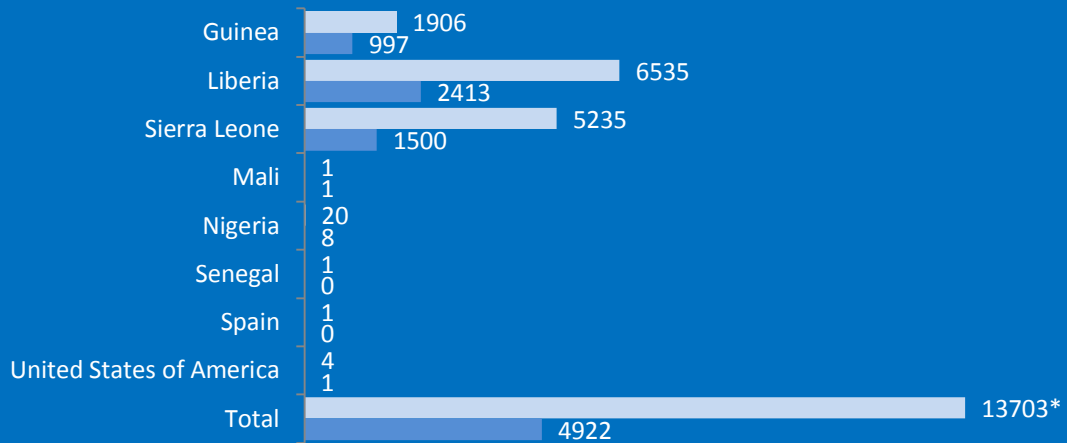




HIGHLIGHTS

- There have been 13 703 EVD cases, with 4 920 deaths, up to the end of 27 October.
- All districts in Liberia and Sierra Leone are now affected.
- Thursday 30 October marks 30 days since the UN Mission for Ebola Emergency Response plan was implemented.
- Mali reported its first case on 23 October.

CASES/ DEATHS



\*The marked increase in the cumulative total number of cases compared with the situation report of 22 October results from a more comprehensive assessment of patient databases. The additional 3 792 cases have occurred throughout the epidemic period, not only since 22 October.

SUMMARY

A total of 13 703 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 27 October. There have been 4 922 deaths.

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

EVD transmission remains persistent and widespread in Guinea, Liberia, and Sierra Leone. All administrative districts in Liberia and Sierra Leone have now reported at least one confirmed or probable case of EVD since the outbreak began. Cases of EVD transmission remain lowest in Guinea, but case numbers are still very high in absolute terms. Transmission remains intense in the capital cities of the three most affected countries. Cases and deaths continue to be under-reported in the outbreak.

Of the countries with localized transmission, Mali, Spain and the United States of America continue to monitor potential contacts. In Mali, a 2-year-old girl died of Ebola on 24 October, after travelling with her grandmother from Guinea. The case makes Mali the sixth West African nation to be affected in the current Ebola outbreak.

In Spain, the single patient with EVD tested negative for the disease for a second time on 21 October. Spain will be declared free of EVD 42 days after the date of the second negative test, unless a new case arises during that period. In the US, two health-care workers have tested negative for Ebola for the second time, and have been discharged from hospital. Another health-care worker remains in isolation and is receiving treatment.

## OUTLINE

This is the tenth in a series of regular situation reports on the Ebola Response Roadmap<sup>1</sup>. 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.

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 13 676 confirmed, probable, and suspected cases of EVD and 4 910 deaths have been reported up to the end of 27 October 2014 by the Ministries of Health of Guinea, and Sierra Leone, and 25 October for Liberia (table 1). All districts in Liberia and Sierra Leone have now reported at least one case of EVD since the start of the outbreak (figure 4).

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

Country	Case definition	Cumulative Cases	Cases in past 21 days	Cases in past 7 days/total cases (%)	Deaths
Guinea	Confirmed	1 391	332	24%	*
	Probable	199	19	10%	*
	Suspected	316	315	100%	*
	<b>All</b>	<b>1 906</b>	<b>666</b>	<b>35%</b>	<b>997</b>
Liberia	Confirmed	2 515	35	1%	*
	Probable	1 540	363	24%	*
	Suspected	2 480	469	19%	*
	<b>All</b>	<b>6 535</b>	<b>867</b>	<b>13%</b>	<b>2 413</b>
Sierra Leone	Confirmed	3 700	1 187	32%	*
	Probable	322	14	4%	*
	Suspected	1 213	232	19%	*
	<b>All</b>	<b>5 235</b>	<b>1 433</b>	<b>27%</b>	<b>1 500</b>
<b>Total</b>		<b>13 676</b>	<b>2966</b>	<b>22%</b>	<b>4 910</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 not available.

The histograms below have been assembled by combining detailed patient data with advance notification of the most recent EVD case reports, provided by each country.

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

**GUINEA**

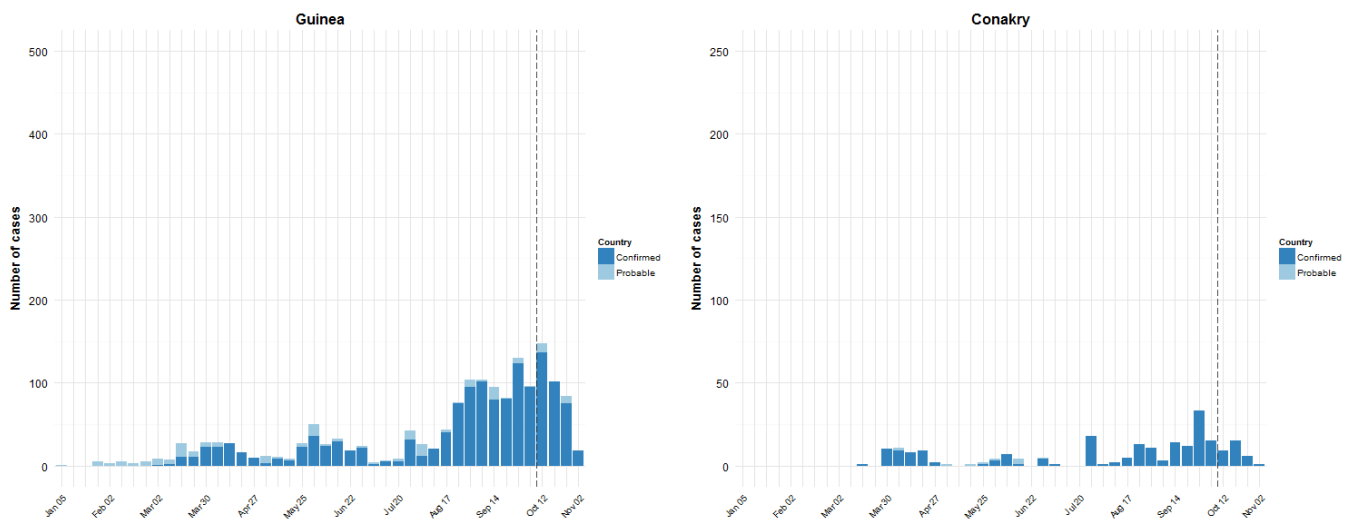
EVD transmission in Guinea remains concerning, with 1 906 confirmed, suspected and probable cases. By contrast with Liberia and Sierra Leone, however, several areas of Guinea are still to report a single case of EVD, whilst a number of districts have been free of Ebola for several weeks. No new districts reported EVD cases in the last complete epidemiological week.

The most intense transmission in the country is occurring in and around Macenta, in the south-west of Guinea near the Liberian border. The district reported 15 confirmed cases in the last full week. While the number of newly reported cases has declined in Macenta for four consecutive weeks, it remains one of the worst affected areas in Guinea.

Transmission also remains strong in the neighbouring district of Kerouane, which reported 22 confirmed cases in the last full week, continuing a rapid three-week growth in new cases. N’Zerekoree, south-east of Macenta, reported 10 confirmed cases. To the west of Macenta, the outbreak’s epicentre Gueckedou has reported few new cases for the past 7 weeks (3 confirmed cases in the last full week), but transmission persists.

Six confirmed cases were reported in Guinea’s capital, Conakry, during the last full week, and the city remains a key area of concern during this outbreak (figure 1). The nearby district of Coyah reported 8 new confirmed cases.

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



Data are based on official information reported by the Ministry of Health of Guinea up to the end of 26 October. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

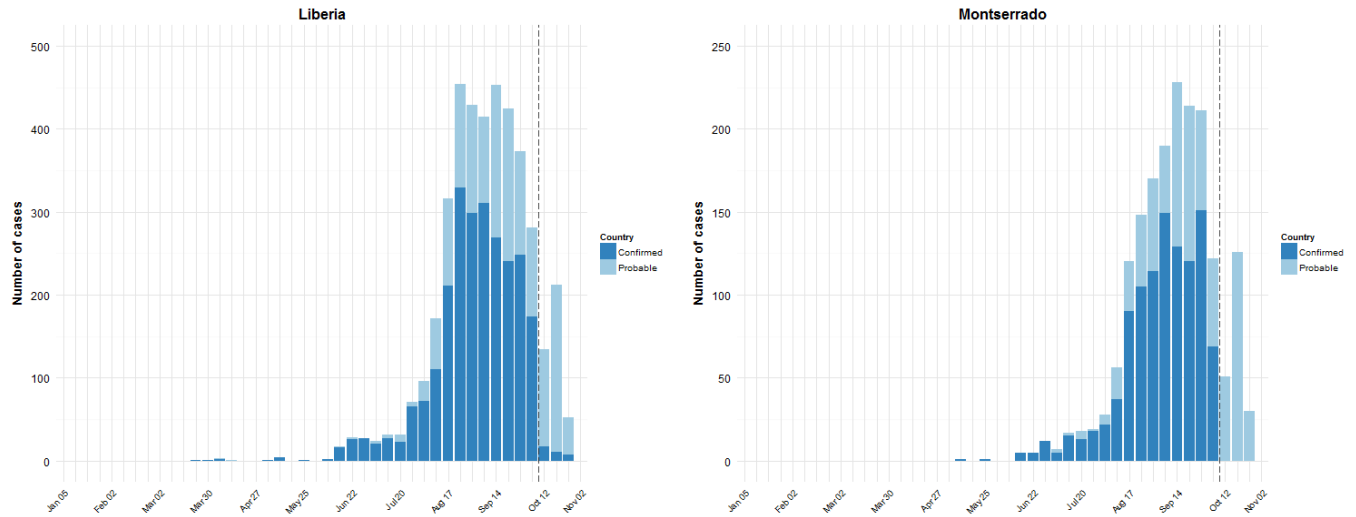
**LIBERIA**

Liberia has reported 6 535 confirmed, probable, and suspected cases, and remains the country worst affected by the outbreak (figure 2).

The most intense transmission continues to occur in the Montserrado area, where 30 new probable cases were reported in the last full week. This region takes in the Liberian capital, Monrovia. The weekly increase in new cases in the area, however, appears to have halted since mid-September, with a reduction in numbers of confirmed and probable cases reported in the week ending 5 October. It is possible that this reflects a true reduction in incidence. However, further data are needed to resolve this question. Liberia continues to report few confirmed cases. Laboratory data on recent confirmed cases may provide scope for deeper analysis not currently provided by the incidence data. The capacity to capture a true picture of the situation in Liberia remains hamstrung by underreporting of cases.

Outside Monrovia, most newly reported cases have come from the districts of Bong, Margibi, and Bomi, which each reported 12 probable cases in the last full week. The district of Grand Gadeh, which was previously considered the only unaffected area in Liberia, now has 2 confirmed and 2 suspected cases. It is likely, however, that these cases did not occur in the past week, and the reporting of these cases has been delayed. Data for Liberia are missing for 19, 20, 21, 26 and 27 October.

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

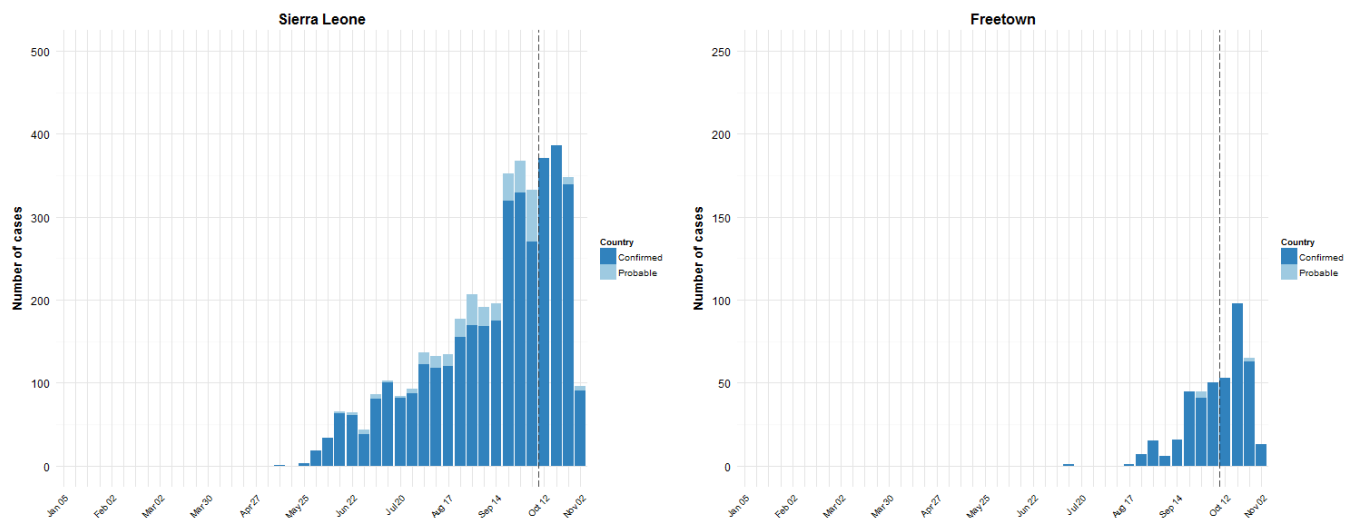


Data are based on official information reported by the Ministry of Health of Liberia up to the end of 26 October. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

**SIERRA LEONE**

EVD transmission remains intense in Sierra Leone, with 5 235 confirmed, probable and suspect cases (figure 3). The western rural region accounted for 81 new cases in the last full week, making it the sixth consecutive weekly rise in the number of new cases in the area. The capital, Freetown, reported 63 new confirmed cases in the last full epidemiological week and remains one of the country’s most badly affected areas. The neighbouring western districts of Bombali (56 confirmed cases in the last full week) and Port Loko (47 confirmed cases) also continue to be seriously affected. In Tonkolili, which is adjacent to both areas, 36 confirmed cases were reported in the last full week, making the district an emerging area of concern. Data for the country are missing for 23 October.

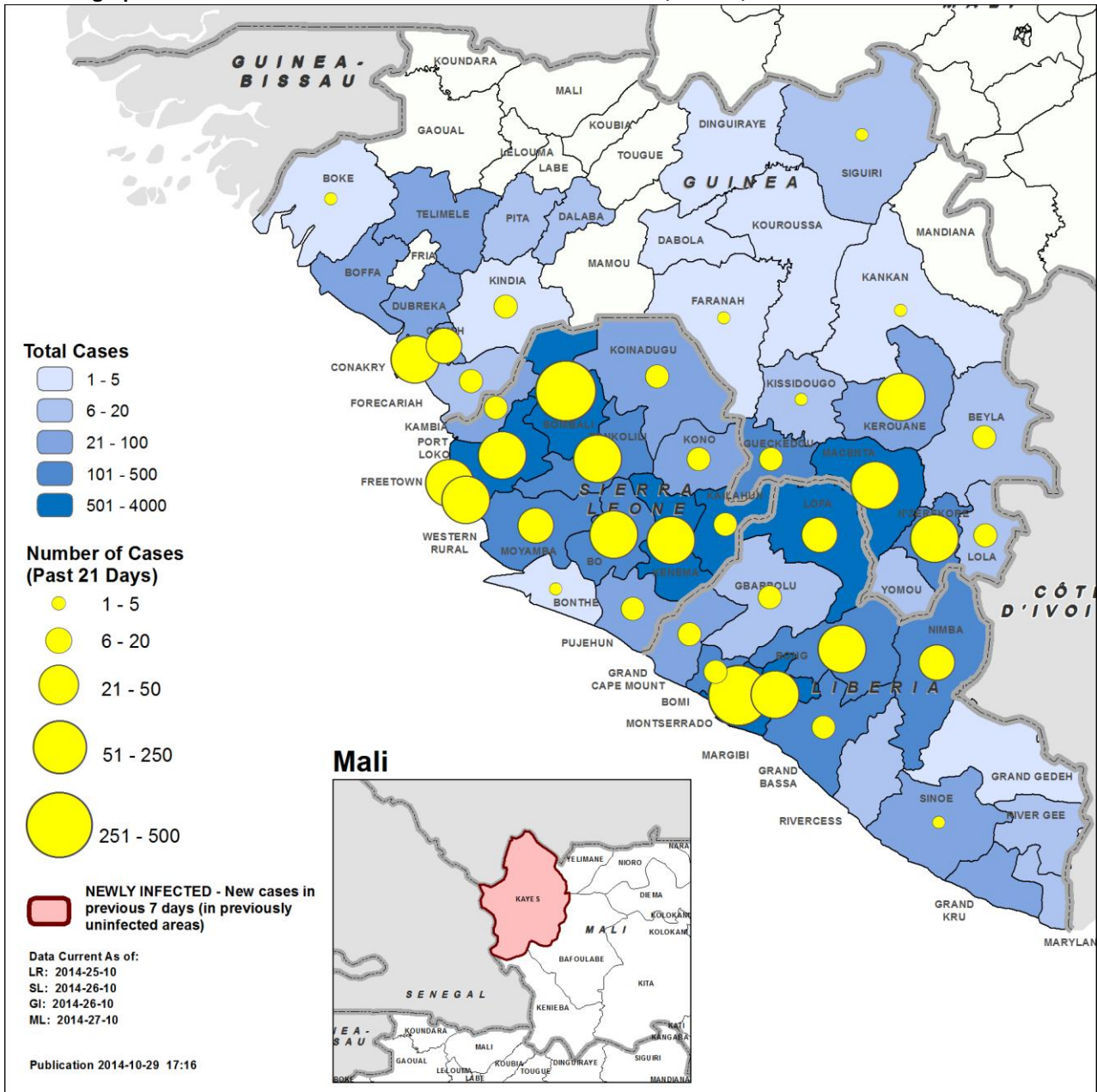
**Figure 3: Ebola virus disease cases reported each week from Sierra Leone and Freetown**



Data are based on official information reported by the Ministry of Health of Sierra Leone up to the end of 27 October. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

The neighbouring regions of Kenema and Kailahun reported 13 and 5 new confirmed cases respectively in the last epidemiological week, and remain among the worst affected areas.

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



Data are based on official information reported by Ministries of Health. 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.

**HEALTH-CARE WORKERS**

A total of 521 health-care workers (HCWs) are known to have been infected with EVD up to the end of 27 October, 272 of whom have died (table 2). The large rise in the number of infections of HCWs in Liberia reflects changes in its method of reporting, and the inclusion of cases that had previously not been reported.

WHO is undertaking extensive investigations to determine the cause of infection in each case. Early indications are that a substantial proportion of infections occurred outside the context of Ebola treatment and care. Infection

prevention and control quality assurance checks are now underway at every Ebola treatment unit in the three intense-transmission countries. At the same time, exhaustive efforts are ongoing to ensure an ample supply of optimal personal protective equipment to all Ebola treatment facilities, along with the provision of training and relevant guidelines to ensure that all HCWs are exposed to the minimum possible level of risk.

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

Country	Cases	Deaths
Guinea*	80	43
Liberia*	299	123
Nigeria**	11	5
Sierra Leone*	127	101
Spain	1	0
United States of America	3	0
<b>Total</b>	<b>521</b>	<b>272</b>

\*Countries with widespread and intense transmission. \*\*Now declared free of EVD transmission. 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.

## RESPONSE IN COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

The first-ever UN emergency public health mission, 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 by EVD.

A comprehensive 90-day plan to control and reverse the EVD outbreak in West Africa has been implemented. Thursday 30 October will mark 30 days since the plan was put into action. 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).

### Case management

Isolating Ebola patients in Ebola Treatment Centres (ETCs) is a critical intervention to reduce the transmission of EVD. Community Care Centres (CCCs) aim to prevent home isolation or home care, which is not recommended by WHO. They are operated with the support of community members and can provide an alternative to ETC treatment, when Ebola patients are turned away due to lack of capacity.

The data indicate that 22% of 4 707 planned ETC beds and 4% of 2 685 planned CCC beds are now in operation (figure 5). However, a health-care partner has already been identified for the construction of 2 110 beds, accounting for 58% of the gap between planned and existing ETC beds. Another 1 550 beds remain at the planning stage, without an identified health-care partner. Efforts are being made by WHO to identify partners to construct, supervise and operate ETC and CCC beds.

### Safe and dignified burials

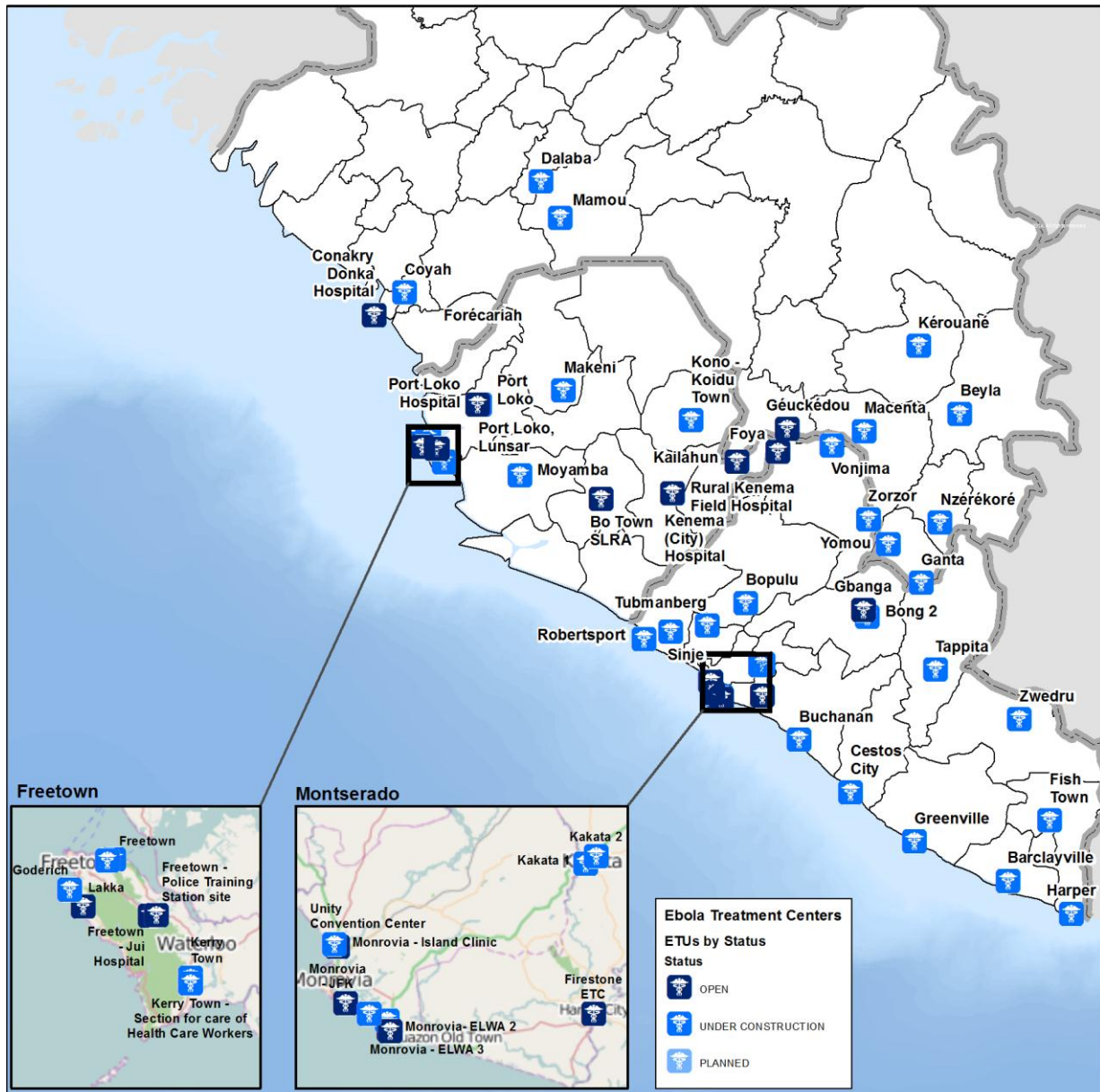
WHO estimates there is a need for 528 trained burial teams in the three countries with widespread and intense transmission. Currently, 140 trained teams are on the ground, including 34 teams in Guinea, 50 teams in Liberia, and 56 in Sierra Leone. This is being done in partnership with the International Federation of the Red Cross (IFRC), the key partner in the management of safe burials.

Data on the proportion of burials that are safe and dignified are not yet available. This is partly due to the practice of burials taking place in secrecy, making it difficult to collect information on the true number of burials in each



country. Understanding burial practices and engaging the community in decision-making are considered crucial in ending the practice of unsafe burials. Guidance on conducting safe and dignified burials in line with Muslim and Christian faiths is being finalized.

Figure 5. Ebola Treatment Centres in the three most affected countries



**Case confirmation**

A critical aspect of the response to the Ebola outbreak is the prompt and accurate diagnosis of cases. Currently, 83% of Ebola-affected districts are reported to have laboratory support. There are currently 12 laboratories – 3 in Guinea, 5 in Liberia and 4 in Sierra Leone – with the capacity to confirm Ebola cases (figure 6).

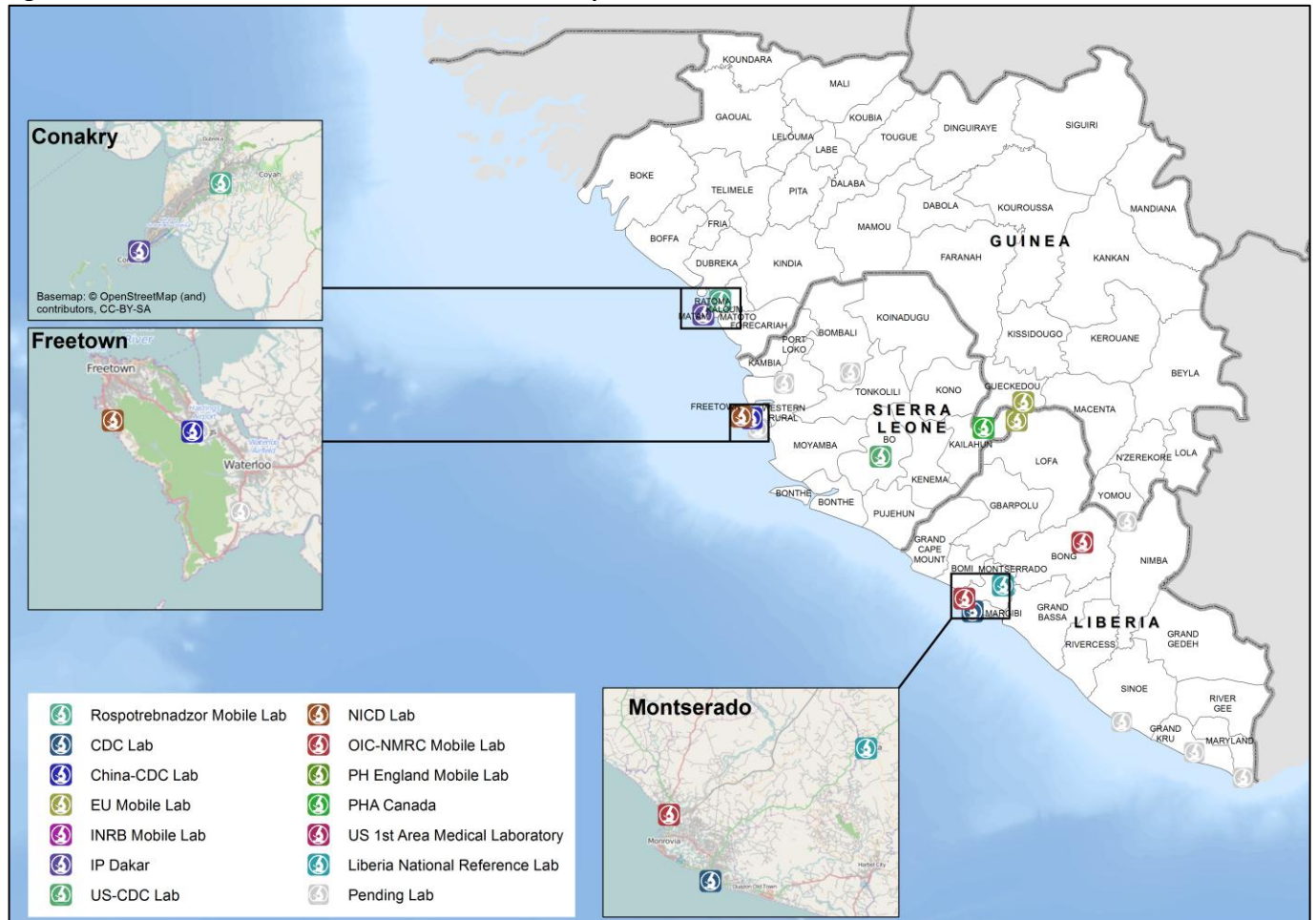
**Contact tracing, community engagement**

Each affected district in countries with intense transmission has the presence of at least one trained contact-tracing team. Contact tracing ensures that registered contacts of Ebola cases are identified and visited daily. Contacts presenting symptoms should be promptly isolated to prevent further disease transmission within the community. UNICEF is the lead agency in social mobilization during this outbreak.

**Budget**

WHO requires \$US 260 million to meet the objectives of its response to the Ebola outbreak. To date, WHO has received 49% of those funds, while 15% of the funds required have been pledged. This leaves a gap of 36% of the funds needed. WHO continues to appeal to Member States to provide funding and other resources to assist in containing the Ebola outbreak.

**Figure 6. Laboratories in the three countries with widespread and intense transmission**



**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 now reported a case or cases imported from a country with widespread and intense transmission (table 3).

In Nigeria, there were 20 cases and eight deaths. In Senegal, there was one 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.

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, 82 contacts are being monitored. This includes 57 in Kayes and 27 in Bamako. Efforts to trace further contacts are ongoing. 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 Mali health authorities in infection prevention and control, contact tracing and in the training of health-care workers. A WHO rapid response team has been deployed to Mali and continues to support the country.

**Table 3: Ebola virus disease cases and deaths in Mali, Spain and the United States of America**

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

In Spain, the single case tested negative for EVD on 19 October. A second negative 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. Of 83 contacts being monitored, there are a total of 6 low-risk contacts currently under follow-up. All of them are asymptomatic. As of 27 October, the follow-up period for the 15 high-risk contacts finished and they have been discharged.

In the United States of America, there have been four cases and one death. Two health-care workers have now tested negative for Ebola twice and have been released from hospital. Another health-care worker has been placed in isolation in New York and is receiving treatment. Of 176 possible contacts, 92 are being monitored and 84 have completed 21-day follow-up.

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

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, will be prioritized for technical assistance on preparedness from specialist WHO teams and partners. 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 working with these countries to help increase their level of preparedness. Teams have already been working with health authorities in Mali and Cote d'Ivoire. Next week, a mission will be deployed in Guinea Bissau. WHO teams and partners are building on previous work with each country, to help identify any gaps in their capacity to identify and respond to an initial EVD case. The programme of work will include a simulation exercise to test the performance of detection and response systems to a suspected case of EVD.

**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 4).

**Table 4: Ebola 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 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' Ebola 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 Ebola virus in the laboratory.

**ANNEX 2: EBOLA OUTBREAK IN DEMOCRATIC REPUBLIC OF THE CONGO**

As at 26 October there have been 66 cases (38 confirmed, 28 probable) of EVD reported in the Democratic Republic of the Congo, including eight among health-care workers (HCWs). In total, 49 deaths have been reported, including eight among HCWs. No new reported contacts are being followed. The test results of one suspected case are not yet known.

Eighteen 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 and Sierra Leone.