

SUMMARY

- A total of 9 confirmed cases of Ebola virus disease (EVD) was reported in the week to 10 May: the lowest weekly total this year. Guinea reported a total of 7 cases, Sierra Leone reported 2. For the first time since the beginning of the outbreak in Sierra Leone, the country reported zero confirmed cases for more than 2 consecutive days in the week to 10 May. As at 12 May, Sierra Leone has reported 8 consecutive days without a confirmed case. The EVD outbreak in Liberia was declared over on 9 May, after 42 complete days elapsed since the burial of the last confirmed case. The country has now entered a 3-month period of heightened vigilance. WHO will maintain an enhanced presence in the country until the end of 2015, with a particular focus on areas that border Guinea and Sierra Leone.
- Of 55 districts in Guinea, Liberia, and Sierra Leone that have reported one or more confirmed cases of EVD since the outbreak began, 43 have not reported a case for over 6 weeks.
- Of the 7 confirmed cases reported from Guinea, 6 were reported from the prefecture of Forecariah, which has been the focus of transmission for several weeks. Of those 6 cases, 4 were reported from the central sub-prefecture of Moussayah, which borders the Sierra Leonean district of Kambia. Kaliah and Sikhourou, the sub-prefectures to the west and north-east of Moussayah, respectively, each reported 1 confirmed case. The remaining case in Guinea was reported from Dubreka prefecture. The case was identified post mortem in a community setting. Investigations have as yet been unable to establish a link with a previously reported case.
- In total, 4 of the 7 cases reported from Guinea in the week to 10 May were identified after post-mortem testing. One of the 7 cases was a registered contact of a previously reported case. A total of 529 laboratory samples were tested in the week to 10 May, although this total includes both initial and repeat testing. The number of reported unsafe burials declined for a third consecutive week, to 23 out of 368 reported community deaths. These indicators suggest that tracking transmission chains is still challenging, and there remains a possibility of an increase in case incidence and/or geographical spread in coming weeks. The absence of an established epidemiological link between the case in Dubreka and a known chain of transmission is of particular concern. Preliminary reports from the prefecture since 10 May indicate that the case has resulted in at least 3 additional confirmed cases.
- Both cases reported from Sierra Leone occurred in the Moa Wharf area of the East 1 Chiefdom of the capital, Freetown. The cases are a mother and her 10-year old daughter, both of whom are known contacts of a previous case in the Moa Wharf area, and were under quarantine at the time of symptom onset. After treatment at the Ebola Treatment Centre in Hastings, the mother has now tested negative for EVD for a second time. The daughter is still EVD-positive and remains in treatment.
- For the fourth consecutive week, no health worker infections were reported in the week to 10 May. There have been a total of 868 confirmed health worker infections reported from Guinea, Liberia, and Sierra Leone since the start of the outbreak, with 507 reported deaths. However, on 12 May WHO received notification of a laboratory-confirmed EVD case in Italy. The case is a volunteer health worker who returned to Italy from Sierra Leone on 7 May. The patient developed symptoms on 10 May, and was transported on 11 May to the infectious diseases ward of the Hospital of Sassari, Sardinia. Clinical samples were confirmed as EVD positive on 12 May, and the patient was securely transferred to the National Institute for Infectious Diseases in Rome. Because onset of symptoms occurred 72 hours after the case's last flight, contact tracing of passengers who shared flights with the case is not considered necessary.

COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

- There have been a total of 26 724 reported confirmed, probable, and suspected cases¹ of EVD in Guinea, Liberia and Sierra Leone (figure 1, table 1), with 11 065 reported deaths (this total includes reported deaths among probable and suspected cases, although outcomes for many cases are unknown). A total of 7 new confirmed cases were reported in Guinea and 2 in Sierra Leone in the 7 days to 10 May. The outbreak in Liberia was declared over on 9 May.

Figure 1: Confirmed, probable, and suspected EVD cases worldwide (data up to 10 May 2015)

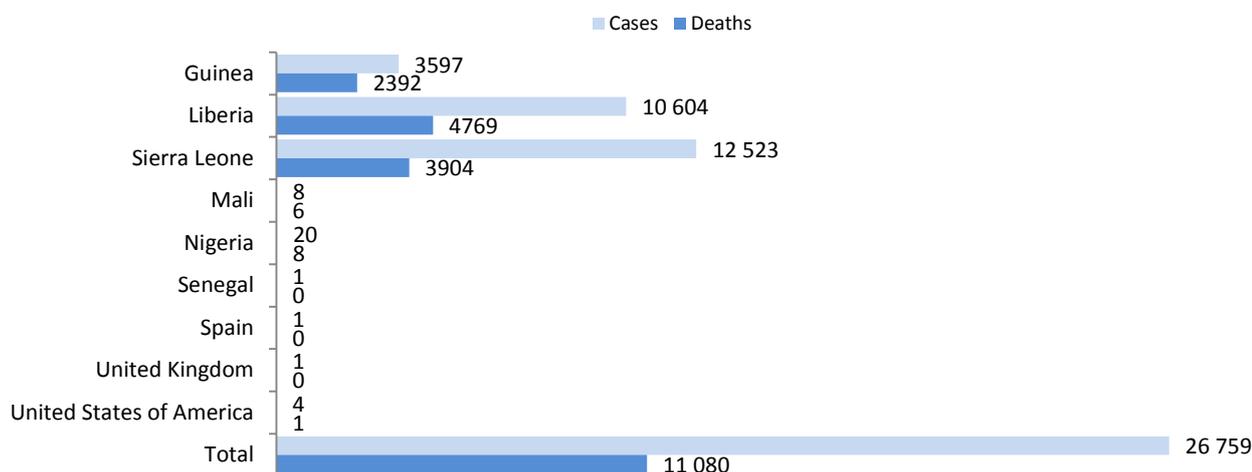


Table 1: Confirmed, probable, and suspected cases in Guinea, Liberia, and Sierra Leone

Country	Case definition	Cumulative cases	Cases in past 21 days	Cumulative deaths
Guinea	Confirmed	3174	38	1977
	Probable	415	*	415
	Suspected	8	*	‡
	Total	3597	38	2392
Liberia [§]	Confirmed	3151	0	‡
	Probable	1879	*	‡
	Suspected	5574	*	‡
	Total	10 604	0	4769
Sierra Leone	Confirmed	8597	22	3538
	Probable	287	*	208
	Suspected	3639	*	158
	Total	12 523	22	3904
Total	Confirmed	14 922	60	‡
	Probable	2581	*	‡
	Suspected	9221	*	‡
	Total	26 724	60	11 065

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. §The outbreak in Liberia was declared over on 9 May, after 42 complete days elapsed since the burial of the last confirmed case. The country has now entered a 3-month period of heightened vigilance.

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>

- The total number of confirmed 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 3 to 4 times more likely to be affected. People aged 45 and over are 4 to 5 times more likely to be affected than children.
- A total of 868 confirmed health worker infections have been reported in Guinea, Liberia, and Sierra Leone; there have been 507 reported deaths (table 5).

Table 2: Cumulative number of confirmed 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	1527 (28)	1635 (30)	493 (11)	1809 (39)	817 (52)
Liberia [§]	1911 (96)	1835 (93)	561 (33)	2056 (120)	704 (132)
Sierra Leone	4654 (163)	4953 (171)	1911 (79)	5454 (211)	2065 (279)

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. [§]The outbreak in Liberia was declared over on 9 May, after 42 complete days elapsed since the burial of the last confirmed case. The country has now entered a 3-month period of heightened vigilance.

GUINEA

- Key performance indicators for the EVD response in Guinea are shown in table 4.
- A total of 7 confirmed cases were reported in the 7 days to 10 May (table 3, figure 3), compared with 9 cases the previous week (figure 4).
- Of 26 prefectures that have reported at least one confirmed case of EVD since the beginning of the outbreak, 19 have not reported a confirmed case for over 6 weeks (figure 6).
- Of the 7 confirmed cases reported from Guinea, 6 were reported from the western prefecture of Forecariah, which has been the focus of transmission for several weeks and accounted for all cases reported in the previous week. Of the 6 cases reported from Forecariah, 4 were reported from the central sub-prefecture of Moussayah, which borders the Sierra Leonean district of Kambia (figure 2, table 3). Kaliah and Sikhourou, the sub-prefectures to the west and north-east of Moussayah, respectively, each reported 1 confirmed case. The previous week, 6 of Forecariah's 10 sub-prefectures reported a confirmed case.
- The remaining case in Guinea was reported from Dubreka prefecture, which lies to the immediate north of the capital, Conakry (figure 2, figure 3). The case was identified post mortem in a community setting in the sub-prefecture of Khorira, and epidemiological investigations have as yet been unable to establish a link with a previously reported case. Dubreka had not reported a confirmed case for 2 weeks. Preliminary reports from the prefecture since 10 May indicate that the case has resulted in at least 3 additional confirmed cases.
- In total, 4 of the 7 cases reported from Guinea in the week to 10 May were identified after post-mortem testing of deaths in community settings (table 3). One of the 7 cases was a registered contact.
- The number of reported unsafe burials declined for a third consecutive week, to 23 out of 368 reported community deaths.
- A total of 529 laboratory samples were tested in the week to 10 May, although this total includes both initial and repeat testing. A total of 6% of samples tested positive for EVD.
- Taken together, key performance indicators suggest that tracking transmission chains is still challenging, and there remains a possibility of an increase in case incidence and/or geographical spread in coming weeks. The absence of an established epidemiological link between the case in Dubreka and a known chain of transmission is of particular concern.
- Locations of 8 operational Ebola treatment centres (ETCs) are shown in figure 7. For the fourth consecutive week, no health worker infections were reported in the week to 10 May.
- Locations of the 10 operational laboratories in Guinea are shown in figure 8.

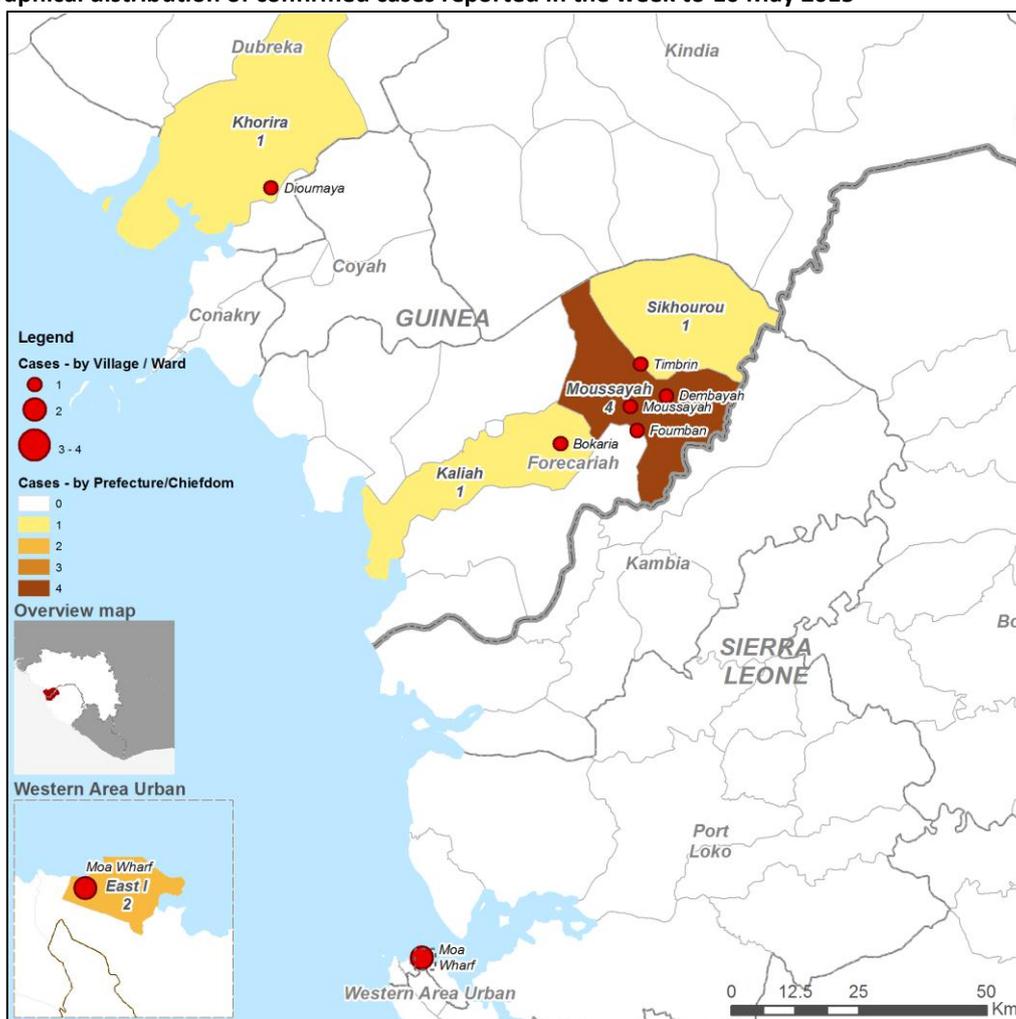
² United Nations Department of Economic and Social Affairs: <http://esa.un.org/unpd/wpp/Excel-Data/population.htm>

Table 3: Location and epidemiological status of confirmed cases reported in the week to 10 May 2015

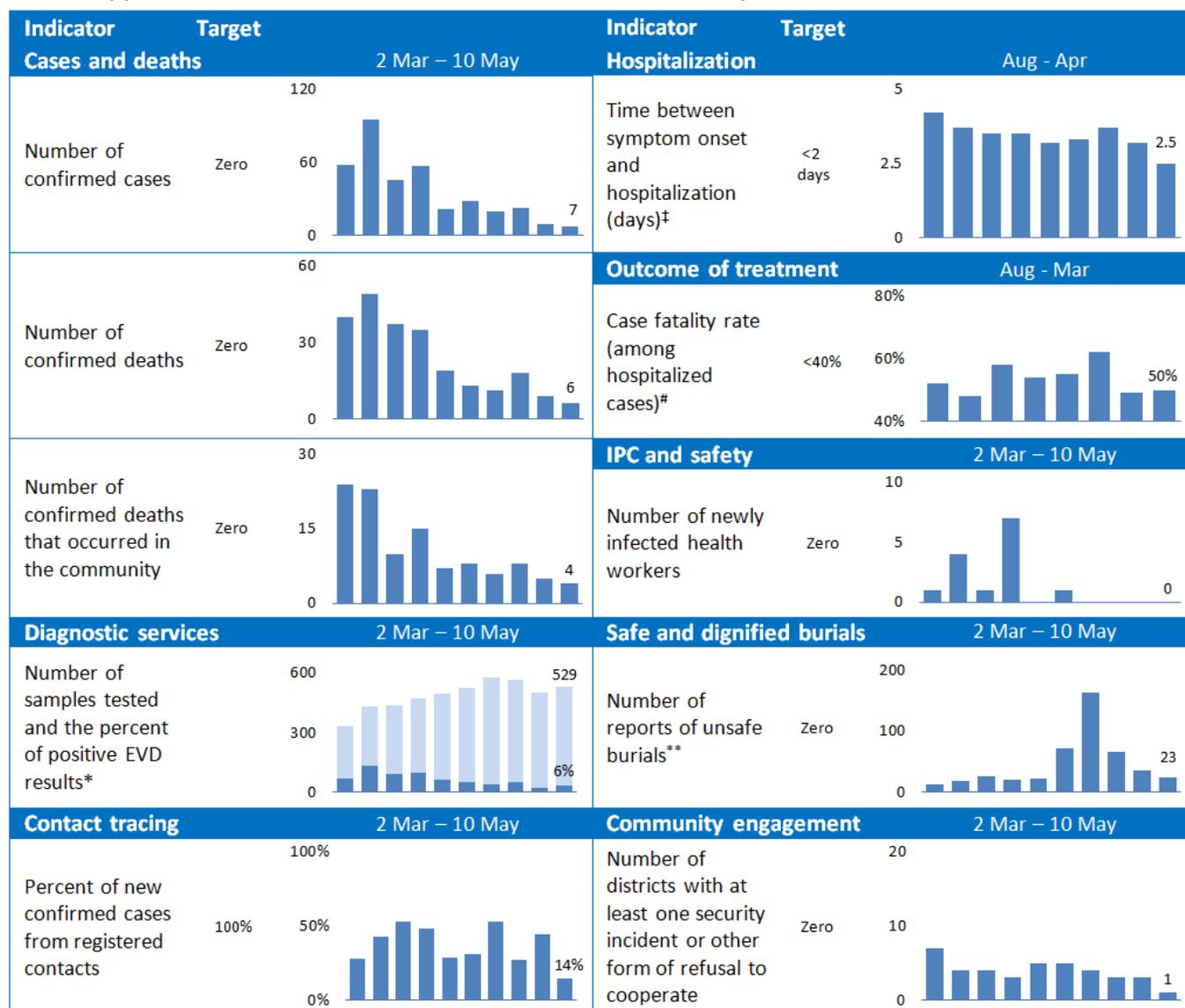
	Prefecture/District	Sub-prefecture/Chiefdom	Cases	On contact list	Epi-link*	Unknown source of infection [†]	Community death [§]
Guinea	Forecariah	Kaliah	1	1	0	0	0
		Moussayah	4	0	4	0	2
		Sikhourou	1	0	1	0	1
	Dubreka	Dubreka Centre	1	0	0	1	1
Sub total			7	1	5	1	4
Sierra Leone	Western Area Urban	Moa Wharf	2	2	0	0	0
Sub total			2	2	0	0	0
Total			9	3	5	1	4

*Epi-link refers to cases who were not registered as contacts of a previous case (possibly because they refused to cooperate or were untraceable), but who, after further epidemiological investigation, were found to have had contact with a previous case, OR refers to cases who are resident or are from a community with active transmission in the past 21 days. [†]Includes cases under epidemiological investigation. [§]A case that is identified as a community death can also be registered as a contact, or subsequently be found to have had contact with a known case (epi-link), or have no known link to a previous case.

Figure 2: Geographical distribution of confirmed cases reported in the week to 10 May 2015



One case in the sub-prefecture of Moussayah, Forecariah prefecture, Guinea, is not shown. 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.

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


For definitions of key performance indicators see Annex 2. Data are given for 7-day periods *Includes repeat samples. †Data missing for 0–3% of cases. #Outcome data missing for 1–13% of hospitalized confirmed cases. **Due to a policy change on 20 March affecting prefectures in Guinea in which there has transmission within the past 21 days, unsafe burials now refer to any reported community death/burial that is not safe and carried out by a safe and dignified burial team.

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

Country	Cases	Deaths
Guinea	187	94
Liberia*	378	192
Sierra Leone	303	221 [‡]
Total	868	507

Data are confirmed cases and deaths only, apart from deaths in Sierra Leone, which include confirmed, probable, and suspected deaths. *The outbreak in Liberia was declared over on 9 May. †Data as of 17 February

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

Indicator	Target	Indicator	Target
Cases and deaths 2 Mar – 10 May		Hospitalization Aug - Mar	
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 2 Mar – 10 May		IPC and safety 2 Mar – 10 May	
Number of samples tested and the percent of positive EVD results	0.1%	Number of newly infected health workers	Zero
Contact tracing 2 Mar – 10 May		Safe and dignified burials 23 Feb – 3 May	
Percent of new confirmed cases from registered contacts	100%	Number of reports of unsafe burials	Zero
		Community engagement 17 Feb – 27 April	
		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. [‡]Data missing for 6–12% of cases. [#]Outcome data missing for 36–75% of hospitalized confirmed cases. *Use of a new rapid-reporting system from 14 April onwards means that data for the most recent week cannot be directly compared with previous weeks.

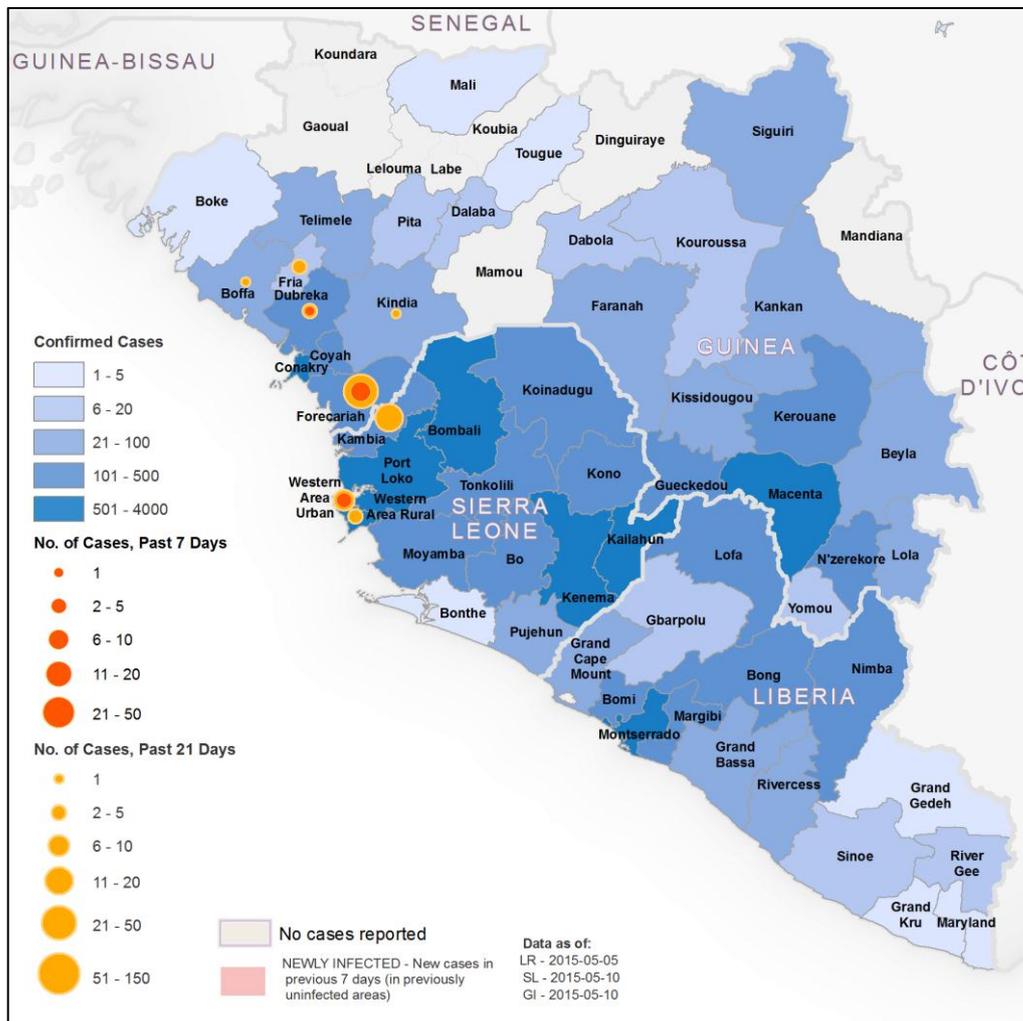
SIERRA LEONE

- Key performance indicators for the EVD response in Sierra Leone are shown in table 6.
- A total of 2 confirmed cases were reported in the week to 10 May, compared with 9 the previous week (figure 5).
- One district reported at least one confirmed case in the week to 10 May, compared with 2 districts the previous week and 3 districts the week before that (figure 3, figure 6). Of 14 districts in Sierra Leone that have ever reported a confirmed case since the beginning of the outbreak, 9 have not reported a confirmed case for over 6 weeks (figure 6).
- For the first time since the beginning of the outbreak in Sierra Leone, the country reported zero confirmed cases for more than 2 consecutive days in the week to 10 May. As at 12 May, Sierra Leone had reported zero cases for 8 consecutive days.
- Both cases reported from Sierra Leone occurred in the Moa Wharf area of the East 1 Chiefdom of the capital, Freetown (table 3, figure 2). The cases are a mother and her 10-year old daughter, both of whom are known contacts of a previous case in the Moa Wharf area, and were under quarantine at the time of symptom onset.

After treatment at the Ebola Treatment Centre in Hastings, the mother has now tested negative for EVD for a second time. The daughter is still EVD-positive and remains in treatment.

- The Sierra Leonean district of Kambia, which has been the country’s main focus of transmission for over a month, reported zero cases in the week to 10 May (figure 3).
- Laboratory indicators continue to reflect a heightened degree of vigilance, with 1756 new samples tested in the week to 10 May, compared with 1635 samples the previous week. Less than 1% of samples tested positive.
- Locations of the 13 operational Ebola treatment centres (ETCs) in Sierra Leone are shown in figure 7. One ETC in the district of Tonkolili closed in the week to 10 May. No new health worker infections were reported for the fifth consecutive week.
- Locations of the 11 operational laboratories in Sierra Leone are shown in figure 8. One laboratory in the district of Tonkolili closed in the week to 10 May.

Figure 3: Geographical distribution of new and total confirmed cases



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

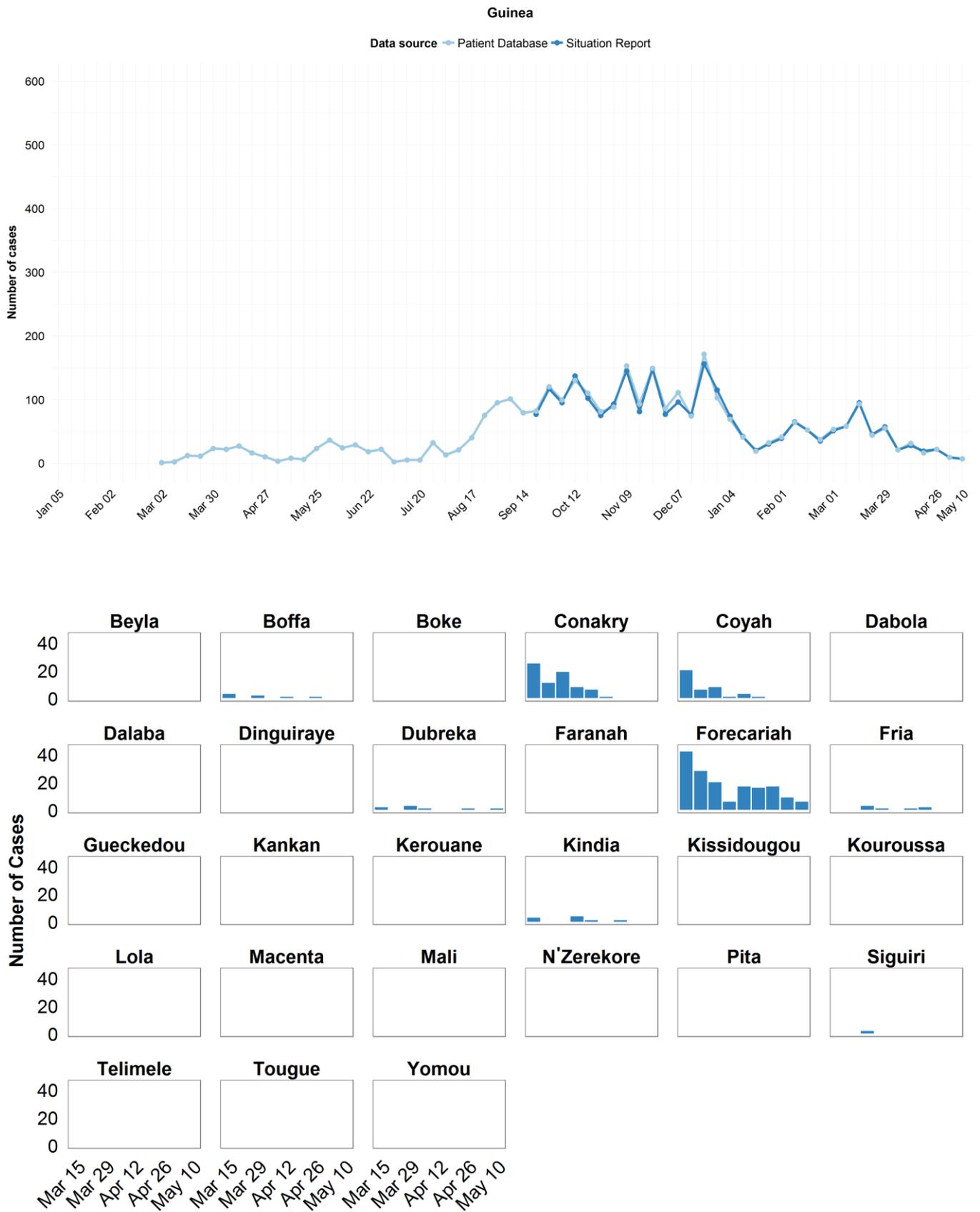


Figure 5: Confirmed weekly Ebola virus disease cases reported nationally and by district from Sierra Leone

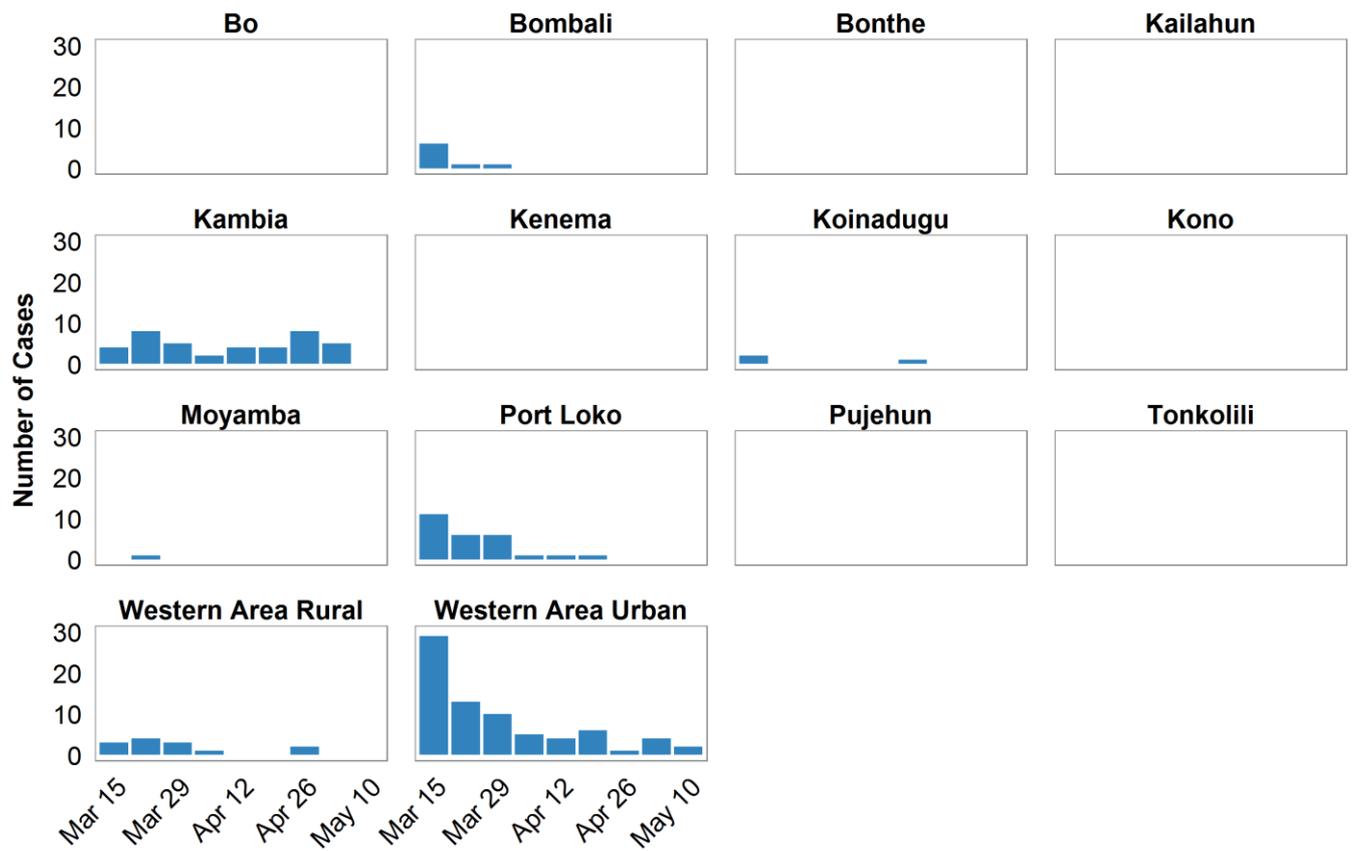
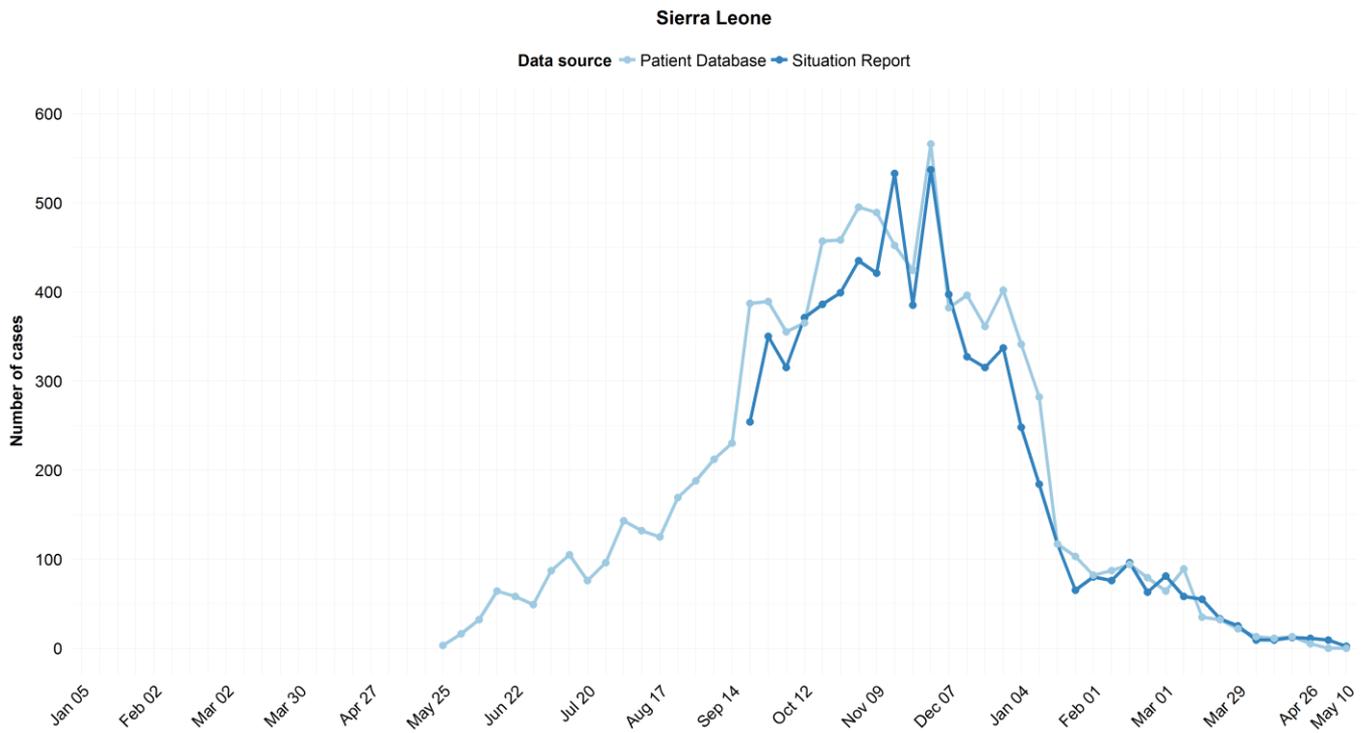
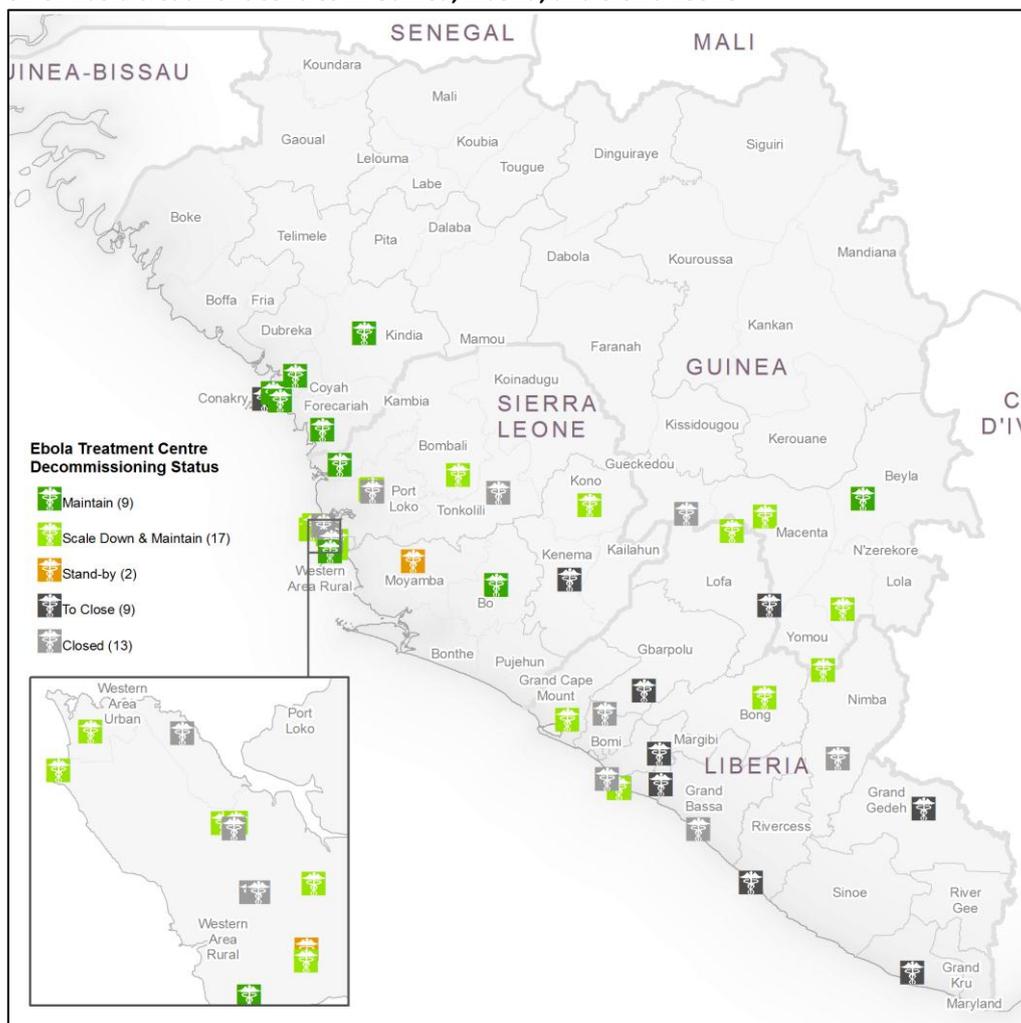


Figure 7: Location of Ebola treatment centres in Guinea, Liberia, and Sierra Leone

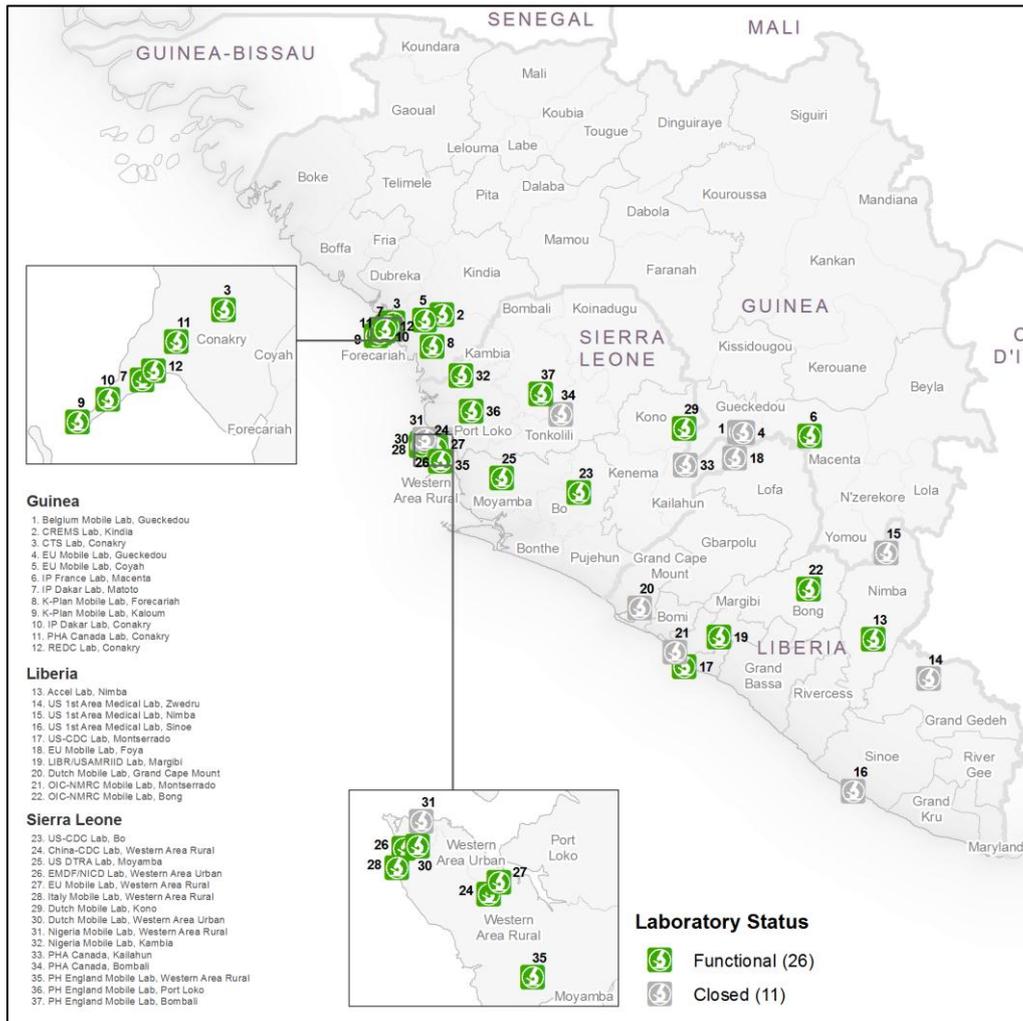


ETCs scheduled for closure will be decommissioned only when and where the epidemiological situation and the strength of referral pathways through non-EVD facilities allow. Several ETCs will be unstaffed but remain on a stand-by level of readiness, whereby stocks of protective equipment and essential medicines will be kept on-site such that the facility can become operational within 48 hours. This transition would be triggered by higher occupancy rates in nearby ETCs. Strategically located core ETCs will remain fully operational at their current capacity (Maintain) or a slightly reduced capacity (Scale Down and Maintain). 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.

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, South Sudan, 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 plan to strengthen operational readiness. WHO and partners are deploying staff to the 14 countries to assist with the implementation of national plans.

Figure 8: Location of laboratories in Guinea, Liberia, and Sierra Leone



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- Follow-up missions in the four highest priority countries (Côte d'Ivoire, Senegal, Mali, and Guinea Bissau) were able to strengthen cross-border surveillance and the sharing of outbreak data under the framework of the International Health Regulations (IHR: 2005), as well as support other technical areas.
- A programme to roll-out longer term support to countries is ongoing, with staff levels being increased in WHO country offices to coordinate preparedness activities. EVD preparedness officers have been recruited to WHO Country Offices in Benin, Côte d'Ivoire, Guinea Bissau, Ghana, The Gambia, Ethiopia, Mali, and Senegal. Deployments to all other priority countries are being finalized, and two subject-matter experts are providing dedicated support to countries in the areas of outbreak logistics and coordination.
- Standard viral haemorrhagic fever modules have been delivered to Mali, Guinea-Bissau, Côte d'Ivoire, Senegal, Mauritania, Burkina Faso, Benin, Chad, Gambia, Niger, Nigeria, Togo, Egypt, and Ghana. The personal protective equipment (PPE) modules contain minimum stocks to cover staff protection and other equipment needs to support 10 beds for 10 days for all staff with essential functions.
- Further modules are being dispatched to all other unaffected countries in the African Region and seven countries on the African continent in WHO Eastern Mediterranean Region.
- Contingency stockpiles of PPE are in place in Accra and in Dubai, and will be made available to any country in the event that they experience a shortage.

Follow-up support to priority countries

- Following the initial PST assessment missions to the 14 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; operationalize 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.
- WHO has deployed an epidemiologist to Mauritania to strengthen surveillance and information management for viral haemorrhagic fevers over a period of four weeks.
- WHO has deployed two experts to Senegal to strengthen the logistical capacity, support the roll-out of the national training plan and preparations for a functional outbreak exercise. WHO is also deploying three epidemiologists to Senegal's border regions with Guinea.
- In Benin, WHO is currently providing support to training trainers on safe and dignified burials, and on the Ebola Treatment Centre in Cotonou.

Training

- A clinical management training of trainers is ongoing in Senegal this week. Participants from Cameroon, Mauritania, Benin, Togo, Niger, Côte D'Ivoire, and Burkina Faso will attend. The preparedness strengthening team will continue to support the roll-out of training at country level following the training of trainers.
- In The Gambia, training courses for EVD Preparedness and Response will be held at the central and regional level on 18 May.
- A follow-up visit to Ghana is planned for early June, focusing on rapid response teams, ETCs, infection prevention and control, and logistic support.

Surveillance and preparedness indicators

- Indicators based on surveillance data, case-management capacity, laboratory testing and equipment stocks continue to be collected on a weekly basis from the four countries neighbouring affected countries: Côte d'Ivoire, Guinea-Bissau, Mali, and Senegal.
- An interactive preparedness dashboard based on the WHO EVD checklist is now available online³.

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

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

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

Indicator	Numerator	Numerator Source	Denominator	Denominator Source
Cases and deaths				
Number of confirmed cases	# of confirmed cases	Guinea: Daily WHO situation reports Sierra Leone: Daily Ministry of Health Ebola situation reports	N/A	N/A
Number of confirmed deaths	# of confirmed deaths	Guinea: Daily WHO situation reports Sierra Leone: Daily Ministry of Health Ebola situation reports	N/A	N/A
Number of confirmed deaths that occurred in the community	# of deaths that occurred in the community with positive EVD swab results	Guinea: Weekly WHO situation reports Sierra Leone: Daily Ministry of Health	N/A	N/A
Diagnostic Services				
Number of samples tested and percentage with positive EVD results	# of new samples tested # of new samples tested with a positive EVD result	Guinea: Laboratory database Sierra Leone: Daily Ministry of Health Ebola situation reports	N/A # of new samples tested	Guinea: Laboratory database Sierra Leone: Daily Ministry of Health Ebola situation reports
Contact tracing				
Percent of new confirmed cases from registered contacts	# of new confirmed cases registered as a contact	Guinea: Weekly WHO situation reports Sierra Leone: Weekly Ministry of Health Surveillance Report	# of new confirmed cases	Guinea: Daily WHO situation reports Sierra Leone: Daily Ministry of Health Ebola situation Reports
Hospitalization				
Time between symptom 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 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 Sierra Leone: Ministry of Health situation reports	N/A	N/A
Social mobilization				
Number of districts with at least one security incident or other form of refusal to cooperate	# of districts with at least one security incident or other form of refusal to cooperate in the past week	Guinea: Daily WHO situation reports Sierra Leone: UNICEF	N/A	N/A