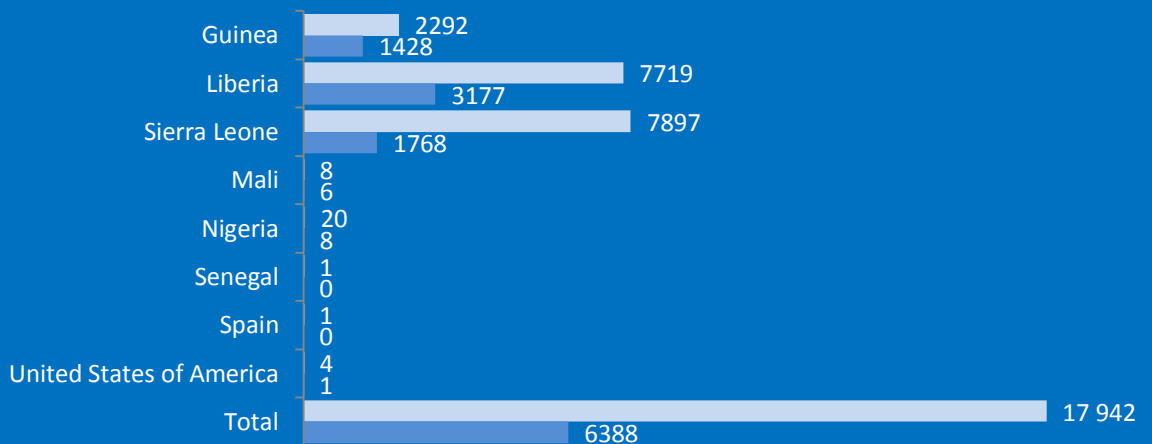




HIGHLIGHTS

- There have been 17 942 reported cases of Ebola virus disease (EVD), with 6388 reported deaths.
- Case incidence is slightly increasing in Guinea, decreasing in Liberia, and may be increasing or stable in Sierra Leone.
- Sierra Leone now has the highest total number of reported cases of the three intense-transmission countries, with 7897 cases reported to date.
- At a national level, Guinea, Liberia, and Sierra Leone have sufficient capacity to isolate and treat all reported EVD cases, and bury all EVD-related deaths safely and with dignity. However, local variations mean capacity is still insufficient in some areas.

CASES/ DEATHS



SUMMARY

A total of 17 942 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 7 December. There have been 6388 reported deaths. Reported case incidence is slightly increasing in Guinea (103 confirmed and probable cases reported in the week to 7 December), declining in Liberia (29 new confirmed cases in the 3 days to 3 December), and may still be increasing in Sierra Leone (397 new confirmed cases in the week to 7 December). The case fatality rate across the three most-affected countries in all reported cases with a recorded definitive outcome is 76%; in hospitalized patients the case fatality rate is 61%.

Response activities in the three intense-transmission countries continue to progress in line with the UNMEER aim to isolate and treat 100% of EVD cases and safely bury 100% of EVD-related deaths 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 intense-transmission countries, although the uneven distribution of beds and cases means there are serious shortfalls in some areas. Similarly, each country 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 some areas still have insufficient burial capacity. Every district that has reported a case of EVD in the three intense-transmission countries has access to a laboratory within 24 hours from sample collection. All three countries report that more than 80% of registered contacts associated with known cases of EVD are being traced, although contact tracing is still a challenge in areas of intense transmission and in areas of community resistance. Rapidly increasing capacity for case finding and contact tracing in areas with low and moderate levels of transmission will be necessary to end local chains of transmission.

OUTLINE

This situation report on the Ebola Response Roadmap¹ 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 17 908 confirmed, probable, and suspected cases of EVD and 6373 deaths have been reported up to the end of 7 December 2014 by the Ministries of Health of Guinea and Sierra Leone, and 3 December 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	2051	321	1207
	Probable	221	*	221
	Suspected	20	*	0
	Total	2292	321	1428
Liberia [§]	Confirmed	2830	225	‡
	Probable	1814	*	‡
	Suspected	3075	*	‡
	Total	7719	225	3177
Sierra Leone	Confirmed	6375	1319	1559
	Probable	79	*	174
	Suspected	1443	*	35
	Total	7897	1319	1768
Total		17 908	1865	6373

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 4–7 December.

GUINEA

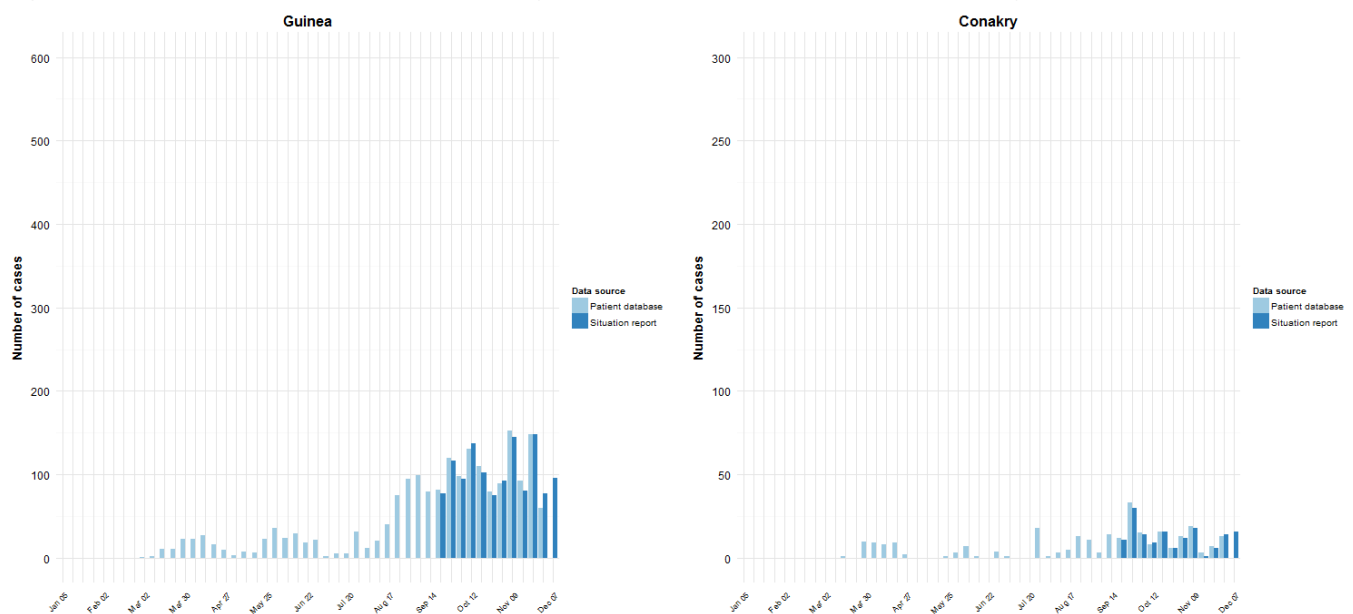
A total of 103 new confirmed and probable cases were reported nationally during the week to 7 December (figure 1). The national trend in Guinea since early October has been slightly increasing, with between 75 and 148 confirmed cases reported in each of the past 7 weeks, though this picture of relative stability masks important changes in the pattern of EVD transmission within the country. The previously reported surge of new cases in the eastern district of N'Zerekore (4 new confirmed cases in the week to 7 December) appears to have abated, although transmission in the neighbouring district of Macenta (15 new confirmed cases; 15 in the previous week) continues to be intense. There have also been reports of resistance among some communities in Macenta to contact tracing. Several districts in central and northern Guinea have reported persistent transmission, including

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

Faranah (8 confirmed and probable cases), Kankan (4 new confirmed cases; 7 in the previous week), Kerouane (4 new confirmed cases; 0 in the previous week), and Kissidougo (5 new confirmed cases; 1 in the previous week). Persistent transmission in these areas is of particular concern, because the local populations are likely to seek treatment in the north, and in neighbouring Mali in particular, rather than at existing facilities in the south-eastern districts of Gueckedou (2 new confirmed cases in the week to 7 December) 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 (3 new confirmed cases in the week to December; between 1 and 3 confirmed cases for the past 8 weeks). The lack of EVD case-management 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 west of the country, the capital, Conakry, reported 16 new confirmed cases in the week to 7 December (figure 1). Together with the neighbouring district of Coyah (18 new confirmed cases in the week to 7 December), Conakry has now reported an increase in the number of new confirmed cases during each of the past 3 weeks, while Telimele has reported a case for the first time in over 12 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 a confirmed or probable case during the past 7 days; as at 1 December 14 districts reported a case during the past 7 days).

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



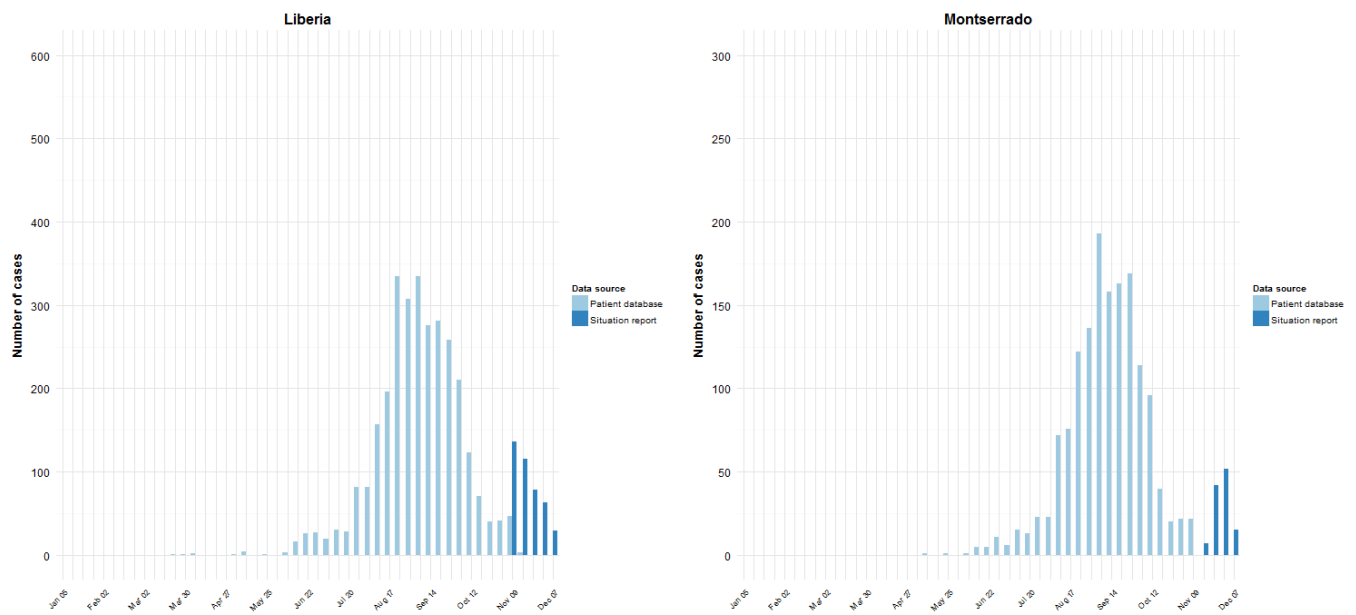
The graphs in figures 1–3 show the number of new confirmed cases reported each week in situation reports from each country (in dark blue; beginning from epidemiological week 38, 15–21 September) and from patient databases (light blue). The patient databases give the best representation of the history 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 decreased over the past 4 weeks, with 5 districts (counties) reporting new cases in the 3 days to 3 December. A total of 29 confirmed cases were reported in the 3 days to 3 December.

The district of Montserrado, which includes the capital, Monrovia (figure 2), reported 15 confirmed cases, and accounted for more than half of all confirmed cases nationally over the reporting period. Bong (1 confirmed cases), Grand Bassa (7 confirmed cases), Grand Cape Mount (5 confirmed cases), and Sinoe (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 sixth consecutive week.

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



Data missing for 4–7 December. Data missing from the patient database after 6 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 397 new confirmed cases reported in the week to 7 December (3 times as many as Guinea and Liberia combined). The worst affected area remains the capital, Freetown, which reported one-third (133) of all new confirmed cases (figure 3). Transmission remains persistent and intense across the country with the exception of the south, with the districts of Bo (14 cases), Bombali (57 cases), Kambia (10 cases), Kono (24 cases), Koinadugu (2 cases), Moyamba (10 cases), Port Loko (76 cases), Tonkolili (13 cases), and Western Rural Area (57 cases) all reporting high numbers of new confirmed cases. By contrast, the southern districts of Kenema and Kailahun reported 0 cases. Kenema has reported one case since 1 November. Pujehun was the only other district not to report a new case. Bonthe, which had previously not reported a case for the past 2 weeks, reported a single confirmed case in the week to 7 December.

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

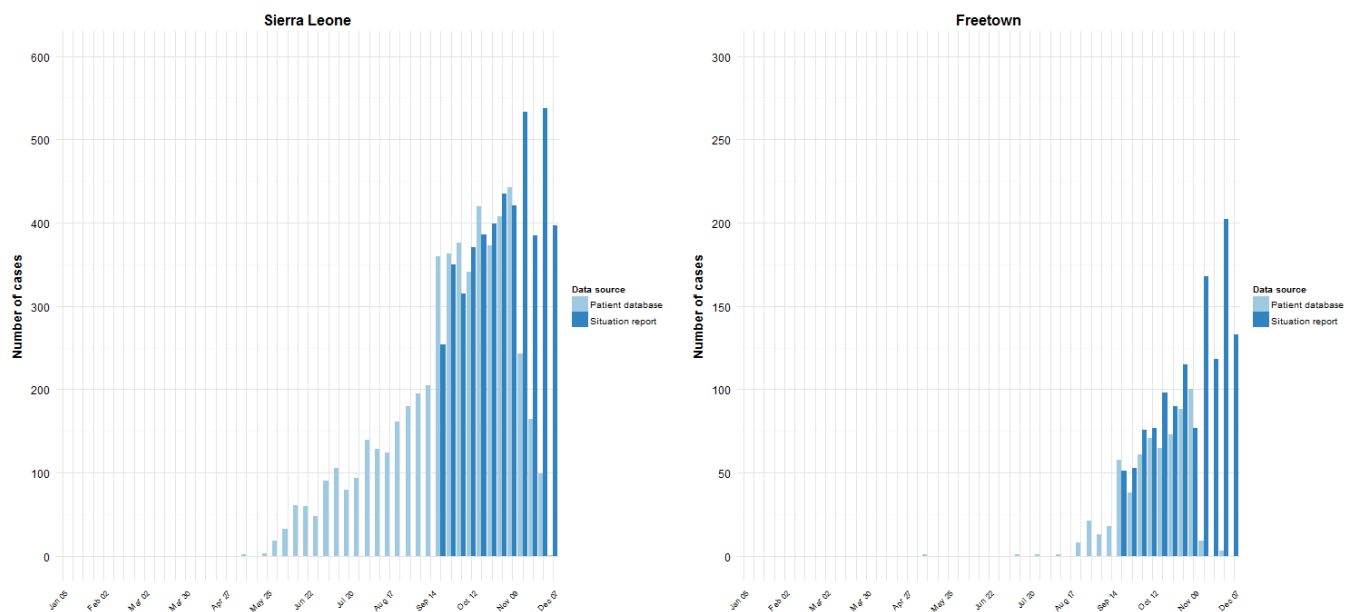
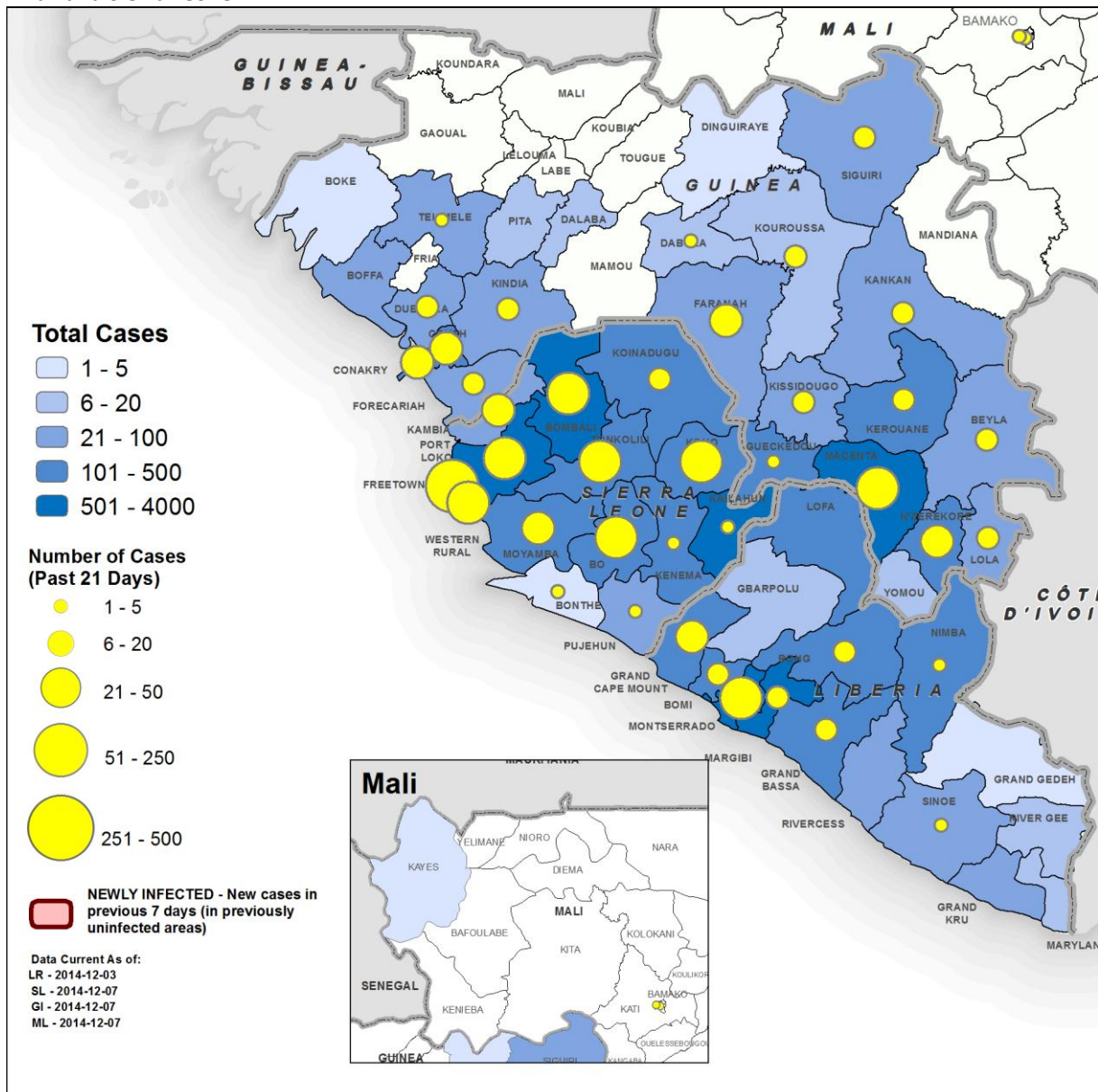


Figure 4: Geographical distribution of new and total confirmed and probable* cases in Guinea, Liberia, Mali and Sierra Leone



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 4–7 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 January 2015, to treat and isolate 100% of EVD cases, and bury 100% of patients who die from EVD safely and with dignity. The various agencies that coordinate each part of the response are shown in Annex 3. Tables 2 to 4 provide information on progress in the two domains, case management and case finding (laboratory confirmation and contact tracing), for which WHO is the lead agency, and information on the capacity to conduct safe burials.

Case management

Providing the capacity 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 08/12/14	100%	100%
% of ETC beds operational	As of 08/12/14	41% (200 beds)	490 beds
% of CCC beds operational	As of 02/12/14	0%	328 beds
Capacity to isolate patients (beds per reported patient)	17/11/14 – 07/12/14	Average 1.9 beds per reported patient	
Case fatality rate (%) among hospitalized patients	Cumulative (to 07/12/14)	60%	
% of registered contacts to be traced who were reached daily	01/12/14 – 06/12/14	95%	
# of newly infected national HCWs	01/12/14 – 06/12/14	 (9)	
% of burial teams trained and in place	As of 23/11/14	83% (50 teams)	60 teams

Definitions for each indicator are found in Annex 2.

Capacity to treat and isolate patients is used as a proximate measure of the proportion of EVD cases that are isolated. 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 1.9 available beds per reported probable and confirmed EVD case; in Liberia (table 3) there are 12.1 beds for every probable and confirmed case (the number is lower if suspected cases are included), and in Sierra Leone there are 1.9 beds for every probable and confirmed case (table 4). However, these numbers are, to a degree, an oversimplified representation of a more complicated 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 in the district of symptom onset. 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, and consequently reducing the risk of further 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	21% (83 beds)	398 beds
Capacity to isolate patients (beds per reported patient)	10/11/14 – 30/11/14	Average 12.1 beds per reported patient	
Case fatality rate (%) among hospitalized patients	Cumulative	59%	
% of registered contacts to be traced who were reached daily	24/11/14 – 28/11/14	96%	
# of newly infected national HCWs	24/11/14 – 28/11/14	 (2)	
% of burial teams trained and in place	As of 23/11/14	77% (77 teams)	100 teams

As at 8 December, 200 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, high Guinean region are more likely to seek treatment in the north of the country or in neighbouring Mali than they are to seek treatment in nearby Gueckedou 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.

In Liberia, 1269 beds are operational in 12 ETCs: 5 ETCs are located in the capital, Monrovia, 3 are in Margibi, and the districts of Bomi, Bong, Lofa, and Nimba each have 1 ETC. There are currently 4 CCCs open, 1 each in Grand Cape Mount and River Gee, and 2 in Margibi. Of the three countries with widespread and intense transmission, capacity for treatment and isolation is most evenly distributed in Liberia.

A total of 553 treatment and isolation beds are operational in 13 ETCs in Sierra Leone. There are 2 ETCs in Kerry Town, Freetown and Port Loko, with 1 ETC in each of Lakka, Kailahun, Kenema, Bo Town, Waterloo, Bombali, and the Western Urban Area. There are 23 CCCs, with 262 beds.

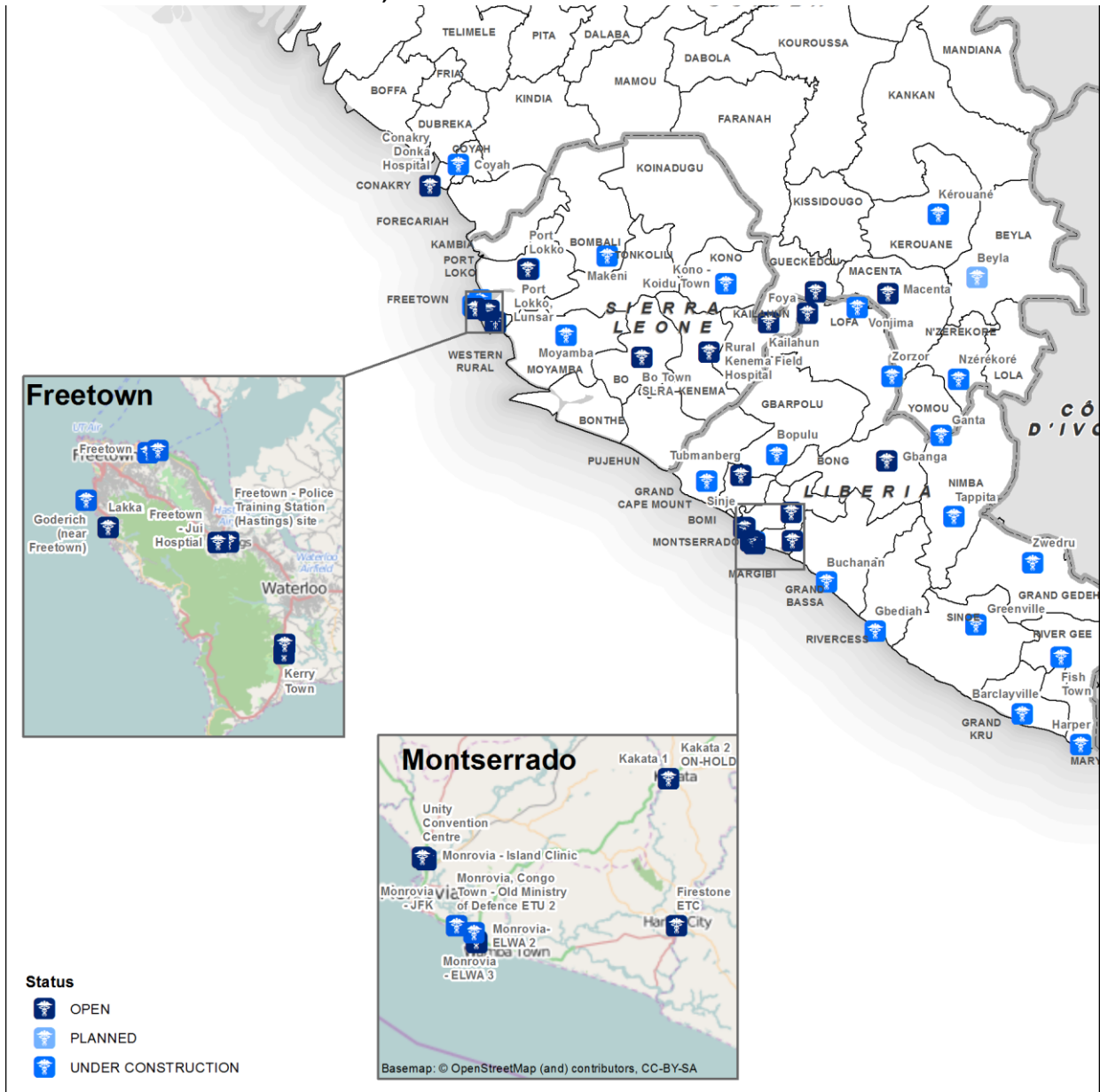
Case fatality

The cumulative case fatality rate in the three intense-transmission countries among all patients for whom a definitive outcome is recorded is 71%. 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%. For the subset of 267 HCWs who were hospitalized, the case fatality rate is 63%.

Laboratories

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. Efforts are being made by WHO and partners to improve the mechanism to feedback results to Ebola treatment facilities once labs have reported to the national emergency operating centres. Nineteen laboratories have the capacity to confirm EVD cases – 4 in Guinea, 8 in Liberia, and 7 Sierra Leone. These laboratories currently serve 24 affected districts in Guinea, 15 in Liberia and 14 in Sierra Leone.

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



Four ETCs in Sierra Leone and one in Liberia are not shown.

Contact tracing and case finding

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 of 1 December, 95% of all registered contacts were visited on a daily basis in Guinea, 96% in Liberia, and 84% in Sierra Leone (a steady decline since week 44, during which 94% of registered contacts were reached). 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, 17 contacts were listed per new case in Guinea during the week to 1 December, 22 in Liberia, and 6 in Sierra Leone. Active case finding teams are being mobilized as a complementary case-detection strategy in several areas.

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	38% (553 beds)	1460 beds
% of CCC beds operational	As of 27/11/14	22% (262 beds)	1208 beds
Capacity to isolate patients (beds per reported patient)	10/11/14 – 30/11/14	Average 1.9 beds per reported patient	
Case fatality rate (%) among hospitalized patients	Cumulative	60%	
% of registered contacts to be traced who were reached daily	24/11/14 – 30/11/14	84%	
# of newly infected national HCWs	24/11/14 – 30/11/14	(0)	
% of burial teams trained and in place	As of 23/11/14	82% (94 teams)	114 teams

Health-care workers

A total of 639 health-care workers (HCWs) are known to have been infected with EVD up to the end of 7 December, 349 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

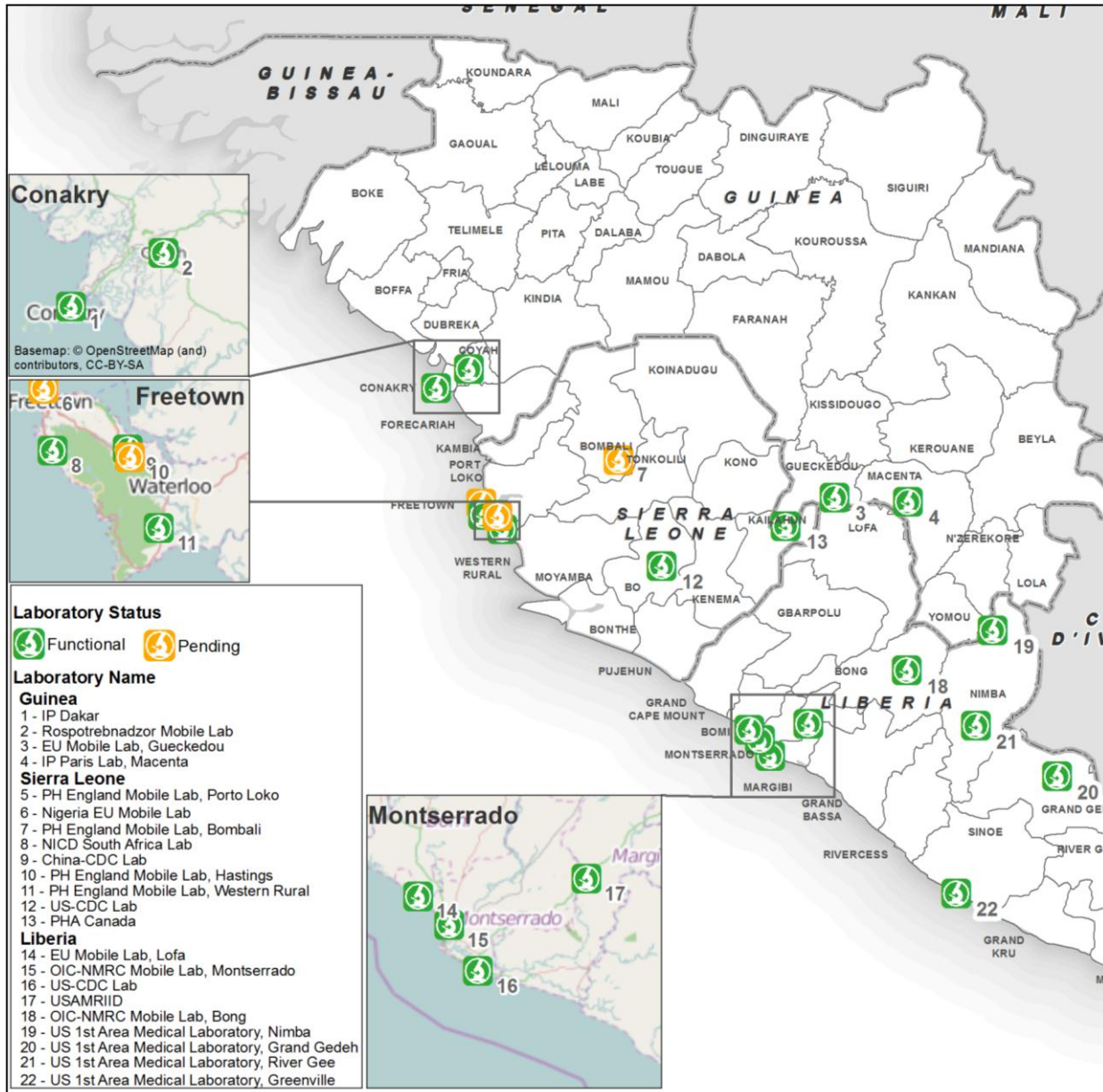
Country	Cases	Deaths
Guinea	121	62
Liberia*	363	174
Sierra Leone	138	106
Total	622	342

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 4–7 December.

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.

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



Safe and dignified burials

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.

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.

Budget

As of 5 December, WHO had received US\$186.8 million, with a further \$31.9 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).

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 7 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 7 December 2014, 219 of 227 current contacts linked with the outbreak in Bamako were monitored.

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.

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
Mali	7	1	0	6	25%	26	407	-	-
United States of America	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.

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 with a rapid and adequate response.

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 support 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, Niger 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 support 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 visited the Central African Republic and Ethiopia. Niger will be visited during the week of 8 December.

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.

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	WHO	# of CCC beds planned	UNMEER
Capacity to isolate patients (beds per reported 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

*Used as a proximate measure of the effectiveness of infection prevention and control measures in EVD treatment facilities.

ANNEX 3: COORDINATION OF THE EBOLA RESPONSE

Response activity	Lead agency
Case management	WHO
Case finding, lab and contact tracing	WHO
Safe and dignified burials	IFRC
Community engagement and social mobilization	UNICEF
Crisis management	UNMEER
Logistics	UNMEER and WFP
Cash payments coordination	UNDP
Staffing	UNMEER
Training	WHO and US CDC
Information management	UNMEER