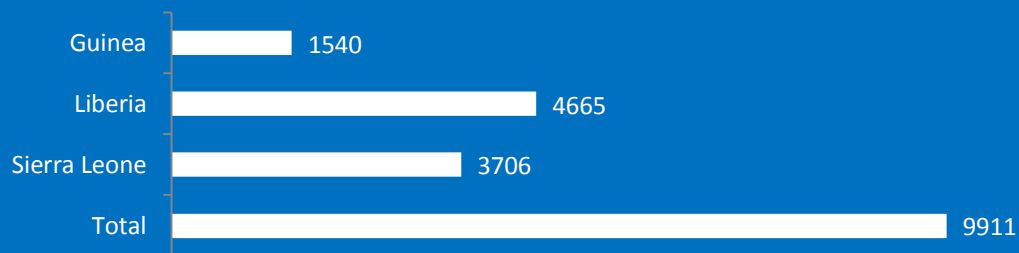




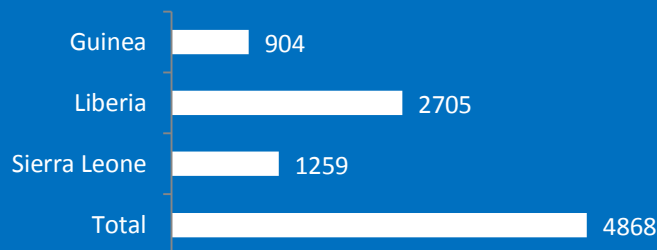
HIGHLIGHTS

- There have been 9936 EVD cases, and 4877 deaths, up to the end of 19 October.
- The outbreaks of EVD in Senegal and Nigeria were declared over on 17 October and 19 October 2014, respectively.
- All districts in Sierra Leone have now reported at least one case of EVD.

CASES



DEATHS



SUMMARY

A total of 9936 confirmed, probable, and suspected cases of Ebola virus disease (EVD) have been reported in five affected countries (Guinea, Liberia, Sierra Leone, Spain, and the United States of America) and two previously affected countries (Nigeria and Senegal) up to the end of 19 October. A total of 4877 deaths have been reported.

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 but one administrative district in Liberia and all administrative districts in 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. Case numbers continue to be under-reported, especially from the Liberian capital Monrovia.

Of the countries with localized transmission, both Spain and the United States continue to monitor potential contacts. On 21 October the single patient with EVD in Spain tested negative for the disease for a second time. 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.

On 22 October 2014, WHO convened the third Emergency Committee on Ebola under the International Health Regulations (2005).

OUTLINE

This is the ninth in a series of regular situation reports on the Ebola Response Roadmap¹. 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. The data contained in this report are the best available. Because of widespread under-reporting of confirmed cases in Liberia, suspected cases are now also shown in country histograms. 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 (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 9911 confirmed, probable, and suspected cases of EVD and 4868 deaths have been reported up to the end of 19 October 2014 by the Ministries of Health of Guinea, and Sierra Leone, and 18 October for Liberia (table 1). All but one district in Liberia and all Sierra Leone have now reported at least one case of EVD since the start of the outbreak (figure 4). Of the eight Guinean and Liberian districts that share a border with Côte d'Ivoire, only the Guinean district of Mandiana is yet to report a confirmed or probable case of EVD.

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

Country	Case definition	Cumulative Cases	Cases in past 7 days	Cases in past 7 days/total cases (%)	Deaths
Guinea	Confirmed	1289	106	8%	710
	Probable	193	3	2%	193
	Suspected	58	0	0%	1
	All	1540	109	7%	904
Liberia*	Confirmed	965	17	2%	1241
	Probable	2106	185	9%	803
	Suspected	1594	211	13%	661
	All	4665	413	9%	2705
Sierra Leone**	Confirmed	3223	374	12%	986
	Probable	37	0	0%	164
	Suspected	446	80	18%	109
	All	3706	454	12%	1259
Total		9911	976	10%	4868

*For Liberia, 276 more confirmed deaths have been reported than have confirmed cases. **For Sierra Leone, 127 more probable deaths have been reported than have probable cases. 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.

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

GUINEA

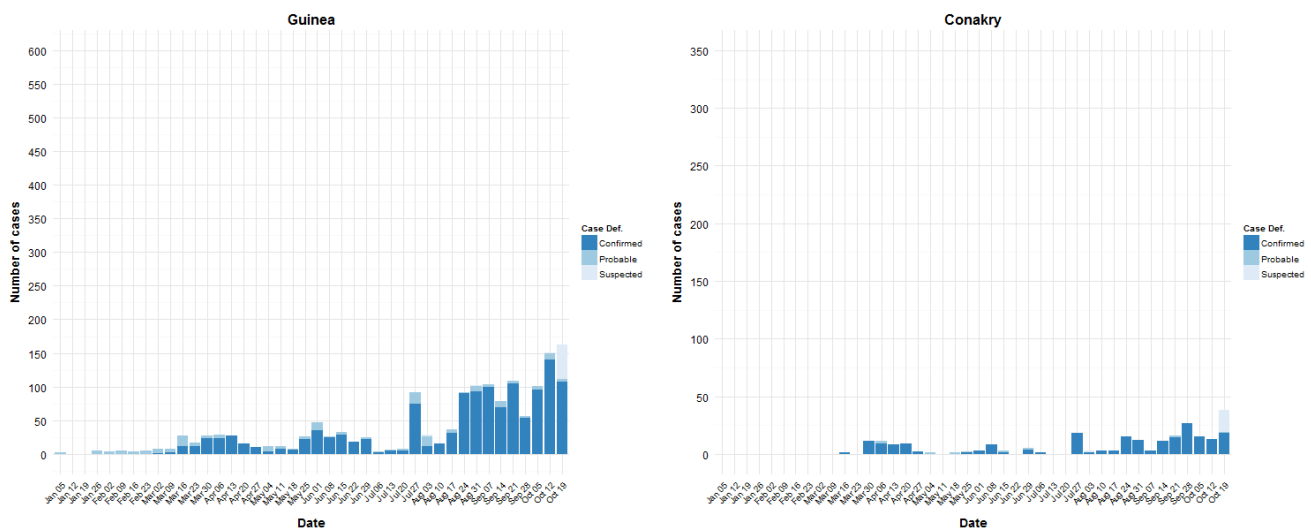
EVD transmission in Guinea remains intense. By contrast with Liberia and Sierra Leone, however, several areas of Guinea are still to report a single case of EVD, whilst seven have now been free of cases for over 21 days after an initial case or cases of EVD (figure 4).

The outbreak in Guinea is being driven by transmission in four key areas. The 18 confirmed cases newly reported this week from the capital, Conakry, is the second highest weekly total since the outbreak began (figure 1). N’Zerekore (19 confirmed cases) and Kerouane (18 confirmed cases) have shown a sustained increase in new cases over the past two weeks. Both areas are near the border with Côte d’Ivoire to the east; to the west they border the district of Macenta, where transmission has been intense for the past 10 weeks (38 new confirmed cases reported during the past week).

The district of Coyah reported 5 new confirmed cases this week compared with 25 the previous week, but it is too early to tell whether this decline will be sustained. Gueckedou, where the outbreak originated, has reported few new cases for the past 6 weeks (2 confirmed cases this week), but transmission is persistent.

Two districts in Guinea reported a case or cases of EVD for the first time during the past week. In the east of the country, on the border with Côte d’Ivoire and on a major trade route with Mali, the previously unaffected district of Kankan reported 1 new confirmed case (figure 4), again emphasizing the need for active surveillance at local border crossings. The district of Kerouane, which is currently reporting intense transmission, lies on Kankan’s southern border. In the centre of the country, the previously unaffected district of Faranah has reported 1 new confirmed cases. Faranah is bordered by the newly affected Sierra Leonean district of Koinadugu to the southwest. The adjacent central district of Mamou, which was classified last week as having reported its first confirmed case, is now classed as unaffected after the single confirmed case was discarded.

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 19 October. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

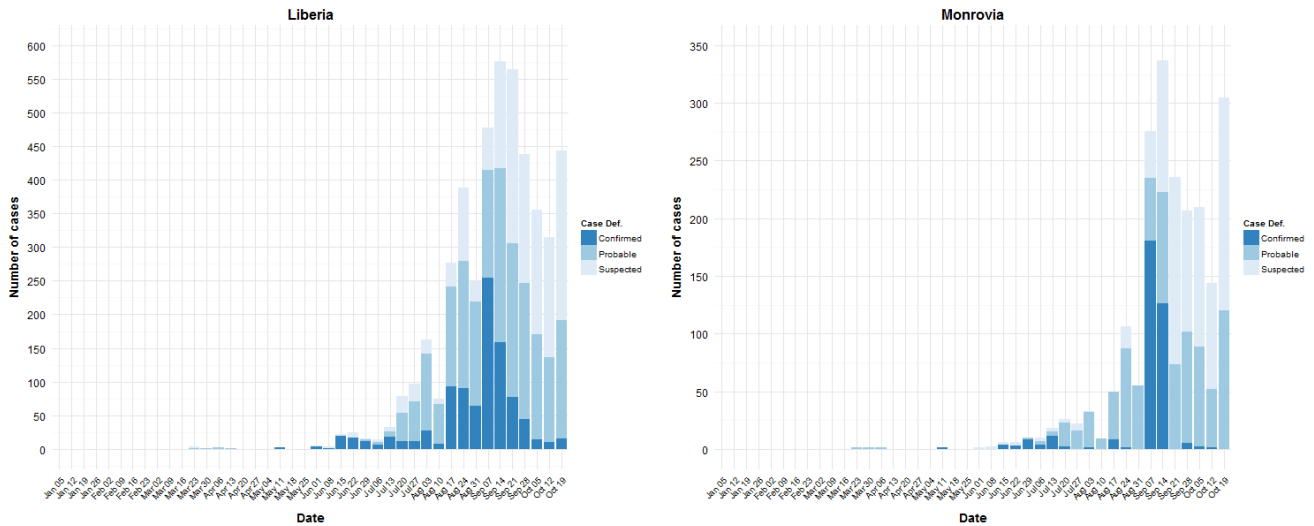
LIBERIA

The 444 confirmed, probable, and suspected cases reported from Liberia this week is the highest number in the past four weeks and the fourth highest since the outbreak began (figure 2). Liberia remains the country worst affected by the outbreak. All but one of Liberia’s 15 administrative districts has now reported at least one confirmed or probable case of EVD (figure 4) since the outbreak began, but transmission is most intense in the capital, Monrovia, with 305 new probable and suspected cases reported this week.

Only 15 of the 444 new cases reported nationwide from Liberia this week are confirmed cases. This is due to a continuing failure to integrate laboratory results into clinical epidemiology reports. Many probable and suspected cases are likely to be genuine cases of EVD.

Outside Monrovia, most newly reported cases have come from the districts of Bong (40 cases), Margibi (22 cases), and Nimba (29 cases), which borders both Côte d’Ivoire to the east and Guinea to the north. The recent fall in the number of new cases reported from Lofa, which borders the district of Gueckedou in Guinea, has continued for a third week (two confirmed cases). Reports from observers suggest this is a genuine decline as a result of control measures.

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

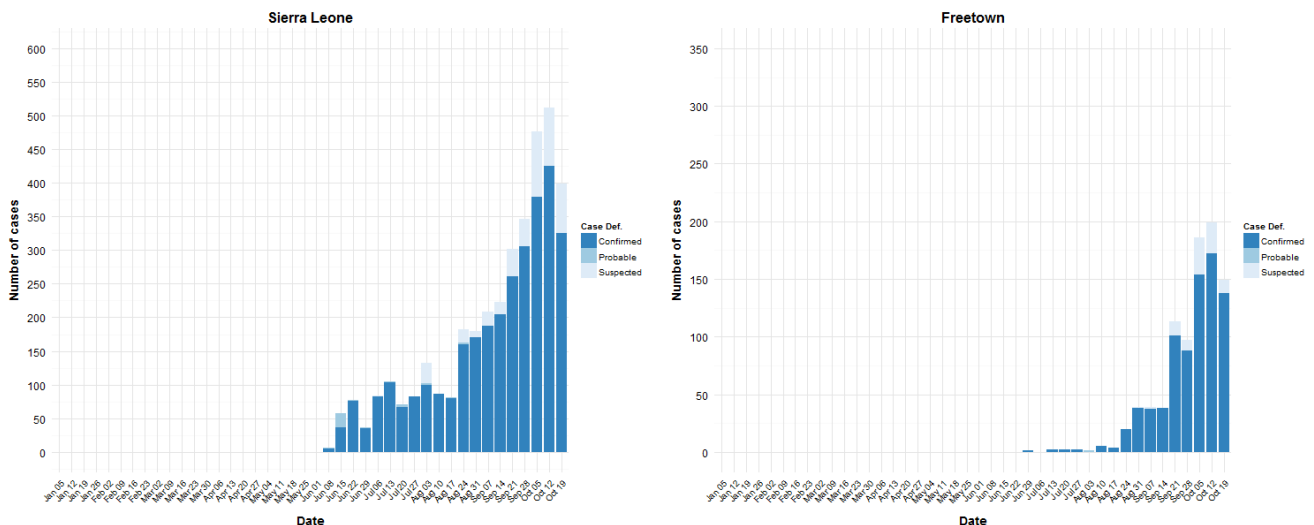


Data are based on official information reported by the Ministry of Health of Liberia up to the end of 18 October. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

SIERRA LEONE

EVD transmission remains intense in Sierra Leone, with 325 new confirmed cases reported during the past week (figure 3). The capital, Freetown, reported 138 new confirmed cases, and remains the area of most intense transmission, followed by the neighbouring western districts of Bombali (53 confirmed cases) and Port Loko (39 confirmed cases).

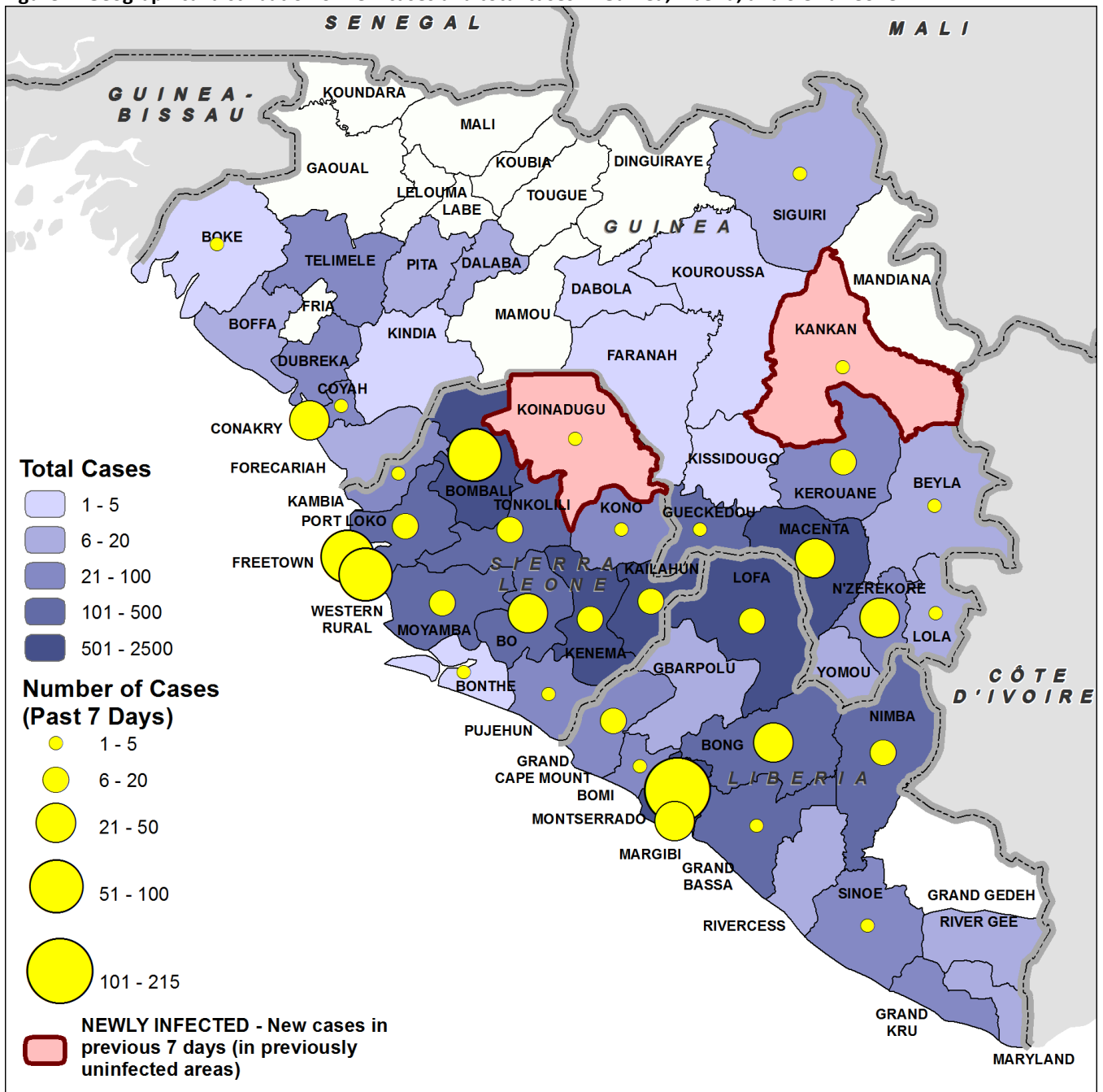
Figure 3: Ebola virus disease cases reported each week from Sierra Leone and Freetown



Data are based on official information reported by the Ministry of Health of Sierra Leone up to the end of 19 October. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

The central districts of Bo (23 new confirmed cases), and Tonkolili (23 new confirmed cases) are the next most badly affected areas, along with neighbouring Kenema (23 new confirmed cases) to the east. Kenema has now reported an increase in the number of new cases for the past two weeks, after a prolonged period during which transmission appeared to be slowing. Transmission also appeared to have been slowing in Kailahun, but the district has now reported an increase in new cases (10 confirmed cases) for the third consecutive week. In the north of the country, the previously unaffected area of Koinadugu, which borders the newly affected Guinean district of Faranah, has reported 2 confirmed cases of EVD during the past week (figure 4). All districts of Sierra Leone have now reported at least one probable or confirmed case of EVD since the start of the outbreak.

Figure 4: Geographical distribution of new cases and total cases in Guinea, Liberia, 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 443 health-care workers (HCWs) are known to have been infected with EVD up to the end of 19 October. 244 HCWs have died (table 2). 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	Case definition	Cases	Deaths
Guinea*	Confirmed	70	33
	Probable	8	8
	Suspected	0	0
	All	78	41
Liberia*	Confirmed	78	64
	Probable	109	34
	Suspected	35	5
	All	222	103
Nigeria**	Confirmed	11	5
	Probable	0	0
	Suspected	0	0
	All	11	5
Sierra Leone*	Confirmed	125	91
	Probable	2	2
	Suspected	2	2
	All	129	95
Spain	Confirmed	1	0
	Probable	***	***
	Suspected	***	***
	All	1	0
United States of America	Confirmed	2	0
	Probable	***	***
	Suspected	***	***
	All	2	0
Total		443	244

*Countries with widespread and intense transmission. **Now declared free of EVD transmission. ***No available data. 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 health mission, the UN Mission for Ebola Emergency Response (UNMEER) has been set up to address the unprecedented EVD epidemic. The strategic priorities of the Mission 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. WHO will continue to be responsible for overall health strategy and

advice within the Mission, and has now moved its base of operations from Conakry, Guinea, to the UNMEER Mission headquarters in Accra, Ghana.

Following the creation of UNMEER, a comprehensive 90-day plan to control and reverse the epidemic of EVD in West Africa has been put into action. To rapidly reverse the current crisis, capacity will be put in place 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 in place for the isolation of 100% of EVD cases and the safe burial of 100% of patients who die from EVD by 1 January 2015 (the 90-day target), which is projected to result in a declining rate of transmission. In accordance with the WHO Ebola Response Roadmap, the 90-day Ebola Response plan requires that at least 50% of major inputs in five crucial domains be put in place by 1 November, with 100% of inputs in place by 1 December. Progress towards putting these inputs in place and the attainment of each target will be assessed through a comprehensive response-monitoring system, and will be reported in due course. The latest key developments in each domain are detailed below.

Case management

Capacity for case management has been increased substantially in all three intense-transmission countries, but remains far short of requirements (figure 5). Recent operational planning projections hold that 4388 beds are required in 50 Ebola treatment units (ETUs) across the three intense-transmission countries (table 3) to achieve the target of isolating 70% of EVD cases by 1 December. At present, 1126 (25%) are already in place. In addition, there remains a gap in the availability of foreign medical teams to manage and staff ETUs. At present, there are firm commitments from teams for 30 of the 50 ETUs. WHO continues to work with Member States and partners to close these gaps.

A lack of available beds in ETUs often forces families to care for sick relatives at home. In the home setting, care givers are unable to adequately protect themselves from EVD exposure, and thus the risk of transmission within the family and throughout the community is greatly increased. As a remedial measure, Ebola Community Care Units (ECUs)/Community Care Centres (CCCs) are now being trialled by governments and partners in both Sierra Leone and Liberia. These facilities will be closely linked to other essential activities such as case finding, community engagement, and safe burials.

Promotion of strict adherence to infection prevention and control (IPC) guidance is ongoing. WHO continues to seek consensus for refinements to existing guidance on the use of personal protective equipment in EVD outbreaks. A formal WHO Guidelines Development Group, which includes experts from a wide range of partners, has been convened on numerous occasions over recent weeks, and updated guidelines are expected before the end of this week.

Table 3: Available and planned EVD bed capacity

	Existing ETU beds	Required ETU beds	Existing ETU beds/required ETU beds (%)
Guinea	160	260	61%
Liberia	620	2690	23%
Sierra Leone	346	1198	29%

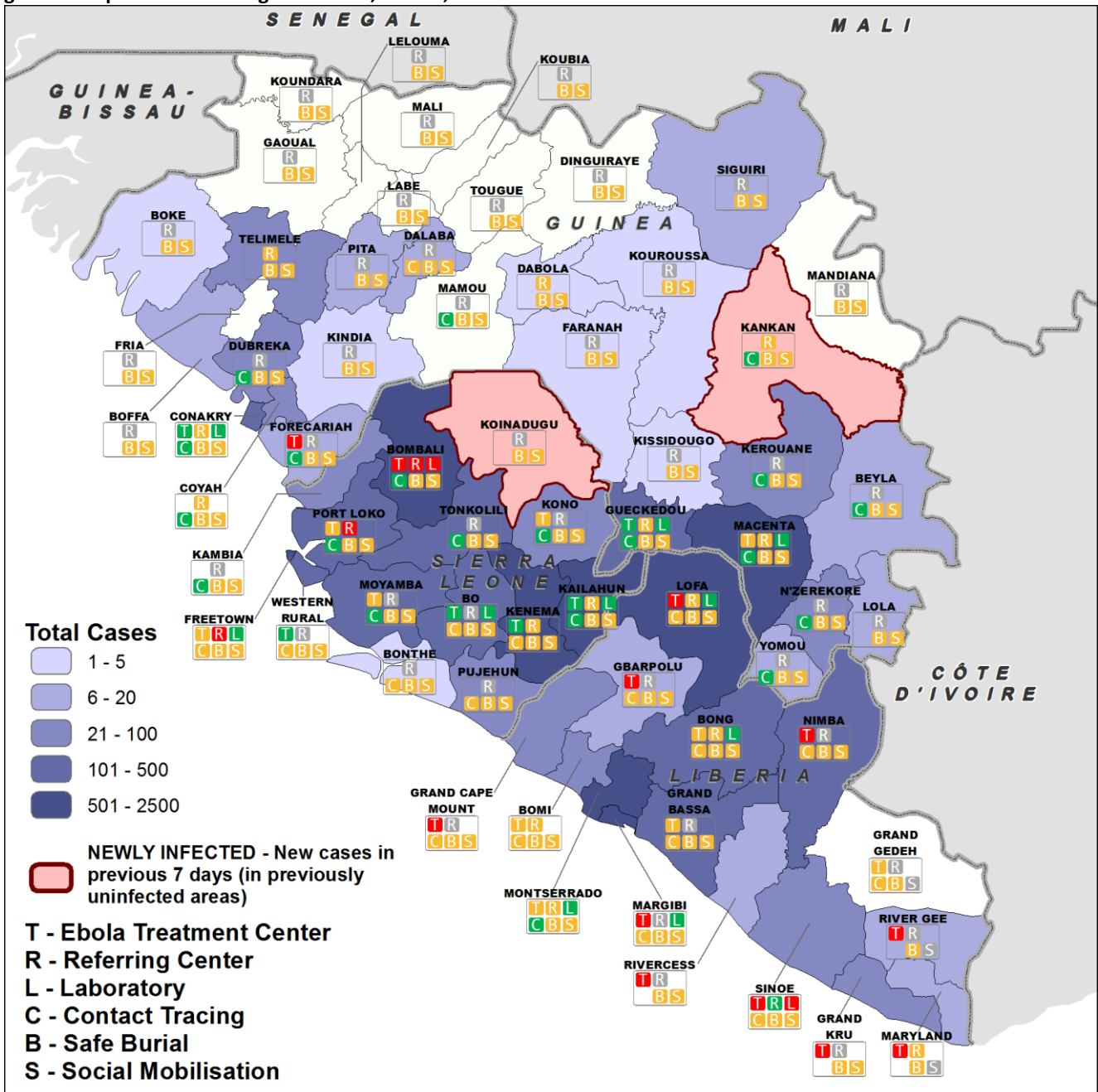
Case confirmation

Based on the most recent operational planning projections, an estimated 28 laboratories are required across the three intense-transmission countries. At present, 12 laboratories are operational (three in Guinea, five in Liberia, and four in Sierra Leone; figure 5). In Sierra Leone, the US Centres for Disease Control and Prevention laboratory that was previously located in Kenema has now relocated to the district of Bo.

Surveillance

As has been recently demonstrated by the success of Nigeria and Senegal, surveillance and contact tracing are essential components of an effective response to EVD. With support from WHO and other partners, the governments of Guinea, Liberia and Sierra Leone are rapidly expanding their capacity for contact tracing and case finding. Large volumes of cases mean that over-stretched contact-tracing teams are often unable to identify and trace all contacts in some urban and sub-urban settings, whilst the remote locations of some rural cases also present challenges. Based on the latest operational planning projections, up to 20 000 contact tracing staff may be needed to meet the UNMEER target of isolating 70% of EVD cases by 1 December, and 100% of cases by 1 January.

Figure 5: Response monitoring for Guinea, Liberia, and Sierra Leone



A full key to the color-coding of each indicator is contained in Annex 3. The data presented here are gathered from various secondary sources, including Ministries of Health and WHO reports, OCHA, UNICEF in Conakry and Geneva, and situation reports from non-governmental organizations. Information obtained during one-to-one communications with partners and representatives of medical teams is also included.

Safe and dignified burials

At present there are approximately 140 teams trained in the management of dead bodies operating in the three intense-transmission countries: 34 in Guinea, 56 in Liberia, and 50 in Sierra Leone. To meet the UNMEER target that 70% of burials should be carried out safely by properly trained and equipped teams by 1 December, an estimated 230 additional dead-body-management teams will be required across the three intense-transmission countries. Governments, with support from WHO and other partners, are increasing their capacity to train, equip, and deploy new teams.

Social mobilization

Social mobilization, including outreach to community, religious, and traditional leaders, and women and youth groups, is being intensified. Key messaging is focused on the need to isolate suspected cases early, promote safe and dignified burials for those who die, and address misperceptions, resistance, and stigma associated with EVD.

With support from UNICEF support, radio broadcasts about EVD prevention and protection reached an estimated 1.5 million listeners tuning into over 50 radio stations covering all 15 counties in Liberia last week. Two of the broadcasts featured testimonials from survivors and their families, with the aim of fostering acceptance of survivors within communities.

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

Four countries, 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.

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.

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

Country	Case definition	Cases	Deaths
Spain	Confirmed	1	0
	Probable	*	*
	Suspected	*	*
	All	1	0
United States of America	Confirmed	3	1
	Probable	*	*
	Suspected	*	*
	All	3	1
	Total	4	1

**No available data. 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 (table 4) 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. A total of 83 contacts are being monitored.

In the United States of America there have been three cases and one death (table 4). Of 172 possible contacts, 60 have completed 21-day follow-up. A total of 112 contacts are currently being monitored in Texas. In Ohio, 153 crew and passengers who shared a flight with the third confirmed case (prior to the case developing symptoms) are being followed-up, though they are considered low-risk.

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.

In accordance with the UNMEER 90-day plan, strengthening the ability of all countries to respond effectively to an initial case of EVD is a mission-critical priority. Accordingly, all countries should have a protocol for suspect cases, an equipped isolation unit, a minimum stock of personal protective equipment, a case-management team trained in infection prevention and control, and a public communications strategy.

All countries bordering affected areas should have active surveillance in, and weekly reporting from, areas assessed as at the highest risk of an initial exposure. Countries will be supported with appropriate technical guidance, simulation and protocol testing, and, in case of the importation of an EVD case, a rapid response capacity. A meeting between WHO and partner organizations in Brazzaville on 10 October agreed on a range of tools to support countries unaffected by Ebola in strengthening their preparedness in the event of an outbreak. One of these tools is a comprehensive consolidated checklist of 10 core components and tasks for countries and the international community.

The checklist defines minimal required resources, and highlights key reference documents such as guidelines, training manuals and guidance notes that will help countries to implement each key component. The components are: overall coordination; rapid response teams; public awareness and community engagement; infection prevention and control; case management (divided into two components: Ebola treatment centre and safe burials); epidemiological surveillance; contact tracing; laboratory; and capacities at points of entry.

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. 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.

Beginning with missions to Cote D'Ivoire and Mali, WHO teams will build 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.

On 22 October 2014, WHO convened the third Emergency Committee on Ebola under the International Health Regulations (2005). The Committee will review the latest developments in the epidemic and advise on whether adjustments should be made to current recommendations on how to halt the spread 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 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 20 October 2014 there have been 66 cases (38 confirmed, 28 probable) of Ebola virus disease (EVD) reported in the Democratic Republic of the Congo, including eight among health-care workers (HCWs). All suspected cases have now been laboratory confirmed or discarded. In total, 49 deaths have been reported, including eight among HCWs.

Of 1121 total contacts, 1116 have now completed 21-day follow-up. Of five contacts currently being monitored, all were seen on 20 October, the last date for which data has been reported. This outbreak is unrelated to that affecting Guinea, Liberia, Nigeria, Senegal and Sierra Leone.

ANNEX 3: RESPONSE MONITORING LEGEND

This colorimetric scale is designed to enable quantification of the level of implementation of Ebola response in affected countries, against recommended priority actions and assessed needs. It is based on the best information available through secondary data review from open sources and other reports. It does not report on quality or adequacy of the actions taken.

Laboratory testing capacity	
	None OR inadequate
	Pending deployment
	Functional and meeting demand
	Capacity needed, but incomplete information available
	No capacity needed in this area
Treatment capacity, either in Ebola Treatment Centres (ETCs) or referral/isolation centres	
	There is a high and unmet demand for ETU/referring centre/isolation centre capacity
	High demand currently unmet, but capacity is increasing
	Current demand is met
	Capacity needed, but incomplete information available
	No capacity needed in this area
Contact tracing/case finding contacts under follow up	
	No capacity OR inadequate capacity to meet demand (e.g. untrained staff, lack of equipment)
	Fewer than 90% contacts traced each day over the course of a week OR Increasing demand
	90% or more contacts traced each day over the course of a week
	Capacity needed, but incomplete information available
	No capacity needed in this area
Safe Burial	
	No capacity OR inadequate capacity to meet demand (e.g. untrained staff, lack of equipment)
	Safe burial teams are active but unable to meet increasing demand
	Fully trained and equipped teams are active and able to meet increasing demand (e.g. no team is required to perform more than five burials per day)
	Capacity needed, but incomplete information available
	No capacity needed in this area
Social Mobilisation	
	No capacity OR inadequate capacity to meet demand
	Active mobilization but no information on effectiveness OR increasing demand OR community resistance encountered and reported
	Active successful mobilization reported AND no community resistance encountered
	Capacity needed, but incomplete information available
	No capacity needed in this area