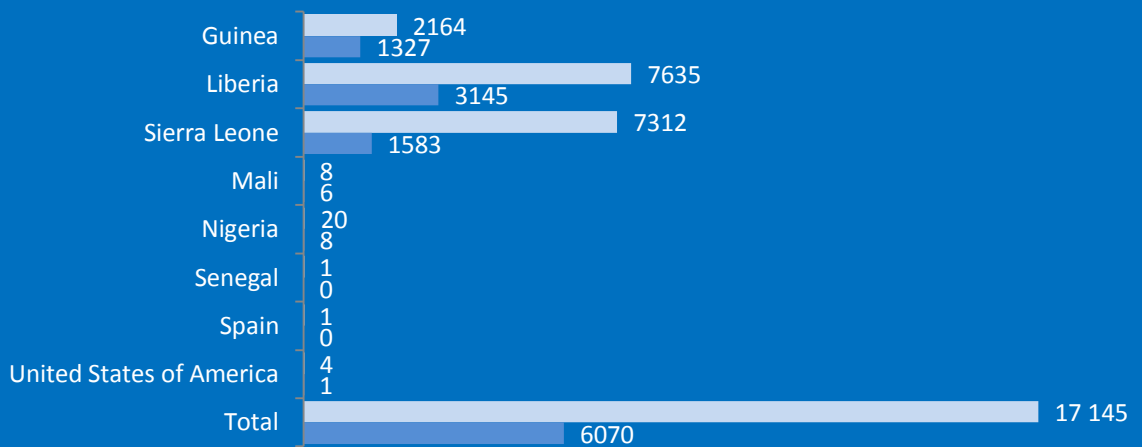




HIGHLIGHTS

- There have been 17 145 reported cases of Ebola virus disease (EVD), with 6070 reported deaths.
- Case incidence is slightly increasing in Guinea, stable or declining in Liberia, and may still be increasing in Sierra Leone.
- The outbreak in Spain has been declared over.
- The UNMEER targets of isolating and treating 70% of EVD cases and burying 70% of EVD-related deaths safely have likely been met in most districts of Guinea, Liberia, and Sierra Leone. All three countries now have sufficient capacity at a national level to meet both targets, though local variations mean capacity is still insufficient to stop transmission in some areas.

CASES/ DEATHS



SUMMARY

A total of 17 145 confirmed, probable, and suspected cases of Ebola virus disease (EVD) have been reported in five affected countries (Guinea, Liberia, Mali, Sierra Leone, and the United States of America) and three previously affected countries (Nigeria, Senegal and Spain) up to the end of 30 November. There have been 6070 reported deaths. Reported case incidence is slightly increasing in Guinea (77 confirmed cases reported in the week to 30 November), stable or declining in Liberia (43 new confirmed cases in the 5 days to 28 November), and is still rising in Sierra Leone (537 new confirmed cases in the week to 30 November). The case fatality rate across the three most-affected countries in all cases with a recorded definitive outcome is 72%; in hospitalized patients the case fatality rate is 60%.

Response activities in the three intense-transmission countries continue to intensify in line with the UNMEER aim to isolate and treat 70% of EVD cases, and safely bury 70% of EVD-related deaths by 1 December, with the ultimate goal of reaching 100% by 1 January. At a national level, there is now sufficient bed capacity in EVD treatment facilities to treat and isolate all reported EVD cases in each of the three countries, although the uneven distribution of beds and cases means there are serious shortfalls in some areas. Similarly, each country now has sufficient and widespread capacity to bury all reported EVD-related deaths; however, because not all EVD-related deaths are reported, and many reported burials are of non-EVD-related deaths, it is possible that the 70% target has not been met in some areas. Every EVD-affected district in the three intense-transmission countries has access to a laboratory for confirmation within 24 hours of sample collection. All three countries report that more than 85% of registered contacts associated with known cases of EVD are being traced, although contact tracing is still a challenge in areas of intense transmission. Increasing capacity for contact tracing in areas with low levels of transmission will be necessary to end local chains of transmission.

## OUTLINE

This situation report on the Ebola Response Roadmap<sup>1</sup> contains a review of the epidemiological situation based on official information reported by ministries of health, and an assessment of the response measured against the core Roadmap indicators where available. Substantial efforts are ongoing to improve the availability and quality of information about both the epidemiological situation and the implementation of response measures.

Following the Roadmap structure, country reports fall into three categories: (1) those with widespread and intense transmission (Guinea, Liberia and Sierra Leone); (2) those with or that have had an initial case or cases, or with localized transmission (Mali, Nigeria, Senegal, Spain and the United States of America); and (3) those countries that neighbour or have strong trade ties with areas of active transmission.

### 1. COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

A total of 17 111 confirmed, probable, and suspected cases of EVD and 6055 deaths have been reported up to the end of 30 November 2014 by the Ministries of Health of Guinea and Sierra Leone, and 28 November by the Ministry of Health of Liberia (table 1). The data are reported through WHO country offices.

**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	1929	306	1117
	Probable	210	*	210
	Suspected	25	*	0
	<b>Total</b>	<b>2164</b>	<b>306</b>	<b>1327</b>
Liberia <sup>§</sup>	Confirmed	2801	278	‡
	Probable	1792	*	‡
	Suspected	3042	*	‡
	<b>Total</b>	<b>7635</b>	<b>278</b>	<b>3145</b>
Sierra Leone	Confirmed	5978	1455	1374
	Probable	79	*	174
	Suspected	1255	*	35
	<b>Total</b>	<b>7312</b>	<b>1455</b>	<b>1583</b>
<b>Total</b>		<b>17 111</b>	<b>2039</b>	<b>6055</b>

Data are based on official information reported by ministries of health, through WHO country offices. 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 missing for 29 and 30 November.

## GUINEA

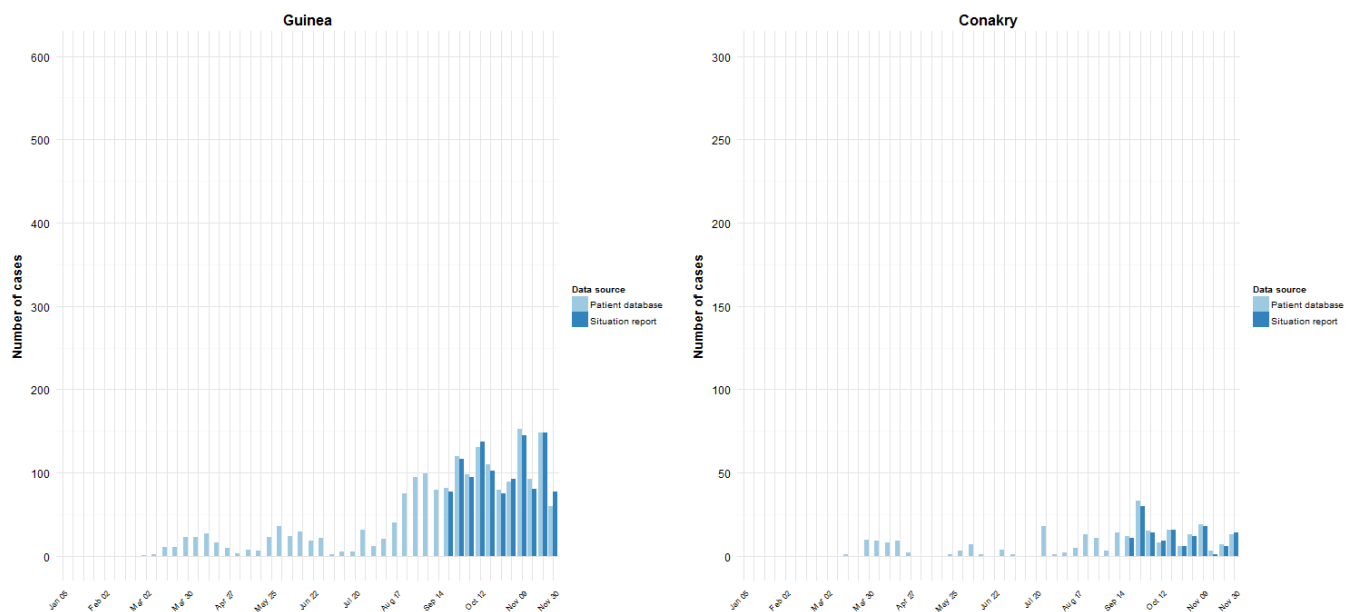
A total of 77 new confirmed cases were reported nationally during the week to 30 November (figure 1), compared with 148 cases in the week before. The national trend in Guinea since early October has been slightly increasing, with between 75 and 148 confirmed cases reported in each of the past 6 weeks, though this picture of relative stability masks important changes in the pattern of EVD transmission within the country. The previous 3 weeks saw a large number of new cases in the eastern districts of N'Zerekore (6 new confirmed cases in the week to 30 November; 29 cases in the previous week), Macenta (15 new confirmed cases; 26 in the previous week), and Kankan (7 new confirmed cases; 7 in the previous week). The persistent transmission in Kankan, and the surrounding areas of Kerouane, Kouroussa and Kissidougo (figure 4), is of particular concern, because the local

<sup>1</sup>For the Ebola Response Roadmap see: <http://www.who.int/csr/resources/publications/ebola/response-roadmap/en/>

populations are likely to seek treatment in the north, and in neighbouring Mali in particular, rather than at existing facilities in the nearby south-eastern districts of Gueckedou (1 new confirmed cases in the week to 30 November) and Macenta. The first case imported to Mali travelled from a city in the northern district of Siguiri, which borders Mali, and where there has been persistent transmission since early November (2 new confirmed cases this week; between 1 and 3 cases for the past 7 weeks). The lack of established EVD treatment and isolation facilities in this northern, Sahelian zone of the country, combined with a higher than usual degree of resistance among local communities to safe burial practices, make this area vulnerable to an increase in cases.

In the centre of the country, the district of Faranah, which borders the north Sierra Leonean district of Koinadugu, has reported an average of 8 cases per week for each of the past 4 weeks. In the west of the country, the capital, Conakry, reported 14 new confirmed cases in the week to 30 November (figure 1). Together with the neighbouring district of Coyah (15 new confirmed cases in the week to 30 November), Conakry has now reported an increase in the number of new cases during each of the past 2 weeks. Although 10 districts are yet to report a case of EVD, there has been a geographical expansion in transmission: as at 1 October, 9 districts had reported an infection during the past 7 days; as at 1 December 14 districts had reported an infection during the past 7 days).

**Figure 1: Confirmed Ebola virus disease cases reported each week from Guinea and Conakry**



The graphs in figures 1–3 show the number of new confirmed cases reported each week in situation reports from each country (in dark blue; beginning from epidemiological week 38, 15–21 September) and from patient databases (light blue). The patient databases give the best representation of the history of the epidemic. However, data for the most recent weeks are sometimes less complete in the database than in the weekly situation reports. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

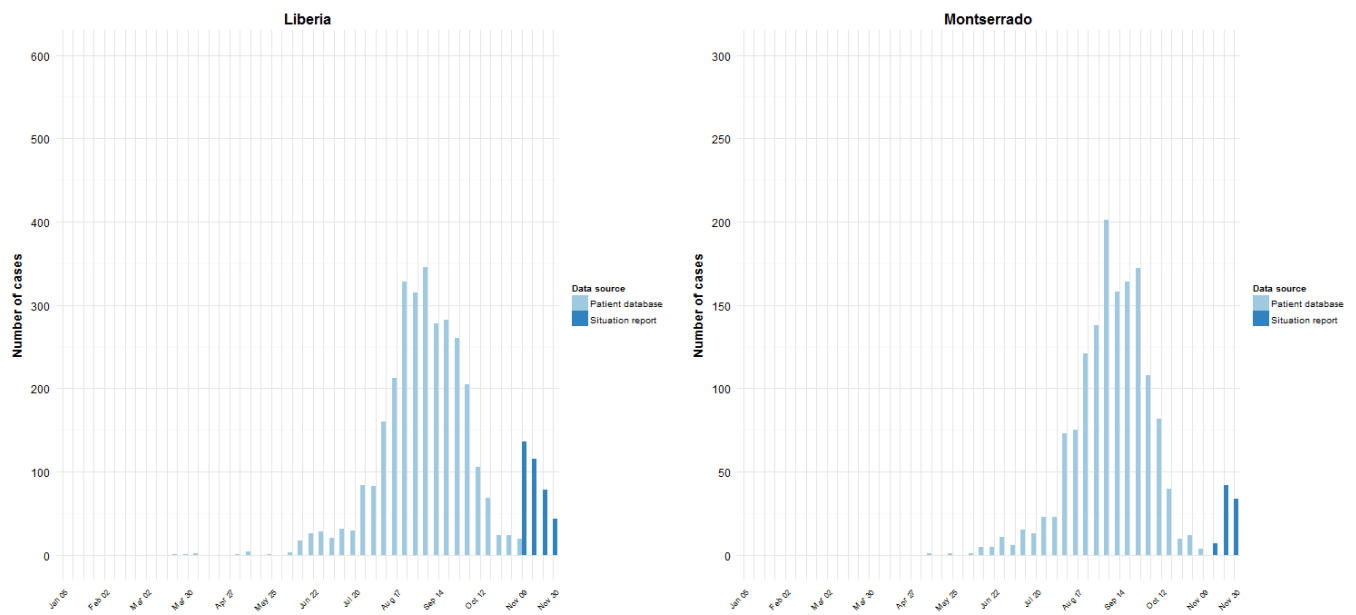
**LIBERIA**

Case incidence has stabilized over the past 5 weeks, after declining from mid-September until mid-October. A total of 43 confirmed cases were reported in the 5 days to 28 November, down from 78 the previous week.

The district of Montserrado, which includes the capital Monrovia (figure 2), reported 34 confirmed cases, and accounted for 79% of all confirmed cases reported nationally in the week to 28 November. Bomi (2 confirmed cases), Grand Bassa (4 confirmed cases), Grand Cape Mount (2 confirmed cases, compared with 21 the previous week), and Margibi (1 confirmed case) are the only other districts to report a case during the same period.

The district of Lofa, in the north of the country and on the border with Guinea and Sierra Leone, reported no cases for the fifth consecutive week.

Figure 2: Confirmed Ebola virus disease cases reported each week from Liberia and Monrovia



Data missing for 29 and 30 November. Systematic data on laboratory confirmed cases have been available since 3 November nationally, and since 16 November for each district.

**SIERRA LEONE**

EVD transmission remains intense in Sierra Leone, with 537 new confirmed cases reported in the week to 30 November (more than Guinea and Liberia combined), compared with 385 cases the previous week. The worst affected area remains the capital, Freetown, which reported 202 new confirmed cases (figure 3). Transmission remains persistent and intense across the country with the exception of the south, with the districts of Bo (23 cases), Bombali (66 cases), Kambia (14 cases), Kono (15 cases), Koinadugu (6 cases), Moyamba (3 cases), Port Loko (94 cases), Tonkolili (40 cases), and Western Rural Area (72 cases) all reporting high numbers of new confirmed cases. Of the above districts, all but Moyamba reported an increase in the number of new cases compared with the previous week, although the overall trend in these districts may not be increasing. By contrast, the southern districts of Kenema and Kailahun reported 0 and 1 case, respectively. Kenema has reported one case since 1 November. Bonthe has not reported a case for the past 2 weeks.

Figure 3: Confirmed Ebola virus disease cases reported each week from Sierra Leone and Freetown

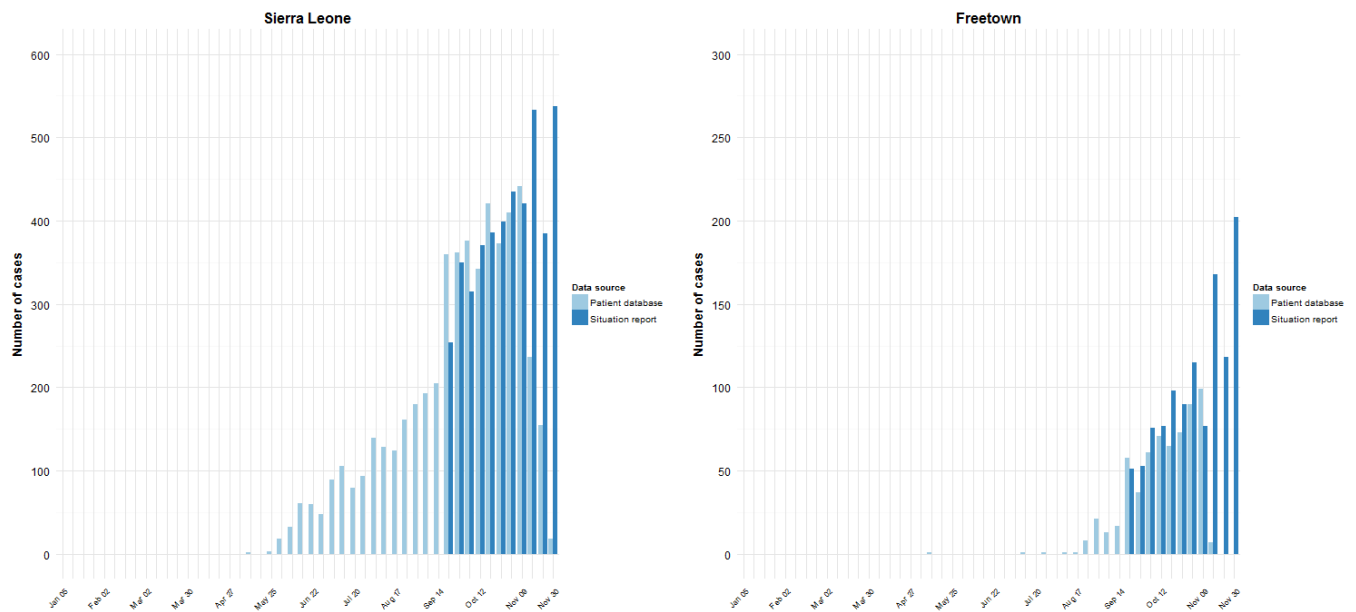
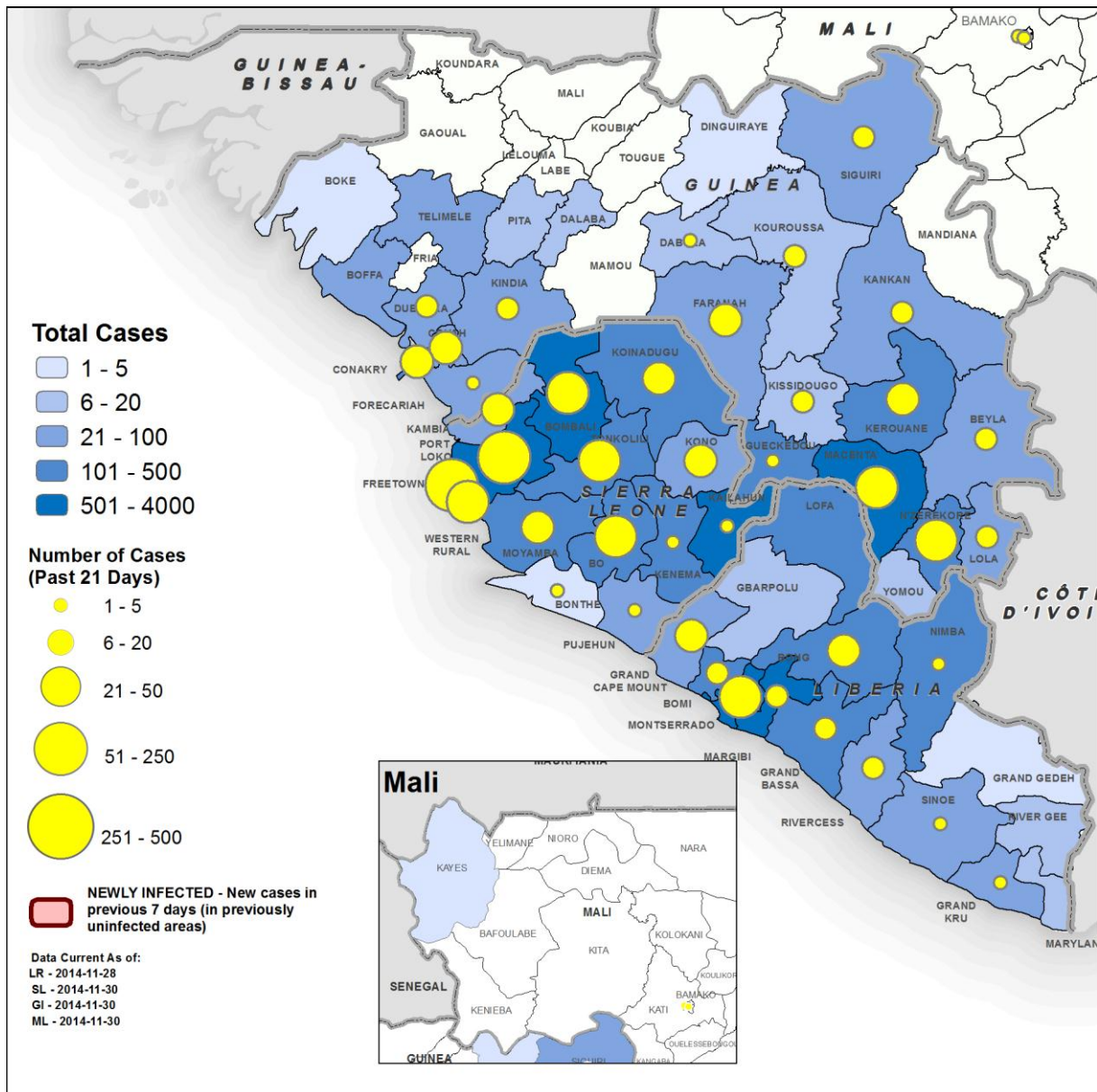


Figure 4: Geographical distribution of new and total confirmed and probable\* cases in Guinea, Liberia, Mali and Sierra Leone



Data are based on situation reports provided by countries. 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 are missing from Liberia for 29 and 30 November. \*Data for the past 21 days represent confirmed cases in Guinea, Sierra Leone, and Mali. Data for the past 21 days represent probable cases in Liberia due to the unavailability of systematic district-level data on laboratory confirmed cases before 16 November.


**RESPONSE IN COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION**

A comprehensive 90-day plan is being implemented to control and reverse the EVD outbreak in West Africa (see UN Mission for Ebola Emergency Response: Annex 2). Among the plan’s key objectives is, by 1 December 2015, to treat and isolate 70% of EVD cases, and bury 70% of patients who die from EVD safely and with dignity, with the ultimate goal of reaching 100% by 1 January. Tables 2 to 4 provide information on progress towards these goals for each of the three countries with widespread and intense transmission.

## Case management

Putting the capacity in place to treat patients with EVD in facilities that allow them to be isolated from other patients and the wider community is central to the EVD response. At present, most of this capacity is concentrated in Ebola Treatment Centres (ETCs); large facilities ranging from 20 to 400 beds. Community Care Centres (CCCs) provide an alternative to care in ETCs in areas where there is insufficient ETC capacity, and remote areas that are not yet served by an ETC. Compared with ETCs, CCCs are smaller, with 8 to 15 beds per facility. This means they are easier to set up, which enables response coordinators to provide more rapid, flexible coverage dispersed over a wider geographical area.

**Table 2. 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 30/11/14	100%	100%
% of ETC beds operational	As of 11/30/14	50% (245 beds)	490 beds
% of CCC beds operational	As of 27/11/14	0%	328 beds
Capacity to isolate patients (beds per reported patient)*	10/11/14 – 30/11/14	Average 2.3 beds per reported patient (significant variation between districts)	
Case fatality rate (%) among hospitalized patients	Cumulative	60%	
% of registered contacts to be traced who were reached daily	24/11/14 – 30/11/14	96%	
# of newly infected national HCWs	24/11/14 – 30/11/14	 (Kissidougou - 1, Forécariah - 1, Coyah - 1, Conakry - 3)	
% of burial teams trained and in place	As of 12/11/14	83% (50 teams)	60 teams

Definitions for each indicator are found in Annex 2.

At present, it is difficult to measure directly the proportion of patients who are isolated. Usually, information from clinical investigation forms could be used to provide an accurate estimate, but inconsistencies in the way different clinical investigation teams interpret and define when and how a patient is hospitalized and isolated mean that this information is not reliable enough at present to draw any conclusions about isolation. The most robust method of estimating isolation currently available is to use the capacity to treat and isolate patients by geographical area as a proximate measure of the proportion of EVD cases who are isolated. This can be achieved by dividing the number of available EVD-treatment beds by the number of reported cases over a given period of time in a given location, taking account of varying patterns of health-seeking behaviour (e.g., in areas with poor transport links, cases are unlikely to travel large distances for diagnosis and treatment).

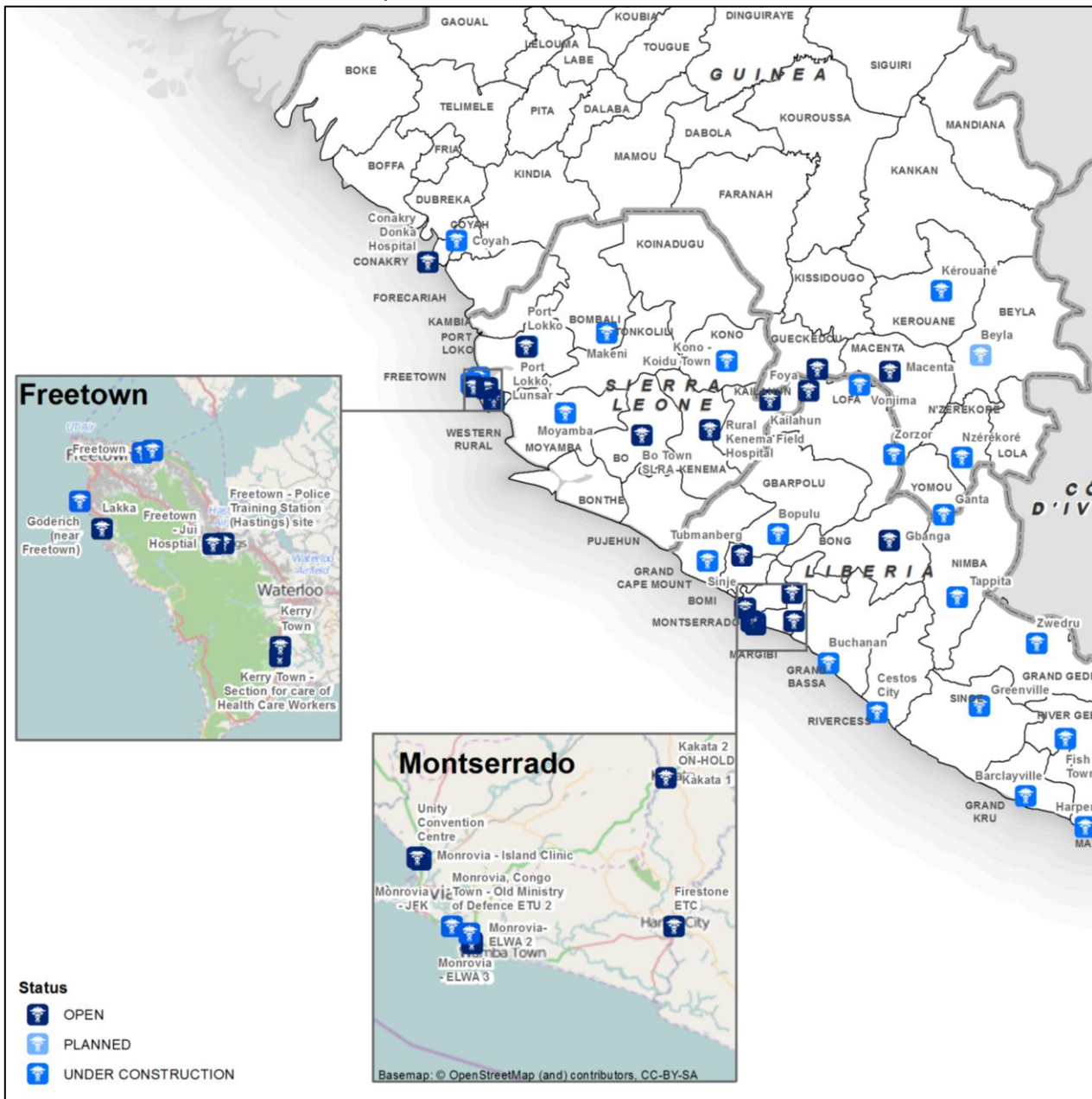
Using this proximate measure of isolation at a national level, all three intense-transmission countries currently have the capacity to isolate all reported cases. In Guinea (table 2) there are 2.3 available beds per reported probable and confirmed EVD case; in Liberia (table 3) there are 11.7 beds for every probable and confirmed case, and in Sierra Leone there are 1.5 beds for every probable and confirmed case (table 4). However, these numbers are, to a degree, an oversimplified representation of a more complex situation within each country. In several areas, such as the districts of Kenema and Kailahun in south Sierra Leone, the low number of new cases means that there is spare isolation and treatment capacity in each district, though patients with EVD can and do seek

treatment there from neighbouring districts. Conversely, in western areas of Sierra Leone such as Freetown and Port Loko, treatment and isolation capacity continues to be stretched by a large volume of new patients.

Ideally, capacity would be sufficient to treat and isolate a given EVD patient within the patient’s home district. This would have the twin benefits of reducing the time between the onset of symptoms and hospitalization, thus increasing the likelihood of survival, and reducing the distance travelled and time in transit of each patient, thus reducing the risk of further transmission.

As at 30 November, 245 EVD-treatment and isolation beds were operational in Guinea, concentrated in 3 ETCs located in the capital, Conakry, and the south-eastern districts of Gueckedou and Macenta. This uneven distribution of capacity means that any patient with EVD in the north and centre of the country needs to travel long distances to access treatment. In addition, the populations of several areas in the eastern, Sahelian region of Guinea are more likely to seek treatment in the north of the country or in neighbouring Mali than they are to seek treatment in nearby Guekedou or Macenta. Planned ETCs in the eastern districts of Kerouane, N’Zerekore, and Beyla should address this problem. There are currently no CCCs operational in Guinea.

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



In Liberia, 1269 beds are operational in 12 ETCs: 6 ETCs are located in the capital, Monrovia, 2 are in Margibi, and the districts of Bomi, Bong, Lofa, and Nimba each have 1 ETC. There are currently 2 CCCs open, 1 each in Grand Cape Mount and Margibi. Of the three countries with widespread and intense transmission, capacity for treatment and isolation is most evenly distributed in Liberia.

A total of 517 treatment and isolation beds are operational in 12 ETCs in Sierra Leone, with 190 beds provided in CCCs. There are 8 ETCs under construction, 4 of which will be located in western Sierra Leone; these will augment capacity in areas such as the capital, Freetown, and Port Loko, where a large volume of cases continues to put pressure on treatment capacity.

### Case fatality


The cumulative case fatality rate in the three intense-transmission countries among all patients for whom a definitive outcome is recorded is 72%. For those patients recorded as hospitalized, the case fatality rate is 60% in all three intense-transmission countries (tables 2–4). In a subset of 400 EVD-infected HCWs for whom a definitive outcome has been reported, the case fatality rate is 68%, which drops to 63% in the subset of 267 HCWs who were hospitalized.

### Safe and dignified burials

The bodies of patients who have died from EVD are highly infectious. Therefore, conducting burials in a safe and dignified manner is a crucial component of efforts to halt the transmission of the disease.

Estimation of the proportion of EVD deaths that are buried safely is complicated by several factors. First, many of the safe burials that do take place are of people who did not die of EVD. This is explained by the fact that the symptoms of EVD are similar to many other common causes of death in the three intense-transmission countries. The second and most important factor is that deaths have been consistently under-reported during this outbreak and, related to this, some communities are still reticent to adopt safe burial practices that can decrease the risk of viral transmission.

**Table 3. 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 30/11/14	100%	100%
% of ETC beds operational	As of 01/12/14	73% (1269 beds)	1733 beds
% of CCC beds operational	As of 30/11/14	2% (27 beds)	1100 beds
Capacity to isolate patients (beds per reported patient)*	10/11/14– 30/11/14	Average 11.7 beds per reported patient (significant variation between districts)	
Case fatality rate (%) among hospitalized patients	Cumulative	60%	
% of registered contacts to be traced who were reached daily	24/11/14– 28/11/14	87%	
# of newly infected national HCWs	24/11/14– 28/11/14	 (Montserrado - 3, Bong - 1)	
% of burial teams trained and in place	As of 30/11/14	77% (77 teams)	100 teams



As at 23 November, 221 trained safe burial teams were operational: 50 teams in Guinea, 77 teams in Liberia, and 94 teams in Sierra Leone. Both Guinea and Sierra Leone now have more than 80% of planned trained safe burial teams in place, whilst Liberia has 77% of teams in place. However, based on the current number of reported deaths in each country, capacity exists to safely bury far in excess of 100% of reported EVD-related deaths. By contrast with the distribution of capacity to isolate and treat patients, the geographic distribution of safe burial teams is far more even across the three intense-transmission countries, though some more remote areas may still be underserved.

During the week to 23 November there were 118 safe and dignified burials in Guinea, 73 in Liberia, and 372 in Sierra Leone. The International Federation of Red Cross and Red Crescent Societies (IFRC) is currently the only organization involved in safe burials across all three of the intense-transmission countries. The non-governmental organization Global Communities operates in Liberia, and Concern Worldwide operates in Liberia and Sierra Leone. Data on the number of safe burials to have taken place only includes burials done by IFRC and Global Communities.


### Case confirmation and surveillance

Providing capacity for prompt and accurate diagnosis of cases of EVD is an integral part of the response to the EVD outbreak. All 53 EVD-affected districts (those that have ever reported a probable or confirmed case) have access to laboratory support (figure 6). Access is defined as having the logistical capacity to transport a sample to a laboratory by road within 24 hours of sample collection. Going forward, the focus will be on providing results on the same day as sample collection.

Eighteen laboratories have the capacity to confirm EVD cases – 4 in Guinea, 9 in Liberia, and 5 Sierra Leone. These laboratories currently serve 24 affected districts in Guinea, 15 in Liberia and 14 in Sierra Leone.

Between 1150 and 1170 samples are tested daily in laboratories in the three countries. The maximum testing capacity for each laboratory ranges from 50 to 100 samples per day.

**Table 4. Key performance indicators for the Ebola response in Sierra Leone**

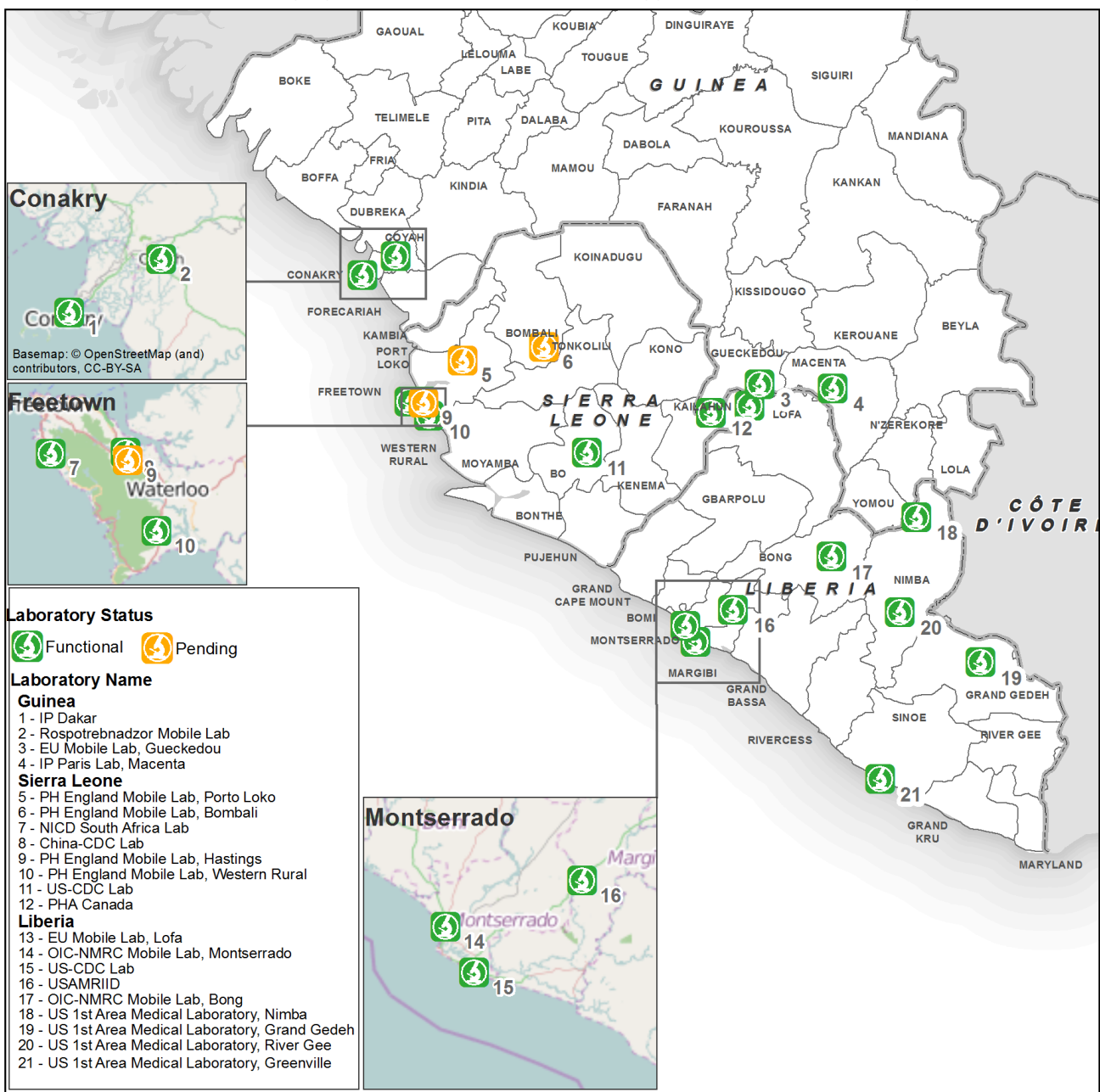
Indicator	Source Dates	Current status	% of planned / target
% of districts with laboratory services accessible within 24h	As of 30/11/14	100%	100%
% of ETC beds operational	As of 30/11/14	35% (517 beds)	1460 beds
% of CCC beds operational	As of 27/11/14	16% (190 beds)	1208 beds
Capacity to isolate patients (beds per reported patient)*	10/11/14 – 30/11/14	Average 1.5 beds per reported patient (significant variation between districts)	
Case fatality rate (%) among hospitalized patients	Cumulative	60%	
% of registered contacts to be traced who were reached daily	24/11/14 – 30/11/14	97%	
# of newly infected national HCWs	24/11/14 – 30/11/14	 (1 - Bombali)	
% of burial teams trained and in place	As of 30/11/14	82% (94 teams)	114 teams

Effective contact tracing ensures that the reported and registered contacts of confirmed EVD cases are visited daily to monitor the onset of symptoms during the 21-day incubation period of the Ebola virus. Contacts presenting symptoms should be promptly isolated, tested for EVD, and if necessary treated, to prevent further disease transmission.

During the week to 29 November, 96% of all registered contacts were visited on a daily basis in Guinea, 84% in Liberia, and 97% in Sierra Leone. However, the proportion of contacts reached was lower in many districts. Each district is reported to have at least one contact-tracing team in place.

On average, 15 contacts were listed per new case in Guinea during the week to 30 November, 23 in Liberia, and 5 in Sierra Leone. Active case finding teams are being mobilized as a complementary case-detection strategy in several areas.

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



## Health-care workers

A total of 622 health-care workers (HCWs) are known to have been infected with EVD up to the end of 30 November, 346 of whom have died (table 5). The total case count includes 2 HCWs in Mali, 11 HCWs infected in Nigeria, 1 HCW infected in Spain while treating an EVD-positive patient, and 3 HCWs in the US (including a HCW infected in Guinea, and 2 HCWs infected during the care of a patient in Texas).

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

Country	Cases	Deaths
Guinea	106	59
Liberia*	361	174
Sierra Leone	138	106
<b>Total</b>	<b>605</b>	<b>339</b>

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. \*Data missing for 29 and 30 November.

Extensive investigations to determine the source of exposure in each case are being undertaken. Early indications are that a substantial proportion of infections occurred outside the context of Ebola treatment and care centres. This reinforces the need to adhere to infection prevention and control measures at all health-care facilities, not just EVD-related facilities. WHO has conducted a review of personal protective equipment (PPE) guidelines for HCWs who provide direct care to patients, and has updated its guidelines in the context of the current EVD outbreak. Comprehensive mandatory training in the use of PPE, and mentoring for all users before engaging in clinical care, is considered fundamental for the protection of HCWs and patients.

## Social mobilization and community engagement

UNICEF is the lead agency in social mobilization during this outbreak. A joint WHO-UNICEF team has visited the three intense-transmission countries to review and assist them with their social mobilization plans.

## Budget

As at 28 November, WHO had received US\$171.5 million, with a further \$26 million pledged.

## 2. COUNTRIES WITH AN INITIAL CASE OR CASES, OR WITH LOCALIZED TRANSMISSION

Five countries (Mali, Nigeria, Senegal, Spain and the United States of America) have reported a case or cases imported from a country with widespread and intense transmission (table 6).

**Table 6: Ebola virus disease cases and deaths in Mali and the United States of America**

Country	Cumulative cases					Contact tracing			
	Confirmed	Probable	Suspect	Deaths	Health-care 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
<b>Mali</b>	7	1	0	6	25%	227	206	-	-
<b>United States of America</b>	4*	0	0	1	75%	0	177	**	**

\*Includes two HCWs infected in the USA while treating a patient with EVD from Liberia, and a HCW infected in Guinea who developed symptoms in the USA. \*\*Data not available. 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.

A total of 8 cases (7 confirmed and 1 probable), including 6 deaths (5 confirmed, 1 probable), have now been reported in Mali (figure 1). The most recent cases are in the Malian capital Bamako, and are not related to the country's first EVD case, who died in Kayes on 24 October. All identified contacts connected with the initial case have now completed 21 day follow-up. On 2 December 2014, 219 of 227 current contacts linked with the outbreak in Bamako were monitored.

In Spain, more than 42 days have now passed since the HCW infected while caring for a patient with EVD in Madrid tested negative twice and was discharged from hospital, therefore the outbreak in that country has now been declared over.

In the United States of America, there have been 4 cases of EVD and 1 death. One HCW in New York and 2 HCWs in Texas have tested negative for EVD twice and have been released from hospital. All contacts in the country have completed the 21-day follow-up period.

In Nigeria, there were 20 cases and 8 deaths. In Senegal, there was 1 case and no deaths. However, following a successful response in both countries, the outbreaks of EVD in Senegal and Nigeria were declared over on 17 October and 19 October 2014, respectively.

### **3. PREPAREDNESS OF COUNTRIES TO RAPIDLY DETECT AND RESPOND TO AN EBOLA EXPOSURE**

The evolving EVD outbreak highlights the considerable risk of cases being imported into unaffected countries. With adequate levels of preparation, however, such introductions of the disease can be contained before they develop into large outbreaks.

The success of Nigeria and Senegal in halting the transmission of EVD highlights the critical importance of preparedness. Key factors in preventing the spread of EVD in both countries included strong political leadership, early detection and response, public awareness campaigns, and strong support from partner organizations.

Following the consultative meeting between WHO and Partners on Ebola Virus Disease (EVD) Preparedness and Readiness held in Brazzaville from 8–10 October, 2014, WHO, in collaboration with the UN and other partners, is accelerating the deployment of international preparedness teams (PSTs) to ensure immediate EVD outbreak response capacity and help unaffected countries build on their existing preparedness work and planning. The PSTs are formed with national and international implementing partners and networks such as the International Associations of National Public Health Institutes (IANPHI), the Global Outbreak Alert and Response Network (GOARN), and national public health authorities such as the US Centres for Disease Control and Prevention and Public Health England. EVD preparedness efforts follow the capacity building recommendations of the International Health Regulations (IHR) and are supported by UNMEER.

The initial focus of support by WHO and partners is on highest priority countries – Cote d'Ivoire, Guinea Bissau, Mali and Senegal – followed by high priority countries – Benin, Cameroon, Central African Republic, Democratic Republic of Congo, Gambia, Ghana, Mauritania, Nigeria, South Sudan, and Togo. The criteria used to prioritize countries include geographical proximity to affected countries, trade and migration patterns, and strength of health systems.

WHO is also expanding preparedness efforts to other countries in Africa and in all regions. WHO's immediate preparedness efforts are channelled into two streams: preparedness missions and country visits; and the provision of guidance and tools.

Building on existing national and international preparedness efforts, a set of tools has been developed to help any country identify opportunities for improvements in order to intensify and accelerate their readiness. One of these tools is a comprehensive checklist of core principles, standards, capacities and practices, which all countries should have or meet. The checklist identifies 10 key components and tasks for both countries and the international community that should be completed within 30 and 60 days respectively from the date of issuing

the list. These include: overall coordination, rapid response, public awareness and community engagement, infection prevention and control, case management and safe burials, epidemiological surveillance, contact tracing, laboratory capacity, and capacity building for points of entry.

A team was deployed to Mali and Cote d'Ivoire in October. In the week of 10 November, teams were deployed to Cameroon, Ghana, Guinea Bissau and Mauritania. In the week of 17 November teams visited Benin, Burkina Faso, Gambia, and Senegal. In the week of 24 November team visited Togo. During the week of 1 December teams will be visiting the Central African Republic, Niger, and Ethiopia.

The immediate objective of each mission is to ensure that the country is as operationally ready as possible to effectively and safely detect, investigate, and report potential EVD cases and to mount an effective response that will prevent a larger outbreak from developing.

In-country training and capacity-building activities are undertaken during each mission, including technical working group meetings, field visits, table-top exercises and field simulation exercises. Key areas for improvement are identified on the basis of the mission activities, and strengths and weaknesses identified and discussed within the country. Where possible, one or more technical experts remain after the initial mission to maximize capacity building efforts and help ensure sustainability, in readiness for other public health events and emergencies. A plan of action with priorities and cost of implementation is prepared during the mission or just after, so that follow-up capacity-building activities can be carried out rapidly.

#### ANNEX 1: CATEGORIES USED TO CLASSIFY EBOLA CASES

EVD cases are classified as suspected, probable, or confirmed depending on whether they meet certain criteria (table 7).

**Table 7: Ebola virus disease case-classification criteria**

Classification	Criteria
<b>Suspected</b>	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.
<b>Probable</b>	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.
<b>Confirmed</b>	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 patients (beds per patient)*	Number of operational ETC and CCC 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 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 HCWs**	# of newly infected HCWs	Country situation reports	N/A	N/A
% of burial teams trained and in place	# of burial teams trained and in place	IFRC/WHO/UNMEER	# of burial teams planned	UNMEER