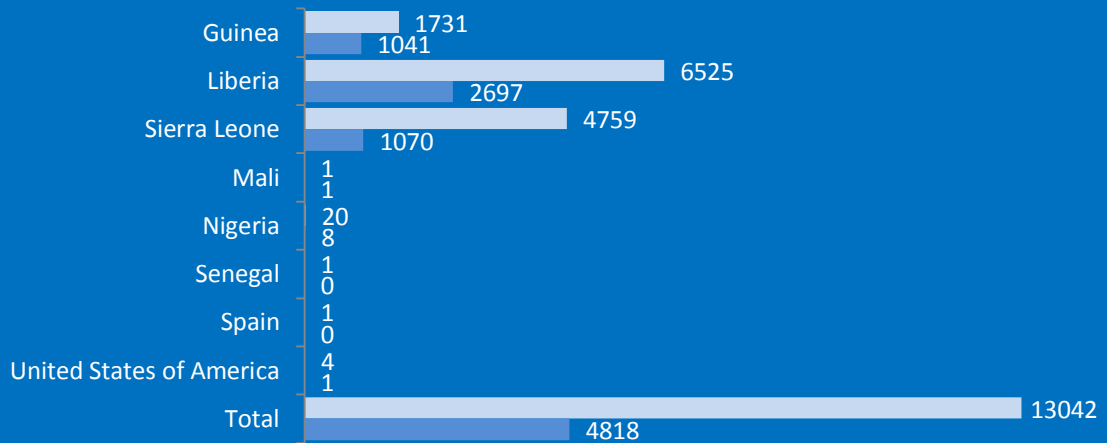




HIGHLIGHTS

- There have been 13 042 reported cases of Ebola, with 4818 reported deaths, up to the end of 2 November.
- All districts in Liberia and Sierra Leone have been affected.
- All 83 contacts of the health-care worker infected in Spain have completed 21-day follow-up.

CASES/ DEATHS



SUMMARY

A total of 13 042 confirmed, probable, and suspected cases of Ebola virus disease (EVD) have been reported in six affected countries (Guinea, Liberia, Mali, Sierra Leone, Spain and the United States of America) and two previously affected countries (Nigeria and Senegal) up to the end of 2 November. There have been 4818 reported deaths.

The outbreaks of EVD in Senegal and Nigeria were declared over on 17 October and 19 October 2014, respectively.

At the country level, the weekly incidence appears to be stable in Guinea. In Sierra Leone the weekly incidence continues to rise, while in Liberia it appears to be declining. In all three countries, EVD transmission remains persistent and widespread, particularly in the capital cities. All administrative districts in Liberia and Sierra Leone have reported at least 1 confirmed or probable case of EVD since the outbreak began. Cases and deaths continue to be under-reported in this outbreak.

Of the countries with localized transmission, Mali and the United States of America continue to monitor potential contacts. In Spain, all 83 contacts of the health-care worker infected in Madrid have completed the 21-day follow-up period.

OUTLINE

This is the eleventh in a series of regular situation reports on the Ebola Response Roadmap.¹ The report 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 accuracy of information about both the epidemiological situation and the implementation of response measures.

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

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. An overview of the situation in the Democratic Republic of the Congo, where there is a separate, unrelated outbreak of EVD, is also provided (see Annex 2).

1. COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

A total of 13 015 confirmed, probable, and suspected cases of EVD and 4808 deaths have been reported up to the end of 2 November 2014 by the Ministries of Health of Guinea and Sierra Leone, and 31 October by the Ministry of Health of Liberia (table 1).

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	1457	247	837
	Probable	204	9	204
	Suspected	70	*	0
	All	1731	256	1041
Liberia	Confirmed	2451	19	*
	Probable	1627	379	*
	Suspected	2447	*	*
	All	6525	398	2697
Sierra Leone	Confirmed	4057	1160	893
	Probable	79	14	142
	Suspected	623	*	35
	All	4759	1174	1070
Total		13 015	1828	4808

*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. The fewer cases reported this week compared with the Situation Report of 29 October is due to a change in the use of data sources. In this report, the cumulative total numbers of cases and deaths nationally (table 1) and by district (figures 1-3) are identical to those presented in situation reports compiled by ministries of health and WHO country offices. Previously, these totals were derived from a combination of patient databases and country situation reports. The revised approach unifies the totals presented in this report with those given in national reports. *Data not available.*

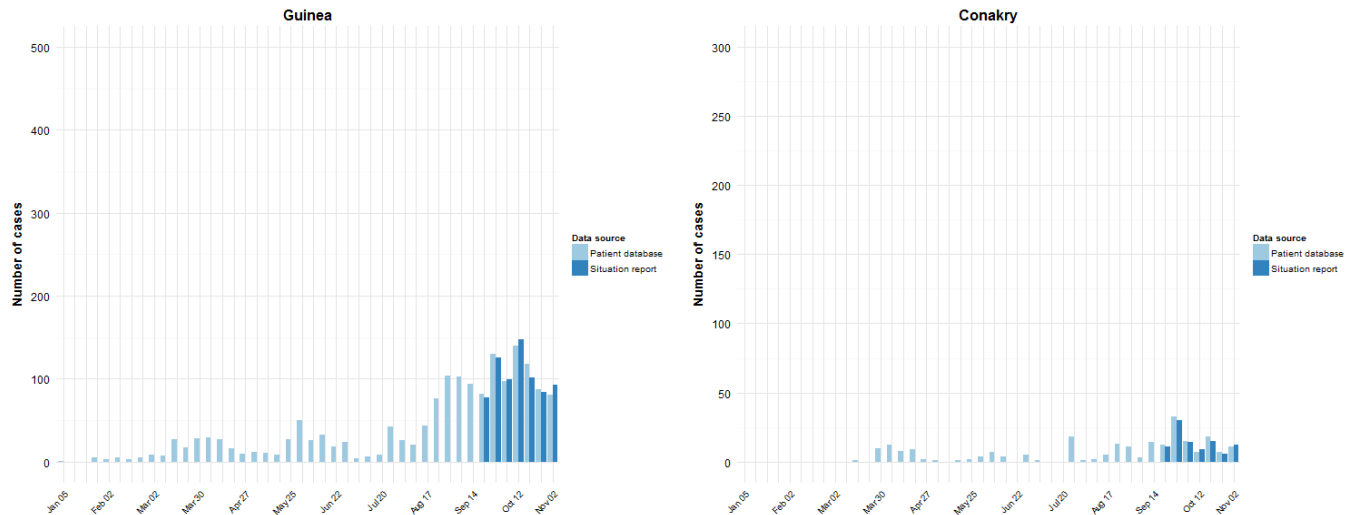
GUINEA

While the incidence of EVD appears to be stable at a national level, EVD transmission in Guinea remains intense. There were 93 new confirmed cases reported in the past week, and more than half of those cases were reported in Macenta, in the south-west of Guinea near the Liberian border. The district reported 50 confirmed cases in the past week, and remains the most seriously affected area in Guinea.

There are, however, signs that the incidence could be flattening in some areas. The outbreak's epicentre of Gueckedou did not report a single confirmed case in the past week. In recent weeks, the district has been reporting fewer than average cases each week than in the preceding six months.

Conakry reported 12 confirmed cases in the past week, making the capital a continuing area of concern during this outbreak (figure 1). Transmission also persists in N’Zerekoree, south-east of Macenta, which reported 11 confirmed cases. The district of Kerouane reported 7 confirmed cases, compared with 22 in the previous week. It is too soon, however, to determine whether this decline in new cases will be sustained. By contrast with Liberia and Sierra Leone, several areas of Guinea remain unaffected by Ebola, and no new districts have reported cases in the past week.

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

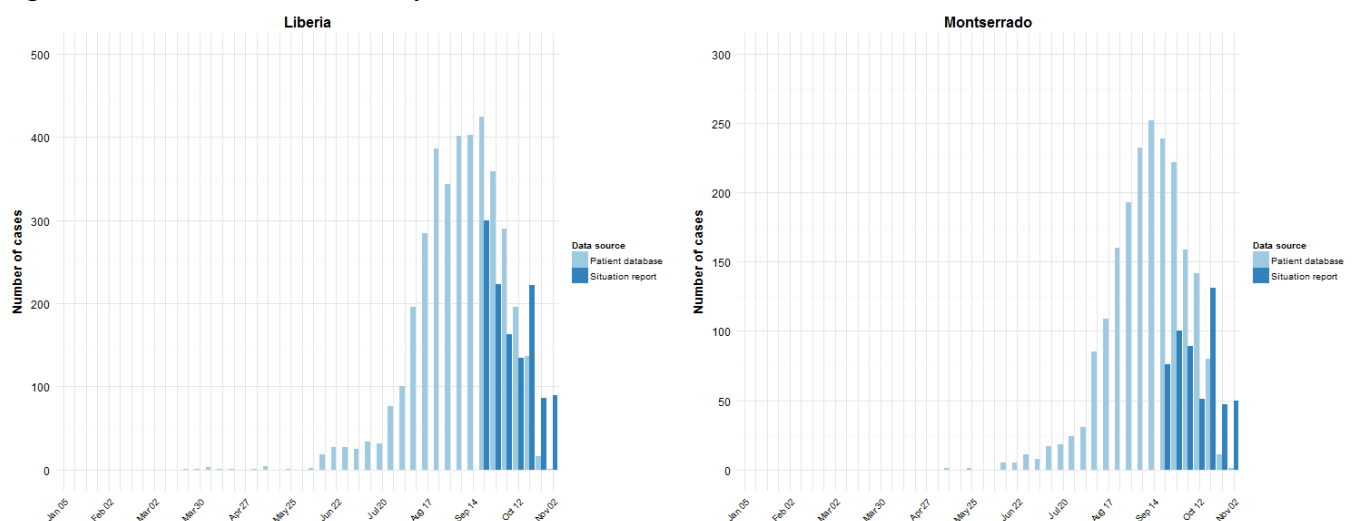


The epidemic curves in figures 1-3 show separately the weekly case numbers provided in country situation reports (beginning from epidemiological week 38, 15-21 September) and from patient databases. In general, the patient databases give the best representation of the history of the epidemic. However, data for the most recent weeks are sometimes less complete than in the weekly situation reports. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

LIBERIA

There appears to be some evidence of a decline at the national level in Liberia, although new case numbers remain high in parts of the country. While Liberia did not report any confirmed cases in its situation reports in the past week, it reported 89 probable cases. The Montserrado area, which includes the capital of Monrovia, accounted for 50 probable cases in the past week (figure 2). This continuing intensity of transmission emphasizes the need to continue efforts to contain the spread of disease in the capital.

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



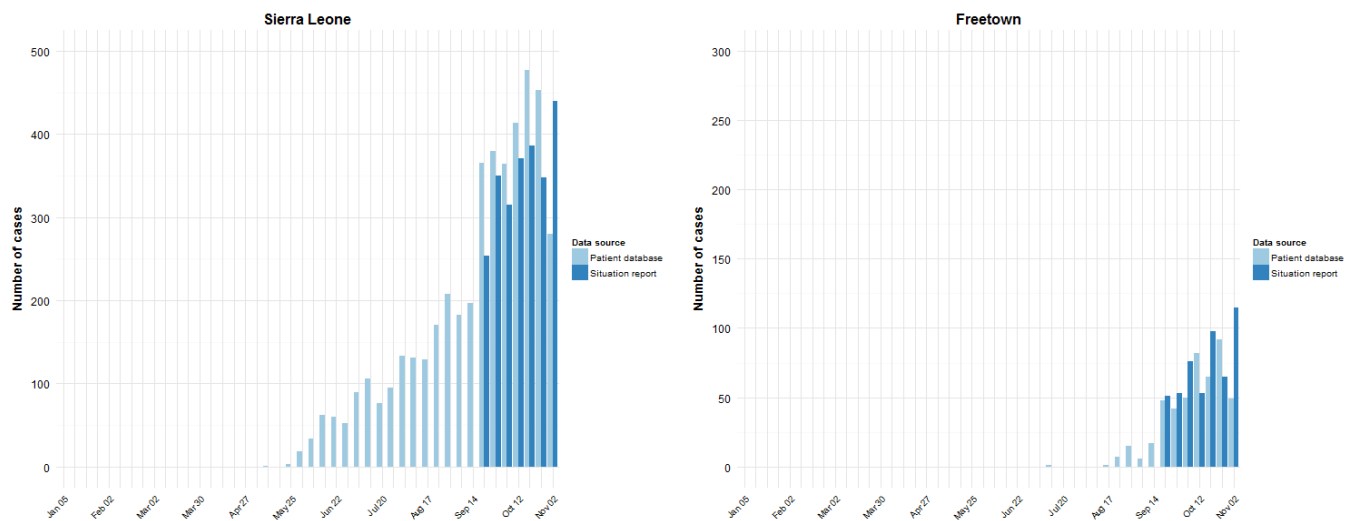
Transmission also persists in the district of Margibi, which reported 24 probable cases in the past week. Other districts reporting probable cases in the past week are Sinoe (4), Grand Bassa and Grand Cape Mount (3 each), and Bong and Nimba (2 each). However, in further evidence that the incidence is flattening in some districts, Lofa did not report a single case in the past week. The district has shown a gradual decline in incidence in the past six weeks. More data, including an analysis of laboratory data, are needed to examine more thoroughly the situation in Liberia. Data for the country are missing for 1 and 2 November.

SIERRA LEONE

EVD transmission remains very concerning in Sierra Leone, with the country reporting 435 confirmed cases in the past week. Much of this was driven by intense transmission in the capital of Freetown, which reported 115 new confirmed cases and remains one of the worst affected cities in this outbreak (figure 3). The western districts of Bombali (90 confirmed cases) and Port Loko (64 confirmed cases) and the western rural area of the country (75 confirmed cases) remain key drivers of the rise in incidence in the country.

Transmission is also persisting in Tonkolili, which reported 30 confirmed cases in the past week, and Koinadugu, which reported 10 confirmed cases in that period. However, there is more evidence of a recent decline in the number of cases reported weekly in Kenema and Kailahun. The districts reported 10 and 4 new confirmed cases respectively in the past week.

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



HEALTH-CARE WORKERS

A total of 546 health-care workers (HCWs) are known to have been infected with EVD up to the end of 2 November, 310 of whom have died. Four HCWs were infected between 27 October and 2 November.

WHO is undertaking extensive investigations to determine the source of exposure in each case. Early indications are that a substantial proportion of infections occurred outside the context of Ebola treatment and care centres. Infection prevention and control quality assurance checks are underway at Ebola Treatment Centres in the three intense-transmission countries.

WHO has conducted a review of personal protective equipment (PPE) guidelines for HCWs providing direct care to patients, and has updated its guidelines in the context of the current Ebola 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.

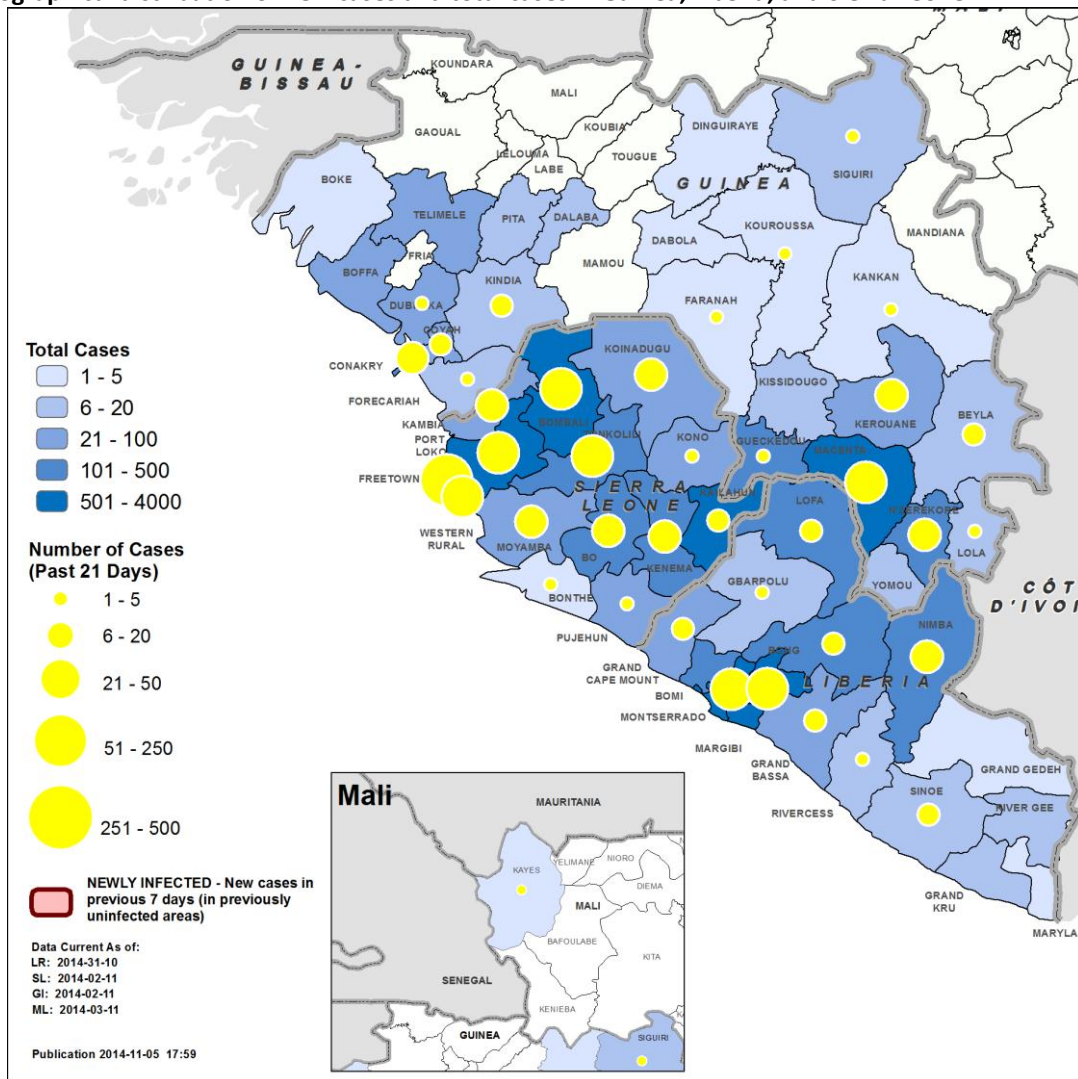
WHO has moved more than 1 million sets of PPE to Guinea, Liberia and Sierra Leone, and continues to work with ministries of health and other partners to procure and distribute PPE where it is most needed.

Table 2: Ebola virus disease infections in health-care workers

Country	Cases	Deaths
Guinea*	88	46
Liberia*	315	157
Nigeria**	11	5
Sierra Leone*	128	102
Spain	1	0
United States of America***	3	0
Total	546	310

*Countries with widespread and intense transmission. **Now declared free of EVD transmission. ***Includes two HCWs infected in the USA while treating an Ebola patient from Liberia, and a HCW infected in Guinea. Data are based on official information reported by ministries of health. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

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



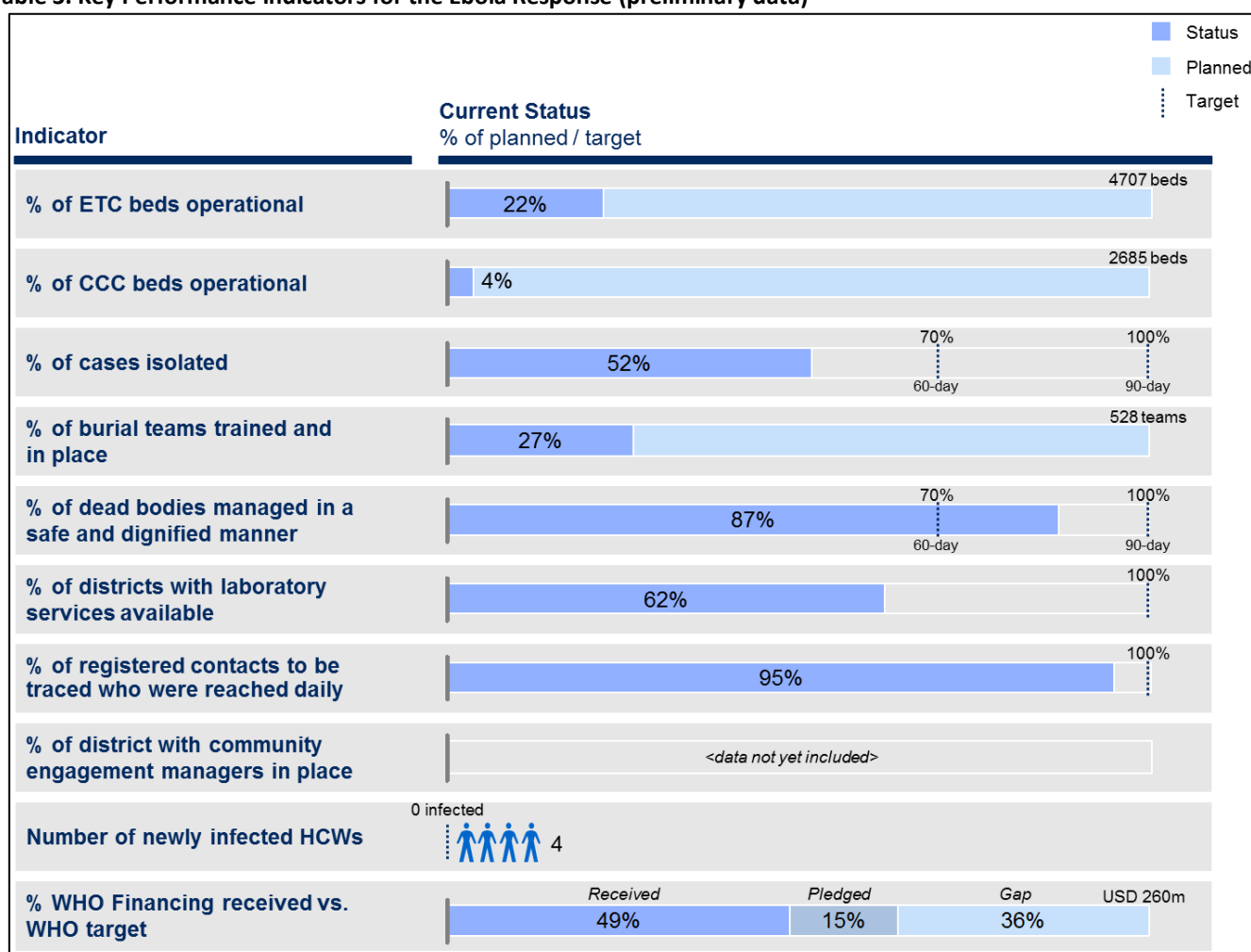
Data are based on situation reports provided by countries. The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of 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.

RESPONSE IN COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

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. The mission’s 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 countries currently unaffected.

A comprehensive 90-day plan to control and reverse the EVD outbreak in West Africa has been implemented. Among the plan’s key objectives is to have the capacity to isolate at least 70% of EVD cases and safely bury at least 70% of patients who die from EVD by 1 December 2014 (the 60-day target). The ultimate goal is to have capacity to isolate 100% of EVD cases and safely bury 100% of patients who die from EVD by 1 January 2015 (the 90-day target).

Table 3. Key Performance Indicators for the Ebola Response (preliminary data)



Information in this table represents data from different time periods, which are specified in the text.

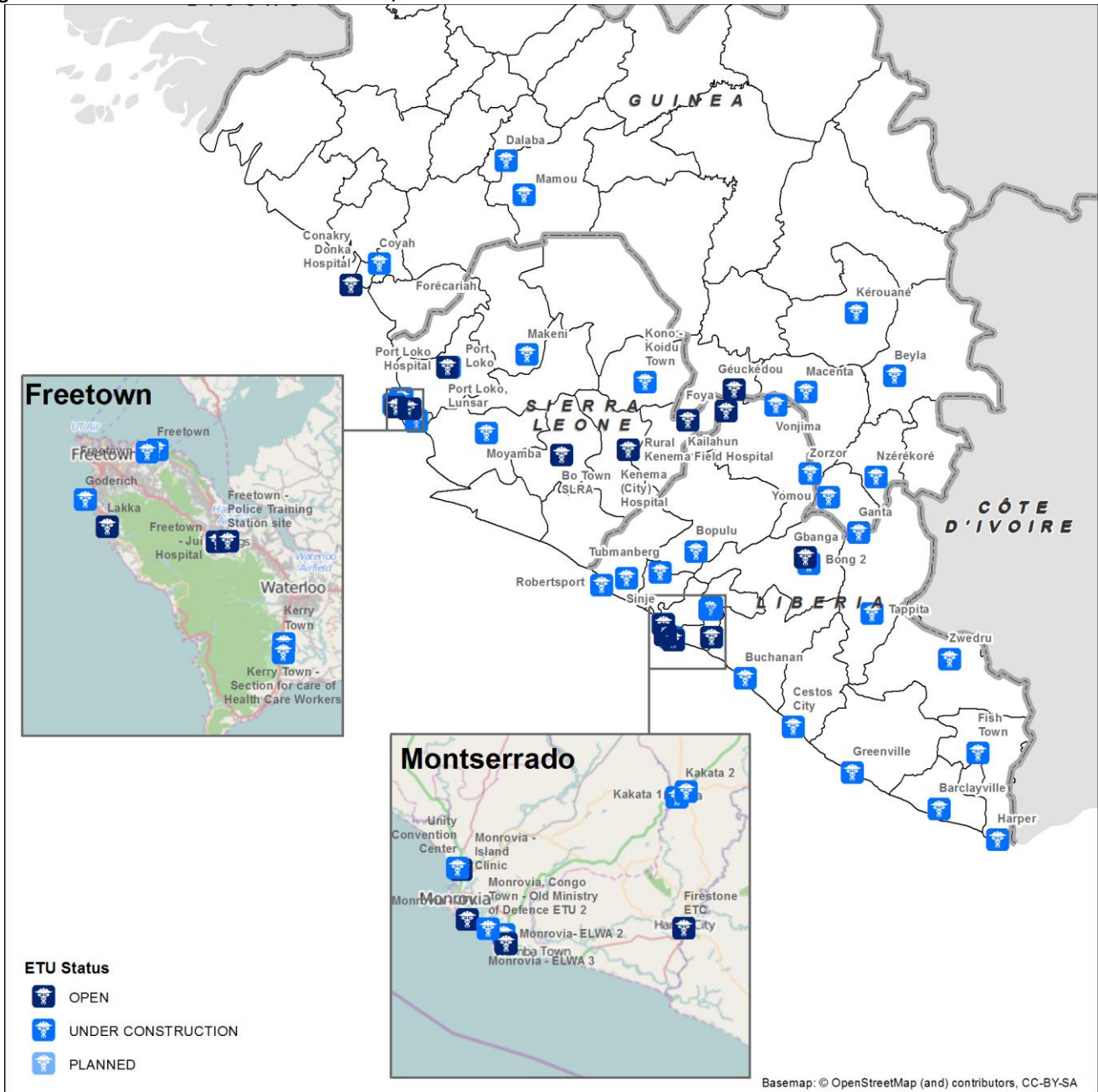
Data on a range of indicators are being collected, to enable a more complete understanding of the Ebola outbreak response, and how it is being evaluated. Systems for data collection are being implemented, and it is anticipated that these systems will improve. Table 3 draws on preliminary data to provide a snapshot of the response thus far.

Case management

Isolating EVD patients in Ebola Treatment Centres (ETCs) and Community Care Centres (CCCs) is critical in the prevention of further transmission. For the period 13 to 19 October, 52% of Ebola patients were reported to be hospitalized and isolated in the three intense-transmission countries.

The total number of ETC beds in the three countries has grown, from 284 beds at the beginning of August to 1047 beds at the end of October. Liberia, which remains the worst affected country in this outbreak, has the highest number of EVD beds (593), while Sierra Leone has 294 and Guinea has 160.

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



Of the planned 4707 ETC beds, 22% are currently in operation (figure 5 and table 3). The establishment of more beds is in part held back by challenges in finding sufficient numbers of foreign medical teams to operate ETCs. Guinea currently has two foreign medical teams operating ETCs, and is in need of at least five more to operate 350 more beds. Liberia has three foreign medical teams and is in need of 13 more to support the operation of

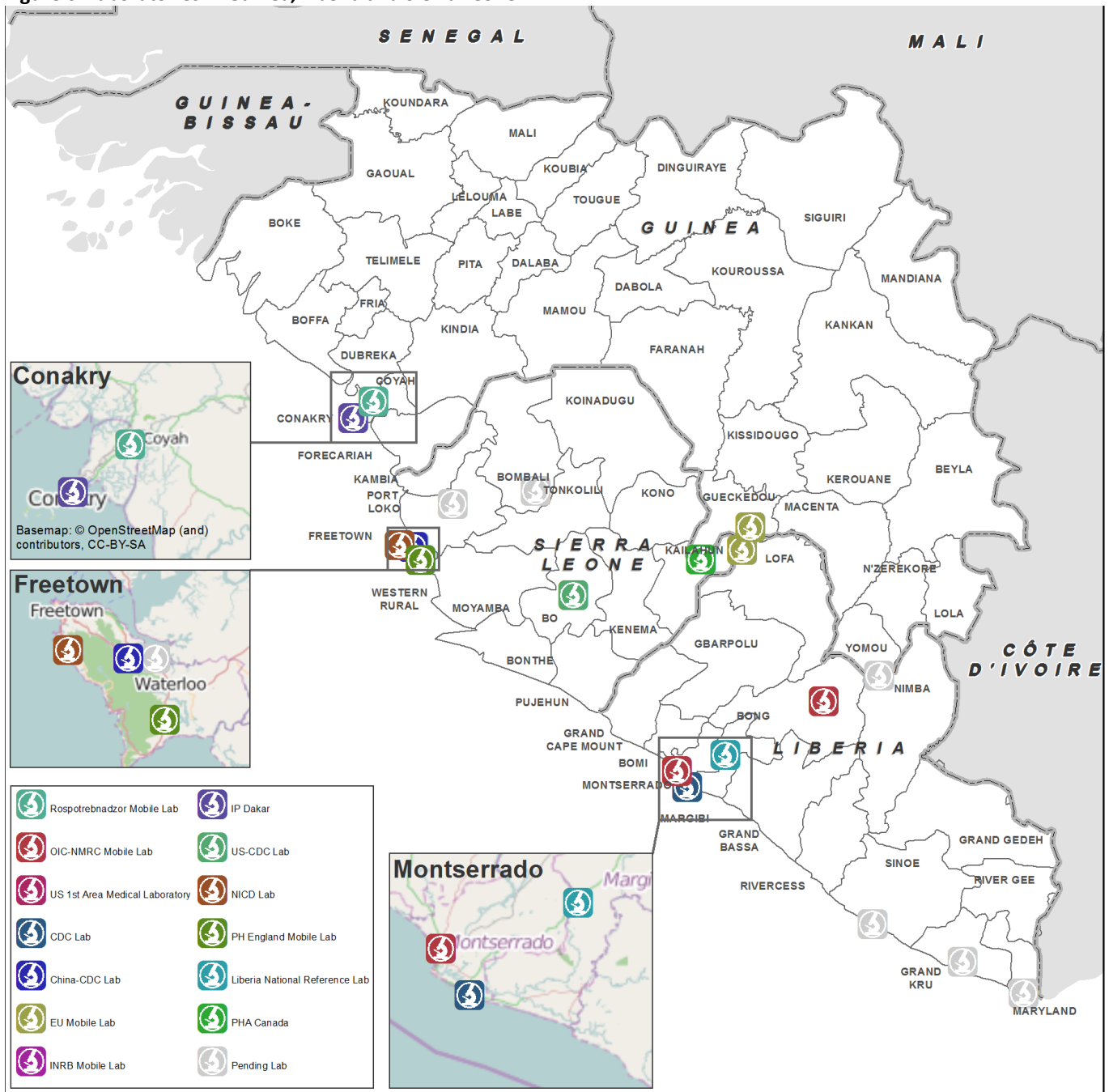
1200 more beds. Sierra Leone has five teams, and 10 more are being deployed. This situation does not take into account the 21 identified foreign medical teams that will soon be deployed to Guinea and Liberia.

WHO has been working with key partners, including the Centers for Disease Control and Prevention, UNICEF, Médecins Sans Frontières and others, to establish more CCCs. These can provide an alternative to care when there is insufficient capacity in ETCs. Guidelines on the implementation of CCCs are being finalized.

Safe and dignified burials

Conducting burials in a safe and dignified manner is an important component of the Ebola outbreak response. In many cases Ebola deaths are not reported, and the burials of these patients are not managed safely. This can lead to further transmission of the disease.

Figure 6. Laboratories in Guinea, Liberia and Sierra Leone



The International Federation of Red Cross and Red Crescent Societies (IFRC) is the lead agency managing burials and cremations. It estimates that of all Ebola deaths, 87% (4404 of 5060 cumulative deaths) have been managed by a trained burial or cremation team. A limitation of this estimation is that a significant number of deaths and burials are not reported, making it difficult to collect complete information on the number of burials in each country. This proportion also does not yet capture burials managed by other organizations. IFRC has teams in some, but not all, districts.

WHO estimates there is a need for 528 trained burial teams in the three countries with widespread and intense transmission. Currently, 140 trained teams are on the ground, including 34 teams in Guinea, 50 teams in Liberia, and 56 in Sierra Leone.

Case confirmation and surveillance

A critical aspect of the response to the Ebola outbreak is the prompt and accurate diagnosis of cases. As at 4 November, 62% (33 out of 53) Ebola-affected districts are reported to have laboratory support (figure 6). The Public Health England Laboratory began testing samples on 27 October in western Sierra Leone. This brings the total number of laboratories with the capacity to confirm Ebola cases in the most affected countries to 13 – 5 in each of Liberia and Sierra Leone, and 3 in Guinea.

The reduction in the proportion of districts with access to laboratory support, compared with the 83% reported in the Situation Report of 29 October, reflects a change in the definition of Ebola-affected districts. The definition has been expanded to include all districts in intense-transmission countries that have reported a confirmed or probable EVD case in the current outbreak. The definition in last week's report included Ebola-affected districts reporting an EVD case only in the previous 21 days. The updated definition captures the ongoing need for case confirmation in all districts that have been affected by Ebola, including those without cases.

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 300 samples per day.

Effective contact tracing ensures that registered contacts of confirmed Ebola cases are identified and visited daily. Contacts presenting symptoms should be promptly isolated to prevent further disease transmission.

Each affected district is reported to have at least one contact-tracing team. In the past week, 4067 new contacts were identified in Guinea, Liberia and Sierra Leone. During the week, 95% (126 343 of 133 247) of required daily contact visits were conducted. However, the proportion of contacts reached was lower in many districts.

The number of contacts listed per case varies. In Sierra Leone, on average only 7 contacts per case were listed. In Guinea, on average only 4 contacts were identified per case. The low average number of contacts listed per case suggests that the estimate of 95% gives an unduly unfavourable view of the success of contact tracing.

Active case finding teams are being mobilized as a complementary detection strategy.

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 countries to review and assist them with their social mobilization plans. Data are not yet available on community engagement indicators.

Budget

WHO requires USD 260 million to meet the objectives of its response to the Ebola outbreak. As of 24 October, WHO has received 49% of these funds, while 15% of the funds required have been pledged. This leaves a gap of 36%. WHO continues to appeal to Member States to provide funding and other resources to assist in containing the Ebola outbreak.

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.

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. A national EVD outbreak is considered to be over when 42 days (double the 21-day incubation period of the Ebola virus) has elapsed since the last patient in isolation became laboratory negative for EVD.

Table 4: Ebola virus disease cases and deaths in Mali, Spain and the United States of America

Country	Case definition	Cases	Deaths
Mali	Confirmed	1	1
	Probable	0	0
	Suspected	0	0
	All	1	1
Spain	Confirmed	1	0
	Probable	0	0
	Suspected	0	0
	All	1	0
United States of America	Confirmed	4	1
	Probable	0	0
	Suspected	0	0
	All	4*	1
	Total	6	2

**Includes two HCWs infected in the USA while treating an Ebola patient from Liberia, and a HCW infected in Guinea. 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.*

On 23 October, Mali reported its first confirmed case of EVD. The patient was a 2-year old girl who travelled from Guinea with her grandmother to Mali. The patient was symptomatic for much of the journey. On 22 October the patient was taken to Fousseyni Daou hospital in Kayes, where she died on 24 October. At present, 108 contacts are being monitored. This includes 79 in Kayes and 29 in Bamako. A WHO preparedness team was in Mali, helping to assess the country's state of readiness for an initial Ebola case. The team was immediately repurposed to provide expertise and support to Malian health authorities in infection prevention and control, contact tracing and in the training of health-care workers. A WHO team and partners continue to support the country.

In Spain, a HCW infected while caring for an Ebola patient in Madrid tested negative for EVD on 19 October. A second negative test was obtained on 21 October. Spain will therefore be declared free of EVD 42 days after the date of the second negative test if no new cases are reported. All 83 contacts of the HCW have completed 21-day follow-up.

In the United States of America, there have been 4 cases and 1 death. Two HCWs have tested negative for Ebola twice and have been released from hospital. Another HCW has been placed in isolation in New York and is receiving treatment. Of 177 possible contacts, 53 are being monitored and 124 have completed 21-day follow-up.

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

The evolving EVD outbreak highlights that there is a considerable risk of cases appearing in countries that are currently unaffected. With adequate levels of preparation, however, such introductions of 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 in countries at high risk of an outbreak of EVD. Important 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.

Fifteen countries that neighbour countries with widespread and intense transmission, or that otherwise have strong trade and travel ties with countries with widespread and intense transmission, have been prioritized for technical assistance on preparedness from specialist WHO teams and partners. This work will continue over the next four weeks. These countries are: Benin, Burkina Faso, Cameroon, Central African Republic, Cote D'Ivoire, Democratic Republic of Congo, Gambia, Ghana, Guinea Bissau, Mali, Mauritania, Nigeria, Senegal, South Sudan, and Togo.

WHO and partners are supporting these countries to help increase their level of preparedness. A team was deployed to Mali and Cote d'Ivoire in October. In the next week, it is expected that teams will visit Cameroon, Ghana, Guinea-Bissau, Mauritania and Togo.

WHO has developed the *Consolidated Ebola Virus Disease Preparedness Checklist* to help countries ensure they are ready to cope, should there be a case or cases of EVD. The checklist, along with other tools such as simulation exercises, help countries to assess and test their level of readiness. They can be used as the basis to identify action to be taken by countries and the international community to close potentially existing gaps. The consolidated checklist identifies 10 key components and tasks for countries and the international community that should be completed within 30, 60 and 90 days from the date of issuing the list. This includes overall coordination, rapid response, public awareness and community engagement, infection prevention and control, case management of ETCs and safe burials, epidemiological surveillance, contact tracing, laboratory capacity, and capacity building for Points of Entry.

WHO, the United Nations and other partners are accelerating the deployment of international preparedness strengthening teams, to help countries build upon their existing work and planning.

ANNEX 1: CATEGORIES USED TO CLASSIFY EBOLA CASES

Ebola cases are classified as suspected, probable, or confirmed depending on whether they meet certain criteria (table 5).

Table 5: Ebola 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 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' Ebola 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 Ebola virus in the laboratory.

ANNEX 2: EBOLA OUTBREAK IN DEMOCRATIC REPUBLIC OF THE CONGO

As at 29 October there have been 66 cases (38 confirmed, 28 probable) of EVD reported in the Democratic Republic of the Congo, including 8 among HCWs. In total, 49 deaths have been reported, including 8 among HCWs. No new reported contacts are being followed. The test results of 1 suspected case are not yet known.

Twenty-four days have passed since the last case tested negative twice and was discharged from hospital. Once 42 days have passed, the country can be declared free of Ebola. This outbreak is unrelated to that affecting Guinea, Liberia, Mali, Nigeria, Senegal, Sierra Leone and the United States of America.