component has been finalized and can be found on the revised WHO preparedness website.³

Figure 6. Status of laboratories deployed in the affected countries to support the Ebola outbreak response



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, 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

³ <http://www.who.int/csr/resources/publications/ebola/preparedness/en/>

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.

- Following PST missions, countries that share borders with the countries with intense transmission have taken additional action to prepare for an imported case.
- A consultative meeting between WHO and partners on EVD preparedness and readiness took place in Geneva between 14 and 16 January. At the meeting an in-depth review of the consolidated checklist for Ebola Preparedness highlighted key gaps and areas to be addressed, including community engagement, infection prevention and control, contact tracing and logistics. A dashboard was also presented which allowed partners to accurately target needs and gaps. This will be used to support in-country preparedness efforts by national authorities. In the coming months, WHO will organize follow up missions to assess progress against 90-day plans, conduct simulation exercises in collaboration with partners, complete the provision of Personal Protective Equipment (PPE) to all fourteen countries, and coordinate WHO and partner engagement with countries. Participants agreed on an action plan and timeline for moving ahead.

Preparedness in the rest of the world

- Beyond the focus on priority countries in Africa, significant efforts have been made in all WHO Regions to strengthen Ebola preparedness. Assessments in several countries in all Regions found that there are still significant gaps and needs related to risk communication, infection prevention and control, laboratory infrastructure, case management and points of entry. There is also a need for standard operating procedures for rapid response teams. Globally, more than 110 countries have been supported to strengthen their public health response capacities in relation to EVD. Regional Offices have already, or are in the process of, conducting regional/subregional training workshops on risk communication, laboratory testing and biosafety, infection prevention and control, and case management. At the country level WHO has also supported the organization of national workshops and simulation exercises to continue to address these gaps.
- A global strategy for personal protective equipment and infection control supplies has been developed and supplies have been or are being procured and strategically deployed/stockpiled to ensure their availability in the event of importation in any country of the world.

ANNEX 1: CATEGORIES USED TO CLASSIFY EBOLA CASES

Ebola virus disease case-classification criteria

Classification	Criteria
Suspected	Any person, alive or dead, who has (or had) sudden onset of high fever and had contact with a suspected, probable or confirmed Ebola virus disease (EVD) case, or a dead or sick animal OR any person with sudden onset of high fever and at least three of the following symptoms: headache, vomiting, anorexia/loss of appetite, diarrhoea, lethargy, stomach pain, aching muscles or joints, difficulty swallowing, breathing difficulties, or hiccup; or any person with unexplained bleeding OR any sudden, unexplained death.
Probable	Any suspected case evaluated by a clinician OR any person who died from 'suspected' EVD and had an epidemiological link to a confirmed case but was not tested and did not have laboratory confirmation of the disease.
Confirmed	A probable or suspected case is classified as confirmed when a sample from that person tests positive for EVD in the laboratory.

ANNEX 2: UN MISSION FOR EBOLA EMERGENCY RESPONSE: DEFINITIONS OF KEY PERFORMANCE INDICATORS

The first-ever UN mission for a public health emergency, the UN Mission for Ebola Emergency Response (UNMEER), has been established to address the unprecedented EVD outbreak. WHO is a partner in the mission. Its strategic priorities are to stop the spread of the disease, treat infected patients, ensure essential services,

preserve stability, and prevent the spread of EVD to unaffected countries. Response monitoring indicators are calculated using the following numerators and denominators:

Indicator	Numerator	Numerator source	Denominator	Denominator source
% of districts with laboratory services accessible within 24h	# of EVD-affected districts able to send samples to a laboratory within 24h	National laboratories	# of EVD-affected districts: reported a probable or confirmed EVD case	Clinical investigation records
% of ETC beds operational	# of ETC beds operational	WHO	# of ETC beds planned	UNMEER
% of CCC beds operational	# of CCC beds operational	UNMEER	# of CCC beds planned	UNMEER
Capacity to isolate	Number of operational ETC, CCC and CTCOM beds	WHO / UNMEER	Average number of probable and confirmed EVD cases (last 21 days)	Country situation reports
Case fatality rate (%) among hospitalized patients	# of deaths among hospitalized patients	Clinical investigation records	# of hospitalized patients with probable or confirmed EVD for whom a definitive survival outcome is reported	Clinical investigation records
% of burial teams trained and in place	# of burial teams trained and in place	IFRC/WHO/UNMEER	# of burial teams planned	UNMEER
% of registered contacts to be traced who were reached daily	# of registered contacts to be traced who were reached daily	Country situation reports	# of contacts currently registered	Country situation reports
# of newly infected national health workers*	# of newly infected national health workers	Country situation reports	N/A	N/A
% of districts, counties etc. with list of identified key religious leaders or community groups who promote safe funeral and burial practices according to standard guidelines	# of locations with list of identified religious leaders / influencers who promote safe burial practices	UNICEF	# of districts with list of identified religious leaders or established community groups	UNICEF
# of safe and dignified burials	# of safe and dignified burials	IFRC	N/A	N/A

*Priority indicator. Number of health workers infected is reported as a measure of the effectiveness of infection prevention and control. CCC = community care centre. CTCOM = community transit centre.

ANNEX 3: COORDINATION OF THE EBOLA RESPONSE ALONG 4 LINES OF ACTION

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
Community engagement and social mobilization	UNICEF